REGIONAL PLANNING COMMISSION MEETING AGENDA

Thursday, May 16, 2024 at 5:30 PM

City Hall, 415 Broad Street, Montgomery-Watterson Boardroom Room: 307

This meeting is an open and accessible meeting. If interested parties request special assistance or accommodations, please notify the Planning Department three (3) days in advance of the meeting.

I. INTRODUCTION AND RECOGNITION OF VISITORS

II. APPROVAL OF THE AGENDA

III. APPROVAL OF MINUTES

1. Approval of the April 22, 2024 work session minutes

2. Approval of the April 25, 2024 regular meeting minutes

IV. CONSENT AGENDA

Consent items are those items that have previously been brought before the Planning Commission, which have been reviewed by the Planning Commission in previous meetings or work sessions or are minor subdivisions and final plats not requiring any variances.

1. Granby Place ILOC Extension with Increase (2021-201-00008). The Commission is requested to approve a one year extension and increase of the ILOC for Granby Place. (Pyatte)

V. UNFINISHED BUSINESS

VI. NEW BUSINESS

1. 3725 Sullivan Gardens Parkway Rezoning (REZONE24-0072). The Commission is requested to send a positive recommendation to the Sullivan County Commission in support of the rezoning request from County R-1 zone to County PMD-2 zone. (Weems)

2. 1258 E. Center Street Rezoning (REZONE24-0061). The Commission is requested to send a positive recommendation to the Board of Mayor and Aldermen in support of the rezoning request from the R-1B zone to the B-1 zone. (McMurray)

3. Airport Parkway Rezoning (REZONE24-00071). The Commission is requested to send a positive recommendation to the Board of Mayor and Aldermen in support of the rezoning request from the MX zone to the PD zone. (McMurray)

4. Overhill Drive County Rezoning (REZONE24-0072). The Commission is requested to send a positive recommendation to rezone the property from the County R-1 zone to the County PBD/SC zone. (Weems)

5. Mural Zoning Text Amendment (ZTA24-0087). The Commission is requested to send a positive recommendation to the Board of Mayor and Aldermen in support of the text amendment. (Weems)

VII. OTHER BUSINESS

1. Approved Subdivisions

VIII. PUBLIC COMMENT

Citizens may speak on issue-oriented items. When you come to the podium, please state your name and address and sign the register that is provided. You are encouraged to keep your comments non- personal in nature, and they should be limited to five minutes.

IX. ADJOURN

REGIONAL PLANNING COMMISSION MEETING MINUTES

Monday, April 22, 2024 at 12 PM

City Hall, 415 Broad Street, Montgomery-Watterson Boardroom 307

This meeting is an open and accessible meeting. If interested parties request special assistance or accommodations, please notify the Planning Department three (3) days in advance of the meeting.

I. INTRODUCTION AND RECOGNITION OF VISITORS

Members Present: Sharon Duncan, Sam Booher, Anne Greenfield, Tim Lorimer, Jason Snapp

Members Absent: John Moody, James Phillips, Chip Millican, Travis Patterson

Staff Present: Ken Weems, AICP, Jessica McMurray, Garret Burton

Visitors: none

II. APPROVAL OF THE AGENDA

III. APPROVAL OF MINUTES

1. Approval of the March 18, 2024 Work Session Minutes

2. Approval of the March 21, 2024 Regular Meeting Minutes

The Commission reviewed both sets of minutes. No official action was taken.

IV. CONSENT AGENDA

Consent items are those items that have previously been brought before the Planning Commission, which have been reviewed by the Planning Commission in previous meetings or work sessions or are minor subdivisions and final plats not requiring any variances.

V. UNFINISHED BUSINESS

VI. NEW BUSINESS

1. Tri-Cities Crossing Preliminary Zoning Development Plan (COMDEV24-0056). The Kingsport Regional Planning Commission is requested to consider approval of the Preliminary Zoning Development Plan in a B-4P zone for the construction of a new Southern Tire Mart. The property is located inside the corporate limits of the City of Kingsport, 14th Civil District of Sullivan County. Staff presented the details of the item to the Commission. At hand is a new tire store proposal located generally at the intersection of TriCities Crossing and Kendrick Creek Road. Staff stated that the proposal meets the B-4P development requirements without the need for variances. Staff noted that the project resides within the Gateway Overlay District and that the Gateway Commission would consider the proposal the day after the Planning Commission meeting. No official action was taken.

2. Brickyard Village Amended Preliminary PD (PD24-0036). The Commission is requested to grant amended preliminary approval for the Brickyard Village Development. Staff noted a few changes since the last approved Brickyard PD plan was considered by the Commission. Several of the once private drives are now being proposed as public streets. Additionally, two of the proposed public streets have been modified to end in a cul-de-sac. Staff stated that the revised plan did contain two variance requests. Staff noted that a modified local street section is proposed for the portion of Brickyard Park Drive that extends up to the proposed roundabout. Due to the northwest side of Brickyard Park Drive for this portion fronting single family homes, the Kingsport Curb is proposed on this side of the cross section to facilitate driveway access. The variance adds the grass strip between the Kingsport Curb and the sidewalk of 9'. Additionally, dead end streets, per the minimum subdivision regulations, must be 150' in length. The proposed termination of Diamond Way, after intersecting with Jewell Lane, is proposed to be 113-8". The shorter than required length is due to an existing power line easement and lining up Jewell Lane with the proposed driveway opposite its connection to Martin Luther King Jr. Drive. The variance is for 36-6" of relief to the length of a dead end street. No official action was taken.

VII. OTHER BUSINESS

1. Approved Subdivisions

VIII. PUBLIC COMMENT

Citizens may speak on issue-oriented items. When you come to the podium, please state your name and address and sign the register that is provided. You are encouraged to keep your comments non- personal in nature, and they should be limited to five minutes.

IX. ADJOURN

REGIONAL PLANNING COMMISSION MEETING MINUTES

Thursday, April 25, 2024 at 5:30p.m.
City Hall, 415 Broad Street, Montgomery-Watterson Boardroom

This meeting is an open and accessible meeting. If interested parties request special assistance or accommodations, please notify the Planning Department three (3) days in advance of the meeting.

I. INTRODUCTION AND RECOGNITION OF VISITORS

Members Present: Sharon Duncan, John Moody, Anne Greenfield, Tim Lorimer, Jason Snapp

Members Absent: Sam Booher, James Phillips, Chip Millican, Travis Patterson

Staff Present: Ken Weems, AICP, Jessica McMurray, Garret Burton

Visitors: Jennifer Salyer, Ben Herrick

II. APPROVAL OF THE AGENDA

With no changes identified, John Moody made a motion to approve the agenda as presented. The motion was seconded by Tim Lorimer. The motion passed, 5-0.

III. APPROVAL OF MINUTES

1. Approval of the March 18, 2024 Work Session Minutes

2. Approval of the March 21, 2024 Regular Meeting Minutes

The Commission reviewed both sets of minutes without identifying any needed corrections. A motion was made by Tim Lorimer, seconded by Anne Greenfield, to approve the minutes of both the March 18, 2024 work session and the March 21, 2024 regular meeting. The motion passed unanimously, 5-0.

IV. CONSENT AGENDA

Consent items are those items that have previously been brought before the Planning Commission,

which have been reviewed by the Planning Commission in previous meetings or work sessions or are minor subdivisions and final plats not requiring any variances.

V. UNFINISHED BUSINESS

VI. NEW BUSINESS

1. Tri-Cities Crossing Preliminary Zoning Development Plan (COMDEV24-0056). The Kingsport Regional Planning Commission is requested to consider approval of the Preliminary Zoning Development Plan in a B-4P zone for the construction of a new Southern Tire Mart. The property is located inside the corporate limits of the City of Kingsport, 14th Civil District of Sullivan County. Staff presented the details of the item to the Commission. At hand is a new tire store proposal located generally at the intersection of TriCities Crossing and Kendrick Creek Road. Staff stated that the proposal meets the B-4P development requirements without the need for variances. Staff noted that the project resides within the Gateway Overlay District and that the Gateway Commission would consider the proposal the day after the Planning Commission meeting. A motion was made by Jason Snapp, seconded by Anne Greenfield, to grant preliminary zoning development plan approval contingent upon approval of the construction plans. The motion passed unanimously, 5-0.

2. Brickyard Village Amended Preliminary PD (PD24-0036). The Commission is requested to grant amended preliminary approval for the Brickyard Village Development. Staff noted a few changes since the last approved Brickyard PD plan was considered by the Commission. Several of the once private drives are now being proposed as public residential streets. Additionally, two of the proposed public residential streets have been modified to end in a cul-de-sac. Staff stated that the revised plan did contain two variance requests. Staff noted that a modified local street section is proposed for the portion of Brickyard Park Drive that extends up to the proposed roundabout. Due to the northwest side of Brickyard Park Drive for this portion fronting single family homes, the Kingsport Curb is proposed on this side of the cross section to facilitate driveway access. The variance adds the grass strip between the Kingsport Curb and the sidewalk of 9'. Additionally, dead end streets, per the minimum subdivision regulations, must be 150' in length. The proposed termination of Diamond Way, after intersecting with Jewell Lane, is proposed to be 113-8". The shorter than required length is due to an existing power line easement and lining up Jewell Lane with the proposed driveway opposite its connection to Martin Luther King Jr. Drive. The variance is for 36-6" of relief to the length of a dead end street. Staff noted the variance needs will assist the developer in navigating the existing conditions of the site and the existing streets that will be extended. A motion was made by Tim Lorimer, seconded by John Moody, to grant amended preliminary

PD plan approval, along with the dead end street variance of 36 feet, 6 inches and the Kingsport Curb on the Brickyard Park Drive portion of the local street proposal, contingent upon approval of the construction plans. The motion passed 5-0.

VII. OTHER BUSINESS

1. Approved Subdivisions

VIII. PUBLIC COMMENT

Citizens may speak on issue-oriented items. When you come to the podium, please state your name and address and sign the register that is provided. You are encouraged to keep your comments non- personal in nature, and they should be limited to five minutes.

IX. ADJOURN

KINGSPORT
TENNESSEE
Planning Department

MEMORANDUM

TO: KINGSPORT REGIONAL PLANNING COMMISSION

FROM: LORI PYATTE, PLANNING TECHNICIAN

DATE: MAY 16TH, 2024

SUBJECT: IRREVOCABLE LETTER OF CREDIT EXTENSION FOR GRANBY PLACE

FILE NUMBER: 2021-201-00008

The City currently holds an Irrevocable Letter of Credit in the amount of $124,827.14 for Granby Place road development. The City Engineering Division has calculated an estimate for this extension to cover the cost of the required improvements to meet the Minimum Subdivision Regulations for the Final Plat of Granby Place Subdivision. The revised estimate is for the amount of $130,551.14. An irrevocable letter of credit will be submitted to the City for the amount matching that estimate. The remaining improvements are described on the attached bond estimate.

The current Irrevocable Letter of Credit will expire June 30th, 2024. The new Irrevocable Letter of Credit will have an expiration date of June 30th, 2025. The Irrevocable Letter of Credit states that the improvements will be completed on or before the Performance Date, which is set to March 30, 2025, with this giving them a one year extension.

Staff Recommends extension of the Irrevocable Letter of Credit in the amount of $130,551.14 as calculated by the City Engineering Division, to cover all remaining improvements for Granby Place.

BOND ESTIMATE
Granby Road Bond Estimate

FILE NO. 2020-D9

April 25, 2024

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	UNIT COST	TOTAL COST
General Items					
1	1	LS	Mobilization	$ 7,607.33	$ 7,607.33
2	1	LS	Traffic Control	$ 12,000.00	$ 12,000.00
3	1	LS	Topsoil, Seeding and Strawing	$ 18,708.00	$ 18,708.00
Sidewalks					
3	7,795	S.F.	4" Sidewalk w/ (4" Base Stone and Spray-Lok)	$ 7.79	$ 60,723.05
Erosion Control					
4	1	LS	Erosion Control	$ 10,000.00	$ 10,000.00
Misc.					
5	1	LS	AS-Built Drawings	$ 5,000.00	$ 5,000.00
				SUBTOTAL	$ 114,038.38
			CONTINGENCIES (6%)		$ 6,842.30
					$ 120,880.68
			CONSTRUCTION CONTRACT ADMINISTRATION & INSPECTION (8%)		$ 9,670.45
				TOTAL	$ 130,551.14

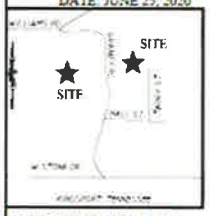
David Harris
Civil Engineer I
City of Kingsport

April 25, 2024
Date

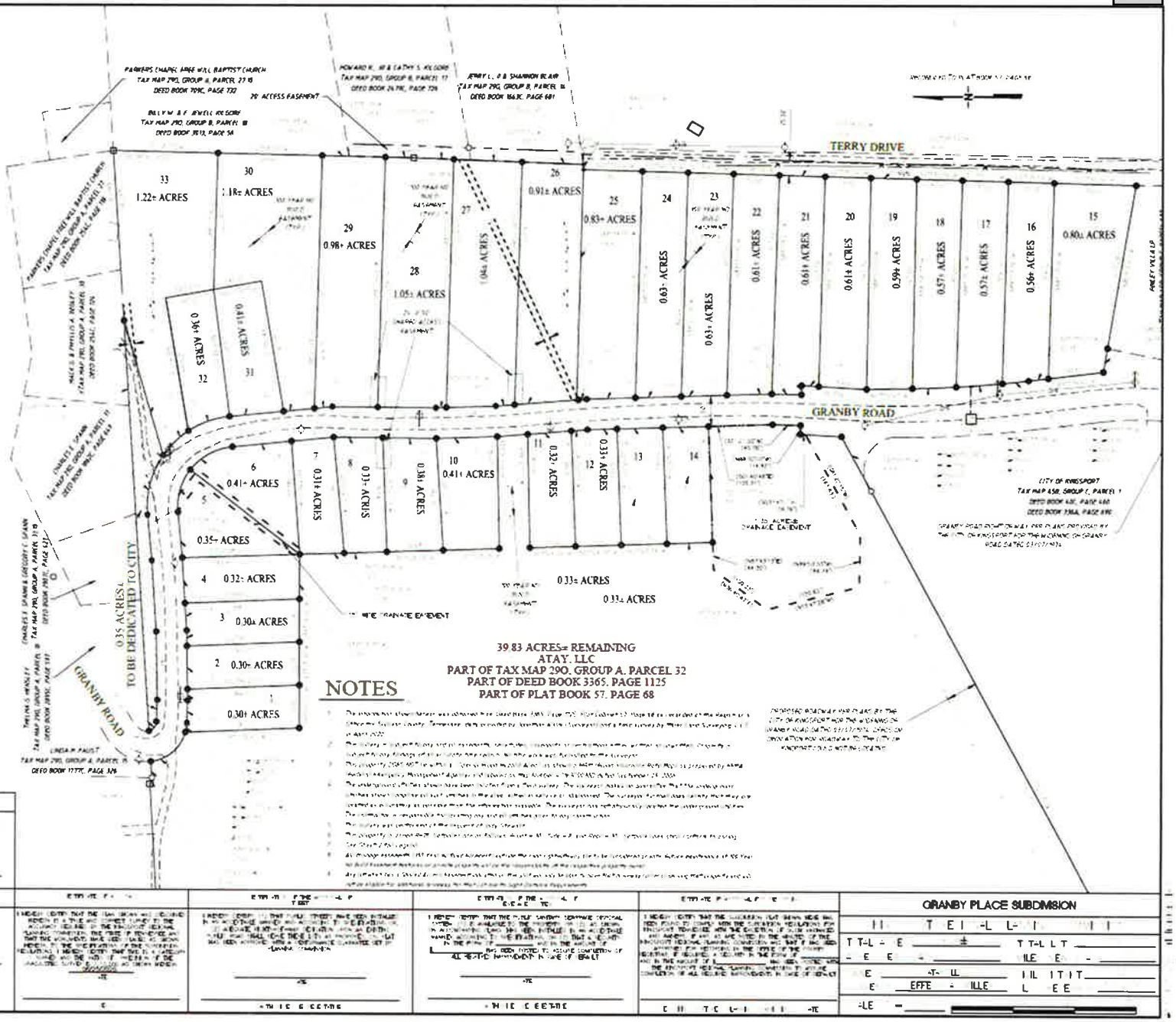
MILLER
Land Surveying, LLC
116 ROBINDALE COURT
KINGSPORT, TENNESSEE 37663
PHONE: 423-552-5300
www.millersurveys.com

SHEET 1 OF 2

FINAL PLAT
TAX MAP 290, GROUP B, PARCEL 1
PART OF TAX MAP 290, GROUP A,
PARCEL 32
DEED BOOK 3365, PAGE 1125
PLAT BOOK 57, PAGE 68
DATE: JUNE 25, 2020



VICINITY MAP



Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

3725 Sullivan Gardens Parkway County Rezoning

Property Information			
Address	3725 Sullivan Gardens Parkway		
Tax Map, Group, Parcel	Tax Map 090, Parcel 059.00		
Civil District	13		
Overlay District	n/a		
Land Use Designation	Retail/Commercial		
Acres	90 acres +/-		
Existing Use	Residential with the majority undeveloped	**Existing Zoning**	County A-1
Proposed Use	Rock quarry/ borrow site	**Proposed Zoning**	County PMD-2

Owner /Applicant Information

Name: Daniel V. Davis on behalf of Preston H. Taylor Jr.

Address: 1300 Jan Way

City: Kingsport

State: TN **Zip Code: 37660**

Email: glmoody@charter.net

Phone Number: (423) 782-

Intent: ***To rezone from County A-1 to County PMD-2 for the purpose of having a rock quarry/ borrow site use on the property.***

Planning Department Recommendation

The Kingsport Planning Division recommends sending a POSITIVE recommendation to the Sullivan County Commission for the following reasons:

- *The rezoning site is relatively well segregated from non-manufacturing uses.*
- *All new developments within the County's PMD-2 zone shall require Planning Commission approval to ensure compatibility with the surrounding land uses and/or adequate buffering to neighboring properties*
- *County PMD-2 districts are designed to be installed along major routes*

Staff Field Notes and General Comments:

- *The rezoning site currently contains an inhabited old house and garage.*
- *The parcel proposed for rezoning is accessed from Sullivan Gardens Parkway*

Planner:	Ken Weems	Date:	May 1, 2024
Planning Commission Action		**Meeting Date:**	**May 16, 2024**
Approval:			
Denial:		Reason for Denial:	
Deferred:		Reason for Deferral:	

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

PROPERTY INFORMATION	
ADDRESS	3725 Sullivan Gardens Parkway
DISTRICT	13
OVERLAY DISTRICT	n/a
EXISTING ZONING	R-1 (Low Density /Single-Family District)
PROPOSED ZONING	PMD-2 (Planned General Manufacturing District)
ACRES	90 +/-
EXISTING USE	residential/ vacant land
PROPOSED USE	rock quarry/ borrow site

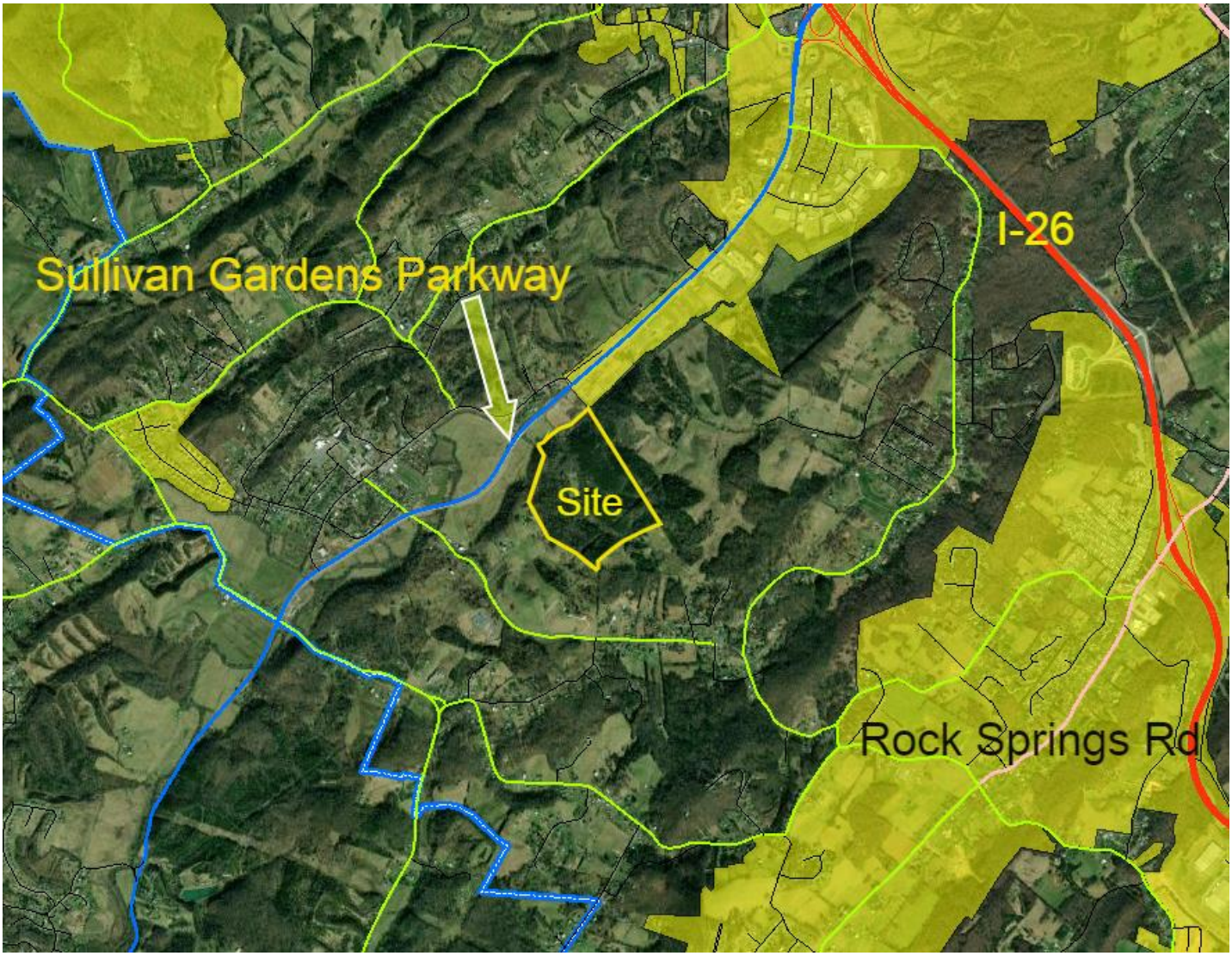
PETITIONER
ADDRESS **1300 Jan Way, Kingsport, TN 373660**

REPRESENTATIVE
PHONE **(423) 817-7300**

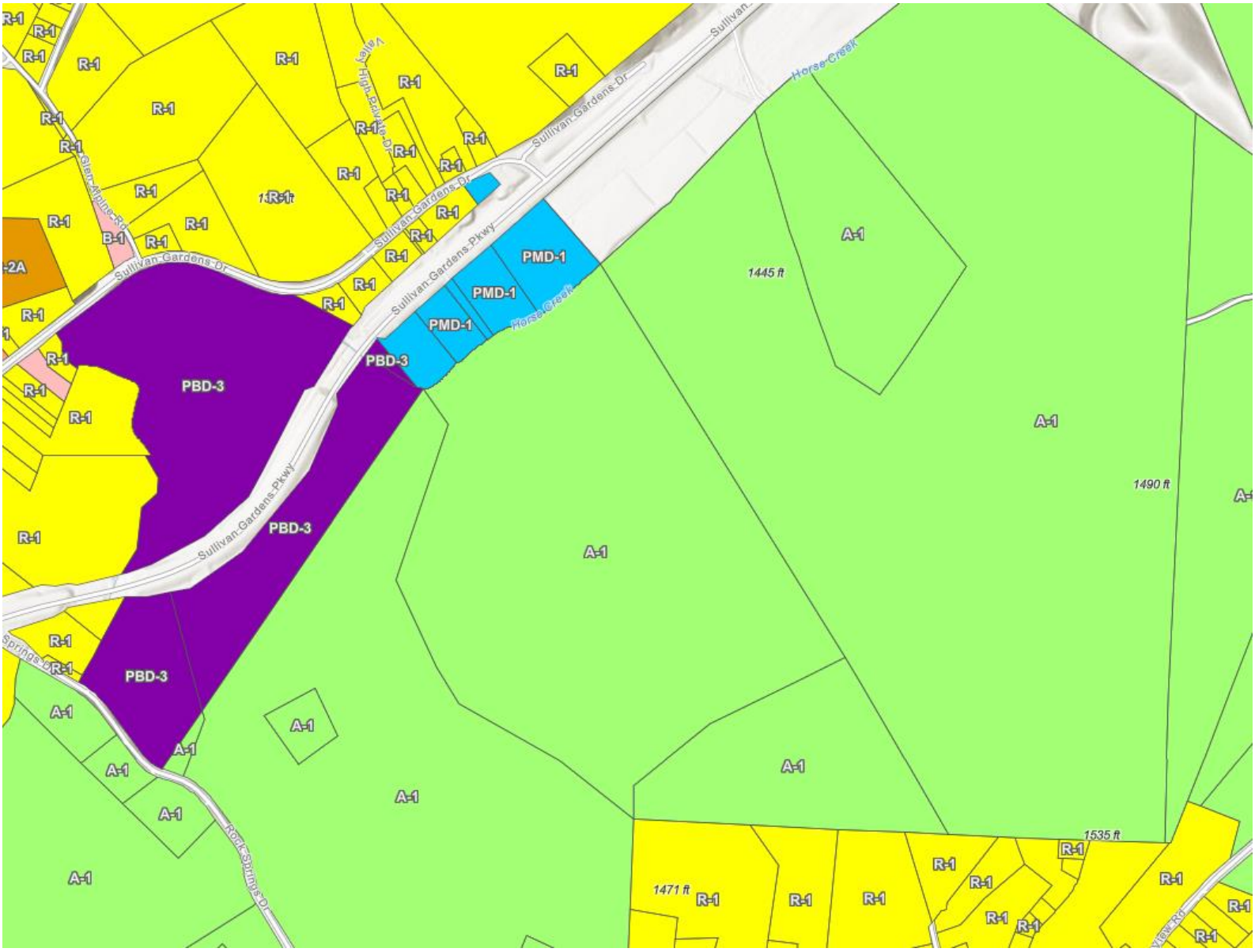
INTENT

To rezone from County A-1 to County PMD-2 for the purpose of having a rock quarry/ borrow site use on the property.

Vicinity Map



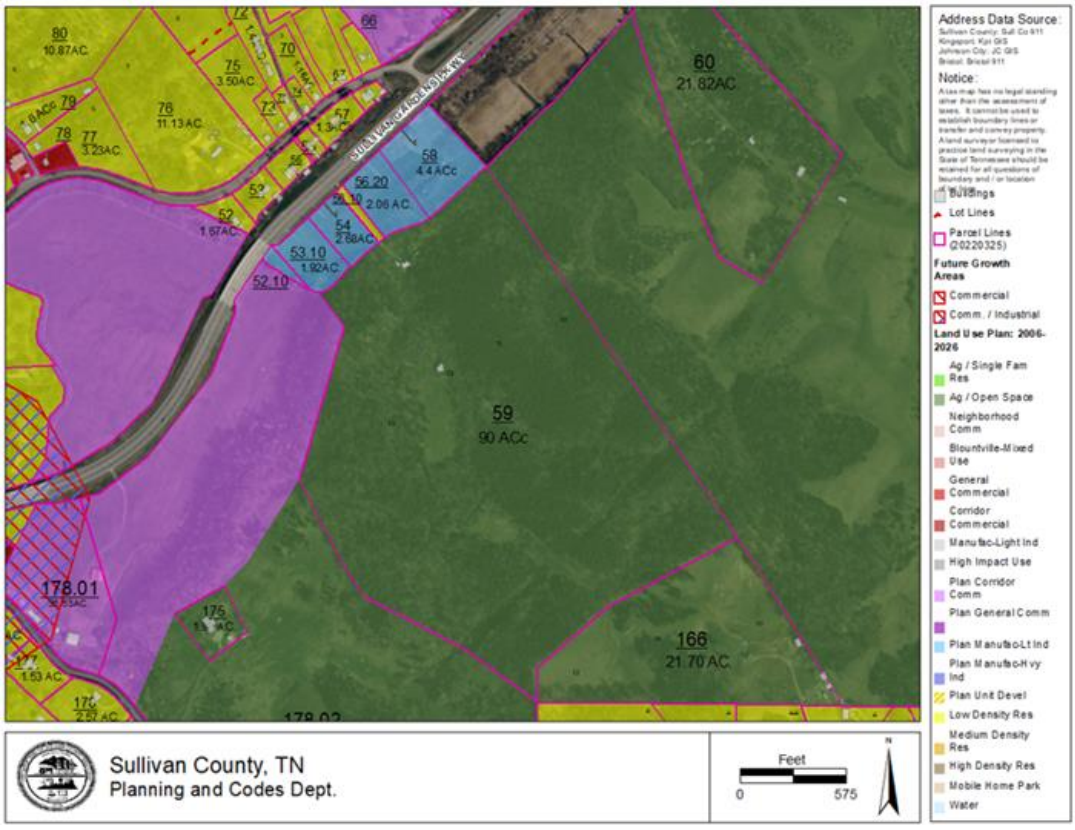
Surrounding County Zoning Map



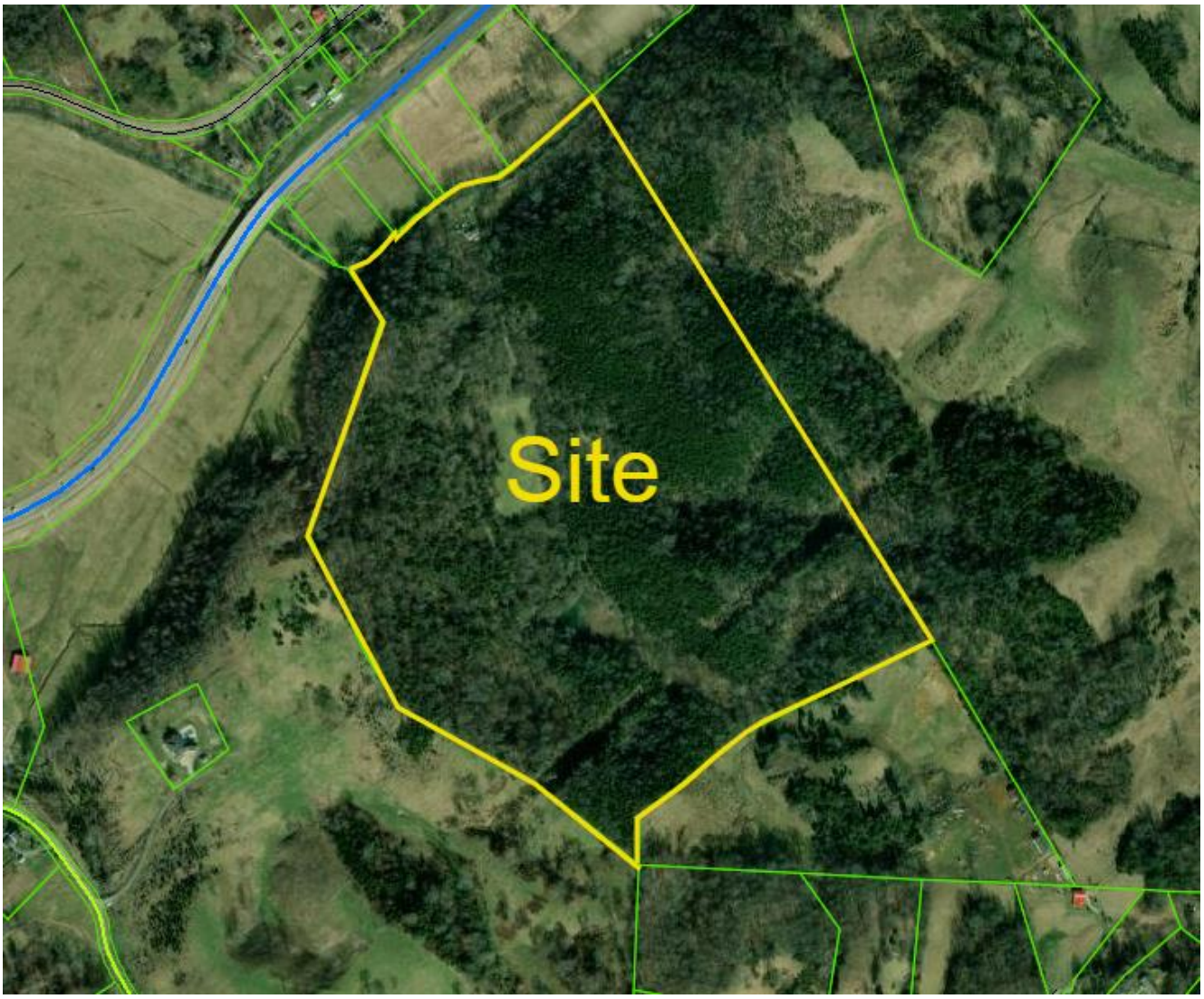
Future Land Use Plan 2030: City: Single Family; County: Ag/ Open Space

City's Future Land Use Plan 2030

Sullivan County Land Use



Aerial


Site

Sullivan County R-1 Zone District Purpose (from the Sullivan County Zoning Resolution)

5. **R-1, Low Density/Single-Family Residential District** - These districts are designed to provide suitable areas for single-family residential development within areas that are predominantly characterized by low-density suburban residential development. Residential development consists of single-family detached dwellings and other accessory structures thereto. The intensity of development permitted within these districts is directly related to the availability of public water service and sewage capabilities. These districts also include community facilities, public utilities, and open uses that serve specifically the residents of these districts, or that are benefited by an open residential environment without creating objectionable or undesirable influences upon residential developments. It is the express purpose of this resolution to exclude from these districts all buildings or other structures and uses having commercial characteristics, whether operated for profit or otherwise, except that uses on review, with supplementary provision and home occupations specifically provided by these regulations for these districts shall be considered as not having such characteristics if they otherwise conform to the provisions of this resolution.

Sullivan County PMD-2 Zone District Purpose

1. PMD-2 Planned General Manufacturing District - This class of district is intended to provide space for manufacturing activities within the county. By reason of volume of raw materials or freight, scale of operation, type of structures required, or other similar characteristics these activities require locations relatively well segregated from non-manufacturing uses. Except as specified in Appendix B, Subsection B-105.2, Subpart 9, (Residential Occupancy in Connection with Nonresidential Activity), new residential activities are excluded. Commercial establishments and community facilities, which provide needed services for industry and are complementary thereto, are permitted. All new developments in this district shall require Planning Commission approval to ensure compatibility with the surrounding land uses and/or adequate buffering to neighboring properties. This class of district shall require adequate infrastructure to support any possible uses allowed within the district provisions. This district is designed to promote the clustering of developments along major routes or within industrial complexes while providing internal access roads to ease of the motoring public and heavy vehicles.

Sullivan County PMD-2 Zone District Uses and Structures (from the Sullivan County Zoning Resolution)

TABLE 5-102A
USES AND STRUCTURES
ALLOWABLE WITHIN MANUFACTURING DISTRICTS

	PMD-2	PMD-1	M-2	M-1
I. MANUFACTURING ACTIVITIES				
A. Manufacturing – Limited	PC	PC	SUP	SUP
B. Manufacturing – General	PC	PC	SUP	SUP
C. Manufacturing - Basic Industry	PC	PC	SUP	SUP
D. Manufacturing – Hazardous	PC	X	SUP	X
II. COMMERCIAL ACTIVITIES				
A. Adult Entertainment Establishments	X	X	O/PC	X
B. Animal Care and Veterinary Services	PC	PC	SUP	SUP
C. Automotive Parking	PC	PC	SUP	SUP
D. Automotive & Marine Craft, Sales, Services & Repairs	PC	PC	SUP	SUP
E. Auto Towing/Automobile Wrecking Yard	PC	X	SUP	X
F. Outside Materials, Equipment Sales, Service and Repair	PC	PC	SUP	SUP
G. Scrap Operations/Salvage/Junkyards	BZA	X	BZA	X
H. Self-Storage/Mini-Warehouse Storage Facilities	PC	PC	P	P
I. Warehousing, Goods Transport and Storage	PC	PC	SUP	SUP
J. Wholesale Sales	PC	PC	SUP	SUP

Cont.	PMD-2	PMD-1	M-2	M-1
K. Commercial/Recreational – Limited Outdoor and Indoor Sport Shooting Ranges *(amended on 03/15/10)*	PC	PC	PC	PC
III. COMMUNITY FACILITY ACTIVITIES				
A. Administrative Services *	PC	PC	SUP	SUP *
B. Child Care Facilities, any type	PC	PC	SUP	SUP
C. Community Assembly	X	X	X	X
D. Essential Public Transport, Communication and Utility Service	SUP	SUP	SUP	SUP
E. Extensive Impact Facilities – Limited (see B-104.6 part 6)	PC	PC	PC	X
F. Intermediate Impact Facilities (Telecommunication Transmission Facilities – PC approval)	PC	PC	SUP	SUP
G. Religious Facilities	X	X	X	X
H. Special Institutional Care Facilities	X	BZA	X	BZA
I. Waste Disposal Operations	PC	X	PC	X
J. Substance Abuse Medical Clinics (*amended on 11/15/2010)*	X	X	BZA	X
IV. AGRICULTURAL AND EXTRACTIVE ACTIVITIES				
A. Agricultural – General	P	P	P	P
B. Agricultural – Intensive	PC	PC	PC	PC
C. Agricultural Services	P	P	P	P
D. Plant and Forest Nurseries	PC	PC	PC	PC
V. ACCESSORY ACTIVITIES				
A. Accessory Storage – Enclosed Structure	PC	PC	SUP	SUP
B. Accessory Child Care	PC	PC	SUP	SUP
C. Administrative Office	PC	PC	SUP	SUP
D. Operation of Cafeteria	PC	PC	PC	PC
E. Outdoor Storage	PC	PC	SUP	SUP
F. Production for Retail Sale	X	X	X	X
G. Residential Occupancy *(approved administratively)*	SUP	SUP	X	SUP

KEY TO INTERPRETING USE CLASSIFICATIONS

P = Indicates Permitted Use.

SUP = Indicates Use Permitted with Supplemental Provisions.

PC = Indicates Permitted Use on Site Plan Review by the Planning Commission.

O = Indicates Use Allowable within Special Overlay District
(See Article VIII, Section 8-401, ADULT ENTERTAINMENT DISTRICTS)

BZA = Special Exception of Use after Approval of the Board of Zoning Appeals

NOTES:

(1) See Section 5-104.

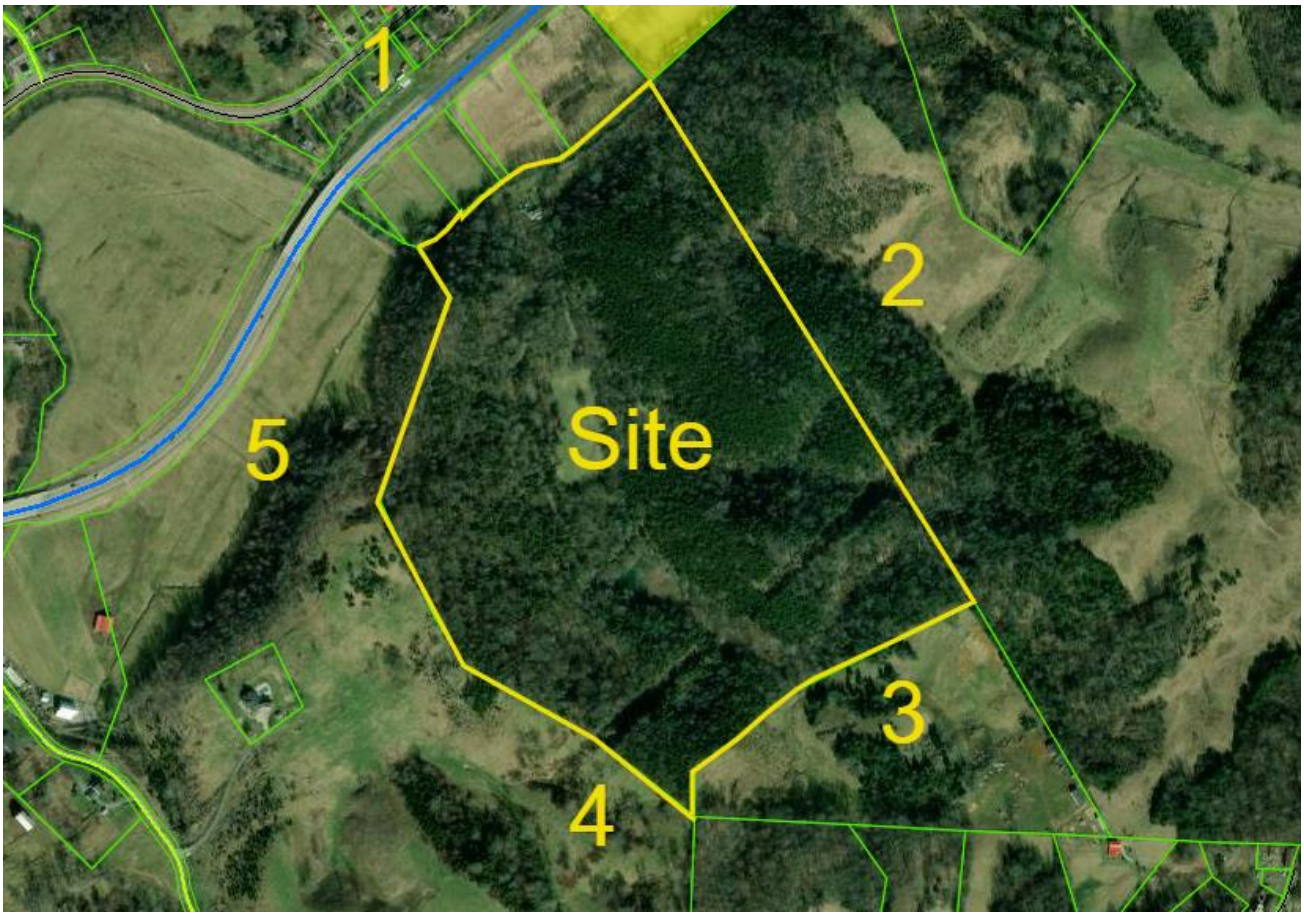
*Approved ***Alternative Training Facilities*** – Use of Cargo Shipping Containers for Administrative Services (PC approved with Supplemental Design Guidelines in Appendix B-104.6 Subpart 1D) amended *on May 17, 2010.*

View Toward Rezoning Site (From Sullivan Gardens Parkway)

View Toward Opposite Side of Sullivan Gardens Parkway

View of House with Garage on the Property (Proposed Quarry Area in Background)

EXISTING USES LOCATION MAP



Existing Zoning/ Land Use Table

Location	Parcel / Zoning Petition	Zoning / Name	History Zoning Action Variance Action
North	**1**	Zone: County R-1 Use: residential	n/a
East	**2**	Zone: County A-1 Use: Ag/ vacant	n/a
Southeast	**3**	Zone: County A-1 Use: Ag/ vacant	n/a
South	**4**	Zone: County A-1 Use: low density residential	n/a
West	**5**	Zone: County A-1 Use: low density residential	n/a

CONCLUSION

Staff recommends sending a POSITIVE recommendation to the Sullivan County Commission to rezone from Sullivan County R-1 to Sullivan County PMD-2 based upon the following reasons:

1. The rezoning site is relatively well segregated from non-manufacturing uses.
2. All new developments within the County's PMD-2 zone shall require Planning Commission approval to ensure compatibility with the surrounding land uses and/or adequate buffering to neighboring properties.
3. County PMD-2 districts are designed to be installed along major routes.

3 Tees, LLC
1300 Jan Way
Kingsport, Tennessee

Horse Creek Quarry

Preliminary Development Plan

For

REQUEST FOR ZONING CHANGE TO M-2

September 9, 2023

PREPARED BY:

STEPHEN E. MAXFIELD, P. E.
PROFESSIONAL ENGINEER
P.O. BOX 1745
HONAKER, VIRGINIA 24260
PHONE: (276) 979-6963

CONTENTS

Rezoning Request Letter
Introduction
Site Location
Site Description
Operation Plan
Land Use
Highway Access
Safety
Drainage & Sediment Control
Reclamation
Groundwater Assessment
Environmental Assessment

Maps
- Land Use Map
- Site Plan
- Cross Sections, Profiles and Details

Stephen E. Maxfield, P. E.
1745 Roman Ridge Road
Honaker, VA 24260
Phone: (276) 979-6963
Email: Coulwood1214@gmail.com

September 8, 2023

Department of Planning and Codes
Sullivan County, Tennessee
3425 Highway 126, Suite 101
Blountville, TN 37617

Subject: Proposal for Preliminary Development Plan for M-2 zoning for proposed quarry

To whom it may concern:

On behalf of my client, 3 Tees, LLC, we are requesting that tracts 56.10, 56.20, and 59.00 located 3725 Sullivan Gardens Parkway be rezoned to M-2, Heavy Manufacturing. 3 Tees has the option to purchase these properties if they can be rezoned.

3 Tees is proposing to develop a quarry on these properties and would mine limestone rock, crush and screen the rock for aggregate, and stockpile the aggregate for sale for road construction and other uses. The actual quarry pit and processing facilities will be located approximately 1,200 ft from Sullivan Gardens Parkway and in so much as possible existing trees will be retained as a buffer and to screen the operations from the public.

A Preliminary Development Plan for the property has been prepared to address *Section 5-104.2 of The Sullivan County Zoning Resolution*. Please review the included plan for compliance.

We look forward to your recommendation on the plan. If you have any questions or require any additional information, please contact us.

Sincerely,

Stephen E. Maxfield, P. E.

INTRODUCTION

3 Tees, LLC is requesting rezoning approval for three (3) tracts of property located on 3725 Sullivan Gardens Parkway, Kingsport, Tennessee to M-2 District for Heavy Manufacturing. 3 Tees has an option to purchase these properties and plans to develop a limestone quarry to manufacture stone aggregate for construction. The proposed quarry will be located approximately 1,200 ft from Sullivan Gardens Parkway. Access to the proposed quarry site will be via an existing drive/farm road from Sullivan Gardens Parkway. An existing bridge crosses Horse Creek. These facilities will be upgraded suitable for the proposed use.

SITE LOCATION

3 Tees proposed operation will be an open pit limestone excavation, crushing and screening operation located at 3725 Sullivan Gardens Parkway, Kingsport, Tennessee in Sullivan County.

The site is located in the north west section of the Sullivan Gardens United States Geological Services (U.S.G.S) Sullivan Gardens 7.5' Quadrangle at the geographic coordinates of 36°28'43" North Latitude and 82°34'49" West Longitude. The site is located on the south side of Horse Creek at approximate elevation of 1350 ft. Horse Creek is approximately 1,000 ft. from the proposed quarry at an elevation of 1215 ft. Horse Creek is a first order perennial stream that flows north east to the Holston River.

The following tracts are located in the proposed rezoning:

Tract ID	Owner	Acres	Current Use
59.10	Preston H. Taylor		Drive/Farm Access
59.20	Preston H. Taylor		Agricultural
59.00	Preston H. Taylor	90	Agricultural

A location map is included with the drawings.

SITE DESCRIPTION

The proposed quarry will be located in a gently sloping area at approximately 1325 ft. in elevation approximately 1,000 ft South and 110 ft. above Horse Creek. The terrain between the proposed quarry and Horse Creek is fairly steep. Both eastward and southward the elevation rises to above 1,425 ft. to form a series of small knobs. On the west side the terrain is not as steep and rises to 1,350 ft. A sink hole is located south of the proposed site, between the knobs to the south and the less steep terrain to the west. The sink hole is at 1,290 ft. elevation.

On the north side of Horse Creek and south of Sullivan Gardens Parkway the terrain is nearly level at an elevation of 1220 ft. The elevation of Sullivan Gardens Parkway is 1230 ft. This area is in the FEMA floodway with a flood elevation of 1223. The bottom elevation of Horse Creek in this area is 1215 ft.

Drainage from the proposed quarry site is northward to Horse Creek in swales. This would only occur during periods of heavy rainfall. The site is high and dry with no indications of perennial or even intermittent stream flow that would be considered jurisdictional waters of the United States and regulated by the U. S. Army Corps of Engineers under Section 401 of the Clean Water Act. No wetlands were identified on the property either in the sink hole or along Horse Creek.

Access to the site from Sullivan Gardens Parkway will be via a road traversing southeast. From the parkway to Horse Creek for a distance of 375 ft the road will slope down at approximately 1%. A new bridge will be constructed across Horse Creek. The road will traverse along the swale a distance of 650 ft upward at a grade of 10% to the screening area and the proposed quarry pit.

The proposed quarry pit will be developed from approximately 1300 ft. in elevation to a proposed bottom of 1220 ft in elevation. The pit will be approximately 400 ft wide and 700 ft long. The pit walls will be developed with a slope ratio of 0.25 horizontal to 1 vertical. A 25 ft. wide bench is proposed in the pit walls at vertical intervals of 50 ft. A 25 ft. wide pit road will be developed as the pit progresses with a grade of 10 %.

A fill area to store topsoil and two (2) fill areas to store overburden will be constructed southeast of the pit. The topsoil fill will be approximately 10 ft. deep with a top elevation of 1335 ft. Overburden Fill No. 1 will be 50 ft. deep with a final elevation of 1350 ft. Overburden Fill No. 2 will be 70 ft. deep with a final elevation of 1400 ft. The front face of the fill will be sloped at a ratio of 2 horizontal to 1 vertical.

A proposed site plan at a scale of 1” = 200’ is included with this submittal. Both existing and proposed elevation contours at 5 ft. intervals is shown on the site plan.

LAND USE

The existing land use on and around the proposed quarry include single family residential, agricultural and unmanaged forest lands. A Land Use Map is included. The following table is a summary of land use by tract.

LAND USE TABLE			
Tract ID	**Owner**	**Acres**	**Current Use**
59.10	Preston H. Taylor		Drive/Farm Access
59.20	Preston H. Taylor		Agricultural
59.00	Preston H. Taylor	90	Agricultural/Unmanaged Forest
178.02	Horse Creek Farms		Agricultural/Unmanaged Forest
175.00	Joe & Rebecca Riggs		Single Residential
53.10	Billy & Dinah Lawson		Agricultural
54.00	Billy & Dinah Lawson		Agricultural/Single Residential
58.00	Danny & Crystal Edwards		Agricultural/Single Residential
59.50	City of Kingsport		Public Recreational
64.00	Harry Bachman, Jr.		Agricultural/Unmanaged Forest
60.00	Harry Bachman, Jr.		Agricultural/Unmanaged Forest
166.00	Jerry & Gladys Dean		Agricultural/Unmanaged Forest
149.00	Charles & Letitia Williams		Agricultural/Unmanaged Forest
178.1	Jill & Kenneth Rich		Single Residential
55.00	Ruth Blix		Single Residential
57.00	Derek Blix		Single Residential
53.00	Nau & Natalie Tran		Single Residential
52.00	Jeremiah Blair		Single Residential
178.01	Josephine Riggs		Agricultural

HIGHWAY ACCESS

Highway access to the proposed quarry is Tennessee State Route 93. State Route 93 begins at an intersection with US 11E/US 321 in Greeneville, TN. It then heads northeast toward Kingsport, TN. The route intersects State Route 81 just south of Fall Branch and heads more northerly. In Fall Branch, it has an interchange with Interstate 81exit 50 and continues north to Kingsport where it intersects State Route 347 just south of there. In Kingsport, it has an interchange with Interstate 26 and State Route 126 for the first time. This also marks the western terminus of State Route 126. The route heads east as a controlled-access southern bypass of the city passing by Eastman Chemical Company and crossing over the South Fork Holston River and has an interchange with State Route 36. Then, it intersects State Route 126 for a second time at an interchange. State Route 93 then turns back north to an interchange with US 11W and then it meets its northern terminus, at the Tennessee–Virginia State Line in Bloomingdale.

All of State Route 93, from just north of Interstate 81 to US 11W, is included as part of the National Highway System, a system of roadways important to the nation's economy, defense, and mobility. This section is also classified as a principal arterial route.

This highway is named Sullivan Gardens Parkway in the vicinity of the site. The highway is four (4) lanes undivided with a center turning lane. Each lane, including the turn lane is 12 ft. wide. There are paved shoulders on both sides 10 ft. wide.

The average number of vehicles per day on this segment the highway is 4,500, with about 47% north bound and 53% south bound. The average number of vehicles per hour is approximately 250 between the hours of 7 a.m. to 4 p.m., with a peak volume 450 vehicles from 5 to 6 p.m. Site distance to the north is 1,000 ft. or more and site distance to the south is 775 ft.

These road conditions are suitable for the proposed M-2 zoning district. Once re-zoning is approved, 3 Tees shall apply for a commercial entrance to the site from State Route 93 through the Tennessee Department of Transportation. The entrance shall incorporate all geometrics required for the intended use.

OPERATION PLAN

Limestone rock will be mined at this site utilizing the open pit quarry surface mining technique. Drilling and blasting will be utilized to break the rock. Once broken, the raw material will then be trucked or carried to a portable crushing and screening machine. The crusher will reduce the large rock to smaller sizes suitable for sale and screening. The screening will isolate the product by size for sale. Once sized, the material will sold and removed from the area by trucks. The screened-off material will be stored and used to reclaim disturbed areas. The proposed pit will be 50 feet deep at most, therefore benching is not required.

Before mining begins a sediment control basin will be constructed below the area. The basin will be constructed on the flat on the south side of Horse Creek. After pond construction, the road to the quarry site will be constructed. The road will be constructed by the cut/fill method, with an average grade of 10%. Ditches provided on the cut side and a safety berm provided on the fill side. The road will be graded at 2% toward the ditch. The road shall be adequately surface for the type of vehicles using it.

Following road construction, the mining area will first be cleared of trees and brush. The trees and brush will be either windrowed along the edge of the clearing to aid in sediment or erosion control, burned in accordance the governing local, state, or federal law or they will be removed from the site.

Following clearing, the available topsoil will be salvaged. This material will be placed in the designated topsoil fill southeast of the proposed pit. After removal of the topsoil, the overburden shall be removed. This consists of clay soil, weathered limestone, and shale not suitable for sale. This material may be stripped or ripped with a dozer or excavator or blasted if necessary. Two (2) overburden fills east and southeast of the pit will be used for disposal of the overburden. Note that prior to placement of topsoil or overburden, the footprint of the fill shall be cleared and grubbed of all vegetation. Additionally, the topsoil shall be salvaged from the overburden fill areas. Following

storage area foundation preparation, spoil or overburden material will be placed in these areas. Dozers, front-end loaders, trucks, etc. will then be used to move the spoil to the storage areas. The spoil material will placed in the fill area by the “end dump” method. No debris or other deleterious material will be placed in these storage areas. The outslope of the storage area will generally equal the angle of repose of the material being placed, however, when this material is placed in the final reclamation grade it will not be allowed to exceed a grade of 2 horizontal to 1 vertical.

The pit development will begin in the nearly level area at elevation 1300 ft and progress eastward. Once the pit has been developed, will be continually expanded and deepened by removal of the material by blasting. No cut slopes at the top of the pit wall will extend any closer than 25 feet of the property line. The pit bottom will be at elevation 1220 ft. and the wall at the highest on the east side of the pit will be at 1375 ft. The slope of the pit wall will be no greater than 2 horizontal to 1 vertical in unconsolidated material and 1 horizontal to 1 vertical in consolidated material and 0.25 horizontal to 1 vertical in solid limestone. A 25 ft. wide bench will be provided int he pit wall at intervals not exceeding 50 ft.

A portable crusher and screens will be set up northwest of the proposed pit. Blasted rock from the quarry will be hauled up the pit road and dumped. The raw material will be loaded directly into the screening/sizing machine for processing. The processing machine is a portable, diesel operated conveyor and dry screening device that can be set-up and various locations on the permit. The processing includes a screening that grades the rock by size. The classified aggregate is transferred from the machine to stockpile areas via small portable conveyors and trucks. The final marketed products produced at this site are transported via trucks. Scales will be set up for weighing the stone sold.

Limestone is not considered hazardous. The mine plans to produce 200,000 tons per year over the next 10 years. The anticipated daily vehicle count is 40, with 60% coming and leaving from north on State Route 93.

SAFETY

The proposed operation shall be conducted in a manner to ensure the safety of all employees, customers, and the general public and nearby resources. Prior to land disturbing activity, a permanent sign shall be installed at the entrance to the site and shall be visible and legible to access road traffic. The name of the company and any required permit numbers shall be on the sign. Additional signs shall also be posted instructing visitors and customers how to check in and proceed onto the site, speed limit, and personal protective equipment required. Signs shall also be posted regarding blasting. These signs shall outline the signaling system for blasting. Additional signs and barricades will be erected immediately prior to any blasting. The boundary of the mine shall be clearly marked with identifiable markings when mine related land disturbing activities are within 100 feet of the boundary.

All slopes shall be developed in a safe manner in consideration to the type of material and geology. At a minimum the following slopes are proposed:

Unconsolidated material	2H:1V
Fill material	2H:1V
Consolidated material	1H:1V
Solid Shale	1H:1V
Solid Limestone	1H:1V

For walls exceeding 50 ft in height, a bench with a minimum 25 ft width shall be provided.

Roadways shall be provided of sufficient width to accommodate the safe passing of two (2) of the largest vehicles anticipated to use the roads. The roads should not exceed a grade of 10%. A safety berm shall be provided on the outside of the road and shall be at a minimum the axle height of the largest vehicle traveling the road.

Buildings or areas used for storage of flammable or combustible materials shall be of fire resistant material, well ventilated, kept clean and orderly, posted with fire hazard warning signs, and provided with means to confine or contain accidental spills.

Several methods are employed at the site for the control of fugitive dust. These methods are in conjunction with a separate air quality control permit maintained with the Tennessee Department of Environmental. These methods include:

- Paving of entrances
- Washing of entrances
- Periodic resurfacing and grading of roads
- Periodic watering of roads
- Misting water sprays at conveyor transfer and discharge points

The quarry location and design should minimize disturbance and effects to nearby citizens. However, in the event that a compliant is made it will be diligently addressed. In the event the complaint is valid the issue will be promptly corrected.

DRAINAGE AND SEDIMENT CONTROL

The primary sediment control features for this site is the use of a sediment basin. Drainage from disturbed areas will be directed by ditches or use of a natural drainage swale to the location where a sediment basin will be constructed. The sediment basins will provide sediment and drainage control for the initial mining area, plant area, and roads. After the pit is developed below grade, it will provide drainage control for upstream of it and the basin will only control drainage for the road and plant area.

RECLAMATION

The final reclamation of this site will return this area to a post-mining land use of unmanaged forest land for wildlife. This will be in compliment to the natural surrounding terrain and the pre-mining land use. In as far as practical, reclamation will occur simultaneously with mining. However, due to the mine site size and method of mining, final reclamation of all pit areas may not be possible until the completion of mining. However, once mining is declared complete, reclamation shall commence with 12 months.

All fill area slopes will be graded to not exceed a 2 horizontal to 1 vertical slope. Topsoil from the storage area will be used to cover fill areas and other hard surfaces to propagate vegetation. The exposed walls will be enclosed with a woven wire fence 5 feet high with two (2) strands of barbed wire above (making the total height 6 feet) to prevent encroachment. In addition to the fence, danger signs will be strategically placed to warn of the hazardous exposed high wall.

After the completion of mining all buildings, plant structures, mining equipment, scrap metal, debris, etc. will be removed from the site. These areas and internal roads will be scarified and prepared for seeding. The stockpiles will be removed or graded to contour with the natural surroundings. The overburden will be graded to 2h: 1v and in high walls left exposed will be fenced. Topsoil will be redistributed and the area prepared for re-vegetation.

Seeding of all disturbed areas will occur within thirty (30) days of final re-grading. Soil tests will be taken when the re-grading process is nearly completed to determine specific nutrient requirements. Testing for pH, phosphorous, potassium, and textural class will be performed. The results of these tests will be used to determine proper soil additives. During seeding one thousand five hundred (1,500) pounds per acre of cellulose or wood fiber mulch or two thousand (2,000) pounds per acre of straw mulch will be used. The following table will be utilized to achieve the re-vegetation plan:

PLAN	TYPE	RATE /ACRE
Permanent Grass	KY 31 Fescue and Orchard Grass	30 lbs. And 20 lbs.
Legumes	White or Ladino Clover and Red Clover	2 lbs. And 4 lbs.
Temporary Mixture	Annual Rye and Foxtail Millet	20 lbs. And 10 lbs.
Mulch or Straw	Wood Fiber or Rye	1500 lbs. Or 2000 lbs.
Fertilizer	16-24-14 or 10-20-10	300 lbs. Or 500 lbs.
Lime	Agricultural	As required by soil testing during final regrade

A balance of tree cover is planned to establish proper ground cover, erosion control, valuable timber products, and wildlife habitat. Two categories of tree species will be utilized to achieve the post mining land use. These are the crop trees and the nitrogen fixing nurse trees or shrubs. The crop trees are long-lived species that offer value to the

landowners. The nurse trees and shrubs are nitrogen-fixing plants that benefit the tree crop and provide food and cover for wildlife.

Crop Trees	Pines - Pitch X Loblolly Pine Hybrid, White Pine, Virginia Pine. Hardwoods - Yellow Poplar, Oaks, White Ash, Sycamore, Red Maple, Black Cherry
Nurse Trees or Shrubs	Black Locust (not used with White Pine), European Black Alder (used w/ White Pine), Bicolor Lespedeza, Indigo Bush, Bristly Locust

A mixture of the above trees will be planted with to establish a minimum of 400 trees per acre, after two growing seasons. A spot application of herbicide may be required if ground cover growth is especially vigorous. This will reduce competition and allow trees to become established.

After vegetation is established, the sediment basin may be removed. Since the basin is an excavated basin, it will simply be filled in until the impounding capacity has been eliminated. A “swale” will be created through the basin area and to the spillway for post mining/reclamation drainage. The fill will be obtained from around the pond area. Any areas disturbed during removal of the basins will be seeded with a permanent seed mixture.

Any areas of the site that remain inactive for twelve (12) months will be seeded with a temporary seed mixture and any areas of the permit that remain inactive for twenty-four (24) months will be final graded and seeded with a permanent seed mixture.

GROUNDWATER ASSESSMENT

Groundwater flow will originate as precipitation and surface water flow. The surface flow gradient is governed by topography. Surface flow atop ridges will begin migration to the lower valleys. As the flow migrates to the valley, stress relief fractures within the valley wall will begin to intercept the surface flow and transmit it into the groundwater system. Limestone is defined as karst terrain which has been eroded by dissolution to produce fissures and sinkholes has the capability to transmit groundwater, while shale tends to be more impervious. Therefore, groundwater water encountering the limestone may be retained in this strata especially when the strata is underlain by the more impervious shale or unweathered strata. Groundwater movement encountering shale may tend to follow the bedding plane or dip. This may result in groundwater discharge as a spring or seep. Fracturing within the valley floor has been found to be more intense and extend to greater depths than the valley walls. Groundwater movement within the valley floor fracture system will typically follow the stream gradient through the connected fractures.

Groundwater flow through the fracture flow system is typically characterized as rapid recharge, but low yielding. Groundwater quality is typically a function of contact time

between the strata and the water. Therefore, the quality of the groundwater along the slope is typically better than the valley floors or water found in aquifers of porous strata.

Typically a second groundwater system exists within the low gradient stream channels. This system consists of groundwater flow through the alluvial deposits within the valley floor. Typical alluvial deposits consist primarily of sand and silt with lesser amounts of clay and gravel. The physical characteristics allow these deposits to function as aquifers that store and transport ground water. Alluvial aquifers serve to capture a portion of water from precipitation events that would otherwise leave the area as surface runoff. Water stored in these alluvial aquifers contributes recharge to underlying valley floor fracture aquifer system and may supply recharge to streams, thereby sustaining base flows. Alluvial aquifers generally require a thickness in excess of 10 meters to supply sufficient water for the support of domestic wells. These groundwater systems are believed to exist along Horse Creek.

Drilling in the proposed quarry area did not identify any groundwater. No significant groundwater is anticipated unless a perched system would be encountered due to underlying shale or clays. If ground water is found to be present, it shall be directed to a sump in the pit. If necessary it will filtered prior to discharge into the stream or groundwater system. If these measures are implemented, no negative effects are expected to the surface water or groundwater system.

ENVIRONMENTAL ASSESSMENT

This operation will minimize adverse impacts to the environment. Potential pollutants generated at the site include dust and erosion/sediment. Additionally, oil and petroleum products may be stored on site for use in the mining equipment.

Measures have been outlined in the Operation Plan to control dust. An Air Quality Permit will be obtained from the Tennessee Department of Environment prior to beginning mining.

Additionally, measures have been outlined to control contribution of sediment to the streams. The Drainage and Sediment Control Plan above delineates the control measures. A National Pollution Discharge Elimination System (NPDES) will be obtained for the site.

All chemicals and petroleum products used at the site will be properly handled, to ensure the groundwater supply or stream is not contaminated. A supply of spill containment supplies such as absorbent pads and oil dry will be maintained on site it the unlikely event of a spill. Per 40 CFR 112 if any one tank on site is larger than 660 gallons, or the total storage is greater than or equal to 1,320 gallons, a Spill Prevention Control Countermeasures (SPCC) plan as required by the Environmental Protection Agency (EPA) will be implemented.

The site will not impact any jurisdictional waters of the United States or waters of the State of Tennessee. A thorough field investigation of the site was conducted and there were no indicators of streams or wetlands on this site other than Horse Creek. No impacts to Horse Creek are proposed. A new bridge will be constructed; however, it will be located outside of and beyond the defined Ordinary High Water Mark (OHWM) precluding any authorization from the U. S. Army Corps of Engineers.

Sullivan (082)
Tax Year 2024 | Reappraisal 2021

Jan 1 Owner
TAYLOR PRESTON H
1358 WATAUGA ST
KINGSPORT TN 37660

Current Owner
1358 WATAUGA ST
KINGSPORT TN 37660

SULLIVAN GARDENS PKWY 3725

Ctrl Map:	Group:	Parcel:	SI:
090		059.00	000

Item VI1.

Value Information

Land Market Value:	$185,200	**Land Use Value:**	$89,700
Improvement Value:	$18,800	**Improvement Value:**	$18,800
Total Market Appraisal:	$204,000	**Total Use Appraisal:**	$108,500
		Assessment Percentage:	25%
		Assessment:	$27,125

Subdivision Data

Subdivision:
W W BIRD & DALE LAMPKIN

Plat Book:	Plat Page:	Block:	Lot:
1	67A		13

Additional Information

PT OF LOTS 10 11 & 12

General Information

Class: 11 - Agricultural
City #:
Special Service District 1: 000
District: 13
Number of Buildings: 1
Utilities - Water/Sewer: 00 - PUBLIC / NONE
Utilities - Gas/Gas Type: 00 - NONE
City:
Special Service District 2: 000
Neighborhood: A62
Number of Mobile Homes: 0
Utilities - Electricity: 01 - PUBLIC
Zoning: A-1

Outbuildings & Yard Items

Building #	Type	Description	Units
1	OSH - OPEN SHED	14X21	294

Sale Information

Sale Date	Price	Book	Page	Vacant/Improved	Type Instrument	Qualification
5/6/1955	$0	0158A	00228		-	-

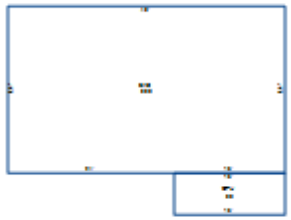
Land Information

Long Land Information list on subsequent pages

Residential Building #: 1

Improvement Type:
01 - SINGLE FAMILY
Exterior Wall:
07 - CONCRETE BLOCK
Heat and AC:
0 - NONE
Quality:
0 - BELOW AVERAGE
Square Feet of Living Area:
960
Foundation:
02 - CONTINUOUS FOOTING
Roof Framing:
02 - GABLE/HIP
Cabinet/Millwork:
02 - BELOW AVG
Interior Finish:
00 - NONE
Bath Tiles:
00 - NONE
Shape:
01 - RECTANGLE
Stories:
1.00
Actual Year Built:
1943
Plumbing Fixtures:
3
Condition:
AV - AVERAGE
Floor System:
01 - SLAB ON GRADE
Roof Cover/Deck:
13 - PREFIN METAL CRIMPED
Floor Finish:
11 - CARPET COMBINATION
Paint/Decor:
02 - BELOW AVERAGE
Electrical:
02 - BELOW AVG
Structural Frame:
00 - NONE

Building Sketch



Building Areas

Areas	Square Feet
BAS - BASE	960
OPU - OPEN PORCH UNFINISHED	96

Land Information

Deed Acres: 0 **Calculated Acres:** 90 **Total Land Units:** 90

Land Code	Soil Class	Units
46 - ROTATION	A	3.45
54 - PASTURE	P	4.62
62 - WOODLAND 2	G	1.13
62 - WOODLAND 2	A	30.14
62 - WOODLAND 2	P	50.16
04 - IMP SITE		0.50

3 Tees, LLC
1300 Jan Way
Kingsport, Tennessee

Horse Creek Quarry

Application and Plans

For

NPDES Mining Permit

October 16, 2023

PREPARED BY:

STEPHEN E. MAXFIELD, P. E.
PROFESSIONAL ENGINEER
P.O. BOX 1745
HONAKER, VIRGINIA 24260
PHONE: (276) 979-6963

CONTENTS

Submittal Letter
Tennessee Department of Environment and Conservation Application (CN 1090)
EPA Forms 1 and 2D
Introduction
Site Location
Site Description
Operation Plan
Land Use
Highway Access
Safety
Drainage & Sediment Control
Sedcad 4 Drainage Calculations
Reclamation
Groundwater Assessment
Environmental Assessment

Maps
- Site Plan
- Cross Sections, Profiles and Details

Stephen E. Maxfield, P. E.
1745 Roman Ridge Road
Honaker, VA 24260
Phone: (276) 979-6963
Email: Coulwood1214@gmail.com

October 16, 2023

Daniel Lawrence
Tennessee Department of Environment and Conservation
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

Subject: NPDES Permit For Proposed Limestone Quarry

Dear Mr. Lawrence:

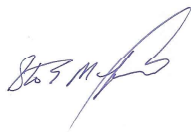
On behalf of my client, 3 Tees, LLC, we are requesting a NPDES permit for a limestone rock quarry to be located at 3725 Sullivan Gardens Parkway. 3 Tees has the option to purchase these properties if they can be rezoned and permitted.

3 Tees is proposing to develop a quarry would mine limestone rock, crush and screen the rock for aggregate, and stockpile the aggregate for sale for road construction and other uses. The actual quarry pit and processing facilities will be located approximately 1,200 ft from Sullivan Gardens Parkway and in so much as possible existing trees will be retained as a buffer and to screen the operations from the public.

The application forms, mine plans and design, and maps and drawings have been included in this submittal. Please review the included plan for compliance.

If you have any questions or require any additional information, please contact us.

Sincerely,



Stephen E. Maxfield, P. E.

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Water-Based Systems
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243-1102

Item VI1.

PERMIT CONTACT INFORMATION

Please complete all sections. If one person serves multiple functions, please repeat this information in each section.

PERMIT NUMBER: _____ **DATE:** October 10, 2023

PERMITTED FACILITY: Horse Creek Quarry **COUNTY:** Sullivan

OFFICIAL PERMIT CONTACT:

(The permit signatory authority, e.g. responsible corporate officer, principle executive officer or ranking elected official)

Official Contact: Vic Davis	Title or Position: Manager		
Mailing Address: 1300 Jan Way	City: Kingsport	State: TN	Zip: 37660
Phone number(s): 423-817-7300	E-mail: vicd@vdctn.com		

PERMIT BILLING ADDRESS (where invoices should be sent):

Billing Contact: Vic Davis	Title or Position: Manager		
Mailing Address: 1300 Jan Way	City: Kingsport	State: TN	Zip: 37660
Phone number(s): 423-817-7300	E-mail: vicd@vdctn.com		

FACILITY LOCATION (actual location of permit site and local contact for site activity):

Facility Location Contact: Vic Davis	Title or Position: Manager		
Facility Location (physical street address): 3725 Sullivan Gardens Parkway	City: Kingsport	State: TN	Zip: 37660
Phone number(s): 423-817-7300	E-mail: vicd@vdctn.com		

Alternate Contact (if desired):	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone number(s):	E-mail:		

FACILITY REPORTING (Discharge Monitoring Report (DMR) or other reporting):

Cognizant Official authorized for permit reporting: Vic Davis	Title or Position: Manager		
Mailing Address: 1300 Jan Way	City: Kingsport	State: TN	37660
Phone number(s): 423-817-7300	E-mail: vicd@vdctn.com		
Fax number for reporting: NA	Does the facility have interest in starting electronic DMR reporting? (Yes) ~~No~~		

Antidegradation Statement Guidance

To Be Used When Administering Tennessee's Antidegradation Statement as Associated with Obtaining a National Pollutant Discharge Elimination System (NPDES) Permit

The Antidegradation Statement Guidance document is to be used in accordance with the *Tennessee's Antidegradation Statement Rule 0400-40-03-.06* as it pertains to completing the application requirements for a NPDES permit. This document may be used as equivalent information for the EPA Worksheets (A, G, O, R, V, W, X, Y, Z, and AB for the private sector and O, P, Q, S, T, U, and AA for the public sector).

Specifically the document is divided into five parts. Parts 1 - 2 are general information regarding the facility and receiving water. Part 3 characterizes the level of degradation and the alternatives analysis (including social, economic, and environmental considerations of each alternative). Parts 4 – 5 detail the social and economic justification required to demonstrate that the degradation associated with the proposed discharge to an Exceptional Tennessee water (ETW) is justified. All permit applicants must complete, at a minimum, Parts 1-3 of this document. If you propose to discharge to an ETW, you must complete the document in its entirety.

Part 1. Contact Information	
1. Company name:	3 Tees, LLC
2. NPDES No.: TN00	
3. Facility or mine name:	Horse Creek Quarry
4. County:	Sullivan

Part 2. Mine and Stream Information

1. Please select the type of mine.

   Noncoal

   ☒ Limestone
   ☐ Sand and gravel
   ☐ Ball Clay
   ☐ Industrial sand
   ☐ Zinc
   ☐ Marble
   ☐ Dimension stone
   ☐ Quartzite
   ☐ Other

Coal

☐ Reclamation
☐ Active mining
☐ Post mining
☐ Prep plants / associated areas
☐ Tipple / load out

2. Please select the type of permit activity requested.

☐ Renewal of permit based on currently approved plans
☐ Renewal and modification of permit
☐ Modification of permit
■ New permit

3. Please list each outfall number, the name of receiving stream(s) and the corresponding stream designation (either Outstanding National Resource Water (ONRW), Exceptional Tennessee Water (ETW), or Non Exceptional Tennessee Water (Non ETW). Use separate paper if necessary.

Outfall(s)	Receiving Stream(s)	Stream Designation		
		ONRW	ETW	NON ETW
001	Horse Creek	☐	☐	☑
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

Part 3. Characterize the Level of Degradation in the Proposed Activity and Analysis of Alternatives.

Please select one of the following levels and support your conclusion in the space that follows. Finally, complete the Alternatives Analysis.

Part 3-A- Level of Degradation

☐ The proposed activity is to renew an existing permit.
No changes to the acreage size, the number or location of outfall(s), or the volume of the existing discharge are proposed at this time. Renewal of the permit does not cause degradation above what is already permitted. (If this applies, skip to Part 3-B.)

☒ The proposed activity will cause no measurable degradation.
Activities causing no measurable degradation are defined as those activities that do not cause a measurable increase in levels of a given parameter in the receiving water.

☐ The proposed activity will cause de minimis degradation.
Activities causing de minimis degradation are defined as those activities that cause degradation of a small magnitude as described in *Rule 0400-40-03-.04 (4)(a).* De minimis activities are described as single discharges that use less than five percent of the available assimilative capacity of the substance being discharged.

*Note, this option is not applicable if the 7Q10 of the receiving water is zero or if the receiving water has unavailable parameters for the pollutant to be discharged.

☐ The proposed activity will cause **more** than de minimis degradation.
Applications for activities causing degradation above the level of de minimis must analyze all reasonable alternatives and describe the level of degradation caused by each of the feasible alternatives. Analysis of each of these alternatives should also discuss the social and economic consequences of each alternative. Applicants must also demonstrate that the proposed degradation will not violate the water quality criteria for existing uses in the receiving waters and is necessary to accommodate important economic and social development in the area.

Attach additional pages as needed

Part 3-B - Alternatives Analysis

The following are examples of alternatives relative to natural resource extraction that are to be considered by applicants under Tennessee's *Antidegradation Statement 0400-40-03-.06*. Please check which treatment option(s) are currently used or will be used at the facility.

☐ Connect to existing treatment system

☐ Use over-sized ponds to increase treatment ability and holding capacity beyond the 10yr/24hr design storm.
Design capacity of the pollution control system
Current capacity of the system (%)

☐ Divert drainage from non-disturbed areas away from treatment structures, separating storm water from mine wastewater – i.e. diversion berm, ditches, other BMPs.

■ Use pit as primary treatment and/or storage to increase ability to hold water on site during storm events.

☐ Use ponds in series, forebays, and/or baffles to increase treatment and retention time.

☐ Use chemical treatment for pH adjustment or treatment of solids.

☐ Reuse/recycle treated process water to reduce discharge frequency. What percentage is already or will be recycled?

☐ Create no-discharge system.

☐ Use concurrent reclamation with mining activity.

☐ Land application of treated wastewater.

If treatment option used is not listed, please describe in space below.

2) Based on the alternatives indicated above, describe the level of degradation caused by each, as well as the social and economic consequences of each alternative. Examples of social and economic consequences may include but are not limited to, improved infrastructure such as road projects, housing development, as well as increasing local tax revenue and employment opportunities.

3) Can the level of treatment achievable at the facility ensure that water quality criteria will not be violated? Please explain.

The majority of the drainage will be received to the pit which will be well in excess as necessary for sedimentation. A small pond will be used for limited areas not controlled by the pit.

4) Is there another discharge location that would have less impact on the watershed?

No

5) Evaluate the mining technique used at the site. Would another technique result in a reduction in quantity or improvement in quality of the discharge from the site?

No

6) Were other locations for the facility evaluated? Describe the reasons why other locations were selected or rejected.

Other areas considered but area selected is best suited to topographyt

7) If this is an existing site, how long has the company mined at this location? If the option to mine has been reserved through payments to the owner or lessor of the rights, how long has that option been reserved? What is the projected life of the mine?

NA

Part 4. Economic Justification

If you are applying for a new or expanded permit that discharges to Exceptional Tennessee Waters (ETW), complete Parts 4 and 5.

The following section shows economic/financial information for the facility. This information is necessary to determine if the applicant can afford to implement appropriate pollution control measures to protect water quality in the receiving water. Attach additional pages as needed.

1. Annual cost of operation and maintenance of pollution control project (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration, and replacement).	$
2. Annual earnings without pollution control project costs	$
3. Annual earnings with pollution control project costs	$

Part 5. Social Justification

The following section shows social justification of the proposed degradation within the community where the facility is located. Attach additional pages as needed.

1. Define the affected community in this case; what areas are included?	
2. What is the current unemployment rate in affected community (if available)?	
3. What is the current national unemployment rate?	

4. How many jobs will the facility provide in the affected community?	
5. What is the average salary of these jobs?	
6. What is the median household income in affected community?	$
7. What is the total number of households in affected community?	$
8. What are the current total tax revenues in the affected community?	
9. What amount of tax revenues will be paid by the private entity to the affected community?	$

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
		Horse Creek Quarry	

Form 1 NPDES

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

GENERAL INFORMATION

SECTION 1. ACTIVITIES REQUIRING AN NPDES PERMIT (40 CFR 122.21(f) and (f)(1))

Activities Requiring an NPDES Permit

1.1 Applicants *Not Required* to Submit Form 1

1.1.1	Is the facility a new or existing **publicly owned treatment works**? If yes, STOP. Do NOT complete Form 1. Complete Form 2A. ☒ No	1.1.2	Is the facility a new or existing **treatment works treating domestic sewage**? If yes, STOP. Do NOT complete Form 1. Complete Form 2S. ☒ No

1.2 Applicants *Required* to Submit Form 1

1.2.1	Is the facility a **concentrated animal feeding operation** or a **concentrated aquatic animal production facility?** ☐ Yes ➔ Complete Form 1 ***and*** Form 2B. ☒ No	1.2.2	Is the facility an **existing** manufacturing, commercial, mining, or silvicultural **facility** that **is currently discharging process wastewater**? ☐ Yes ➔ Complete Form 1 ***and*** Form 2C. ☒ No
1.2.3	Is the facility a **new** manufacturing, commercial, mining, or silvicultural **facility** that has **not yet commenced to discharge**? ☒ Yes ➔ Complete Form 1 ***and*** Form 2D. ☐ No	1.2.4	Is the facility a **new or existing** manufacturing, commercial, mining, or silvicultural **facility** that **discharges only nonprocess wastewater**? ☐ Yes ➔ Complete Form 1 ***and*** Form 2E. ☒ No
1.2.5	Is the facility a **new or existing facility** whose discharge is composed entirely of **stormwater associated with industrial activity** or whose discharge is composed of **both stormwater and non-stormwater**? ☒ Yes ➔ Complete Form 1 ***and*** Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15). ☐ No		

SECTION 2. NAME, MAILING ADDRESS, AND LOCATION (40 CFR 122.21(f)(2))

Name, Mailing Address, and Location

2.1 Facility Name

Horse Creek Quarry

2.2 EPA Identification Number

2.3 Facility Contact

Name (first and last)	Title	Phone number
Vic Davis	Manager	423-817-7300

Email address: vicd@vdctn.com

2.4 Facility Mailing Address

Street or P.O. box: 1300 Jan Way

City or town	State	ZIP code
Kingsport	TN	37660

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004

Name, Mailing Address, and Location Continued

2.5 **Facility Location**

Street, route number, or other specific identifier: 3725 Sullivan Gardens Parkway

County name	County code (if known)	
Sullivan		

City or town	State	ZIP code
Kingsport	TN	37660

SECTION 3. SIC AND NAICS CODES (40 CFR 122.21(f)(3))

SIC and NAICS Codes

3.1

SIC Code(s)	Description (optional)
1422	Limestone Quarry

3.2

NAICS Code(s)	Description (optional)
212312	Limestone Quarry

SECTION 4. OPERATOR INFORMATION (40 CFR 122.21(f)(4))

Operator Information

4.1 **Name of Operator**

3 Tees, LLC

4.2 Is the name you listed in Item 4.1 also the owner?

☒ Yes ☐ No

4.3 **Operator Status**

☐ Public—federal ☐ Public—state ☐ Other public (specify)_____

☒ Private ☐ Other (specify) _____

4.4 **Phone Number of Operator**

423-817-7300

Operator Information Continued

4.5 **Operator Address**

Street or P.O. Box: 1300 Jan Way

City or town	State	ZIP code
Kingsportt	TN	37660

Email address of operator: vicd@vdctn.com

SECTION 5. INDIAN LAND (40 CFR 122.21(f)(5))

Indian Land

5.1 Is the facility located on Indian Land?

☐ Yes ☒ No

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004

SECTION 6. EXISTING ENVIRONMENTAL PERMITS (40 CFR 122.21(f)(6))

Existing Environmental Permits

6.1 **Existing Environmental Permits** (check all that apply and print or type the corresponding permit number for each)

☐ NPDES (discharges to surface water)	☐ RCRA (hazardous wastes)	☐ UIC (underground injection of fluids)
☐ PSD (air emissions)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ Ocean dumping (MPRSA)	☐ Dredge or fill (CWA Section 404)	☐ Other (specify)

SECTION 7. MAP (40 CFR 122.21(f)(7))

Map

7.1 Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.)

☒ Yes ☐ No ☐ CAFO—Not Applicable (See requirements in Form 2B.)

SECTION 8. NATURE OF BUSINESS (40 CFR 122.21(f)(8))

Nature of Business

8.1 Describe the nature of your business.

Limestone quarrying, crushing, screening

SECTION 9. COOLING WATER INTAKE STRUCTURES (40 CFR 122.21(f)(9))

Cooling Water Intake Structures

9.1 Does your facility use cooling water?

☐ Yes ☒ No ➔ SKIP to Item 10.1.

9.2 Identify the source of cooling water. (Note that facilities that use a cooling water intake structure as described at 40 CFR 125, Subparts I and J may have additional application requirements at 40 CFR 122.21(r). Consult with your NPDES permitting authority to determine what specific information needs to be submitted and when.)

SECTION 10. VARIANCE REQUESTS (40 CFR 122.21(f)(10))

Variance Requests

10.1 Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(m)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)

- ☐ Fundamentally different factors (CWA Section 301(n))
- ☐ Water quality related effluent limitations (CWA Section 302(b)(2))
- ☐ Non-conventional pollutants (CWA Section 301(c) and (g))
- ☐ Thermal discharges (CWA Section 316(a))
- ☐ Not applicable

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004

SECTION 11. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

11.1 In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2
☒ Section 1: Activities Requiring an NPDES Permit	☐ w/ attachments
☒ Section 2: Name, Mailing Address, and Location	☐ w/ attachments
☒ Section 3: SIC Codes	☐ w/ attachments
☒ Section 4: Operator Information	☐ w/ attachments
☐ Section 5: Indian Land	☐ w/ attachments
☐ Section 6: Existing Environmental Permits	☐ w/ attachments
☒ Section 7: Map	☒ w/ topographic map ☐ w/ additional attachments
☒ Section 8: Nature of Business	☐ w/ attachments
☐ Section 9: Cooling Water Intake Structures	☐ w/ attachments
☐ Section 10: Variance Requests	☐ w/ attachments
☒ Section 11: Checklist and Certification Statement	☐ w/ attachments

11.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
Vic Davis	Manager
Signature	Date signed
	10/16/23

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/0 OMB No. 2040-0

Form 2D NPDES

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

NEW MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL OPERATIONS THAT HAVE NOT YET COMMENCED DISCHARGE OF PROCESS WASTEWATER

SECTION 1. EXPECTED OUTFALL LOCATION (40 CFR 122.21(k)(1))

Outfall Location

1.1 Provide information on each of the facility's outfalls in the table below.

Outfall Number	Receiving Water Name	Latitude	Longitude
001	Horse Creek	36 ° 28 ′ 50 ″	82 ° 34 ′ 49 ″
		° ′ ″	° ′ ″
		° ′ ″	° ′ ″

SECTION 2. EXPECTED DISCHARGE DATE (40 CFR 122.21(k)(2))

Expected Discharge Date

2.1

Month	Day	Year

SECTION 3. AVERAGE FLOWS AND TREATMENT (40 CFR 122.21(k)(3)(i))

Average Flows and Treatment

3.1 For each outfall identified under Item 1.1, provide average flow and treatment information. Add additional sheets as necessary.

****Outfall Number**** _____

Operations Contributing to Flow

Operation	Average Flow
June 1, 2024	0.007 mgd
	mgd
	mgd
	mgd
	mgd

Treatment Units

Description (include size, flow rate through each treatment unit, retention time, etc.)	Code from Exhibit 2D-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge
Pond 1, 1 ac-ft	1-U	Sediment removed, dried, and placed
		in on site fill

Average Flows and Treatment Continued

3.1 Cont.

****Outfall Number**** _____

Operations Contributing to Flow

Operation	Average Flow
	mgd
	mgd
	mgd
	mgd
	mgd

Treatment Units

Description (include size, flow rate through each treatment unit, retention time, etc.)	Code from Exhibit 2D-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge

****Outfall Number**** _____

Operations Contributing to Flow

Operation	Average Flow
	mgd
	mgd
	mgd
	mgd
	mgd

Treatment Units

Description (include size, flow rate through each treatment unit, retention time, etc.)	Code from Exhibit 2D-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge

SECTION 4. LINE DRAWING (40 CFR 122.21(k)(3)(ii))

Line Drawing

4.1 Have you attached a line drawing to this application that shows the water flow through your facility with a water balance? (See instructions for drawing requirements. See Exhibit 2D–2 at end of instructions for example.)

☒ Yes ☐ No

SECTION 5. INTERMITTENT OR SEASONAL FLOWS (40 CFR 122.21(k)(3)(iii))

Intermittent or Seasonal Flows

5.1 Except for stormwater runoff, leaks, or spills, are any expected discharges described in Sections 1 and 3 intermittent or seasonal?

☐ Yes ☒ No → SKIP to Section 6.

5.2 Provide information on intermittent or seasonal flows for each applicable outfall. Attach additional pages, if necessary.

Outfall Number	Operations (list)	Frequency		Rate and Volume		Duration
		Average Days/Week	Average Months/Year	Maximum Daily Discharge	Maximum Total Volume	
		days/week	months/year	mgd	gallons	days
		days/week	months/year	mgd	gallons	days
		days/week	months/year	mgd	gallons	days

Outfall Number	Operations (list)	Frequency		Rate and Volume		Duration
		Average Days/Week	Average Months/Year	Maximum Daily Discharge	Maximum Total Volume	
		days/week	months/year	mgd	gallons	days
		days/week	months/year	mgd	gallons	days
		days/week	months/year	mgd	gallons	days

Outfall Number	Operations (list)	Frequency		Rate and Volume		Duration
		Average Days/Week	Average Months/Year	Maximum Daily Discharge	Maximum Total Volume	
		days/week	months/year	mgd	gallons	days
		days/week	months/year	mgd	gallons	days
		days/week	months/year	mgd	gallons	days

SECTION 6. PRODUCTION (40 CFR 122.21(k)(4))

Production

6.1 Do any effluent limitation guidelines (ELGs) promulgated by EPA under CWA Section 304 apply to your facility?

☒ Yes ☐ No → SKIP to Section 7.

6.2 Provide the following information on applicable ELGs.

ELG Category	ELG Subcategory	Regulatory Citation
Mineral Mining and Processing	Crushed Stone	40 CFR Section: 436.22.a.1,2

Production Continued

6.3 Are the limitations in the applicable ELGs expressed in terms of production (or other measure of operation)?

☐ Yes ☒ No ➔ SKIP to Section 7.

6.4 Provide an expected measure of average daily production expressed in terms and units of applicable ELGs.

Expected Actual Average Daily Production for First Three Years				
Outfall Number	**Year**	**Operation, Product, or Material**	**Quantity per Day** (note basis if applicable)	**Unit of Measure**
	Year 1			
	Year 2			
	Year 3			
	Year 1			
	Year 2			
	Year 3			
	Year 1			
	Year 2			
	Year 3			

SECTION 7. EFFLUENT CHARACTERISTICS (40 CFR 122.21(k)(5))

Effluent Characteristics

See the instructions to determine the parameters and pollutants you are required to monitor and, in turn, the tables you must complete. Note that not all applicants need to complete each table.

Table A. Conventional and Non-Conventional Parameters

7.1 Are you requesting a waiver from your NPDES permitting authority for one or more of the Table A parameters for any of your outfalls?

☐ Yes ☒ No ➔SKIP to Item 7.3.

7.2 If yes, indicate the applicable outfalls below. Attach waiver request and other required information to the application.

Outfall number _____ Outfall number _____ Outfall number _____

7.3 Have you have provided estimates or actual data for all Table A parameters for each of your outfalls for which a waiver has not been requested and attached the results to this application package?

☒ Yes ☐ No; a waiver has been requested from my NPDES permitting authority for all parameters at all outfalls.

Table B. Certain Conventional and Non-Conventional Pollutants

7.4 Have you checked "Believed Present" for all pollutants listed in Table B that are limited directly or indirectly by an applicable ELG?

☒ Yes ☐ No

7.5 Have you checked "Believed Present" or "Believed Absent" for all remaining pollutants listed in Table B?

☒ Yes ☐ No

7.6 Have you provided estimated data for those Table B pollutants for which you have indicated are "Believed Present" in your discharge?

☒ Yes ☐ No

Effluent Characteristics Continued

Table C. Toxic Metals, Total Cyanide, and Total Phenols

7.7	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table C for all outfalls? ☑ Yes ☐ No
7.8	Have you completed Table C by providing estimated data for pollutants you indicated are "Believed Present," including the source of the information, for each applicable outfall? ☐ Yes ☑ No

Table D. Organic Toxic Pollutants (GC/MS Fractions)

7.9	Do you qualify for a small business exemption under the criteria specified in the Instructions? ☐ Yes ➔ Note that you qualify at the top of Table D, then SKIP to Item 7.12. ☑ No
7.10	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table D for all outfalls? ☑ Yes ☐ No
7.11	Have you completed Table D by providing estimated data for pollutants you indicated are "Believed Present," including the source of the information, for each applicable outfall? ☐ Yes ☑ No

2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD)

7.12	Does the facility use or manufacture one or more of the 2,3,7,8-TCDD congeners listed in the Instructions, or do you know or have reason to believe that TCDD is or may be present in effluent from any of your outfalls? ☐ Yes ☑ No

Table E. Certain Hazardous Substances and Asbestos

7.13	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed in Table E for all outfalls? ☑ Yes ☑ No
7.14	Have you completed Table E by reporting the reason the pollutants are expected to be present and available quantitative data for pollutants you indicated are "Believed Present" for each applicable outfall? ☐ Yes ☑ No

Intake Credits, Tables A through E

7.15	Are you applying for net credits for the presence of any of the pollutants on Tables A through E for any of your outfalls? ☐ Yes ➔ Consult with your NPDES permitting authority. ☑ No

SECTION 8. ENGINEERING REPORT (40 CFR 122.21(k)(6))

Engineering Report

8.1	Do you have any technical evaluations of your wastewater treatment, including engineering reports or pilot plant studies? ☐ Yes ☑ No ➔ SKIP to Item 8.3.
8.2	Have you provided the technical evaluation and all related documents to this application package? ☑ Yes ☐ No
8.3	Are you aware of any existing plant(s) that resemble production processes, wastewater constituents, or wastewater treatment at your facility? ☐ Yes ☑ No ➔ SKIP to Section 9.

Engineering Report Continued

8.4 Provide the name and location of the similar plants.

Name of Similar Plants	Location of Similar Plants

SECTION 9. OTHER INFORMATION (40 CFR 122.21(k)(7))

Other Information

9.1 Have you attached any optional information that you would like considered as part of the application review process (i.e., material beyond that which you have already noted in the application as being attached)?

☐ Yes ☑ No ➔ SKIP to Section 10.

9.2 List the additional items and briefly note why you have included them.

1.

2.

3.

4.

5.

SECTION 10. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

10.1 In Column 1 below, mark the sections of Form 2D that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or tables, or provide attachments.

Column 1	Column 2
☑ Section 1: Expected Outfall Location	☐ w/ attachments (e.g., responses for additional outfalls)
☑ Section 2: Expected Discharge Date	☐ w/ attachments
☑ Section 3: Average Flows and Treatment	☐ w/ attachments
☑ Section 4: Line Drawing	☐ w/ line drawing ☐ w/ additional attachments
☐ Section 5: Intermittent or Seasonal Flows	☐ w/ attachments
☐ Section 6: Production	☐ w/ attachments
☑ Section 7: Effluent Characteristics	☐ w/ Table A waiver request or approval ☑ Table A ☑ Table B ☑ Table C ☑ Table D ☑ Table E ☐ w/ other attachments
☐ Section 8: Engineering Report	☐ w/ technical evaluations and related attachments
☐ Section 9: Other Information	☐ w/ optional information
☑ Section 10: Checklist and Certification Statement	☐ w/ attachments

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004

Checklist and Certification Statement Continued

10.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
Vic Davis	Manager
Signature	**Date signed**
	10/16/23

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TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETER ESTIMATES (40 CFR 122.21(k)(5)(i))[1]

	Pollutant	Waiver Requested (if applicable)	Units		Effluent Data: Maximum Daily Discharge (required)	Effluent Data: Average Daily Discharge (if available)	Effluent Data: Source of Information (use codes in instructions)	Intake Water: Believed Present? (check only one response per parameter)	
☑	Check here if you have applied to your NPDES authority for a waiver for *all* of the pollutants listed on this table for the noted outfall.								
1.	Biochemical oxygen demand (BOD_5)	☐	Concentration					☐ Yes	☐ No
			Mass						
2.	Chemical oxygen demand (COD)	☐	Concentration					☐ Yes	☐ No
			Mass						
3.	Total organic carbon (TOC)	☐	Concentration					☐ Yes	☐ No
			Mass						
4.	Total suspended solids (TSS)	☐	Concentration					☐ Yes	☐ No
			Mass						
5.	Ammonia (as N)	☐	Concentration					☐ Yes	☐ No
			Mass						
6.	Flow	☐	Rate					☐ Yes	☐ No
7.	Temperature (winter)	☐	°C	°C				☐ Yes	☐ No
	Temperature (summer)	☐	°C	°C					
8.	pH (minimum)	☐	Standard units	s.u.				☐ Yes	☐ No
	pH (maximum)	☐	Standard units	s.u.					

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(k)(5)(ii))[1]

	Pollutant	Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present or Limited by an ELG (Provide both concentration and mass estimates for each pollutant.)					
				Effluent					Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (use codes in instructions)	Believed Present? (check only one response per item)
☑	Check (✓) here if you believe all pollutants listed to be absent from the discharge. You need not complete Table B for the noted outfall *unless* you have quantitative data available.								
1.	Bromide (24959-67-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.	Chlorine, total residual	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.	Color	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.	Fecal coliform	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
5.	Fluoride (16984-48-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
6.	Nitrate-nitrite	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
7.	Nitrogen, total organic (as N)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
8.	Oil and grease	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
9.	Phosphorus (as P), total (7723-14-0)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
10.	Sulfate (as SO_4) (14808-79-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
11.	Sulfide (as S)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(k)(5)(ii))[1]

	Pollutant	Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present or Limited by an ELG (Provide both concentration and mass estimates for each pollutant.)					
				Effluent					Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (use codes in instructions)	Believed Present? (check only one response per item)
12.	Sulfite (as SO_3) (14265-45-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
13.	Surfactants	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
14.	Aluminum, total (7429-90-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
15.	Barium, total (7440-39-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
16.	Boron, total (7440-42-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
17.	Cobalt, total (7440-48-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
18.	Iron, total (7439-89-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
19.	Magnesium, total (7439-95-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
20.	Molybdenum, total (7439-98-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
21.	Manganese, total (7439-96-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
22.	Tin, total (7440-31-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(k)(5)(ii))[1]

	Pollutant	Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present or Limited by an ELG (Provide both concentration and mass estimates for each pollutant.)					
				Effluent					Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (use codes in instructions)	Believed Present? (check only one response per item)
23.	Titanium, total (7440-32-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
24.	Radioactivity								
24.1	Alpha, total	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
24.2	Beta, total	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
24.3.	Radium, total	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
24.4	Radium 226, total	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE C. TOXIC METALS, TOTAL CYANIDE, AND TOTAL PHENOLS (40 CFR 122.21(k)(5)(iii)(A))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present in Discharge (Provide both concentration and mass estimates for each pollutant.)						
				Effluent					Intake Water	
		Believed Present	Believed Absent	Units	Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (Use codes in Instructions.)		Believed Present? (Check only one response per pollutant.)	
☑	Check (✓) here if you believe all pollutants listed to be absent from the discharge. You need not complete Table C for the noted outfall *unless* you have quantitative data available.									
1.	Antimony, Total (7440-36-0)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
2.	Arsenic, Total (7440-38-2)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
3.	Beryllium, Total (7440-41-7)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
4.	Cadmium, Total (7440-43-9)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
5.	Chromium, Total (7440-47-3)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
6.	Copper, Total (7440-50-8)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
7.	Lead, Total (7439-92-1)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
8.	Mercury, Total (7439-97-6)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
9.	Nickel, Total (7440-02-0)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
10.	Selenium, Total (7782-49-2)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
11.	Silver, Total (7440-22-4)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
12.	Thallium, Total (7440-28-0)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
13.	Zinc, Total (7440-66-6)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
14.	Cyanide, Total (57-12-5)	☐	☐	Concentration					☐ Yes	☐ No
				Mass						
15.	Phenols, Total	☐	☐	Concentration					☐ Yes	☐ No
				Mass						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See Instructions and 40 CFR 122.21(e)(3).

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TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
☐	Check here if all pollutants listed in Table D are expected to be absent from your facility's discharge.								
☐	Check here if the facility believes it is exempt from Table D reporting requirements because it is a qualified small business. See the instructions for exemption criteria and for a list of materials you must attach to the application.								
Note: If you check either of the above boxes, you do not need to complete Table D for the noted outfall *unless* you have quantitative data available.									
1. Organic Toxic Pollutants (GC/MS Fraction—Volatile Compounds)									
1.1	Acrolein (107-02-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.2	Acrylonitrile (107-13-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.3	Benzene (71-43-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.4	Bromoform (75-25-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.5	Carbon tetrachloride (56-23-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.6	Chlorobenzene (108-90-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.7	Chlorodibromomethane (124-48-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.8	Chloroethane (75-00-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.9	2-chloroethylvinyl ether (110-75-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.10	Chloroform (67-66-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.11	Dichlorobromomethane (75-27-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
1.12	1,1-dichloroethane (75-34-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.13	1,2-dichloroethane (107-06-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.14	1,1-dichloroethylene (75-35-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.15	1,2-dichloropropane (78-87-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.16	1,3-dichloropropylene (542-75-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.17	Ethylbenzene (100-41-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.18	Methyl bromide (74-83-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.19	Methyl chloride (74-87-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.20	Methylene chloride (75-09-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.21	1,1,2,2-tetrachloroethane (79-34-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.22	Tetrachloroethylene (127-18-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.23	Toluene (108-88-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.24	1,2-trans-dichloroethylene (156-60-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
1.25	1,1,1-trichloroethane (71-55-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.26	1,1,2-trichloroethane (79-00-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.27	Trichloroethylene (79-01-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
1.28	Vinyl chloride (75-01-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2. Organic Toxic Pollutants (GC/MS Fraction—Acid Compounds)									
2.1	2-chlorophenol (95-57-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.2	2,4-dichlorophenol (120-83-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.3	2,4-dimethylphenol (105-67-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.4	4,6-dinitro-o-cresol (534-52-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.5	2,4-dinitrophenol (51-28-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.6	2-nitrophenol (88-75-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.7	4-nitrophenol (100-02-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.8	p-chloro-m-cresol (59-50-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.9	Pentachlorophenol (87-86-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
2.10	Phenol (108-95-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
2.11	2,4,6-trichlorophenol (88-05-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3. Organic Toxic Pollutants (GC/MS Fraction—Base /Neutral Compounds)									
3.1	Acenaphthene (83-32-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.2	Acenaphthylene (208-96-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.3	Anthracene (120-12-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.4	Benzidine (92-87-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.5	Benzo (a) anthracene (56-55-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.6	Benzo (a) pyrene (50-32-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.7	3,4-benzofluoranthene (205-99-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.8	Benzo (ghi) perylene (191-24-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.9	Benzo (k) fluoranthene (207-08-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.10	Bis (2-chloroethoxy) methane (111-91-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.11	Bis (2-chloroethyl) ether (111-44-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
3.12	Bis (2-chloroisopropyl) ether (102-80-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.13	Bis (2-ethylhexyl) phthalate (117-81-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.14	4-bromophenyl phenyl ether (101-55-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.15	Butyl benzyl phthalate (85-68-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.16	2-chloronaphthalene (91-58-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.17	4-chlorophenyl phenyl ether (7005-72-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.18	Chrysene (218-01-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.19	Dibenzo (a,h) anthracene (53-70-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.20	1,2-dichlorobenzene (95-50-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.21	1,3-dichlorobenzene (541-73-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.22	1,4-dichlorobenzene (106-46-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.23	3,3-dichlorobenzidine (91-94-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.24	Diethyl phthalate (84-66-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.25	Dimethyl phthalate (131-11-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
3.26	Di-n-butyl phthalate (84-74-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.27	2,4-dinitrotoluene (121-14-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.28	2,6-dinitrotoluene (606-20-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.29	Di-n-octyl phthalate (117-84-0)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.30	1,2-diphenylhydrazine (as azobenzene) (122-66-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.31	Fluoranthene (206-44-0)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.32	Fluorene (86-73-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.33	Hexachlorobenzene (118-74-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.34	Hexachlorobutadiene (87-68-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.35	Hexachlorocyclopentadiene (77-47-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.36	Hexachloroethane (67-72-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.37.	Indeno (1,2,3-cd) pyrene (193-39-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.38	Isophorone (78-59-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.39	Naphthalene (91-20-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
3.40	Nitrobenzene (98-95-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.41	N-nitrosodimethylamine (62-75-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.42	N-nitrosodi-n-propylamine (621-64-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.43	N-nitrosodiphenylamine (86-30-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.44	Phenanthrene (85-01-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.45	Pyrene (129-00-0)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
3.46	1,2,4-trichlorobenzene (120-82-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4. Organic Toxic Pollutants (GC/MS Fraction—Pesticides)									
4.1.	Aldrin (309-00-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.2	α-BHC (319-84-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.3	β-BHC (319-85-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.4	γ-BHC (58-89-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.5	δ-BHC (319-86-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.6	Chlordane (57-74-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
4.7	4,4'-DDT (50-29-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.8	4,4'-DDE (72-55-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.9	4,4'-DDD (72-54-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.10	Dieldrin (60-57-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.11	α-endosulfan (115-29-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.12	β-endosulfan (115-29-7)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.13	Endosulfan sulfate (1031-07-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.14	Endrin (72-20-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.15	Endrin aldehyde (7421-93-4)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))[1]

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
						Effluent			Intake Water
		Believed Present	Believed Absent	Units		Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)
4.16	Heptachlor (76-44-8)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.17	Heptachlor epoxide (1024-57-3)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.18	PCB-1242 (53469-21-9)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.19	PCB-1254 (11097-69-1)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.20	PCB-1221 (11104-28-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.21	PCB-1232 (11141-16-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.22	PCB-1248 (12672-29-6)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.23	PCB-1260 (11096-82-5)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.24	PCB-1016 (12674-11-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					
4.25	Toxaphene (8001-35-2)	☐	☐	Concentration					☐ Yes ☐ No
				Mass					

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))[1]

	Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
☑	Check (✓) here if you believe all pollutants listed to be absent from the discharge. You need not complete Table E for the noted outfall *unless* you have quantitative data available.				
1.	Asbestos	☐	☐		
2.	Acetaldehyde	☐	☐		
3.	Allyl alcohol	☐	☐		
4.	Allyl chloride	☐	☐		
5.	Amyl acetate	☐	☐		
6.	Aniline	☐	☐		
7.	Benzonitrile	☐	☐		
8.	Benzyl chloride	☐	☐		
9.	Butyl acetate	☐	☐		
10.	Butylamine	☐	☐		
11.	Captan	☐	☐		
12.	Carbaryl	☐	☐		
13.	Carbofuran	☐	☐		
14.	Carbon disulfide	☐	☐		
15.	Chlorpyrifos	☐	☐		
16.	Coumaphos	☐	☐		
17.	Cresol	☐	☐		
18.	Crotonaldehyde	☐	☐		

TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))[1]

Pollutant		Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
19.	Cyclohexane	☐	☐		
20.	2,4-D (2,4-dichlorophenoxyacetic acid)	☐	☐		
21.	Diazinon	☐	☐		
22.	Dicamba	☐	☐		
23.	Dichlobenil	☐	☐		
24.	Dichlone	☐	☐		
25.	2,2-dichloropropionic acid	☐	☐		
26.	Dichlorvos	☐	☐		
27.	Diethyl amine	☐	☐		
28.	Dimethyl amine	☐	☐		
29.	Dintrobenzene	☐	☐		
30.	Diquat	☐	☐		
31.	Disulfoton	☐	☐		
32.	Diuron	☐	☐		
33.	Epichlorohydrin	☐	☐		
34.	Ethion	☐	☐		
35.	Ethylene diamine	☐	☐		
36.	Ethylene dibromide	☐	☐		
37.	Formaldehyde	☐	☐		

TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))[1]

Pollutant		Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
38.	Furfural	☐	☐		
39.	Guthion	☐	☐		
40.	Isoprene	☐	☐		
41.	Isopropanolamine	☐	☐		
42.	Kelthane	☐	☐		
43.	Kepone	☐	☐		
44.	Malathion	☐	☐		
45.	Mercaptodimethur	☐	☐		
46.	Methoxychlor	☐	☐		
47.	Methyl mercaptan	☐	☐		
48.	Methyl methacrylate	☐	☐		
49.	Methyl parathion	☐	☐		
50.	Mevinphos	☐	☐		
51.	Mexacarbate	☐	☐		
52.	Monoethyl amine	☐	☐		
53.	Monomethyl amine	☐	☐		
54.	Naled	☐	☐		
55.	Naphthenic acid	☐	☐		
56.	Nitrotoluene	☐	☐		

TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))[1]

	Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
57.	Parathion	☐	☐		
58.	Phenolsulfonate	☐	☐		
59.	Phosgene	☐	☐		
60.	Propargite	☐	☐		
61.	Propylene oxide	☐	☐		
62.	Pyrethrins	☐	☐		
63.	Quinoline	☐	☐		
64.	Resorcinol	☐	☐		
65.	Strontium	☐	☐		
66.	Strychnine	☐	☐		
67.	Styrene	☐	☐		
68.	2,4,5-T (2,4,5-trichlorophenoxyacetic acid)	☐	☐		
69.	TDE (tetrachlorodiphenyl ethane)	☐	☐		
70.	2,4,5-TP [2-(2,4,5-trichlorophenoxy) propanoic acid]	☐	☐		
71.	Trichlorofon	☐	☐		
72.	Triethanolamine	☐	☐		
73.	Triethylamine	☐	☐		
74.	Trimethylamine	☐	☐		
75.	Uranium	☐	☐		

TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))[1]

Pollutant		Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
76.	Vanadium	☐	☐		
77.	Vinyl acetate	☐	☐		
78.	Xylene	☐	☐		
79.	Xylenol	☐	☐		
80.	Zirconium	☐	☐		

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

INTRODUCTION

3 Tees, LLC is requesting a NPDES Permit for a quarry on property located on 3725 Sullivan Gardens Parkway, Kingsport, Tennessee. 3 Tees has an option to purchase these properties and plans to develop a limestone quarry to manufacture stone aggregate for construction. The proposed quarry will be located approximately 1,200 ft from Sullivan Gardens Parkway. Access to the proposed quarry site will be via an existing drive/farm road from Sullivan Gardens Parkway. An existing bridge crosses Horse Creek. These facilities will be upgraded suitable for the proposed use.

SITE LOCATION

3 Tees proposed operation will be an open pit limestone excavation, crushing and screening operation located at 3725 Sullivan Gardens Parkway, Kingsport, Tennessee in Sullivan County.

The site is located in the north west section of the Sullivan Gardens United States Geological Services (U.S.G.S) Sullivan Gardens 7.5' Quadrangle at the geographic coordinates of 36°28'43" North Latitude and 82°34'49" West Longitude. The site is located on the south side of Horse Creek at approximate elevation of 1350 ft. Horse Creek is approximately 1,000 ft. from the proposed quarry at an elevation of 1215 ft. Horse Creek is a first order perennial stream that flows north east to the Holston River.

The following tracts are located in the proposed rezoning:

Tract ID	Owner	Acres	Current Use
59.10	Preston H. Taylor		Drive/Farm Access
59.20	Preston H. Taylor		Agricultural
59.00	Preston H. Taylor	90	Agricultural

A location map is included with the drawings.

SITE DESCRIPTION

The proposed quarry will be located in a gently sloping area at approximately 1325 ft. in elevation approximately 1,000 ft South and 110 ft. above Horse Creek. The terrain between the proposed quarry and Horse Creek is fairly steep. Both eastward and southward the elevation rises to above 1,425 ft. to form a series of small knobs. On the west side the terrain is not as steep and rises to 1,350 ft. A sink hole is located south of the proposed site, between the knobs to the south and the less steep terrain to the west. The sink hole is at 1,290 ft. elevation.

On the north side of Horse Creek and south of Sullivan Gardens Parkway the terrain is nearly level at an elevation of 1220 ft. The elevation of Sullivan Gardens Parkway is 1230 ft. This area is in the FEMA floodway with a flood elevation of 1223. The bottom elevation of Horse Creek in this area is 1215 ft.

Drainage from the proposed quarry site is northward to Horse Creek in swales. This would only occur during periods of heavy rainfall. The site is high and dry with no indications of perennial or even intermittent stream flow that would be considered jurisdictional waters of the United States and regulated by the U. S. Army Corps of Engineers under Section 401 of the Clean Water Act. No wetlands were identified on the property either in the sink hole or along Horse Creek.

Access to the site from Sullivan Gardens Parkway will be via a road traversing southeast. From the parkway to Horse Creek for a distance of 375 ft the road will slope down at approximately 1%. A new bridge will be constructed across Horse Creek. The road will traverse along the swale a distance of 650 ft upward at a grade of 10% to the screening area and the proposed quarry pit.

The proposed quarry pit will be developed from approximately 1300 ft. in elevation to a proposed bottom of 1220 ft in elevation. The pit will be approximately 400 ft wide and 700 ft long. The pit walls will be developed with a slope ratio of 0.25 horizontal to 1 vertical. A 25 ft. wide bench is proposed in the pit walls at vertical intervals of 50 ft. A 25 ft. wide pit road will be developed as the pit progresses with a grade of 10 %.

A fill area to store topsoil and two (2) fill areas to store overburden will be constructed southeast of the pit. The topsoil fill will be approximately 10 ft. deep with a top elevation of 1335 ft. Overburden Fill No. 1 will be 50 ft. deep with a final elevation of 1350 ft. Overburden Fill No. 2 will be 70 ft. deep with a final elevation of 1400 ft. The front face of the fill will be sloped at a ratio of 2 horizontal to 1 vertical.

A proposed site plan at a scale of 1” = 200’ is included with this submittal. Both existing and proposed elevation contours at 5 ft. intervals is shown on the site plan.

LAND USE

The existing land use on and around the proposed quarry include single family residential, agricultural and unmanaged forest lands. The following table is a summary of land use by tract.

LAND USE TABLE			
Tract ID	**Owner**	**Acres**	**Current Use**
59.10	Preston H. Taylor		Drive/Farm Access
59.20	Preston H. Taylor		Agricultural
59.00	Preston H. Taylor	90	Agricultural/Unmanaged Forest
178.02	Horse Creek Farms		Agricultural/Unmanaged Forest
175.00	Joe & Rebecca Riggs		Single Residential
53.10	Billy & Dinah Lawson		Agricultural
54.00	Billy & Dinah Lawson		Agricultural/Single Residential
58.00	Danny & Crystal Edwards		Agricultural/Single Residential
59.50	City of Kingsport		Public Recreational
64.00	Harry Bachman, Jr.		Agricultural/Unmanaged Forest
60.00	Harry Bachman, Jr.		Agricultural/Unmanaged Forest
166.00	Jerry & Gladys Dean		Agricultural/Unmanaged Forest
149.00	Charles & Letitia Williams		Agricultural/Unmanaged Forest
178.1	Jill & Kenneth Rich		Single Residential
55.00	Ruth Blix		Single Residential
57.00	Derek Blix		Single Residential
53.00	Nau & Natalie Tran		Single Residential
52.00	Jeremiah Blair		Single Residential
178.01	Josephine Riggs		Agricultural

HIGHWAY ACCESS

Highway access to the proposed quarry is Tennessee State Route 93. State Route 93 begins at an intersection with US 11E/US 321 in Greeneville, TN. It then heads northeast toward Kingsport, TN. The route intersects State Route 81 just south of Fall Branch and heads more northerly. In Fall Branch, it has an interchange with Interstate 81exit 50 and continues north to Kingsport where it intersects State Route 347 just south of there. In Kingsport, it has an interchange with Interstate 26 and State Route 126 for the first time. This also marks the western terminus of State Route 126. The route heads east as a controlled-access southern bypass of the city passing by Eastman Chemical Company and crossing over the South Fork Holston River and has an interchange with State Route 36. Then, it intersects State Route 126 for a second time at an interchange. State Route 93 then turns back north to an interchange with US 11W and then it meets its northern terminus, at the Tennessee–Virginia State Line in Bloomingdale.

All of State Route 93, from just north of Interstate 81 to US 11W, is included as part of the National Highway System, a system of roadways important to the nation's economy, defense, and mobility. This section is also classified as a principal arterial route.

This highway is named Sullivan Gardens Parkway in the vicinity of the site. The highway is four (4) lanes undivided with a center turning lane. Each lane, including the turn lane is 12 ft. wide. There are paved shoulders on both sides 10 ft. wide.

The average number of vehicles per day on this segment the highway is 4,500, with about 47% north bound and 53% south bound. The average number of vehicles per hour is approximately 250 between the hours of 7 a.m. to 4 p.m., with a peak volume 450 vehicles from 5 to 6 p.m. Site distance to the north is 1,000 ft. or more and site distance to the south is 775 ft.

These road conditions are suitable for the proposed M-2 zoning district. Once re-zoning is approved, 3 Tees shall apply for a commercial entrance to the site from State Route 93 through the Tennessee Department of Transportation. The entrance shall incorporate all geometrics required for the intended use.

OPERATION PLAN

Limestone rock will be mined at this site utilizing the open pit quarry surface mining technique. Drilling and blasting will be utilized to break the rock. Once broken, the raw material will then be trucked or carried to a portable crushing and screening machine. The crusher will reduce the large rock to smaller sizes suitable for sale and screening. The screening will isolate the product by size for sale. Once sized, the material will sold and removed from the area by trucks. The screened-off material will be stored and used to reclaim disturbed areas. The proposed pit will be over 200 feet deep maximum.

Before any disturbance begins, sediment control will be provided. Silt fence may be used initially and on a temporary basis until such time as the sediment control basin is constructed and the pit is developed below grade. The basin will be constructed on the flat on the south side of Horse Creek. More detail is provided in The Drainage and Sediment Control section of this narrative.

The haulroad will be constructed from Sullivan Gardens Parkway to the proposed quarry. It will generally follow the old farm road, only upgraded for the intended use and size of vehicles using the road. The road will be constructed by the cut/fill method, with an average grade of 10%. Ditches provided on the cut side and a safety berm provided on the fill side. The road will be graded at 2% toward the ditch. The road shall be adequately surface for the type of vehicles using it.

Following road construction, the mining area will first be cleared of trees and brush. The trees and brush will be either windrowed along the edge of the clearing to aid in sediment or erosion control, burned in accordance the governing local, state, or federal law or they will be removed from the site.

Following clearing, the available topsoil will be salvaged. This material will be placed in the designated topsoil fill southeast of the proposed pit. After removal of the topsoil, the overburden shall be removed. This consists of clay soil, weathered limestone, and

shale not suitable for sale. This material may be stripped or ripped with a dozer or excavator or blasted if necessary. Two (2) overburden fills east and southeast of the pit will be used for disposal of the overburden. Note that prior to placement of topsoil or overburden, the footprint of the fill shall be cleared and grubbed of all vegetation. Additionally, the topsoil shall be salvaged from the overburden fill areas. Following storage area foundation preparation, spoil or overburden material will be placed in these areas. Dozers, front-end loaders, trucks, etc. will then be used to move the spoil to the storage areas. The spoil material will placed in the fill area by the "end dump" method. No debris or other deleterious material will be placed in these storage areas. The outslope of the storage area will generally equal the angle of repose of the material being placed, however, when this material is placed in the final reclamation grade it will not be allowed to exceed a grade of 2 horizontal to 1 vertical.

The pit development will begin in the nearly level area at elevation 1300 ft and progress eastward. Once the pit has been developed, will be continually expanded and deepened by removal of the material by blasting. No cut slopes at the top of the pit wall will extend any closer than 25 feet of the property line. The pit bottom will be at elevation 1220 ft. and the wall at the highest on the east side of the pit will be at 1425 ft. The slope of the pit wall will be no greater than 2 horizontal to 1 vertical in unconsolidated material and 1 horizontal to 1 vertical in consolidated material and 0.25 horizontal to 1 vertical in solid limestone. A 25 ft. wide bench will be provided int he pit wall at intervals not exceeding 50 ft.

A portable crusher and screens will be set up northwest of the proposed pit. Blasted rock from the quarry will be hauled up the pit road and dumped. The raw material will be loaded directly into the screening/sizing machine for processing. The processing machine is a portable, diesel operated conveyor and dry screening device that can be set-up and various locations on the permit. The processing includes a screening that grades the rock by size. The classified aggregate is transferred from the machine to stockpile areas via small portable conveyors and trucks. The final marketed products produced at this site are transported via trucks. Scales will be set up for weighing the stone sold.

Limestone is not considered hazardous. The mine plans to produce 200,000 tons per year over the next 10 years. The anticipated daily vehicle count is 40, with 60% coming and leaving from north on State Route 93.

SAFETY

The proposed operation shall be conducted in a manner to ensure the safety of all employees, customers, and the general public and nearby resources. Prior to land disturbing activity, a permanent sign shall be installed at the entrance to the site and shall be visible and legible to access road traffic. The name of the company and any required permit numbers shall be on the sign. Additional signs shall also be posted instructing visitors and customers how to check in and proceed onto the site, speed

limit, and personal protective equipment required. Signs shall also be posted regarding blasting. These signs shall outline the signaling system for blasting. Additional signs and barricades will be erected immediately prior to any blasting. The boundary of the mine shall be clearly marked with identifiable markings when mine related land disturbing activities are within 100 feet of the boundary.

All slopes shall be developed in a safe manner in consideration to the type of material and geology. At a minimum the following slopes are proposed:

Unconsolidated material	2H:1V
Fill material	2H:1V
Consolidated material	1H:1V
Solid Shale	1H:1V
Solid Limestone	1H:1V

For walls exceeding 50 ft in height, a bench with a minimum 25 ft width shall be provided.

Roadways shall be provided of sufficient width to accommodate the safe passing of two (2) of the largest vehicles anticipated to use the roads. The roads should not exceed a grade of 10%. A safety berm shall be provided on the outside of the road and shall be at a minimum the axle height of the largest vehicle traveling the road.

Buildings or areas used for storage of flammable or combustible materials shall be of fire resistant material, well ventilated, kept clean and orderly, posted with fire hazard warning signs, and provided with means to confine or contain accidental spills.

Several methods are employed at the site for the control of fugitive dust. These methods are in conjunction with a separate air quality control permit maintained with the Tennessee Department of Environmental. These methods include:

- Paving of entrances
- Washing of entrances
- Periodic resurfacing and grading of roads
- Periodic watering of roads
- Misting water sprays at conveyor transfer and discharge points

The quarry location and design should minimize disturbance and effects to nearby citizens. However, in the event that a compliant is made it will be diligently addressed. In the event the complaint is valid the issue will be promptly corrected.

DRAINAGE AND SEDIMENT CONTROL

The primary sediment control features for this site is the use of a sediment basin and the quarry pit itself. Drainage from disturbed areas below the pit will be directed by

ditches or use of a natural drainage swale to the location where a sediment basin will be constructed. The sediment basins will provide sediment and drainage control for the initial mining area, plant area, and roads. After the pit is developed below grade, it will provide drainage control for upstream of it and the basin will only control drainage for the road and plant area.

The sediment basin along with ditches, culverts, spillways, etc. have been designed for the 10 year frequency, 24 hour duration storm event. Rainfall for this event was obtained from the National Oceanic and Atmospheric Administrations (NOAA) data server. Soil classifications and drainage classes were obtained Natural Resource Conservation Service (NRCS) Soil Surveys. The SedCad 4 computer program was used to determine peak runoff and design the structures. The computer output is included. The following tables are a summary of the structure designs.

SEDIMENT BASIN DATA							
Basin No.	1	NPDES No.	001	TN State Plane Northing	799234	TN State Plane Easting	2973715
GENERAL INFORMATION							
Total Drainage Area (ac)		10.7		Design Flow (cfs)		17.96	
Total Disturbed Area (ac)		1.60		Design Storm Event (yr/hr)		10/24	
Required Basin Volume (ac-ft)		1.37		Provided Basin Volume (ac-ft)			
BASIN GEOMETRY							
	Bottom	Principal Spillway		Basin Volume		Emergency Spillway	Top
Elevation (ft)	1212	NA		1219.45		1220	1224
Area (sq ft)	6534	NA		9605		9845	11761
Principal Spillway (Yes/No)							No
Pipe Diameter (in)	NA	Pipe Length (ft)	NA	Pipe Inlet Elevation (ft)	NA	Pipe Slope (%)	NA
Riser Diameter (in)	NA	Riser Height (ft)	NA	Riser Top Elevation (ft)	NA	Hp (ft)	NA
Emergency Spillway (Yes/No)							Yes
Hp (ft.)	1.12	Bottom Width (ft)	4	Bottom Length (ft)	4	Side Slopes (H:V)	2:1
Flow Velocity (fps)	2.1			Type of Lining		Riprap Dmin: 2.00 in, D50: 3.00 in, Dmax: 4.50 in	
Exit Channel(Yes/No)							Yes
Slope (%)	3	Bottom Width (ft)		4		Side Slopes (H:V)	
Flow Depth (ft.)	0.62	Freeboard (ft)		0.38		Channel Depth (ft)	1.0
Flow Velocity (fps)	4.5	Type of Lining		Riprap Dmin: 2.00 in, D50: 3.00 in, Dmax: 4.50 in			

DIVERSION DITCH/CULVERT DATA						
Ditch ID	1	2	3	4	5	Road Culvert
Type Conveyance	Triangular	Trapezoidal	Triangular	Triangular	Triangular	Round
Design Storm (yr/hr)	10/24	10/24	10/24	10/24	10/24	10/24
Drainage Area (acres)	10.7	10.7	0.5	0.5	3.26	10.7
Disturbed Area (acres)	1.6	1.6	0.5	0.5	0.52	1.6
Design Flow (cfs)	17.96	17.96	1	1	6.54	17.96
Length (ft)	630	63	30	30	450	30
Grade (%)	10	1	1	1	10	1
Bottom (ft.)	NA	2	NA	NA	NA	NA
Side Slopes (H:V)	2:1	2:1	2:1	2:1	2:1	NA
Flow Depth (ft.)	1.17	1.31	0.7	0.7	0.7	3.0
Design Velocity (fps)	6.52	4.4	3.0	3.0	5.7	5.7
Freeboard(ft.)	0.33	0.69	0.3	0.3	0.3	1.0
Design Depth (ft.)	1.5	2.0	1.0	1.0	1.0	4.0
Erosion Protection	Riprap Dmin: 3 in, D50: 6 in, Dmax: 9 in	Mixed Grass	Mixed Grass	Mixed Grass	Riprap Dmin: 3 in, D50: 6 in, Dmax: 9 in	Riprap Dmin: 3 in, D50: 6 in, Dmax: 9 in

3 Tees
Horse Creek Quarry

Pond Design

sem

Stephen E. Maxfield
Professional Engineer
1745 Roman Ridge Road
Honaker, VA 24260

Phone: 276-979-6963
Email: coulwood1214@gmail.com

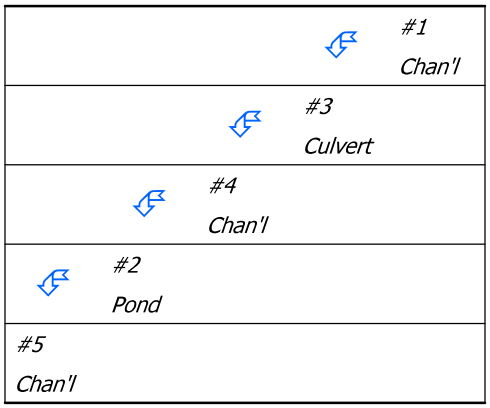
General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	3.580 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Channel	#1	==>	#3	0.000	0.000	Road Ditch
Pond	#2	==>	#5	0.000	0.000	
Culvert	#3	==>	#4	0.000	0.000	Road Culvert
Channel	#4	==>	#2	0.000	0.000	Ditch to Pond
Channel	#5	==>	End	0.000	0.000	Exit Channel



Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1		10.700	10.700	17.96	1.37
#3		0.000	10.700	17.96	1.37
#4		0.000	10.700	17.96	1.37
#2	In	0.000	10.700	17.96	1.37
	Out			14.65	1.37
#5		0.000	10.700	14.65	1.37

Structure Detail:

Structure #1 (Riprap Channel)

Road Ditch

Triangular Riprap Channel Inputs:

Material: Riprap

Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)
2.0:1	2.0:1	10.0	0.30		

Riprap Channel Results:

PADER Method - Steep Slope Design

	w/o Freeboard	w/ Freeboard
Design Discharge:	17.96 cfs	
Depth:	1.17 ft	1.47 ft
Top Width:	4.69 ft	5.89 ft
Velocity:	6.52 fps	
X-Section Area:	2.75 sq ft	
Hydraulic Radius:	0.525 ft	
Froude Number:	1.50	
Manning's n:	0.0470	
Dmin:	3.00 in	
D50:	6.00 in	
Dmax:	9.00 in	

Structure #3 (Culvert)

Road Culvert

Culvert Inputs:

Length (ft)	Slope (%)	Manning's n	Max. Headwater (ft)	Tailwater (ft)	Entrance Loss Coef. (Ke)
20.00	3.00	0.0150	3.00	0.00	0.90

Culvert Results:

Design Discharge = 17.96 cfs

Minimum pipe diameter: 1 - 24 inch pipe(s) required

Structure #4 (Vegetated Channel)

Ditch to Pond

Trapezoidal Vegetated Channel Inputs:

Material: Grass mixture

Bottom Width (ft)	Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Retardance Classes	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)	Limiting Velocity (fps)
2.00	2.0:1	2.0:1	1.0	D, B	0.30			5.0

Vegetated Channel Results:

	Stability Class D w/o Freeboard	Stability Class D w/ Freeboard	Capacity Class B w/o Freeboard	Capacity Class B w/ Freeboard
Design Discharge:	17.96 cfs		17.96 cfs	
Depth:	1.36 ft	1.66 ft	2.11 ft	2.41 ft
Top Width:	7.44 ft	8.64 ft	10.44 ft	11.64 ft
Velocity:	2.79 fps		1.37 fps	
X-Section Area:	6.43 sq ft		13.11 sq ft	
Hydraulic Radius:	0.795 ft		1.147 ft	
Froude Number:	0.53		0.22	
Roughness Coefficient:	0.0457		0.1192	

Structure #2 (Pond)

Pond Inputs:

Initial Pool Elev:	1,220.00 ft
Initial Pool:	1.49 ac-ft

Broad-crested Weir

Weir Width (ft)	Spillway Elev (ft)
4.00	1,220.00

Pond Results:

Peak Elevation:	1,221.12 ft
Dewater Time:	0.62 days

Dewatering time is calculated from peak stage to lowest spillway

Elevation-Capacity-Discharge Table

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
1,212.00	0.150	0.000	0.000	
1,212.10	0.151	0.015	0.000	
1,212.20	0.152	0.030	0.000	
1,212.30	0.153	0.045	0.000	
1,212.40	0.153	0.061	0.000	
1,212.50	0.154	0.076	0.000	
1,212.60	0.155	0.092	0.000	
1,212.70	0.156	0.107	0.000	
1,212.80	0.157	0.123	0.000	
1,212.90	0.158	0.138	0.000	
1,213.00	0.159	0.154	0.000	
1,213.10	0.160	0.170	0.000	
1,213.20	0.160	0.186	0.000	
1,213.30	0.161	0.202	0.000	
1,213.40	0.162	0.218	0.000	
1,213.50	0.163	0.235	0.000	
1,213.60	0.164	0.251	0.000	
1,213.70	0.165	0.268	0.000	
1,213.80	0.166	0.284	0.000	
1,213.90	0.167	0.301	0.000	
1,214.00	0.168	0.317	0.000	
1,214.10	0.168	0.334	0.000	
1,214.20	0.169	0.351	0.000	
1,214.30	0.170	0.368	0.000	
1,214.40	0.171	0.385	0.000	
1,214.50	0.172	0.402	0.000	
1,214.60	0.173	0.420	0.000	
1,214.70	0.174	0.437	0.000	
1,214.80	0.175	0.454	0.000	
1,214.90	0.176	0.472	0.000	
1,215.00	0.177	0.490	0.000	
1,215.10	0.178	0.507	0.000	
1,215.20	0.179	0.525	0.000	
1,215.30	0.180	0.543	0.000	
1,215.40	0.180	0.561	0.000	
1,215.50	0.181	0.579	0.000	
1,215.60	0.182	0.597	0.000	
1,215.70	0.183	0.616	0.000	
1,215.80	0.184	0.634	0.000	
1,215.90	0.185	0.652	0.000	
1,216.00	0.186	0.671	0.000	
1,216.10	0.187	0.690	0.000	
1,216.20	0.188	0.708	0.000	

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)	
1,216.30	0.189	0.727	0.000		
1,216.40	0.190	0.746	0.000		
1,216.50	0.191	0.765	0.000		
1,216.60	0.192	0.784	0.000		
1,216.70	0.193	0.804	0.000		
1,216.80	0.194	0.823	0.000		
1,216.90	0.195	0.842	0.000		
1,217.00	0.196	0.862	0.000		
1,217.10	0.197	0.881	0.000		
1,217.20	0.198	0.901	0.000		
1,217.30	0.199	0.921	0.000		
1,217.40	0.200	0.941	0.000		
1,217.50	0.201	0.961	0.000		
1,217.60	0.202	0.981	0.000		
1,217.70	0.203	1.001	0.000		
1,217.80	0.204	1.022	0.000		
1,217.90	0.205	1.042	0.000		
1,218.00	0.206	1.062	0.000		
1,218.10	0.207	1.083	0.000		
1,218.20	0.208	1.104	0.000		
1,218.30	0.209	1.125	0.000		
1,218.40	0.210	1.146	0.000		
1,218.50	0.211	1.167	0.000		
1,218.60	0.212	1.188	0.000		
1,218.70	0.213	1.209	0.000		
1,218.80	0.214	1.230	0.000		
1,218.90	0.215	1.252	0.000		
1,219.00	0.216	1.273	0.000		
1,219.10	0.217	1.295	0.000		
1,219.20	0.218	1.317	0.000		
1,219.30	0.219	1.338	0.000		
1,219.40	0.220	1.360	0.000		
1,219.50	0.221	1.382	0.000		
1,219.60	0.222	1.404	0.000		
1,219.70	0.223	1.427	0.000		
1,219.80	0.224	1.449	0.000		
1,219.90	0.225	1.472	0.000		
1,220.00	0.226	1.494	0.000		Spillway #1
1,220.10	0.227	1.517	0.390	6.80	
1,220.20	0.228	1.539	1.104	5.95	
1,220.30	0.229	1.562	2.029	1.15	
1,220.40	0.230	1.585	3.124	0.40	
1,220.50	0.231	1.608	4.366	0.15	

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)	
1,220.60	0.232	1.632	5.738	0.20	
1,220.70	0.234	1.655	7.231	0.10	
1,220.80	0.235	1.678	8.836	0.05	
1,220.90	0.236	1.702	10.543	0.05	
1,221.00	0.237	1.725	12.348	0.05	
1,221.10	0.238	1.749	14.245		
1,221.12	0.238	1.754	14.647	0.05	Peak Stage
1,221.20	0.239	1.773	16.231		
1,221.30	0.240	1.797	18.304		
1,221.40	0.241	1.821	20.455		
1,221.50	0.242	1.845	22.685		
1,221.60	0.243	1.869	24.990		
1,221.70	0.244	1.894	27.369		
1,221.80	0.245	1.918	29.821		
1,221.90	0.246	1.943	32.340		
1,222.00	0.248	1.968	34.925		
1,222.10	0.249	1.992	37.577		
1,222.20	0.250	2.017	40.292		
1,222.30	0.251	2.042	43.073		
1,222.40	0.252	2.067	45.911		
1,222.50	0.253	2.093	48.810		
1,222.60	0.254	2.118	51.767		
1,222.70	0.255	2.144	54.781		
1,222.80	0.256	2.169	57.856		
1,222.90	0.258	2.195	60.982		
1,223.00	0.259	2.221	64.162		
1,223.10	0.260	2.247	67.396		
1,223.20	0.261	2.273	70.682		
1,223.30	0.262	2.299	74.025		
1,223.40	0.263	2.325	77.414		
1,223.50	0.264	2.351	80.853		
1,223.60	0.265	2.378	84.342		
1,223.70	0.267	2.404	87.880		
1,223.80	0.268	2.431	91.470		
1,223.90	0.269	2.458	95.104		
1,224.00	0.270	2.485	98.784		

Detailed Discharge Table

Elevation (ft)	Broad-crested Weir (cfs)	Combined Total Discharge (cfs)
1,212.00	0.000	0.000
1,212.10	0.000	0.000
1,212.20	0.000	0.000
1,212.30	0.000	0.000
1,212.40	0.000	0.000
1,212.50	0.000	0.000
1,212.60	0.000	0.000
1,212.70	0.000	0.000
1,212.80	0.000	0.000
1,212.90	0.000	0.000
1,213.00	0.000	0.000
1,213.10	0.000	0.000
1,213.20	0.000	0.000
1,213.30	0.000	0.000
1,213.40	0.000	0.000
1,213.50	0.000	0.000
1,213.60	0.000	0.000
1,213.70	0.000	0.000
1,213.80	0.000	0.000
1,213.90	0.000	0.000
1,214.00	0.000	0.000
1,214.10	0.000	0.000
1,214.20	0.000	0.000
1,214.30	0.000	0.000
1,214.40	0.000	0.000
1,214.50	0.000	0.000
1,214.60	0.000	0.000
1,214.70	0.000	0.000
1,214.80	0.000	0.000
1,214.90	0.000	0.000
1,215.00	0.000	0.000
1,215.10	0.000	0.000
1,215.20	0.000	0.000
1,215.30	0.000	0.000
1,215.40	0.000	0.000
1,215.50	0.000	0.000
1,215.60	0.000	0.000
1,215.70	0.000	0.000
1,215.80	0.000	0.000
1,215.90	0.000	0.000
1,216.00	0.000	0.000

Elevation (ft)	Broad-crested Weir (cfs)	Combined Total Discharge (cfs)
1,216.10	0.000	0.000
1,216.20	0.000	0.000
1,216.30	0.000	0.000
1,216.40	0.000	0.000
1,216.50	0.000	0.000
1,216.60	0.000	0.000
1,216.70	0.000	0.000
1,216.80	0.000	0.000
1,216.90	0.000	0.000
1,217.00	0.000	0.000
1,217.10	0.000	0.000
1,217.20	0.000	0.000
1,217.30	0.000	0.000
1,217.40	0.000	0.000
1,217.50	0.000	0.000
1,217.60	0.000	0.000
1,217.70	0.000	0.000
1,217.80	0.000	0.000
1,217.90	0.000	0.000
1,218.00	0.000	0.000
1,218.10	0.000	0.000
1,218.20	0.000	0.000
1,218.30	0.000	0.000
1,218.40	0.000	0.000
1,218.50	0.000	0.000
1,218.60	0.000	0.000
1,218.70	0.000	0.000
1,218.80	0.000	0.000
1,218.90	0.000	0.000
1,219.00	0.000	0.000
1,219.10	0.000	0.000
1,219.20	0.000	0.000
1,219.30	0.000	0.000
1,219.40	0.000	0.000
1,219.50	0.000	0.000
1,219.60	0.000	0.000
1,219.70	0.000	0.000
1,219.80	0.000	0.000
1,219.90	0.000	0.000
1,220.00	0.000	0.000
1,220.10	0.390	0.390

Elevation (ft)	Broad-crested Weir (cfs)	Combined Total Discharge (cfs)
1,220.20	1.104	1.104
1,220.30	2.029	2.029
1,220.40	3.124	3.124
1,220.50	4.366	4.366
1,220.60	5.738	5.738
1,220.70	7.231	7.231
1,220.80	8.836	8.836
1,220.90	10.543	10.543
1,221.00	12.348	12.348
1,221.10	14.245	14.245
1,221.20	16.231	16.231
1,221.30	18.304	18.304
1,221.40	20.455	20.455
1,221.50	22.685	22.685
1,221.60	24.990	24.990
1,221.70	27.369	27.369
1,221.80	29.821	29.821
1,221.90	32.340	32.340
1,222.00	34.925	34.925
1,222.10	37.577	37.577
1,222.20	40.292	40.292
1,222.30	43.073	43.073
1,222.40	45.911	45.911
1,222.50	48.810	48.810
1,222.60	51.767	51.767
1,222.70	54.781	54.781
1,222.80	57.856	57.856
1,222.90	60.982	60.982
1,223.00	64.162	64.162
1,223.10	67.396	67.396
1,223.20	70.682	70.682
1,223.30	74.025	74.025
1,223.40	77.414	77.414
1,223.50	80.853	80.853
1,223.60	84.342	84.342
1,223.70	87.880	87.880
1,223.80	91.470	91.470
1,223.90	95.104	95.104
1,224.00	98.784	98.784

Structure #5 (Riprap Channel)

Exit Channel

Trapezoidal Riprap Channel Inputs:

Material: Riprap

Bottom Width (ft)	Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)
4.00	2.0:1	2.0:1	1.0	0.38		

Riprap Channel Results:

PADER Method - Mild Slope Design

	w/o Freeboard	w/ Freeboard
Design Discharge:	14.65 cfs	
Depth:	0.80 ft	1.18 ft
Top Width:	7.19 ft	8.71 ft
Velocity:	3.28 fps	
X-Section Area:	4.47 sq ft	
Hydraulic Radius:	0.590 ft	
Froude Number:	0.73	
Manning's n:	0.0320	
Dmin:	1.00 in	
D50:	1.50 in	
Dmax:	3.00 in	

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	1.600	0.047	0.000	0.000	82.000	M	3.11	0.246
	2	9.100	0.025	0.000	0.000	77.000	M	14.85	1.129
	Σ	**10.700**						**17.96**	**1.375**
#3	Σ	**10.700**						**17.96**	**1.375**
#4	Σ	**10.700**						**17.96**	**1.375**
#2	Σ	**10.700**						**17.96**	**1.375**
#5	Σ	**10.700**						**14.65**	**1.375**

Subwatershed Time of Concentration Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	7. Paved area and small upland gullies	3.00	6.00	200.00	3.480	0.015
		8. Large gullies, diversions, and low flowing streams	10.00	68.19	681.90	9.480	0.019
		6. Grassed waterway	3.00	3.75	125.00	2.590	0.013
#1	**1**	**Time of Concentration:**					**0.047**
#1	2	1. Forest with heavy ground litter	40.00	50.00	125.00	1.600	0.021
		7. Paved area and small upland gullies	36.84	70.00	190.00	12.210	0.004
#1	**2**	**Time of Concentration:**					**0.025**

HIORSE CREEK QUARRY

DITCH 5

sem

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General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	3.580 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Channel	#1	==>	End	0.000	0.000	DITCH 5

Structure Summary:

	Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1	3.260	3.260	6.54	0.53

Structure Detail:

Structure #1 (Riprap Channel)

DITCH 5

Triangular Riprap Channel Inputs:

Material: Riprap

Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)
2.0:1	2.0:1	10.0	0.30		

Riprap Channel Results:

PADER Method - Steep Slope Design

	w/o Freeboard	w/ Freeboard
Design Discharge:	6.54 cfs	
Depth:	0.76 ft	1.06 ft
Top Width:	3.03 ft	4.23 ft
Velocity:	5.72 fps	
X-Section Area:	1.14 sq ft	
Hydraulic Radius:	0.338 ft	
Froude Number:	1.64	
Manning's n:	0.0400	
Dmin:	2.00 in	
D50:	3.00 in	
Dmax:	4.50 in	

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	2.740	0.050	0.000	0.000	82.000	5.32	0.422	
	2	0.520	0.017	0.000	0.000	89.000	1.23	0.104	
	Σ	**3.260**						**6.54**	**0.526**

Subwatershed Time of Concentration Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	1. Forest with heavy ground litter	30.00	60.00	200.00	1.380	0.040
		7. Paved area and small upland gullies	30.00	60.00	200.00	11.020	0.005
		8. Large gullies, diversions, and low flowing streams	10.00	20.00	200.00	9.480	0.005
#1	**1**	**Time of Concentration:**					**0.050**
#1	2	8. Large gullies, diversions, and low flowing streams	10.00	60.00	600.00	9.480	0.017
#1	**2**	**Time of Concentration:**					**0.017**

RECLAMATION

The final reclamation of this site will return this area to a post-mining land use of unmanaged forest land for wildlife. This will be in compliment to the natural surrounding terrain and the pre-mining land use. In as far as practical, reclamation will occur simultaneously with mining. However, due to the mine site size and method of mining, final reclamation of all pit areas may not be possible until the completion of mining. However, once mining is declared complete, reclamation shall commence with 12 months.

All fill area slopes will be graded to not exceed a 2 horizontal to 1 vertical slope. Topsoil from the storage area will be used to cover fill areas and other hard surfaces to propagate vegetation. The exposed walls will be enclosed with a woven wire fence 5 feet high with two (2) strands of barbed wire above (making the total height 6 feet) to prevent encroachment. In addition to the fence, danger signs will be strategically placed to warn of the hazardous exposed high wall.

After the completion of mining all buildings, plant structures, mining equipment, scrap metal, debris, etc. will be removed from the site. These areas and internal roads will be scarified and prepared for seeding. The stockpiles will be removed or graded to contour with the natural surroundings. The overburden will be graded to 2h: 1v and in high walls left exposed will be fenced. Topsoil will be redistributed and the area prepared for re-vegetation.

Seeding of all disturbed areas will occur within thirty (30) days of final re-grading. Soil tests will be taken when the re-grading process is nearly completed to determine specific nutrient requirements. Testing for pH, phosphorous, potassium, and textural class will be performed. The results of these tests will be used to determine proper soil additives. During seeding one thousand five hundred (1,500) pounds per acre of cellulose or wood fiber mulch or two thousand (2,000) pounds per acre of straw mulch will be used. The following table will be utilized to achieve the re-vegetation plan:

PLAN	TYPE	RATE /ACRE
Permanent Grass	KY 31 Fescue and Orchard Grass	30 lbs. And 20 lbs.
Legumes	White or Ladino Clover and Red Clover	2 lbs. And 4 lbs.
Temporary Mixture	Annual Rye and Foxtail Millet	20 lbs. And 10 lbs.
Mulch or Straw	Wood Fiber or Rye	1500 lbs. Or 2000 lbs.
Fertilizer	16-24-14 or 10-20-10	300 lbs. Or 500 lbs.
Lime	Agricultural	As required by soil testing during final regrade

A balance of tree cover is planned to establish proper ground cover, erosion control, valuable timber products, and wildlife habitat. Two categories of tree species will be utilized to achieve the post mining land use. These are the crop trees and the nitrogen fixing nurse trees or shrubs. The crop trees are long-lived species that offer value to the

landowners. The nurse trees and shrubs are nitrogen-fixing plants that benefit the tree crop and provide food and cover for wildlife.

Crop Trees	Pines - Pitch X Loblolly Pine Hybrid, White Pine, Virginia Pine. Hardwoods - Yellow Poplar, Oaks, White Ash, Sycamore, Red Maple, Black Cherry
Nurse Trees or Shrubs	Black Locust (not used with White Pine), European Black Alder (used w/ White Pine), Bicolor Lespedeza, Indigo Bush, Bristly Locust

A mixture of the above trees will be planted with to establish a minimum of 400 trees per acre, after two growing seasons. A spot application of herbicide may be required if ground cover growth is especially vigorous. This will reduce competition and allow trees to become established.

After vegetation is established, the sediment basin may be removed. Since the basin is an excavated basin, it will simply be filled in until the impounding capacity has been eliminated. A "swale" will be created through the basin area and to the spillway for post mining/reclamation drainage. The fill will be obtained from around the pond area. Any areas disturbed during removal of the basins will be seeded with a permanent seed mixture.

Any areas of the site that remain inactive for twelve (12) months will be seeded with a temporary seed mixture and any areas of the permit that remain inactive for twenty-four (24) months will be final graded and seeded with a permanent seed mixture.

GROUNDWATER ASSESSMENT

Groundwater flow will originate as precipitation and surface water flow. The surface flow gradient is governed by topography. Surface flow atop ridges will begin migration to the lower valleys. As the flow migrates to the valley, stress relief fractures within the valley wall will begin to intercept the surface flow and transmit it into the groundwater system. Limestone is defined as karst terrain which has been eroded by dissolution to produce fissures and sinkholes has the capability to transmit groundwater, while shale tends to be more impervious. Therefore, groundwater water encountering the limestone may be retained in this strata especially when the strata is underlain by the more impervious shale or unweathered strata. Groundwater movement encountering shale may tend to follow the bedding plane or dip. This may result in groundwater discharge as a spring or seep. Fracturing within the valley floor has been found to be more intense and extend to greater depths than the valley walls. Groundwater movement within the valley floor fracture system will typically follow the stream gradient through the connected fractures.

Groundwater flow through the fracture flow system is typically characterized as rapid recharge, but low yielding. Groundwater quality is typically a function of contact time

between the strata and the water. Therefore, the quality of the groundwater along the slope is typically better than the valley floors or water found in aquifers of porous strata.

Typically a second groundwater system exists within the low gradient stream channels. This system consists of groundwater flow through the alluvial deposits within the valley floor. Typical alluvial deposits consist primarily of sand and silt with lesser amounts of clay and gravel. The physical characteristics allow these deposits to function as aquifers that store and transport ground water. Alluvial aquifers serve to capture a portion of water from precipitation events that would otherwise leave the area as surface runoff. Water stored in these alluvial aquifers contributes recharge to underlying valley floor fracture aquifer system and may supply recharge to streams, thereby sustaining base flows. Alluvial aquifers generally require a thickness in excess of 10 meters to supply sufficient water for the support of domestic wells. These groundwater systems are believed to exist along Horse Creek.

Drilling in the proposed quarry area did not identify any groundwater. No significant groundwater is anticipated unless a perched system would be encountered due to underlying shale or clays. If ground water is found to be present, it shall be directed to a sump in the pit. If necessary it will filtered prior to discharge into the stream or groundwater system. If these measures are implemented, no negative effects are expected to the surface water or groundwater system.

ENVIRONMENTAL ASSESSMENT

This operation will minimize adverse impacts to the environment. Potential pollutants generated at the site include dust and erosion/sediment. Additionally, oil and petroleum products may be stored on site for use in the mining equipment.

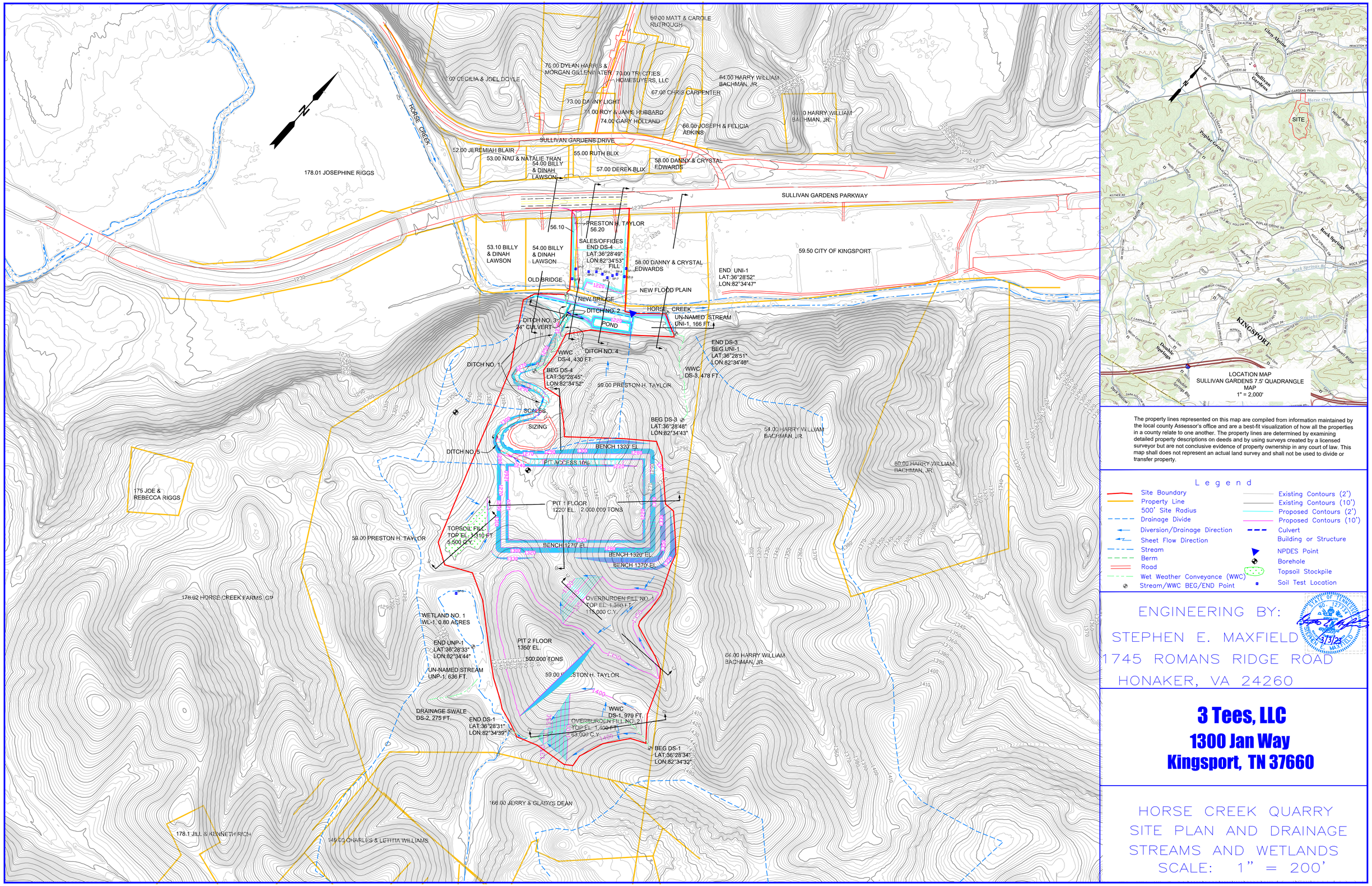
Measures have been outlined in the Operation Plan to control dust. An Air Quality Permit will be obtained from the Tennessee Department of Environment prior to beginning mining.

Additionally, measures have been outlined to control contribution of sediment to the streams. The Drainage and Sediment Control Plan above delineates the control measures. A National Pollution Discharge Elimination System (NPDES) will be obtained for the site.

All chemicals and petroleum products used at the site will be properly handled, to ensure the groundwater supply or stream is not contaminated. A supply of spill containment supplies such as absorbent pads and oil dry will be maintained on site it the unlikely event of a spill. Per 40 CFR 112 if any one tank on site is larger than 660 gallons, or the total storage is greater than or equal to 1,320 gallons, a Spill Prevention

Control Countermeasures (SPCC) plan as required by the Environmental Protection Agency (EPA) will be implemented.

The site will not impact any jurisdictional waters of the United States or waters of the State of Tennessee. A thorough field investigation of the site was conducted and there were no indicators of streams or wetlands on this site other than Horse Creek. No impacts to Horse Creek are proposed. A new bridge will be constructed; however, it will be located outside of and beyond the defined Ordinary High Water Mark (OHWM) precluding any authorization from the U. S. Army Corps of Engineers.



LOCATION MAP
SULLIVAN GARDENS 7.5' QUADRANGLE MAP
1" = 2,000'

The property lines represented on this map are compiled from information maintained by the local county Assessor's office and are a best-fit visualization of how all the properties in a county relate to one another. The property lines are determined by examining detailed property descriptions on deeds and by using surveys created by a licensed surveyor but are not conclusive evidence of property ownership in any court of law. This map shall does not represent an actual land survey and shall not be used to divide or transfer property.

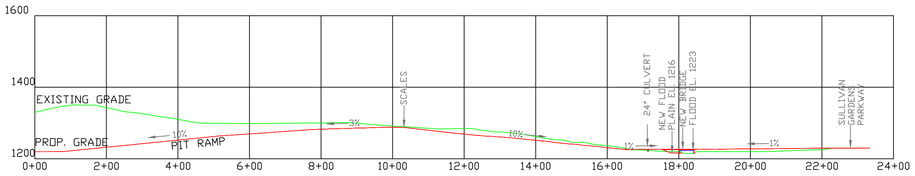
Legend

- Site Boundary
- Property Line
- 500' Site Radius
- Drainage Divide
- Diversion/Drainage Direction
- Sheet Flow Direction
- Stream
- Berm
- Road
- Wet Weather Conveyance (WWC)
- Stream/WWC BEG/END Point
- Existing Contours (2')
- Existing Contours (10')
- Proposed Contours (2')
- Proposed Contours (10')
- Culvert
- Building or Structure
- NPDES Point
- Borehole
- Topsoil Stockpile
- Soil Test Location

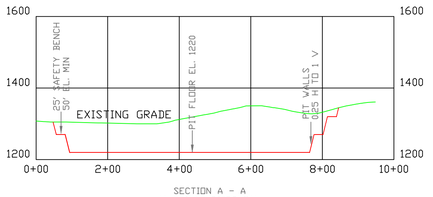
ENGINEERING BY:
STEPHEN E. MAXFIELD
1745 ROMANS RIDGE ROAD
HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

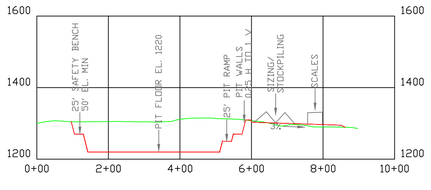
HORSE CREEK QUARRY
SITE PLAN AND DRAINAGE
STREAMS AND WETLANDS
SCALE: 1" = 200'



ROAD PROFILE
1" = 200 HORIZONTAL
1" = 200' VERTICAL



SECTION A - A
1" = 200 HORIZONTAL
1" = 200' VERTICAL



SECTION B - B
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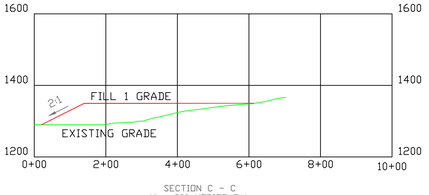
1" = 200' VERTICAL



SECTION C - C
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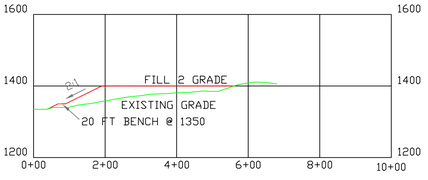
1" = 200' VERTICAL



SECTION D - D
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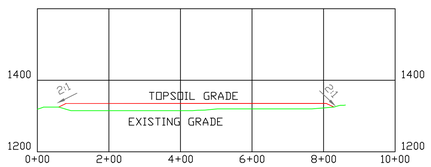
1" = 200' VERTICAL



SECTION E - E
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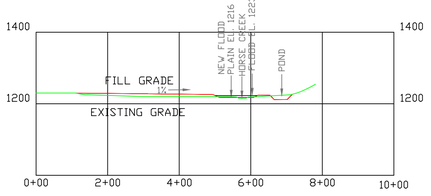
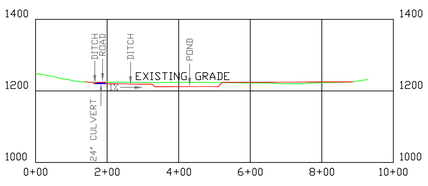
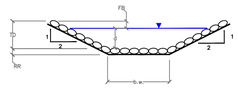
1" = 200' VERTICAL



SECTION F - F
1" = 200 HORIZONTAL
1" = 200' VERTICAL



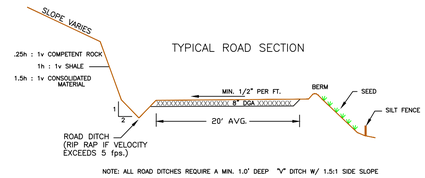
SECTION G - G
1" = 200 HORIZONTAL
1" = 200' VERTICAL



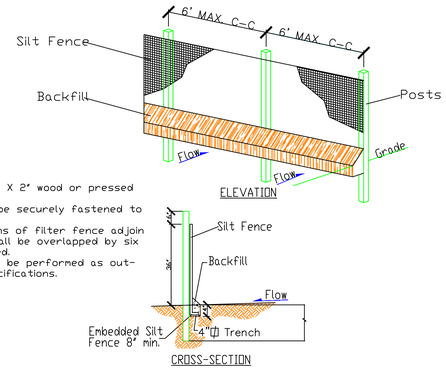
TYPICAL CHANNEL SECTION
n.t.s.

Ditch / Channel Data						
I.D.	bw (ft.)	S (%)	d (ft.)	FB (ft.)	TD (ft.)	V (fps)	RR (d_{50} in)
Haulroad Ditch No. 1	0.0	10	1.17	0.33	1.5	6.5	6
Haulroad Ditch No. 2	2.0	1	2.11	0.49	2.5	2.8	N/A - grass
Haulroad Ditch No. 3	0.0	1	0.70	0.30	1.0	3.0	N/A - grass
Haulroad Ditch No. 4	0.0	1	0.70	0.30	1.0	3.0	N/A - grass
Haulroad Ditch No. 5	0.0	10	0.70	0.30	1.0	7.2	6
Pond Emergency Spillway	4.0	0	1.12	2.89	4.0	5.3	3
Pond Exit Channel	4.0	1	0.48	0.52	1.0	3.3	3

NOTE: NO RIPRAP REQ'D IF DITCH IS IN SOLID ROCK



NOTE: ALL ROAD DITCHES REQUIRE A MIN. 1.0' DEEP "V" DITCH W/ 1.5:1 SIDE SLOPE



NOTES:
1. Posts shall be 2" X 2" wood or pressed steel.
2. Silt fence shall be securely fastened to posts.
3. When two sections of filter fence adjoin each section shall be overlapped by six inches and folded.
4. Maintenance shall be performed as outlined in the specifications.

Temporary Sediment Control
Typical Silt Fence

ENGINEERING BY:
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HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
SECTIONS AND DETAILS
SCALE: 1" = 200'

3 Tees, LLC
1300 Jan Way
Kingsport, Tennessee

Horse Creek Quarry

Stream and Wetland Delineation (Addendum)

November 16, 2023
(Addendum March 4, 2024)

PREPARED BY:

STEPHEN E. MAXFIELD, P. E.
PROFESSIONAL ENGINEER
P.O. BOX 1745
HONAKER, VIRGINIA 24260
PHONE: (276) 979-6963

3 Tees, LLC
Proposed Horse Creek Limestone Quarry
Horse Creek, Sullivan County, Tennessee
Stream and Wetland Delineation Addendum

TABLE OF CONTENTS

CORRESPONDENCE
- Engineer - TDEC

NARRATIVE
- Introduction
- Methods
- Results
- References

WETLAND DETERMINATION DATA FORMS
- SP 1, SP 2, SP 3, SP 4, SP 5, SP 6, SP 7, SP 8, SP 9, and SP 10

SITE PHOTOGRAPHS

MAPS
- HORSE CREEK DELINEATION MAP

Stephen E. Maxfield, P. E.
1745 Roman Ridge Road
Honaker, VA 24260
Phone: (276) 979-6963
Email: Coulwood1214@gmail.com

March 3, 2024

Dan Murray
Bonnie Craighead
Dainiel Lawrence
Tina Robinson
Tennessee Department of Environment and Conservation
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

Subject: 3 Tees Hydrologic Determination

Ladies and Gentlemen:

As a follow up to your concurrence visit on January 29, 2024, please find attached an addendum to previous Stream and Wetland Delineation Report dated November 16, 2023. This addendum specifically address tract 56.20 lying between Sullivan Gardens Parkway and Horse Creek.

Should you have any additional questions or concerns, please contact me.

Sincerely,

Stephen E. Maxfield, P. E.

INTRODUCTION

This report is an addendum to the previous report compiled for 3 Tees, LLC proposed Horse Creek Limestone Quarry in Sullivan County, at 3725 Sullivan Gardens Parkway, Kingsport, Tennessee, dated November 16, 2023. This report will only evaluate the Preston H. Taylor property identified as tract 56.20. For a complete delineation of the entire boundary proposed, reference is hereby made to the original report.

In the original report and previous field evaluations of the property the grass growing on tract 56.20 was being harvested for hay. Other than the obvious wetlands just northeast of the property, there were no apparent indications of a wetland on this property. However, during the Tennessee Department of Environment and Conservation evaluation of the original report and permit applications, concerns over this property were raised. Therefore, this addendum to the original report was prepared using detail methods in accordance with the U. S. Army Corps of Engineers 1987 Wetland Delineation Manual Eastern Mountains and Piedmont Regional Supplement.

METHODS

Wetlands

Prior to fieldwork, the site was subjected to a preliminary remote assessment using U.S.G.S. resources. These include the Sullivan Gardens, 7.5' Quadrangle topographic map, U.S.G.S. National Wetlands database and mapping, digital orthophotography. Soils were assessed using the USDA Soil Survey.

Remote assessment did not indicate any wetlands on the 52.20 tract.

The wetland field work followed the Routine On-Site Determination methodology for areas equal to or less than 5 acres in size described in the U. S. Army Corps of Engineers Wetlands Delineation Manual (U.S. Army Corps of Engineers Waterways Experiment Station, 1987) and the Eastern Mountains and Piedmont Regional Supplement. Ten (10) sample points were evaluated for vegetation, hydrology, and soils and the data obtained for each point was compiled on the Wetland Determination Data Sheet. The data points were located in the 1983 Tennessee State Plane coordinate system and shown on the delineation map.

Plant species dominance was determined based on the percent aerial or basal coverage within a representative plot utilizing the "50/20" rule. Taxonomy was based on the U.S.G.S. List of Wetland Flora. Indicator status of plant species was taken from the National List of Plant Species That Occur in Wetlands: 1988 Region 3.

Soils profiles were characterized by pulling a soil sample with a 1 inch diameter tubular sampler at a minimum depth of 18 inches (or refusal) and utilizing Munsell Soil Color Charts and standard soil texturing methodology.

Wetland hydrology criteria were assessed by evaluating the geology and hydrologic regimes in the setting, visual observations, and soil samples obtained.

RESULTS

The results indicated presence of dominant FACW vegetation at all sample points. Three of the sample points had standing surface water 4 inches deep. It should be noted that this site investigation following a period of extended heavy rainfall and these areas were about 4 inches in elevation lower than surrounding areas. However, none of the soil samples found the presence of hydric soils. Based upon the absence of hydric soils a negative determination of wetlands was made for this area.

REFERENCES

Cowardin, Lewis, etal. Classification of Wetlands and Deepwater Habitats of the United States. U. S. Department of the Interior, Washington, D. C.

Mitsch, William J., Wetlands. 2007 John Wiley and Sons, Inc., Hoboken, New Jersey.

Munsell Color. 1998. Munsell soil color charts. 1998 revised washable edition. GregtagMacbeth. New Windsor, New York.

Reed, P.B. 1988. National list of plant species that occur in wetlands: Region III.

Seelinger, Marc. USACE Wetland Delineation with Regional Supplements. 2006 The Swamp School, Angier, NC.

U.S. Army Corps of Engineers. 1987. Corps of Engineers wetlands delineation manual. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

U.S. Department of Agriculture, Natural Resource Conservation Service. 2006. Soil survey geographic database for Sullivan County, Tennessee. http://nrcs.usda.gov

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-1

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 34" Long: 82 deg 34' 47" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X			

Remarks:
Sample point is located 60 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ 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 Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 3000 sqft)			
1. *Lysimachia nummularia*	20	Yes	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	90 (A)		320 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 3/4	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-2

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 50" Long: 82 deg 34' 54" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point is located 110 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-2

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 2300 sqft)			
1. *Lysimachia nummularia*	30	Yes	FACW
2. *Panicum virgatum*	60	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	90 (A)		300 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 5/4	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-3

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 51" Long: 82 deg 34' 53" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point is located 100 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-3

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 2300 sqft)			
1. *Lysimachia nummularia*	20	Yes	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	90 (A)		320 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	7.5YR 4/4	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-4

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 51" Long: 82 deg 34' 53" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X			

Remarks:
Sample point is located 110 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- X Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-4

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 2300 sqft)			
1. *Lysimachia nummularia*	20	Yes	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	90 (A)		320 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	7.5YR 4/4	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-5

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 51" Long: 82 deg 34' 52" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Sample point is located 120 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X 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 Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 4
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-3

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 2300 sqft)			
1. *Lysimachia nummularia*	20	Yes	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	90 (A)		320 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 4/4	25						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-6

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 51" Long: 82 deg 34' 52" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point is located 110 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-6

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 2300 sqft)			
1. *Lysimachia nummularia*	20	Yes	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	90 (A)		320 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 5/4	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-7

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 51" Long: 82 deg 34' 52" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Sample point is located 120 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X 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 Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 4
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-7

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 2300 sqft)			
1. *Lysimachia nummularia*	20	Yes	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	90 (A)		320 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 4/4	25						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-8

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 51" Long: 82 deg 34' 51" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point is located 140 ft. from Horse Creek. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-3

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 2300 sqft)			
1. *Lysimachia nummularia*	20	Yes	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	90 (A)		320 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	7.5YR 5/4	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-9

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 52" Long: 82 deg 34' 51" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Sample point is located 140 ft. from Horse Creek near property line. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X 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 Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 4
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-3

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 2300 sqft)			
1. *Juncus effusus*	1	No	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	71 =Total Cover		
50% of total cover: 36	20% of total cover: 15		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	1	x 2 =	2
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	71 (A)		282 (B)

Prevalence Index = B/A = 3.97

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	2.5YR 4/6	25						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 02/22/24

Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: SP-10

Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 51" Long: 82 deg 34' 52" Datum: WGS84

Soil Map Unit Name: Steadman silty clay loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point is located 185 ft. from Horse Creek near property line. The grass growing on the property has been harvested for hay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP10

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 2300 sqft)			
1. *Juncus effusus*	5	No	FACW
2. *Panicum virgatum*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 =Total Cover		
50% of total cover: 38	20% of total cover: 15		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	75 (A)		290 (B)

Prevalence Index = B/A = 3.87

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 4/4	25						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

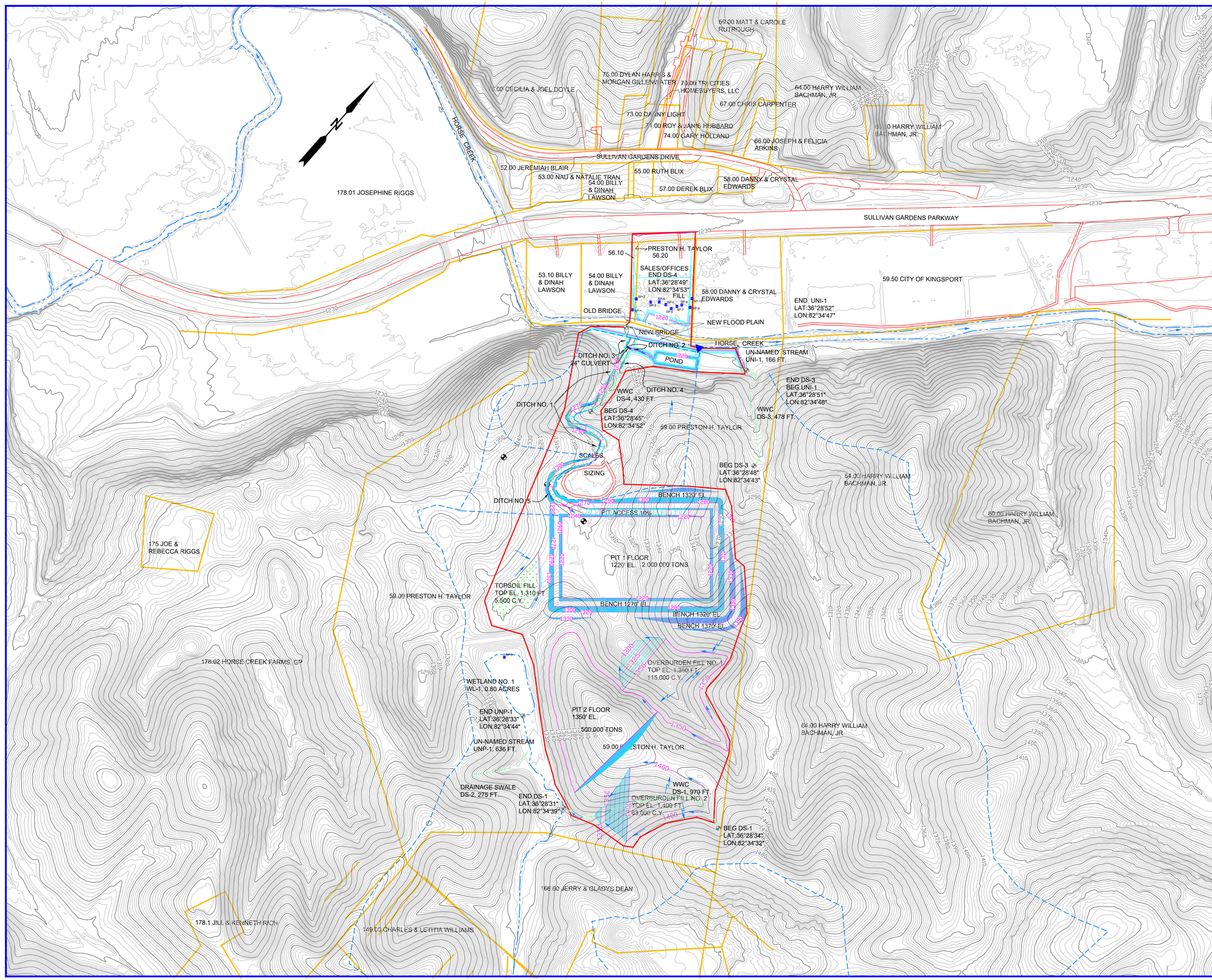
Type: _____

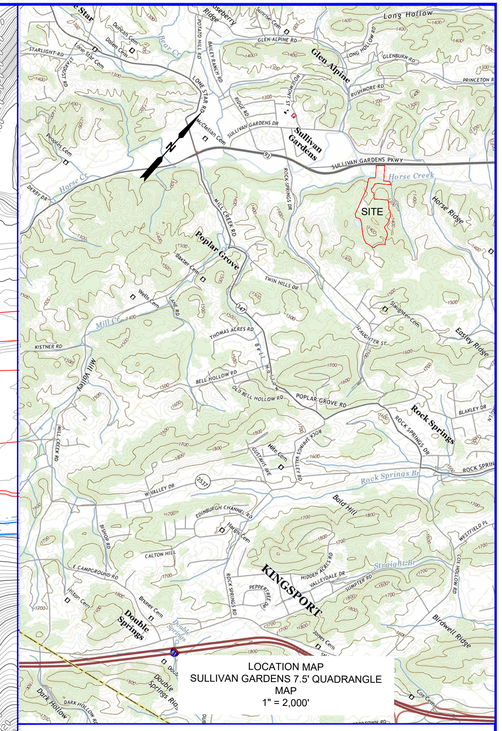
Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:


3725





LOCATION MAP
SULLIVAN GARDENS 7.5' QUADRANGLE MAP
1" = 2,000'

The property lines represented on this map are compiled from information maintained by the local county Assessor's office and are a best-fit visualization of how all the properties in a county relate to one another. The property lines are determined by examining detailed property descriptions on deeds and by using surveys created by a licensed surveyor but are not conclusive evidence of property ownership in any court of law. This map shall does not represent an actual land survey and shall not be used to divide or transfer property.

Legend

- Site Boundary
- Property Line
- 500' Site Radius
- Drainage Divide
- Diversion/Drainage Direction
- Sheet Flow Direction
- Stream
- Berm
- Road
- Wet Weather Conveyance (WWC)
- Stream/WWC BEG/END Point
- Existing Contours (2')
- Existing Contours (10')
- Proposed Contours (2')
- Proposed Contours (10')
- Culvert
- Building or Structure
- NPDES Point
- Borehole
- Topsoil Stockpile
- Soil Test Location

ENGINEERING BY:
STEPHEN E. MAXFIELD
1745 ROMANS RIDGE ROAD
HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
STREAMS AND WETLANDS

SCALE: 1" = 200'

3 Tees, LLC
1300 Jan Way
Kingsport, Tennessee

Horse Creek Quarry

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Certification

October 16, 2023

PREPARED BY:

STEPHEN E. MAXFIELD, P. E.
PROFESSIONAL ENGINEER
P.O. BOX 1745
HONAKER, VIRGINIA 24260
PHONE: (276) 979-6963

Stephen E. Maxfield, P. E.
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Honaker, VA 24260
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Email: Coulwood1214@gmail.com

October 16, 2023

Tina Robinson
Tennessee Department of Environment and Conservation
Division of Water Resources
2305 Silverdale Road
Johnson City, TN 37601-2162

Subject: ARAP Permit For Proposed Limestone Quarry

Dear Ms. Robinson:

On behalf of my client, 3 Tees, LLC, we are requesting a ARAP permit associated with a proposed limestone rock quarry to be located at 3725 Sullivan Gardens Parkway.

3 Tees is proposing to develop a quarry would mine limestone rock, crush and screen the rock for aggregate, and stockpile the aggregate for sale for road construction and other uses. The actual quarry pit and processing facilities will be located approximately 1,200 ft from Sullivan Gardens Parkway. However, access to the location will be across Horse Creek. In addition to a new bridge, 3 Tees proposes cut and fill along Horse Creek to improve the property. All proposed disturbance is above and beyond the Ordinary High Water Mark (OHWM) and outside of the jurisdictional limits of the stream. The proposed modifications along Horse Creek will not result in a change of the flood elevation of the stream.

The application forms, plans and design, and maps and drawings have been included in this submittal. Please review the included plan for compliance.

If you have any questions or require any additional information, please contact us.

Sincerely

Stephen E. Maxfield, P. E.

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor,
Nashville, Tennessee, 37243
1-888-891-8332 (TDEC)

Item VI1.

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Certification

OFFICIAL STATE USE ONLY	Site #:		Permit #:	

Section 1. Applicant Information (individual responsible for site, signs certification below)

Applicant Name (company or individual): 3 Tees, LLC		SOS #:	Status: N/A
Primary Contact/Signatory: Vic Davis		Signatory's Title or Position: Manager	
Mailing Address: 1300 Jan Way		City: Kingsport	State: TN Zip: 37660
Phone: 423-817-7300	Fax:	E-mail: vicd@vdsctn.com	

Section 2. Alternate Contact/Consultant Information (a consultant is not required)

Alternate Contact Name:				
Company:		Title or Position:		
Mailing Address:		City:	State:	Zip:
Phone:	Fax:	E-mail:		

Section 3. Fee (application will be incomplete until fee is received)

☐ No Fee ☒ Fee Submitted with Application Amount Submitted: $ 500

Current application fee schedules can be found at the Division of Water Resources webpage at:
https://www.tn.gov/environment/permit-permits/water-permits1/aquatic-resource-alteration-permit--arap-.html
or by calling (615) 532-0625. Please make checks payable to "Treasurer, State of Tennessee".

Billing Contact (if different from Applicant): Name: Email:

Address: Phone:

Section 4. Project Details (fill in information and check appropriate boxes)

Site or Project Name: Horse Creek Quarry (Bridge)	Nearest City, Town or Major Landmark: Kingsport	
Street Address or Location (include zip): 3725 Sullivan Gardens Parkway		
County(ies): Sullivan	MS4 Jurisdiction:	Latitude (dd.dddd): 36°28'43"
		Longitude (dd.dddd): 82°34'49"

Resources Proposed for Alteration: ☑ Stream / River ☐ Wetland ☐ Reservoir

Name of Water Resource (for more information, access *http://tdeconline.tn.gov/dwr*): TN06010102003_2000

Brief Project Description (a more detailed description is required under Section 8):
Bridge & Floodplain Improvements

Does the proposed activity require approval from the U.S. Army Corps of Engineers, the Tennessee Valley Authority, or any other federal, state, or local government agency? ☐ Yes ☒ No

If Yes, provide the permit reference numbers:

Will the activity require a 401 Water Quality Certification: ☐ Yes ☐ No

If Yes, attach any 401 WQC pre-filing meeting request documentation

Is the proposed activity associated with a larger common plan of development: ☒ Yes ☐ No

If Yes, submit site plans and identify the location and overall scope of the common plan of development.

Plans attached? ☒ Yes ☐ No

If applicable, indicate any other federal, state, or local permits that are associated with the overall project site (common plan of development) that have been obtained in the past (e.g., construction general permit and/or other ARAP):

Section 5. Project Schedule (fill in information and check appropriate boxes)		
Proposed start date: June 1, 2024	Estimated end date: Aug 1, 2024	
Is any portion of the activity complete now?	☐ Yes	■ No
If yes, describe the extent of the completed portion:		

The required information in Sections 6-11 must be submitted on a separate sheet(s) and submitted in the same numbered format as presented below. If any question in not applicable, state the reason why it is not applicable.

Section 6. Description		**Attached** Yes	No
6.1	A narrative description of the scope of the project	■	☐
6.2	USGS topographic map indicating the exact location of the project (can be a photographic copy)	■	☐
6.3	Photographs of the resource(s) proposed for alteration with location description (photo locations should be noted on map)	■	☐
6.4	A narrative description of the **existing** stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	■	☐
6.5	A narrative description of the **proposed** stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	■	☐
6.6	In the case of wetlands, include a wetland delineation with delineation forms and site map denoting location of data points	☐	■
6.7	A copy of all hydrologic or jurisdictional determination documents issued for water resources on the project site	☐	■

Section 7. Project Rationale	**Attached** Yes	No
Describe the need for the proposed activity, including, but not limited to the purpose, alternatives considered and rationale for selection of least impactful alternative, and what will be done to avoid or minimize impacts to water resources	■	☐

Section 8. Technical Information		**Attached** Yes	No
8.1	Detailed plans, specifications, blueprints, or legible sketches of present site conditions and the proposed activity. Plans must be 8.5.x 11 inches. Additional larger plans may also be submitted to aid in application review. The detailed plans should be superimposed on existing and new conditions (e.g., stream cross sections where road crossings are proposed)	■	☐
8.2	For the proposed activity and compensatory mitigation, provide a discussion regarding the sequencing of events and construction methods and any proposed monitoring	☐	■
8.3	Depiction and narrative on the location and type of erosion prevention and sediment control (EPSC) measures for the proposed alterations and any other measures to treat, control, or manage impacts to waters	■	☐

Section 9. Water Resources Degradation (degree of proposed impact)

Note that in most cases, activities that exceed the scope of the General Permit limitations are considered greater than *de minimis* degradation to water quality.

Please provide your basis for concluding the proposed activity will cause one of the following levels of water quality degradation:

- ■ a. *De minimis* degradation, no appreciable permanent loss of resource values
- ☐ b. Greater than *de minimis* degradation (if greater than *de minimis* complete Sections 10-11)

For information and guidance on the definition of de minimis and degradation, refer to the Antidegradation Statement in Chapter 0400-40-03-.06 of the Tennessee Water Quality Criteria Rule:
https://publications.tnsosfiles.com/rules/0400/0400-40/0400-40.htm
For more information on specifics on what General Permits can cover, refer to the Natural Resources Unit webpage at:
https://www.tn.gov/environment/permit-permits/water-permits1/aquatic-resource-alteration-permit--arap-.html

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Certification

Section 10. Detailed Alternatives Analysis		Attached Yes	Attached No
10.1	Analyze all reasonable alternatives and describe the level of degradation and permanent loss of resource value caused by each alternative. Assessment must consider options other than the "Preferred" and "No Action" alternatives. Provide associated rationale for selecting or rejecting all alternatives considered and demonstration that the least impactful practicable alternative was selected.	☒	☐
10.2	Discuss the social and economic consequences of each alternative	☒	☐
10.3	Demonstrate that the degradation associated with the preferred alternative will not violate water quality criteria for uses designated in the receiving waters, and is necessary to accommodate important economic and social development in the area	☒	☐

Section 11. Compensatory Mitigation		Attached Yes	Attached No
11.1	A detailed discussion of the proposed compensatory mitigation. Provide evidence of credit reservation if proposing to utilize a third-party provider.	☐	☒
11.2	Analysis of any proposed appreciable loss of resource value using the TN Stream Mitigation Guidelines. Provide Stream Quantification Tool (SQT) results if applicable. Include Existing Condition Score (ECS) and debit/credit calculations.	☐	☒
11.3	Describe how the compensatory mitigation would result in no net loss of resource value	☐	☒
11.4	Provide a detailed monitoring plan for the compensatory mitigation site if permittee-responsible project is proposed	☐	☒
11.5	Describe the long-term protection measures for the compensatory mitigation site if permittee-responsible project is proposed (e.g., deed restrictions, conservation easement)	☐	☒

Certification and Signature

An application submitted by a corporation must be signed by a principal executive officer; from a partnership or proprietorship, by the partner or proprietor respectively; from a municipal, state, federal or other public agency or facility, the application must be signed by either a principal executive officer, ranking elected official, or other duly authorized employee. ***I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.***

Vic Davis	President	Vic Davis	10/19/23
Printed Name	Official Title	Signature	Date

Note that this form must be signed by the principal executive officer, partner or proprietor, or a ranking elected official in the case of a municipality; for details see **Certification and Signature** statement above. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed ARAP Application form (keep a copy for your records) to the appropriate EFO for the county(ies) where the proposed activity is located, addressed to **Attention: ARAP Processing**. You may also electronically submit the complete application and all associated attachments to water.permits@tn.gov.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Pkwy., Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

SCOPE

3 Tees, LLC is proposing to develop a limestone rock quarry to manufacture stone aggregate for construction on property located at 3725 Sullivan Gardens Parkway, Kingsport, Tennessee. The proposed quarry will be located approximately 1,200 ft from Sullivan Gardens Parkway. Access to the proposed quarry site will be via an existing drive/farm road from Sullivan Gardens Parkway. An existing bridge crosses Horse Creek. These facilities will be upgraded suitable for the proposed use. A new bridge will be constructed adjacent to the existing one. The new bridge will be above the FEMA flood elevation and abutments will be constructed above and beyond the ordinary high water mark (OHWM). Additionally, it is proposed to fill areas within the FEMA mapped flood plain elevation of 1,223 ft. However, a new flood plain will be constructed on the south side of Horse Creek. The new flood plan will be excavated above and beyond the OHWM of the stream. The resulting modifications will not result in an increase in the FEMA flood elevation.

SITE LOCATION

3 Tees proposed operation will be located at 3725 Sullivan Gardens Parkway, Kingsport, Tennessee in Sullivan County.

The site is located in the north west section of the Sullivan Gardens United States Geological Services (U.S.G.S) Sullivan Gardens 7.5' Quadrangle at the geographic coordinates of 36°28'43" North Latitude and 82°34'49" West Longitude. The site is located along Horse Creek. Horse Creek is approximately 1,000 ft. from the proposed quarry at an elevation of 1215 ft. Horse Creek is a first order perennial stream that flows north east to the Holston River.

A location map is included with the drawings.

STREAM INFORMATION

Horse Creek is a first order perennial stream that flows north east to the Holston River. In the vicinity of this project, the stream is approximately 30 ft. wide at the bottom and the channel is approximately 5 ft. deep. The OWHM for the stream is approximately 0.5 ft. The stream gradient is 1.4%. The north side of the stream is agriculture and the south side is riparian vegetation.

Existing bridge over Horse Creek

West of bridge

East of Bridge

South side of creek

A new bridge will replace the existing bridge. The new bridge superstructure will be above the flood elevation so as not impede flow during the event. The flood plain in the north side of Horse Creek will be filled to the elevation of 1226 ft. Except for the road fill to the bridge, the fill will be 50 ft. from the stream. The south side of the stream will be excavated above the OHWM to create a new flood plain at elevation 1216 ft. The flood plain will be approximately 5 to 20 ft wide. The modifications are shown on the plan and sections attached to this application. Calculations are included to demonstrate no rise in the flood elevation.

WETLAND INFORMATION

The area of the proposed quarry and along Horse Creek was investigated for the presence of wetlands. There were no indications of wetlands as would be defined by hydrophilic vegetation, hydric soils, and hydrology.

PROJECT RATIONALE

Kingsport and Sullivan County are growing along with the need for infrastructure. Limestone aggregate is a key material necessary for road and site construction and for use in pavement and concrete. This site was deemed a suitable location due to several factors. Geologic drilling of the location revealed suitable deposits of limestone of the quality necessary. The site is located near major highways for access, while also being remotely located away from the public. This makes this site ideal for the proposed use.

EROSION PREVENTION AND SEDIMENT CONTROL (EPSC)

Erosion and sediment control will be provided by a sediment basin and pit drainage (drainage into the quarry pit). These are addressed and designed in detail in the Mining NPDES application submitted for review by the Mining Section of the Department.

DETAILED ALTERNATIVES ANALYSIS

Alternative Access

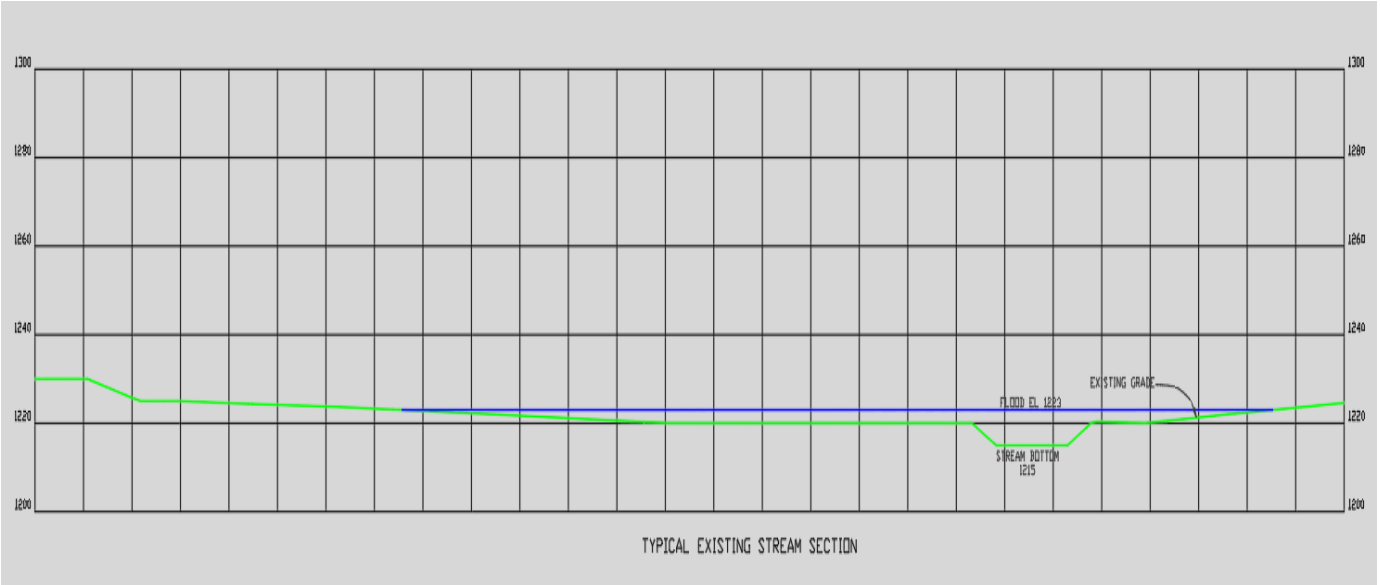
Alternative access to the site was considered. However, these were deemed unfeasible. Alternative access would require acquisition of several properties and extensive road construction. These locations would involve secondary roads in residential areas not suited to large truck traffic. These areas would also involve crossing smaller streams.

Alternative Crossing

Alternative crossings were also considered. The existing bridge was deemed to narrow and not strong enough for the truck traffic. It is also located below the flood elevation. A new bridge with a shorter span or lower deck would impede stream flow during flooding. Culverts would also present the same issues.

The method proposed the best environmentally sound alternative. The construction will avoid stream impacts and will not result in degradation of water quality.

Horse Creek Zero Rise



Input Parameters

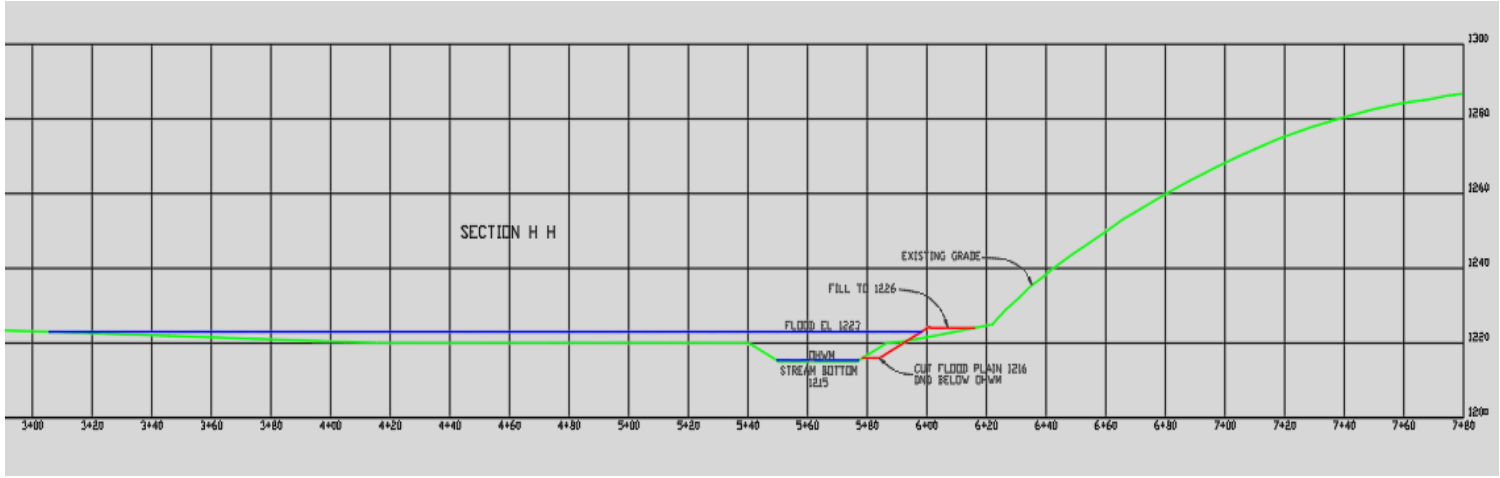
Ditch Slope (ft./ft.)	0.0014
Manning Value (n)	0.0350

Manning's Equation Calculations

$Q = \frac{1.49}{n} \times R^{2/3} \times S^{1/2} \times A$ Where R=A/WP and V= Q/A

Flow Area, **A**, (sq.ft.)	922.00 sq.ft.	Ditch Capacity, **Q**, (cfs)	2987.24 cfs
Wetted Perimeter, **WP**, (ft.)	318.00 ft.		
Hydraulic Radius, **R**, (ft.)	2.90 ft.	Flow Velocity, **V**, (fps)	3.24 fps

Horse Creek Zero Rise



Input Parameters

Ditch Slope (ft./ft.)	0.0014
Manning Value (n)	0.0350

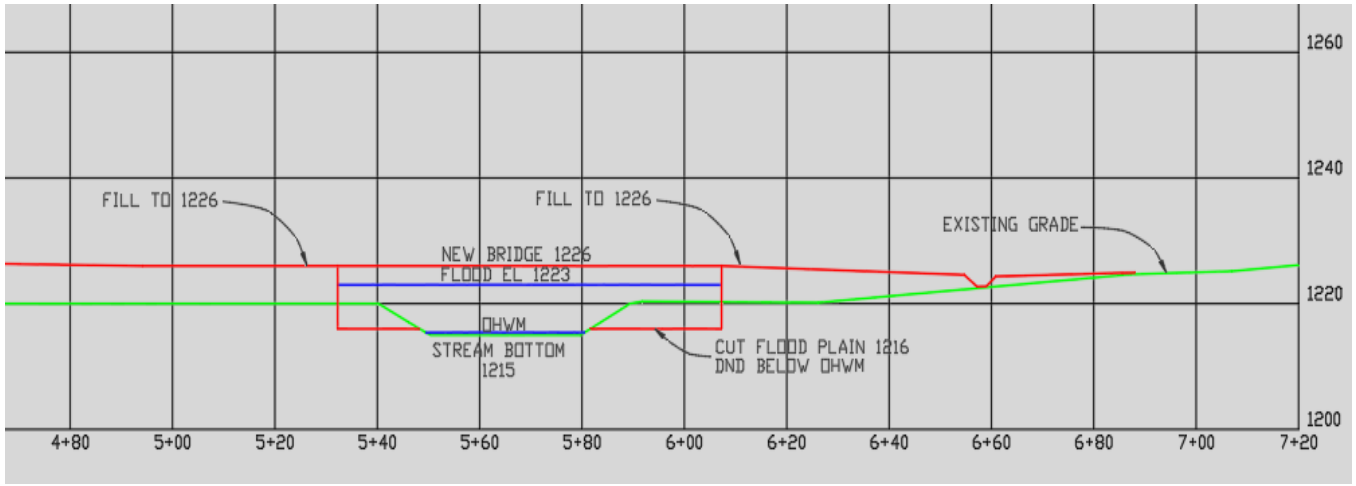
Manning's Equation Calculations

$Q = \frac{1.49}{n} \times R^{2/3} \times S^{1/2} \times A$ Where R=A/WP and V= Q/A

Flow Area, **A**, (sq.ft.)	907.00 sq.ft.	Ditch Capacity, **Q**, (cfs)	3049.03 cfs
Wetted Perimeter, **WP**, (ft.)	296.00 ft.		
Hydraulic Radius, **R**, (ft.)	3.06 ft.	Flow Velocity, **V**, (fps)	3.36 fps

MODIFIED SECTION FLOW = ORIGINAL SECTION FLOW
NO RISE IN FLOOD ELEVATION

Horse Creek Zero Rise



Input Parameters

Ditch Slope (ft./ft.)	0.0014
Manning Value (n)	0.0350

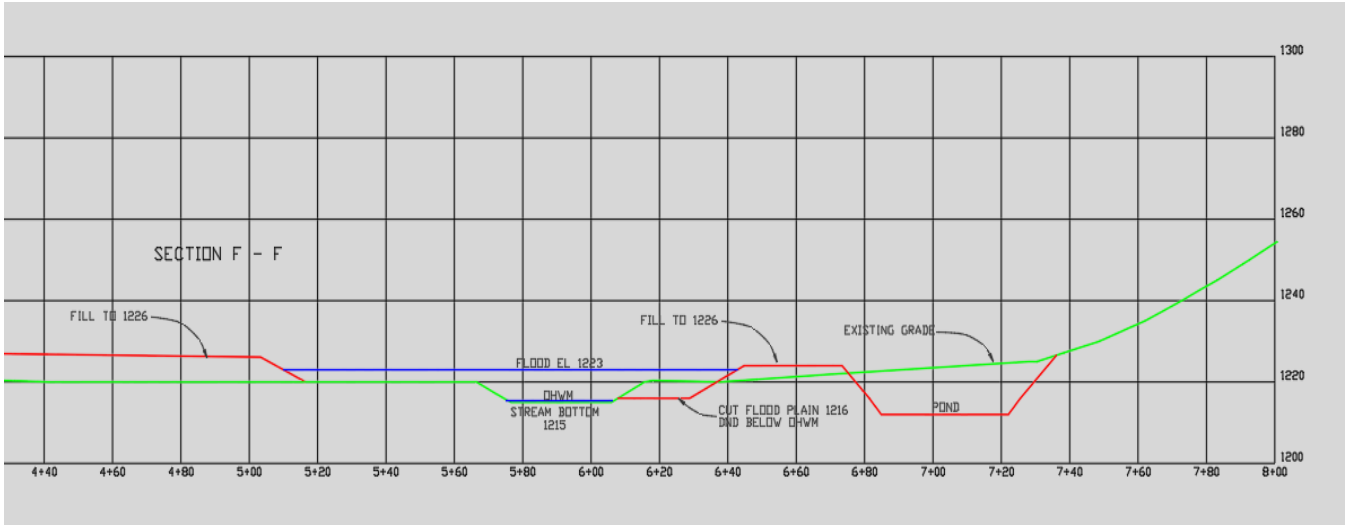
Manning's Equation Calculations

$Q = \frac{1.49}{n} \times R^{2/3} \times S^{1/2} \times A$ Where R=A/WP and V= Q/A

Flow Area, **A**, (sq.ft.)	556.00 sq.ft.	Ditch Capacity, **Q**, (cfs)	3005.93 cfs
Wetted Perimeter, **WP**, (ft.)	89.00 ft.		
Hydraulic Radius, **R**, (ft.)	6.25 ft.	Flow Velocity, **V**, (fps)	5.41 fps

MODIFIED SECTION FLOW = ORIGINAL SECTION FLOW
NO RISE IN FLOOD ELEVATION

Horse Creek Zero Rise



Input Parameters

Ditch Slope (ft./ft.)	0.0014
Manning Value (n)	0.0350

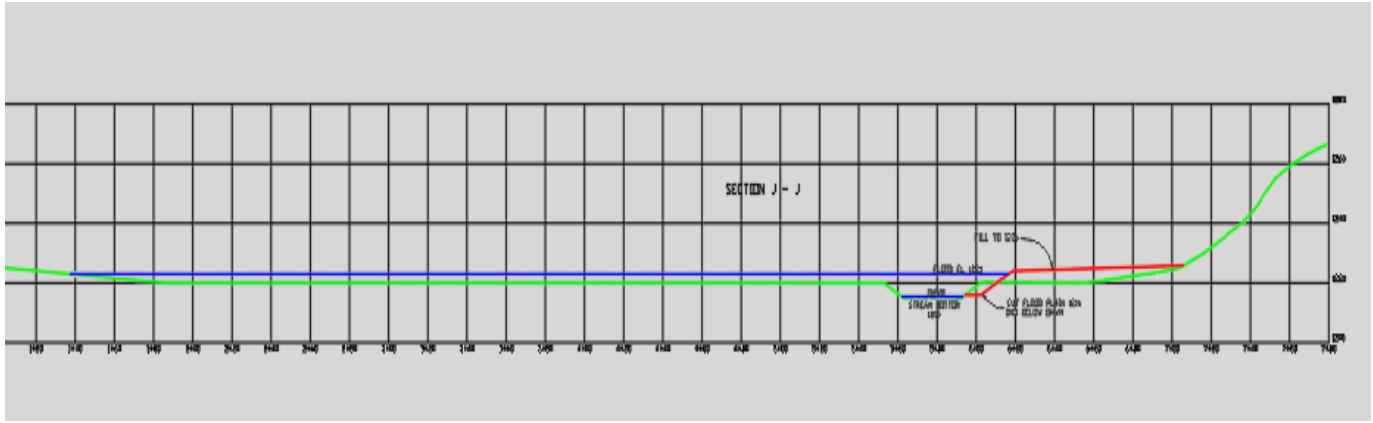
Manning's Equation Calculations

$Q = \frac{1.49}{n} \times R^{2/3} \times S^{1/2} \times A$ Where R=A/WP and V= Q/A

Flow Area, **A**, (sq.ft.)	661.00 sq.ft.	Ditch Capacity, **Q**, (cfs)	3022.65 cfs
Wetted Perimeter, **WP**, (ft.)	136.00 ft.		
Hydraulic Radius, **R**, (ft.)	4.86 ft.	Flow Velocity, **V**, (fps)	4.57 fps

MODIFIED SECTION FLOW = ORIGINAL SECTION FLOW
NO RISE IN FLOOD ELEVATION

Horse Creek Zero Rise



Input Parameters

Ditch Slope (ft./ft.)	0.0014
Manning Value (n)	0.0350

Manning's Equation Calculations

$Q = \frac{1.49}{n} \times R^{2/3} \times S^{1/2} \times A$ Where R=A/WP and V= Q/A

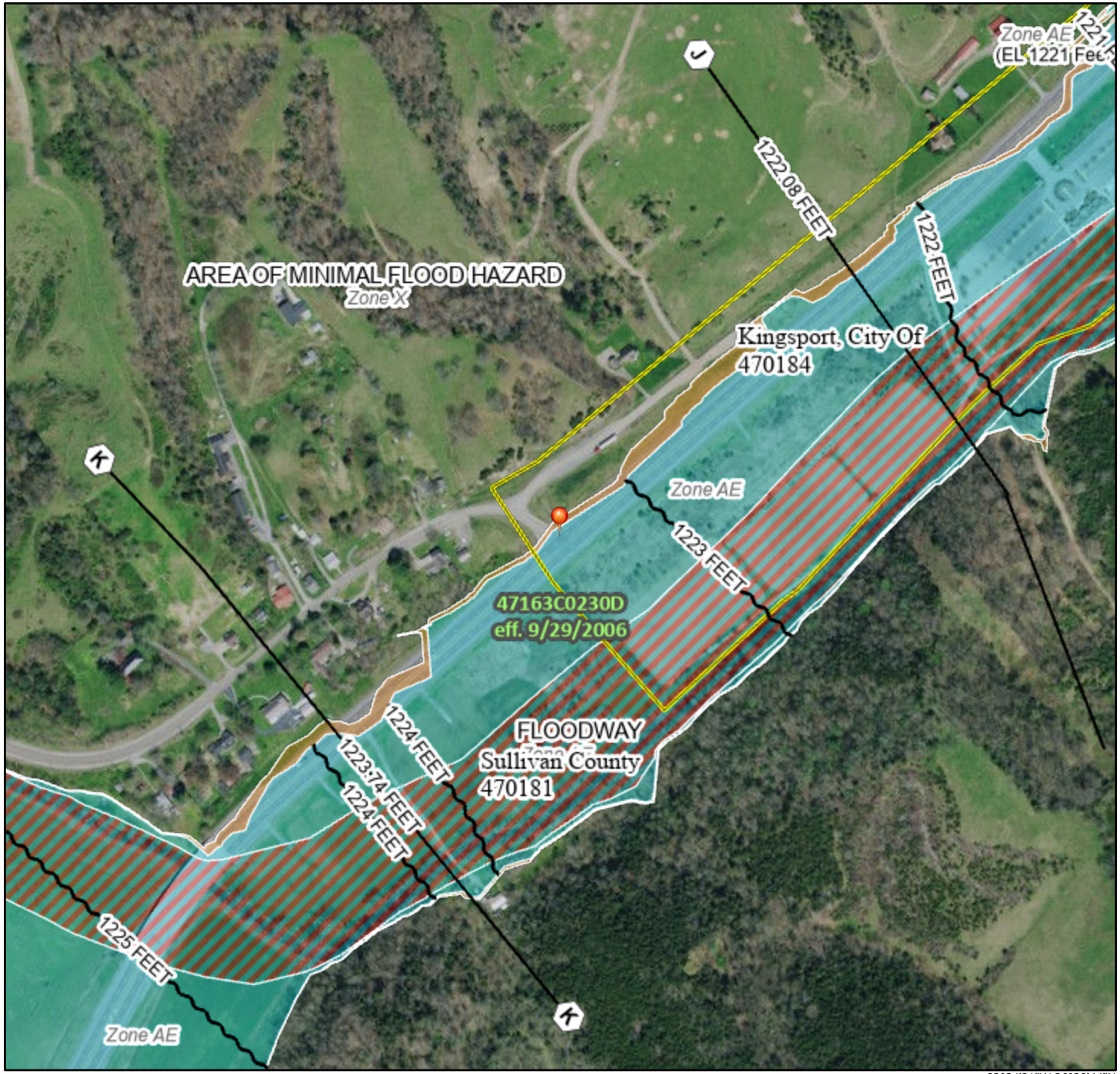
Flow Area, **A**, (sq.ft.)	1553.00 sq.ft.	Ditch Capacity, **Q**, (cfs)	5398.49 cfs
Wetted Perimeter, **WP**, (ft.)	482.00 ft.		
Hydraulic Radius, **R**, (ft.)	3.22 ft.	Flow Velocity, **V**, (fps)	3.48 fps

MODIFIED SECTION FLOW = ORIGINAL SECTION FLOW
NO RISE IN FLOOD ELEVATION

National Flood Hazard Layer FIRMette

FEMA

82°35'8"W 36°29'13"N



82°34'31"W 36°28'44"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FO UT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/3/2023 at 11:53 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community id FIRM panel number, and FIRM effective date. Map i unmapped and unmodernized areas cannot be use regulatory purposes.

69.00 MATT & CAROLE RUTROUGH

75.00 DYLAN HARRIS & MORGAN GILLENWATER

70.00 TRI CITIES HOMEBUYERS, LLC

64.00 HARRY WILLIAM BACHMAN, JR.

67.00 CHRIS CARPENTER

73.00 DANNY LIGHT

71.00 ROY & JANIS HUBBARD

74.00 GARY HOLLAND

66.00 JOSEPH & FELICIA ADKINS

HORSE CREEK

SULLIVAN GARDENS DRIVE

52.00 JEREMIAH BLAIR

53.00 NAU & NATALIE TRAN

54.00 BILLY & DINAH LAWSON

55.00 RUTH BLIX

57.00 DEREK BLIX

58.00 DANNY & CRYSTAL EDWARDS

178.01 JOSEPHINE RIGGS

SULLIVAN GARDENS PARKWAY

56.10

PRESTON H. TAYLOR 56.20

53.10 BILLY & DINAH LAWSON

54.00 BILLY & DINAH LAWSON

SALES/OFFICES

58.00 DANNY & CRYSTAL EDWARDS

59.50 CITY OF KINGSPORT

OLD BRIDGE

FILL

NEW FLOOD PLAIN

NEW BRIDGE

DITCH NO. 2

HORSE CREEK

DITCH NO. 3
24" CULVERT

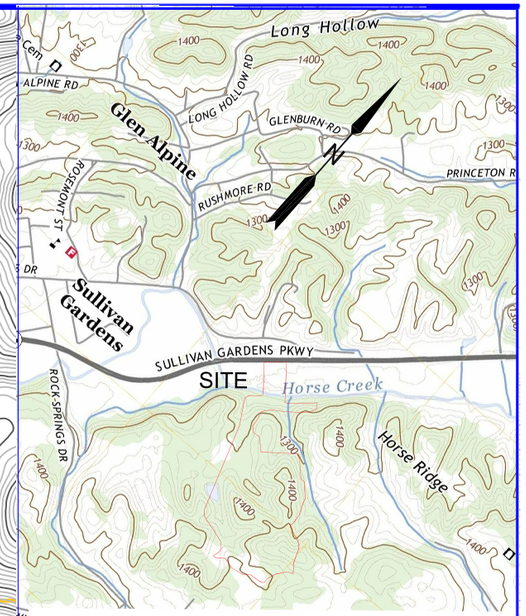
POND

DITCH NO. 4

DITCH NO. 1

59.00 PRESTON H. TAYLOR

SCALES



LOCATION MAP
SULLIVAN GARDENS 7.5' QUADRANGLE MAP
1" = 2,000'

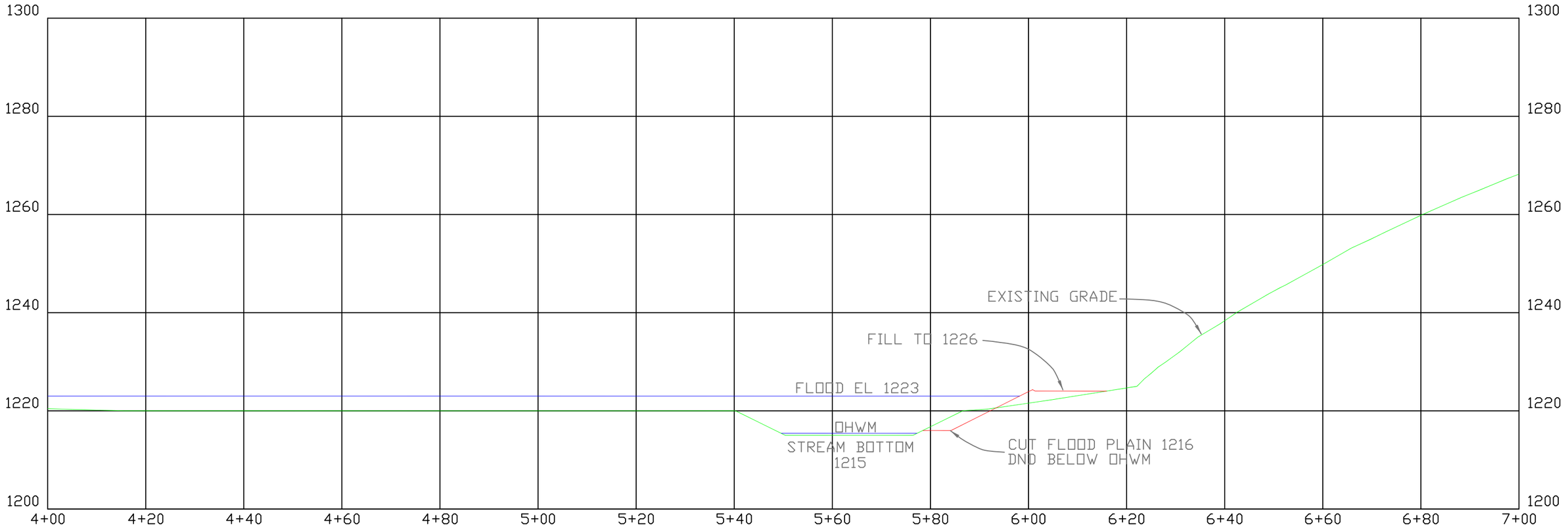
The property lines represented on this map are compiled from information maintained by the local county Assessor's office and are a best-fit visualization of how all the properties in a county relate to one another. The property lines are determined by examining detailed property descriptions on deeds and by using surveys created by a licensed surveyor but are not conclusive evidence of property ownership in any court of law. This map shall does not represent an actual land survey and shall not be used to divide or transfer property.

ENGINEERING BY:
STEPHEN E. MAXFIELD
1745 ROMANS RIDGE ROAD
HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
NEW BRIDGE & ZERO RISE PLAN

SCALE: 1" = 200'



SECTION H H

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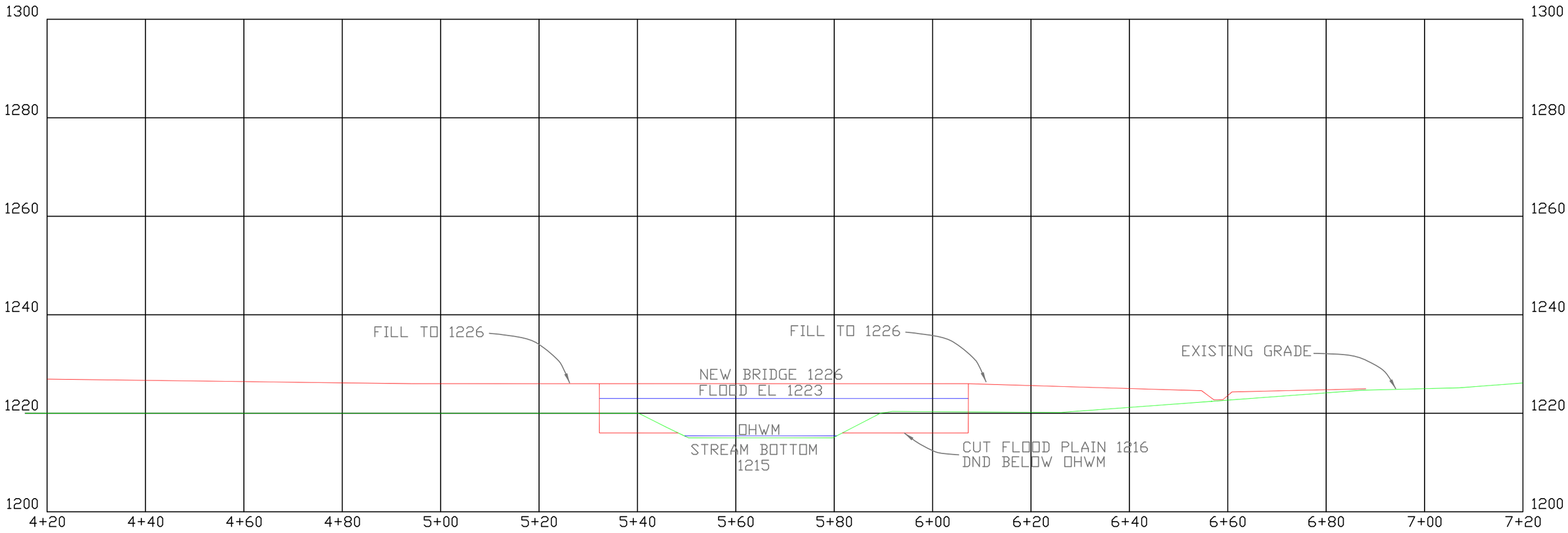
3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
SECTIONS H – H
SCALE: 1" = 20'



SECTION I - I

ENGINEERING BY:
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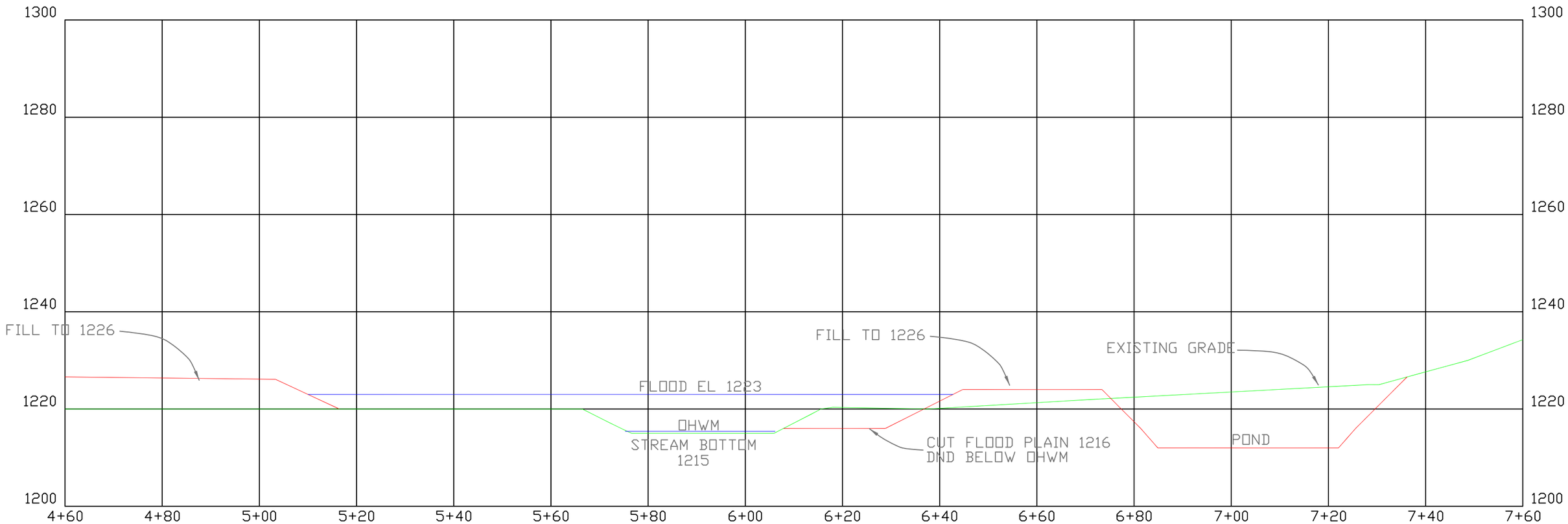
HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
SECTIONS I – I
SCALE: 1" = 20'



SECTION F - F

ENGINEERING BY:
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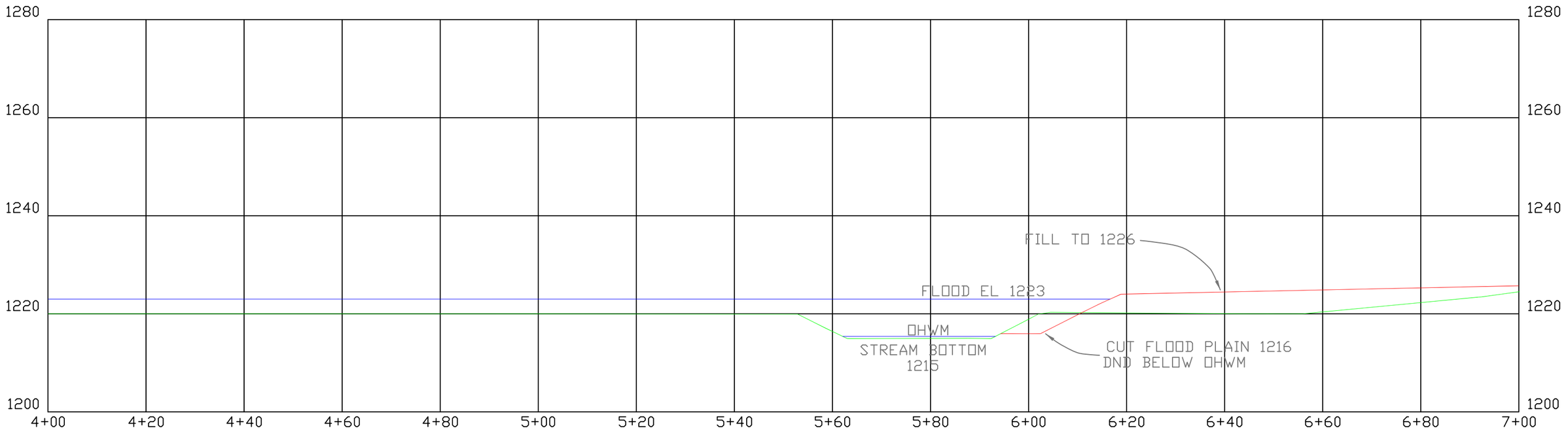
HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
SECTIONS F – F
SCALE: 1" = 20'



SECTION J - J

ENGINEERING BY:
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1745 ROMANS RIDGE ROAD
HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
SECTIONS J – J
SCALE: 1" = 20'

3 Tees, LLC
1300 Jan Way
Kingsport, Tennessee

Horse Creek Quarry

Stream and Wetland Delineation

November 16, 2023

PREPARED BY:

STEPHEN E. MAXFIELD, P. E.
PROFESSIONAL ENGINEER
P.O. BOX 1745
HONAKER, VIRGINIA 24260
PHONE: (276) 979-6963

3 Tees, LLC
Proposed Horse Creek Limestone Quarry
Horse Creek, Sullivan County, Tennessee
Stream and Wetland Delineation

TABLE OF CONTENTS

CORRESPONDENCE
- Landowner – TDEC
- TDEC – Engineer
- Engineer - TDEC

NARRATIVE
- Introduction
- Methods
- Weather Conditions
- Results
  - Summary Table
- References

PRECIPITATION DATA

NRCS SOIL SURVEY

WETLAND DETERMINATION DATA FORM
- Wetland 1

STREAM IDENTIFICATION FORMS
- UNP-1, UNI-1, DS-1, DS-2, DS-3 ,DS-4

SITE PHOTOGRAPHS

MAPS
- HUC MAP
- NATIONAL WETLAND INVENTORY MAP (WETLAND)
- NATIONAL WETLAND INVENTORY MAP (STREAM)
- HORSE CREEK DELINEATION MAP

Preston H. Taylor
1740 Holston Dr
Bristol, TN 37620
423-306-5938

December 12, 2023

Tennessee Department of Environment and Conservation
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

Subject: 3 Tees, LLC Proposed Quarry

To whom it may concern:

I am currently the owner of tracts 56.10, 56.20, and 59.00 located 3725 Sullivan Gardens Parkway. 3 Tees has the option to purchase these properties from me if they can be permitted for a quarry.

I understand that 3 Tees must undergo a rigorous permitting process to develop the quarry. I hereby grant access to the property to such agencies or regulators as necessary to evaluate or review any submittals by 3 Tees.

Thank you for your consideration in this matter.

Sincerely,

Preston H. Taylor, Jr

Preston H. Taylor, Jr

From: Dan Murray <Dan.Murray@tn.gov>
Date: Mon, Dec 11, 2023 at 9:15 AM
Subject: RE: [EXTERNAL] 3 Tee application Hydrologic Determination for ARAP NR23MS.016 & NPDES TN0070724
To: Cool Wood <coulwood1214@gmail.com>
CC: Daniel Lawrence <Daniel.Lawrence@tn.gov>, Bonnie Craighead <Bonnie.Craighead@tn.gov>, Tina Robinson <Tina.A.Robinson@tn.gov>

Mr. Maxfield,

Thank you for the hydrologic determination (HD) submittal for Horse Creek Quarry. Review of the document found the following questions that must be addressed before a concurrence can be provided for the water features associated with this site.

1. The landowner's contact information and written permission to access the site must be provided with the HD submittal.
2. While the correct TDEC forms were completed it appears the applicant followed the North Carolina guidance document when evaluating the water features. The two organizations' methodologies are similar but they are not the same and use some different terminology that is not interchangeable. Please adjust your HD so that it follows the TDEC HD guidance available at https://www.tn.gov/content/dam/tn/environment/water/policy-and-guidance/dwr-nr-g-03-hydrologic-determinations%E2%80%9304012020.pdf. Alternatively, it is recommended that use a Qualified Hydrologic Professional (QHP) or QHP - In Training (QHPIT) to evaluate your site. A list of these individuals is available at https://www.tnhdt.org/.
3. Identification of the starting point and ending point for each linear feature determined to be a wet weather conveyance must be provided on a map or within the body of the HD submittal. A point on the HD Field Data Sheet is not sufficient.
4. Forms completed do not follow the TDEC HD guidance the submittal. Submittal used determination calls that are not available options (e.g. swale, intermittent stream, perennial stream) linear features can only be classified wet weather conveyance or stream under the TDEC protocol. Additionally, notes were not provided on the field forms that documented the information indicated on the score sheets.
5. None of the required precipitation data was provided indicating that the HD was conducted under normal precipitation conditions.
6. Information should be provided demonstrating the that cut & fill associated with replacing the crossing will not be in wetlands and that wetlands do not occur within the footprint of the area to be permitted.

When we receive a complete HD report that fully addresses the questions listed either I or someone from the Johnson City Environmental Field Office will schedule a site visit to evaluate the wet weather conveyances and wetlands associated with the proposed activities.

Thank you for your attention to this matter.

Dan

Dan Murray

TDEC Environmental Consultant | Biology &Water Quality Permitting

Tennessee Department of Environment and Conservation

Division of Mineral & Geologic Resources-Mining

3711 Middlebrook Pike

Knoxville, TN 37921

(865) 770-9473

Stephen E. Maxfield, P. E.
1745 Roman Ridge Road
Honaker, VA 24260
Phone: (276) 979-6963
Email: Coulwood1214@gmail.com

December 13, 2023

Dan Murray
Tennessee Department of Environment and Conservation
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

Subject: 3 Tees Hydrologic Determination

Dear Mr. Murray:

The following is in response to your email dated December 11, 2023 on the above subject item.

1. See attached letter from landowner.
2. See revised narrative.
3. See map for points.
4. See revised forms.
5. See included precipitation data.
6. Wetlands are often found along streams and the area was investigated for such. No wetlands were located other than WL-1 previously noted.

I trust that the revised information shall fully address your comments. However, should you have any additional questions or concerns, please contact me.

Sincerely,

Stephen E. Maxfield, P. E.

INTRODUCTION

This report pertains to 3 Tees, LLC proposed Horse Creek Limestone Quarry in Sullivan County, at 3725 Sullivan Gardens Parkway, Kingsport, Tennessee. The quarry will be located approximately 1,000 ft. south of Horse Creek. The area is within the Sullivan Gardens 7.5" Quadrangle Map. A location map is provided with the delineation map at the end of this report.

The quarry itself shall encompass approximately 45 acres and shall mine limestone by the quarry method. A NPDES permit for the mining operation is currently being pursued through the Tennessee Department of Environment Mining Section.

In order to facilitate mining at this proposed operation roads, bridge, fills diversions, culverts, and sediment basins will be necessary. The proposed mine plan is to avoid the impacts to any jurisdictional waters of the United States (W.O.U.S.).

This report documents efforts on 3 Tees, LLC to locate, document, delineate, and map the water resources within this project area including the W.O. U. S., waters of the state, and other isolated waters. This report is submitted to the Army Corp of Engineers and the Tennessee Department of the Environment for review and confirmation. Following confirmation, all plans for the mine will be finalized and all necessary permits will be submitted to the appropriate regulatory authority.

METHODS

Wetlands

Prior to fieldwork, the site was subjected to a preliminary remote assessment using U.S.G.S. resources. These include the Sullivan Gardens, 7.5' Quadrangle topographic map, U.S.G.S. National Wetlands database and mapping, digital orthophotography. Soils were assessed using the USDA Soil Survey.

Remote assessment indicated a single wetland of 0.83 acres in the southern area of the property and an un-named perennial stream at the eastern boundary of the property. Mapping obtained from the remote assessment are attached.

The wetland field work followed the Routine On-Site Determination methodology for areas equal to or less than 5 acres in size described in the U. S. Army Corps of Engineers Wetlands Delineation Manual (U.S. Army Corps of Engineers Waterways Experiment Station, 1987) and the Eastern Mountains and Piedmont Regional Supplement. Utilization of these methods resulted in the identification of wetlands, which met the criteria for hydrophytic vegetation, hydric soils, and wetland hydrology. The wetland-upland boundaries were identified, located, and mapped to the Tennnessee them by State Plane NAD '83 coordinate system. This was conducted on November 11, 2023. The map data was uploaded into CAD and wetland areas determined.

Once wetland conditions were confirmed in the field, soils, vegetation, and hydrology were evaluated at representative locations within the wetland and along the upland boundary. Plant species dominance was determined based on the percent aerial or basal coverage within a representative plot utilizing the “50/20” rule. Taxonomy was based on the U.S.G.S. List of Wetland Flora. Indicator status of plant species was taken from the National List of Plant Species That Occur in Wetlands: 1988 Region 3.

Soils profiles were characterized by digging test pits a minimum depth of 18 inches (or refusal) and utilizing Munsell Soil Color Charts and standard soil texturing methodology.

Wetland hydrology criteria were assessed by evaluating the geology and hydrologic regimes in the setting, visual observations, and soil pits in the surrounding area.

The wetland data obtained during the field evaluations was compiled on the 1987 COE Routine Wetland Determination Data Forms. Each wetland identified in the review area was numbered and compiled on a single form. The wetland and soil profiles were documented by digital photography. All wetlands were shown to scale on the delineation drawing, with photographs cross referenced on the drawing and forms.

Streams

Streams were assessed in accordance with the Tennessee Department of Environment and Conservation Division of Water Resources **Guidance for Making Hydrologic Determinations.** This document was based upon concepts and methodologies originally developed by the North Carolina Division of Water Quality’s (NCDWQ). This method has been adopted and followed by many agencies. The method utilizes a scoring system to evaluated 28 attributes of geomorphic, hydrologic, and biologic indicators. Wet weather conveyances (WWC) were identified by scores of less than 19, intermittent streams were identified by scores greater than 19, but less than 30, and perennial streams were indicated by scores greater than 30.

Stream evaluation points were initially selected within the lower reach of streams within the review and scored utilizing the method. The data from each evaluation point was recorded on the Tennessee Division of Water Resources, Hydrologic Determination Field Data Sheet. The scores were tallied and the stream type was determined from the score. Additional evaluation points were selected upstream to determine the origin or transitions of perennial and intermittent stream reaches.

The locations of the stream evaluation points and transitions and origins of streams types were located in the Tennessee State Plane NAD ’83 coordinate system. The data was uploaded into CAD and stream lengths determined. Each stream identified in the review area was numbered and shown to scale on the delineation drawing.

WEATHER CONDITIONS

Field work for the stream and wetland delineations was conducted on November 11, 2023. Weather conditions was assessed in accordance with the TDEC Guidelines. The 30 year mean and standard deviation of the precipitation for Kingsport, TN was obtained from the National Oceanic and Atmospheric Association (NOAA) Climatic Data Center. Monthly averages for the 3 month period preceding the field work was also obtained. This data is included at the end of this report. The table was evaluated in the table below and a determination was made that the weather conditions during the investigation was average.

	Month	Actual Rainfall 2023	Average Rainfall 30 yr.	Standard Deviation	Minus One Std. Deviation (DRY)	Plus One Std. Deviation (WET)	Condition (Elevated, Low, Average)	Condition Value	Month Weight value	Product of previous two columns
1st prior month	October	2.3	2.43	1.4	1.03	3.83	Average	2	3	6
2nd prior month	September	2.6	2.98	1.6	1.38	4.58	Average	2	2	4
3rd prior month	August	3.0	3.21	1.53	1.68	4.74	Average	2	1	2
									Sum	12

Note:

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

Condition value:	
Low =	1
Average =	2
Elevated =	3

Conclusions: A total of 12 indicates the weater conditions (precipitation were in the average range for the three months prior to November 11, 2023 for Kingsport, TN.

RESULTS

This study identified a single wetland area totaling 0.80 acres and 2 un-named tributaries to Horse Creek totaling 750 linear ft. in the review area. The local geology and the previous land alterations are major factors influencing the hydrology of the wetland identified. A dam was previously constructed in the stream to create an impoundment; however, it appears the karst topography did not allow the water to collect at any depth and provided the necessary hydrology for wetland development. As such this wetland and contributing streams are severed and not considered jurisdictional W.O.U.S. However, the intermittent stream is connected and is considered W.O.U.S. The drainage swale connecting to this stream does not have characteristics to be considered W.O.U.S. Regardless of the jurisdiction, these features will not be impacted by the proposed operation.

A summary of the wetlands and streams identified during this evaluation are included in following Table:

ID	Name	Quantity	Delineation
WL-1	NA	0.8 ac.	Palustrine Emergent Wetland
UNP-1	NA	636 ft.	Stream
DS-1	NA	797 ft.	WWC
DS-2	NA	275 ft.	WWC
DS-3	NA	478 ft.	WWC
DS-4	NA	430 ft.	WWC
UNI-1	NA	166 ft.	Stream
HC-1	Horse Creek	1,135 ft.	Stream

Notes:

1. Wetland WL-1 is isolated with no significant nexus to W.O. U. S.; however, impacts will be avoided.
2. Perennial Stream UNP-1 is isolated with no significant nexus to W.O. U. S.; however, impacts will be avoided.
3. Intermittent Stream UNI-1 has connection to Traditional Navigable Waters and impacts will be avoided.
4. Horse Creek has a length of 1,135 ft through the project area. A new bridge is proposed and excavation of a flood plain along the south side. However, all impacts shall be above the Ordinary High Water Mark (OHWM) which is the jurisdictional boundary of the stream.

REFERENCES

Cowardin, Lewis, etal. Classification of Wetlands and Deepwater Habitats of the United States. U. S. Department of the Interior, Washington, D. C.

Mitsch, William J., Wetlands. 2007 John Wiley and Sons, Inc., Hoboken, New Jersey.

Munsell Color. 1998. Munsell soil color charts. 1998 revised washable edition. GregtagMacbeth. New Windsor, New York.

North Carolina Division of Water Quality. 2005. Identification Methods for the Origins of Intermittent and Perennial Streams, Version 3.1. North Carolina Department of Environment and Natural Resources, Division of Water Quality. Raleigh, NC.

Reed, P.B. 1988. National list of plant species that occur in wetlands: Region III.

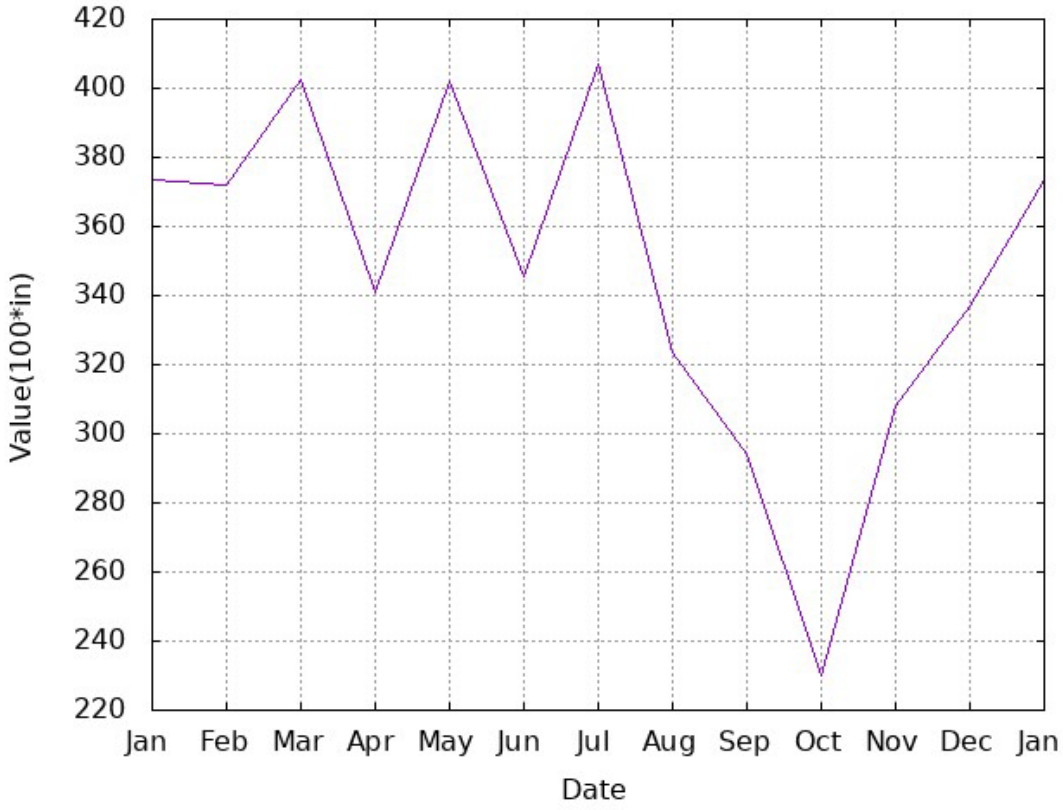
Seelinger, Marc. USACE Wetland Delineation with Regional Supplements. 2006 The Swamp School, Angier, NC.

U.S. Army Corps of Engineers. 1987. Corps of Engineers wetlands delineation manual. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

U.S. Army Corps of Engineers. 2022. National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams. Technical Report 22-26, Wetlands Regulatory Assistance Program (WRAP), Vicksburg, Mississippi.

U.S. Department of Agriculture, Natural Resource Conservation Service. 2006. Soil survey geographic database for Sullivan County, Tennessee. http://nrcs.usda.gov

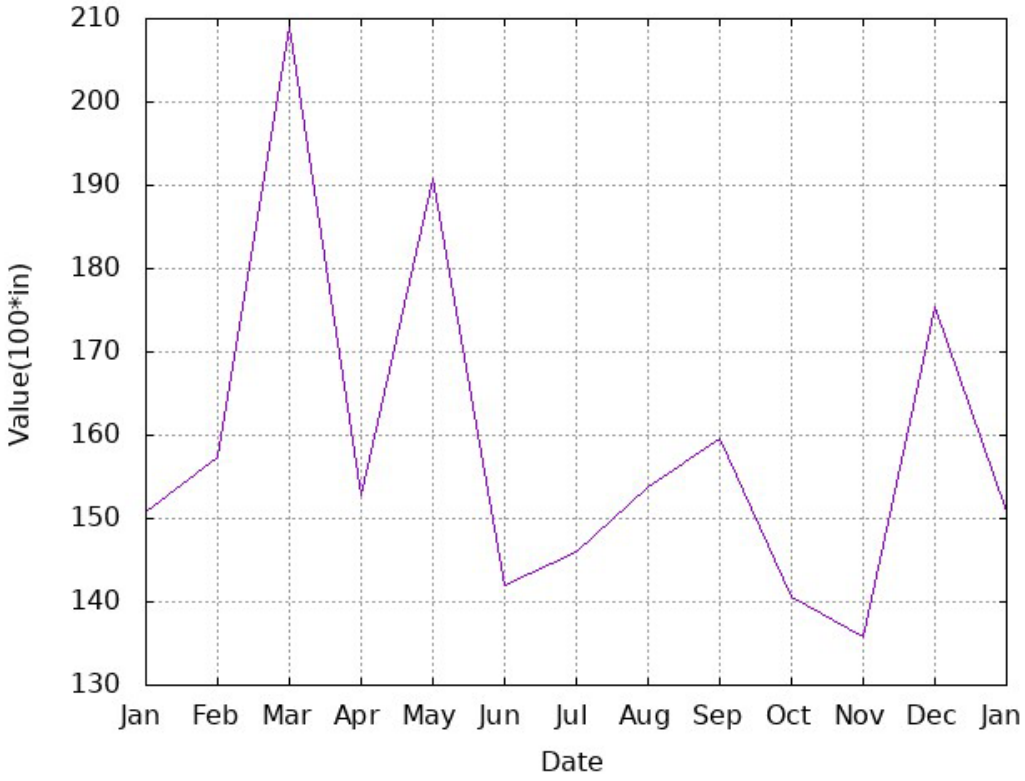
30 Year Precipitation Average by Month Kingsport TN



Values plotted Get file

Date submitted: **12/13/2023 at 12:47**

30 Year Precipitation Standard Deviation by Month Kingsport TN



Values plotted Get file

Date submitted: **12/13/2023 at 12:46**

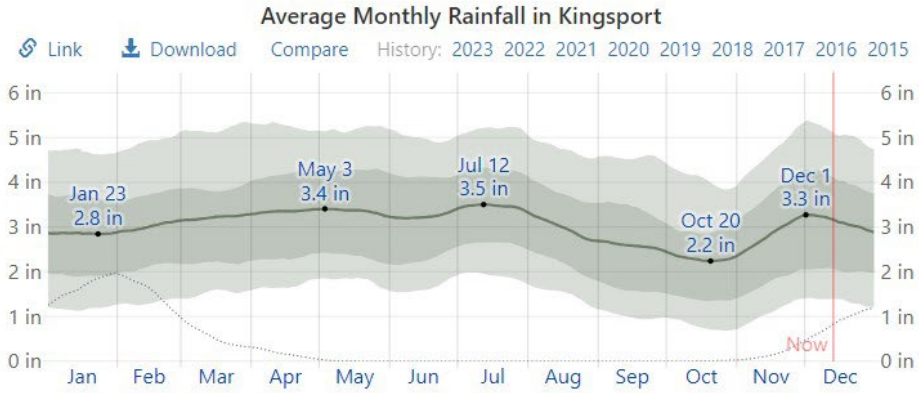
Monthly Precipitation Kingsport TN 2023

Rainfall

To show variation within the months and not just the monthly totals, we show the rainfall accumulated over a sliding 31-day period centered around each day of the year. Kingsport experiences some seasonal variation in monthly rainfall.

Rain falls throughout the year in Kingsport. The month with the most rain in Kingsport is July, with an average rainfall of 3.5 inches.

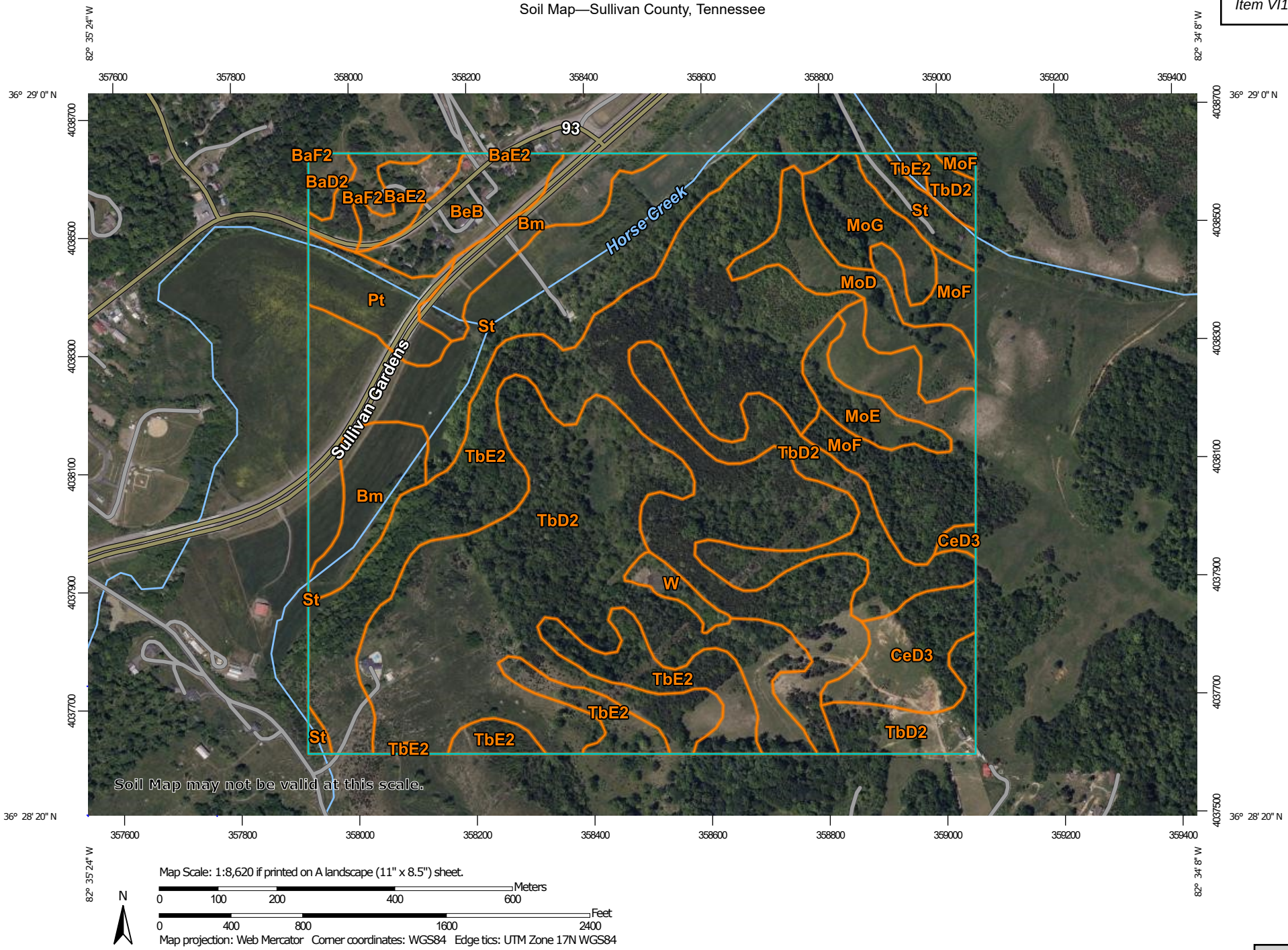
The month with the least rain in Kingsport is October, with an average rainfall of 2.3 inches.



The average rainfall (solid line) accumulated over the course of a sliding 31-day period centered on the day in question, with 25th to 75th and 10th to 90th percentile bands. The thin dotted line is the corresponding average snowfall.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall	2.8″	3.0″	3.2″	3.4″	3.4″	3.2″	3.5″	3.0″	2.6″	2.3″	2.8″	3.1″

Soil Map—Sullivan County, Tennessee



Map Scale: 1:8,620 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N 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 1:20,000.

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: Sullivan County, Tennessee
Survey Area Data: Version 20, Sep 12, 2023

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

Date(s) aerial images were photographed: May 5, 2022—Jun 19, 2022

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
BaD2	Bays silty clay loam, 12 to 20 percent slopes, eroded	1.6	0.5%
BaE2	Bays silty clay loam, 20 to 35 percent slopes, eroded	3.4	1.2%
BaF2	Bays silty clay loam, 35 to 65 percent slopes, eroded	3.0	1.1%
BeB	Bellamy loam, 2 to 5 percent slopes	8.1	2.8%
Bm	Bloomingdale silty clay loam, 0 to 2 percent slopes, occasionally flooded	14.9	5.2%
CeD3	Collegedale-Etowah complex, 12 to 20 percent slopes, severely eroded	9.2	3.2%
MoD	Montevallo channery silt loam, 12 to 20 percent slopes	9.1	3.2%
MoE	Montevallo channery silt loam, 20 to 35 percent slopes	4.4	1.5%
MoF	Montevallo channery silt loam, 35 to 50 percent slopes	18.4	6.4%
MoG	Montevallo channery silt loam, 50 to 80 percent slopes	6.8	2.4%
Pt	Pettyjon loam, 0 to 2 percent slopes, rarely flooded	7.1	2.5%
St	Steadman silty clay loam, 0 to 2 percent slopes, occasionally flooded	35.8	12.5%
TbD2	Talbott-Rock outcrop-Bradyville complex, 12 to 20 percent slopes, eroded	79.0	27.6%
TbE2	Talbott-Rock outcrop-Bradyville complex, 20 to 50 percent slopes, eroded	83.6	29.2%
W	Water	1.9	0.7%
Totals for Area of Interest		**286.3**	**100.0%**

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/3
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Horse Creek Quarry City/County: Sullivan Sampling Date: 11/11/23
Applicant/Owner: 3 Tees, LLC State: TN Sampling Point: WL-1
Investigator(s): Stephen E. Maxfield, P. E. Section, Township, Range:
Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): Concave Slope (%): 35
Subregion (LRR or MLRA): LRR N, MLRA 128 Lat: 36 deg 28' 34" Long: 82 deg 34' 47" Datum: WGS84
Soil Map Unit Name: Talbot Rock Outcrop - Bradyville Complex NWI classification: PUBHh
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
A dam was constructed in this valley years ago to construct a pond. However, the pond never impounded enough water to prevent wetland development likely due to karst topography.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ____ High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- X True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 6
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 3

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial Photos

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: WE-1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 3000 sqft)			
1. cattail	70	Yes	OBL
2. *Rush*	10	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 =Total Cover		
50% of total cover: 40	20% of total cover: 16		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		80 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: WL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5YR 7/6	5						
2-9	N2 7/10BG	40						
9-17	N2 4/10B	55						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- X Loamy Mucky Mineral (F1) **(MLRA 136)**
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Resources, Version 1.5

Named Waterbody: Un-named tributary of Horse Creek UNP-1		Date/Time: 11/11/23
Assessors/Affiliation: Stephen E. Maxfield		Project ID :
Site Name/Description: Proposed Horse Creek Quarry		
Site Location: 3725 Sullivan Gardens Parkway, Kingsport, Tennessee		
HUC (12 digit): 060101020702	Latitude: 336°28'31"	
Previous Rainfall (7-days) :	Longitude: 82°34'42"	
Precipitation this Season vs. Normal : abnormally wet elevated average low abnormally dry unknown Source of recent & seasonal precip. data :		
Watershed Size : 85 ac.	County: Sullivan	
Soil Type(s) / Geology : Talbot Rock Outcrop - Bradyville Complex	Source: NRCS	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate Slight X Absent		

Primary Field Indicators Observed

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

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 = Perrenial Stream

Secondary Indicator Score (if applicable) =

Justification / Notes :

Secondary Field Indicator Evaluation

Item VI1.

A. Geomorphology (Subtotal = 23)	**Absent**	**Weak**	**Moderate**	**Strong**
1. Continuous bed and bank 3	0	1	2	3
2. Sinuous channel 2	0	1	2	3
3. In-channel structure: riffle-pool sequences 2	0	1	2	3
4. Sorting of soil textures or other substrate 3	0	1	2	3
5. Active/relic floodplain 2	0	0.5	1	1.5
6. Depositional bars or benches 2	0	1	2	3
7. Braided channel 0	0	1	2	3
8. Recent alluvial deposits 1	0	0.5	1	1.5
9. Natural levees 1	0	1	2	3
10. Headcuts 1	0	1	2	3
11. Grade controls 3	0	0.5	1	1.5
12. Natural valley or drainageway 3	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map 0	0	1	2	3

B. Hydrology (Subtotal = 6.5)	**Absent**	**Weak**	**Moderate**	**Strong**
14. Subsurface flow/discharge into channel 2	0	1	2	3
15. Water in channel and >48 hours since sig. rain 3	0	1	2	3
16. Leaf litter in channel 1.5	1.5	1	0.5	0
17. Sediment on plants or on debris 0	0	0.5	1	1.5
18. Organic debris lines or piles (wrack lines) 0	0	0.5	1	1.5
19. Hydric soils in channel bed or sides of channel 0	No = 0		Yes = 1.5	

C. Biology (Subtotal = 7)	**Absent**	**Weak**	**Moderate**	**Strong**
20. Fibrous roots in channel bed [1] 3	3	2	1	0
21. Rooted plants in the thalweg [1] 2	3	2	1	0
22. Crayfish in stream (exclude in floodplain) 0	0	1	2	3
23. Bivalves/mussels 0	0	1	2	3
24. Amphibians 0	0	0.5	1	1.5
25. Macrobenthos (record type & abundance) 2	0	1	2	3
26. Filamentous algae; periphyton 0	0	1	2	3
27. Iron oxidizing bacteria/fungus 0	0	0.5	1	1.5
28. Wetland plants in channel bed [2] 0	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 = _____36.5_____

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

Notes :

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Resources, Version 1.5

Named Waterbody: Un-named tributary of Horse Creek UNI-1		Date/Time: 11/11/23
Assessors/Affiliation: Stephen E. Maxfield		Project ID :
Site Name/Description: Proposed Horse Creek Quarry		
Site Location: 3725 Sullivan Gardens Parkway, Kingsport, Tennessee		
HUC (12 digit): 060101020702	Latitude: 36°28'51"	
Previous Rainfall (7-days) :	Longitude: 82°34'47"	
Precipitation this Season vs. Normal : abnormally wet elevated average low abnormally dry unknown Source of recent & seasonal precip. data :		
Watershed Size : 5 ac.	County: Sullivan	
Soil Type(s) / Geology : Talbot Rock Outcrop - Bradyville Complex	Source: NRCS	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate Slight X Absent		

Primary Field Indicators Observed

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

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 = Intermittent Stream

Secondary Indicator Score (if applicable) =

Justification / Notes :

Secondary Field Indicator Evaluation

A. Geomorphology (Subtotal = 11.5)		**Absent**	**Weak**	**Moderate**	**Strong**
1. Continuous bed and bank	3	0	1	2	3
2. Sinuous channel	0	0	1	2	3
3. In-channel structure: riffle-pool sequences	0	0	1	2	3
4. Sorting of soil textures or other substrate	1	0	1	2	3
5. Active/relic floodplain	0	0	0.5	1	1.5
6. Depositional bars or benches	0	0	1	2	3
7. Braided channel	0	0	1	2	3
8. Recent alluvial deposits	1	0	0.5	1	1.5
9. Natural levees	1	0	1	2	3
10. Headcuts	1	0	1	2	3
11. Grade controls	1	0	0.5	1	1.5
12. Natural valley or drainageway	0.5	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map	3	0	1	2	3

B. Hydrology (Subtotal = 6.5)		**Absent**	**Weak**	**Moderate**	**Strong**
14. Subsurface flow/discharge into channel	2	0	1	2	3
15. Water in channel and >48 hours since sig. rain	3	0	1	2	3
16. Leaf litter in channel	1.5	1.5	1	0.5	0
17. Sediment on plants or on debris	0	0	0.5	1	1.5
18. Organic debris lines or piles (wrack lines)	0	0	0.5	1	1.5
19. Hydric soils in channel bed or sides of channel	0	No = 0		Yes = 1.5	

C. Biology (Subtotal = 0)		**Absent**	**Weak**	**Moderate**	**Strong**
20. Fibrous roots in channel bed [1]	0	3	2	1	0
21. Rooted plants in the thalweg [1]	0	3	2	1	0
22. Crayfish in stream (exclude in floodplain)	0	0	1	2	3
23. Bivalves/mussels	0	0	1	2	3
24. Amphibians	0	0	0.5	1	1.5
25. Macrobenthos (record type & abundance)	0	0	1	2	3
26. Filamentous algae; periphyton	0	0	1	2	3
27. Iron oxidizing bacteria/fungus	0	0	0.5	1	1.5
28. Wetland plants in channel bed [2]	0	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 = _____17.5_____

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

Notes :

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Resources, Version 1.5

Named Waterbody: Un-named tributary of Horse Creek DS-1		Date/Time: 11/11/23
Assessors/Affiliation: Stephen E. Maxfield		Project ID :
Site Name/Description: Proposed Horse Creek Quarry		
Site Location: 3725 Sullivan Gardens Parkway, Kingsport, Tennessee		
HUC (12 digit): 060101020702	Latitude: 36°28'33"	
Previous Rainfall (7-days) :	Longitude: 82°34'36"	
Precipitation this Season vs. Normal : abnormally wet elevated average low abnormally dry unknown Source of recent & seasonal precip. data :		
Watershed Size : 7.3 ac.	County: Sullivan	
Soil Type(s) / Geology : Talbot Rock Outcrop - Bradyville Complex	Source: NRCS	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate Slight X Absent		

Primary Field Indicators Observed

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

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 = WWC

Secondary Indicator Score (if applicable) = 3

Justification / Notes :

No flow present. No defined bed or bank. Covered with leaf litter, tree limbs, branches with no recent flow evidence.

Secondary Field Indicator Evaluation

Item VI1.

A. Geomorphology (Subtotal = 1.5)		**Absent**	**Weak**	**Moderate**	**Strong**
1. Continuous bed and bank	0	0	1	2	3
2. Sinuous channel	0	0	1	2	3
3. In-channel structure: riffle-pool sequences	0	0	1	2	3
4. Sorting of soil textures or other substrate	0	0	1	2	3
5. Active/relic floodplain	0	0	0.5	1	1.5
6. Depositional bars or benches	0	0	1	2	3
7. Braided channel	0	0	1	2	3
8. Recent alluvial deposits	0	0	0.5	1	1.5
9. Natural levees	0	0	1	2	3
10. Headcuts	0	0	1	2	3
11. Grade controls	0	0	0.5	1	1.5
12. Natural valley or drainageway	1.5	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map	0	0	1	2	3

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

C. Biology (Subtotal = 0)		**Absent**	**Weak**	**Moderate**	**Strong**
20. Fibrous roots in channel bed [1]	0	3	2	1	0
21. Rooted plants in the thalweg [1]	0	3	2	1	0
22. Crayfish in stream (exclude in floodplain)	0	0	1	2	3
23. Bivalves/mussels	0	0	1	2	3
24. Amphibians	0	0	0.5	1	1.5
25. Macrobenthos (record type & abundance)	0	0	1	2	3
26. Filamentous algae; periphyton	0	0	1	2	3
27. Iron oxidizing bacteria/fungus	0	0	0.5	1	1.5
28. Wetland plants in channel bed [2]	0	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 = _____3____

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

Notes :

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Resources, Version 1.5

Named Waterbody: Un-named tributary of Horse Creek DS-2		Date/Time: 11/11/23
Assessors/Affiliation: Stephen E. Maxfield		Project ID :
Site Name/Description: Proposed Horse Creek Quarry		
Site Location: 3725 Sullivan Gardens Parkway, Kingsport, Tennessee		
HUC (12 digit): 060101020702	Latitude: 36°28'30"	
Previous Rainfall (7-days) :	Longitude: 82°34'43"	
Precipitation this Season vs. Normal : abnormally wet elevated average low abnormally dry unknown Source of recent & seasonal precip. data :		
Watershed Size : 7.3 ac.	County: Sullivan	
Soil Type(s) / Geology : Talbot Rock Outcrop - Bradyville Complex	Source: NRCS	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate Slight X Absent		

Primary Field Indicators Observed

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

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 = WWC

Secondary Indicator Score (if applicable) = 1

Justification / Notes :

No flow present. No defined bed or bank. Covered with leaf litter, tree limbs, branches with no recent flow evidence.

Secondary Field Indicator Evaluation

A. Geomorphology (Subtotal = 1.0)	**Absent**	**Weak**	**Moderate**	**Strong**
1. Continuous bed and bank 0	0	1	2	3
2. Sinuous channel 0	0	1	2	3
3. In-channel structure: riffle-pool sequences 0	0	1	2	3
4. Sorting of soil textures or other substrate 0	0	1	2	3
5. Active/relic floodplain 0	0	0.5	1	1.5
6. Depositional bars or benches 0	0	1	2	3
7. Braided channel 0	0	1	2	3
8. Recent alluvial deposits 0	0	0.5	1	1.5
9. Natural levees 0	0	1	2	3
10. Headcuts 0	0	1	2	3
11. Grade controls 0	0	0.5	1	1.5
12. Natural valley or drainageway 1.0	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map 0	0	1	2	3

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

C. Biology (Subtotal = 0)	**Absent**	**Weak**	**Moderate**	**Strong**
20. Fibrous roots in channel bed [1] 0	3	2	1	0
21. Rooted plants in the thalweg [1] 0	3	2	1	0
22. Crayfish in stream (exclude in floodplain) 0	0	1	2	3
23. Bivalves/mussels 0	0	1	2	3
24. Amphibians 0	0	0.5	1	1.5
25. Macrobenthos (record type & abundance) 0	0	1	2	3
26. Filamentous algae; periphyton 0	0	1	2	3
27. Iron oxidizing bacteria/fungus 0	0	0.5	1	1.5
28. Wetland plants in channel bed [2] 0	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 = _____1.0____

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

Notes :

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Resources, Version 1.5

Named Waterbody: Un-named tributary of Horse Creek DS-3		Date/Time: 11/11/23
Assessors/Affiliation: Stephen E. Maxfield		Project ID :
Site Name/Description: Proposed Horse Creek Quarry		
Site Location: 3725 Sullivan Gardens Parkway, Kingsport, Tennessee		
HUC (12 digit): 060101020702	Latitude: 36°28'50"	
Previous Rainfall (7-days) :	Longitude: 82°34'45"	
Precipitation this Season vs. Normal : abnormally wet elevated average low abnormally dry unknown Source of recent & seasonal precip. data :		
Watershed Size : 64 ac.	County: Sullivan	
Soil Type(s) / Geology : Talbot Rock Outcrop - Bradyville Complex	Source: NRCS	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate Slight X Absent		

Primary Field Indicators Observed

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

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 = WWC

Secondary Indicator Score (if applicable) = 1.5

Justification / Notes :

No flow present. No defined bed or bank. Covered with leaf litter, tree limbs, branches with no recent flow evidence.

Secondary Field Indicator Evaluation

A. Geomorphology (Subtotal = 1.0)	**Absent**	**Weak**	**Moderate**	**Strong**
1. Continuous bed and bank 0	0	1	2	3
2. Sinuous channel 0	0	1	2	3
3. In-channel structure: riffle-pool sequences 0	0	1	2	3
4. Sorting of soil textures or other substrate 0	0	1	2	3
5. Active/relic floodplain 0	0	0.5	1	1.5
6. Depositional bars or benches 0	0	1	2	3
7. Braided channel 0	0	1	2	3
8. Recent alluvial deposits 0	0	0.5	1	1.5
9. Natural levees 0	0	1	2	3
10. Headcuts 0	0	1	2	3
11. Grade controls 0	0	0.5	1	1.5
12. Natural valley or drainageway 1.0	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map 0	0	1	2	3

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

C. Biology (Subtotal = 0)	**Absent**	**Weak**	**Moderate**	**Strong**
20. Fibrous roots in channel bed [1] 0	3	2	1	0
21. Rooted plants in the thalweg [1] 0	3	2	1	0
22. Crayfish in stream (exclude in floodplain) 0	0	1	2	3
23. Bivalves/mussels 0	0	1	2	3
24. Amphibians 0	0	0.5	1	1.5
25. Macrobenthos (record type & abundance) 0	0	1	2	3
26. Filamentous algae; periphyton 0	0	1	2	3
27. Iron oxidizing bacteria/fungus 0	0	0.5	1	1.5
28. Wetland plants in channel bed [2] 0	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 = _____1.5___

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

Notes :

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Resources, Version 1.5

Named Waterbody: Un-named tributary of Horse Creek DS-4		Date/Time: 11/11/23
Assessors/Affiliation: Stephen E. Maxfield		Project ID :
Site Name/Description: Proposed Horse Creek Quarry		
Site Location: 3725 Sullivan Gardens Parkway, Kingsport, Tennessee		
HUC (12 digit): 060101020702	Latitude: 36°28'50"	
Previous Rainfall (7-days) :	Longitude: 82°34'45"	
Precipitation this Season vs. Normal : abnormally wet elevated average low abnormally dry unknown Source of recent & seasonal precip. data :		
Watershed Size : 64 ac.	County: Sullivan	
Soil Type(s) / Geology : Talbot Rock Outcrop - Bradyville Complex	Source: NRCS	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate Slight X Absent		

Primary Field Indicators Observed

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

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 = WWC

Secondary Indicator Score (if applicable) = 1.5

Justification / Notes :

No flow present. No defined bed or bank. No recent flow evidence.

Secondary Field Indicator Evaluation

A. Geomorphology (Subtotal = 1.0	**Absent**	**Weak**	**Moderate**	**Strong**
1. Continuous bed and bank 0	0	1	2	3
2. Sinuous channel 0	0	1	2	3
3. In-channel structure: riffle-pool sequences 0	0	1	2	3
4. Sorting of soil textures or other substrate 0	0	1	2	3
5. Active/relic floodplain 0	0	0.5	1	1.5
6. Depositional bars or benches 0	0	1	2	3
7. Braided channel 0	0	1	2	3
8. Recent alluvial deposits 0	0	0.5	1	1.5
9. Natural levees 0	0	1	2	3
10. Headcuts 0	0	1	2	3
11. Grade controls 0	0	0.5	1	1.5
12. Natural valley or drainageway 1.0	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map 0	0	1	2	3

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

C. Biology (Subtotal = 0)	**Absent**	**Weak**	**Moderate**	**Strong**
20. Fibrous roots in channel bed [1] 0	3	2	1	0
21. Rooted plants in the thalweg [1] 0	3	2	1	0
22. Crayfish in stream (exclude in floodplain) 0	0	1	2	3
23. Bivalves/mussels 0	0	1	2	3
24. Amphibians 0	0	0.5	1	1.5
25. Macrobenthos (record type & abundance) 0	0	1	2	3
26. Filamentous algae; periphyton 0	0	1	2	3
27. Iron oxidizing bacteria/fungus 0	0	0.5	1	1.5
28. Wetland plants in channel bed [2] 0	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 = _____2.5___

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

Notes :

Wetland WL-1

Wetland WL-1

Pit WL-1

Old spillway pipe from failed pond construction
WL-1

Stream UNP-1

Stream UNP-1

Stream UNP-1 extending beyond property

WWC DS-1

WWC DS-2

WWC DS-3

WWC DS-4

Stream UNI-1


Sullivan Gardens
Glen Alpine
GLENBURN RD
MISTY DR
Horse Creek
SULLIVAN GARDENS PKWY
ROSEMONT ST
IDLEWILD DR
IVANHOE ST
CLOVER BOTTOM DR
HUC 12-060101020702
KING RD
OMAR DR
PITKIN DR
CAMBY DR
EASLEY DR
ROCK SPRINGS DR
Bear Creek
Horse Creek
Mill Creek
MILL CREEK RD
CEDAR DR
TWIN HILLS DR
SLAUGHTER ST
Easley Ridge
Bell Hollow

Measure

LEGEND

General | Description | Reports | About

This **0.83** acre **Freshwater Pond** habitat is classified as a **PUBHh**. For a complete code description, click here.

The wetlands and deepwater habitats in this area were photo interpreted using **1:58,000** scale, **color infrared** imagery from **1983**.

Zoom to wetland

Zoom to project area

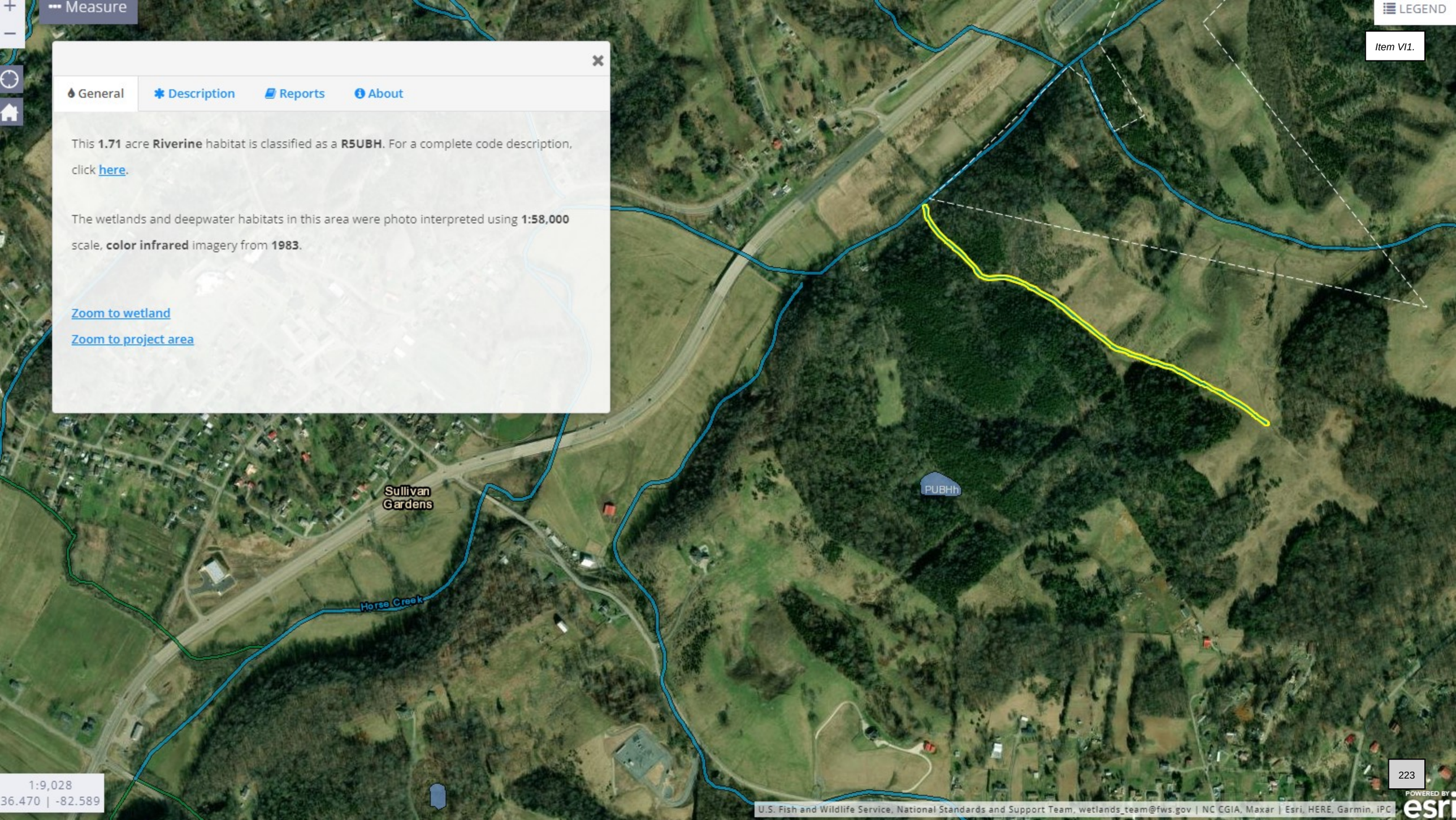
Sullivan Gardens

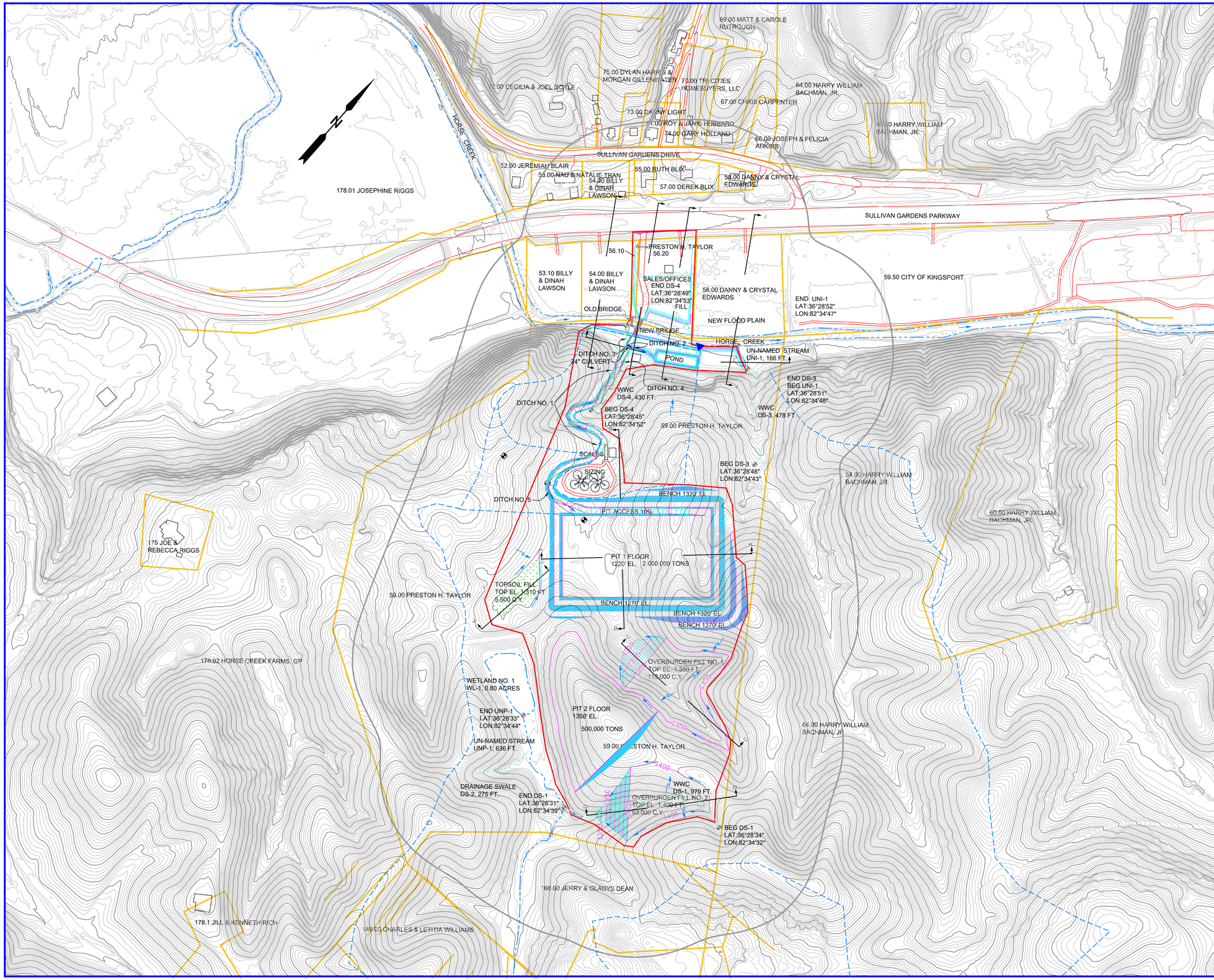
Horse Creek

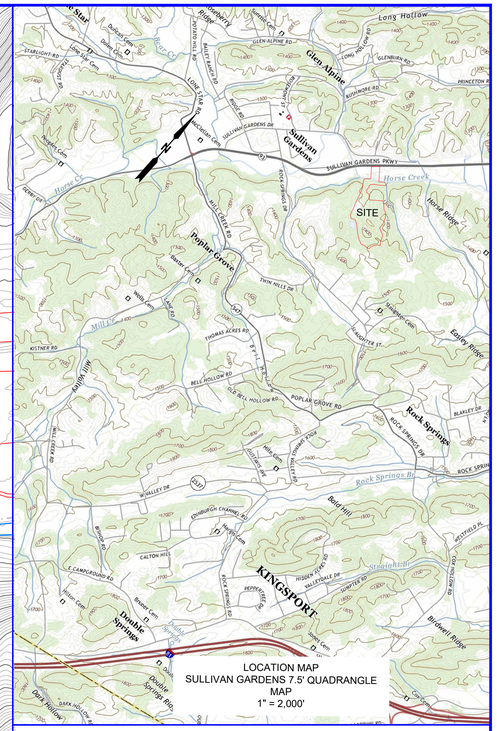
PUBHh

1:9,028
36.477 | -82.588

U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov | NC CGIA, Maxar | Esri, HERE, Garmin, iPC


Measure
LEGEND
Item VI1.
General
Description
Reports
About
This 1.71 acre Riverine habitat is classified as a R5UBH. For a complete code description, click here.
The wetlands and deepwater habitats in this area were photo interpreted using 1:58,000 scale, color infrared imagery from 1983.
Zoom to wetland
Zoom to project area
Sullivan Gardens
Horse Creek
PUBHh
1:9,028
36.470 | -82.589
223
U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov | NC CGIA, Maxar | Esri, HERE, Garmin, iPC
POWERED BY esri





LOCATION MAP
SULLIVAN GARDENS 7.5' QUADRANGLE MAP
1" = 2,000'

The property lines represented on this map are compiled from information maintained by the local county Assessor's office and are a best-fit visualization of how all the properties in a county relate to one another. The property lines are determined by examining detailed property descriptions on deeds and by using surveys created by a licensed surveyor but are not conclusive evidence of property ownership in any court of law. This map shall does not represent an actual land survey and shall not be used to divide or transfer property.

Legend

- Site Boundary
- Property Line
- 500' Site Radius
- Drainage Divide
- Diversion/Drainage Direction
- Sheet Flow Direction
- Stream
- Berm
- Road
- Wet Weather Conveyance (WWC)
- Stream/WWC BEG/END Point
- Existing Contours (2')
- Existing Contours (10')
- Proposed Contours (2')
- Proposed Contours (10')
- Culvert
- Building or Structure
- NPDES Point
- Borehole
- Topsoil Stockpile

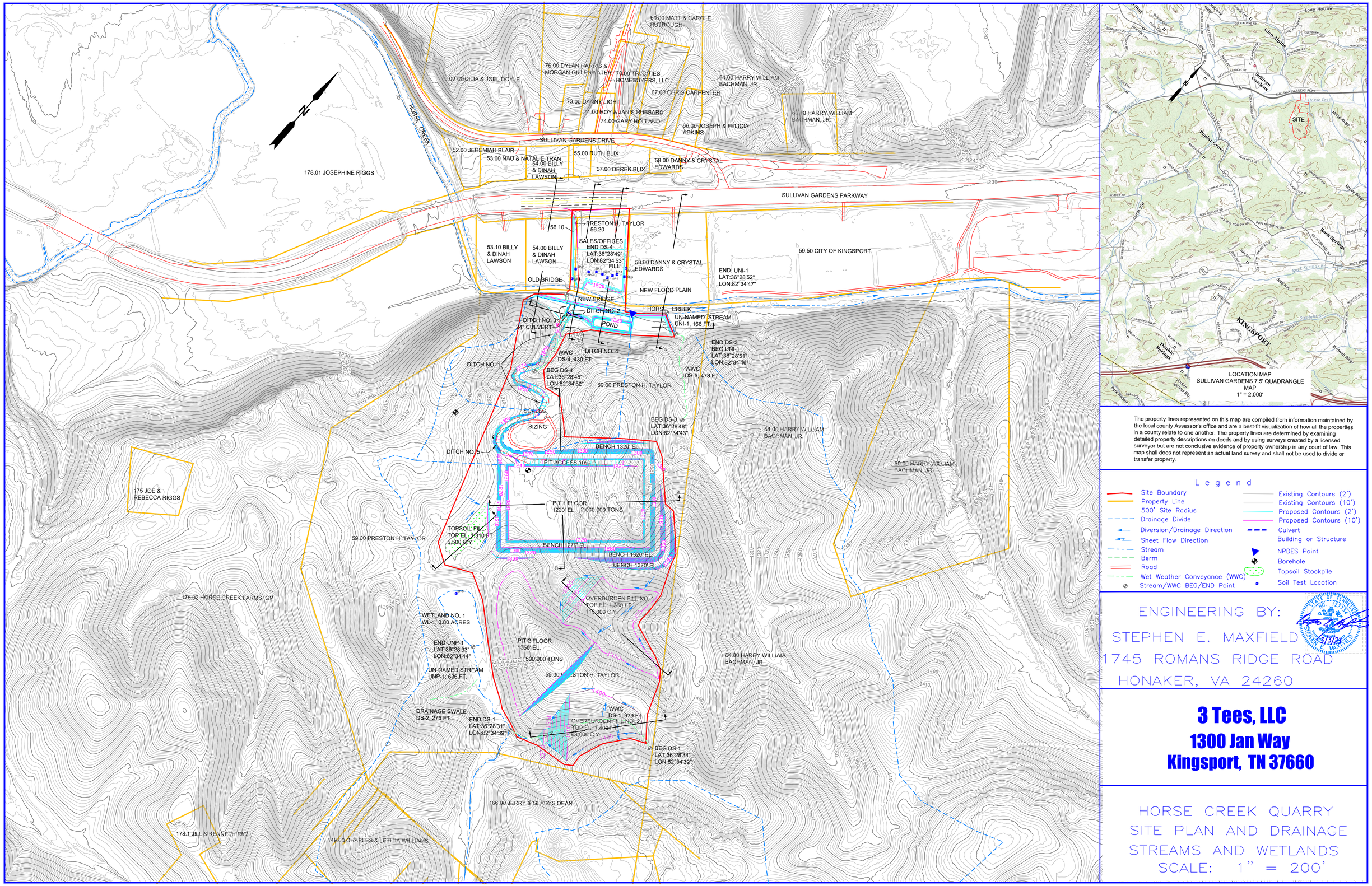
ENGINEERING BY:
STEPHEN E. MAXFIELD
1745 ROMANS RIDGE ROAD
HONAKER, VA 24260

STATE OF VIRGINIA — STEPHEN E. MAXFIELD — LICENSED PROFESSIONAL ENGINEER — 2/3/25

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
STREAMS AND WETLANDS

SCALE: 1" = 200'



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- Berm
- Road
- Wet Weather Conveyance (WWC)
- Stream/WWC BEG/END Point
- Existing Contours (2')
- Existing Contours (10')
- Proposed Contours (2')
- Proposed Contours (10')
- Culvert
- Building or Structure
- NPDES Point
- Borehole
- Topsoil Stockpile
- Soil Test Location

ENGINEERING BY:
STEPHEN E. MAXFIELD
1745 ROMANS RIDGE ROAD
HONAKER, VA 24260

3 Tees, LLC
1300 Jan Way
Kingsport, TN 37660

HORSE CREEK QUARRY
SITE PLAN AND DRAINAGE
STREAMS AND WETLANDS
SCALE: 1" = 200'

PETITION TO SULLIVAN COUNTY FOR REZONING

A request for rezoning is made by the person named below; said request to go before the Sullivan County Regional Planning Commission for recommendation to the Sullivan County Board of Commissioners.

Date: 03/21/24

Property Owner: Daniel V Davis ,dba 3Tees,llc on behalf of Preston H. Taylor, Jr

Address: 1300 Jan Way Kingsport, TN 37660

Phone number: 423-817-7300 Email: vicd@vdctn.com

Property Identification

Tax Map: 090 Group: Parcel: 059.00

Zoning Map: 14 Zoning District: A-1 Proposed District: M-2 Civil District: 13

Property Location: 3725 Sullivan Gardens Pky Kingsport , TN 37660 Commission District: 8

Purpose of Rezoning: Agriculture to Heavy Manufacturing rock quarry/borrow site

Meetings

Planning Commission: Kingsport Planning Commission

Place: Historic Courthouse, 2nd Floor, 3411 Hwy 126 Blountville TN

Date: 5/16/24 Time: 5:30PM

Approved: _____ Denied: _____

County Commission:

Place: Historic Courthouse 2nd Floor Commission Chambers 3411 Highway 126, Blountville TN

Date: 6/13/24 Time: 6:00 PM

Approved: _____ Denied: _____

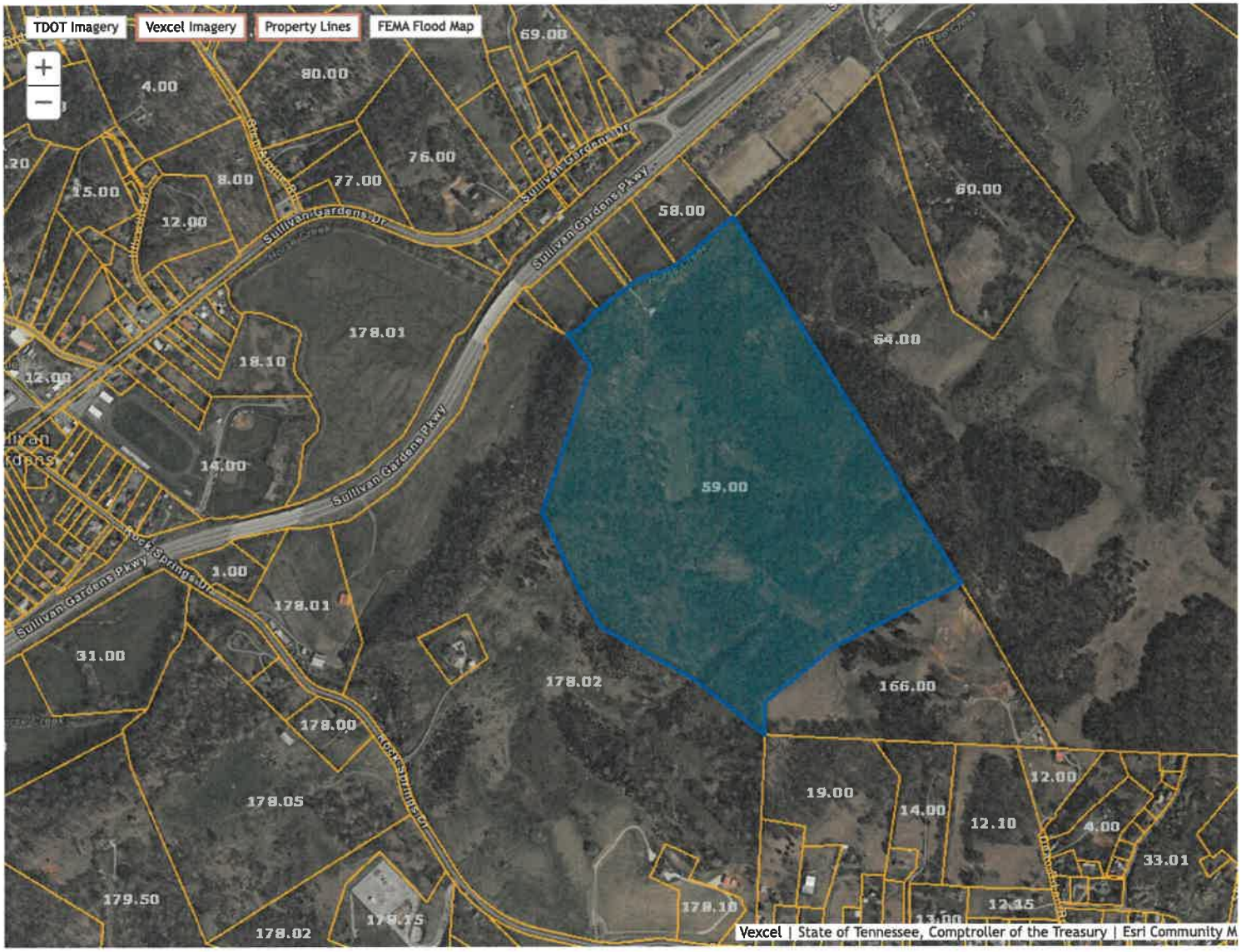
DEED RESTRICTIONS

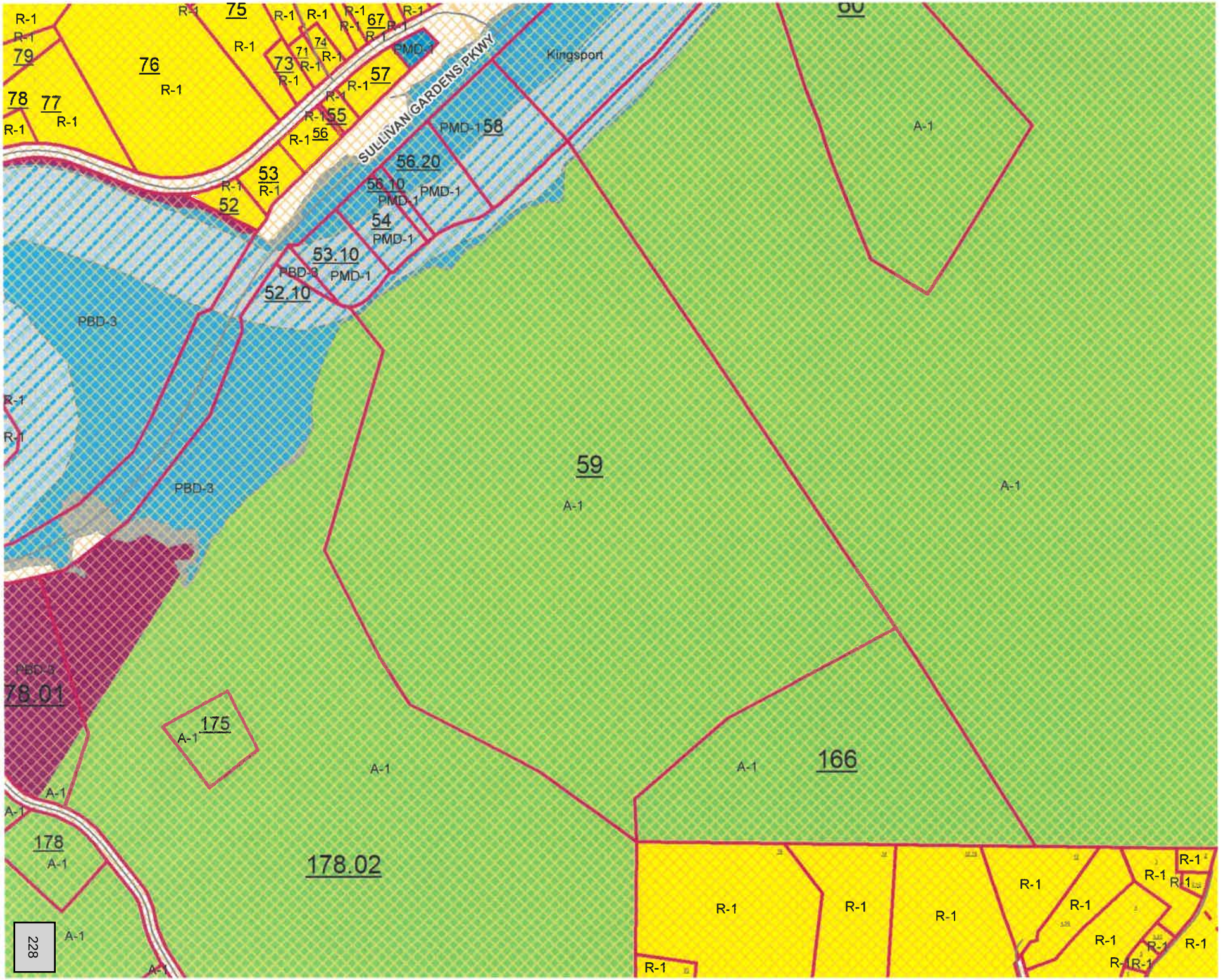
I understand that rezoning does not release my property from the requirements of private deed/Subdivision restrictions. The undersign, being duly sworn, hereby acknowledges that the information provided in this petition to Sullivan County for Rezoning is true and correct to the best of my information, knowledge and belief.

Owner's Signature: Daniel V Davis Date: 3/21/24

Notary Public: Tammi Delph My Commission Expires: 5-2-27

Tennessee Property Viewer




R-1
75
76
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73
71
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57
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56
53
52
SULLIVAN GARDENS PKWY
PMD-1
58
56.20
56.10
54
53.10
52.10
PBD-3
Kingsport
A-1
60
59
166
175
178
178.02
78.01
228
Item VI1.

Traffic Analysis

FOR:

3 Tees, LLC

Horse Creek Quarry

Commercial Entrance

LOCATED ON:

3725 Sullivan Gardens Parkway

SULLIVAN COUNTY, TENNESSEE

DESIGNED BY:

Stephen E. Maxfield
1745 Roman Ridge Road
Honaker, VA, 24260

March 23, 2024

Executive Summary

A commercial entrance has been designed for the proposed quarry at 3725 Sullivan Gardens Parkway, Kingsport Tennessee in accordance with American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets (Green Book) based on site conditions and a traffic analysis. No deceleration or acceleration lanes are proposed. Entrance shall accommodate WB-62 type trucks.

Proposed Location

The proposed location is at 3725 Sullivan Gardens Parkway (Route 93) between Regional Park Drive and Rock Springs Road. This entrance is approximately 1.8 miles South of Interstate 26. The purpose of this entrance is to provide access to the proposed 3 Tees, LLC Horse Creek Quarry.

Topography

Route 93 is an undivided five (5) lane Principal Urban Arterial Route, with a continuous center turn lane. The new commercial entrance will be a two (2) lane entrance leading into a rock quarry. The surrounding land use is primarily a combination of residential and farmland. In the vicinity of the proposed entrance, the Route 93 profile is nearly level, with no grades over 1% or crests or sags from vertical curves.

Site Drainage

There are no drainage structures within TDOT R.O.W. The entrance will be graded to direct the drainage away from Route 93. Therefore, the post development run-off on TDOT R.O.W. is less than or equal to the pre-development run-off.

Sight Distance

As noted above in the Topography Section, Route 93 is an undivided 5-lane highway, with a dedicated turn lane. In the location of the proposed entrance the road is nearly level and straight with no sags or crests. The sight distances were measured in accordance with the AASHTO criteria for eye level height, object height, and measuring location. All aspects of

sight distance at this location are well within the design criteria of the AASHTO Manual. The sight distances are summarized in the table below:

Aspect	Speed Limit	Grade	Sight Distance	Min. Req'd
Stopping Westbound	45 mph	0.4 % up	>1,000 ft	360 ft
Stopping Eastbound	45 mph	0.0 %	580 ft	360ft
Left	45 mph	0.0 %	580 ft	565 ft
Right	45 mph	0.4 % down	>1,000 ft	600 ft

The entrance is designed to accommodate WB-62 trucks; however, the majority of vehicles on Route 92 are passenger vehicles that must react to vehicles using the entrance. Therefore, minimum requirements are for passenger vehicles.

Vehicle Volume

Vehicle volumes for this section of Route 93 were acquired from 2023 Tennessee Department of Transportation (TDOT) Traffic Count Database System (TCDS). TDOT continuously collects traffic information on Tennessee's roadways as part of the Department's responsibility to monitor, collect, analyze, manage, and disseminate transportation data. Traffic data includes volume counts, vehicle classification counts, and speed data (see attached Appendix B). Annual Average Daily Traffic (AADT) volume is used throughout the Long-Range Planning process. TDOT collects Average Daily Traffic (ADT), which is based on a 24-hour count. This information is transformed in AADT by using the raw traffic data, which is statistically corrected by a seasonal variation factor that considers time of year and day of the week, as well as adjustments for vehicle type, determined by seasonal and axle correction factors. The peak hour volume (PHV) was determined as follows: (AADT) x (K) x (Direction Factor); where, K is a factor is based on the 30th highest hour of the year and is used to compute design hour volumes. Directional factors (D-factor) are measures of the peak hour directionality. They are based on the average weekday peak hour.

PHV = (13,614) x (0.10) x (0.59) = 803 vpd ÷ 8 hrs ≈ 100 vehicles per hour.

This value was used for traffic in both directions as worst case scenario for designing the entrance.

Vehicular Speeds

The Posted Speed Limit at this location on Route 93 is 45 MPH.

Types of Vehicles

The type of vehicle used for the worst case design would be a WB-62 Truck.

Entrance Geometry

The entrance has been designed to accommodate the WB-62 Truck. This is an Interstate Semi type truck. This is not the typical truck in and out of a quarry but would be an infrequent basis such as special shipment or delivery. The entrance design is a 3 centered compound curve, with radii of 200 ft, 50 ft, and 600 ft. from the AASHTO Design Manual. This design ensures that the path of the outer front wheel and the inner rear wheel of the vehicle are maintained in the designated paved lane.

Pedestrian Movements

No crosswalks are present at the proposed entrance location. Due to the nature of the entrance, few pedestrians are anticipated.

Trip Generation

The traffic generation of the proposed entrance was determined by assuming production/sales = 200,000 tpy or 770 tpd and 20 tons per truck; 770/20=39 trucks per day + employees, salesmans, etc. say 55 vpd. A maximum of 55 vehicles per day was determined. A total of 22 vehicles per peak hour were determined by the following: If all truck drivers and quarry employees were to arrive at the same time for work that day as well as any additional deliveries that may come in for that day, then that should be a maximum of 40% of the total daily vehicle trips; thus, (0.4) x (55) = 22. Table 2 summarizes the estimated peak hour generation based on the proposed development.

Since 22 vph is the peak amount, and Interstate 26 is 1.8 miles north and Interstate 81 is 6.6 miles south, it is assumed that there are 80% of vehicles turning left into site and 20% turning right into site. Similarly, egress traffic will be 80% right turn onto 93 and 20% left onto 93.

Table 2
Trip Generation Volumes for
the Proposed Entrance

Parking Spaces	Ample Parking	
Period	Entering	Exiting
Peak	22	22
Daily Total	55	55

Highway 93, being a 5-lane undivided highway with a dedicated continuous center turn lane, no improvements will be necessary for traffic turning left into the quarry. As noted above, an estimated 20% of the traffic volume will turn right into the quarry. At the peak volume this would be 5 vph (20% of 22). According to AASHTO Design Manual, no left turn lanes or tapers are required (see attached Appendix). The entrance is proposed to be constructed to provide adequate site distance in both directions (+500 left and +1000 right).

Conclusion

The proposed commercial entrance will have a use of 55 vpd and have a peak hour volume of 22 vph, and will not require a right or left turn lane. There is adequate sight distance in both directions and an entrance geometry is proposed for larger trucks than will use the entrance.

PREPARED BY: Stephen E. Maxfield, P. E.
March 23, 2024

Record	1	of 1	Goto Record	go

Location ID	82000102	MPO ID	
Type	SPOT	HPMS ID	
On NHS	Yes	On HPMS	
LRS ID	82SR093001	LRS Loc Pt.	5.961
SF Group	Urban Principal Arterial	Route Type	
AF Group	Region 1 Urban Other Principal Arterial	Route	
GF Group	Sullivan	Active	Yes
Class Dist Grp	Region 1 Urban Other Principal Arterial	Category	CC
Seas Clss Grp			
WIM Group			
QC Group	Default		
Fnct'l Class	Other Principal Arterial	Milepost	
Located On	SR093		
Loc On Alias	SULLIVAN GARDENS PKWY.		
	S OF KINGSPORT		

More Detail

STATION DATA

Directions: 2-WAY NB SB

AADT

	Year	AADT	DHV-30	K %	D %	PA	BC	Src
	2023	13,614[12]		10	59	12,919 (95%)	695 (5%)	
	2022	12,822[7]		10	59	12,193 (95%)	629 (5%)	
	2021	13,034	1,345	10	59	12,292 (94%)	742 (6%)	
	2020	12,057	1,246	10	56	10,995 (91%)	1,062 (9%)	
	2019	12,898		11	56			

|<< < > >>| 1-5 of 39

Travel Demand Model

	Model Year	Model AADT	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV

Stopping Sight Distance

Stopping sight distances exceeding those shown in the table below should be used as basis for design wherever practical.

In computing and measuring stopping sight distances, the height of the driverõs eye is estimated to be 3.5 feet and the height of the object to be seen by the driver is 2 feet, equivalent to the taillight height of a passenger car. The ñK Valuesò shown are a coefficient by which the algebraic difference in grade may be multiplied to determine the length in feet of the vertical curve that will provide minimum sight distance. Crest vertical curves shall meet or exceed AASHTO design criteria for Stopping Sight Distance, not the "k" Values. Sag vertical curves shall meet or exceed the AASHTO design criteria for headlight sight distance and "k" Values.

Height of Eye 3.5'											**Height of Object 2'**
Design Speed (mph) **	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**
MIN. SIGHT DISTANCE (FT.)	155	200	250	305	360	425	495	570	645	730	820
MINIMUM K VALUE FOR:											
CREST VERTICAL CURVES	12	19	29	44	61	84	114	151	193	247	312
SAG VERTICAL CURVES	26	37	49	64	79	96	115	136	157	181	206

Source: 2011 AASHTO Green Book, Chapter 3, Section 3.2.2*, page 3-4

TABLE 2-5 STOPPING SIGHT DISTANCE

When a highway is on a grade, the sight distances in the table below shall be used.

Design Speed (mph) **	**Stopping Sight Distance on Grades**					
	Downgrades			**Upgrades**		
	3%	**6%**	**9%**	**3%**	**6%**	**9%**
15	80	82	85	75	74	73
20	116	120	126	109	107	104
25	158	165	173	147	143	140
30	205	215	227	200	184	179
35	257	271	287	237	229	222
40	315	333	354	289	278	269
45	378	400	427	344	331	320
50	446	474	507	405	388	375
55	520	553	593	469	450	433
60	598	638	686	538	515	495
65	682	728	785	612	584	561
70	771	825	891	690	658	631
75	866	927	1003	772	736	704

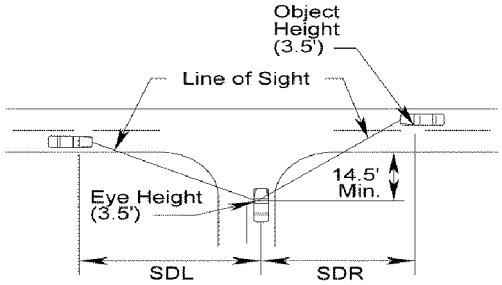
TABLE 2-6 STOPPING SIGHT DISTANCE ON GRADES

(See 2011 AASHTO Green Book, Chapter 3, Section 3.2.2, page 3-5)

* Rev. 1/14

Intersection Sight Distance

The following table shows intersection sight distance requirements for various speeds along major roads:



SDR = Sight Distance Right (For a vehicle making a left turn)
SDL = Sight Distance Left (For a vehicle making a right or left turn)

Height of Eye 3.5'												**Height of Object 3.5'**
Design Speed (mph)**		**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**
SDL=SDR: 2 Lane Major Road	**In Feet**	225	280	335	390	445	500	555	610	665	720	775
SDR: 4 Lane Major Road (Undivided) or 3 Lane		250	315	375	440	500	565	625	690	750	815	875
SDL: 4 Lane Major Road (Undivided) or 3 Lane		240	295	355	415	475	530	590	650	710	765	825
SDR: 4 Lane Major Road (Divided ï 18ôMedian)		275	340	410	480	545	615	680	750	820	885	955
SDL: 4 Lane Major Road (Divided ï 18ôMedian)		240	295	355	415	475	530	590	650	710	765	825
SDR: 5 Lane Major Road (continuous two-way turn-lane)		265	335	400	465	530	600	665	730	800	860	930
SDL: 5 Lane Major Road (continuous two-way turn-lane)		250	315	375	440	500	565	625	690	750	815	875
SDR: 6 Lane Major Road (Divided ï 18ôMedian)		290	360	430	505	575	645	720	790	860	935	1005
SDL: 6 Lane Major Road (Divided ï 18ôMedian)		250	315	375	440	500	565	625	690	750	815	875
SDL: (Where left turns are physically restricted)		210	260	310	365	415	465	515	566	620	670	725

TABLE 2-7 INTERSECTION SIGHT DISTANCE

Source: AASHTO Green Book, Chapter 9, Section 9.5.3, page 9-37 thru 9-52, * Table 9-5 thru 9-14

******For all tables, use design speed if available, if not use legal speed.

* Rev. 1/14

Warrants for Left Turn Storage Lanes on Two-Lane Highways

Advancing volume and opposing volumes (VPH), speed and percent left turns are used to determine whether a left turn storage lane is warranted on two-lane highways.

The warrants in table below are taken from the 2011 AASHTO Green Book, Chapter 9, Section 9.7.3, Page 9-132, Table 9-23. They were derived from Highway Research Report No. 211, Figures 2 through 19, for required storage length determinations.

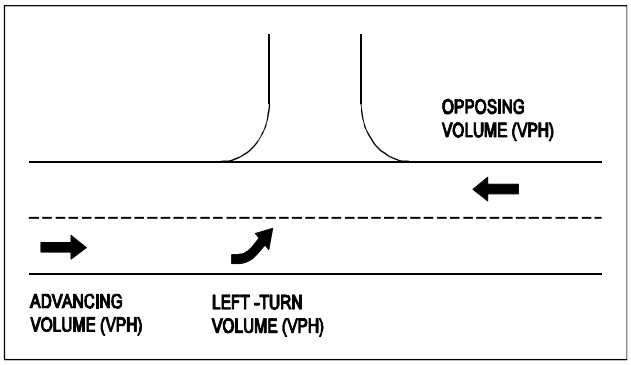
WARRANTS FOR LEFT TURN LANES ON TWO-LANE HIGHWAYS

VPH OPPOSING VOLUME	ADVANCING VOLUME			
	5% LEFT TURNS	10% LEFT TURNS	20% LEFT TURNS	30% LEFT TURNS
	40-MPH DESIGN SPEED*			
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340
	50-MPH DESIGN SPEED*			
800	280	210	165	135
600	350	280	195	170
400	430	320	240	210
200	550	400	300	270
100	615	445	335	295
	60-MPH DESIGN SPEED*			
800	230	170	125	115
600	290	210	160	140
400	365	270	200	175
200	450	330	250	215
100	505	370	275	240

TABLE 3-1

Source: Adapted from 2011 AASHTO Green Book, Chapter 9, Section 9.7.3, Page 9-132, Table 9-23

***** USE DESIGN SPEED IF AVAILABLE, IF NOT USE LEGAL SPEED LIMIT.*



Example:

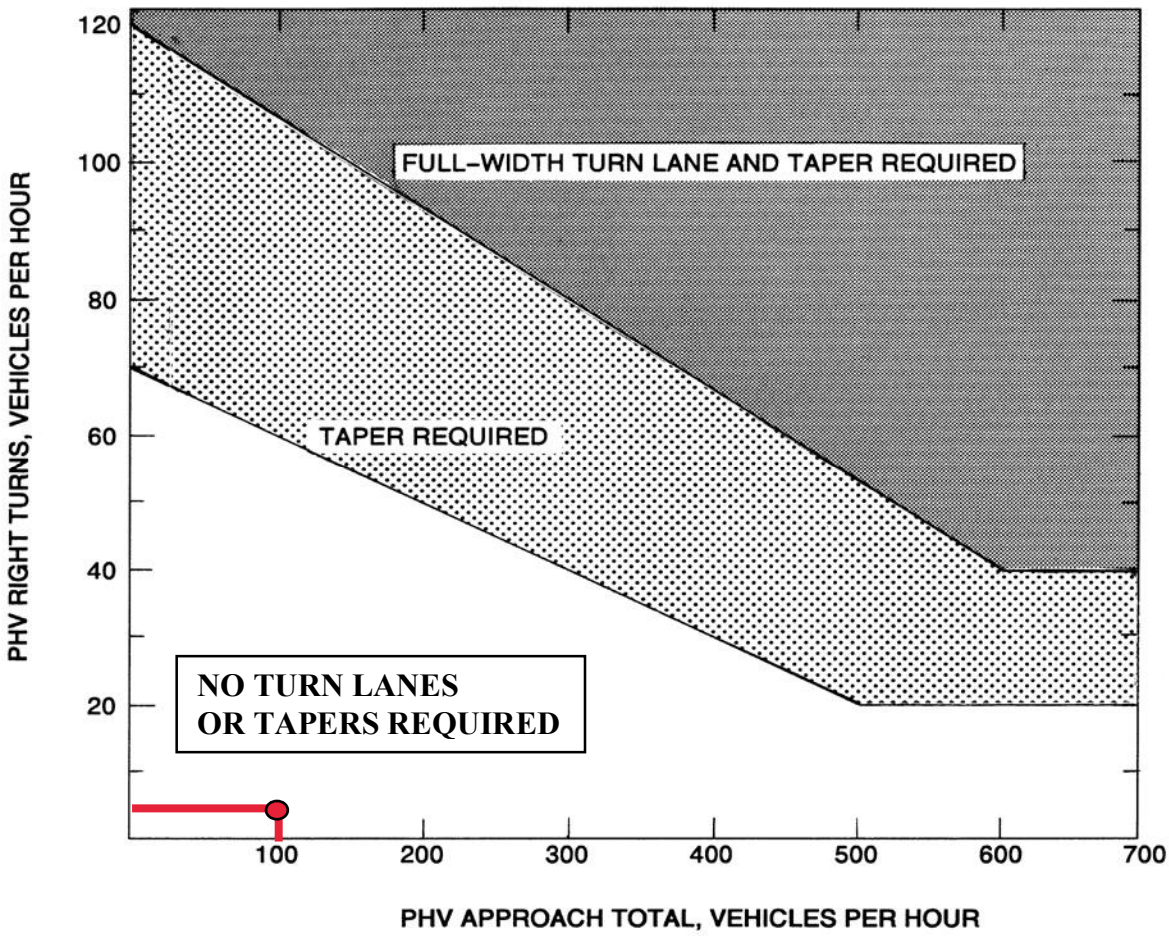
Two-lane highway with 40-MPH operating speed

Opposing Volume (VPH) - 600
Advancing Volume (VPH) - 440
Left-Turn Volume (VPH) - 44 or 10% of Advancing Volume

With opposing volume (VPH) of 600 and 10% of advancing volume (VPH) making left turns, and advancing volume (VPH) of 305 or more will warrant a left-turn lane.

When the Average Running Speed on an existing facility is available, the corresponding Design Speed may be obtained from Appendix A, Section A-1.

* Rev. 7/14



Appropriate Radius required at all Intersections and Entrances (Commercial or Private).

LEGEND

PHV - Peak Hour Volume (also Design Hourly Volume equivalent)

Adjustment for Right Turns

For posted speeds at or under 45 mph, PHV right turns > 40, and
PHV total < 300.
Adjusted right turns = PHV Right Turns - 20
If PHV is not known use formula: PHV = ADT x K x D

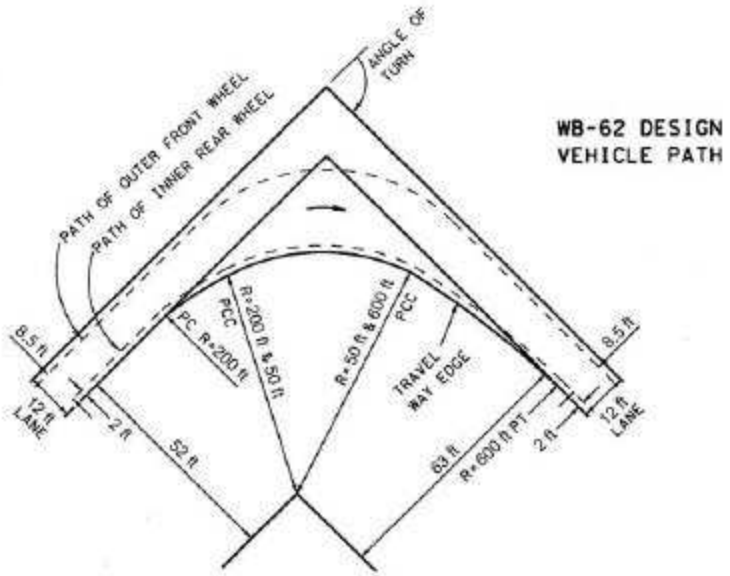
K = the percent of AADT occurring in the peak hour
D = the percent of traffic in the peak direction of flow

Note: An average of 11% for K x D will suffice.

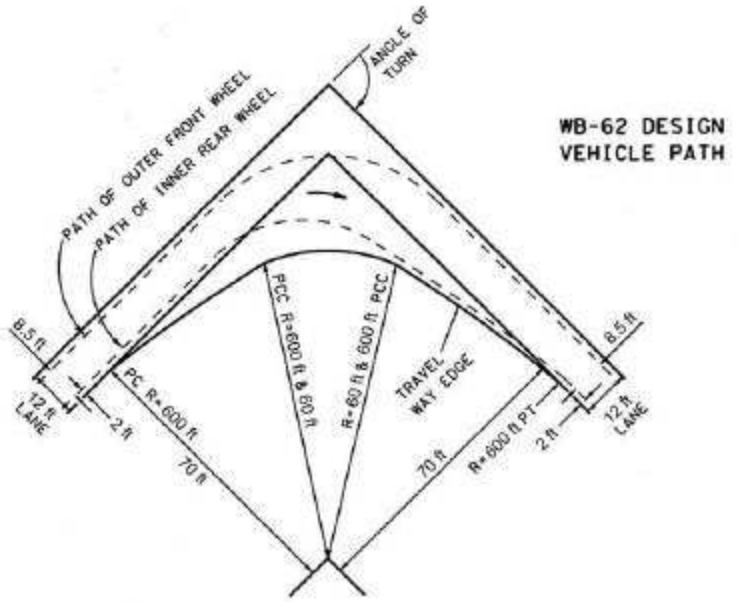
When right turn facilities are warranted, see Figure 3-1 for design criteria.*

FIGURE 3-26 WARRANTS FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)

* Rev. 1/15



WB-62 INTERSTATE SEMITRAILER COMBINATION
3 CENTERED COMPOUND CURVE,
200 ft - 50 ft - 600 ft RADII, OFFSET 2 ft AND 13 ft



WB-62 INTERSTATE SEMITRAILER COMBINATION
3 CENTERED COMPOUND CURVE,
600 ft - 60 ft - 600 ft RADII, OFFSET 10 ft

US Customary

Exhibit 9-26. Minimum Edge-of-Traveled-Way Designs (WB-19 [WB-62] Design Vehicle Path) (Continued)

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0061**

1258 E. Center Street Rezoning

Property Information			
Address	1258 E. Center Street		
Tax Map, Group, Parcel	Tax Map 046N Group H Parcel 016.00		
Civil District	11		
Overlay District	N/A		
Land Use Designation	Retail/Commercial		
Acres	Rezone Site 0.47 acres +/-		
Existing Use	Vacant Commercial Building (Dentist Office)	**Existing Zoning**	R-1B
Proposed Use	Beauty Salon (Blackheart Salon)	**Proposed Zoning**	B-1

Owner /Applicant Information

Name: Frank Merendino

Address: 1045 Rotherwood Drive

City: Kingsport

State: TN **Zip Code: 37660**

Email:

Phone Number:

Intent: ***To rezone from R-1B (Residential District) to B-1 (Neighborhood Business District) to accommodate the relocation of Blackheart Beauty Salon.***

Planning Department Recommendation

The Kingsport Planning Division recommends sending a POSITIVE recommendation to the Kingsport Board of Mayor and Alderman for the following reasons:

- *The proposal conforms to the Future Land Use Plan as a commercial use.*
- *The zoning change to B-1 allows for businesses providing goods and services, not for the entire community, but rather for only a neighborhood area in order to reduce travel time for the acquisition of the most frequently needed services and goods.*

Staff Field Notes and General Comments:

- *The rezoning site contains a vacant commercial building.*
- *The building's prior use was a dentist office.*
- *Water and sewer available at the rezoning site.*
- *The development review team is supportive of the request.*

Planner:	Jessica McMurray	Date:	April 4, 2024
Planning Commission Action		**Meeting Date:**	**May 16, 2024**
Approval:			
Denial:		Reason for Denial:	
Deferred:		Reason for Deferral:	

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0061**

PROPERTY INFORMATION	
ADDRESS	Parcel 016.00
DISTRICT	11
OVERLAY DISTRICT	N/A
EXISTING ZONING	R-1B
PROPOSED ZONING	B-1 (Neighborhood Business District)
ACRES	Rezone Site 0.47 acres +/-
EXISTING USE	vacant commercial building
PROPOSED USE	Beauty Salon (Blackheart Salon)

PETITIONER
ADDRESS **1045 Rotherwood Drive, Kingsport, TN 37660**

REPRESENTATIVE
PHONE

INTENT

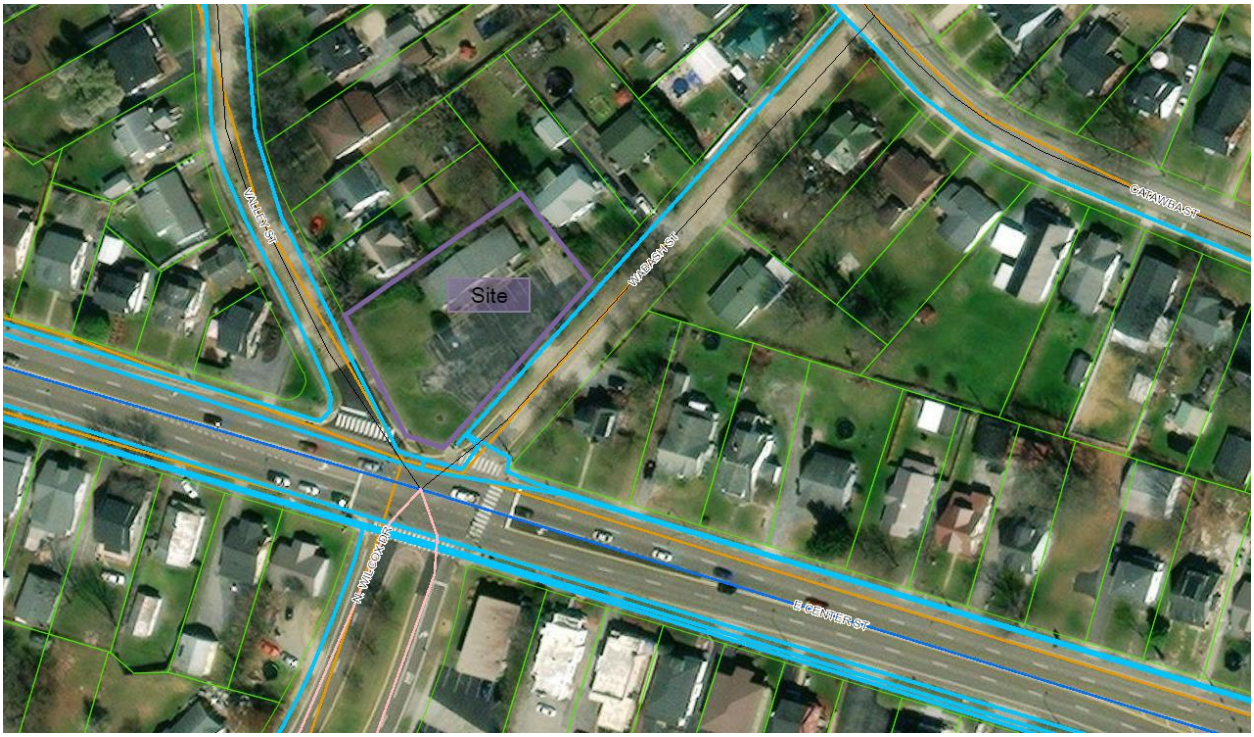
To rezone from R-1B (Residential District) to B-1 (Neighborhood Business District) to accommodate the relocation of Blackheart Beauty Salon.

Vicinity Map

Surrounding City Zoning Map

Future Land Use Plan 2030

Aerial



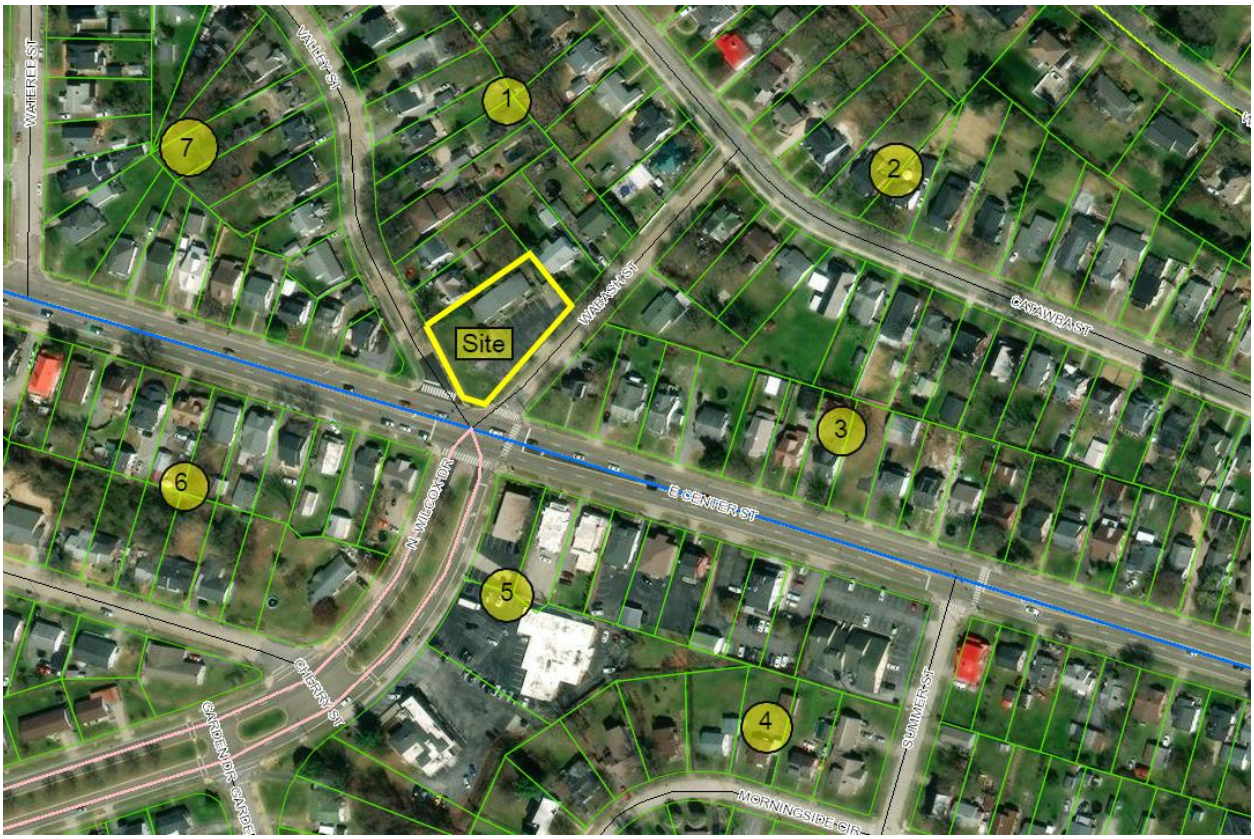
View facing Center Street

View facing Wabash Street

View from Wasbash Street

View from Center Street

EXISTING USES LOCATION MAP



Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0061**

Existing Zoning/ Land Use Table

Location	Parcel / Zoning Petition	Zoning / Name	History Zoning Action Variance Action
North	**1**	Zone: City R-1B Use: single family	
Northeast	**2**	Zone: City R-1B Use: single family	
East	**3**	Zone: City R-1B Use: single family	
Southeast	**4**	Zone: City R-1B Use: single family	
South	**5**	Zone: City P-1 Use: professional offices	
Southwest	**6**	Zone: City R-1B Use: single family	
Northwest	**7**	Zone: City R-1B Use: single family	

Standards of Review

Planning Staff shall, with respect to each zoning application, investigate and make a recommendation with respect to factors 1 through 6, below, as well as any other factors it may find relevant.

1. **Whether or not the proposal will permit a use that is suitable in view of the use and development of adjacent and nearby Property?** Rezoning will permit an appropriate use that is compatible with the current 2030 Future Land Use plan.

2. **Whether or not the proposal will adversely affect the existing use or usability of adjacent or nearby property?** The adjacent and nearby property will not be adversely affected by the proposal. Rezoning to B-1 appropriately matches the current Land Use designation for retail/commercial use.

3. **Whether the property to be affected by the proposal has a reasonable economic use as currently zoned?** The property has a reasonable economic use as currently zoned. There is also a reasonable economic use for the proposed zone.

4. **Whether the proposal is in conformity with the policies and intent of the land use plan?** The B-1 rezoning proposal does conform to the 2030 Land Use Plan and should serve the area well.

   Proposed use: New Beauty Salon (Blackheart Beauty Salon)

   The Future Land Use Plan Map recommends retail/commercial.

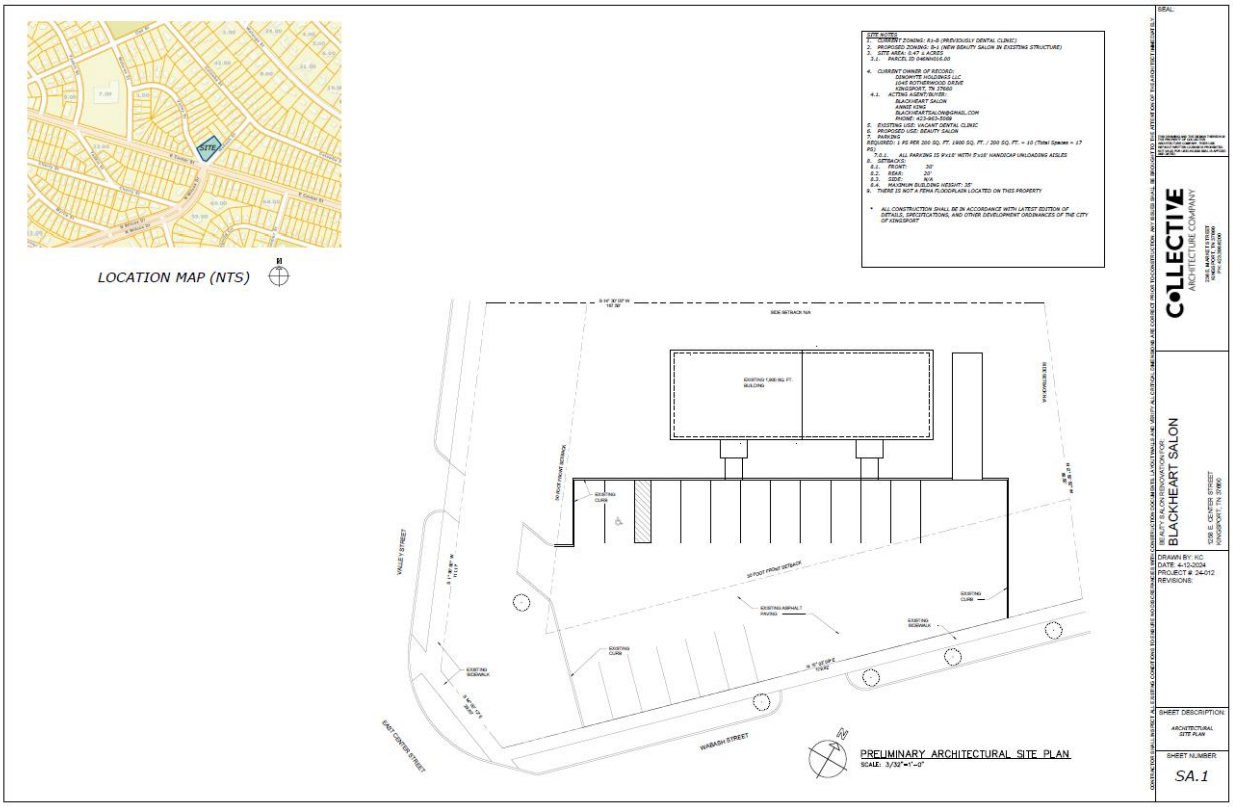
5. **Whether there are other existing or changed conditions affecting the use and development of the property which gives supporting grounds for either approval or disapproval of the proposal?** The existing conditions support approval of the proposed rezoning, as the B-1 rezoning proposal does conform to the 2030 Land Use Plan.

6. **Whether there are other existing or changed conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of the proposal?** The site contains a vacant commercial building that has previously been used a dentist office. The zoning change to B-1 allows for businesses providing goods and services, not for the entire community, but rather for only a neighborhood area in order to reduce travel time for the acquisition of the most frequently needed services and goods.

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0061**

Zoning Development Plan (A Full Size Copy Available For Meeting)



CONCLUSION

Staff recommends sending a positive recommendation to rezone from R-1B zone to the B-1 zone based upon conformance with the future land use plan.

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0071**

Airport Parkway Rezoning

Property Information			
Address	Airport Parkway		
Tax Map, Group, Parcel	Tax Map 094 Parcel 014.50 & Parcel 015.00		
Civil District	18		
Overlay District	N/A		
Land Use Designation	Retail/Commercial		
Acres	Rezone Site 40.0 acres +/-		
Existing Use	Vacant land	**Existing Zoning**	MX
Proposed Use	New single family residential development	**Proposed Zoning**	PD

Owner /Applicant Information

Name: Industrial Development Board of Kingsport

Address: 400 Clinchfield Street

City: Kingsport

State: TN **Zip Code: 37660**

Email:

Phone Number:

Intent: ***To rezone from MX (Mixed Use District) to PD (Planned Development District) to accommodate future single family residential development.***

Planning Department Recommendation

The Kingsport Planning Division recommends sending a POSITIVE recommendation to the Kingsport Board of Mayor and Alderman for the following reasons:

- *The zoning change is compatible with adjacent residential zoning districts.*
- *The zoning change will appropriately match the proposed use.*
- *The current MX zone does allow for single family uses, however rezoning to PD will allow the developer to fully utilize the property for housing development.*

Staff Field Notes and General Comments:

- *The parcels lie at the intersection of Airport Parkway and Airport Road, directly across from Tri-Cities Airport and beside Hamlett-Dobson Funeral Home and Memorial Park.*
- *The rezoning site is currently vacant with two dilapidated barns located on the property.*
- *The land lies in a gentle roll, with undulating slopes that rise and fall over green pasture.*

Planner:	Jessica McMurray	Date:	April 29, 2024
Planning Commission Action		**Meeting Date:**	**May 16, 2024**
Approval:			
Denial:		Reason for Denial:	
Deferred:		Reason for Deferral:	

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0071**

PROPERTY INFORMATION	
ADDRESS	Parcel 014.50 & Parcel 015.00
DISTRICT	18
OVERLAY DISTRICT	N/A
EXISTING ZONING	MX (Mixed Use District)
PROPOSED ZONING	PD (Planned Development District)
ACRES	Rezone Site 40.0 acres +/-
EXISTING USE	vacant land
PROPOSED USE	New single family residential development

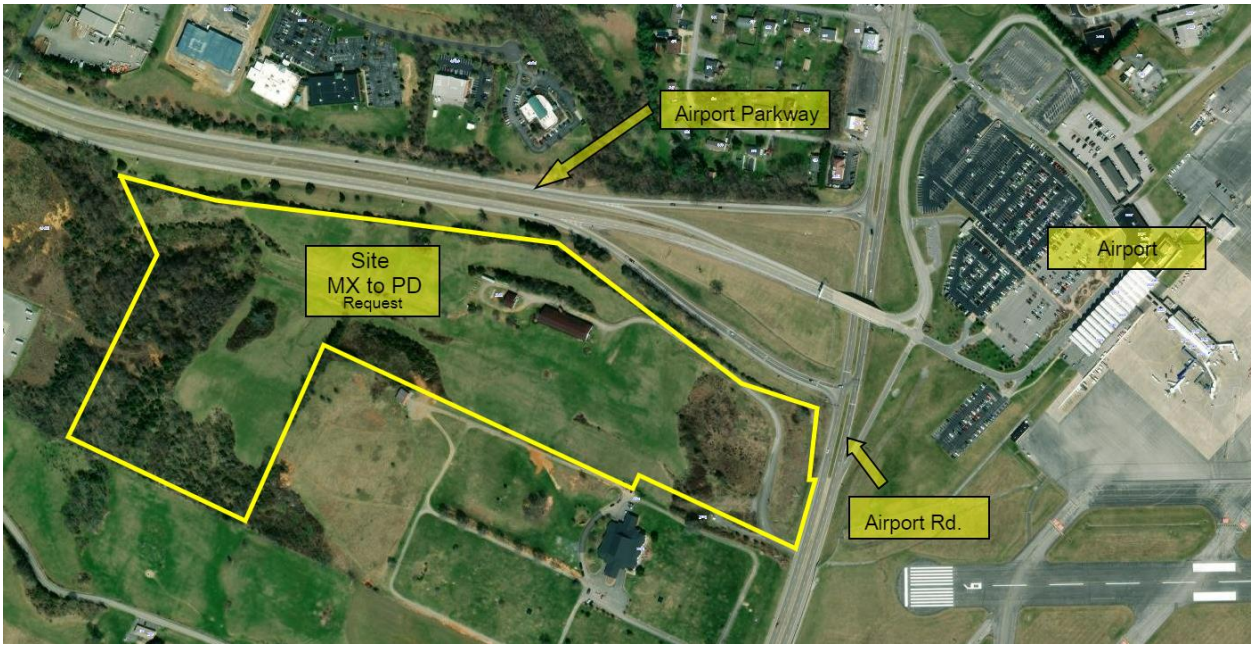
PETITIONER
ADDRESS **400 Clinchfield Street, Kingsport, TN 37660**

REPRESENTATIVE
PHONE

INTENT

To rezone from MX (Mixed Use District) to PD (Planned Development District) to accommodate future single family residential development.

Vicinity Map



Surrounding City Zoning Map

Future Land Use Plan 2030

Aerial


AIRPORT PKWY
AIRPORT PKWY
Site
RAMP
RAMP
AIRPORT RD
DUNDAFF RD

View from Airport Parkway

View from Airport Road

View from Airport Parkway (facing Airport Rd)

View from Airport Parkway (facing west)

View from Airport Parkway (facing north)

View facing Airport Road

EXISTING USES LOCATION MAP

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0071**

Existing Zoning/ Land Use Table

Location	Parcel / Zoning Petition	Zoning / Name	History Zoning Action Variance Action
North	**1**	Zone: City MX Use: industry/manufacturing	
Northeast	**2**	Zone: County R-1 Use: single family	
East	**3**	Zone: County A-1 Use: airport	
Southeast	**4**	Zone: City B-4 Use: memorial gardens/funeral services	
South	**5**	Zone: County R-1 Use: single-family	
Southwest	**6**	Zone: County A-1 Use: vacant	
West	**7**	Zone: City MX Use: industry/manufacturing	

Standards of Review

Planning Staff shall, with respect to each zoning application, investigate and make a recommendation with respect to factors 1 through 6, below, as well as any other factors it may find relevant.

1. **Whether or not the proposal will permit a use that is suitable in view of the use and development of adjacent and nearby Property?** The proposal would permit a use that is most appropriately described as a transition zone between existing single family residences and the commercial-oriented uses. The current MX zone does allow for single family uses, however rezoning to PD will allow the developer to fully utilize the property for housing development.

2. **Whether or not the proposal will adversely affect the existing use or usability of adjacent or nearby property?** The adjacent and nearby property will not be adversely affected by the proposal.

3. **Whether the property to be affected by the proposal has a reasonable economic use as currently zoned?** The property has a reasonable economic use as currently zoned. There is also a reasonable economic use for the proposed zone. The current MX zone does allow for single family uses, however rezoning to PD will allow the developer to fully utilize the property for housing development.

4. **Whether the proposal is in conformity with the policies and intent of the land use plan?** The PD rezoning proposal does not conform to the 2030 Land Use Plan, however the PD proposal for this particular site should serve the area well. The current MX zone does allow for single family uses, however rezoning to PD will allow the developer to fully utilize the property for housing development.

   Proposed use: New single family residential district.

   The Future Land Use Plan Map recommends retail/commercial.

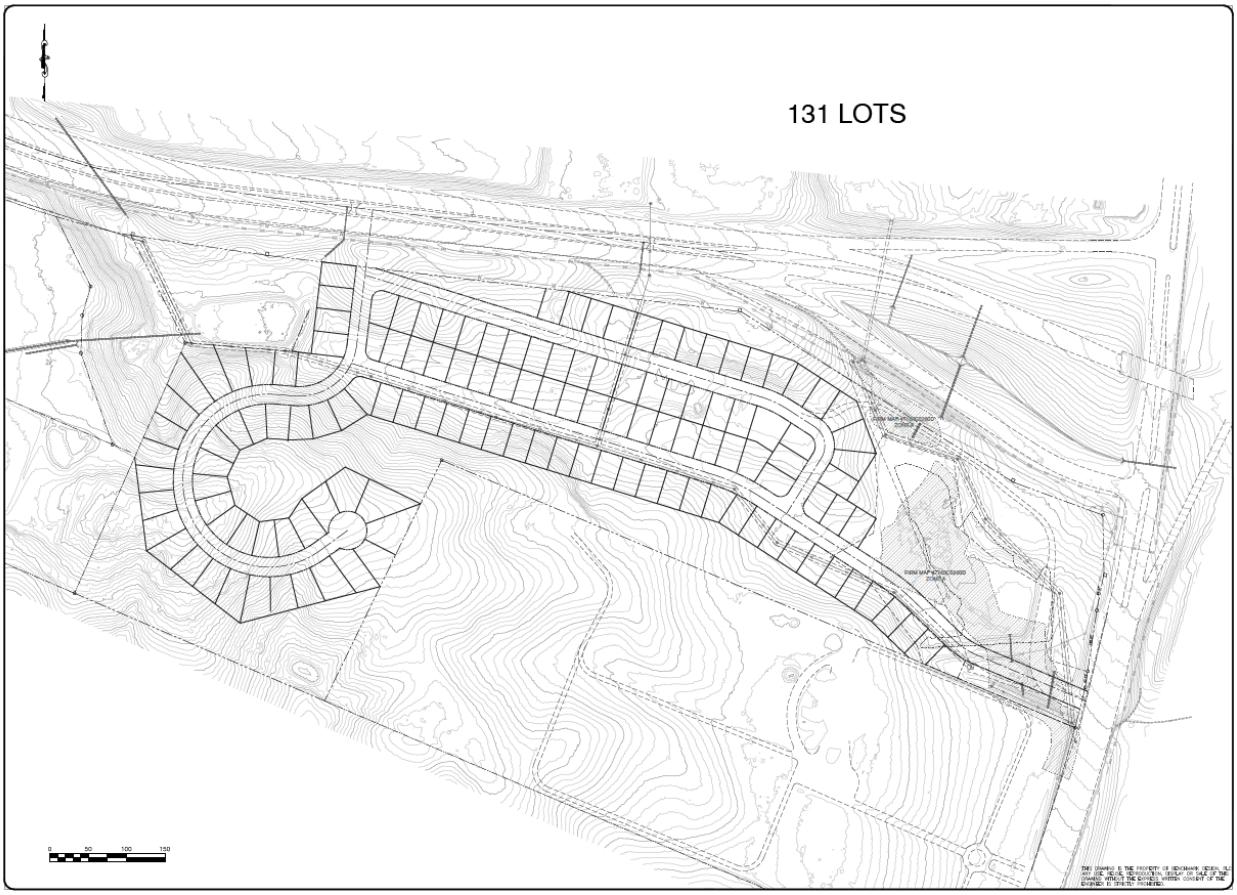
5. **Whether there are other existing or changed conditions affecting the use and development of the property which gives supporting grounds for either approval or disapproval of the proposal?** The existing conditions support approval of the proposed rezoning. The location of the parcel requested for rezoning demonstrates a reasonable transition from the MX, Mixed Use zone to the PD, Planned Development District, along Airport Parkway. The current MX zone does allow for single family uses, however rezoning to PD will allow the developer to fully utilize the property for housing development.

6. **Whether there are other existing or changed conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of the proposal?** The rezoning site abuts existing county residential districts. The vacant land mass is appropriately sized for a new development that will meet zoning restrictions of the PD zone.

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0071**

Zoning Development Plan (A Full Size Copy Available For Meeting)



CONCLUSION

Staff recommends sending a positive recommendation to rezone from the MX zone to the PD zone based upon the rezoning site acting as a smooth transition from the existing commercial district to nearby residential districts.

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

Overhill County Rezoning

Property Information			
Address	Highway 126 & Overhill Rd		
Tax Map, Group, Parcel	Tax Map 049, Parcel 068.00		
Civil District	5		
Overlay District	n/a		
Land Use Designation	Retail/Commercial		
Acres	19.5 acres +/-		
Existing Use	Vacant	**Existing Zoning**	County R-1
Proposed Use	Future Commercial	**Proposed Zoning**	County PBD-SC

Owner /Applicant Information

Name: George M. Moody
Address: 1312 Linville St.
City: Kingsport
State: TN **Zip Code: 37660**
Email: glmoody@charter.net
Phone Number: (423) 782-7901

Intent: ***To rezone from County R-1 to County PBD-SC for the purpose of having future commercial use on the property.***

Planning Department Recommendation

The Kingsport Planning Division recommends sending a POSITIVE recommendation to the Sullivan County Commission for the following reasons:

- *The requested PBD-SC zone conforms to the 2030 Future Land Use Plan as a future retail/ commercial use.*

Staff Field Notes and General Comments:

- *The rezoning site is currently undeveloped*
- *The parcel proposed for rezoning contains over 1,400 feet of frontage along Overhill Drive*

Planner:	Ken Weems	Date:	May 1, 2024
Planning Commission Action		**Meeting Date:**	**May 16, 2024**
Approval:			
Denial:		Reason for Denial:	
Deferred:		Reason for Deferral:	

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

PROPERTY INFORMATION	
ADDRESS	Overhill Drive
DISTRICT	5
OVERLAY DISTRICT	n/a
EXISTING ZONING	R-1 (Low Density /Single-Family District)
PROPOSED ZONING	PBD-SC (Planned Business and/or Shopping Center District)
ACRES	19.5 +/-
EXISTING USE	undeveloped
PROPOSED USE	future commercial

PETITIONER
ADDRESS **1312 Linville St. Kingsport, TN 37660**

REPRESENTATIVE
PHONE **(423) 782-7901**

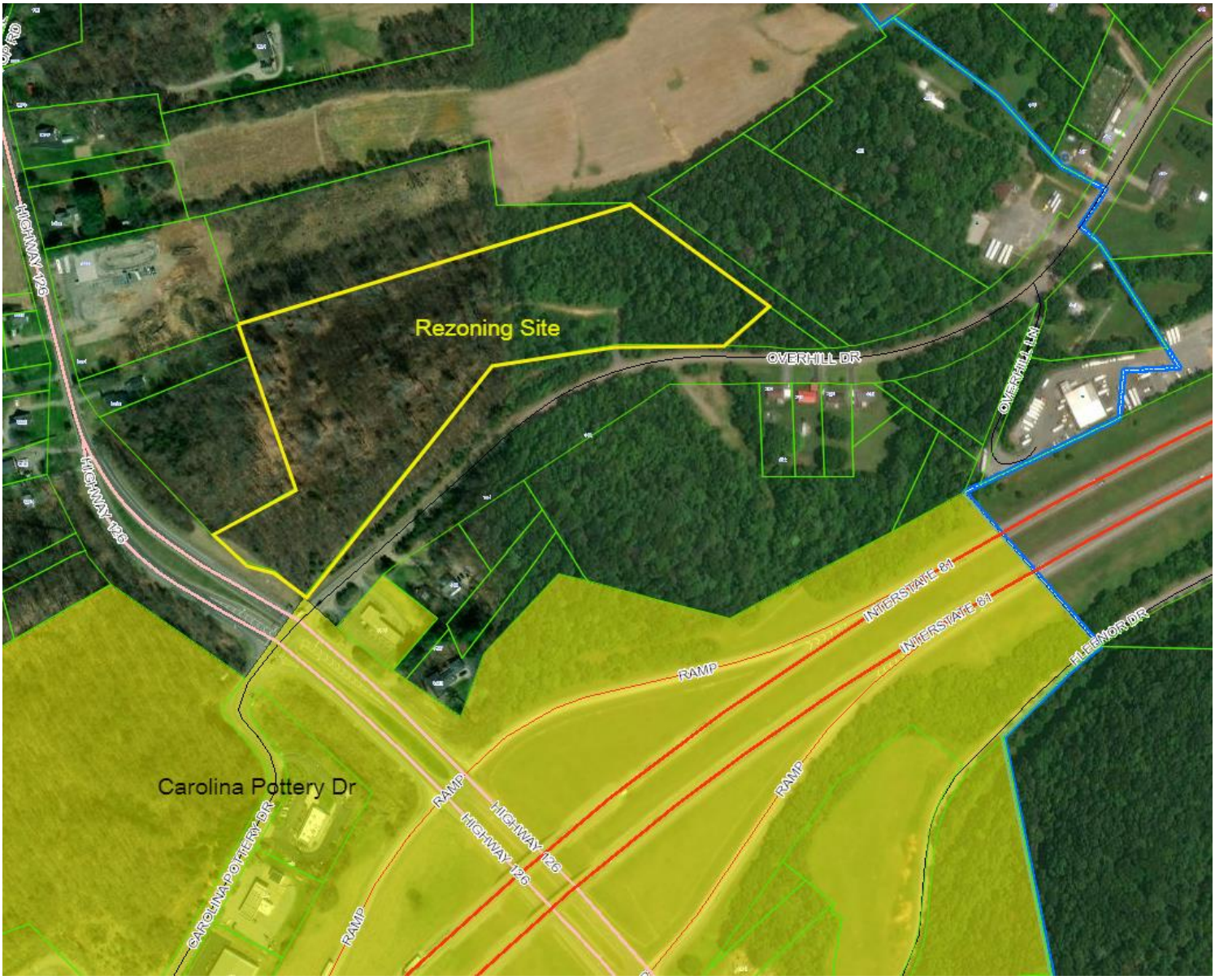
INTENT

To rezone from County R-1 to County PBD-SC for the purpose of having future commercial use on the property.

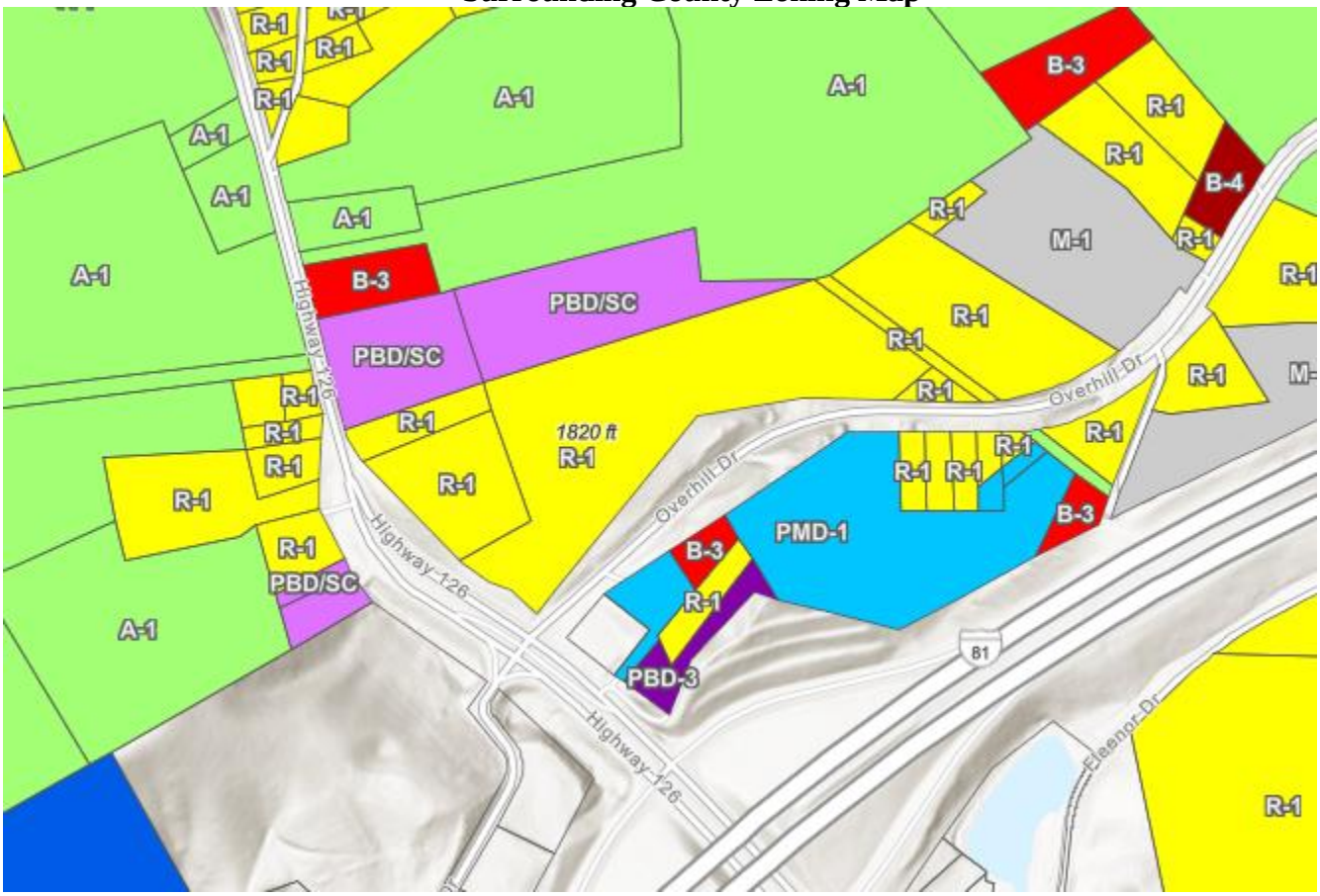
Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

Vicinity Map

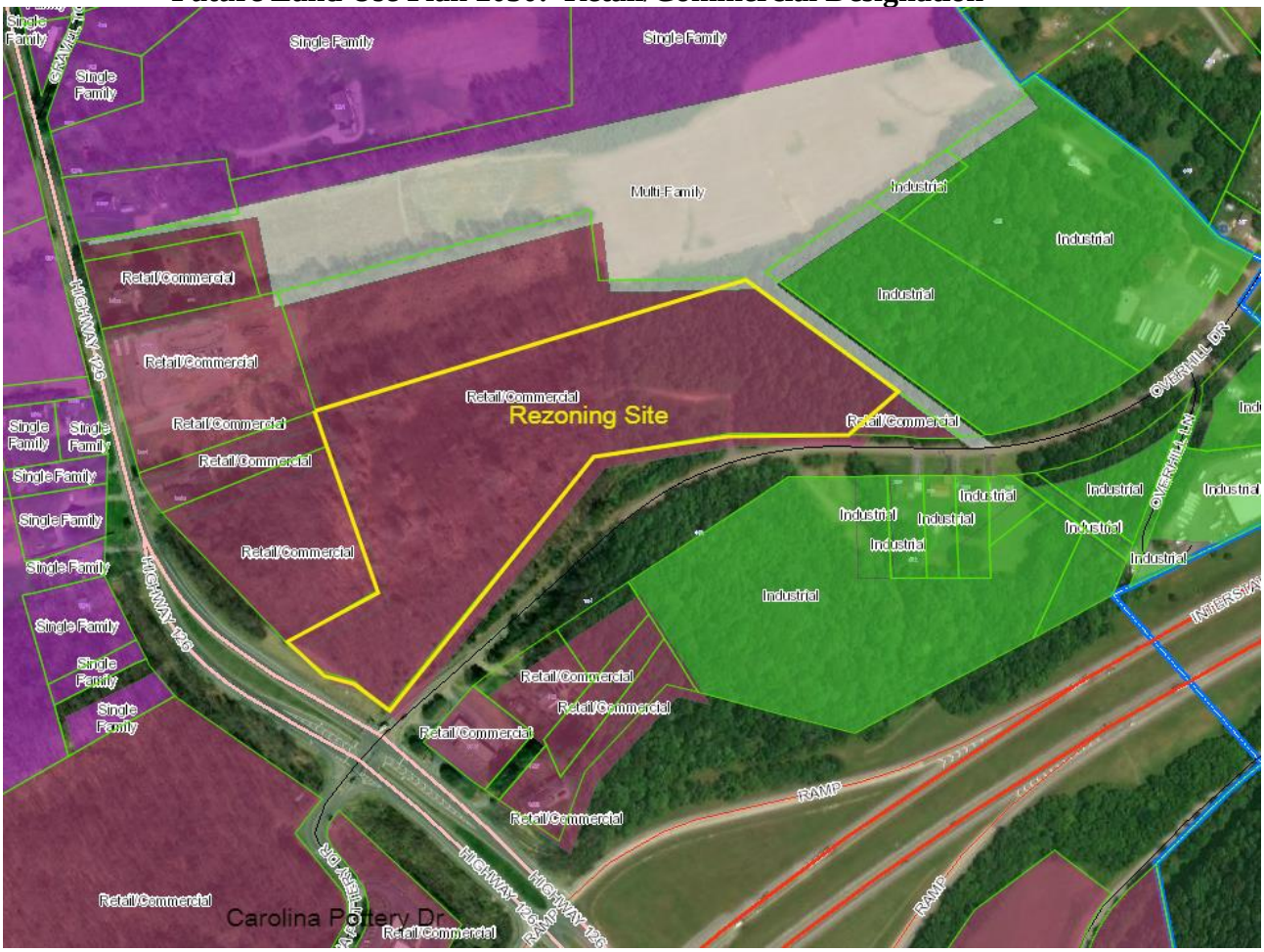


Surrounding County Zoning Map

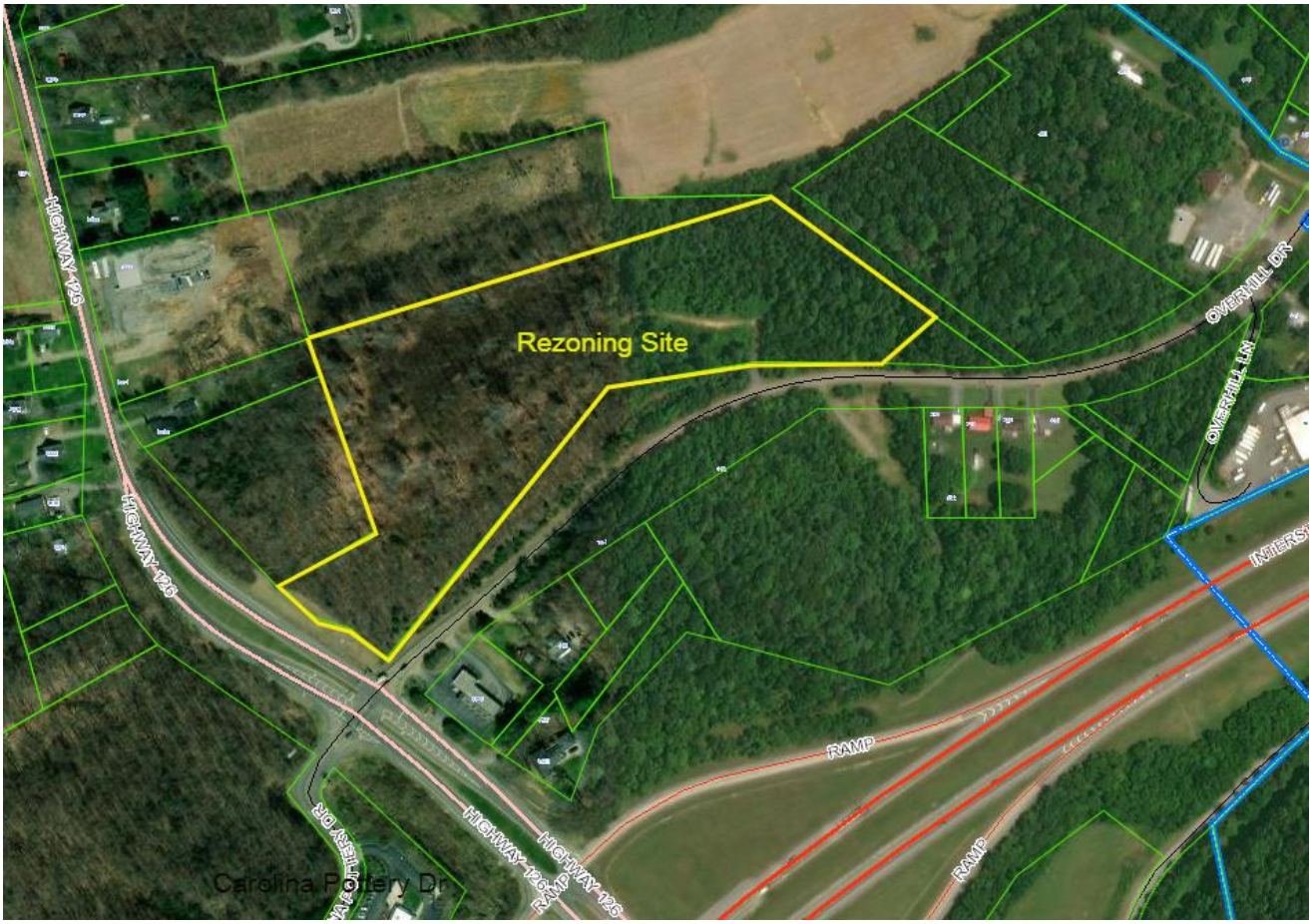


City Zoning (TA/C District and B-3 Interstate Right-of-way)

Future Land Use Plan 2030: Retail/Commercial Designation



Aerial



Sullivan County R-1 Zone District Purpose (source: Sullivan County Zoning Resolution)

5. **R-1, Low Density/Single-Family Residential District** - These districts are designed to provide suitable areas for single-family residential development within areas that are predominantly characterized by low-density suburban residential development. Residential development consists of single-family detached dwellings and other accessory structures thereto. The intensity of development permitted within these districts is directly related to the availability of public water service and sewage capabilities. These districts also include community facilities, public utilities, and open uses that serve specifically the residents of these districts, or that are benefited by an open residential environment without creating objectionable or undesirable influences upon residential developments. It is the express purpose of this resolution to exclude from these districts all buildings or other structures and uses having commercial characteristics, whether operated for profit or otherwise, except that uses on review, with supplementary provision and home occupations specifically provided by these regulations for these districts shall be considered as not having such characteristics if they otherwise conform to the provisions of this resolution.

Sullivan County PBD/SC Zone District Purpose

2. PBD/SC, Planned Business and/or Shopping Center District - This district is designed to provide adequate space along major arterial and collector roads, while serving the needs of the motoring public. This district is compatible with the Planned Corridor Business District in all aspects yet offers a broader scope of uses permitted. This district is designed to promote the clustering of developments along major routes through the use of access streets or interior roads while providing adequate buffering between existing abutting residential and agricultural land uses. Community facilities and utilities necessary to serve these districts or uses necessary for the general community welfare are also permitted. The previous zoning code had a separate category for the Shopping Center District; however, the setbacks and development standards were the same and the uses were very similar. These districts have been combined for simplicity.

Sullivan County PBD/SC Zone District Uses and Structures (source: Sullivan County Zoning Resolution)

TABLE 4-102A
USES AND STRUCTURES ALLOWABLE
WITHIN MIXED USE AND COMMERCIAL DISTRICTS

----------DISTRICTS----------	PBD-3	PBD/ SC	B-4	B-3	B-2	B-1
I. Residential Activities						
A. Permanent						
1. Single Family Dwelling	X	X	X	P	P	P
2. Duplex Dwelling	PC	PC	P	P	X	P
3. Multi-Family Dwelling	PC	PC	SUP	SUP	**X**	X
4. Single-Family Flats on 2nd story & above within mixed-use	PC	PC	SUP	SUP	SUP	SUP
B. Semi-Transient						
1. Lodging House	X	X	P	P	X	X
2. Boarding House	X	X	P	P	X	X
II. COMMUNITY FACILITY ACTIVITIES						
A. Administrative Services	PC	PC	SUP	SUP	SUP	SUP
B. Child Care Facilities	PC	PC	SUP	SUP	SUP	SUP
C. Community Assembly	PC	PC	SUP	SUP	SUP	SUP
D. Cultural and Recreational Facilities	PC	PC	SUP	SUP	SUP	PC
E. Educational Facilities	PC	PC	SUP	SUP	SUP	SUP
F. Essential Public Transport, Communication & Utility	PC	PC	SUP	SUP	SUP	SUP
G. Extensive Impact Facilities	X	X	X	X	X	X
H. Health Care Facilities	PC	PC	SUP	SUP	SUP	SUP
I. Intermediate Impact Facilities – see Supplemental Regulations	PC	PC	SUP	SUP	SUP	SUP
1. Telecommunication Transmission Facilities	PC	PC	PC	PC	PC	PC
2. Funeral Homes and Crematoriums	X	SUP	SUP	X	X	X
J. Religious Facilities	PC	PC	SUP	SUP	SUP	SUP
K. Special Institutional Care Facilities	BZA	BZA	X	X	X	X
L. Special Personal and Group Care Facilities	PC	PC	SUP	X	X	X
M. Waste Disposal Operations	X	X	X	X	X	X

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

----------DISTRICTS----------	PBD-3	PBD/ SC	B-4	B-3	B-2	B-1
III. COMMERCIAL ACTIVITIES – *Amended 09 17 07*						
A. Adult Entertainment Establishments	X	X	X	X	X	X
B. Animal Care and Veterinary Services	PC	PC	SUP	SUP	SUP	SUP
C. Automotive Parking – open lots only in B-2 and B-1, no public garages or parking structures	PC	PC	P	P	P *	P*
D. Automotive and Marine Craft Sales and Accessory Services	PC	PC	P	P	X	X
E. Automotive Body and Repair Shops	X	PC	X	P	X	X
F. Auto Towing and temporary storage	X	X	X	SUP	X	X
G. Banking, Financial, Insurance and Real Estate Services	PC	PC	P	P	P	P
H. Convenience Retail Sales and Services	PC	PC	SUP	SUP	SUP	SUP
I. Entertainment and Amusement Services - Limited	PC	PC	SUP	SUP	SUP	X
J. General Business and Communications	PC	PC	P	P	P	X
K. General Retail Trade	PC	PC	P	P	P	X
L. Group Assembly and Commercial Outdoor Recreation	PC	PC	SUP	SUP	SUP	X
M. Outdoor Material and Equipment Sales and Repair	PC	PC	P	P	X	X
N. Professional Services – Medical	PC	PC	P	P	P	P
O. Professional Services – Non-medical/Professional Offices	PC	PC	P	P	P	P
P. Restaurant, Full Service	PC	PC	P	P	P	X
Q. Restaurant, Fast Food	PC	PC	P	P	X	X
R. Scrap Operations/junk yards	X	X	X	X	X	X
S. Self-Storage/Mini-Warehouse Facilities	PC	PC	P	P	X	X
T. Transient Habitation	PC	PC	PC	X	X	X
U. Warehousing, Goods, Transport, and Storage	X	PC	X	X	X	X
V. Wholesale Sales	PC	PC	P	P	X	X
W. Indoor Sport Shooting Range Facilities *amended on 3/15/10*	PC	PC	PC	PC	X	X
IV. MANUFACTURING ACTIVITIES *(deleted 02/16/2023)*						
V. AGRICULTURAL AND EXTRACTIVE ACTIVITIES						
A. Agricultural – General	P	P	P	P	P	P
B. Agricultural – Intensive	PC	PC	PC	PC	PC	PC
C. Agricultural Services	P	P	P	P	P	P
D. Plant and Forest Nurseries	PC	PC	PC	PC	PC	PC
VI. ACCESSORY ACTIVITIES						
A. Commercial Accessory Storage – Enclosed (residential accessory structures permitted where residential land uses are permitted)	X	PC	X	P	X	X
B. Accessory Day Care within business ctr.	PC	PC	SUP	SUP	SUP	SUP
C. Administrative Office	PC	PC	SUP	SUP	SUP	SUP
D. Bed and Breakfast Inn	PC	PC	PC	PC	PC	PC
E. Columbarium/Mausoleum	SUP	SUP	SUP	SUP	SUP	SUP
F. Operation of a Cafeteria	PC	PC	PC	PC	X	X
G. Parents Day Out	SUP	SUP	SUP	SUP	SUP	SUP
H. Production for Retail Sale	PC	PC	SUP	SUP	SUP	X
I. Residential Occupancy *(approved administratively)*	SUP	SUP	SUP	SUP	P	P
J. Special Public Event on Private Property	BZA	BZA	BZA	BZA	SUP	BZA

KEY TO INTERPRETING USE CLASSIFICATIONS

BZA = Special Exception of Use with Approval from Board of Zoning Appeals
P = Use Permitted by Right Within the District
SUP = Principal Use Permitted with Supplemental Provisions
PC = Subject to Review and Approval by the Planning Commission
X – Not permitted

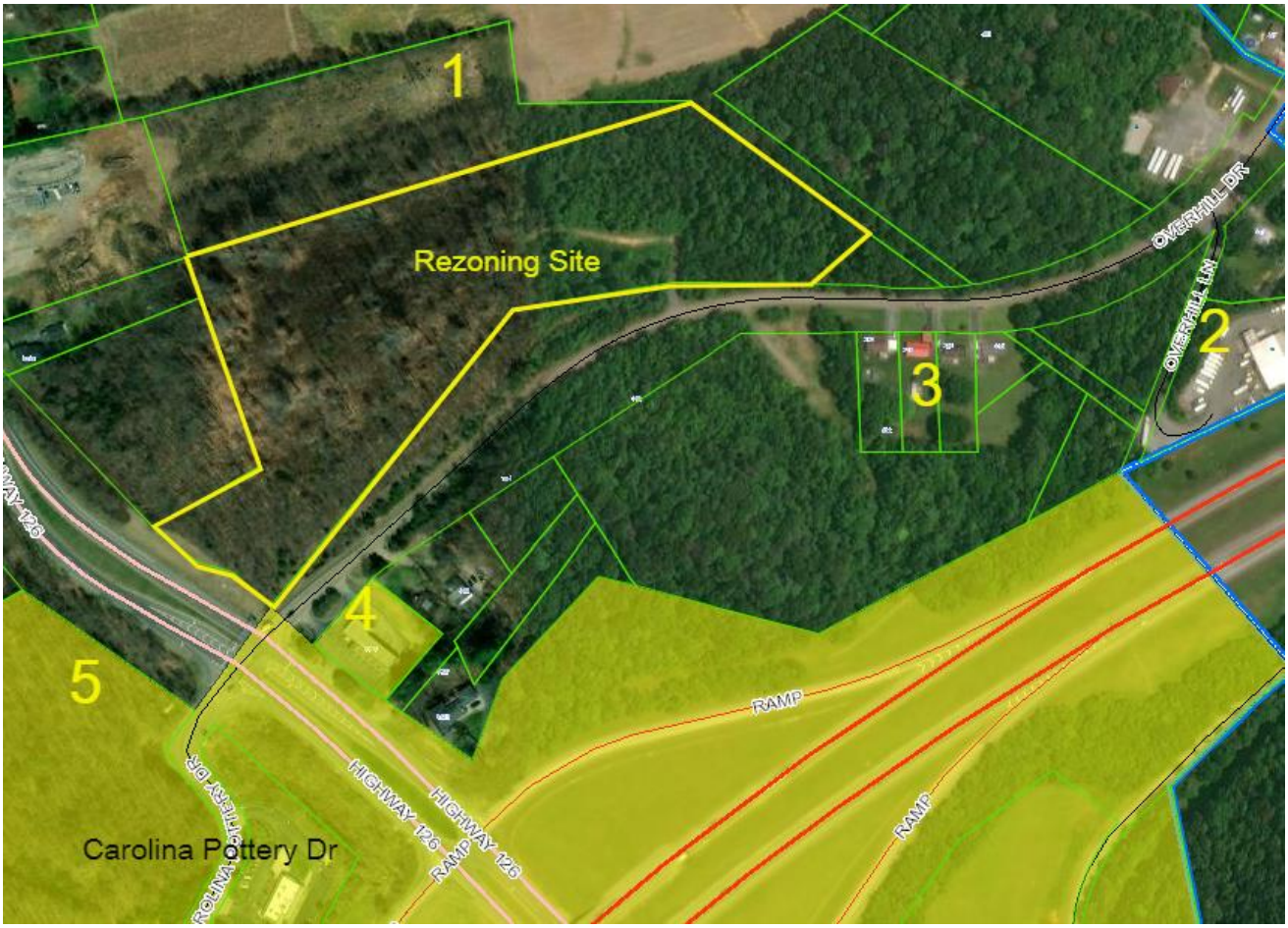
View Along Overhill Drive

View of Overhill Drive and Hwy 126 Intersection

Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

EXISTING USES LOCATION MAP



Kingsport Regional Planning Commission

Rezoning Report **File Number REZONE24-0072**

Existing Zoning/ Land Use Table

Location	Parcel / Zoning Petition	Zoning / Name	History Zoning Action Variance Action
North	**1**	Zone: County PBD-SC Use: residential	Rezoned to PBD-SC
East	**2**	Zone: County A-1 Use: Ag/ vacant	n/a
Southeast	**3**	Zone: County A-1 Use: Ag/ vacant	n/a
South	**4**	Zone: County A-1 Use: low density residential	n/a
West	**5**	Zone: County A-1 Use: low density residential	n/a

Standards of Review

Planning Staff shall, with respect to each zoning application, investigate and make a recommendation with respect to factors 1 through 4, below, as well as any other factors it may find relevant.

1. **Whether or not the proposal will permit a use that is suitable in view of the use and development of adjacent and nearby Property?** The site abuts to another PBD/SC zone.

2. **Whether the property to be affected by the proposal has a reasonable economic use as currently zoned?** The site has a reasonable economic use as currently zoned. The proposed activity is well suited for the site as well.

3. **Whether the proposal is in conformity with the policies and intent of the land use plan?** The proposal matches the 2030 Future Land Use Plan as appropriate for retail/commercial use

   Proposed use: future commercial

The Future Land Use Plan Map recommends City: Single Family Residential; Sullivan County: Ag/ Open Space.

4. **Whether there are other existing or changed conditions affecting the use and development of the property which gives supporting grounds for either approval or disapproval of the proposal?** The abutting parcel to the north was recently rezoned to PBD/SC.

CONCLUSION

Staff recommends sending a POSITIVE recommendation to the Sullivan County Commission to rezone from Sullivan County R-1 to Sullivan County PBD/SC based upon conformance with the 2030 Future Land Use Plan.

Kingsport Regional Planning Commission **Zoning Text Amendment Report**
File Number ZTA24-0087

Mural Zoning Text Amendment

Property Information	City-wide		
Address			
Tax Map, Group, Parcel			
Civil District			
Overlay District			
Land Use Designation			
Acres			
Existing Use		**Existing Zoning**	
Proposed Use		**Proposed Zoning**	

Owner /Applicant Information

Name: City staff initiated
Address:
City:
State: **Zip Code:**
Email:
Phone Number:

Intent: To amend Chapter 114, Zoning, as it pertains to mural regulations.

Planning Department Recommendation

(Approve, Deny, or Defer)

The Kingsport Planning Division recommends APPROVAL

Planner:	Ken Weems	Date:	5/1/2024
Planning Commission Action		**Meeting Date:**	**5/16/2024**
Approval:			
Denial:		Reason for Denial:	
Deferred:		Reason for Deferral:	

INTENT

To amend Chapter 114, Zoning, as it pertains to mural regulations.

Introduction:

City staff is proposing several zoning text changes in an effort to hasten the approval process for murals proposed inside City limits.

Presentation:

Currently, murals proposed in the B-2 and B-2E (downtown) zones are required to have approval granted by the Board of Mayor and Aldermen (BMA). Murals outside the downtown zones of B-2 and B-2E do not require BMA approval. Staff if proposing the deletion of the BMA approval aspect for downtown murals in favor of a staff level approval. The rationale for this change is that BMA approval is unnecessary if the guidelines are met with a mural proposal. Additionally, this change will treat murals proposed in the downtown zones the same way murals are treated in all other city zones.

Additionally, staff is proposing a change in the definition of a mural in the zoning text, to help staff make a more defensible decision for future mural proposals. The definition change will allow letters and words that do not reference a business as part a mural. With the current mural definition, letters cannot be permitted as part of a mural.

Finally, staff is proposing basic permitting guidelines that will be staff level approval. The criteria only requires the address of the site, confirmation of property owner consent for the mural, contact information for the artist, and a scale drawing or color photo of the proposal with dimensions. A $50 application fee to accompany these requirements has been proposed to start in July 2024.

The specific mechanics of the changes are presented in the following pages along with the accompanying four sections to be amended.

Four proposed changes to the zoning code as it pertains to murals:

Change 1

Sec. 114-1. – Definitions.

~~*Sign, mural,* means any mosaic, painting, photograph, graphic art technique, or combination thereof placed on the wall and containing no copy, advertising symbols, lettering, trademarks or other references to the premises or to the products and/or service offered for sale on the premises.~~

Replace with:

Mural means a work of art painted or otherwise directly applied on a building, structure, fence, or other object within public view. The work does not contain text, graphics, or symbols which specifically advertise or promote a business, product, or service.

Change 2

Sec 114-194. – B-2, Central Business District

(g)Signs.(1) Freestanding Signs. Freestanding signs are permitted only for existing buildings with a setback from the front property line of ten feet or greater. Freestanding signs must be monument signs, not to exceed eight feet in height, including the sign base. Maximum sign square footage shall not exceed 50 square feet, with no more than 25 square feet per side. Sign bases should be constructed of brick, stone, or other durable materials.

(2)Wall Signs. Single-tenant businesses and multitenant centers are permitted wall signs equivalent to one percent of the business's building ground coverage area up to 100 square feet total signage. Businesses having less than 5,000 square feet area may utilize up to 50 square feet of signage.

~~(3)Murals and banners shall not be permitted in the B-2 district, except as approved by the board of mayor and aldermen.~~

(4)Electronic message boards are prohibited in the B-2 district.

(5)Blade Signs. Blade signs are encouraged and a blade sign not exceed six (6) square feet can be provided in addition to wall signage on any façade that has a sidewalk or entrance. One blade sign per exterior wall is permitted. A blade sign is an ornamental rod extending perpendicular from the building no more than six (6) linear feet with a hanging sign suspended from it at a 90 degree angle from building face and street right-of-way. Blade signs shall be placed a minimum of nine (9) feet above sidewalk level to the bottom of the blade sign. Text and graphics on either or both ends of an awning that are oriented perpendicular to the building face for pedestrian view and are no more than six (6) square feet may be provided in lieu of a blade sign.

Change 3

Sec 114-203. – B-2, Central Business District

(g)Signs.(1)Freestanding Signs. Freestanding signs are permitted only for existing buildings or new construction with a setback from the front property line of ten feet or greater. Freestanding signs must be monument signs, not to exceed eight feet in height, including the sign base. Maximum sign square footage shall not exceed 50 square feet, with no more than 25 square feet per side. Sign bases should be constructed of brick, stone, or other durable materials.

(2)Wall Signs. Single-tenant businesses and multitenant centers are permitted wall signs equivalent to one percent of the business's building ground coverage area up to 150 square feet total signage. Businesses having less than 5,000 square feet area may utilize up to 50 square feet of signage.

~~(3)Murals and banners shall not be permitted in the B-2E district, except as approved by the board of mayor and aldermen.~~

(4)Electronic message boards are prohibited in the B-2E district.

(5)Blade Signs. Blade signs are encouraged and a blade sign not exceed six square feet can be provided in addition to wall signage on any façade that has a sidewalk or entrance. One blade sign per exterior wall is permitted. A blade sign is an ornamental rod extending perpendicular from the building no more than six linear feet with a hanging sign suspended from it at a 90 degree angle from building face and street right-of-way. Blade signs shall be placed a minimum of nine feet above sidewalk level to the bottom of the blade sign. Text and graphics on either or both ends of an awning that are oriented perpendicular to the building face for pedestrian view and are no more than six square feet may be provided in lieu of a blade sign.

Change 4

Sec 114-530. – Applicability to all zoning districts

(12) D*evices.* Any streamer, flag, air- or gas-filled device, searchlight or any other device whose purpose is to attract the attention of the public shall be allowed two times per calendar year per proprietor, for a maximum of 15 days per event, and such devices shall require a permit issued by the building official.

proposed new text shown as the new # 13 below

(13) Mural Application Permit: Applications for a mural permit shall provide the following information:

A. Address of the property of proposed mural;

B. Written consent from the property owner giving permission to place the mural on the building;

C. Contact information of artist/team leader;

D. Scale drawing and color photo of the building showing proposed size and location of the mural. Drawings shall include the dimensions, construction supports, sizes, foundation, electrical wiring and components, materials of the mural and method of attachment and character of structure members to which attachment is to be made. The design, quality, materials and loading shall conform to the requirements of the adopted Building Code.

Staff recommends sending a positive recommendation to the Board of Mayor and Aldermen in support of the proposed zoning text changes.

KINGSPORT
TENNESSEE
Planning Department

May 7, 2024

Sharon Duncan, Chairman
Kingsport Regional Planning Commission
415 Broad Street
Kingsport, TN 37660

Chairman Duncan:

This letter is to inform you that I, as Secretary for the Kingsport Regional Planning Commission, certify the subdivision of the following lots meet(s) the Minimum Standards for Subdivision Development within the Kingsport Planning Region. The staff certifies these plat(s) as acceptable to be signed by the Secretary of the Planning Commission for recording purposes.

1. 193 Rock City Road
2. 477 Cox Hollow Road
3. 1200 Tranbarger Drive
4. 1720 Pendleton Street

Sincerely,

Ken Weems, AICP
Planning Manager
C: Kingsport Regional Planning Commission

GENERAL NOTES:

1. This property is subject to any and all restrictions, zoning, ordinances, rights of way, or easements of record whether shown or not shown hereon.

2. This survey has been completed without the benefit of a full and complete title search.

3. Deed References and Adjoining Land Owner information is based on information from the County tax assessors office and is subject to the accuracy thereof.

4. Septic Area Location based upon field location and Map performed by Kenton Brotherton TN Professional Soil Scientist No. 0012 Sealed Feb 14th, 2024.

8-103.9 Disturbance in Streams and Floodways - The applicant for proposed land disturbance activities in streams (defined by a blue line on a 7 ½ minute United States Geological Survey quadrangle) and designated floodways shall be required to provide evidence of obtaining appropriate permits from federal and state regulatory agencies or a written waiver of such permits prior to the issuance of a grading permit by the county. In all cases where the development site has blue line streams and is not designated as a floodway on the most recent Flood Insurance Rate Map or other best available certified data, a minimum of 20 feet shall be reserved along the highest water mark or creek bank on both sides of the channel as a protected undisturbed riparian/buffer zone.

AARON S FLEENOR
REGISTERED LAND SURVEYOR
AGRICULTURE
COMMERCE
TENNESSEE NO. 3266

HIGHLANDS
SURVEYING and MAPPING LLC
36435 Kelly Chapel Rd. Glade Spring, VA 24340
(276) 477-4180 (276) 608-7777
afleenor@hsmllc.org

BASIS OF BEARINGS:

TN State Plane

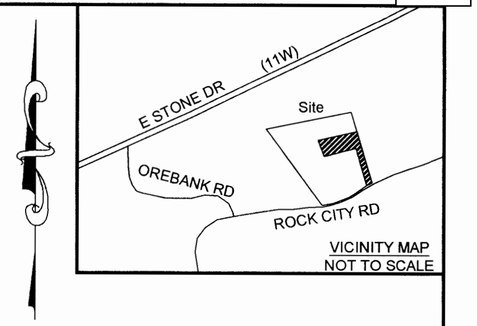
FLOOD NOTE:

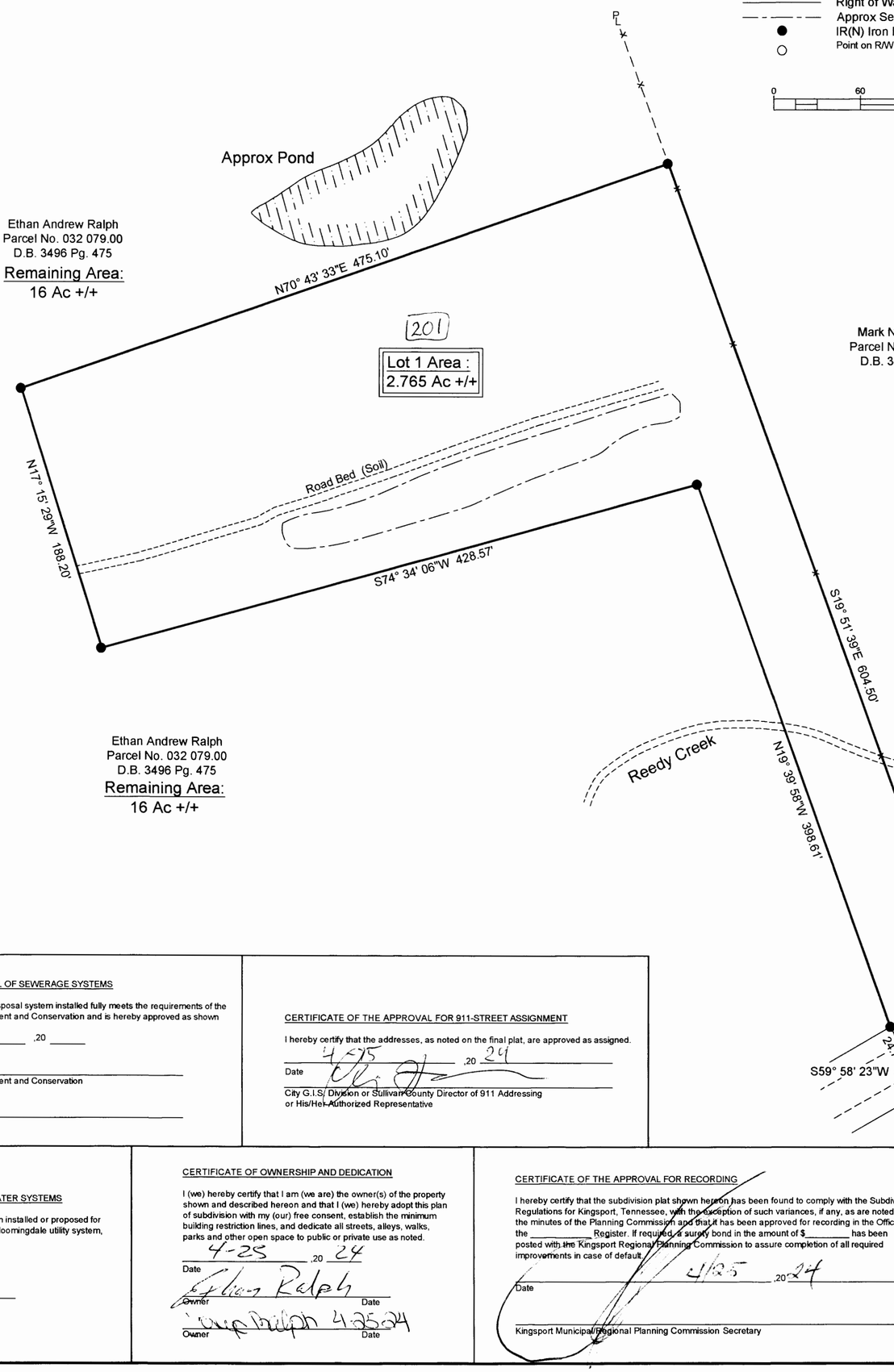
This Property Lies within Zone X of FIRM Map 47163C0065D Effective on 09/28/2006

LEGEND:

- Existing Boundary
- Edge of Pavement
- Adjoining P/L
- Right of Way
- Approx Septic Area
- IR(N) Iron Rod New (Unless Noted)
- Point on R/W

0 60 120 Feet





"Approval is hereby granted for lots [illegible] defined as **Replat of Property owned by: Ethan Andrew Ralph** (Rock City Rd) in Sullivan County, Tennessee, as being suitable for subsurface sewage disposal with the listed or attached restrictions.

Prior to any construction of a structure, mobile or permanent, the plans for the exact house/structure location must be approved and an SSD system permit issued by the Division of Water Resources. Water taps, water lines, underground utilities and driveways should be located at side property lines unless otherwise noted. Any cutting, filling or alteration of the soil conditions may void this approval."

Madelyn Wood, ES3 04/17/2024
Environmental Scientist Date
Division of Water Resources

The following restrictions apply to the installation of a conventional subsurface sewage disposa system on this property:

- **A.)** A permit for the installation of the subsurface sewage disposal system must be obtained from the Tennessee Department of Environment and Conservation's Division of Water Resources **before** any construction begins.
- **B.)** **Lot 1** has adequate suitable soil to install and duplicate a **3 (three)** bedroom conventional subsurface sewage disposal system.
- **C.)** **Lot 1** has specific areas designated for the SSD system. House location, Storm Water Pollution Prevention Plans, construction of dwellings with large floor plans, irregular configurations, excavated basements, in-ground swimming pools, as well as topography of property may result in reduction of bedrooms and/or SSD system requiring to be pumped. **Prior to construction** the property owner needs to contact this office to insure proper house site location.
- **D.)** **Lot 1** has soil areas that require surface water protection. Gutter drains, footer drains, and all surface water must be controlled away from the subsurface sewage disposal area as designated by the soil map.
- **E.)** There shall be a **50**-foot setback between all wells or springs and all SSD systems or duplication area.

CERTIFICATE OF ACCURACY:

I hereby certify that this plat shown and described hereon is a true and correct to the accuracy required by the Sullivan County Regional Planning Commission and that the monuments have been placed as shown hereon to the specifications of the subdivision regulations.

[illegible] ,20 24
Date
[signature]
Tennessee Registered Land Surveyor

CERTIFICATE OF EXISTING SEPTIC SYSTEM

- I hereby certify the tract(s) and/or lot(s) with existing dwelling(s) contain a separate, properly functioning septic system and that the septic tank, field bed lines, and duplication area with each system are located entirely within each lot with no signs of failure.
- I hereby further certify that the existing septci systems are permitted by the Tennessee Department of Environment & Conservation with permit on file.
  - Name on TDEC Permit _____
  - Date of Permit _____
- Or: the existing dwellings predate the permitting process from TDEC and predate the adoption of the Sullivan County Subdivision Regulations of 1951.
  Year of Dwelling(s):

Owner(s) Signature _____ Date: _____

CERTIFICATE OF THE APPROVAL OF SEWERAGE SYSTEMS

I hereby certify that the sewerage disposal system installed fully meets the requirements of the Tennessee Department of Environment and Conservation and is hereby approved as shown

_____ ,20 _____
Date

_____
Tennessee Department of Environment and Conservation
or

_____
Kingsport Authorizing Agent

CERTIFICATE OF THE APPROVAL FOR 911-STREET ASSIGNMENT

I hereby certify that the addresses, as noted on the final plat, are approved as assigned.

4-25 ,20 24
Date

[signature]
City G.I.S./ Division or Sullivan County Director of 911 Addressing
or His/Her Authorized Representative

Slide A-1729
04/25/2024 - 12:34:02 PM
24006638
1 PGS:AL-PLAT BATCH: 351994
PLAT BOOK: P59
PAGE: 307-307

REC FEE	15.00
DP FEE	2.00
ARC FEE	0.00
TOTAL	17.00

STATE OF TENNESSEE, SULLIVAN COUNTY
SHEENA R TINSLEY
REGISTER OF DEEDS

CERTIFICATE OF THE APPROVAL OF STREETS

I hereby certify: (1) That streets have been installed in an acceptable manner and according to the specifications or (2) Adequate rights-of-way dedication upon an existing public road shall serve these lots as proposed.

4-22 ,20 24
Date

[signature]
City Engineer or County Road Commissioner

CERTIFICATE OF APPROVAL OF PUBLIC WATER SYSTEMS

I hereby certify that the public water utility system installed or proposed for installation fully meets the requirements of the Bloomingdale utility system, and are hereby approved as shown.

4-24 ,20 24
Date

[signature]
Authorizing Agent

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (we) hereby certify that I am (we are) the owner(s) of the property shown and described hereon and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and dedicate all streets, alleys, walks, parks and other open space to public or private use as noted.

4-25 ,20 24
Date

Ethan Ralph
Owner Date

[signature] 4-25-24
Owner Date

CERTIFICATE OF THE APPROVAL FOR RECORDING

I hereby certify that the subdivision plat shown hereon has been found to comply with the Subdivision Regulations for Kingsport, Tennessee, with the exception of such variances, if any, as are noted in the minutes of the Planning Commission and that it has been approved for recording in the Office of the _____ Register. If required, a surety bond in the amount of $_____ has been posted with the Kingsport Regional Planning Commission to assure completion of all required improvements in case of default.

4/25 ,20 24
Date

_____
Kingsport Municipal/Regional Planning Commission Secretary

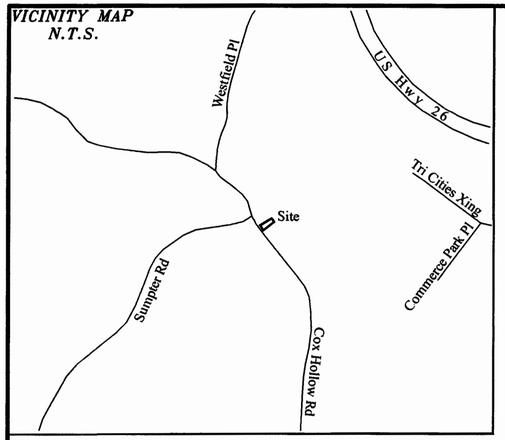
Re-Plat of Property owned by:
ETHAN ANDREW RALPH

KINGSPORT, TENNESSEE REGIONAL PLANNING COMMISSION

TOTAL ACRES 2.765 +/- TOTAL LOTS 1
ACRES NEW ROAD 0 MILES NEW ROAD 0

OWNER ETHAN ANDREW RALPH CIVIL DISTRICT 10
SURVEYOR Aaron S. Fleenor CLOSURE ERROR 1:10,000
SCALE: 1" = 60'

VICINITY MAP
N.T.S.



I hereby certify that this is a category 1 survey and the ratio of precision of the un-adjsuted survey is 1-10,000+ as shown hereon.

CERTIFICATION OF THE APPROVAL OF STORMWATER SYSTEM

I HEREBY CERTIFY (1) THAT CONSTRUCTION PLANS HAVE BEEN APPROVED; (2) STORM WATER SYSTEMS INSTALLED OR PROPOSED FOR INSTALLATION FULLY MEET CITY OF KINGSPORT REQUIREMENTS.

I HEREBY CERTIFY (1) THAT TOTAL CUMULATIVE LAND DISTURBANCE FOR ALL LOTS IS LESS THAN ONE (1) ACRE AS SHOWN; (2) NO PUBLIC STOMWATER IMPROVEMENTS ARE PROPOSED

5/3/24
DATE

CITY STORMWATER MANAGER

CERTIFICATION OF THE APPROVAL OF PUBLIC WATER SYSTEM

I HEREBY CERTIFY THAT THE PUBLIC WATER UTILITY SYSTEM INSTALLED OR PROPOSED, FOR INSTALLATION, FULLY MEETS THE REQUIREMENTS OF THE Kingsport WATER UTILITY SYSTEM, AND IS HEREBY APPROVED AS SHOWN.

5/3 20 24
DATE

AUTHORIZING AGENT
AUTHORIZED REPRESENTATIVE

CERTIFICATION OF THE APPROVAL OF SEWERAGE SYSTEM

I HEREBY CERTIFY THAT THE SEWERAGE DISPOSAL SYSTEM INSTALLED, OR PROPOSED FOR INSTALLATION, FULLY MEET THE REQUIREMENTS OF THE TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION, AND IS HEREBY APPROVED AS SHOWN.

5/3 20 24
DATE

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
OR
KINGSPORT AUTHORIZING AGENT

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT, ESTABLISH THE BUILDING LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

OWNER 05/03/24 DATE

OWNER DATE

OWNER DATE

COX HOLLOW ROAD (Variable Width)

WATER LINE

WATER LINE EASEMENT

25' BUFFER EASEMENT

105' To Sumpter Rd

LOT 54

N 56°52'35" E 120.65'

Proposed Fence Line

Land Star Dev LLC
DB 3524 - 1511

S 33°07'27" E 32.55'

17.0'

+/-0.13 Acres
5,472 Sq. Feet

Concrete Driveway

N 33°20'00" W 40.44'

LOT 53
477 Cox Hollow Rd

S 39°21'02" E 6.27'

S 50°38'58" W 120.62'

N 39°30'04" W 11.49'

LOT 52

TN State Plane

CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON IS A TRUE AND CORRECT SURVEY TO THE ACCURACY REQUIRED BY THE KINGSPORT, TENNESSEE REGIONAL PLANNING COMMISSION AND THE MONUMENTS HAVE BEEN PLACED AS SHOWN HEREON.

04/19 20 24
DATE

Larry M. Culbertson
REGISTERED LAND SURVEYOR

CERTIFICATE OF THE APPROVAL FOR 911-ADDRESSING ASSIGNMENT

I HEREBY CERTIFY THAT THE ADDRESSES, AS NOTED ON THE FINAL PLAT, ARE APPROVED AS ASSIGNED.

DATE 20 24

CITY G.I.S. DIVISION OR SULLIVAN COUNTY DIRECTOR OF 911 ADDRESSING OR HIS/HER AUTHORIZED REPRESENTATIVE

THERE IS HEREBY ESTABLISHED AN EASEMENT AREA OF A MINIMUM OF 7 1/2" WIDE ALONG THE INTERIOR SIDE OF ALL LOT LINES FOR THE INSTALLATION AND MAINTENANCE OF UTILITIES AND THE CONVEYANCE OF STORM WATER RUNOFF FROM IMPROVEMENTS ON EACH LOT. SUCH STANDARD EASEMENT AREA IS IN ADDITION TO ANY OTHER STRUCTURAL OR NONSTRUCTURAL STORM WATER EASEMENTS AS MAY BE DELINEATED BY THE LICENSED SURVEYOR AND/OR CIVIL ENGINEER OR THAT WHICH MAY BE REQUIRED BY THE SULLIVAN COUNTY REGIONAL PLANNING COMMISSION

CERTIFICATION OF THE APPROVAL OF STREETS

I HEREBY CERTIFY: (1) THAT STREETS HAVE BEEN INSTALLED IN AN ACCEPTABLE MANNER AND ACCORDING TO THE SPECIFICATIONS OR, (2) ADEQUATE RIGHTS-OF-WAY DEDICATION UPON AN EXISTING PUBLIC ROAD SHALL SERVE THESE LOTS AS PROPOSED. OR (3) PLAT HAS BEEN APPROVED WITH A PERFORMANCE GURANTEE SET BY THE SULLIVAN COUNTY PLANNING COMMISSION

DATE 20

CITY ENGINEER OR COUNTY ROAD COMMISSIONER

CERTIFICATE OF APPROVAL FOR RECORDING
CONFIRMATION BY PLANNING DIRECTOR

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS FOR CITY OF KINGSPORT, TENNESSEE WITH THE EXCEPTION OF SUCH VARIANCES, IF ANY, AS ARE NOTED IN THE MINUTES OF THE PLANNING COMMISSION AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE _____ REGISTER. IF REQUIRED, A SURETY BOND IN THE AMOUNT OF $_____ HAS BEEN POSTED WITH THE SULLIVAN COUNTY PLANNING COMMISSION TO ASSURE COMPLETION OF ALL REQUIRED IMPROVEMENTS IN CASE OF DEFAULT.

5/6 20 24
CONFIRMED BY SULLIVAN COUNTY PLANNING DIRECTOR DATE

SECRETARY OF THE CITY OF KINGSPORT

Slide A-1732
05/06/2024 - 01:26:02 PM
24007267
1 PGS:AL-PLAT BATCH: 352467
PLAT BOOK: P59
PAGE: 318-318

REC FEE	15.00
DP FEE	2.00
ARC FEE	0.00
TOTAL	17.00

STATE OF TENNESSEE, SULLIVAN COUNTY
SHEENA R TINSLEY
REGISTER OF DEEDS

Legend
- *denotes Rebar Found*
- *denotes Rebar Set*
- *denotes Calculated Point Unless otherwise Noted*
- *denotes Highway Marker*
- *denotes Railroad Spike*
- *denotes Water Meter*

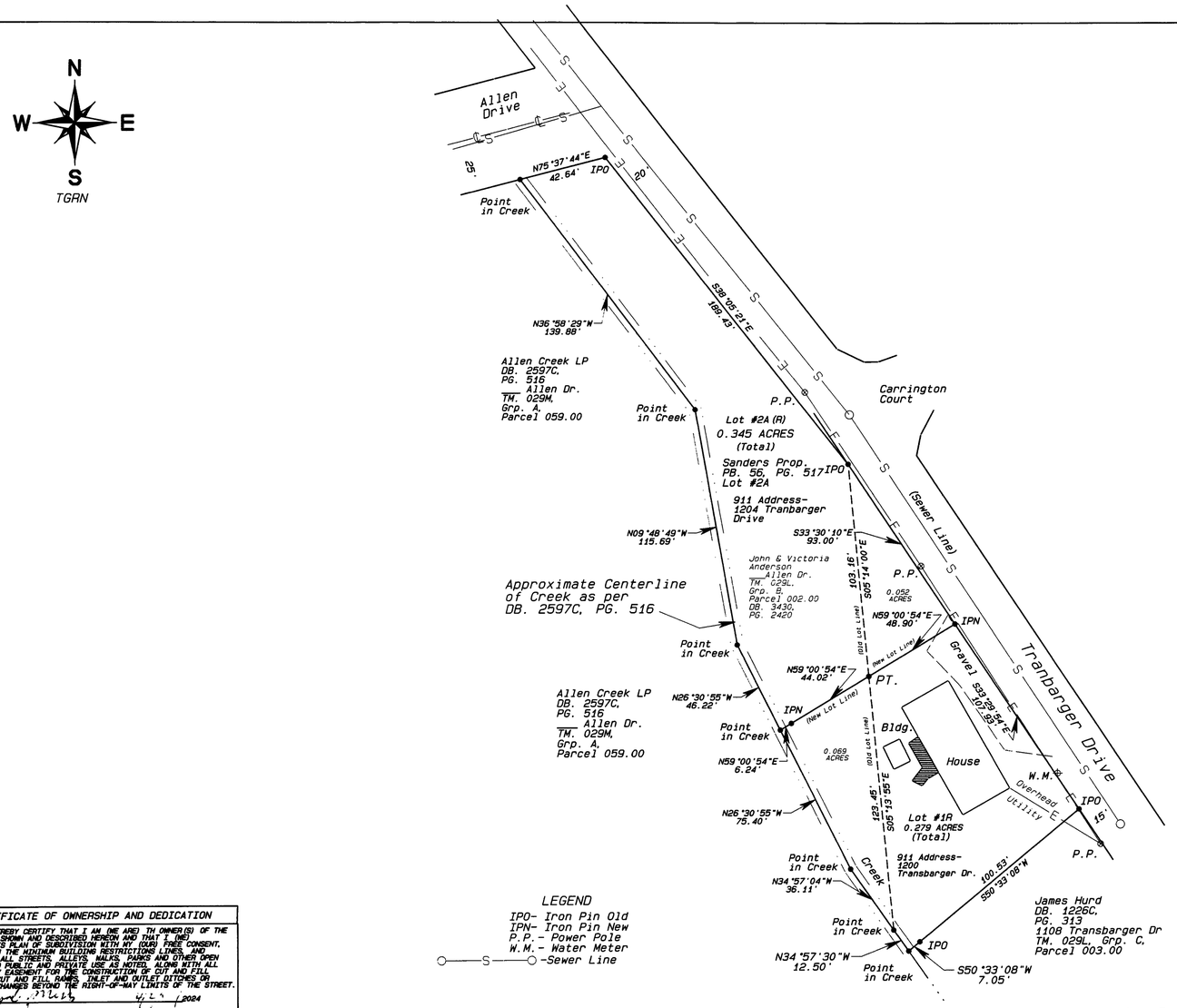
Notes
1. Deed Reference: DB 3544 - PG 138
2. TAX MAP: 105K - C - 053.00

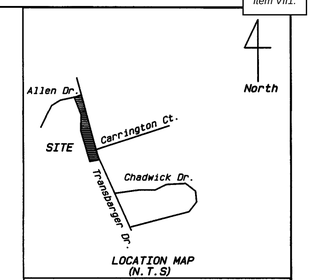
0 30 60 90

BOUNDARY IS BASED ON A CURRENT FIELD SURVEY

SURVEY FOR: City of Kingsport
Planning Region
Aaron Hayes Site Plan

Date 04-04-2024	File:hayes-a.dwg Drawn By: NLC	Scale: 1" = 30'
Thirteenth (13th) Civil District		Sullivan County, TN
Culbertson Surveying P.O. Box 190, Nickelsville VA 24271 (276) 479-3093		Drawing Number 8262-B





LOCATION MAP
(N.T.S)

Slide A-1732

05/06/2024 - 01:29:11 PM

24007268

1 PGS:AL-PLAT BATCH: 352468

PLAT BOOK: P59
PAGE: 319-319

REC FEE	15.00
DP FEE	2.00
ARC FEE	0.00
TOTAL	17.00

STATE OF TENNESSEE, SULLIVAN COUNTY
SHEENA R TINSLEY
REGISTER OF DEEDS

REGISTER OF DEEDS

LEGEND
IPO- Iron Pin Old
IPN- Iron Pin New
P.P.- Power Pole
W.M.- Water Meter
S —— S —— Sewer Line

GRAPHIC SCALE 1"=40'
0 40 80 120

Jonathan W. Willis
3-7-24

Jonathan Wayne Willis
(Land Surveyor #2385)
170 Lakeview Lane,
Gray, TN. 37615
(423) 202-8667

NOTES
1. This survey is based upon existing monuments and evidence which were found in the field as of the above date.
2. No title information was furnished to this surveyor. This survey is subject to an actual title search.
3. This boundary survey is subject to all Rights-of-Way and easements whether of record or implied. No attempt was made to locate Rights-of-Way or easements.
4. All future construction will conform to the requirements of the Planning & Zoning Ordinance in effect at the time of construction.
5. There is a 15' Utility Easement along front lot lines.
6. This property is not located in a Special Flood Hazard Area per Flood Insurance Rate Map 47163C0230D30D Effective Date Sept. 29, 2006
7. I hereby certify that this is a Category I survey and the ratio of precision of the unadjusted survey is 1' in 10,000' as shown hereon.
8. Iron pins found on all corners unless otherwise noted.
9. Current Owner- See Above

Currently Zoned R-1B

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) TH OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT, ESTABLISH THE MINIMUM BUILDING RESTRICTIONS LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC AND PRIVATE USE AS NOTED, ALONG WITH ALL NECESSARY EASEMENT FOR THE CONSTRUCTION OF CUT AND FILL SLOPES, CUT AND FILL RAMPS, INLET AND OUTLET DITCHES OR CHANNEL CHANGES BEYOND THE RIGHT-OF-WAY LIMITS OF THE STREET.

OWNER 4/25 2024

OWNER 4/25 2024

OWNER 4/25 2024

OWNER 2024

OWNER 2024

OWNER 2024

CERTIFICATION OF THE APPROVAL FOR 911- ADDRESSING

I HEREBY CERTIFY THAT THE ADDRESSES AS NOTED ON THE FINAL PLAT ARE APPROVED AS ASSIGNED

DATE

CITY G.I.S. DIVISION OR SULLIVAN COUNTY DEPARTMENT OF 911 ADDRESSING ON HIS OR HERS AUTHORIZED REPRESENTATIVE

CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS, FOR KINGSPORT CITY, TENNESSEE, EXCEPT FOR VARIANCES, IF ANY, AND NOTED IN THE MINUTES OF THE PLANNING COMMISSION AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF COUNTY REGISTRAR. IF REQUIRED, A SURETY BOND IN THE AMOUNT OF $ HAS BEEN POSTED WITH THE KINGSPORT CITY REGIONAL PLANNING COMMISSION TO ASSURE COMPLETION OF ALL REQUIRED IMPROVEMENTS IN CASE OF DEFAULT.

5/4/24 2024
DATE

SECRETARY, PLANNING COMMISSION

CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON IS A TRUE AND CORRECT SURVEY TO THE ACCURACY REQUIRED BY THE SULLIVAN COUNTY, TENNESSEE REGIONAL PLANNING COMMISSION AND THAT THE MONUMENTS HAVE BEEN PLACED AS SHOWN HEREON TO THE SPECIFICATIONS OF THE SUBDIVISIONS REGULATIONS..

3-17 2024
DATE

Jonathan W. Willis 2385
JONATHAN WILLIS R.L.S. LICENSE NUMBER

CERTIFICATION OF APPROVAL OF PUBLIC WATER SYSTEMS

I HEREBY CERTIFY THAT THE PUBLIC WATER UTILITY SYSTEMS OR SYSTEMS INSTALLED SUBDIVISION OR PROPOSED FOR INSTALLATION, FULLY MEET THE REQUIREMENTS OF THE LOCAL UTILITY DISTRICT, AND ARE HEREBY APPROVED AS SHOWN.

5/3/24
DATE

AUTHORIZED SIGNATURE TITLE

CERTIFICATION OF THE APPROVAL OF SEWERAGE SYSTEM

I HEREBY CERTIFY THAT THE SEWERAGE DISPOSAL SYSTEM INSTALLED OR PROPOSED FOR INSTALLATION FULLY MEETS THE REQUIREMENTS OF THE TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION AND IS HEREBY APPROVED AS SHOWN

5/3 2024
DATE

TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION

OR

CERTIFICATE OF APPROVAL OF STREETS

I HEREBY CERTIFY (1) THAT THE STREETS HAVE BEEN INSTALLED IN AN ACCEPTABLE MANNER AND ACCORDING TO THE SPECIFICATIONS OR (2) ADEQUATE RIGHT OF WAY DEDICATION UPON AN EXISTING PUBLIC ROAD SHALL SERVE THESE LOTS.

TITLE

DATE AUTHORIZED SIGNATURE

Mims & Anderson Land Trade

KINGSPORT, TENNESSEE REGIONAL PLANNING COMMISION

TOTAL ACRES 0.6240 TOTAL LOTS -2-

ACRES NEW ROAD -0- MILES NEW ROAD -0-

OWNER Mims & Anderson CIVIL DISTRICT 12th

SURVEYOR JONATHAN W. WILLIS CLOSURE ERROR 1: 10,000'

SCALE: 1" = 40' DRAWN BY J.W.

NOTES

* This is a survey of existing lots, being Lots 8 and 9 in Block B of West View Park Addition to Kingsport as shown on plat of record in the Register's Office for Sullivan County, TN in Plat Book A Page 32.

* This survey was prepared without benefit of abstract title and matters of title should be referred to an attorney-at-law.

* This survey may be subject to all rights-of-way, easements, reservations and restrictions, written and unwritten, recorded and unrecorded.

* No underground utilities were located.

* The certification shown hereon is not a certification of title, zoning or freedom from encumbrances.

* This property is subject to all zoning, setbacks, restrictions, and regulations as set forth by local planning and other agencies. Consult local authorities for additional information prior to any construction. ALWAYS CALL 811 BEFORE DIGGING.

* At time of Survey, property is zoned R-1B.
Setbacks- Front: 30' Rear: 30' Side: 8'

* Dashed Adjoiner lines not surveyed unless annotated.

Required Notes:

1) SETBACKS TO CONFORM TO ZONING DESIGNATION
2) THIS IS TO CERTIFY THAT I HAVE CONSULTED THE FEDERAL FLOOD INSURANCE RATE MAP NO. 47163C0030D EFFECTIVE DATE SEPTEMBER 29, 2006 AND FOUND THAT THE ABOVE PROPERTY IS LOCATED IN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
3) SANITARY SEWER SERVICE PROVIDED BY THE CITY OF KINGSPORT, TN.
4) WATER SERVICE BY CITY OF KINGSPORT.

Slide A-1733

05/06/2024 - 01:32:37 PM

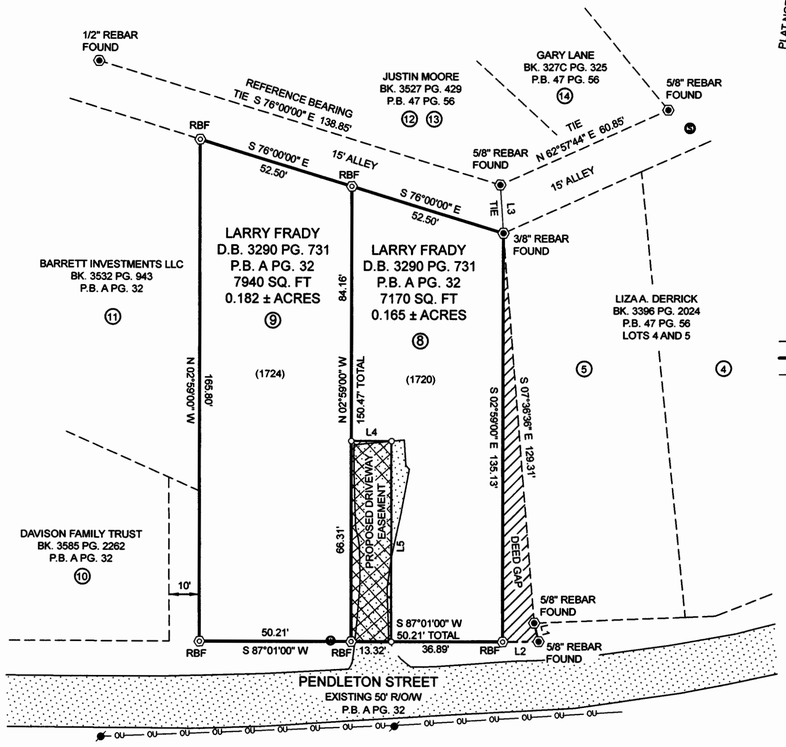
24007269

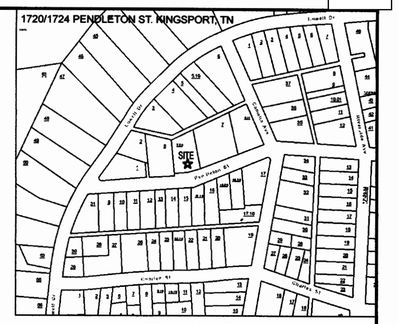
1 PGS:AL-PLAT BATCH: 352469

PLAT BOOK: P59
PAGE: 320-320

REC FEE	15.00
DP FEE	2.00
ARC FEE	0.00
TOTAL	17.00

STATE OF TENNESSEE, SULLIVAN COUNTY
SHEENA R TINSLEY
REGISTER OF DEEDS





Vicinity Map
(not to scale)

Legend

- 5/8" Rebar Found w/ Peak Cap (RBF)
- Rebar Found (as described)
- Water Meter
- Utility Pole
- Sanitary Sewer Manhole
- Deed Line (not surveyed)
- Surveyed Boundary Line
- OU— OU— OU— Overhead Utility
- D.B. Deed Book
- P.B. Plat Book
- PG. Page
- (1720) 911 Address
- Pavement
- Deed Gap: Area = 740.9 Sq. feet

LINE	BEARING	DISTANCE
L1	S 16°19'11" E	6.25'
L2	S 86°14'52" W	11.87'
L3	N 06°50'20" W	15.96'
L4	N 87°01'00" E	13.32'
L5	S 02°59'00" E	66.31'

I HEREBY CERTIFY THAT THIS IS A CATEGORY I SURVEY AND THAT THE RATIO OF PRECISION OF THIS SURVEY IS BETTER THAN 1:10,000 AND WAS DONE IN COMPLIANCE WITH THE TENNESSEE MINIMUM STANDARDS OF PRACTICE

Matthew D. Lindvall RLS # 2847 4/26/2024

PEAKGEOMATICS LLC
Peak Geomatics, LLC
P.O. Box 891 Johnson City, TN 37605
423.202.7093
matt@peakg.com

MATTHEW D LINDVALL REGISTERED LAND SURVEYOR STATE OF TENNESSEE AGRICULTURE COMMERCE 4-26-24 TENNESSEE NO. 2847

CERTIFICATE OF OWNERSHIP AND DEDICATION

I(WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT, ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

Larry Frady 5-2-24
OWNER DATE

OWNER DATE

CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON IS A TRUE AND CORRECT SURVEY TO THE ACCURACY REQUIRED BY THE KINGSPORT, TENNESSEE REGIONAL PLANNING COMMISSION AND THAT THE MONUMENTS HAVE BEEN PLACED AS SHOWN HEREON.

4-26 20 24
DATE
Matthew Lindvall
TENNESSEE REGISTERED LAND SURVEYOR

CERTIFICATE OF APPROVAL OF STREET LIGHTING SYSTEM

I HEREBY CERTIFY THAT THE STREET LIGHT SYSTEM DESIGNED FOR THIS SUBDIVISION COMPLIES WITH THE CITY OF KINGSPORT'S POLICIES ON ROADWAY LIGHTING WITHIN THE CITY OF KINGSPORT, AND ANY REQUIRED CHARGES FOR THE PURCHASE AND INSTALLATION HAVE BEEN MET.

TRAFFIC ENGINEERING MANAGER DATE 20

EASEMENT FOR STORMWATER DRAINAGE NOTE:
THERE IS HEREBY ESTABLISHED AN EASEMENT AREA A MINIMUM OF 7.5' WIDE ALONG THE INTERIOR SIDE OF ALL LOT LINES FOR THE INSTALLATION AND MAINTENANCE OF UTILITIES AND THE CONVEYANCE OF STORMWATER RUNOFF FROM IMPROVEMENTS ON EACH LOT. SUCH STANDARD EASEMENT AREA IS IN ADDITION TO ANY OTHER STRUCTURAL OR NON-STRUCTURAL STORMWATER EASEMENTS AS MAY BE DELINEATED BY THE LICENSED SURVEYOR AND/OR CIVIL ENGINEER OR THAT WHICH MAY BE REQUIRED BY THE KINGSPORT REGIONAL PLANNING COMMISSION.

CERTIFICATION OF THE APPROVAL FOR 911 ADDRESSING ASSIGNMENT

I HEREBY CERTIFY THAT THE ADDRESSES, AS NOTED ON THE FINAL PLAT, ARE APPROVED AS ASSIGNED.

DATE 20
CITY GLS, DIVISION OR SULLIVAN COUNTY DIRECTOR OF 911 OR HIS/HER AUTHORIZED REPRESENATIVE

CERTIFICATE OF THE APPROVAL OF WATER SYSTEMS

I HEREBY CERTIFY THAT THE PUBLIC WATER UTILITY SYSTEM INSTALLED OR PROPOSED FOR INSTALLATION FULLY MEETS THE REQUIREMENTS OF THE KINGSPORT WATER UTILITY SYSTEM AND IS HEREBY APPROVED AS SHOWN.

5/2 2024
DATE
KINGSPORT AUTHORIZING AGENT

CERTIFICATE OF APPROVAL OF STREETS

I HEREBY CERTIFY:

1. THAT STREETS HAVE BEEN INSTALLED IN AN ACCEPTABLE MANNER AND ACCORDING TO THE SPECIFICATIONS OR,
2. ADEQUATE RIGHTS-OF-WAY DEDICATION UPON AN EXISTING PUBLIC ROAD SHALL SERVE THESE LOTS AS PROPOSED, OR
3. PLAT HAS BEEN APPROVED WITH A PERFORMANCE GUARANTEE SET BY THE SULLIVAN COUNTY PLANNING COMMISSION.

DATE 20
COMMISSIONER OF HIGHWAYS

CERTIFICATION OF THE APPROVAL OF SEWERAGE SYSTEM

I HEREBY CERTIFY THAT THE SEWERAGE DISPOSAL SYSTEM INSTALLED OR PROPOSED FOR INSTALLATION FULLY MEETS THE REQUIREMENTS OF THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION AND IS HEREBY APPROVED AS SHOWN.

5/2 2024
DATE
KINGSPORT AUTHORIZING AGENT

CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS FOR KINGSPORT, TENNESSEE, WITH THE EXCEPTION OF SUCH VARIANCES IF ANY, AS ARE NOTED IN THE MINUTES OF THE PLANNING COMMISSION AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE SULLIVAN COUNTY REGISTER. IF REQUIRED, A SURETY BOND IN THE AMOUNT OF $ HAS BEEN POSTED WITH THE KINGSPORT REGIONAL PLANNING COMMISSION TO ASSURE COMPLETION OF ALL REQUIRED IMPROVEMENTS IN CASE OF DEFAULT.

5/6 20 24
DATE
SECRETARY, KINGSPORT MUNICIPAL/REGIONAL PLANNING COMMISSION

BOUNDARY RETRACEMENT SURVEY FOR
LARRY FRADY

REFERENCES
Deed Book 3290 Page 731
Lots 8 and 9, Block 35
West View Addition to Kingsport, TN
Plat Book A Page 32
Tax Map 029N Group F Parcel 008.00
12th Civil District, Washington County, TN
FIELDWORK DATE: 4-12-24 DRAWN BY: ARS
PROJECT #24039 CHECKED BY: MDL

WEST VIEW ADDITION PLAT

KINGSPORT REGIONAL PLANNING COMMISSION

TOTAL ACRES 0.347 TOTAL LOTS 2
ACRES NEW ROAD 0 MILES NEW ROAD 0
OWNER LARRY FRADY CIVIL DISTRICT 12th
SURVEYOR MATTHEW LINDVALL CLOSURE ERROR 1:10,000

SCALE 1"=30' 0' 30' 60' 90'