



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
4751 BEST ROAD, SUITE 140
COLLEGE PARK, GEORGIA 30337-5600

August 25, 2022

Regulatory Division
SAS-2005-02059

JOINT PUBLIC NOTICE
Savannah District/State of Georgia

The Savannah District has received an application for a Department of the Army Permit, pursuant to Section 404 of the Clean Water Act (33 U.S.C. § 1344), as follows:

The comment period for the Department of the Army Permit application will close 30 days from the date of this public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit, and must be submitted to be received on or before the last day of the comment period. Written comments concerning this Department of the Army Permit application must reference the Applicant's name and the Permit Application Number and be forwarded to the US Army Corps of Engineers (Corps) at the above address, or via the email listed at the end of this notice.

This Joint Public Notice announces a request for authorizations from both the U.S. Army Corps of Engineers and the State of Georgia. The applicant's proposed work may also require local governmental approval.

Application Number: SAS-2005-02059

Applicant: Mr. Don Williams
Vulcan Materials Corporation
800 Mt. Vernon Highway NE, Suite 200
Atlanta, Georgia 30328

Agent: Mr. Bill Newlon
Kleinfelder, Inc.
5775 Glenridge Drive NE
Building B – Suite 585
Atlanta, Georgia 30328

Location of Proposed Work: The proposed project site is the existing, approximately 588-acre granitic aggregate quarry located to the east of Interstate- 75, east of Chappell Mill Road, west of Barnesville Road, and north of Highway 36 in Lamar County, Georgia. The central site coordinates are latitude 33.168889 north and longitude -84.120278 west. The nearest named waterbody is Little Buck Creek, which flows through the northern portion of the proposed site.

BACKGROUND

In December 2005, this office verified stream and wetland impacts associated with the construction of access road crossings for quarry operations using a Nationwide Permit (NWP) under the same file number (SAS-2005-02059). The authorized impacts totaled 0.43 acre of wetlands and 218 linear feet of streams. Mitigation for these impacts was completed through the purchase of 659 stream credits and 4.0 wetland credits from the Big Cotton Indian Mitigation Bank. Construction of these permitted access road crossings was completed in 2009, which was also accompanied by some initial site grading and excavation associated with the mining operation. The current mine plan is based on a 30-year life of mine estimate and depicts successive stages of the mine to include one, two, five, ten, twenty, and thirty-year increments. Due to future market uncertainties and the present cost and availability of mitigation credits the approved mine plans are subject to change. As a result, permitting authorization at this time is being requested based solely for the five-year mine plan.

Description of Work Subject to the Jurisdiction of the Corps: The project involves the expansion of mining operations at the existing Vulcan Lamar Quarry. The applicant's preferred mining plan would result in the loss of 840 linear feet (0.12 acre) of four streams and 5.06 acres of four wetlands in association with mining and related upland access. The applicant states that the location of the proposed stream and wetland impacts was selected to minimize impacts to the greatest extent practicable by using existing road crossings where possible, crossing the narrowest wetland area where a new crossing is required, and avoiding impacts to Little Buck Creek and associated riparian wetlands in conjunction with mining operations, which would require the dedication of large portions of the project for sloping and overburden storage. The applicant proposes to off-set project impacts to aquatic resources through the purchase of 548 SOP 2018 or 6,579 legacy stream credits from the Little Sandy Creek 3 Mitigation Bank and 4.75 (2018) riverine/lacustrine fringe wetland credits from the Georgia Alabama Land Trust.

There are 6.05 acres of aquatic resources on the site that the applicant believes to be non-jurisdictional and has requested an approved jurisdictional determination.

STATE OF GEORGIA

Water Quality Certification: The Georgia Department of Natural Resources, Environmental Protection Division will review the proposed project for Water Quality Certification, in accordance with the provisions of Section 401 of the Clean Water Act. The applicant has not yet requested a Water Quality Certification from the State of Georgia. Prior to issuance of a Department of the Army Permit for a project located in, on, or adjacent to the waters of the State of Georgia, review for Water Quality

Certification in accordance with Section 401 of the Clean Water Act is required. A reasonable period of time, which shall not exceed one year, is established under the Clean Water Act for the State to act on a request for Water Quality Certification, after which, issuance of such a Department of the Army Permit may proceed. This public notice serves as notification to the Administrator of the U.S. Environmental Protection Agency (USEPA) pursuant to section 401(a)(2) of the Clean Water Act for neighboring jurisdiction review and begins the 30-day clock for USEPA to notify affected states.

State-owned Property and Resources: The applicant may also require assent from the State of Georgia, which may be in the form of a license, easement, lease, permit or another appropriate instrument.

State Surface Mining Permit: The Georgia Surface Mine Rule regulates surface mines and related erosion and sediment control requirements. A Surface Mining Land Use Plan is required as part of a Surface Mining Permit which identifies all Best Management Practices (BMPs) being used for erosion and sediment control during and following construction as required pursuant to the Georgia Soil and Water Conservation Commission's 2016 Manual for Erosion and Sediment Control in Georgia. Approval of the Surface Mining Land Use Plan and associated BMPs was granted by the Georgia Environmental Protection Division on March 29, 2022 (Surface Mining Permit No. 1471-08).

U.S. ARMY CORPS OF ENGINEERS

The Savannah District must consider the purpose and the impacts of the applicant's proposed work, prior to a decision on issuance of a Department of the Army Permit.

Cultural Resources Assessment: The Applicant has not contracted a Phase I cultural resource survey of the proposed project site, to assess if archaeological sites, historic structures, or cultural resources may be present within the general vicinity of the proposed work area. The applicant has submitted a cultural resource literature review that was performed in 2022. The literature review identified findings from a previous Phase I cultural resource survey that was conducted by the prior owner of the mine. Consequently, presently unknown archaeological, scientific, prehistorical or historical data may also be located at the site and could be affected by the proposed work.

Endangered Species: Pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.), we request information from the U.S. Department of the Interior, Fish and Wildlife Service, the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service; or, any other interested party, on whether any species listed or proposed for listing may be present in the area. The agent has submitted an *IPaC Trust*

Resource Report for the project site. The *IPaC* identified the potential for one protected species, Michaux's sumac (*Rhus michauxii*) to occur on the site.

Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

Consideration of Public Comments: The U.S. Army Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Native American Tribes; and other interested parties to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the proposed activity.

Application of Section 404(b)(1) Guidelines: The proposed activity involves the discharge of dredged or fill material into the waters of the United States. The Savannah District's evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act, including an evaluation of practicable alternatives. In the Applicant's current proposal, one (1) off-site alternative and three (3) on-site alternatives (including the preferred alternative layout) have been proposed.

Public Hearing: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application for a Department of the Army permit. Requests for public hearings shall state, with particularity, the reasons for requesting a public hearing. The decision whether to hold

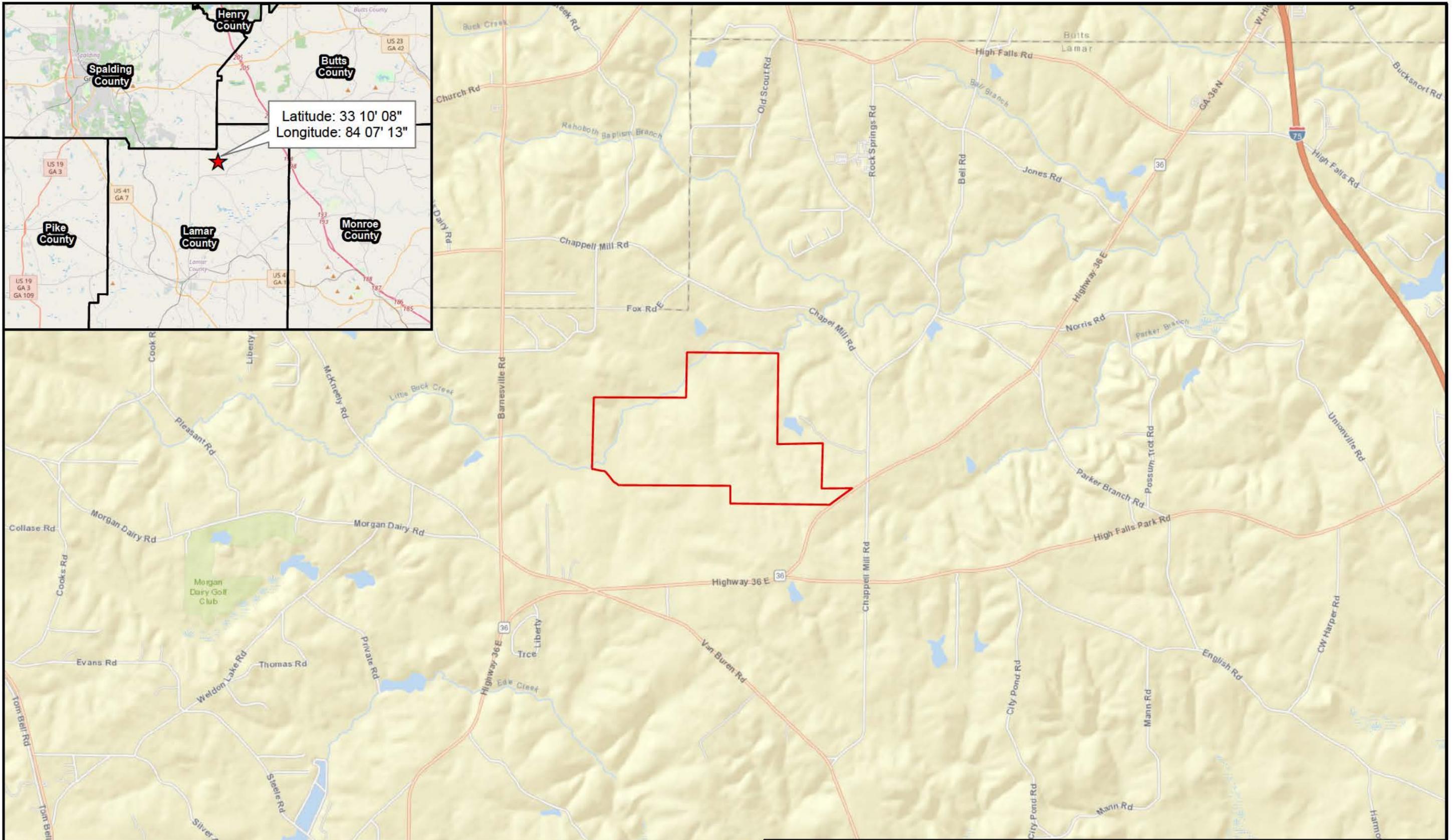
a public hearing is at the discretion of the District Engineer, or his designated appointee, based on the need for additional substantive information necessary for evaluating the proposed project.

Comment Period: Anyone wishing to comment on this application for a Department of the Army Permit should submit comments in writing to: Commander, U.S. Army Corps of Engineers, Savannah District, Attention: Amy Egoroff, 4751 Best Road, Suite 140, College Park, Georgia 30337-5600, no later than **30 days** from the date of this notice. Submittal of comments via email, to the address listed below, is also acceptable. Please refer to the Applicant's name (Vulcan Materials Company) and the assigned Regulatory file number (SAS-2005-02059) in your comments.

If you have any further questions concerning this public notice, please contact Amy K. Egoroff, Project Manager, Piedmont Branch at 678-422-6751, or amy.k.egoroff@usace.army.mil.

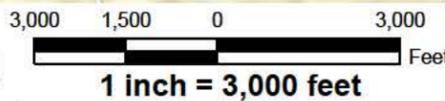
Encls

1. Figure 1: Location and Vicinity Map
2. Figure 5: USGS Topographic Map
3. Figure 9: Stream Wetland ID Map
4. Figure 10: Five Year Mine Impacts Plan
5. Sheet 3: One Year Mine Plan
6. Sheet 4: Five Year Mine Plan
7. Sheet 5: Ten Year Mine Plan
8. Sheet 6: Twenty Year Mine Plan
9. Sheet 7: Ultimate Mine Plan
10. Sheet 8: Reclamation
11. Sheet 9: Site Entrance Plan



- LEGEND**
- Project Area (588 ac. ±)
 - ★ Project Location

Source: World Street and Open Street Maps obtained from ESRI Basemap.



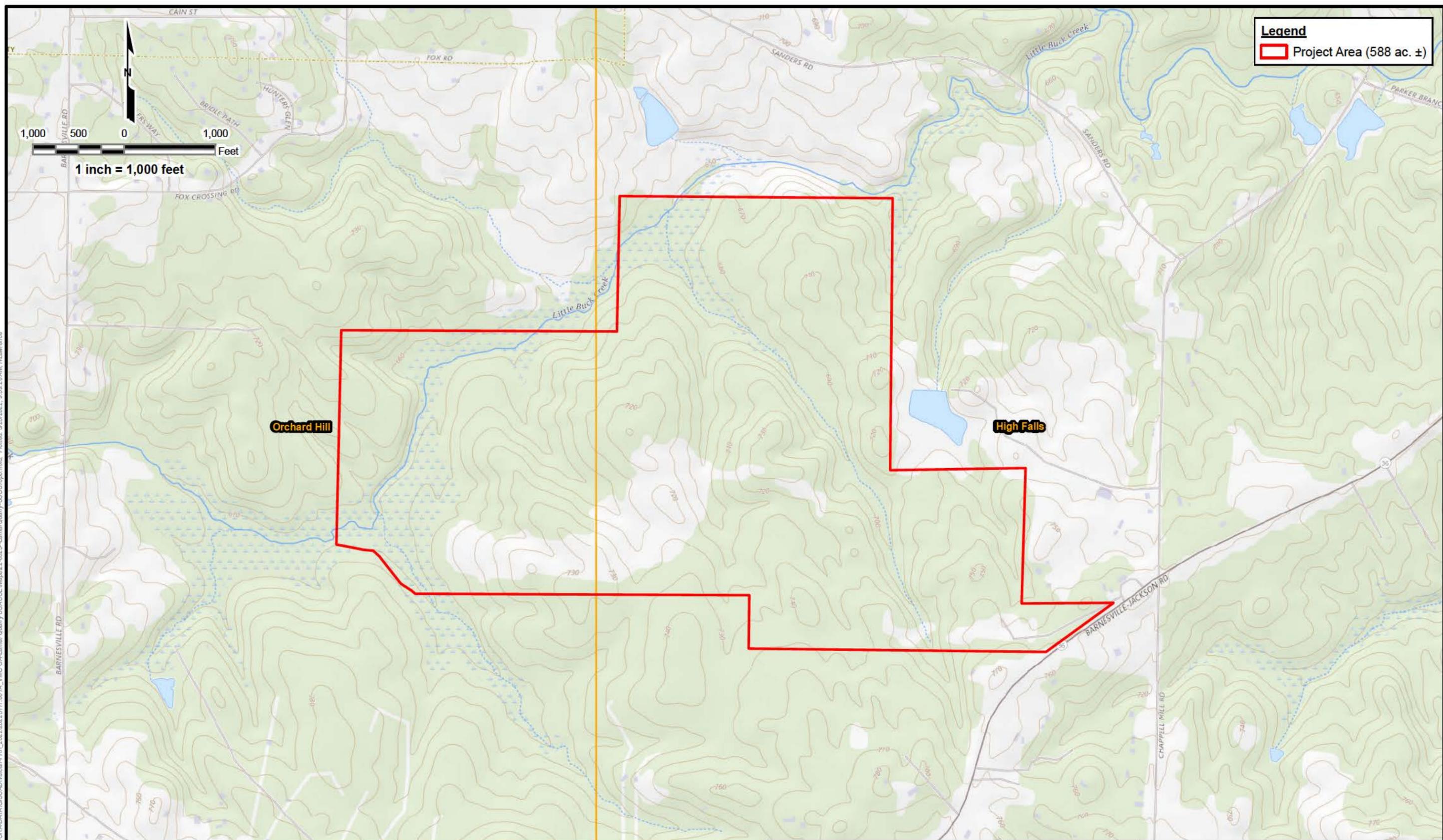
The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

PROJECT NO.:	20225111.001A
CREATED:	3/25/2022
CREATED BY:	NLawrence
CHECKED BY:	SD
FILE NAME:	See File Path

Location & Vicinity Map
Vulcan Materials Company Lamar Quarry IP Lamar County, Georgia

FIGURE
1

Document Path: \\mountain\mountain\DATA\GIS\CAD\ Vulcan-FRL_2022\2025111_001A_VMC-GA-Lamar-Quarry-USACE\Mapes\22-0325-Lamar-Quarry-USGSTopo.mxd. Plotted: 3/25/2022, 9:59:26 AM M.Lawrence



Legend
Project Area (588 ac. ±)

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

Source: USGSTopo was obtained from ESRI Basemap. Back Drop to Project Boundary represents 7.5 Minute Quadrangle sheets for High Falls & Orchard Hill, Georgia.



PROJECT NO.	20225111.001A
DRAWN:	3/25/2022
DRAWN BY:	NL
CHECKED BY:	AWN
FILE NAME:	22-0325--Lamar Quarry-USGSTopo.mxd

USGS Topographic Map
Vulcan Materials Company Lamar Quarry IP Lamar County, Georgia

FIGURE
5

Document Path: \\unmountborn\mount\ntd\04\DATA\GIS\CAD\Map\22\0418-LamarQuarry-WetID.mxd; Plotted: 4/18/2022, 1:40:52 PM, NL Lawrence

Legend

Project Area (588 ac. ±)

USACE Data Point Locations

- UD - Upland Determination
- WD - Wetland Determination

Delineated Wetlands

- Palustrine Forested Wetland (92.74 Ac.±)

Delineated Surface Waters

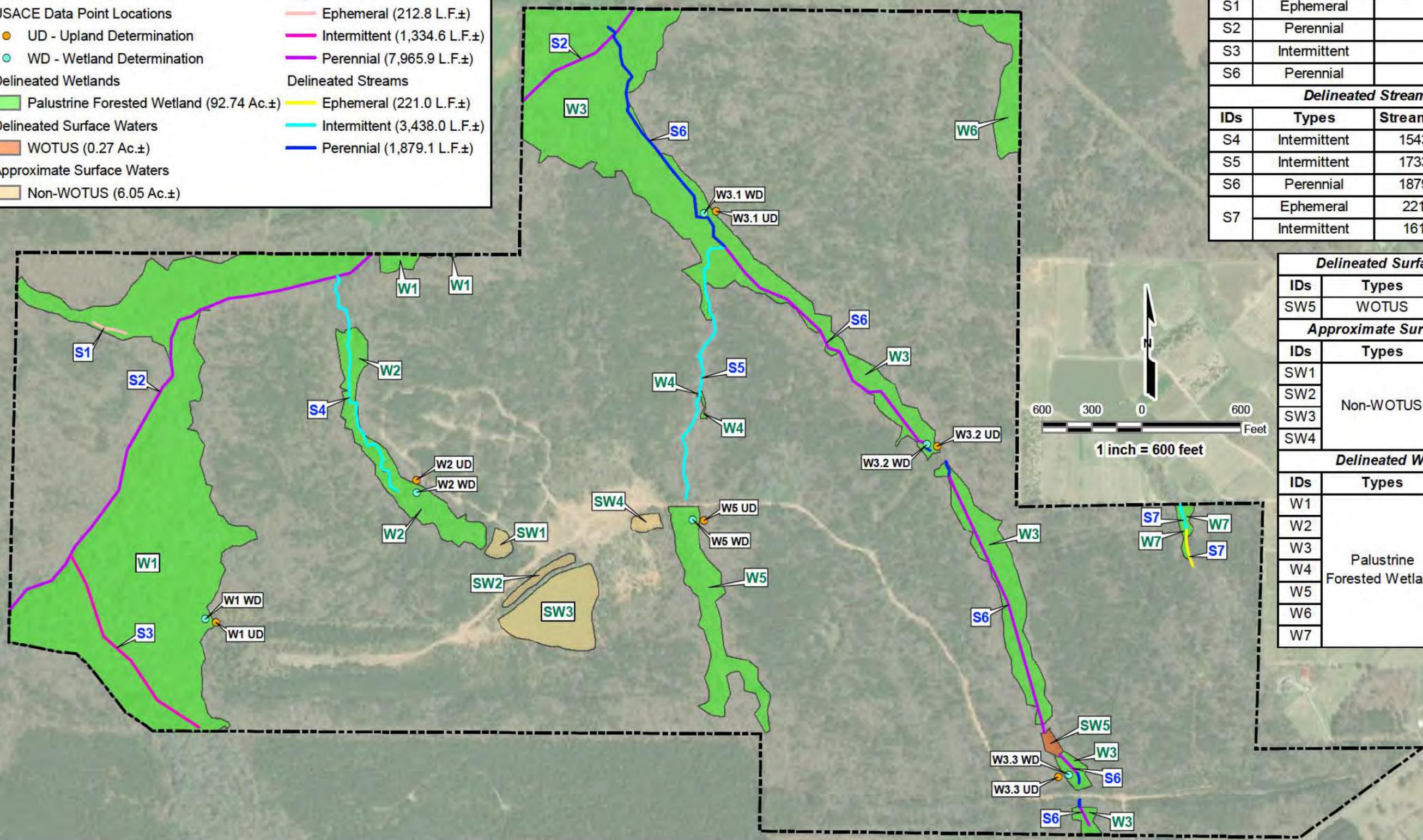
- WOTUS (0.27 Ac.±)
- Non-WOTUS (6.05 Ac.±)

Approximate Streams

- Ephemeral (212.8 L.F.±)
- Intermittent (1,334.6 L.F.±)
- Perennial (7,965.9 L.F.±)

Delineated Streams

- Ephemeral (221.0 L.F.±)
- Intermittent (3,438.0 L.F.±)
- Perennial (1,879.1 L.F.±)



Approximate Streams		
IDs	Types	Stream L.F.
S1	Ephemeral	212.8
S2	Perennial	4255.4
S3	Intermittent	1334.6
S6	Perennial	3710.5

Delineated Streams			
IDs	Types	Stream L.F.	Acreage
S4	Intermittent	1543.4	0.1701
S5	Intermittent	1733.5	0.2179
S6	Perennial	1879.1	0.2904
S7	Ephemeral	221.0	0.0149
	Intermittent	161.1	0.0148

Delineated Surface Waters		
IDs	Types	Acreage
SW5	WOTUS	0.27

Approximate Surface Waters		
IDs	Types	Acreage
SW1	Non-WOTUS	0.46
SW2		0.59
SW3		4.61
SW4		0.39

Delineated Wetlands		
IDs	Types	Acreage
W1	Palustrine Forested Wetland	46.43
W2		4.79
W3		32.87
W4		0.07
W5		5.07
W6		3.08
W7		0.43

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

Source: World Imagery was obtained from ESRI Basemap.
Image origin: Maxar. Date: 3/20/2021.

KLEINFELDER
Bright People. Right Solutions.
www.kleinfelder.com

PROJECT NO. 20225111.001A
DRAWN: 4/18/2022
DRAWN BY: NL
CHECKED BY: AWN
FILE NAME: 22-0418-LamarQuarry-WetID.mxd

Stream / Wetland ID Map

Vulcan Materials Company
Lamar Quarry IP
Lamar County, Georgia

FIGURE
9

Legend

Project Area (588 ac. ±)

Undisturbed

- Streams (Total 14,210.5 L.F.)
 - Ephemeral (342.4 L.F.)
 - Intermittent (4,218.5 L.F.)
 - Perennial (9,649.6 L.F.)
- Surface Waters (Total 5.86 Ac.±)
 - WOTUS (0.27 Ac.±)
 - Non-WOTUS (5.59 Ac.±)
- Wetlands (87.68 Ac.±)

Impacts

- Streams (Total 840.9 L.F.)
 - Ephemeral (91.4 L.F.)
 - Intermittent (554.1 L.F.)
 - Perennial (195.4 L.F.)
- Surface Waters (Total 0.46 Ac.±)
 - Non-WOTUS (0.46 Ac.±)
- Wetlands (5.06 Ac.±)



Impact Types	Types	Stream/SW	Impact ID	Acreage	Impact LF	
Permitted Impact Areas	Streams	Perennial	Permitted Impact #1	0.004	73.59	
	Wetlands			0.16		
	Streams	Perennial	Permitted Impact #2	0.004	68.73	
	Wetlands			0.14		
	Streams	Intermittent	Permitted Impact #3	0.004	76.02	
	Wetlands			0.13		
Proposed Impact Areas	Streams	Intermittent	S4 Impact	0.0651	510.6	
		Ephemeral	S7 Impact	0.0062	91.4	
	Surface Waters	Non-WOTUS	SW1 Impact	0.46		
			W2 Impact	3.16		
			W5 Impact #2	0.55		
	Wetlands		W5 Impact #3	0.46		
			W7 Impact	0.05		
		Streams	Intermittent	S5 Impact	0.0054	43.47
			Perennial	S6 Impact #1	0.0235	148.24
			Perennial	S6 Impact #2	0.0001	1.0
Perennial	S6 Impact #3		0.0028	25.1		
Road Crossing Impacts	Wetlands		S6 Impact #4	0.0023	21.07	
			W3 Impact #1	0.175		
			W3 Impact #2	0.419		
			W3 Impact #3	0.0566		
			W3 Impact #4	0.0397		
		W3 Impact #5	0.00003			
		W5 Impact #1	0.148			

DATE					
BY					
REVISION					
NO.	Δ	Δ	Δ	Δ	Δ

KLEINFELDER
Bright People. Right Solutions.
3663 Lake Center Drive
Mount Dora, FL 32757
Tel: 352.383.1444
www.kleinfelder.com

FILE: 23-0810-LamarQuarry-Sympacts.mxd
PROJECT: 20220511_001A

5 Year Mine Plan - Impacts Map

Vulcan Materials Company
Lamar Quarry IP
Lamar County, Georgia

DESIGNED BY:
DRAWN BY: NL
CHECK BY: AWN
DATE: 8/10/2022
SCALE: 1 inch = 300 feet
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
FIGURE: **10**

Document Path: I:\mountdora\MOUNTDORA-CATINGS\SC01\Main-FR-20220202311 001A_VMC 04-Lamar Quarry (USACE)Map\23-0810-LamarQuarry-Sympacts.mxd, Plotted: 8/10/2022, 10:40:07 AM, NL, awn

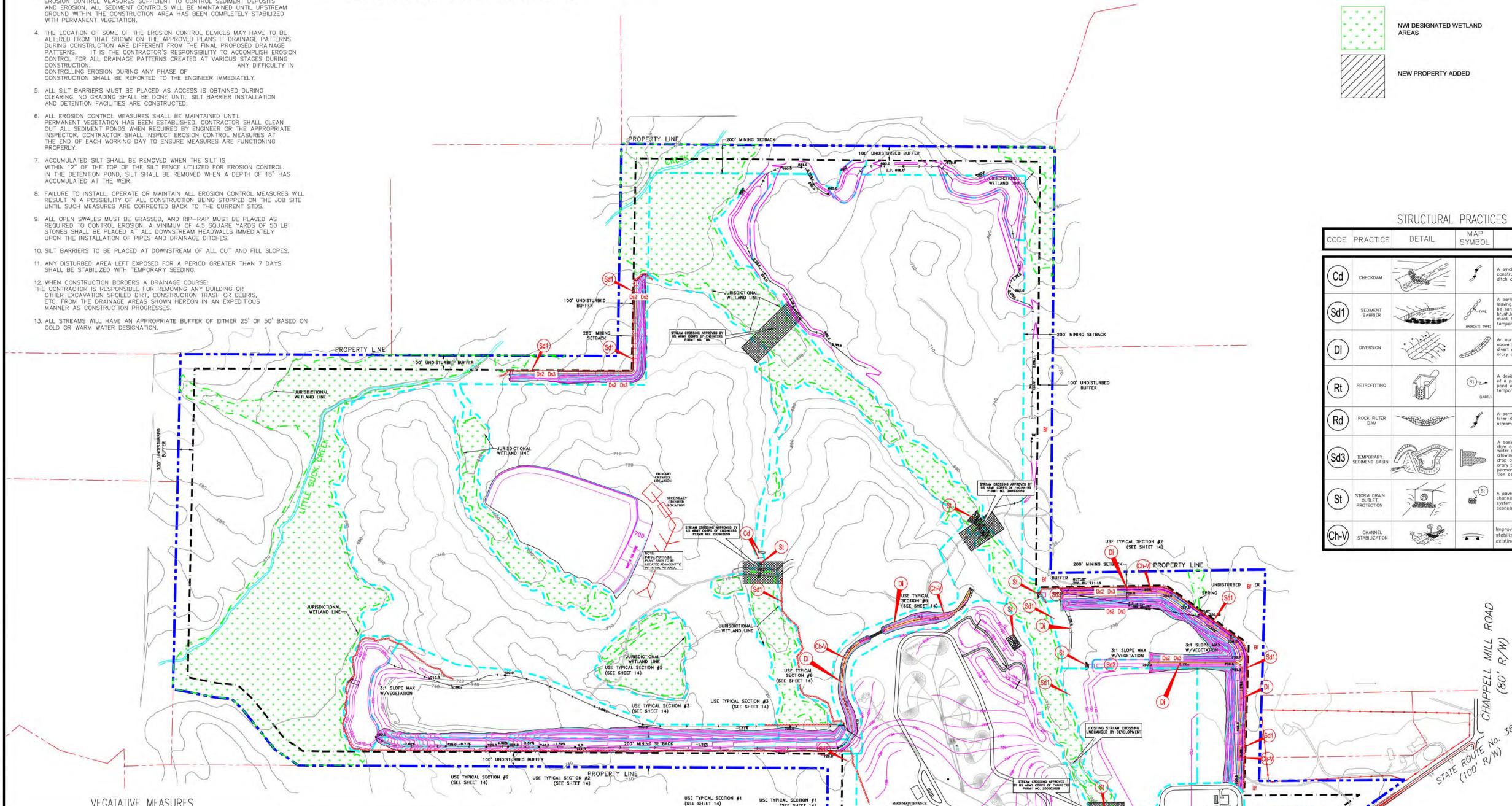
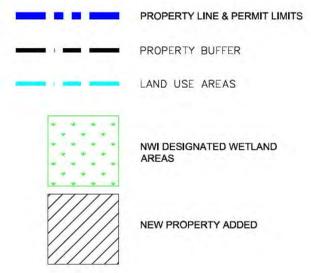
The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

GENERAL EROSION CONTROL NOTES:

- SILT FENCE MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE OF THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATION, LATEST EDITION.
- ADDITIONAL EROSION CONTROL MEASURES WILL BE EMPLOYED WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS TO PREVENT THE RELEASE OF SILT FROM THE SITE.
- THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROLS WILL BE MAINTAINED UNTIL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION.
- ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION AND DETENTION FACILITIES ARE CONSTRUCTED.
- ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY ENGINEER OR THE APPROPRIATE INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- ACCUMULATED SILT SHALL BE REMOVED WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE UTILIZED FOR EROSION CONTROL. IN THE DETENTION POND, SILT SHALL BE REMOVED WHEN A DEPTH OF 18" HAS ACCUMULATED AT THE WEIR.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN A POSSIBILITY OF ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE CURRENT STDS.
- ALL OPEN SWALES MUST BE GRASSED, AND RIP-RAP MUST BE PLACED AS REQUIRED TO CONTROL EROSION. A MINIMUM OF 4.5 SQUARE YARDS OF 50 LB STONES SHALL BE PLACED AT ALL DOWNSTREAM HEADWALLS IMMEDIATELY UPON THE INSTALLATION OF PIPES AND DRAINAGE DITCHES.
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM OF ALL CUT AND FILL SLOPES.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING.
- WHEN CONSTRUCTION BORDERS A DRAINAGE COURSE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOILED DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC. FROM THE DRAINAGE AREAS SHOWN HEREON IN AN EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
- ALL STREAMS WILL HAVE AN APPROPRIATE BUFFER OF EITHER 25' OF 50' BASED ON COLD OR WARM WATER DESIGNATION.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

ALL METHODS AND MATERIALS USED TO CONSTRUCT OR INSTALL SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY TO THE STANDARDS OF THE MOST CURRENT EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.



STRUCTURAL PRACTICES

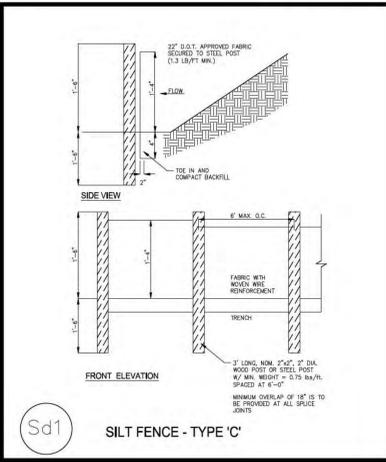
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a wide drainage ditch or area of concentrated flow.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sarrabags/bales or straw or hay, brushlogs and poles/groats or a sediment fence. The barriers are usually temporary and inexpensive.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Rt	RETROFITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The basin allows the bulk of the sediment to drop out. The basin is usually temporary but may be designed as a permanent pond or stormwater retention device.
St	STORM DRAIN GULCH PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Ch-V	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.

VEGETATIVE MEASURES

Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Establishing temporary protection for disturbed areas where seeding may not have a suitable growing season to produce an erosion-reducing cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)		Establishing temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)		Establishing permanent vegetative cover such as trees, shrubs, vines, grasses, sods, or legumes on disturbed areas.
Bf	BUFFER ZONE		Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.

D&1 TEMPORARY STABILIZATION (MULCHING)			
WHEN SEEDING WILL NOT HAVE A SUITABLE GROWING SEASON TEMPORARY STABILIZATION MAY BE ACCOMPLISHED WITH:			
STRAW OR HAY-2.5 TONS/ACRE			
WOOD WASTE, BARK, SAWDUST-2" DEEP (MINIMUM 6" TONS/ACRE)			
SPICES	SEEDING SCHEDULE	DATE	LIME
CLAM, MULCH	1.2 - 1.8 LBS.	4/15 - 9/20	1 TON/ACRE
WINTER STR	1.8 - 2.1 LBS.	9/21 - 10/15	1 TON/ACRE
WINTERING GRASS	2 - 3 LBS.	3/1 - 6/15	1 TON/ACRE
FERTILIZER (LBS./ACRE)			
SPICES	N	P2O5	K2O
CLAM, MULCH	60 - 90	200 - 180	100 - 180
WINTER STR	60 - 90	120 - 180	100 - 180
WINTERING GRASS	60 - 90	200 - 180	100 - 180

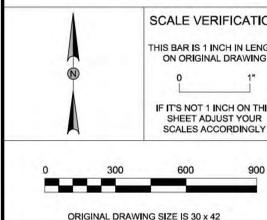
D&3 PERMANENT SEEDING			
SPICES	SEEDING SCHEDULE	DATE	LIME
FILLED BERMUDA	2 LBS.	10/1 - 3/1	1 TON/ACRE
SMALLER BERMUDA	1 LBS.	7/15 - 9/15	1 TON/ACRE
SCARIFIED LESPEDEZA	1.5 LBS.	3/1 - 6/15	1 TON/ACRE
FERTILIZER (LBS./ACRE)			
SPICES	N	P2O5	K2O
FILLED BERMUDA	60 - 90	120 - 180	100 - 180
SMALLER BERMUDA	60 - 90	120 - 180	100 - 180
SCARIFIED LESPEDEZA	60 - 90	120 - 180	100 - 180



ISSUED FOR PERMITTING

Signed By: B. WAYNE KING #PE030550

REV	DESCRIPTION	DSN	CHK	DATE
1	REVISED PER EPD RAI LTR DATED 1-19-2022	BWK	BWK	1/24/2022
2	REVISED PER EPD RAI COMMENTS DATED 2-17-2022	BWK	BWK	2/17/2022



1 YEAR MINE PLAN

LAND LOT 156 OF THE 3RD DISTRICT LAMAR COUNTY, GEORGIA

SURFACE MINING PERMIT 1471-08 AMENDMENT #1

PROJECT NO.	2020-045
ISSUE DATE	11/16/2021
CURRENT REVISION	2
DESIGNED BY	BWK
DRAWN BY	BWK
CHECKED BY	BWK
APPROVED BY	BWK

SHEET 3 OF 15

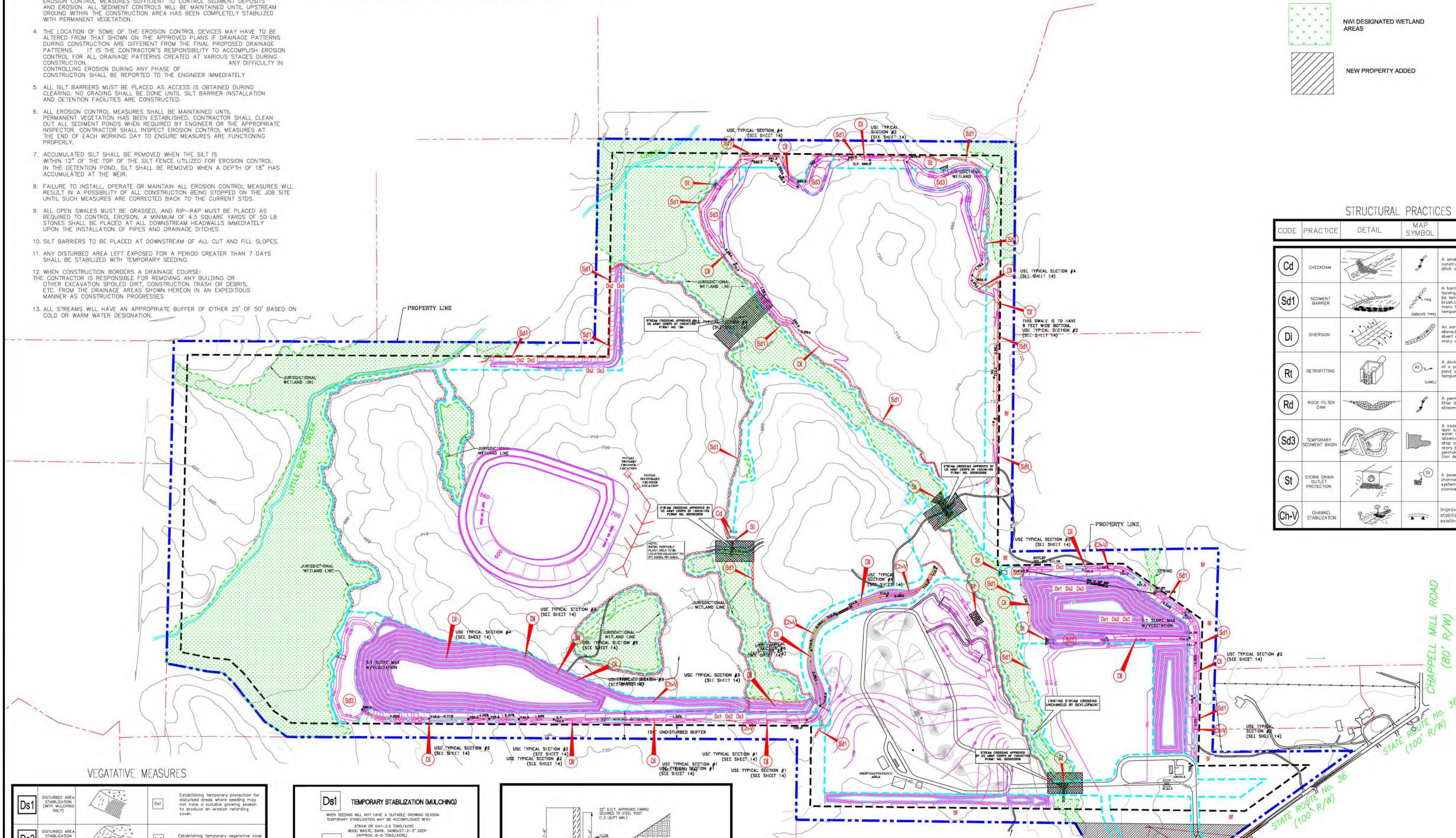
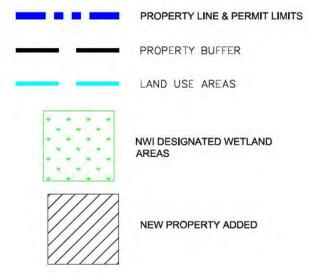
- NOTE:**
- ALL USACE WETLAND IMPACTS SHALL BE PERMITTED AND MITIGATED AS REQUIRED BEFORE ANY WOTUS IMPACTS ARE MADE.
 - PROPERTY LINE IS PERMIT LINE - TOTAL PERMITTED PROPERTY 597.20 ACRES.

GENERAL EROSION CONTROL NOTES:

- SILT FENCE MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE OF THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATION, LATEST EDITION.
- ADDITIONAL EROSION CONTROL MEASURES WILL BE EMPLOYED WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS TO PREVENT THE RELEASE OF SILT FROM THE SITE.
- THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROLS WILL BE MAINTAINED UNTIL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION.
- ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION AND DETENTION FACILITIES ARE CONSTRUCTED.
- ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY ENGINEER OR THE APPROPRIATE INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- ACCUMULATED SILT SHALL BE REMOVED WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE UTILIZED FOR EROSION CONTROL. IN THE DETENTION POND, SILT SHALL BE REMOVED WHEN A DEPTH OF 18" HAS ACCUMULATED AT THE WEIR.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN A POSSIBILITY OF ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE CURRENT STDS.
- ALL OPEN SWALES MUST BE GRASSED, AND RIP-RAP MUST BE PLACED AS REQUIRED TO CONTROL EROSION. A MINIMUM OF 4.5 SQUARE YARDS OF 50 LB STONES SHALL BE PLACED AT ALL DOWNSTREAM HEADWALLS IMMEDIATELY UPON THE INSTALLATION OF PIPES AND DRAINAGE DITCHES.
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM OF ALL CUT AND FILL SLOPES.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING.
- WHEN CONSTRUCTION BORDERS A DRAINAGE COURSE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOILED DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC. FROM THE DRAINAGE AREAS SHOWN HEREON IN AN EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
- ALL STREAMS WILL HAVE AN APPROPRIATE BUFFER OF EITHER 25' OF 50' BASED ON COLD OR WARM WATER DESIGNATION.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

ALL METHODS AND MATERIALS USED TO CONSTRUCT OR INSTALL SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY TO THE STANDARDS OF THE MOST CURRENT EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.



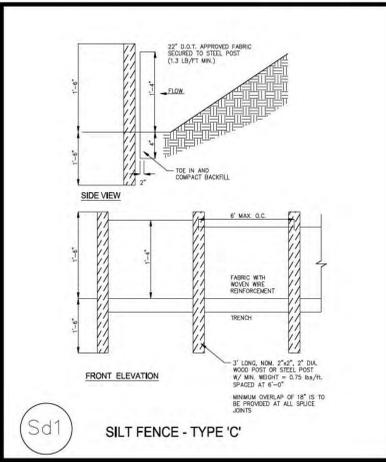
STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a side-drainage ditch or area of concentrated flow.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sarrabags/bales or straw or hay, brushlogs and poles/grotes or a sediment fence. The barriers are usually temporary and inexpensive.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Rt	RETROFITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. It is used to slow down the bulk of the sediment to drop out. The basin is usually temporary but may be designed as a permanent pond or stormwater retention device.
St	STORM DRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Ch-V	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.

VEGETATIVE MEASURES

Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Establishing temporary protection for disturbed areas where seeding may not have a suitable growing season to produce an erosion-retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)		Establishing temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)		Establishing permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Bf	BUFFER ZONE		Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.

D&1 TEMPORARY STABILIZATION (MULCHING)			
WHEN SEEDING WILL NOT HAVE A SUITABLE GROWING SEASON TEMPORARY STABILIZATION MAY BE ACCOMPLISHED WITH:			
STRAW OR HAY-2.5 TONS/ACRE			
WOOD WASTE, BARK, SAWDUST-2" DEEP (MINIMUM 6" TONS/ACRE)			
SEEDING SCHEDULE			
SPECIES	RATE (TONS/AC)	DATE	LINE
CLAM, MULET	1.2 - 1.8 LBS	4/15 - 9/30	1 TON/ACRE
WINTER RYE	1.8 - 2.8 LBS	9/15 - 11/30	1 TON/ACRE
MIXED LEGUMES	2 - 3 LBS	3/1 - 6/31	1 TON/ACRE
FERTILIZER (LBS/ACRE)			
SPECIES	N	P2O5	K2O
CLAM, MULET	60 - 80	200 - 180	100 - 180
WINTER RYE	60 - 80	120 - 180	100 - 180
MIXED LEGUMES	60 - 80	200 - 180	100 - 180

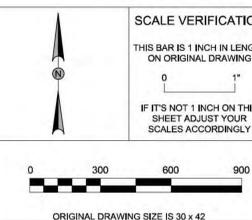


ISSUED FOR PERMITTING

REGISTERED PROFESSIONAL ENGINEER
3/6/22
No. PE030550
B. WAYNE KING

Signed By: B. WAYNE KING #PE030550

REV	DESCRIPTION	DSN	CHK	DATE
1	REVISED PER EPD RAI LTR DATED 1-19-2022	BWK	BWK	1/24/2022
2	REVISED PER EPD RAI COMMENTS DATED 2-17-2022	BWK	BWK	2/17/2022



5 YEAR MINE PLAN
LAND LOT 156 OF THE 3RD DISTRICT
LAMAR COUNTY, GEORGIA

Vulcan

SURFACE MINING PERMIT 1471-08
AMENDMENT #1

PROJECT NO. 2020-045
ISSUE DATE 11/16/2021
CURRENT REVISION 2
DESIGNED BY BWK
DRAWN BY BWK
CHECKED BY BWK
APPROVED BY BWK SHEET 4 of 15

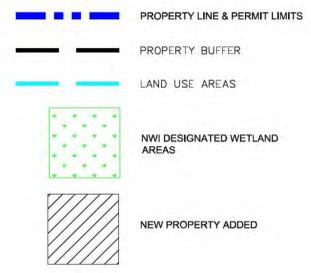
- NOTE:**
- ALL USACE WETLAND IMPACTS SHALL BE PERMITTED AND MITIGATED AS REQUIRED BEFORE ANY WOTUS IMPACTS ARE MADE.
 - PROPERTY LINE IS PERMIT LINE - TOTAL PERMITTED PROPERTY 597.20 ACRES.

GENERAL EROSION CONTROL NOTES:

- SILT FENCE MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE OF THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATION, LATEST EDITION.
- ADDITIONAL EROSION CONTROL MEASURES WILL BE EMPLOYED WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS TO PREVENT THE RELEASE OF SILT FROM THE SITE.
- THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROLS WILL BE MAINTAINED UNTIL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION.
- ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION AND DETENTION FACILITIES ARE CONSTRUCTED.
- ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY ENGINEER OR THE APPROPRIATE INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- ACCUMULATED SILT SHALL BE REMOVED WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE UTILIZED FOR EROSION CONTROL. IN THE DETENTION POND, SILT SHALL BE REMOVED WHEN A DEPTH OF 18" HAS ACCUMULATED AT THE WEIR.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN A POSSIBILITY OF ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE CURRENT STDS.
- ALL OPEN SWALES MUST BE GRASSED, AND RIP-RAP MUST BE PLACED AS REQUIRED TO CONTROL EROSION. A MINIMUM OF 4.5 SQUARE YARDS OF 50 LB STONES SHALL BE PLACED AT ALL DOWNSTREAM HEADWALLS IMMEDIATELY UPON THE INSTALLATION OF PIPES AND DRAINAGE DITCHES.
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM OF ALL CUT AND FILL SLOPES.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING.
- WHEN CONSTRUCTION BORDERS A DRAINAGE COURSE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOILED DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC. FROM THE DRAINAGE AREAS SHOWN HEREON IN AN EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
- ALL STREAMS WILL HAVE AN APPROPRIATE BUFFER OF EITHER 25' OF 50' BASED ON COLD OR WARM WATER DESIGNATION.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

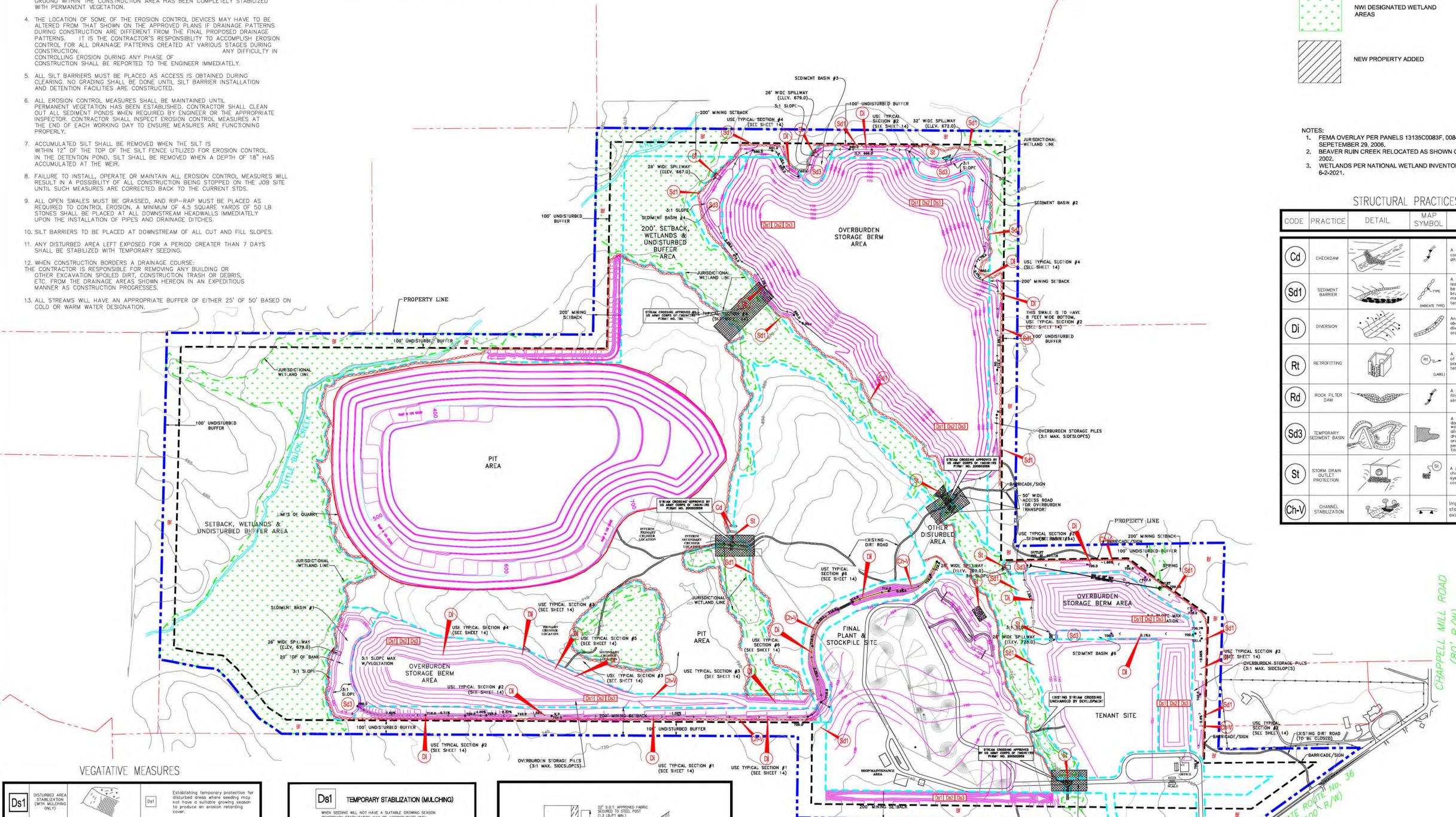
ALL METHODS AND MATERIALS USED TO CONSTRUCT OR INSTALL SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY TO THE STANDARDS OF THE MOST CURRENT EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.



- NOTES:**
- FEMA OVERLAY PER PANELS 13135C0083F, 0084F, 0088F & 0099F DATED SEPTEMBER 29, 2006.
 - BEAVER RUIN CREEK RELOCATED AS SHOWN ON DRAWINGS PRIOR TO 2002.
 - WETLANDS PER NATIONAL WETLAND INVENTORY DATABASE AS OF 6-2-2021.

STRUCTURAL PRACTICES

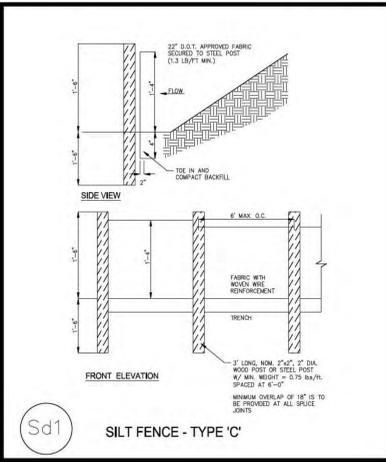
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a wide drainage ditch or area of concentrated flow.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be siltbags/bales or straw or hay, brushlogs tied together or a sediment fence. The barriers are usually temporary and inexpensive.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Rt	RETROFITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The basin will allow the bulk of the sediment to drop out. The basin is usually temporary but may be designed as a permanent pond or stormwater retention device.
St	STORM DRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Ch-V	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.



VEGETATIVE MEASURES

Ds1		Establishing temporary protection for disturbed areas where seeding may not have a suitable growing season to produce an erosion-retarding cover.
Ds2		Establishing temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3		Establishing permanent vegetative cover such as trees, shrubs, vines, grasses, sod, or legumes on disturbed areas.
Bf		Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.

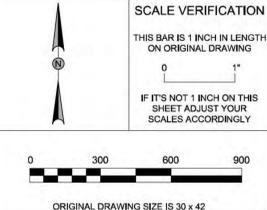
Dd1 TEMPORARY STABILIZATION (MULCHING)			
WHEN SEEDING WILL NOT HAVE A SUITABLE GROWING SEASON TEMPORARY STABILIZATION MAY BE ACCOMPLISHED WITH:			
STRAW OR HAY-2.5 TONS/ACRE			
WOOD WASTE, BARK, SAWDUST-2" DEEP (MINIMUM 6" TONS/ACRE)			
SEEDING SCHEDULE			
SPECIES	RATE (LBS/1000 SF)	DATE	UNIT
CLAM, MULET	1.2 - 1.8 LBS	4/25 - 9/20	1 TON/ACRE
SMITH GR	1.8 - 2.4 LBS	4/25 - 9/20	1 TON/ACRE
WINTER GR	2.4 - 3.0 LBS	4/25 - 9/20	1 TON/ACRE
WINTER LGGRASS	3.0 - 3.6 LBS	4/25 - 9/20	1 TON/ACRE
*APPLIED ON ALL 2:1 (H:V) SLOPES.			
Dd3 PERMANENT SEEDING			
SEEDING SCHEDULE			
SPECIES	RATE (LBS/1000 SF)	DATE	UNIT
CLAM, MULET	2 LBS	10/1 - 3/1	1 TON/ACRE
SMALLER BERBERIS	1 LBS	7/1 - 9/1	1 TON/ACRE
SCARIFIED LESPEDEZA	1.5 LBS	3/1 - 6/1	1 TON/ACRE
FERTILIZER (LBS/ACRE)			
SPECIES	100'	150'	200'
CLAM, MULET	60	120	180
SMALLER BERBERIS	60	120	180
SCARIFIED LESPEDEZA	60	120	180



ISSUED FOR PERMITTING

Signed By: B. WAYNE KING #PE030550

REV	DESCRIPTION	DSN	CHK	DATE
1	REVISION PER EPD RAI LTR DATED 1-19-2022	BWK	BWK	1/24/2022
2	REVISION PER EPD RAI COMMENTS DATED 2-17-2022	BWK	BWK	2/17/2022



20 YEAR MINE PLAN
LAND LOT 156 OF THE 3RD DISTRICT LAMAR COUNTY, GEORGIA



SURFACE MINING PERMIT 1471-08 AMENDMENT #1			
PROJECT NO.	2020-045		
ISSUE DATE	11/16/2021		
CURRENT REVISION	2		6
DESIGNED BY	BWK		
DRAWN BY	BWK		
CHECKED BY	BWK		
APPROVED BY	BWK	SHEET	6 of 15

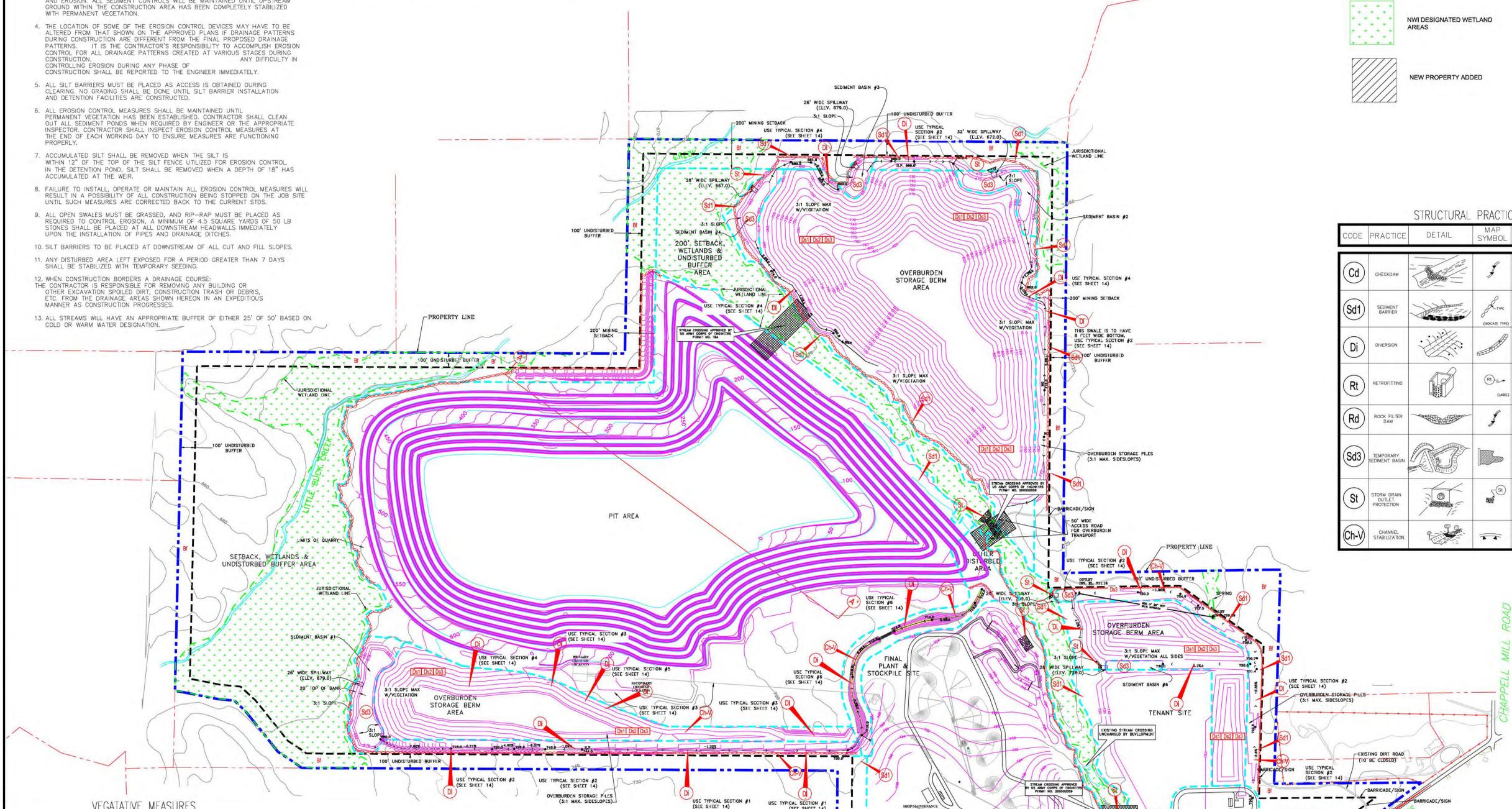
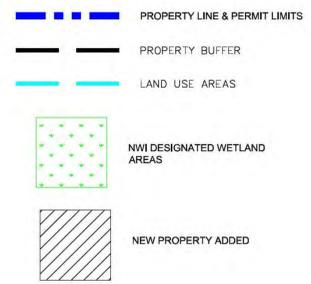
- NOTE:**
- ALL USACE WETLAND IMPACTS SHALL BE PERMITTED AND MITIGATED AS REQUIRED BEFORE ANY WOTUS IMPACTS ARE MADE.
 - PROPERTY LINE IS PERMIT LINE - TOTAL PERMITTED PROPERTY 597.20 ACRES.

GENERAL EROSION CONTROL NOTES:

- SILT FENCE MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE OF THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATION, LATEST EDITION.
- ADDITIONAL EROSION CONTROL MEASURES WILL BE EMPLOYED WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS TO PREVENT THE RELEASE OF SILT FROM THE SITE.
- THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROLS WILL BE MAINTAINED UNTIL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION.
- ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION AND DETENTION FACILITIES ARE CONSTRUCTED.
- ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY ENGINEER OR THE APPROPRIATE INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- ACCUMULATED SILT SHALL BE REMOVED WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE UTILIZED FOR EROSION CONTROL. IN THE DETENTION POND, SILT SHALL BE REMOVED WHEN A DEPTH OF 18" HAS ACCUMULATED AT THE WEIR.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN A POSSIBILITY OF ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE CURRENT STDS.
- ALL OPEN SWALES MUST BE GRASSED, AND RIP-RAP MUST BE PLACED AS REQUIRED TO CONTROL EROSION. A MINIMUM OF 4.5 SQUARE YARDS OF 50 LB STONES SHALL BE PLACED AT ALL DOWNSTREAM HEADWALLS IMMEDIATELY UPON THE INSTALLATION OF PIPES AND DRAINAGE DITCHES.
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM OF ALL CUT AND FILL SLOPES.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING.
- WHEN CONSTRUCTION BORDERS A DRAINAGE COURSE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOILED DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC. FROM THE DRAINAGE AREAS SHOWN HEREON IN AN EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
- ALL STREAMS WILL HAVE AN APPROPRIATE BUFFER OF EITHER 25' OF 50' BASED ON COLD OR WARM WATER DESIGNATION.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

ALL METHODS AND MATERIALS USED TO CONSTRUCT OR INSTALL SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY TO THE STANDARDS OF THE MOST CURRENT EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.



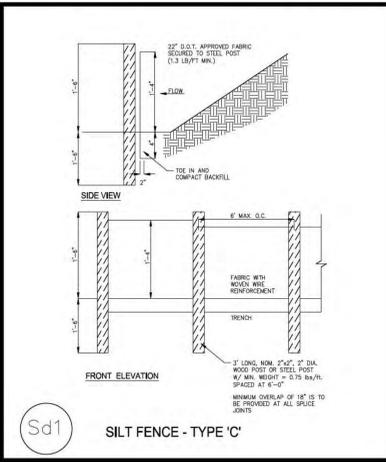
STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a wide drainage ditch or area of concentrated flow.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be siltbags/bales or straw or hay, brushlogs and poles/pierced or a sediment fence. The barriers are usually temporary and inexpensive.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Rt	RETROFITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dune across a streamway. The basin follows the bulk of the sediment to trap silt. The basin is usually temporary but may be designed as a permanent pond or stormwater retention device.
St	STORM DRAIN GUILLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Ch-V	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.

VEGETATIVE MEASURES

Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Establishing temporary protection for disturbed areas where seeding may not have a suitable growing season to produce an erosion-retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)		Establishing temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)		Establishing permanent vegetative cover such as trees/shrubs, grasses, or legumes on disturbed areas.
Bf	BUFFER ZONE		Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.

Ds1 TEMPORARY STABILIZATION (MULCHING)				
WHEN SEEDING WILL NOT HAVE A SUITABLE GROWING SEASON TEMPORARY STABILIZATION MAY BE ACCOMPLISHED WITH:				
STRAW OR HAY-2.5 TONS/ACRE				
WOOD WASTE, BARK, SAWDUST-2" DEEP (MINIMUM 6" TONS/ACRE)				
Ds2 TEMPORARY SEEDING				
SEEDING SCHEDULE				
SPECIES	RATE (TONS/ACRE)	DATE	TIME	
CLAM, MULET	1.2 - 1.8 LBS	4/15 - 9/20	1	TON/ACRE
SMITH GR	1.8 - 2.1 LBS	4/15 - 9/20	1	TON/ACRE
MORNING DOGWOOD	2-3 LBS	3/1 - 6/1	1	TON/ACRE
FERTILIZER (LBS./ACRE)				
CLAM, MULET	60	120	180	240
SMITH GR	60	120	180	240
MORNING DOGWOOD	60	120	180	240
*APPLIED ON ALL 2:1 (0-V) SLOPES.				
Ds3 PERMANENT SEEDING				
SEEDING SCHEDULE				
SPECIES	RATE (TONS/ACRE)	DATE	TIME	
HALLED BERNICIA	2 LBS	10/1 - 3/1	1	TON/ACRE
SMALLER BERNICIA	1 LBS	2/15 - 5/15	1	TON/ACRE
SCARIFIED LESPEDEZA	1.5 LBS	3/1 - 6/15	1	TON/ACRE
FERTILIZER (LBS./ACRE)				
HALLED BERNICIA	60	120	180	240
SMALLER BERNICIA	60	120	180	240
SCARIFIED LESPEDEZA	60	120	180	240

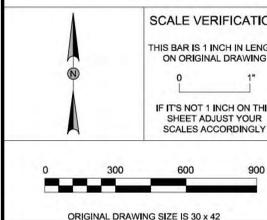


ISSUED FOR PERMITTING

REGISTERED PROFESSIONAL ENGINEER
3/6/22
No. PE030550
B. WAYNE KING

Signed By: B. WAYNE KING #PE030550

REV	DESCRIPTION	DSN	CHK	DATE
1	REVISED PER EPD RAI LTR DATED 1-19-2022	BWK	BWK	1/24/2022
2	REVISED PER EPD RAI COMMENTS DATED 2-17-2022	BWK	BWK	2/17/2022



ULTIMATE MINE PLAN
LAND LOT 156 OF THE 3RD DISTRICT
LAMAR COUNTY, GEORGIA



SURFACE MINING PERMIT 1471-08 AMENDMENT #1

PROJECT NO.	2020-045
ISSUE DATE	11/16/2021
CURRENT REVISION	2
DESIGNED BY	BWK
DRAWN BY	BWK
CHECKED BY	BWK
APPROVED BY	BWK

7 of 15

- NOTE:**
- ALL USACE WETLAND IMPACTS SHALL BE PERMITTED AND MITIGATED AS REQUIRED BEFORE ANY WOTUS IMPACTS ARE MADE.
 - PROPERTY LINE IS PERMIT LINE - TOTAL PERMITTED PROPERTY 597.20 ACRES.

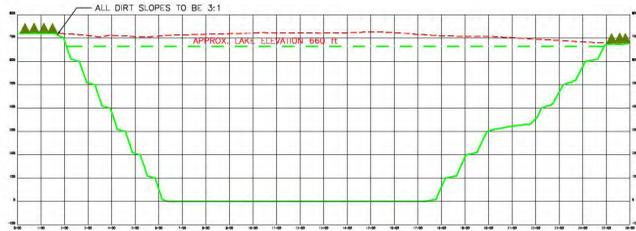


ISSUED FOR PERMITTING

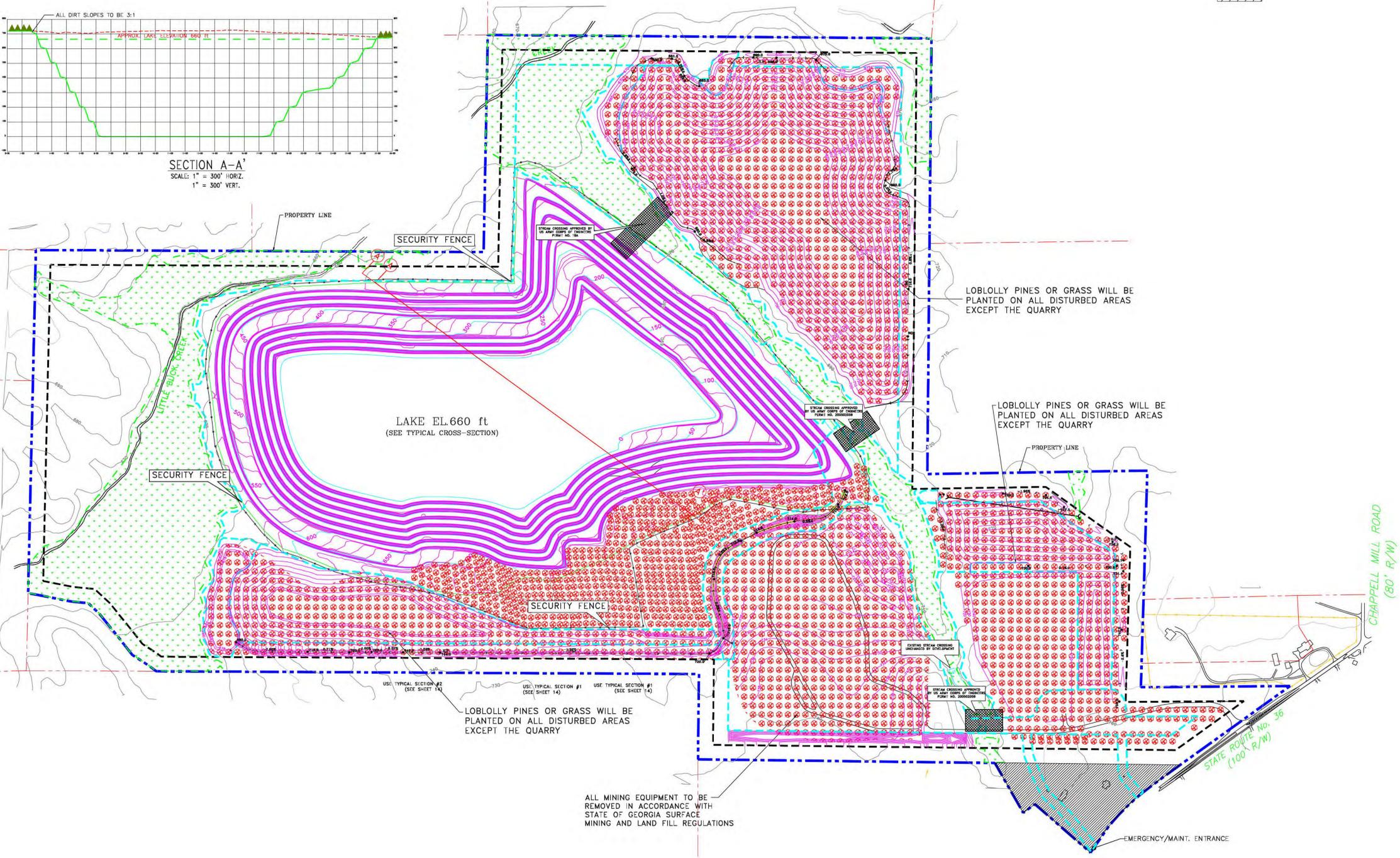
Signed By: B. WAYNE KING #PE030550

REV	DESCRIPTION	DSN	CHK	DATE
Δ	REVISED PER EPD RAI LTR DATED 1-19-2022	BWK	BWK	1/24/2022
Δ	REVISED PER EPD RAI COMMENTS DATED 2-17-2022	BWK	BWK	2/17/2022

- PROPERTY LINE & PERMIT LIMITS
- PROPERTY BUFFER
- LAND USE AREAS
- NWI DESIGNATED WETLAND AREAS
- NEW PROPERTY ADDED



SECTION A-A'
SCALE: 1" = 300' HORIZ.
1" = 300' VERT.



LOBLOLLY PINES OR GRASS WILL BE PLANTED ON ALL DISTURBED AREAS EXCEPT THE QUARRY

LOBLOLLY PINES OR GRASS WILL BE PLANTED ON ALL DISTURBED AREAS EXCEPT THE QUARRY

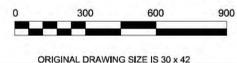
LOBLOLLY PINES OR GRASS WILL BE PLANTED ON ALL DISTURBED AREAS EXCEPT THE QUARRY

ALL MINING EQUIPMENT TO BE REMOVED IN ACCORDANCE WITH STATE OF GEORGIA SURFACE MINING AND LAND FILL REGULATIONS

NOTE:

- ALL USACE WETLAND IMPACTS SHALL BE PERMITTED AND MITIGATED AS REQUIRED BEFORE ANY WOTUS IMPACTS ARE MADE.
- ALL UNCONSOLIDATED SLOPES TO BE RECLAIMED TO 3:1 SLOPES OF FLATTER.
- RECLAMATION DETAILS SHOWN ARE CONCEPTUAL. FINAL RECLAMATION PLAN TO BE SUBMITTED AND APPROVED.
- ENTIRE MINE PIT TO BE FILLED OR LEFT AS LAKE AND PERMANENTLY VEGETATED.
- PROPERTY LINE IS PERMIT LINE - TOTAL PERMITTED PROPERTY 597.20 ACRES.

SCALE VERIFICATION
THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING
IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY



ORIGINAL DRAWING SIZE IS 30 x 42

RECLAMATION

LAND LOT 156 OF THE 3RD DISTRICT LAMAR COUNTY, GEORGIA



SURFACE MINING PERMIT 1471-08 AMENDMENT #1

PROJECT NO.	2020-045
ISSUE DATE	11/16/2021
CURRENT REVISION	2
DESIGNED BY	BWK
DRAWN BY	BWK
CHECKED BY	BWK
APPROVED BY	BWK

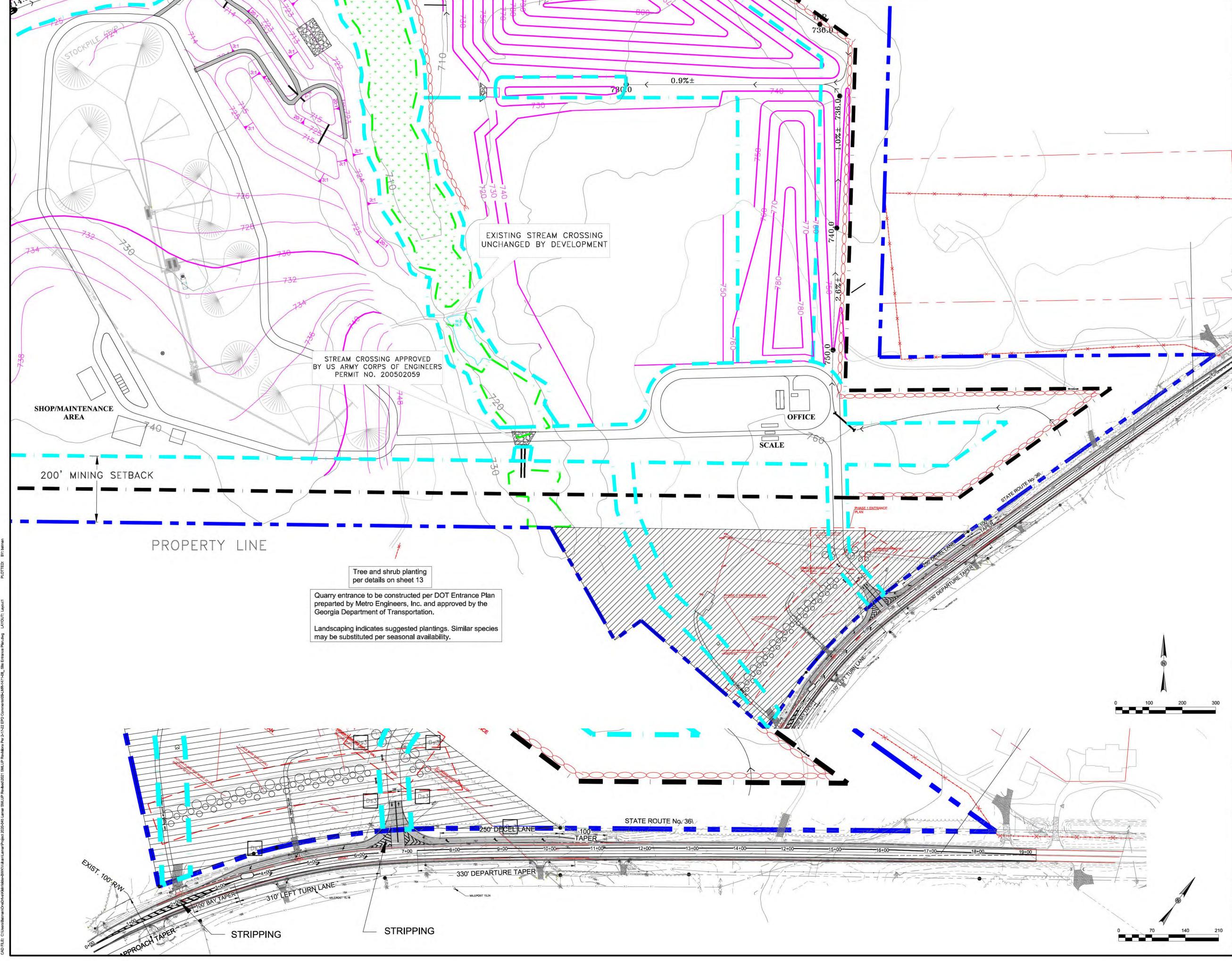
C:\Users\blair\OneDrive\Documents\1471-08\1471-08_SurMngPermit.dwg 11/16/2021 10:42:00 AM 1471-08.dwg



ISSUED FOR PERMITTING

Signed By: B. WAYNE KING #PE030550

REV	DESCRIPTION	DSN	CHK	DATE
1	REVISD PER EPD RAI LTR DATED 1-19-2022	BWK	BWK	1/24/2022
2	REVISD PER EPD RAI COMMENTS DATED 2-17-2022	BWK	BWK	2/17/2022



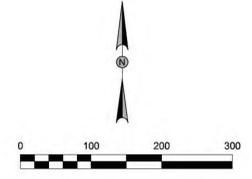
STREAM CROSSING APPROVED BY US ARMY CORPS OF ENGINEERS PERMIT NO. 200502059

EXISTING STREAM CROSSING UNCHANGED BY DEVELOPMENT

Tree and shrub planting per details on sheet 13

Quarry entrance to be constructed per DOT Entrance Plan prepared by Metro Engineers, Inc. and approved by the Georgia Department of Transportation.

Landscaping indicates suggested plantings. Similar species may be substituted per seasonal availability.



SCALE VERIFICATION
THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING
IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

ORIGINAL DRAWING SIZE IS 30 x 42
SITE ENTRANCE PLAN
LAND LOT 156 OF THE 3RD DISTRICT
LAMAR COUNTY, GEORGIA



SURFACE MINING PERMIT 1471-08 AMENDMENT #1

PROJECT NO.	2020-045	9
ISSUE DATE	11/16/2021	
CURRENT REVISION	2	
DESIGNED BY	BWK	
DRAWN BY	BWK	
CHECKED BY	BWK	9 of 15
APPROVED BY	BWK	

PLOTTEE: B11-hairman
 CADD FILE: C:\Users\bdm\OneDrive\Documents\1471-08\1471-08_Site Entrance Plan.dwg
 LAYOUT: 1471-08-1
 CADD USER: bdm
 PLOT DATE: 11/16/2021 10:00:00 AM
 PLOT SCALE: 1"=100'
 PLOT SHEET: 9 OF 15