George Eidel Doddridge County OEM/FPM 105 Court St., Ste 1 West Union, WV 26456







Ms. Berna Kay Ankrom 132 Rocket Drive Greenwood, WV 26415

009 07/29/17

264154342-1N

NIXIE

التعلقان

				i	
	SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY		
Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, NIXIE 264154342-1N RETURN TO SENDING			Agent Addressee C. Date of Delivery m 1? Yes w: No		
	9590 9402 285 2. Article Number (Transfe	9 7069 5448 89 or from service label)	3. Service Type Adult Signature Adult Signature Restricted Delivery Certified Mail® Certified Mail® Collect on Delivery Collect on Delivery Restricted Delivery Insured Mail Insured Mail	□ Priority Mail Express® □ Registered Mail™ Registered Mail Restricted Delivery □ Return Receipt for Merchandise □ Signature Confirmation™ Signature Confirmation Restricted Delivery	

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

Doddridge County Office of Emergency Management/Floodplain Management 105 Court Street Suite 3 Tel 304-873-1343 doddridgecountyfpm@gmail.com



Dear Sir or Ma'am,

You are receiving this letter because you have been identified as a land surface and/or mineral rights owner for property or adjacent property related to the proposed development/project identified by the following page.

No action is required of you. This letter is simply to inform you of the proposed development.

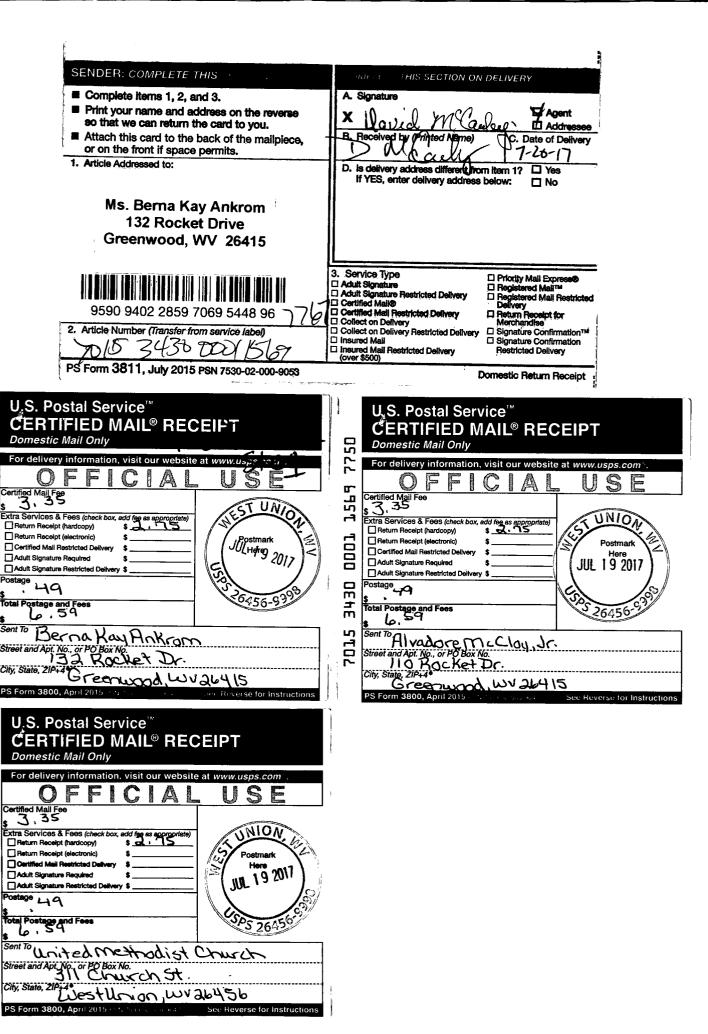
goupe Chill

If you would like to comment on this proposed project, or would like additional information, you may contact the Doddridge County Floodplain Manager at the above address.

Respectfully yours,

George Eidel, CFM

Doddridge County Floodplain Manager



o

56.

0001

30

J.

S

707

0

_0

30

7075

COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION A. Signature Complete items 1, 2, and 3. X alvodor m cls Agent Print your name and address on the reverse so that we can return the card to you. C. Date of Delivery B. Received by (Printed Name) Attach this card to the back of the mailpiece. ALLADUROM CLOX or on the front if space permits. Article Addressed to: D. Is delivery address different from item 1? If YES, enter delivery address below: Mr. Alvadore McCloy, Jr. 110 Rocket Drive Greenwood, WV 26415 3. Service Type ☐ Priority Mail Express® ☐ Adult Signature ☐ Registered Mail™ □ Adult Signature Restricted Delivery □ Registered Mail Restricted ☐ Certifled Mail® Delivery 9590 9402 2859 7069 5448 72 Return Receipt for □ Certified Mail Restricted Delivery Merchandise □ Collect on Delivery ☐ Signature Confirmation™ ☐ Collect on Delivery Restricted Delivery 2. Article Number (Transfer from service label) □ Signature Confirmation Insured Mail Restricted Delivery ☐ Insured Mail Restricted Delivery (over \$500) <

Domestic Return Receipt

490

PS Form 3811, July 2015 PSN 7530-02-000-9053



First-Class Mail
-Pestage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

Sender: Please print your name, address, and ZIP+4® in this box®

George Eidel

Doddridge County OEM/CFM

105 Court St., Ste 1

West Union, WV 26456

հարդկուսովիկիվուիցիլիարիկիցիչակիլուիայիա<u>լ</u>

SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece. or on the front if space permits. 1. Article Addressed to:

1968 Smithton Rd West Union, WV 26456

9590 9402 2859 7069 5449 26

PS Form 3811, July 2015 PSN 7530-02-000-9053

2. Article Number (Transfer from service label)

Vicki F. Hoskinson

COMPLETE THIS SECTION ON DELIVERY A. Signature □ Agent

B. Received by (Printed Name)

□ Addressee C. Date of Delivery

D. Is delivery address different from item 1?

☐ Yes □ No

If YES, enter delivery address below:

☐ Priority Mail Express®

ervice Type □ Adult Signature ☐ Adult Signature Restricted Delivery ☐ Certified Mail® ☐ Certified Mail Restricted Delivery ☐ Collect on Delivery

☐ Insured Mail

(over \$500)

□ Collect on Delivery Restricted Delivery

☐ Insured Mail Restricted Delivery

☐ Registered Mail™ □ Registered Mail Restricted Delivery

Restricted Delivery

Domestic Return Receipt

☐ Return Receipt for Merchandise □ Signature Confirmation™ ☐ Signature Confirmation

USPS TRACKING #O 9590 9402 2859 7069 54 **United States** Sender: Plea **Postal Service**

-201205

ան անդիրը արդարականությունները 25



Doddridge County Floodplain Permits

(Week of July 17, 2016)

Please take notice that on the 12th day of July 2016, Antero Resources Inc. filed an application for a Floodplain Permit (#17-472) to develop land located at or about the intersection of Sunnyside Road and Rt 50 coordinates 39.272833 N, -80.888500 W. The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. Any interested persons who desire to comment shall present the same in writing by August 7, 2017 (20 calendar days after the announcement at the regularly scheduled Doddridge County Commission Meeting) delivered to the Clerk of the County Court at 108 Court Street Ste. 1, West Union, WV 26456. This project is improvements to the intersection.



Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit gives approval for the development/ project listed that impacts the FEMA-designated floodplain and/or floodway of Doddridge County, WV, pursuant to the rules and regulations established by all applicable Federal, State and local laws and ordinances, including the Doddridge County Floodplain Ordinance. This permit must be posted at the site of work as to be clearly visible, and must remain posted during entirety of development.

Permit #: 17-472

Date Approved: August 7, 2017 Expires: August 7, 2018

Issued to: Antero Resources POC: Rachel Grzybek

Company Address: 535 White Oaks Blvd Bridgeport, WV 26330

Project Address: Sunnysid Road at Route 50

Firm: 54017C0100C Lat/Long: 39.272833N, -80.888500W

Purpose of development: Intersection Upgrade

Issued by: George C. Eidel, CFM Doddridge County FPM (or designee)

Date: August 7, 2017

Antero Resources Corporation

535 White Oaks Blvd Bridgeport, WV 26330





8/17/2017

DATE

**500.00

DOLLARS

PAY TO THE ORDER OF

Memo

Doddridge County Commission

Five Hundred Only******

Flood Plain Permit Map # 54017C0100C

11-7365-01

Antero Resources Corporation Doddridge County Commission AFE A04272

8/17/2017

001822

500.00



#17-472

Checking

Flood Plain Permit Map # 54017C0100C

500.00

Antero Resources Corporation Doddridge County Commission AFE A04272

8/17/2017

001822

500.00



8/17/2017

001822

500.00

500.00

#17-472

Doddridge County, West Virginia

RECEIPT NO:	9537		DATE: 2017/	08/21	
; F	ROM: ANTERO RESOURCE	ES	AMOUNT: \$	500	.00
FIVE HUNDR	ED DOLLARS AND 00 CE	ENTS			
1	FOR: #17-472 FLOOD F	PLAIN PERMIT	54017C0100C		;
000000018	22 FP-BUILDING PERM	MITS	020-318	TOTAL:	\$500.00
	AEL HEADLEY		· <u>-</u>	MEC	
\$	SHERIFF &TREASURER			CLERK	
		Customer	Сору		
Account to the second collection of the second	aggerthälden en 1. (k.k), sopråter fore immendeligt tillde flettsfelder et i tille i till flettette ett et	omenous en la la la la grap des tennes des les trapes démondrés de terminant de la grap démondrés de terminant	The second secon	nana ya wa kaga mga mga mga kama ka ma Maria	

Flood Plain Permit Map # 54017C0100C

Checking

FLOODPLAIN PERMIT #17-472

Antero Resources-Intersection of Sunnyside Rd & Rt. 50

TASK	COMPLETE (DATE)	NOTES
CHECK RECEIVED		
US ARMY CORP. ENGINEERS (USACE)	11/A	
US FISH & WILDLIFE SERVICES (USFWS)	N/n	504
WV DEPT. NATURAL RESOURCES (WVDNR)	NA	(Ca)
WV DEPT. ENVIROMENTAL PROTECTION (WVDEP)	NIA	Reco.
STATE HISTORIC & PRESERVATION OFFICE (SHPO)	NA	88/Vel
OFFICE of LAND & STREAM (OLS)	N/A	
DATE OF COMMISSION READING	7/18/17	
DATE AVAILABLE TO BE GRANTED	8/7/17	
PERMIT GRANTED	:	
COMPLETE		

7015 3430 0001 1569 7774

7015 3430 0001 1569 7767

7015 3430 0001 1569 7750



Doddridge County Floodplain Permits

(Week of July 17, 2016)

Please take notice that on the 12th day of July 2016, Antero Resources Inc. filed an application for a Floodplain Permit (#17-472) to develop land located at or about the intersection of Sunnyside Road and Rt 50 coordinates 39.272833 N, -80.888500 W. The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. Any interested persons who desire to comment shall present the same in writing by August 7, 2017 (20 calendar days after the announcement at the regularly scheduled Doddridge County Commission Meeting) delivered to the Clerk of the County Court at 108 Court Street Ste. 1, West Union, WV 26456. This project is improvements to the intersection.

Doddridge County Office of
Emergency Management/Floodplain Management
105 Court Street Suite 3
Tel 304-873-1343
doddridgecountyfpm@gmail.com



Dear Sir or Ma'am,

You are receiving this letter because you have been identified as a land surface and/or mineral rights owner for property or adjacent property related to the proposed development/project identified by the following page.

No action is required of you. This letter is simply to inform you of the proposed development.

nouse Carol

If you would like to comment on this proposed project, or would like additional information, you may contact the Doddridge County Floodplain Manager at the above address.

Respectfully yours,

George Eidel, CFM

Doddridge County Floodplain Manager

George Eidel
Doddridge County OEM/FPM
105 Court St., Ste 1
West Union, WV 26456

CERTIFIED MAIL®

7015 3430 0001 1569 7767

\$006.59⁴ 07/19/2017 ZIP 26456 012E14643162

United Methodist Church 311 Church Street West Union, WV 26456

17-472

Need to see If it is the Methodist Church IN Grenwood (Research)

NOT



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Jim Justice Governor Office of the District Engineer/Manager
District Four

Thomas J. Smith, P.E. Secretary of Transportation/ Commissioner of Highways

AUG 8 17 2:26PM

PO Box 4220 (EXIT 121, I-79) * Clarksburg, WV 26302 * 304-842-1550

July 27, 2017

ANTERO RESOURCES CORPORATION

535 WHITE OAKS BOULEVARD BRIDGEPORT, WV 26330

E.E.O./AFFIRMATIVE ACTION EMPLOYER

PERMIT NO.

" TO THOUSE AND INCOMINED FOR IN	OR ACROSS THE STATE ROADS OF THE STATE OF SECTION 6, ARTICLE 16, CHAPTER 17; SECTION 9
AMENDED.	ICLE 4, CHAPTER 17, WEST VIRGINIA CODE, 1931, AS
THIS PERMIT, Made this 27 lb day of	July 20 17 , between the WEST VIRGINIA
TIGHTSI OKIATION, DIV	ISIUN OF HIGHWAVS a statutom, same and a second
called DIVISION and Antero Resources Cor	poration
Address: 535 White Oaks Blvd., Bridgeport.	NV 26330 Phone No: (304) 842-4100
hereinafter called APPLICANT.	1 Hone 140. (304) 842-4 100
	ITNESSETH
Virginia, 1931, as amended, and the rules and regapply to enter	enants and in accordance with Section 6, Article 16, Chapter tion 8, Article 4, Chapter 17, of the Official Code of West gulations promulgated thereunder, APPLICANT does hereby
Route Type & No. US 50	DOH Project No. T609-50-0.00 (if applicable);
at At the jct. of CO 50/30, Sunnyside R	'n /_xi) 9996
Doddridge County, for	r the purposes hereinafter set forth and in and
product and specifications which are attached hereto;	and made a part hereof
Construct widening, resurfacing, turn lane imp	rovements and minor drainage modification
US 50, CR 50/30 & CR 50/38 as detailed on p	lans as approved by Division of Highways.
	The approved by Division of Highways.
APPLICANT further agrees to accept the condi	tions hereinafter set forth
1. APPLICANT shall denogit with DIVISION	the energy - CO
certified or cashier's check, or executed bond	with surety satisfactory to DIVISION to cover any damage
and inspection costs DIVISION may sustai	in by reason of the granting of this permit, including any
damages that may mark with its	the by reason of the granting of this permit, including any to its original condition or the proper repair of any and all
- J Manan one (1) year in	out the date of the completion of said work.
2. APPLICANT agrees to reimburse DIVISION	for inspection costs as follows:
C. At \$per linear foot	for feet of water line installed under this permit for feet of sewer line installed under this permit
Failure to comply will be cause for cancellation	st 48 hours in advance of the date the work will begin. In of this permit.
4. APPLICANT agrees to protect its employed	es, equipment and users of the highway at all times in
Construction and Maintenance Operations".	mays manual France Control For Street and Highway
	icable state and federal laws in the performance of work
Supplementary conditions cited on the reverse hereof.	side of this permit are understood and agreed to be a part
7. The work authorized under this permit shall be	completed on or before (Date): 27th July 18
pplicant's signature on this permit affirms that all text he ighways Encroachment Permit Form MM-109, revision d	rein is a verbatim reproduction of The West Virginia Division of ate May 19, 2005. All attachments are inclusive to this permit.
ECOMMENDED: July & Single	
itle District Four	Room M. W. B ENGINEERING TEN
OND REQUIREMENT:	Signature and Title of Applicant
BOND NO. <u>LPM9247950</u> DATE <u>06/29/2017</u>	APPROVED:
Attached 🗵 On File 🗌	ACTIONAL
SPECTION: Owner/Consultant	ASSISTANT DISTRICT
1 Time Part Time Disordic Reimphyrsable Disordic Script	ENGINEER MAINTENANCE West Virginia Division of Highways
Ao Cost	
JTHORIZATION NO:	PERMIT NO: 0420170780

CHAPTER 17 WEST VIRGINIA CODE, 1931

§17-4-8. Use of roadbed by railroad, telephone company, etc.

No railroad or electric or other railway shall be constructed upon the roadbed of any state road, except to cross the same, nor shall any person, firm or corporation enter upon or construct any works in or upon such road, or lay or maintain thereon or thereunder any drainage, sewer or water pipes, gas pipes, electric conduits or other pipes, nor shall any telephone, telegraph or electric line or power pole, or any other structure whatsoever, be erected upon, in or over any portion of a state road, except under such restrictions, conditions and regulations as may be prescribed by the state road commissioner. Whenever any railroad or electric or other railway, heretofore or hereafter constructed, shall cross any state road, it shall be required to keep its own roadbed, and the bed of the road or highway at such crossing, in proper repair, or else to construct and maintain an overhead or undergrade crossing, subject to the approval of the state road commissioner, and the tracks of such railroad or railway at grade crossings shall be so constructed as to give a safe and easy approach to and across the same, and when the construction of such approaches is made necessary by a change in the railroad grade at the grade crossing, the cost shall be upon the railway company.

§17-16-6. Permit by commission or county court for openings in or structures on public roads; franchises and easements of oil, etc., transportation companies.

No opening shall be made in any state or county-district road or highway, nor shall any structure be placed therein or thereover, nor shall any structure, which has been so placed, be changed or removed, except in accordance with a permit from the state road commission or county court, as the case may be. No road or highway shall be dug up for laying or placing pipes, sewers, poles or wires, or for other purposes, and no trees shall be planted or removed or obstructions placed thereon, without the written permit of the commission or county court, or its duly authorized agent, and then only in accordance with the regulations of the commission or court. The work shall be done under the supervision and to the satisfaction of the commission or court; and the entire expense of replacing the highway in as good condition as before shall be paid by the persons to whom the permit was given, or by whom the work was done: Provided, however, That nothing herein contained shall be so construed as to prevent any oil or gas company or person having a proper permit cr franchise from transporting oil or gasoline along any of the public highways of this State, nor to give such company a franchise without paying to the landowners through whose lands such road passes the usual and customary compensation paid or to be paid to the landowners for such right of way. Any grant or franchise when made shall be construed to give to such company or person only the right to use the easement in such public road.

A violation of any provision of this section shall be a misdemeanor, and the person or corporation violating the same shall, upon conviction thereof, be fined not less than twenty-five nor more than one hundred dollars for each offense.

§17-16-9. Private driveways or approaches to roads; obstruction of ditches.

The owner or tenant of land fronting on any state road shall construct and keep in repair all approaches or driveways to and from the same, under the direction of the state road commission, and, likewise, the owner or tenant of land fronting on any county-district road shall construct and keep in repair approaches or driveways to and from the same, under the direction of the county road engineer, and it shall be unlawful for such owner or tenant to fill up any ditch, or place any material of any kind or character in any ditch, so as in any manner to obstruct or interfere with the purposes for which it

SUPPLEMENTARY CONDITIONS

- 1. The person, firm or corporation to whom a permit is issued agrees to hold the State of West Virginia and DIVISION harmless on account of any damages to persons or property which may arise during the process of the work authorized by this permit or by reason thereof.
- 2. Applications for permission to perform work within highway rights of way shall be made on DIVISION'S standard permit form and shall be signed by the authorized representative of the person, firm or corporation applying.
- 3. The APPLICANT shall give detailed information concerning the work to be performed and the application must include a sketch sufficient to show the nature of the work performed.
- 4. APPLICANT, his agents, successor, heirs or assigns, contractors or any other person, firm or corporation working under APPLICANT'S real or apparent authority, shall perform the work in a manner satisfactory to DIVISION. Damage to the road resulting at any time from work authorized under this permit shall be repaired by APPLICANT. Unsatisfactory repairs may be a corrected by DIVISION or its authorized agent and the cost thereof paid by
- 5. DIVISION assumes no liability for damage to the proposed work by reason of construction or maintenance work on
- 6. This permit is granted subject to removal of the authorized installation by APPLICANT at no cost to DIVISION when required for improvement of the road, and subject to all regulations now or hereafter adopted by DIVISION.
- 7. Utility installation shall be in accordance with the current manual, "Accommodation of Utilities on Highway Right of
- 8. Driveways shall be in accordance with the current manual, "Rules and Regulations for Constructing Driveways on State Highway Rights-of-Way."
- 9. DIVISION reserves the right to cancel this permit at any time, should APPLICANT fail to comply with the terms and conditions under which it is granted.
- 10. This permit is granted only insofar as the DIVISION has a right to do so.



Antero Resources 535 White Oaks Blvd. Bridgeport, WV 26330 Office 304.842.4100 Fax 304.842.4102

June 5, 2017

Doddridge County Commission Attn: George Eidel, Doddridge County Floodplain Manager 108 Court Street, Suite 1 West Union, WV 26456

Mr. Eidel;

Antero Resources Corporation would like to submit a Doddridge County Floodplain permit application for our *Sunny Side Road Intersection Improvement*. Our project is located in Doddridge County where the improvements on U.S. 50 begin at Station 145+60 and continue to Station 161+75. Per the FIRM Map #54017C0100C, this location is <u>in</u> the floodplain.

Attached you will find the following:

- ▶ Doddridge County Floodplain Permit Application
- ➤ No-Rise Certificate
- > WV Flood Tool Map
- ➤ FIRM Map
- Design Plans

If you have any questions please feel free to contact me at (304) 842-4008.

Thank you in advance for your consideration.

Sincerely.

Rachel Grzybek

Environmental Specialist II

Floodplain Engineer

Antero Resources Corporation

Enclosures



Permit# 17-4/2

SUNNYSIDE

Project Name: Road upgrade

Permittees Name: ANtero, Resource

Doddridge County, WV

Floodplain Development Permit Application

This document is to be used for projects that impact/potentially impact the FEMA---designated floodplain and/or floodway of Doddridge County, WV pursuant to the rules and regulations established by all applicable Federal, State and local laws and ordinances, including the Doddridge County Floodplain Ordinance.

SECTION 1: GENERAL PROVISIONS (APPLICANT TO READ AND SIGN)

- 1. No work may start until a permit is issued.
- 2. The permit may be revoked if any false statements are made herein.
- 3. If revoked, all work must cease until permit is re-issued.
- 4. Development shall not be used or occupied until a Certificate of Compliance is issued.
- 5. The permit will expire if no work is commenced within six months of issuance.
- 6. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal requirements.
- 7. Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her representative to make inspections to verify compliance.
- 8. I THE APPLICANT CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

APPLICANT'S SIGNATURE_	LK	
DATE	6/6/17	

Applicant Information:

Please provide all pertinent data.

Applicant Information							
Responsible Company Name: Antero Resources	Corporation						
Corporate Mailing Address: 1615 Wynkoop Street							
City: Denver	City: Denver State: CO Zip: 80202						
Corporate Point of Contact (POC):	Corporate Point of Contact (POC):						
Corporate POC Title:							
Corporate POC Primary Phone:							
Corporate POC Primary Email:							
Corporate FEIN:	Corporate DUN	NS:					
Corporate Website: www.anteroresources.com	n						
Local Mailing Address: 535 White Oaks Blvd							
City: Bridgeport	State: WV	Zip: 26330					
Local Project Manager (PM):							
Local PM Primary Phone:							
Local PM Secondary Phone:							
Local PM Primary Email:							
Person Filing Application: Rachel Grzybek							
Applicant Title: Environmental Specialist II	-						
Applicant Primary Phone: (304) 842-4008							
Applicant Secondary Phone: (304) 641-2396							
Applicant Primary Email: rgrzybek@anteroresources.com							

Project Narrative:

Describe in detail the proposed development including project name/title, type of development, estimated start and completion timeline, and its potential impact on the floodplain. Use additional copies of this page as needed.

Project Narrative:
The Sunny Side Road Intersection Improvement project is located on US 50 (Northwest Turnpike)
on the east and west side of the junction of SLS 50/30 in the Sunny Side area. The proposed work
includes a full depth replacement of the turn lanes along the East and West bound traveled ways,
construction of a turn lane extension, widening a portion of SLS 50/30, and culvert and inlet
replacement. A portion of the project is located within the Dotson Run Zone A Flood Hazard area,
according to the Flood Insurance Rate Map (FIRM) for Doddridge County, map panel 54017C0100C
with a map revised date of October 4, 2011. No detailed hydraulic study has been performed
for this area, and by inspection, the Zone A floodplain depicted on the FIRM has not been
updated to incorporate the construction of US 50. The proposed work is situated approximately
70 feet in elevation above Dotson Run. Therefore, the proposed work on US 50 will not
result in a decrease of the available floodplain storage area and will not adversely affect the
existing base flood elevation of Dotson Run.

Proposed Development:

Please check all elements of the proposed project that apply.

DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

	<u>AC</u>	<u>TIVITY</u>				<u>STRUCTU</u>	RAL TYPE
[]	New Struct	ure			[]	Residential	(1 – 4 Family)
[]	Addition				[]	Residential	(more than 4 Family)
[]	Alteration				[]	Non-reside	ntial (floodproofing)
[]	Relocation				[]	Combined (Use (res. & com.)
[]	Demolition	1			[]	Replaceme	nt
[]	Manufactu	ıred/Mo	bil Home				
В.	OTHER DE	VELOPI	LMENT ACTI	IVITIES:	;		
[X]	Fill	[]	Mining	[]	Drilling	; []	Pipelining
[X]	Grading						
[X]	Excavation	(except	for STRUCTUF	RAL DEVE	ELOPMENT	Γ checked ab	oove)
[]	Watercour	se Altera	ation (includin	g dredgi	ng and cha	annel modifi	cation)
[X]	Drainage Ir	nproven	nents (includir	ng culver	t work)		
[]	Road, Stree	et, or Bri	dge Construct	ion			
[]	Subdivision	ı (includi	ng new expan	nsion)			
[]	Individual \	Water or	Sewer Systen	n			
[]	Other (plea	se speci	fy)				

Development Site/Property Information:

Please provide physical description of the site/property, along with pertinent ownership (surface and mineral rights) data as applicable. Attach appropriate maps from the WV Flood Tool showing location of proposed development. Use additional copies of this page if development spans multiple property boundaries. Designate each property by number (i.e. Property 1 of 1, Property 2 of 7, etc.)

Site/Property Informati	on:						
Legal Description:							
Physical Address/911 A	ddress: Northwest	tern Turnpike at junctio	on Sunnyside Road				
Decimal Latitude/Longi	tude: 39.272833 N	N, -80.888500 W					
DMS Latitude/Longitud	e: 39°16′22.2″N 80	°53′18.6″W					
District:	Мар:	F	Parcel:				
Land Book Description:							
Deed Book Reference:	N/A						
			V-140				
Tax Map Reference: N/A	4						
Existing Buildings/Use of	Property: Controlle	ed Access 4 Lane Divided	Highway				
- Danseing Daniaings) ose of	11 operty: donaron	Tane Divided					
Floodplain Location Dat							
Community:	Number:	Panel:	Suffix:				
Location (Lat/Long):		Approximate Ele	vation:				
Estimated BFE:							
			Is the development in the floodway? Is the development in the floodplain?				
Is the development in th	e floodway?	Is the developme	ent in the noouplain?				
Is the development in th \square_{Yes} \square_{No}	e floodway?	Is the developme	No Zone:				

Property Owner Data:

Please provide data on current site/property landowner(s), both surface and mineral rights (as applicable). Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation: _1 of _2	1						
Duramente Orange Date		•					
Property Owner Data: Name of Primary Owner (PO): We	set Virginia Division of High	wave					
		ways					
	PO Address: 1900 Kanawha Blvd E #5-A220						
City: Charleston	State: WV	Zip: 25305					
PO Primary Phone: (304) 558-350)5	•					
PO Secondary Phone:							
PO Primary Email:							
Surface Rights Owner Data:		<u> </u>	-				
Name of Primary Owner (PO):							
PO Address:							
City:	State:	Zip:					
PO Primary Phone:							
PO Secondary Phone:							
PO Primary Email:							
Mineral Rights Owner Data: (As A)	pplicable)						
Name of Primary Owner (PO):							
PO Address:							
City:	State:	Zip:					
PO Primary Phone:							
PO Secondary Phone:							
PO Primary Email:							

Contractor Data:

Property Designation:

of_

Please provide all pertinent data for contractors and sub---contractors that may be participating in this project. Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Contractor/Sub-Contractor (C/SC) Information							
C/SC Company Name:	<u> </u>						
C/SC WV License Number:							
C/SC FEIN:	C/SC DUNS:						
Local C/SC Point of Contact (POC):	Local C/SC Point of Contact (POC):						
Local C/SC POC Title:							
C/SC Mailing Address:							
City: State: Zip-Code:							
Local C/SC Office Phone:		<u></u>					
Local C/SC POC Phone:							
Local C/SC POC E-Mail:	Local C/SC POC E-Mail:						
Engineer Firm Information:							
Engineer Firm Name:							
Engineer WV License Number:							
Engineer Firm FEIN:	Engineer Firm	DUNS:					
Engineer Firm Primary Point of Contact (POC):							
Engineer Firm Primary POC Title:							
Engineer Firm Mailing Address:							
City: State: Zip-Code:							
Engineer Firm Office Phone:	l <u></u>						
Engineer Firm Primary POC Phone:							
Engineer Firm Primary POC E-Mail:							

Adjacent and/or Affected Landowners Data

Please provide data for all adjacent and/or affected surface owners (both up and down stream) whose property may be impacted by proposed development as demonstrated by a floodplain study or survey. Use additional copies of this page as needed.

			3
Name of Primary Owner (PO): Berna Kay Ar	nkrom		
Physical Address: 132 Rocket Drive	**************************************	The state of the s	7
City: Greenwood	State: WV	Zip: 26415	1
PO Primary Phone:		· · · · · · · · · · · · · · · · · · ·	
PO Secondary Phone:			
PO Primary Email:			7
Adjacent Property Owner Data: Upstream			<u> </u>
Name of Primary Owner (PO): Alvadore Mc	Cloy, Jr. Se	e Attached for	Ye
Physical Address: Rt. 1 Box 310		ADDress	
City: Greenwood	State: WV	Zip: 26415	
PO Primary Phone:			
PO Secondary Phone:			
PO Primary Email:			
•			_
Adjacent Property Owner Data: Downstream	n		No.
Name of Primary Owner (PO): United Metho	odist Church	See Attached for	Ne
Physical Address: Route 36, Main Street		ADDress	
Physical Address: Route 36, Main Street City: Greenwood	State: WV	ADDress Zip: 26415	
			
City: Greenwood			
City: Greenwood PO Primary Phone:			
City: Greenwood PO Primary Phone: PO Secondary Phone:			
City: Greenwood PO Primary Phone: PO Secondary Phone:	State: WV		
City: Greenwood PO Primary Phone: PO Secondary Phone: PO Primary Email:	State: WV	Zip: 26415	
City: Greenwood PO Primary Phone: PO Secondary Phone: PO Primary Email: Adjacent Property: Owner Data: Downstream	State: WV	Zip: 26415	
City: Greenwood PO Primary Phone: PO Secondary Phone: PO Primary Email: Adjacent Property Owner Data: Downstream Name of Primary Owner (PO): West Virginia	State: WV	Zip: 26415	
City: Greenwood PO Primary Phone: PO Secondary Phone: PO Primary Email: Adjacent Property Owner Data: Downstream Name of Primary Owner (PO): West Virginia Physical Address: 1900 Kanawha Blvd E #5	State: WV n a Division of Highy	Zip: 26415	
City: Greenwood PO Primary Phone: PO Secondary Phone: PO Primary Email: Adjacent Property: Owner Data: Downstream Name of Primary Owner (PO): West Virginia Physical Address: 1900 Kanawha Blvd E #5 City: Charleston	State: WV n a Division of Highy	Zip: 26415	

United Methodist Church 311 Church St West Union, WV 26456

Alvadore McCloy Jr.

110 Rocket Drive

Greenwood, WV 26415

Site Plan

A Site Plan is an accurate and detailed map of the proposed development for this project. It shows the size, shape, location and special features of the project property, and the size and location of any development planned to the property, especially as that development will impact the floodplain and/or floodway. Site plans show what currently exists on the project property, and any changes or improvements you are proposing to make. A certified and licensed engineering firm should complete site plans.

A SITE PLAN MUST CONTAIN THE FOLLOWING INFORMATION:

- 1. Legal description of the parcel, north arrow and scale
- 2. All property lines and their dimensions
- 3. Names of adjacent roads, location of driveways
- 4. Location of sloughs, tributaries, streams, rivers, wetlands, ponds, and lakes, with setbacks indicated, and including FEMA floodplain data based on most updated FIRM.
- 5. Location, size, shape of all buildings, existing and proposed, with elevation of lowest floor indicated.
- 6. Location and dimensions of existing or proposed on-site sewage systems.
- 7. Location of all propane tanks, fuel tanks or other liquid storage tanks whether above ground or below ground level.
- 8. Location and dimensions of any proposed pipeline placement(s) into floodplain/floodway.
- 9. Location and dimensions of any roadway development into floodplain/floodway. (Includes initial development access roads)
- 10. Location and dimensions of any bridge and/or culvert development into floodplain/floodway.
- 11. Location and dimensions of any storage yard or facility into the floodplain/floodway.
- 12. Location of any existing utilities and/or proposed utility placement and/or displacement.
- 13. Location, dimensions and depth of any existing or proposed fill on site.
- 14. A survey showing the **existing ground elevations** of at least location on the building site. **ELEVATION NOTE**: All vertical datum will reference either NGVD 29 or NAVD 88. Assumed datum will not be acceptable unless the property is located in an area where vertical datum has not been published. For those areas where vertical datum has not been established, a site plan with contours, elevations using assumed datum, high water marks and existing water levels of sloughs, rivers, lakes or streams and proposed lowest floor elevation.

Applicant

Please read print name, sign and date below:

- I certify that I am authorized to submit this application for the primary project developer.
- I certify that the information included in this application is to the best of my knowledge true and complete.
- I certify that all required Federal, State, and local permits required by law and/or ordinance for
 the above described development of this project have been properly attained, are current and
 valid, and must be presented with this application before a Doddridge County Floodplain Permit
 may be issued.
- I understand that if in the course of the development project additional permits become
 required that were not needed during the initial proposal, the primary developer must notify the
 Doddridge County Floodplain Manager within 48 hours of such need, and that a "Stop Work"
 order may be issued for all project work directly impacting the floodplain or floodway, until such
 time the required additional permits are acquired.
- I understand that once the floodplain permit is submitted, the application will be entered into
 official public record at the next regularly scheduled Doddridge County Commission meeting
 after the date of submittal.
- I understand that from the date of submittal of the fully completed permit application, the
 Doddridge County Floodplain Manager has ninety (90) days to make a determination to either
 grant or deny said permit application. During this approval period, the Doddridge County
 Floodplain Manager may, at his or her discretion, conduct a review and/or additional study of
 provided documentation by means of an independent engineering firm. All costs associated with
 said review and/or study must be reimbursed to the County before issuance of approved permit.
- I understand that during the approval period, the Doddridge County Floodplain Manager of
 designee may at his or her discretion conduct site visits and document conditions of proposed
 development pursuant to the permit application.
- I understand that once the Floodplain Permit is granted, the permit will be entered into official public record at the next scheduled Doddridge County Commission meeting after the date of issuance. Appeals to the permit may be made no later than twenty (20) days after said issuance. If a valid appeal is submitted, as determined by the Doddridge County Floodplain Manager, a "Stop Work" order will be issued for all project development directly involving the floodplain or floodway. A public hearing by the Doddridge County Appeals Board will be scheduled no less than ten (10) days after the next regularly scheduled Doddridge County Commission meeting.
- I understand that all decisions of the Doddridge County Appeals Board shall be final.
- I understand issuance of a Floodplain Permit authorizes me to proceed with construction as proposed. A Certificate of Compliance is required upon substantial completion of the project.
- In signing this application, the primary developer hereby grants the Doddridge County Floodplain Manager or designee the right to enter onto the above---described location to inspect the development work proposed, in progress, and/or completed.
- I understand that if I do not follow exactly the site---plan submitted and approved by this permit
 that a "Stop Work" order may be issued by the Wirt County Floodplain Manager and that I must
 stop all construction immediately until discrepancies of actual work vs. proposed work is
 resolved.

Applicant Signature: Date: 6/6/17

Applicant Printed Name: Fandy Kloberdanz



June 2, 2017

Doddridge County Commission
Attn: George Eidel, Doddridge County Floodplain Manager

118 East Court Street, Room 102

West Union, WV 26456

Subject:

Antero Resources Corporation

Sunny Side Road Intersection Improvement

No-Rise Certificate

Doddridge County, West Virginia

CEC Project 163-590

Civil & Environmental Consultants, Inc. (CEC) is pleased to evaluate the potential floodplain impacts for the above referenced project on behalf of Antero Resources Corporation, 535 White Oaks Blvd, Bridgeport, WV 26330. Antero Resources Corporation proposes to perform a full depth replacement of the turn lanes along the East and West bound traveled ways of US 50, construct a turn lane extension, widen a portion of CR 50/30, and perform culvert and inlet replacement. A portion of the project is located within the Dotson Run Zone A flood hazard area, according to the Flood Insurance Rate Map (FIRM) for Doddridge County, map panel 54017C0100C with a map revised date of October 4, 2011. No detailed hydraulic study has been performed for this area, and by inspection, the Zone A floodplain depicted on the FIRM has not been updated to incorporate the construction of US 50. The proposed work is situated approximately 70 feet in elevation above Dotson Run. Therefore, the proposed work on US 50 will not result in a decrease of the available floodplain storage area and will not adversely affect the existing base flood elevation of Dotson Run.

This no-rise certificate is provided in support of the floodplain development permit application. Your time and effort in reviewing this floodplain development permit application is appreciated. Please feel free to contact me at 304-933-3119 or via e-mail at glinder@cecinc.com or contact Ms. Rachel Grzybek at 304-842-4008 or via e-mail at rgrzybek@anteroresources.com if you have questions or need additional information.

Respectfully submitted,

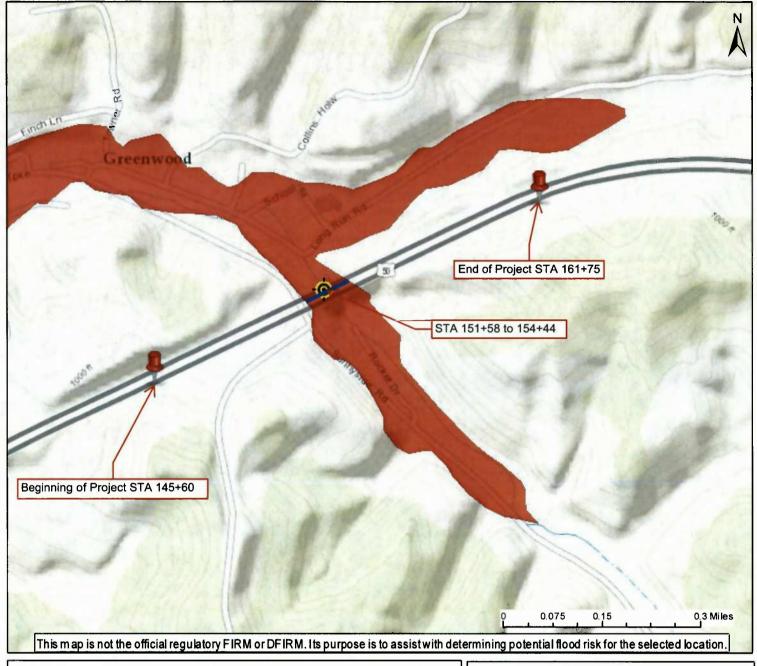
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Andrew P. Darnell, E.I.

Assistant Project Manager

Greg S. Linder, P.E. Senior Project Manager

WV Flood Map



User Notes:

Antero Resources Corporation
Sunny Side Road Intersection
Improvement



Flood Hazard Zone



Flood Point of Interest

Disclaimer:

The online map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. To obtain more detailed information in areas where Base Flood Elevations have been determined, users are encouraged to consult the latest Flood Profile data contained in the official flood insurance study. These studies are available online at www.msc.fema.gov. WV Flood Tool (http://www.MapWV.gov/flood) is supported by FEMA, WV NFIP Office, and WV GIS Technical Center.

Map created on May 30, 2017

Flood Hazard Area:

Flood Hazard Area: Location is WITHIN the FEMA 100-year floodplain.

FEMA Issued Flood Map: 54017C0100C

Watershed (HUC8): Little Kanawha (5030203)

Elevation: About 913 ft

Location (long, lat): (80.888033 W,39.273138 N)

Location (UTM 17N): (509658, 4347093)

Contacts: Doddridge

CRS Information: N/A

Parcel Number: No Parcel





MAP SCALE 1" = 2000'

1000

2000

4000

- - -

= FEE

NFP

PANEL 0100C

FIRM

FLOOD INSURANCE RATE MAP DODDRIDGE COUNTY, WEST VIRGINIA AND INCORPORATED AREAS

PANEL 100 OF 325

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY
DODDRIDGE COUNTY

NUMBER

ANEL SUFFIX

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER 54017C0100C MAP REVISED OCTOBER 4, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

UTILITY CONTACTS

WEST VIRGINIA 811 ONE CALL WAS PERFORMED ON AUGUST 11, 2015, TICKET NUMBER 1522362864.

2 POWER STATION BLVD. WILLOW ISLAND, WV 26134 PH: 304-665-3100

FRONTIER COMMUNICATIONS CLARKSBURG, WV 26301 PH: 304-935-3120

ENERGY CORPORATION

OF AMERICA 2316 WV HWY 5 EAST GLENVILLE, WV 26351 PH: 304-462-5781

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET DENVER, CO 80202 PH: 303-357-7341

CONSUMERS GAS UTILITY COMPANY 900 MEMORIAL BLVD. HUNTINGTON, WV 25778 PH: 304-523-9223

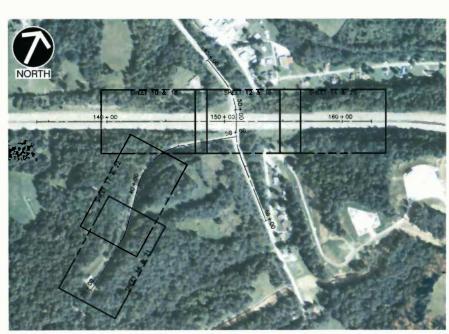
DOMINION HOPE 213 SOUTH 3rd ST CLARKSBURG, WV 26301 PH: 800-688-4673

TOWN OF WEST UNION 300 COURT ST. WEST UNION, WV 26456 PH: 304-873-1400



SUNNY SIDE ROAD INTERSECTION IMPROVEMENT **CONSTRUCTION PLANS**

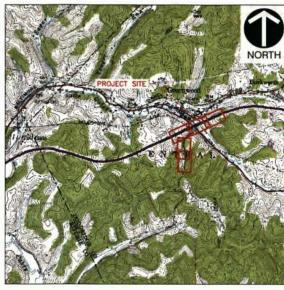
U.S. ROUTE 50, COUNTY ROUTE 50/30, **COUNTY ROUTE 50/38** DODDRIDGE COUNTY, WEST VIRIGINIA



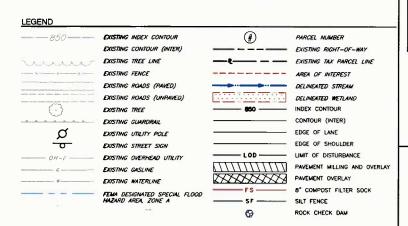
LAYOUT

INDEX TO SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-4	TYPICAL SECTIONS
5	MISCELLANEOUS DETAILS
6	SUMMARY OF ESTIMATED QUANTITIES
7	GENERAL NOTES
8	GEOMETRIC LAYOUT
9	TEMPORARY TRAFFIC CONTROL PLAN
10-17	TURN LANE EXTENSION PLANS
18-22	MILLING AND OVERLAY PLANS
23-25	EROSION AND SEDIMENT CONTROL PLANS
26-31	SIGNING AND MARKING PLANS
32-50	CROSS SECTIONS



LOCATION MAP



DISTURBED ACREAGE **0.73 ACRES**

FLOOD PANEL INFORMATION BY GRAPHICAL PLOTTING ONLY, THE PROJECT FROM STA. 151+58 TO STA. 154+44 IS LOCATED IN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA, ZONE A, ACCORDING TO THE FLOOD INSURANCE RATE MAPS FOR DODDRIDGE COUNTY, MAP # 54017C0100C WITH AN EFFECTIVE DATE OF 10/4/2011.

> **PERMITS** DODDRIDGE COUNTY DEVELOPMENT FLOODPLAIN PERMIT (PERMIT NO. PENDING)

IMPACTS THERE ARE NO IMPACTS TO ENVIRONMENTALLY SENSITIVE AREAS.



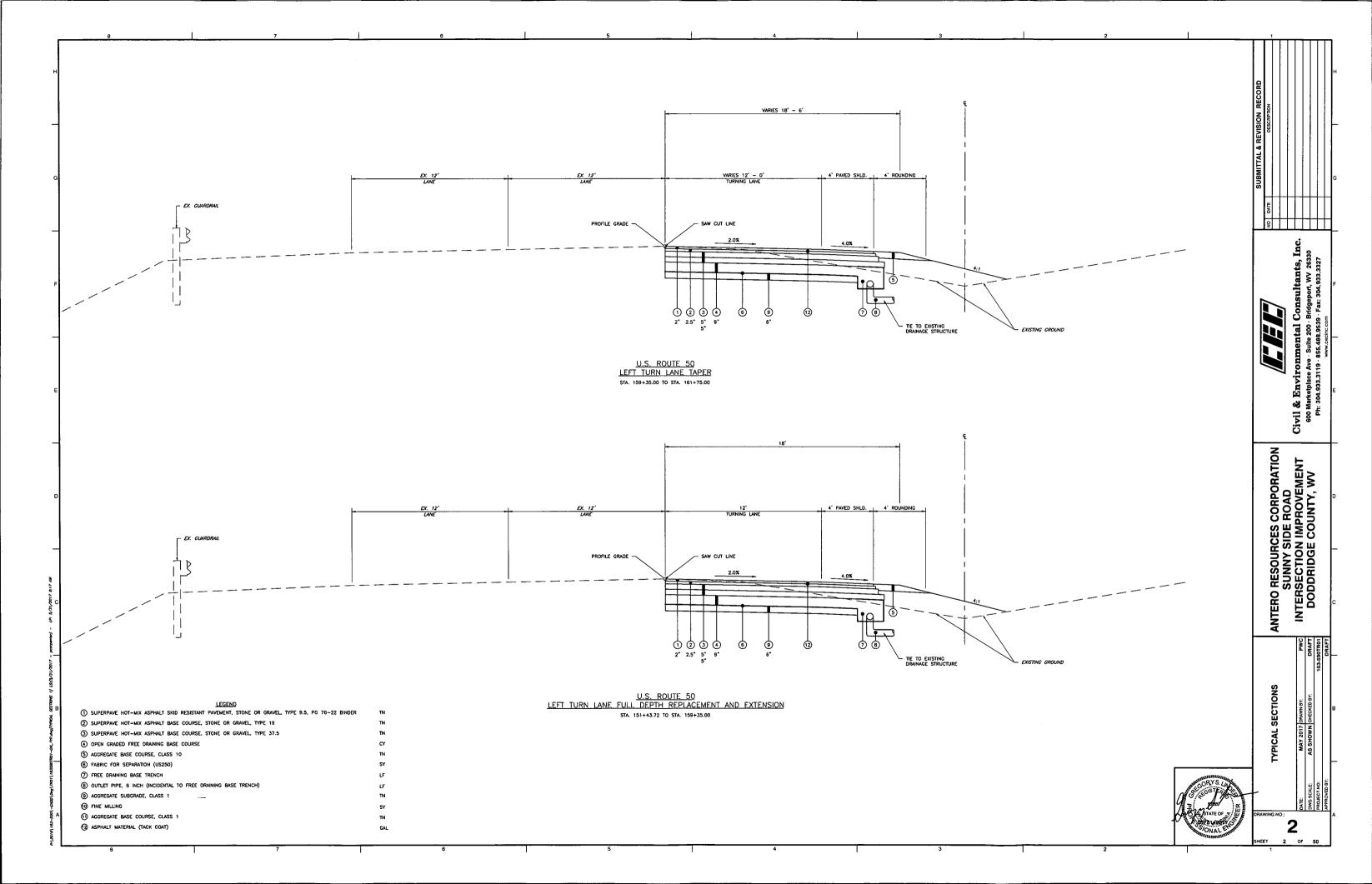


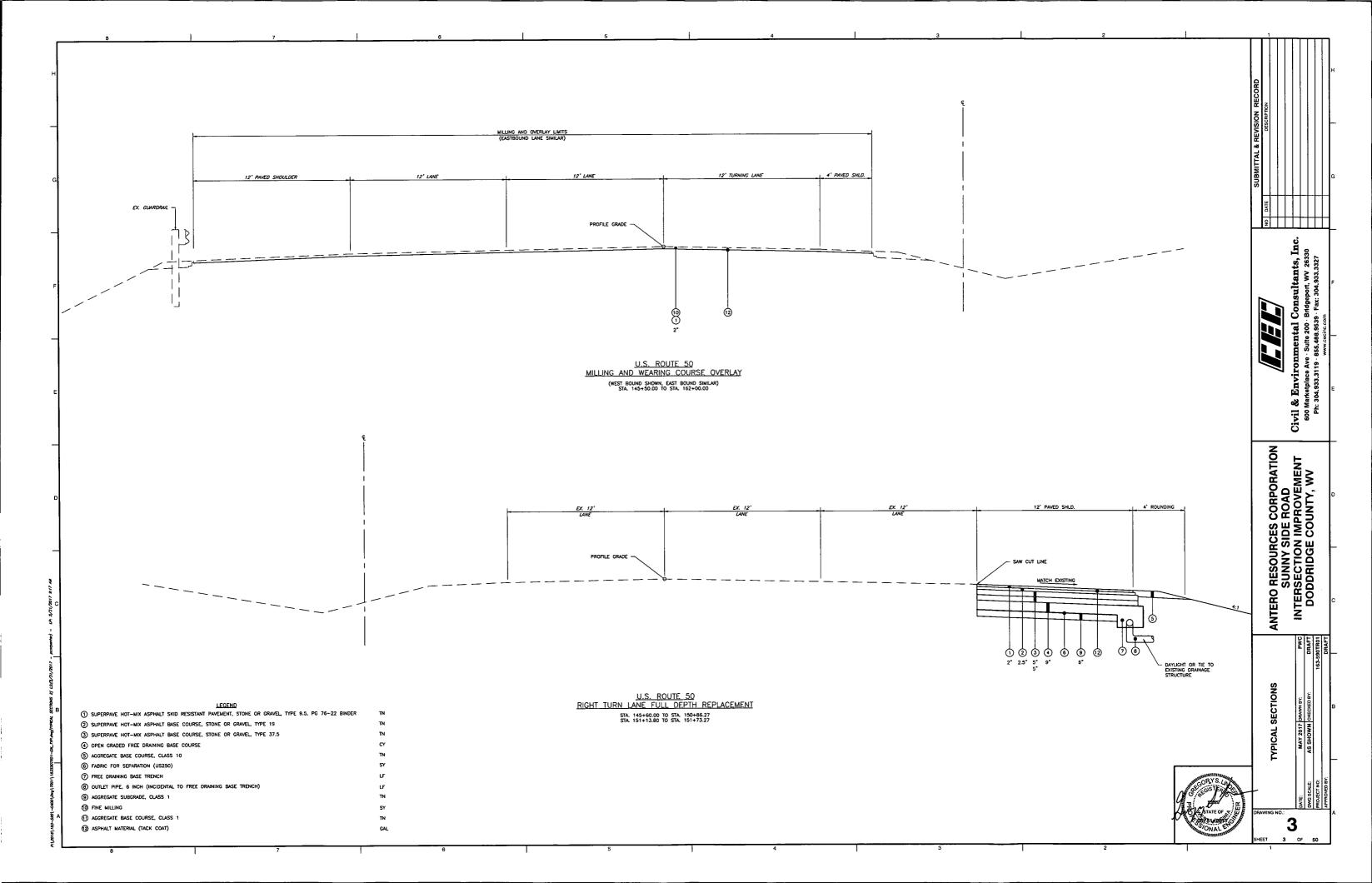
Civil &

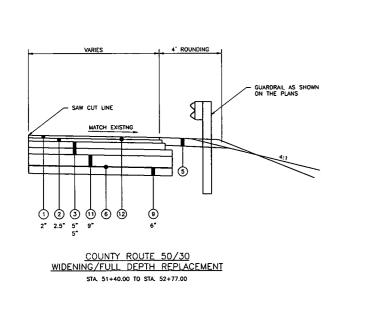
CORPORATION ROAD PROVEMENT

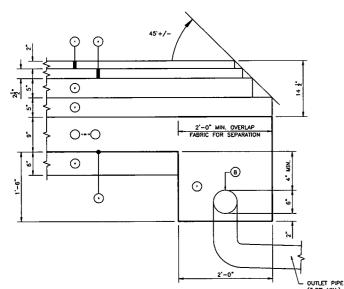
INTERO RESOURCE SUNNY SID INTERSECTION II DODDRIDGE C

- TOPOGRAPHIC INFORMATION BASED ON LIDAR SCANNING PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. COMPLETED ON SEPTEMBER 17, 2016.

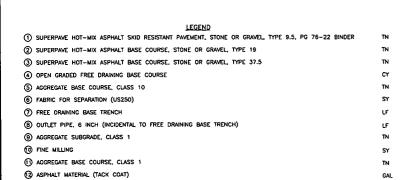


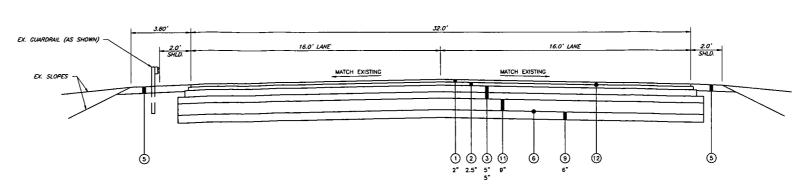




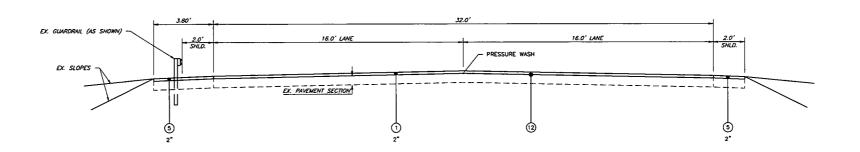


PAVEMENT STEPPING DETAIL

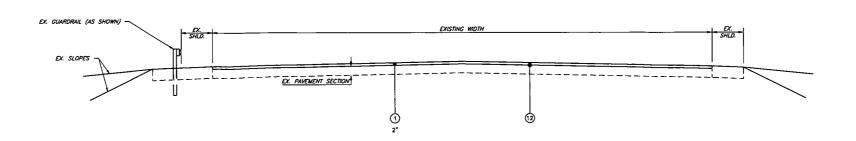




COUNTY ROUTE 50/38
WIDENING/FULL DEPTH REPLACEMENT STA. 49+00.00 TO STA. 49+86.14



COUNTY ROUTE 50/38 WEARING COURSE OVERLAY STA. 32+00.00 TO STA. 49+00.00



COUNTY ROUTE 50/30
MILLING AND WEARING COURSE OVERLAY STA. 49+50.00 TO STA. 53+00.00

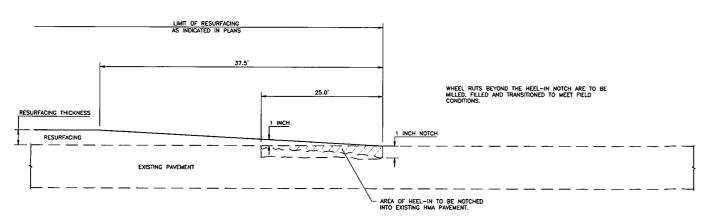


TYPICAL SECTIONS

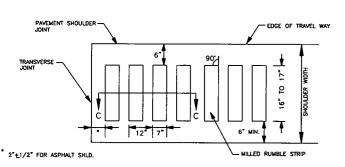
9

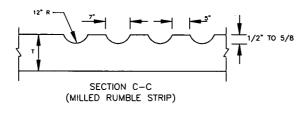
Civil & Envi

ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV



RESURFACING HEEL-IN DETAIL





MILLED RUMBLE STRIP FOR HOT MIX ASPHALT SHOULDERS

RUMBLE STRIP NOTES:

RUMBLE STRIP PLACEMENT WILL BE CONTINUOUS ON HOT-MIX ASPHALT SHOULDERS, EXCEPT AS NOTED BELOW.

RUMBLE STRIPS SHALL NOT BE PLACED AT THE FOLLOWING AREAS FOR NON-FREEWAY PROJECTS, ONLY: ON SHOULDERS OF NARROW CLIMBING LANES THAT ARE 5' OR LESS IN WIDTH, RICHT OF TRAFFIC FLOW; IN THE SHOULDER TRANSITION AREA, RICHT OF TRAFFIC FLOW, BETWEEN A FULL PAVED SHOULDER WIDTH OF 10' AND NARROW BRIDGE WIDTH OF 4'.

THE TOP OF THE RUMBLE STRIPS WILL BE NO HIGHER THAN THE TOP SURFACE OF THE PAVEMENT. ANY FAULTY OR INCORRECTLY INSTALLED RUMBLE STRIPS WILL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

MILL SHOULDER RUMBLE STRIPS AS NOICATED BY USING A MACHINE CAPABLE OF PROVIDING A SMOOTH CUT WITHOUT TEARING OR SMAGRING, AND PRODUCING RUMBLE STRIPS AS NOICATED. EQUIP MACHINE WITH GUIDES TO PROVIDE UNFORMITY AND CONSISTENCY IN ALIGNMENT OF EACH CUT WITH RESPECT TO ROADWAY, MILLED SHOULDER RUMBLE STRIPS TO HAVE FINISH DIMERSIONS WITHIN TOLERANCES SPECIFIED, ALIGNMENT OF PATTERN EDGE WILL BE RANDOMLY VERIFED AND CHECKED. DISCONTINUE MILL OPERATIONS IF SATISFACTORY RESULTS ARE NOT BEING OBTAINED AND SUBBILT AN ALTERNATE CONSTRUCTION PLAN TO THE ENGINEER FOR APPROVAL. AT END OF EACH WORKING DAY, MOVE ALL EQUIPMENT TO A LOCATION AS DIRECTED WHERE IT PRESENTS NO HAZARD TO ROADWAY TRAFFIC. REMOVE AND DISPOSE OF MILLED MATERIAL IN COMPLIANCE WITH APPLICABLE STATE REQUILATIONS. REMOVE DEBRIS FROM AREAS DISTURBED BY MILLING OPERATION BEFORE OPENING ROADWAY TO TRAFFIC.

RUMBLE STRIPS IN PAVED SHOULDERS:

RUMBLE STRIPS SHALL BE MILLED TYPE PLACED IN SHOULDERS UNDER THE FOLLOWING CONDITIONS, IN ACCORDANCE WITH THIS SPECIAL DETAIL SHEET;

- TYPICAL SHOULDER WIDTH IS 8' OR MORE;

- MEDIAN SHOULDERS ON DIVIDED HIGHWAYS. IF SHOULDER WIDTH IS 3' OR GREATER

Civil & Envir

Onmental Consultants, In.
Ave . Suite 200 · Bridgeport, WV 26330
19 · 855,488.9539 · Fax: 304.933,3327

NTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV ANTERO F

MISCELLANEOUS DETAILS

WAIDOT CDEC !!	ANTERO CORE	DECODITION	11537	TOUANTITY
WVDOT SPEC #	ANTERO CODE	DESCRIPTION	UNIT	QUANTITY
204	RUC010	MOBILIZATION	LS	1
639	RUC016	CONSTRUCTION LAYOUT	LS	1
636	RUC018	MAINTAINING TRAFFIC	LS	1
636	RUC079	MESSAGE BOARD	DAY	60
642	RUC020	8" COMPOST FILTER SOCK	LF	110
642	RUC028	SILT FENCE	LF	120
642	RUC075	INLET PROTECTION	EA	5
207	RUC207	EXCAVATION	CY	2,750
207	RUC213	BORROW SITE	CY	200
605	RUC315	TYPE G INLET	EA	3
207	RUC410	AGGREGATE SUBGRADE (WVDOH 207); 6" DEPTH, CLASS 1	TN	1,000
307	RUC410	AGGREGATE BASE COURSE; RTE 50/30 & 50/38; 9" DEPTH, CLASS 1	TN	330
307	RUC413	AGGREGATE SHOULDER STONE (CLASS 10)	TN	300
207	RUC420	FABRIC FOR SEPARATION (WOVEN US250)	SY	4,200
311	RUC480	OPEN GRADED FREE DRAINING BASE COURSE	CY	630
	RUC482	PRESSURE WASHING	LS	1
415	RUC487	REMOVE EXISTING PAVEMENT SURFACE (FINE MILLING)	SY	15000
606	RUC485	FREE DRAINING BASE TRENCH	LF	1650
401	RUC490	HMA BASE I (SUPERPAVE HMA, TYPE 37.5)	TN	1800
401	RUC491	HMA BASE II (SUPERPAVE HMA, TYPE 19)	TN	500
402	RUC495	HMA WEARING (SUPERPAVE SKID RESISTANT, TYPE 9.5)	TN	2700
408	RUC496	ASPHALT MATERIAL (TACK COAT)	GAL	2400
664	RUC455	RUMBLE STRIPS (PER DOH DETAILS)	LF	3160
604	RUC515	18" STORM DRAINAGE PIPE (HDPE)	LF	103
604	RUC520	24" STORM DRAINAGE PIPE (HDPE)	LF	20
642	RUC555	DITCH CHECKS (AASHTO #1 STONE)	TN	1
652	RUC610	SITE SEEDING (HYDRO SEEDING -WITH HAY MULCH W/TACK)	AC	0.1
663	RUC760	CENTERLINE, TYPE II, 4 IN., YELLOW	LF	3,384
663	RUC761	LANE LINE, TYPI IX - 6 IN., WHITE	LF	5,044
663	RUC761	LANE LETTER, TYPE V	EA	20
663	RUC762	STOP LINE, TYPE V - 12"	LF	92
663	RUC762	STOP LINE, TYPE V - 24"	LF	60
663	RUC763	RAISED PAVEMENT MARKER, TYPE P-2	EA	80
663	RUC764	ONE DIRECTION LANE ASSIGNMENT ARROW, TYPE V	EA	9
663	RUC765	EDGE LINE, TYPE II - 4 IN., WHITE	LF	3,615
663	RUC765	EDGE LINE, TYPE IX — 6 IN., WHITE	LF	4,083
	RUC765	EDGE LINE, TYPE IX - 6 IN., YELLOW	LF	3,169
663			LF	800
663	RUC766	CHANNELIZING LINE, TYPE V - 8 IN.		
661	RUC767	PLASTIC DELINEATOR POST, WHITE	EA EA	20
661	RUC767	PLASTIC DELINEATOR POST, YELLOW	EA	41
642	RUC815	TEMPORARY SEEDING	AC	0.1



ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

Civil & Environmental Consultants, Inc. 600 Marketplace Ave Suite 200 · Bridgeport, WV 26330 Ph: 304.933.319 9 855.4859.559 · Fax: 304.933.3327

SUMMARY OF ESTIMATED QUANTITIES

GOVERNING SPECIFICATIONS
THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD SPECIFICATIONS ROADS AND BRIDGES, ADOPTED 2017, THE CONTRACT DOCUMENTS AND THE CONTRACT PLANS ARE THE GOVERNING PROVISIONS

THE CONTRACTOR SHALL MAINTAIN WORKING STORM DRAINAGE SYSTEMS THROUGH THE WORK AREAS AT ALL TIMES DURING CONSTRUCTION. THE WORKING SYSTEM MAY CONSIST OF THE EXISTING STORM DRAINAGE SYSTEM, THE PROPOSED STORM DRAINAGE SYSTEM OR A COMBINATION THEREOF.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR HOLDING BENCH MARK LOCATIONS THROUGHOUT THE LIFE OF THE PROJECT. IN THE EVENT THAT A BENCH MARK IS DISTURBED, THE CONTRACTOR, AS DIRECTED BY THE ENGINEER, SHALL RELOCATE OR REESTABLISH THE BENCH MARK.

VERIFICATIONS OF DIMENSIONS
THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL PLAN AND
ELEVATION DIMENSIONS PRIOR TO ORDERING MATERIALS FOR THE CONSTRUCTION

THE LOCATIONS OF ALL KNOWN UTILITIES ARE SHOWN ON THE CONTRACT PLANS AND FIELD INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE STATUS AND LOCATION OF EACH UTILITY WHEN PERFORMING WORK WHICH MAY AFFECT THESE FACILITIES, INCLUDING PROBING, EXCAVATION, OR ANY OTHER PRECAUTION REQUIRED TO CONFIRM LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR DISRUPTION TO UTILITY LINES WHICH ARE KNOWN ACTIVE AND ARE TO REMAIN IN OPERATION

CONTRACTOR IS ADVISED TO USE EXTREME CAUTION WHEN WORKING IN CLOSE PROXIMITY TO THE EXISTING GAS LINES AND TO CONTACT THE OWNER OF EACH LINE PRIOR TO COMMENCING CONSTRUCTION ACTIVITY TO VERIFY DEPTHS AND REQUIREMENTS FOR WORK AROUND THEIR RESPECTIVE UTILITY.

EROSION AND SEDIMENT CONTROL DETAILS NOT SHOWN IN THE PLANS SHALL BE IN ACCORDANCE WITH THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, DATED 2006.

THE FIRST ORDER OF WORK FOR THE CONTRACTOR IS TO INSTALL SEDIMENT CONTROL STRUCTURES, SILT FENCE, ETC. TO ESTABLISH EROSION CONTROL AT THE EARLIEST POSSIBLE DATE. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO WHAT IS NECESSARY IN ORDER TO ACCOMPLISH THESE OPERATIONS.

CONTRACTOR IS ADVISED TO REFERENCE THE SITE EROSION AND SEDIMENT CONTROL PLAN AND THE STORMWATER POLLUTION PREVENTION PLAN FOR MORE

ALL ELEVATIONS SHOWN REFER TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NGVD 88).

THE PROJECT DATUM ON THESE PLANS ARE BASED UPON THE NORTH ZONE OF THE WEST VIRGINIA STATE PLANE SYSTEM. THE HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83).

 $\begin{array}{c} \underline{\text{ACCESS}} \\ \text{CONTRACTOR} & \text{SHALL} & \text{MAINTAIN} & \text{ACCESS} & \underline{\text{TO}} & \text{ALL} & \underline{\text{INTERSECTING}} & \text{PUBLIC} & \text{ROADWAYS} \\ \end{array}$ LOCATED IN THE CONSTRUCTION AREA AT ALL TIMES.

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD DETAILS BOOK, VOLUME I, DATED MAY 1, 2016 & VOLUME II, DATED JANUARY 1, 1994, REVISED NOVEMBER 22, 2015 SHALL APPLY TO THIS

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, EROSION AND SEDIMENT CONTROL MANUAL, DATED MARCH 1, 2003, AND AS AMENDED BY ADDENDUM 1 DATED OCTOBER 1, 2004 SHALL APPLY TO THIS

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS. TRAFFIC ENGINEERING DIVISION, SIGN FABRICATION DETAILS, DATED SEPTEMBER 2005 SHALL APPLY TO THIS PROJECT.

ALL MANUALS LISTED ABOVE CAN BE FOUND AT:

http://www.transportation.wv.gov/highways/engineering/pages/publications.aspx

PAVEMENT DESIGN
THE PAVEMENT DESIGN FOR THE HOT MIX ASPHALT ON THIS PROJECT WILL MEET THE REQUIREMENTS OF THE "HEAVY" MIX DESIGN TYPE.

PAVEMENT OVERLAY
THE DIRECTION OF PAVEMENT OPERATIONS WILL BE IN THE DIRECTION OF TRAFFIC. THE PLACING OF HOT-MIX ASPHALT BASE COURSE AND SKID RESISTANT COURSE SHALL BE ACCOMPLISHED ONE 12 FOOT LANE AT A TIME. THE ADJACENT SHOULDER SHALL BE PAVED AND THEN TRAFFIC SHALL BE ROUTED ONTO THE BASE COURSE OR SKID RESISTANT COURSE. THE ADJACENT LANES AND SHOULDERS AHLL BE PAVED IN THE SAME MANNER.

RUMBLE STRIPS BITUMINOUS
RUMBLE STRIPS WILL BE INSTALLED ON ALL SHOULDERS OF THIS PROJECT. RUMBLE STRIPS SHALL BE MILLED INTO THE SHOULDERS. NO ROLLING IN RUMBLE STRIPS WILL BE PERMITTED. FOR DETAILS OF RUMBLE STRIPS, SEE ATTACHED SPECIAL DETAIL.

WASTE MATERIAL ALL MATERIAL REMOVED AND NOT REUSED IN THE CONSTRUCTION OF THIS PROJECT WILL BECOME PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED AND DISPOSED OF FROM THE PROJECT. ALL ROTOMILLINGS ARE TO BECOME

 $\begin{array}{c} \underline{\text{NIGHTTIME WORK}} \\ \text{ALL WORK ON THIS} \ \underline{\text{PROJECT WILL BE PERFORMED ONLY BETWEEN THE HOURS} \end{array}$ OF 7:00 PM AND 6:00 AM.

ANY SIGNS OR DELINEATORS DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXISTING LOCATION BY THE CONTRACTOR AT HIS EXPENSE.

EXISTING PAVEMENT MILLING
THE DIRECTION OF ROTO-MILLING OPERATIONS WILL BE IN THE DIRECTION OF TRAFFIC. THE REMOVING OF EXISTING PAVEMENT SHALL BE ACCOMPLISHED ONE 12 FOOT LANE AT A TIME. THE ADJACENT SHOULDER SHALL BE ROTO-MILLED AND THEN TRAFFIC SHALL BE ROUTED ONTO THE ROTO-MILLED SURFACE. ADJACENT 12 FOOT LANE AND SHOULDER SHALL BE ROTO-MILLED IN THE SAME

EXISTING RAISED PAVEMENT MARKERS

THE CONTRACTOR IS ADVISED THAT HE MAY ENCOUNTER RAISED PAVEMENT MARKERS OR OTHER APPURTENANCES CONTAINED IN OR UNDER THE PAVEMENT THAT ARE TO BE REMOVED. ALL COSTS ASSOCIATED WITH THIS WORK WILL BE INCIDENTAL TO THE FINE MILLING ITEM.

TEMPORARY PAVEMENT MARKINGS ALL PAVEMENT MARKINGS SHALL BE PLACED PRIOR TO OPENING THE ROADWAY TO TRAFFIC.

PARKING AND TRAFFIC RESTRICTIONS
ONLY OFFICIAL VEHICLES AND THOSE USED BY THE CONTRACTORS IN THEIR CONSTRUCTION OPERATION AND THE CONTRACTOR'S CONSTRUCTION EQUIPMENT WILL BE PERMITTED TO PARK ON THE EXPRESSWAY PAVEMENT, SHOULDERS AND/OR MEDIAN DURING CONSTRUCTION OF THIS PROJECT. PARKING WILL BE RESTRICTED TO THE AREA BETWEEN THE MEDIAN DITCHLINE AND CENTERLINE OF THE PAVEMENT WHEN WORKING ON THE INSIDE LANES. AND BETWEEN THE CENTERLINE OF THE PAVEMENT AND THE GUARDRAIL OR DITCHLINE WHEN WORKING ON THE OUTSIDE LANES. PARKING OF PRIVATE VEHICLES BY THE CONTRACTOR'S PERSONNEL WILL NOT BE PERMITTED. THE CONTRACTOR'S VEHICLES, EQUIPMENT, PERSONNEL, OR SUPPLIERS WILL NOT BE PERMITTED TO CROSS THE MEDIAN EXCEPT AT EXISTING CROSSOVER. THIS WILL BE STRICTLY ENFORCED. ONE LANE OF TRAFFIC ON THE EASTBOUND LANES AND THE WESTBOUND LANES SHALL BE MAINTAINED AT ALL TIMES.

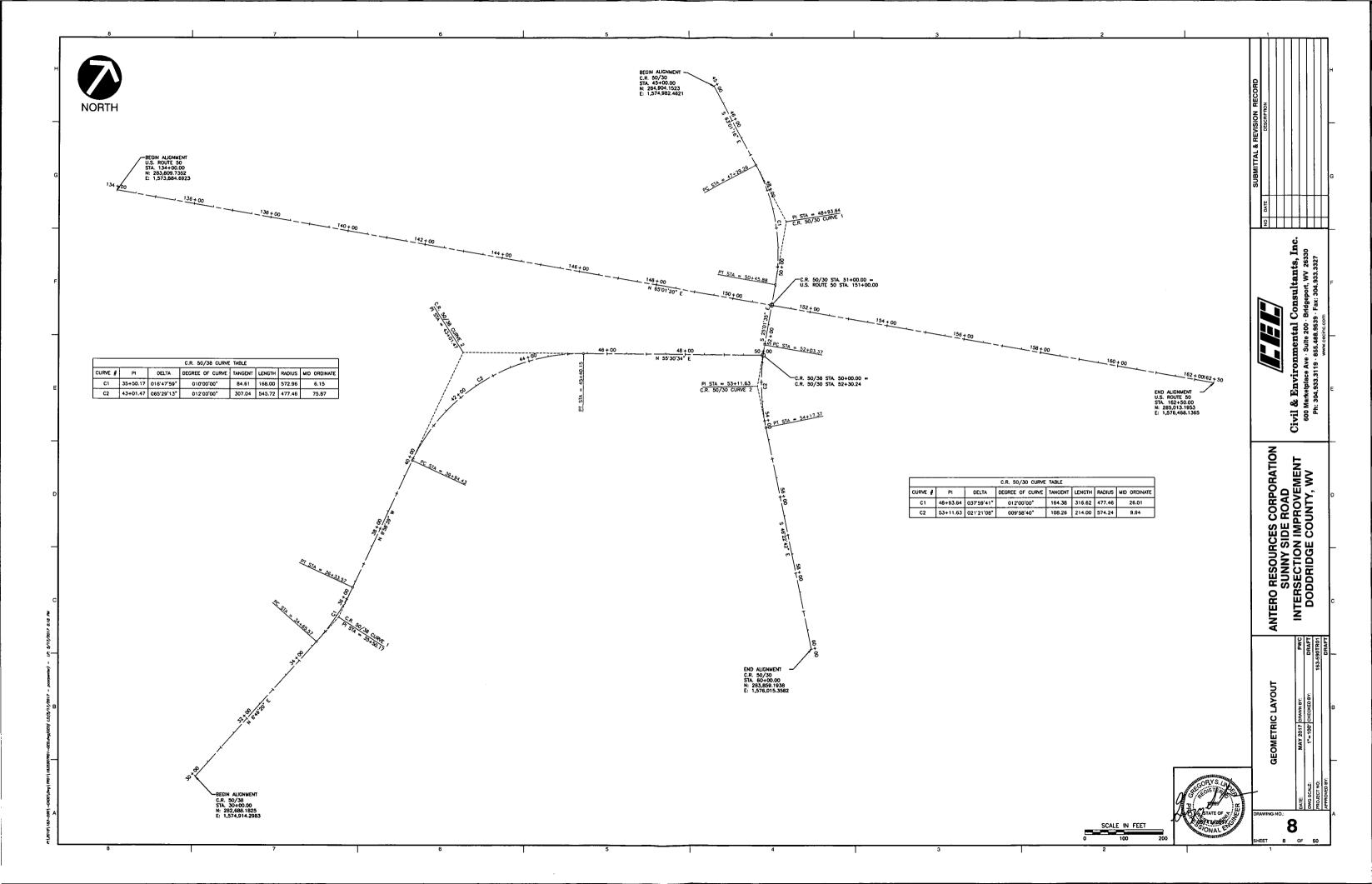
Envi

ď

Civil &

NTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV ANTERO

GENERAL NOTES



SEQUENCE OF CONSTRUCTION

PHASE 1 - US 50 WESTBOUND LEFT TURN LANE CONSTRUCTION

- INSTALL CASE E4 FOR THE WESTBOUND LANES, CLOSING THE PASSING LANE.
- CONTRACTOR SHALL MAINTAIN AT LEAST ONE THROUGH LANE AND TURN LANE AT ALL TIMES.

 3. PERFORM LEFT TURN LANE FULL DEPTH REPLACEMENT, AND
- EXTENSION UP TO PROPOSED WEARING COURSE.
- REMOVE TRAFFIC CONTROL

PHASE 2 - US 50 EASTBOUND RIGHT TURN LANE CONSTRUCTION

- 1. INSTALL CASE E4 FOR THE EASTBOUND LANES OF US ROUTE 50, CLOSING THE SLOW LANE. INSTALL CASE A6 ON COUNTY ROUTE 50/30 IN COMBINATION WITH CASE A11 ON COUNTY
- ROUTE 50/38.

 2. CONTRACTOR SHALL MAINTAIN AT LEAST ONE THROUGH LANE AND TURN LANES ON US ROUTE 50 AT ALL TIMES AND MAINTAIN TWO LANES ON COUNTY ROUTE 50/30.
- PERFORM US ROUTE 50 RIGHT TURN LANE FULL DEPTH REPLACEMENT, COUNTY ROUTE 50/30 SOUTH BOUND LANE FULL DEPTH REPLACEMENT AND WIDENING, AND COUNTY ROUTE 50/38 WESTBOUND WIDENING AND FULL DEPTH REPLACEMENT UP TO PROPOSED WEARING COURSE.
- 4. REMOVE TRAFFIC CONTROL.

PHASE 3 - COUNTY ROUTE 50/38 EASTBOUND WIDENING

- INSTALL CASE A11 ON COUNTY ROUTE 50/38.
- 2. PERFORM COUNTY ROUTE 50/38 EASTBOUND WIDENING AND FULL DEPTH REPLACEMENT UP TO PROPOSED WEARING COLIRSE
- 3. REMOVE TRAFFIC CONTROL.

PHASE 4 - COUNTY ROUTE 50/30 NORTHBOUND WIDENING

- INSTALL CASE A6 ON COUNTY ROUTE 50/30. CONTRACTOR TO MAINTAIN TWO LANES ON COUNTY ROUTE
- 3. PERFORM COUNTY ROUTE 50/30 NORTH BOUND WIDENING AND FULL DEPTH REPLACEMENT UP TO PROPOSED WEARING
- 4. REMOVE TRAFFIC CONTROL.

PHASE 5 - US 50 MILLING AND OVERLAY

- INSTALL CASE E4 TRAFFIC CONTROL PLAN ON US ROUTE 50. CONTRACTOR SHALL MAINTAIN AT LEAST ONE THROUGH LANE
- AND TURN LANES AT ALL TIMES.
 ALL WORK FOR THIS PHASE WILL BE PERFORMED ONLY
- BETWEEN THE HOURS OF 7:00 PM AND 6:00 AM. PERFORM MILLING IN THE AREAS SHOWN ON THE PLANS AND PLACE WEARING COURSE ON ALL LANES.

PHASE 6 - COUNTY ROUTE MILLING AND OVERLAY

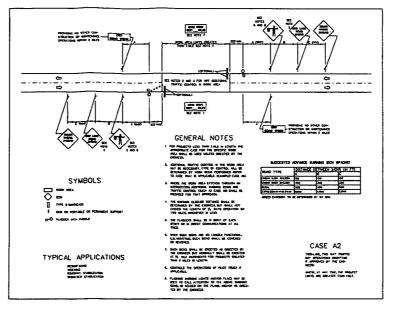
- INSTALL CASE A2 ON COUNTY ROUTE 50/30 AND COUNTY ROUTE 50/38 AS NEEDED.
- 2. PERFORM MILLING AND WEARING COURSE PLACEMENT AS SHOWN ON THE PLANS.

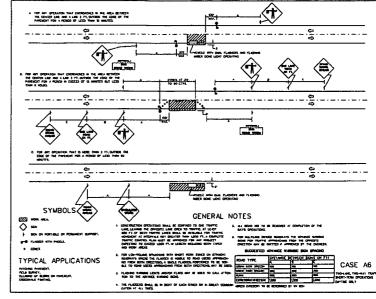
PHASE 7 - PAVEMENT MARKING

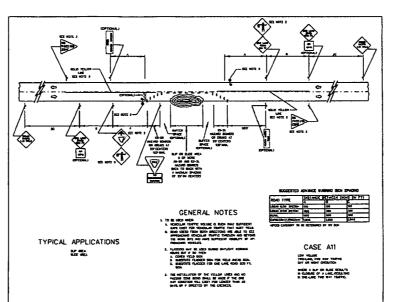
- INSTALL CASE E4 ON US ROUTE 50 TO COMPLETE PAVEMENT MARKING APPLICATIONS.
- 2. USE CASE D4 TO COMPLETE PAVEMENT MARKING APPLICATIONS ON COUNTY ROUTE 50/30 AND COUNTY ROUTE 50/38.

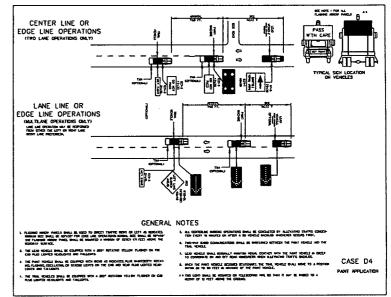
TEMPORARY TRAFFIC CONTROL NOTES

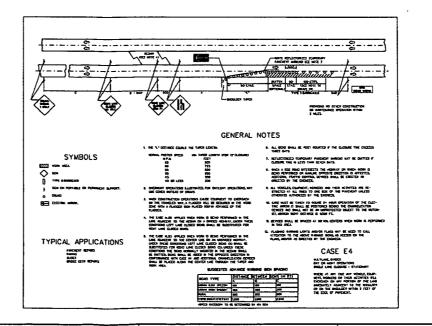
- TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SECTION 636 OF THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS ROADS AND BRIDGES, ADOPTED 2017 AND THE MANUAL "MANUAL ON TEMPORARY TRAFFIC CONTROL FOR STREETS AND HIGHWAYS, 2009 EDITION", WHICH IS MADE A PART OF THIS CONTRACT AND THE TEMPORARY TRAFFIC CONTROL PLAN FOR INDIVIDUAL SEGMENTS AS DESCRIBED
- REFLECTIVE SHEETING ON TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE OF NEW CONDITION AT BEGINNING OF THE PROJECT LIFE. NIGHT VISIBILITY AND LEGIBILITY SHALL BE MAINTAINED
- ONLY OFFICIAL VEHICLES AND THOSE USED BY THE CONTRACTORS IN THEIR CONSTRUCTION OPERATION AND THE CONTRACTOR'S CONSTRUCTION EQUIPMENT WILL BE PERMITTED TO PARK ON THE EXPRESSWAY PAVEMENT, SHOULDERS AND/OR MEDIAN DURING CONSTRUCTION OF THIS PROJECT. PARKING WILL BE RESTRICTED TO THE AREA BETWEEN THE MEDIAN DITCHLINE AND CENTERLINE OF THE PAVEMENT WHEN WORKING ON THE INSIDE LANES, AND BETWEEN THE CENTERLINE OF THE PAVEMENT AND THE GUARDRAIL OR DITCHLINE WHEN WORKING ON THE OUTSIDE LANES. PARKING OF PRIVATE VEHICLES BY THE CONTRACTOR'S PERSONNEL WILL NOT BE PERMITTED. THE CONTRACTOR'S VEHICLES, EQUIPMENT, PERSONNEL, OR SUPPLIERS WILL NOT BE PERMITTED TO CROSS THE MEDIAN EXCEPT AT EXISTING THIS WILL BE STRICTLY ENFORCED. ONE LANE OF TRAFFIC ON THE EASTBOUND LANES AND THE WESTBOUND LANES SHALL BE MAINTAINED AT ALL TIMES.
- 4. EXISTING SIGNS AND DELINEATORS: ANY SUCH EXISTING FACILITY RELOCATED, REMOVED, OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AT HIS EXPENSE.
- 5. WHEN COVERING EXISTING SIGNS, THE CONTRACTOR HAS THE
 - HEAVY DUTY BLACK OVERLAY (PLASTIC OR BURLAP TYPE).
- THIN WOOD OVERLAY (E.G. PLYWOOD). TAKING SIGNS DOWN AND REINSTALLING WHEN
- ANY DAMAGES CAUSED BY ABOVE-NAMED SHALL BE REPAIRED/REPLACED TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.













TRAFFIC CONTROL PLAN

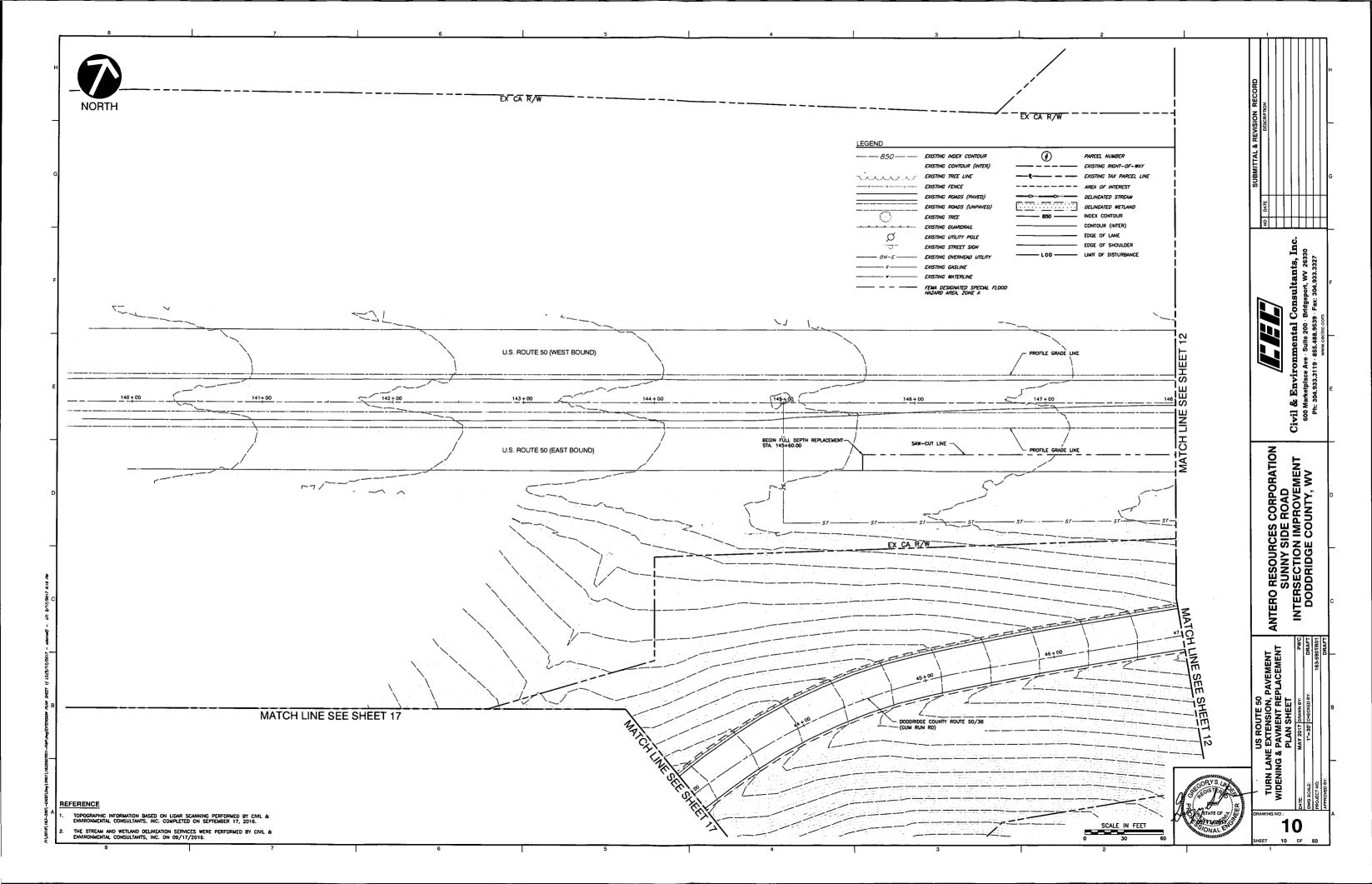
ANTERO

23

Civil

NTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

TEMPORARY



1150 1100 1050 1000 950 900 850 + + ----750 142+00 142+50 143+00 143+50 144+00 144+50 145+00 145+50 146+00 146+50 147+00 147+50 148+00

ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

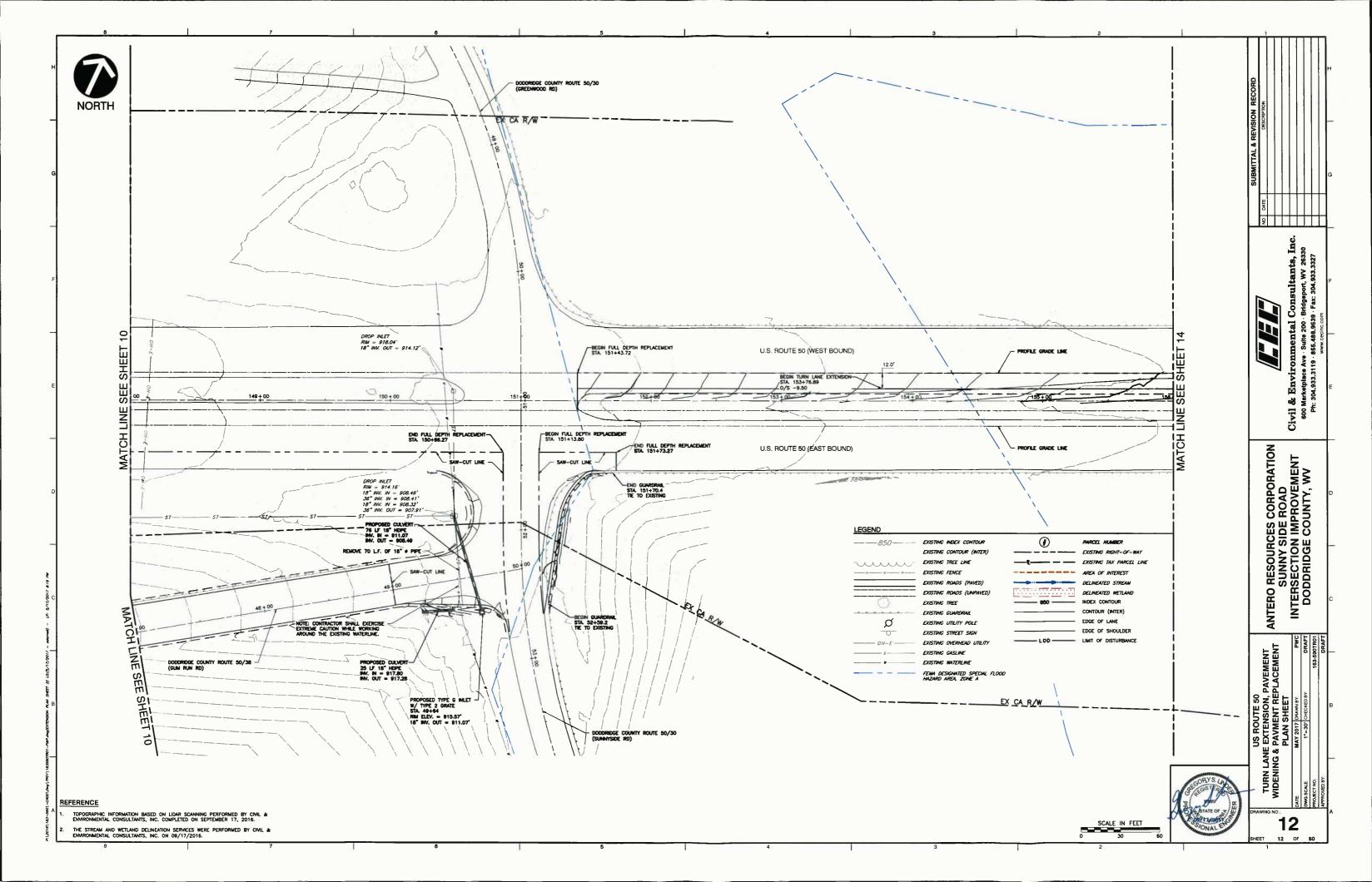
Civil & Envir 600 Marketplace Ph: 304.933.31

onsultants, Inc. dgeport, WV 26330

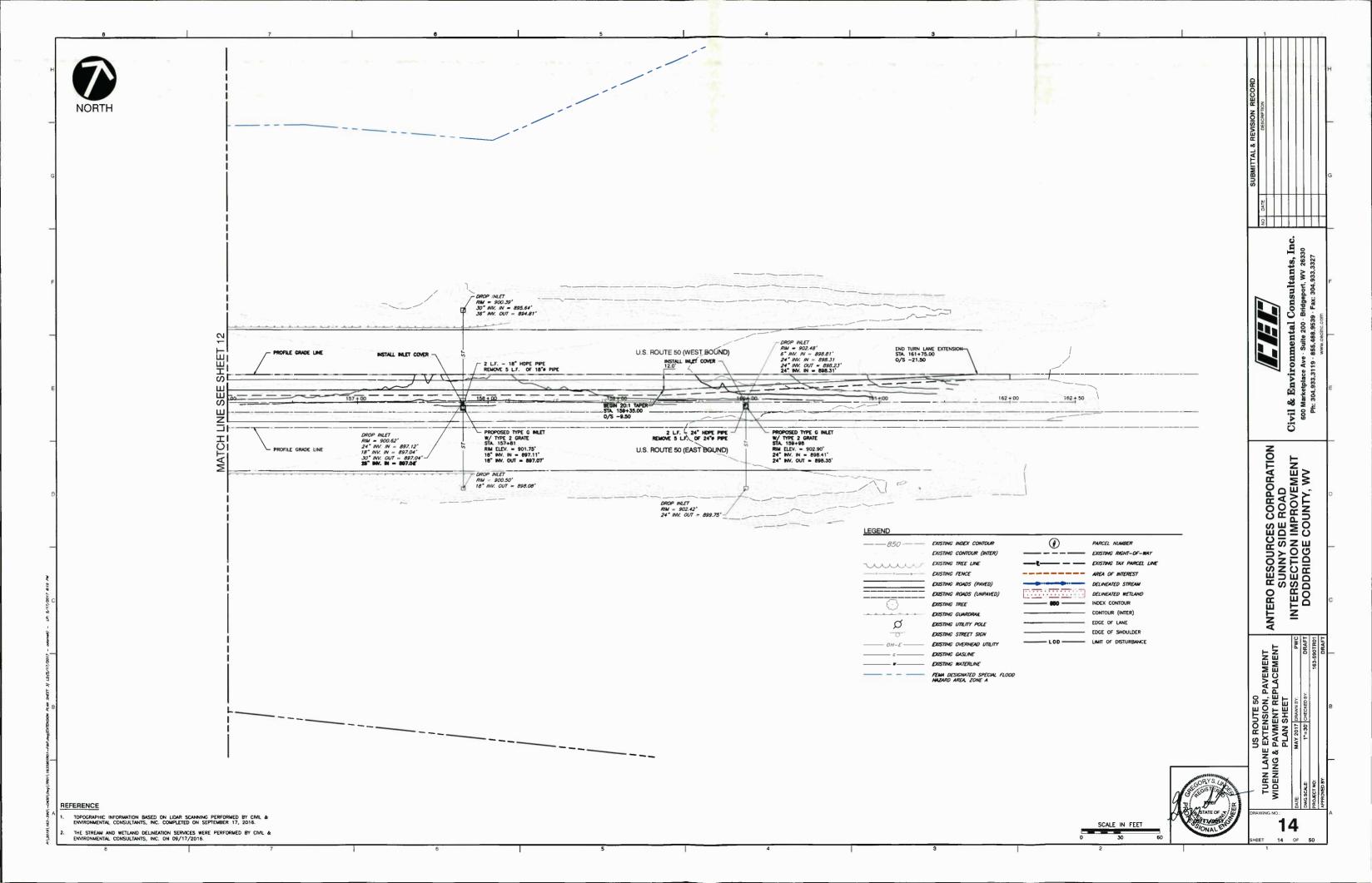
11

U.S. ROUTE 50 PROFILE SHEET

SCALE IN FEET



1150 1 . 1100 1100 9 1050 1050 Civil & Environmental Consultants, Inc. 600 Marketplace Ave · Suite 200 · Bridgeport, WV 26330 Ph; 304.933.3119 · 855.488.9539 · Fax; 304.933.3327 I have 1000 1000 950 950 WESTBOUND TURN LANE EXTENSION 53+76.89 -2.91% -3.10% ~3.00% -0.59% 900 900 ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV 850 850 - 1.1 i i .. | 800 800 , 1...... 750 750 U.S. ROUTE 50 PROFILE SHEET 148+00 148+50 150+50 149+00 149+50 150+00 151+00 151+50 152+00 153+00 153+50 154+00 154+50 155+00 155+50 152+50 156+00 13 SCALE IN FEET 13 OF



1150 1150 1100 1100 . . 1050 4.... 1000 1000 cape to show to 950 XISTING AND PROPOSED GRADE . . . 4 -BEGIN 20:1 TAPER STA 159+35.00 +1.98% +0.78% END WESTBOUND RIGHT TURN LANE EXTENSION-STA 161+75.00 850 . . . 750 156+50 156+00 157+00 157+50 158+00 158+50 159+00 159+50 160+00 160+50 161+00 161+50 162+00 162+50

SCALE IN FEET

U.S. ROUTE 50 PROFILE SHEET

Y 2017 DRAWN BY: 1"=30" CHECKED BY

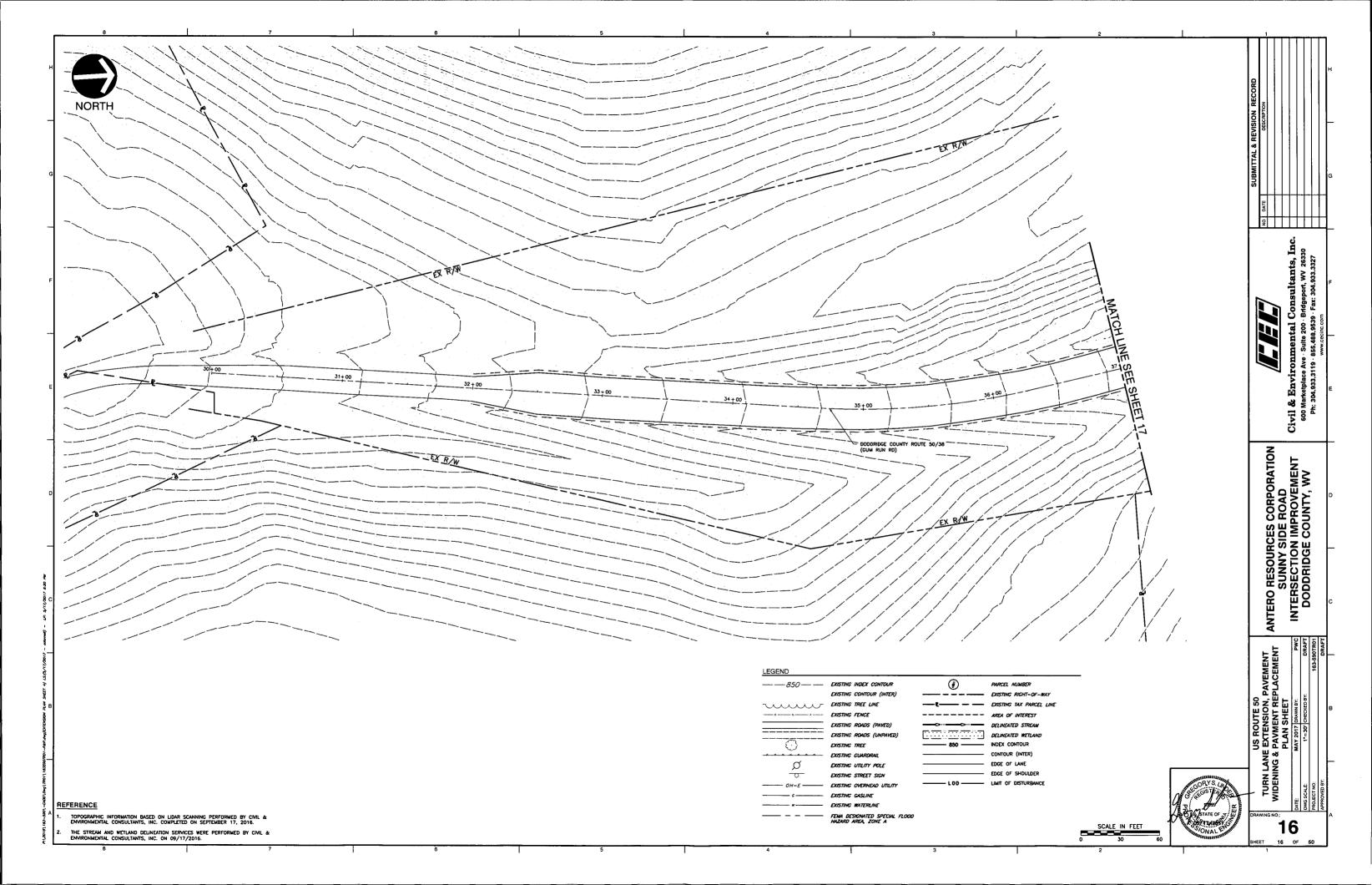
ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

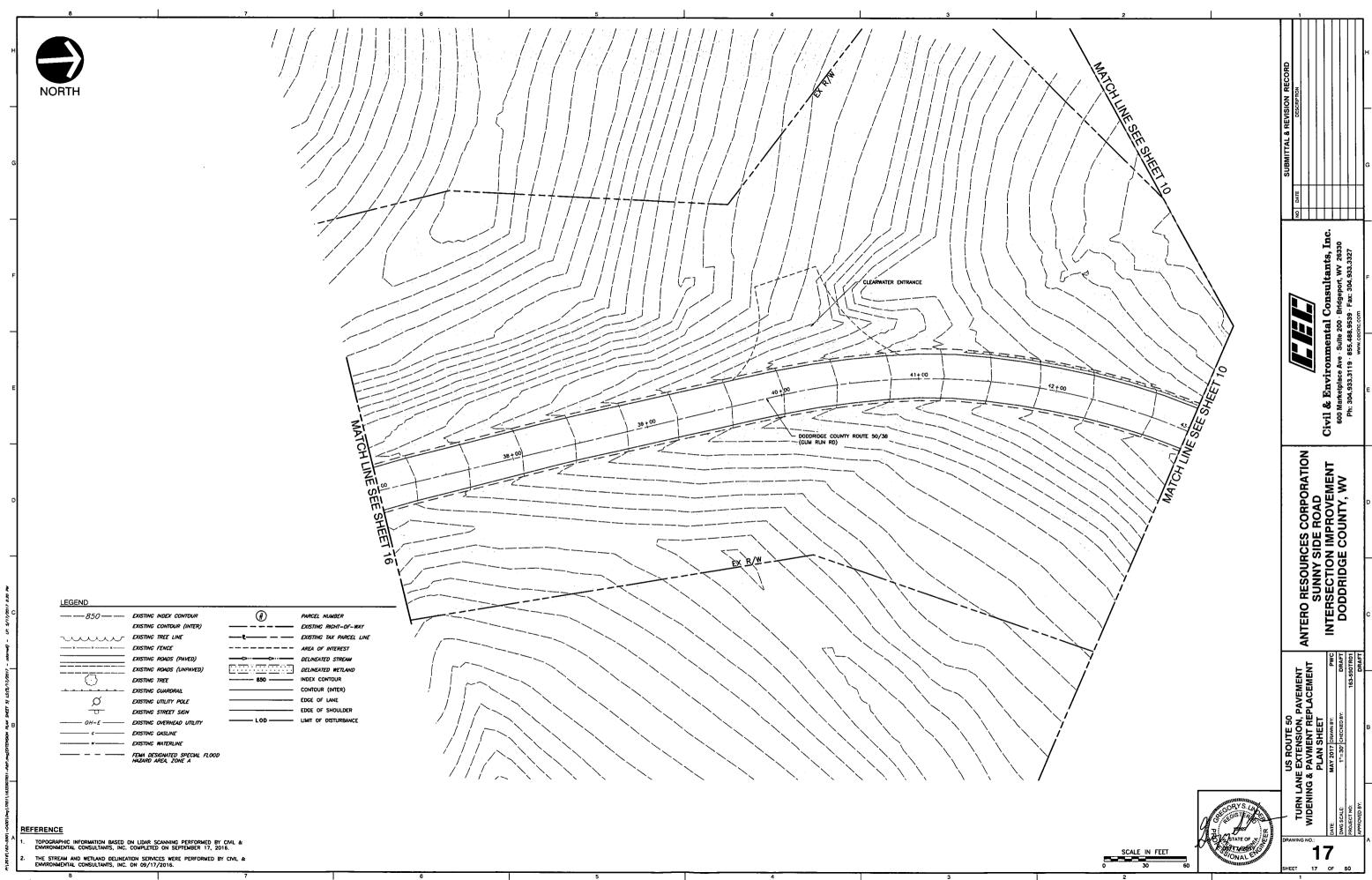
commental Consultants, Inc.
Ave Suite 200 - Bridgeport, WV 26330
19 - 865-488-9539 - Fax: 304-933.3327 Civil & Environn
600 Marketplace Ave Ph: 304,933,3119 . 8

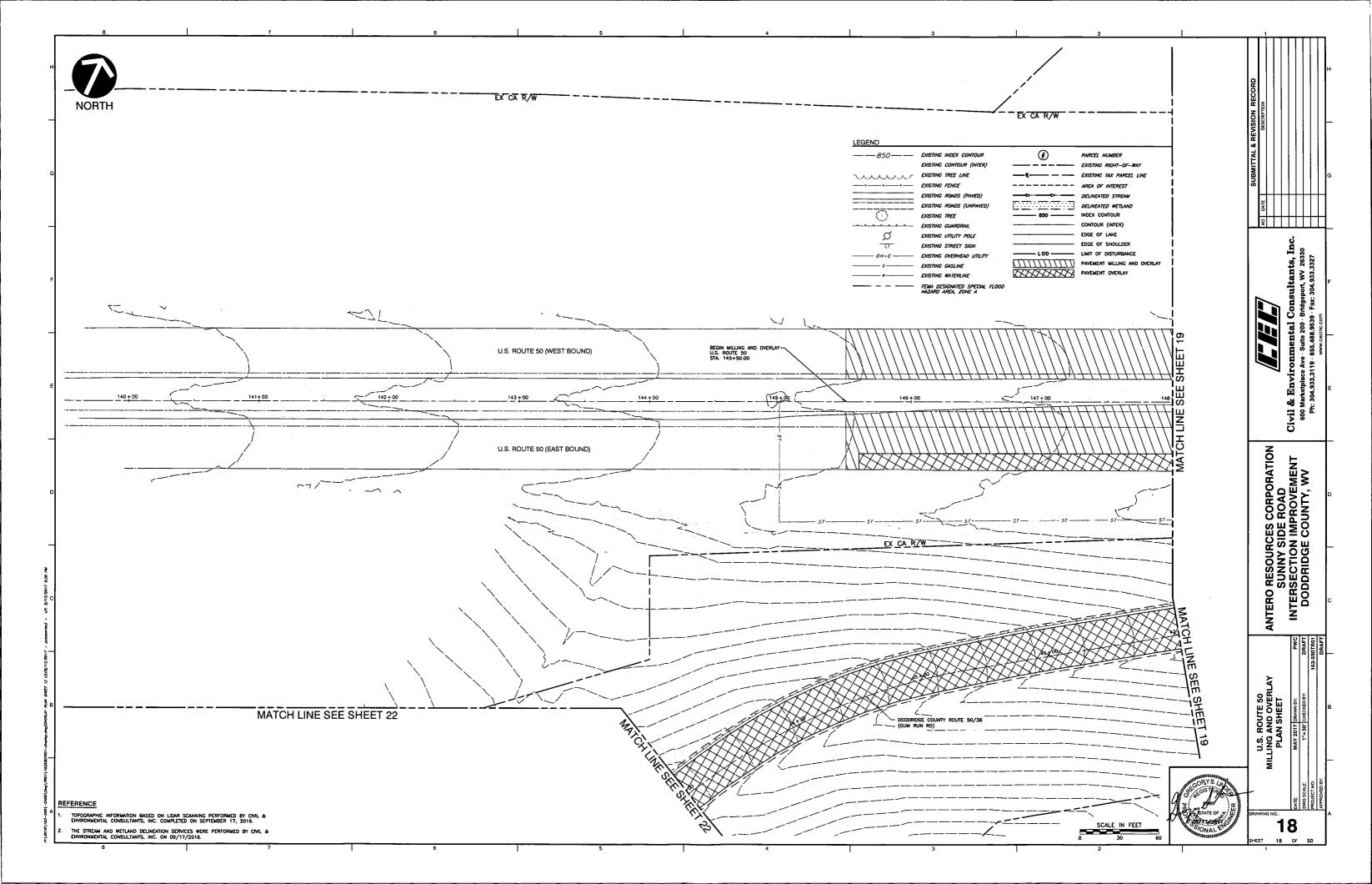
9

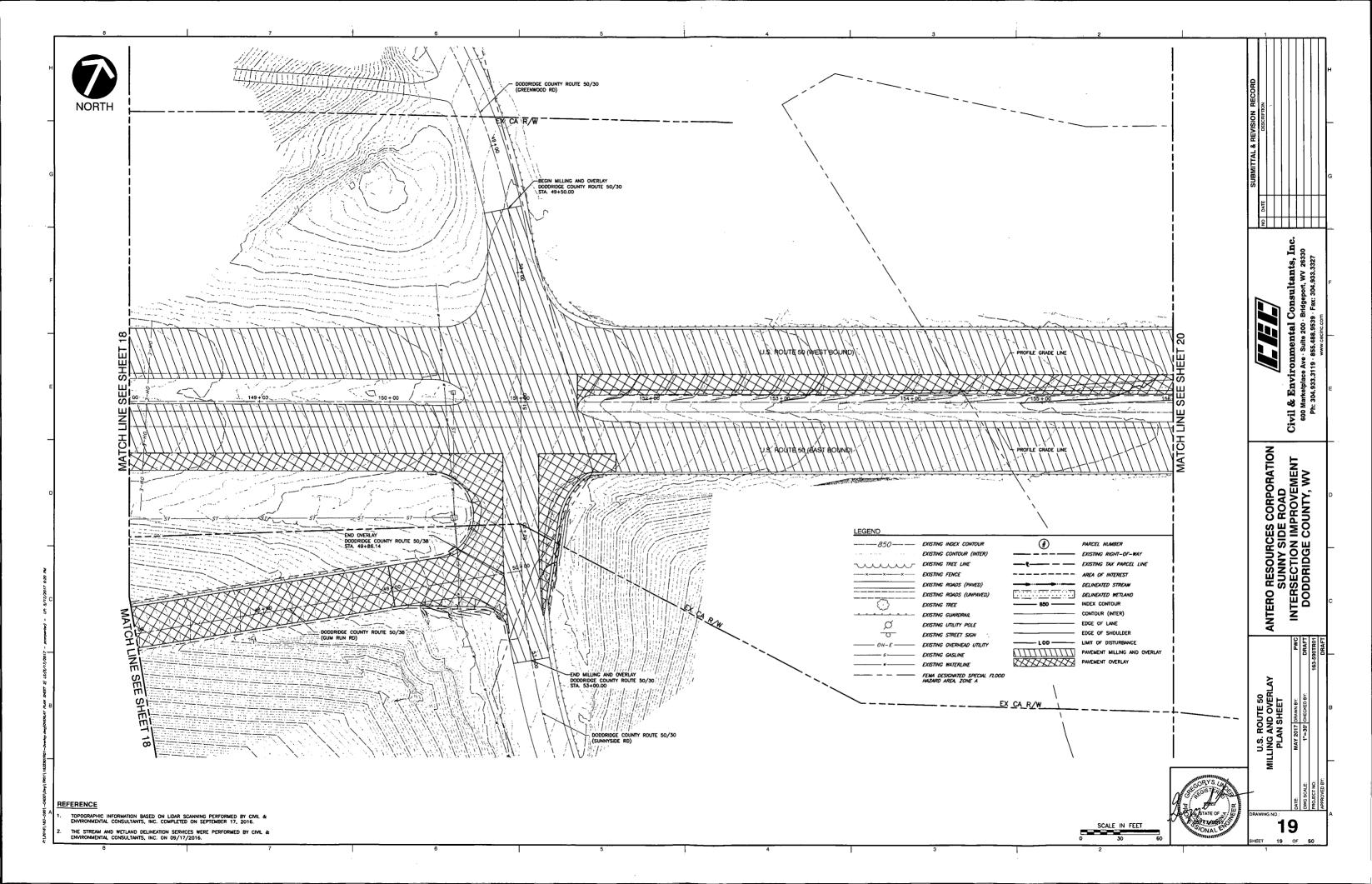
15

15 OF









END MILLING AND OVERLAY
U.S. ROUTE 50
STA 162+00.00

LEGEND

(<u>)</u>

----- 850 ---- EXISTING INDEX CONTOUR EXISTING CONTOUR (INTER) EXISTING TREE LINE

EXISTING ROADS (PAVED)

EXISTING GUARDRAIL

---- EXISTING WATERLINE - - FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA, ZONE A

EXISTING UTILITY POLE

EXISTING STREET SIGN

EXISTING OVERHEAD UTILITY

EXISTING ROADS (UNPAVED)

PARCEL NUMBER EXISTING RIGHT-OF-WAY

DELINEATED STREAM DELINEATED WETLAND INDEX CONTOUR

EDGE OF LANE --- EDGE OF SHOULDER

LIMIT OF DISTURBANCE
PAVEMENT MILLING AND OVERLAY
PAVEMENT OVERLAY

U.S. ROUTE 50 MILLING AND OVERLAY PLAN SHEET

20

Civil & Envire 600 Marketplace / Ph: 304,933,311

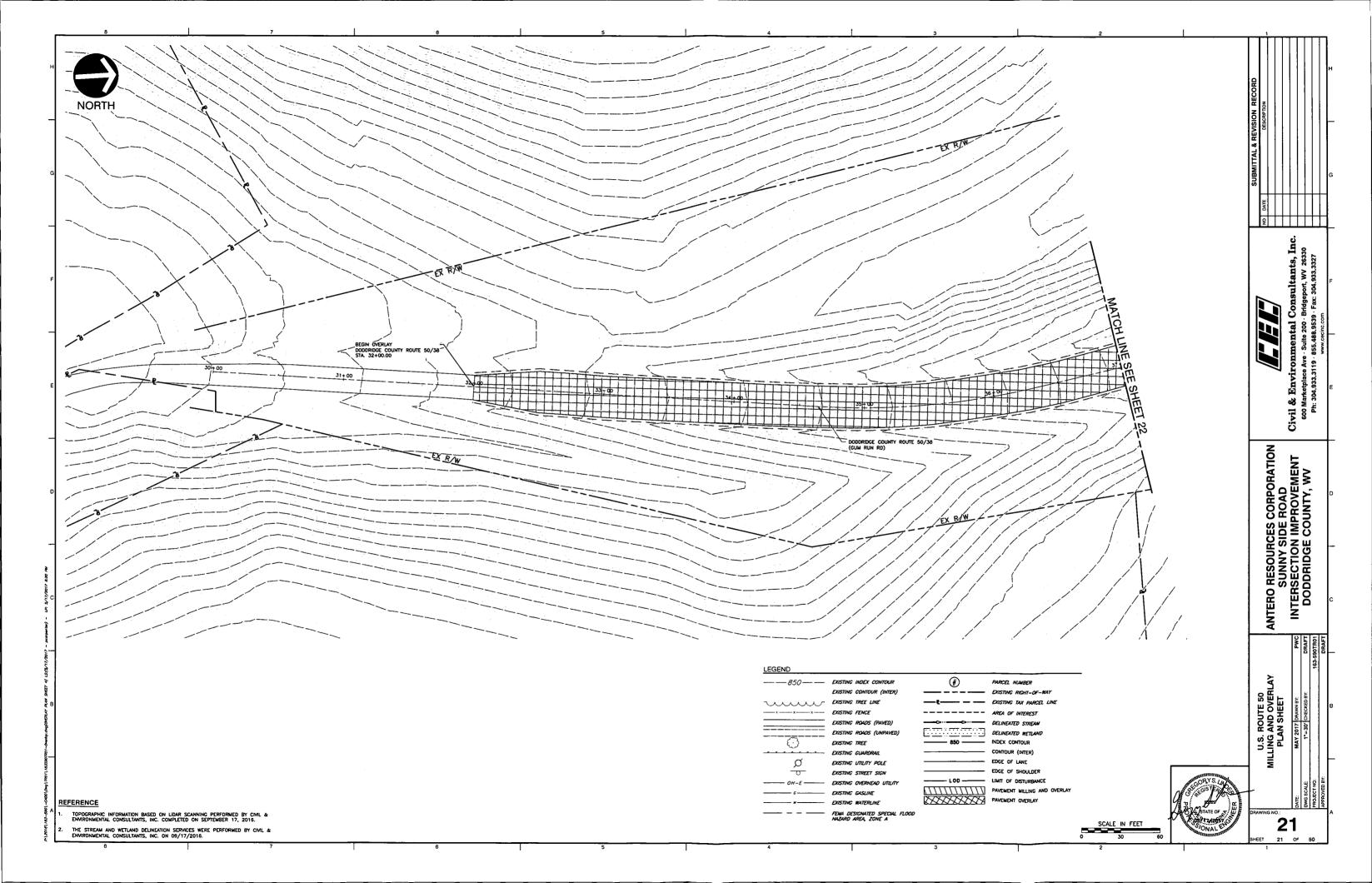
ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

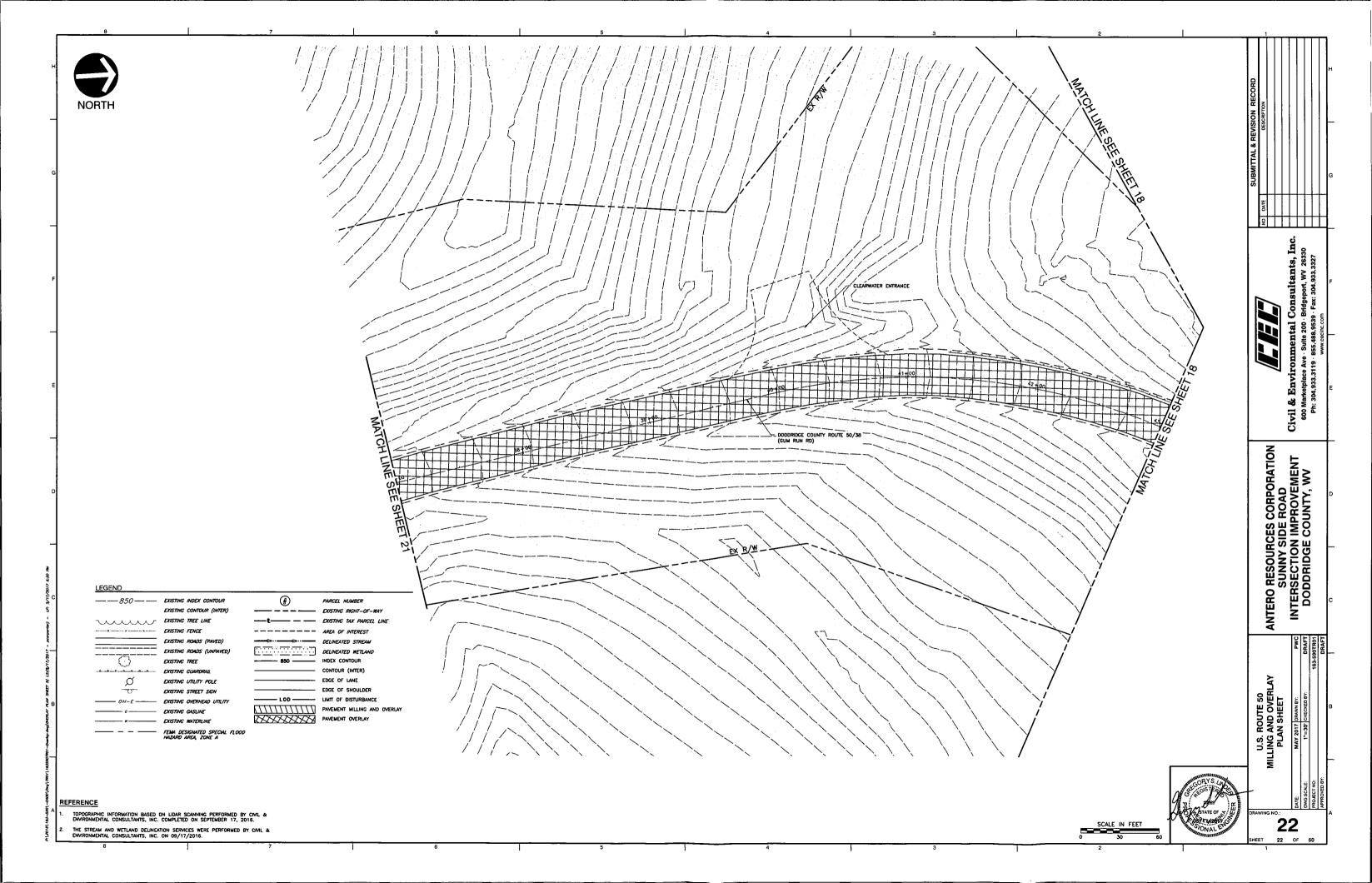
REFERENCE

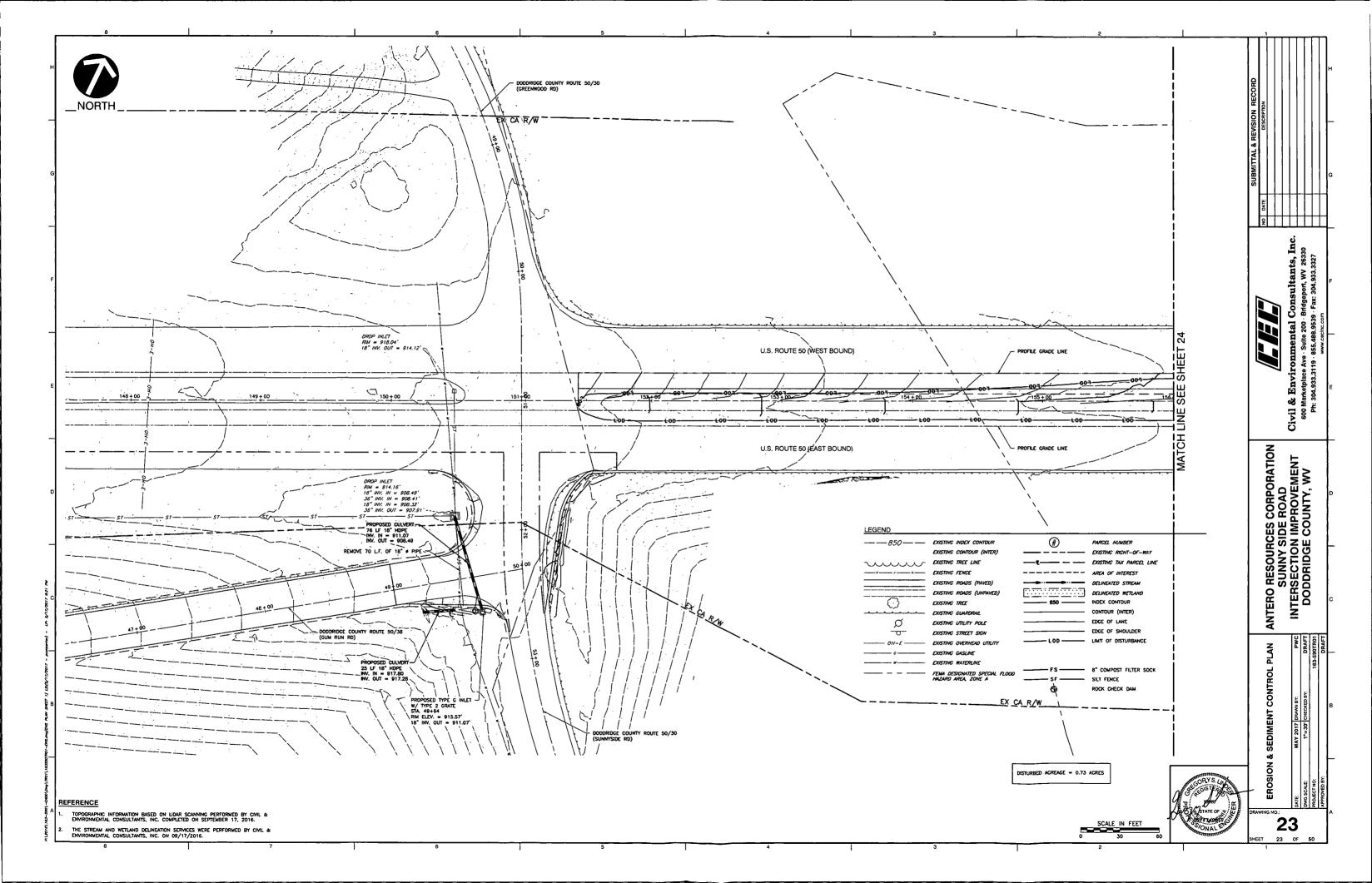
TOPOGRAPHIC INFORMATION BASED ON LIDAR SCANNING PERFORMED BY CML & ENVIRONMENTAL CONSULTANTS, INC. COMPLETED ON SEPTEMBER 17, 2016.

THE STREAM AND WETLAND DELINEATION SERVICES WERE PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. ON 09/17/2016.

SCALE IN FEET







NORTH U.S. ROUTE 50 (WEST BOUND) INSTALL INLET COVER -162 + 50 PROPOSED TYPE G INLET W/ TYPE 2 GRATE STA. 159+98 RIM ELEV. = 902.90' 24" INV. IN = 898.41' 24" INV. OUT = 898.35' DROP INLET
RN4 = 900.62'
24' MW. IN = 897.12'
18' INV. IN = 897.04'
30' INV. OUT = 897.04'
18'' INV. IN = 897.04' 2 L.F. 24" HDPE PIPE REMOVE 5 L.F. OF 24"# PIPE MATCH U.S. ROUTE 50 (EAST BOUND) OROP INLET

RIM = 902.42'

24" INV. OUT = 899.75'; RIM = 900.50' LEGEND # PARCEL NUMBER ------- EXISTING CONTOUR (INTER) EXISTING RIGHT-OF-WAY EXISTING FENCE EXISTING ROADS (PAVED) EXISTING ROADS (UNPAVED) DELINEATED WETLAND \odot INDEX CONTOUR EXISTING GUARDRAIL

TOPOGRAPHIC INFORMATION BASED ON LIDAR SCANNING PERFORMED BY CML & ENVIRONMENTAL CONSULTANTS, INC. COMPLETED ON SEPTEMBER 17, 2016.

THE STREAM AND WETLAND DELINEATION SERVICES WERE PERFORMED BY CML & EMMRONMENTAL CONSULTANTS, INC. ON 09/17/2016.

EDGE OF LANE

— EDGE OF SHOULDER

- 8" COMPOST FILTER SOCK

SCALE IN FEET

- LOD - LIMIT OF DISTURBANCE

--- SILT FENCE ROCK CHECK DAM

EXISTING UTILITY POLE

EXISTING STREET SIGN

FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA, ZONE A

---- EXISTING OVERHEAD UTILITY

EXISTING GASLINE - EXISTING WATERLINE ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

93 5 Civil

EROSION & SEDIMENT CONTROL PLAN

EROSION & SEDIMENT CONTROL SHALL BE MAXIMIZED THROUGH RAPID STABILIZATION OF THE DISTURBED AREAS AND BY THE INSTALLATION OF BEST MANAGEMENT PRACTICES (BMPs), AS SHOWN ON THE CONSTRUCTION PLANS.

VEGETATIVE PRACTICES
FERTILIZING, SEEDING, AND MULCH SHALL BE APPLIED TO ALL DISTURBED AREAS WHERE CONSTRUCTION IS NOT TO BE CONDUCTED FOR A PERIOD OF 7 DAYS OR MORE AND TO ALL AREAS WHERE FINAL GRADE HAS BEEN REACHED. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, THE STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 7TH DAY AFFER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED. REVEGETATION ACTIVITIES SHALL BE PERFORMED IN AN AGGRESSIVE MANNER THROUGHOUT THE CONSTRUCTION PROCESS.

- SURFACE ROUGHENING AREAS TO BE SEEDED SHALL BE LIGHTLY ROUGHENED AND LOOSE TO A DEPTH OF 2" TO 4" PRIOR TO SEEDING. AREAS, WHICH HAVE BEEN GRADED AND WILL NOT BE STABILIZED IMMEDIATELY, MAY BE ROUGHENED TO REDUCE VELOCITY UNTIL SEEDING TAKES PLACE.
- 2. TOP SOILING (STOCKPILE) TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE LOCATED ON-SITE IN A DESIGNATED AREA AND SHALL BE STABILIZED WITH TEMPORARY VEGETATION, ONCE THE AREAS OF STOCKPILE HAVE BEEN REMOVED, THE AREAS SHALL BE GRADED/RESTORED & PERMANENTLY SEEDED.
- TEMPORARY SEEDING & MULCHING SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF THE YEAR IT IS APPLIED AND SHALL BE DONE WITH TEMPORARY SEEDING MEASURES SPECIFIED IN THE SWPPP (AS RECOMMENDED BY THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION). MULCHING SHALL BE APPLIED AT A RATE OF TWO TONS OF STRAW PER FREE HAY PER ACRE. FERTILIZER SHALL BE APPLIED AT A RATE OF 1,000 LBS/ACRE (10-20-10).

<u>PERMANENT STABILIZATION</u>
EXCEPT AS NOTED BELOW, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS ALLOW. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED. (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 1-DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED. AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RESEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.

SEEDING AND MULCHING IS TO BE IN ACCORDANCE WITH SECTION 652 OF THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD SPECIFICATIONS ROADS AND BRIDGES, ADDPTED 2010, AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS, DATED JANUARY 1, 2016. A TYPE B SEED MIXTURE IS TO BE USED, AS SHOWN BELOW.

TYPE B SEED MIXTURE (MEDIANS/SHOULDERS)					
SPECIES	PLANTING DATES	APPLICATION RATE LBS/ACRE			
KENTUCKY 31 FESCUE	YEAR-ROUND	65			
RED FESCUE	YEAR-ROUND	20			
WHITE DUTCH CLOVER	YEAR-ROUND	3			
ANNUAL RYEGRASS	8/1-5/15	7			
WEEPING LOVEGRASS	5/15-8/1	3			

TYPE D SEED MIXTURE (CUT/FILL SLOPES)					
SPECIES	APPLICATION RATE LBS/ACRE				
KENTUCKY 31 FESCUE	YEAR-ROUND	20			
RED FESCUE	YEAR-ROUND	20			
CROWN VETCH	YEAR-ROUND	20			
ANNUAL RYEGRASS	8/1-5/15	12			
WEEPING LOVEGRASS	5/15-8/1	5			

**NOTE: SEED MIXES SHALL NOT BE MODIFIED WITHOUT APPROVAL OF ENGINEER

- PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION. 70% VEGETATIVE COVER SHALL BE CONSIDERED STABILIZED.
- ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS WELL ESTABLISHED ON ALL AREAS TO WHICH THE STRUCTURE IS BEING UTILIZED. ALL CONTROLS SHALL STRICTLY ADHERE TO REQUIREMENTS SET FORTH BY THE DEPARTMENT OF ENVIRONMENTAL
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF.
- ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL, AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS, AND OTHER WATERS OF THE STATE.
- STABILIZATION MEASURES SHALL BE APPLIED IMMEDIATELY TO ALL AREAS UPON REACHING FINAL

MAINTENANCE PROGRAM
ALL PERSONNEL MEETINGS AND MAINTENANCE INSPECTIONS SHALL BE DOCUMENTED IN
WRITTEN FORMAT AND MAINTAINED ON SITE AS PART OF THE REQUIREMENTS OF THIS
PERMIT. A COPY OF THE BMP INSPECTION CHECKLIST IS INCLUDED IN THE SWPPP FOR
THE CONTRACTOR TO USE AS A GUIDELINE FOR INSPECTION REQUIREMENTS.

ALL PERSONNEL INVOLVED IN THE INSTALLATION OF THE TEMPORARY EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE PROPERLY INSTRUCTED ON THE CORRECT INSTALLMENT PROCEDURES OF EACH MEASURE. ON-THE-JOB TRAINING SHALL BE CONDUCTED TO ENSURE THOSE PERSONNEL PERFORMING CONSTRUCTION ACTIVITIES ON THE PROJECT SITE ARE AWARE OF THE COMPONENTS, METHODS, AND EXPECTED PERFORMANCE OF THE EROSION & SEDIMENT CONTROL PLAN.

AT A MINIMUM, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD.

ALL STRUCTURES ARE TO BE REPAIRED OR REPLACED IMMEDIATELY UPON THE FINDING OF ANY DEFICIENCY.

MAINTENANCE PROGRAM (CONTINUED)

ONCE THE CAPACITY OF A STRUCTURE HAS BEEN REDUCED BY 50 PERCENT (50%), THE ACCUMULATED SEDIMENT IS TO BE REMOVED AND DISPOSED OF PROPERLY BY THE

PERMANENT SEEDING: SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION SHALL BE RE-SEEDED AS SOON AS THEY ARE IDENTIFIED.

DEVICES SHOWN ARE TO BE CONSIDERED AS MINIMUM EROSION AND SEDIMENTATION CONTROLS.
ADDITIONAL CONTROLS MAY BE NECESSARY DUE TO CONTRACTOR'S PHASING OR OTHER UNANTICIPATED ADDITIONAL CONTROLS MAY BE NECESSARY DUE TO CONTRACTOR'S PHASING OR OTHER UNANTICIPATED CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES AS NECESSARY IN ORDER TO CONTROL EROSION AND SEDIMENTATION. EROSION AND SEDIMENTATION MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE POLICIES AND REQUIREMENTS OF THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) BEST MANAGEMENT PRACTICES MANUAL. CONTROLS MAY BE REMOVED AFTER THE AREAS ABOVE THEM HAVE BEEN STABILIZED.

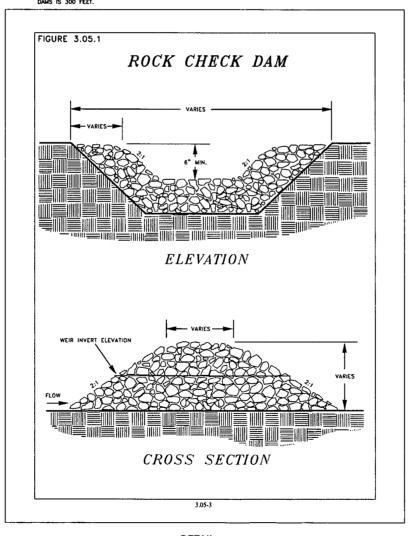
CONSTRUCTION SEQUENCE

PHASE 1 - TURN LANE CONSTRUCTION

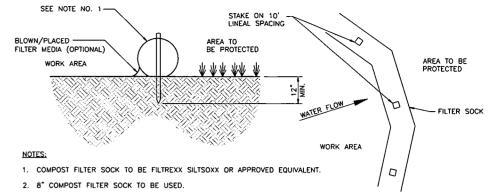
- INSTALL TRAFFIC CONTROL PLAN.
 INSTALL PERIMETER SEDIMENT CONTROL BMPS AS INDICATED PRIOR TO PERFORMING WORK THAT WILL RESULT IN GROUND DISTURBANCE.
 PERFORM TURN LANE CONSTRUCTION UP TO PROPOSED WEARING COURSE.

- INSTALL CASE E4 TRAFFIC CONTROL PLAN.
 CONTRACTOR SHALL MAINTAIN AT LEAST ONE THROUGH LANE AND TURN LANES AT ALL TIMES.
 ALL WORK ON THIS PROJECT WILL BE PERFORMED ONLY BETWEEN THE HOURS OF 7:00 PM AND 6:00 AM.
 REMOVE EROSION AND SEDIMENT CONTROL STRUCTURES AFTER SITE GRADING IS COMPLETED AND SITE STABILIZATION HAS OCCURRED. THE SITE WILL NOT BE CONSIDERED STABILIZED UNTIL A 70 PERCENT UNIFORM COVER OF PERENNIAL VEGETATION IS ACHIEVED OR THE SITE IS STABILIZED WITH STOME

THE MAXIMUM HEIGHT OF THE DAM SHOULD BE 3 FEET.
THE CENTER OF THE DAM MUST BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES.
THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUICH THAT THE TOE OF THE UPSTREAM DAM IS AT IS A

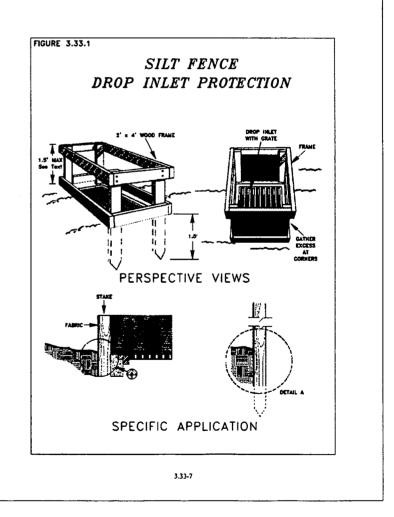


DETAIL 1 **ROCK CHECK DAM** NOT TO SCALE



- ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF WHEN IT REACHES ½ THE ABOVE GROUND HEIGHT OF THE COMPOST FILTER SOCK.
- 4. COMPOST FILTER SOCK SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.
 DAMAGED COMPOST FILTER SOCK SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- 5. COMPOST FILTER SOCK SHALL BE INSTALLED ON THE CONTOUR, PERPENDICULAR TO FLOW.

COMPOST FILTER SOCK



DETAIL 3 SILT FENCE DROP INLET PROTECTION NOT TO SCALE



SEDIMENT CONTROL AND DETAILS

NTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

ANTERO

SUMMARY OF QUANTITIES				
DESCRIPTION	QUANTITY			
DESCRIPTION		TOTAL		
EDGE LINE, TYPE II - 4 IN, WHITE	LF	3615		
EDGE LINE, TYPE IX - 6 IN, WHITE	LF	4083		
EDGE LINE, TYPE IX - 6 IN, YELLOW	LF	3169		
LANE LINE, TYPE IX — 6 IN, WHITE	LF	5044		
CENTERLINE, TYPE II, 4 IN, YELLOW	LF	3384		
CHANNELIZING LINE, TYPE V - 8 IN	LF	800		
STOP LINE, TYPE V - 12"	LF	92		
STOP LINE, TYPE V - 24"	LF	60		
ONE DIRECTION LANE ASSIGNMENT ARROW, TYPE V	EA	9		
LANE LETTER, TYPE V	EA	20		
RAISED PAVEMENT MARKER, TYPE P-2*	EA	40		
RAISED PAVEMENT MARKER, TYPE P-2**	EA	40		
PLASTIC DELINAEATOR POST, WHITE	EA	20		
PLASTIC DELINAEATOR POST, YELLOW	EA	41		

*	BI-DIRECTIONAL	(WHITE/RED)	WITH	WHITE	REFLECTOR	FACING	TRAFFIC
	MONO-DIRECTION						

	DELIN	EATOF	RS		
	DEGREE OF	QUANTITY			
LOCATION	CURVE, SPACING OR TANGENT	GR MNTD WHITE	GR MNTD YELLOW	PLASTIC WHITE (SOIL)	PLASTIC YELLOW (SOIL)
U.S. ROUTE 50					
145+63± TO 150+29±	RT TURN LANE 25' C/C			20	
151+60± TO 161+74±	LT TURN LANE 25' C/C				41
				20	41

NOTE: MEASUREMENT FOR SPACING OF DELINEATORS SHALL BE TAKEN ON THE EDGE OF ROADWAY NEAREST THE LOCATION OF THE DELINEATORS.

PAVEMENT MARKING GENERAL NOTES

1ITEM 663001-028, EDGE LINE, TYPE IX, SHALL INCLUDE 6" SOLID WHITE EDGE LINE. IT SHALL ALSO INCLUDE 6" DOTTED WHITE EDGE LINES AND 6" BROKEN WHITE EDGE LINES.

ALL 6" SOLID WHITE OR SOLID YELLOW EDGE LINES, LANE LINES AND CENTERLINES SHALL BE TYPE IX PAVEMENT MARKING MATERIAL.

EDGE LINES SHALL BE CENTERED 6" FROM EDGE OF PAVEMENT OR LANE AS APPLICABLE.

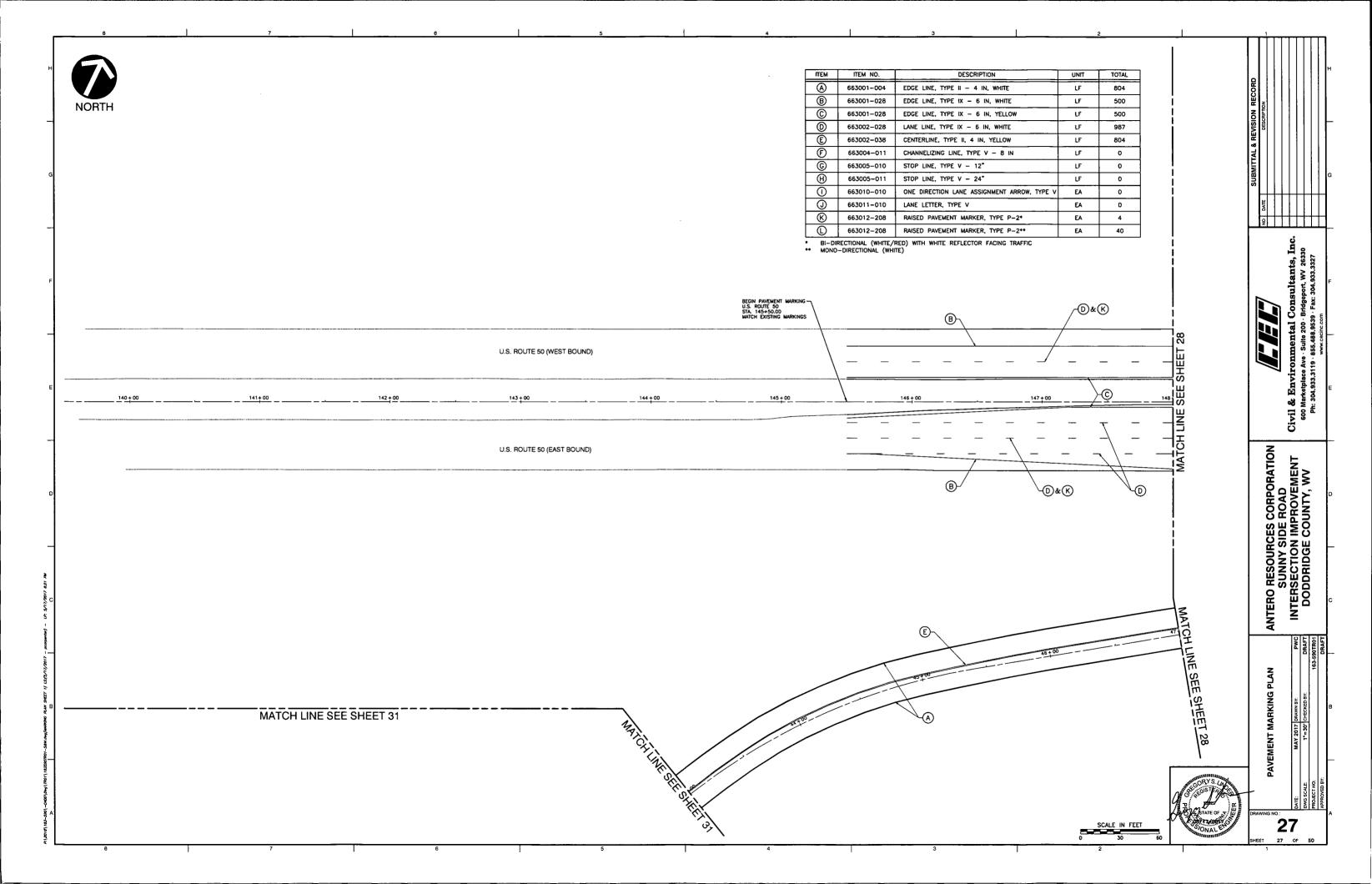
ALL MARKINGS SHALL BE CONTINUOUS OR CONSISTENT WITH EXISTING MARKINGS WHERE THEY JOIN.

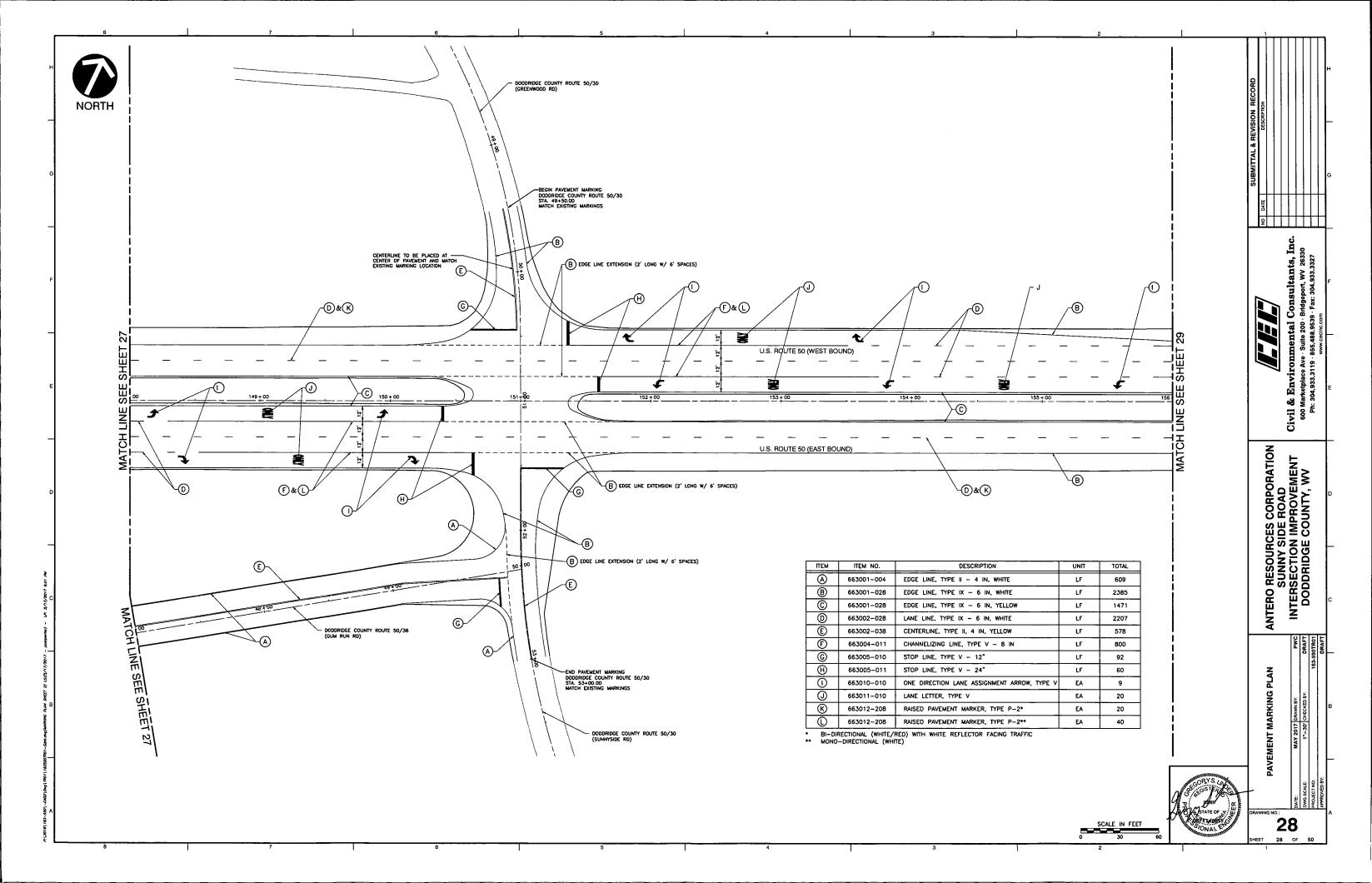
NO MARKINGS SHALL BE PLACED ON EXPANSION JOINTS ON STRUCTURES OR ON LONGITUDINAL CONSTRUCTION JOINTS UNLESS SO DIRECTED BY THE ENGINEER.

INSTALL RAISED PAVEMENT MARKERS P-2 AT 80 FT CENTERS ALONG LANE LINES AND AT 40 FT CENTERS ALONG CHANNELIZING LINES ON MAINLINE U.S. ROUTE 50.

ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

PAVEMENT MARKING SUMMARY OF QUANTITIES AND GENERAL NOTES





U.S. ROUTE 50 (WEST BOUND) 162 + 50 <u>@</u> U.S. ROUTE 50 (EAST BOUND) B -D&K

> ПЕМ ITEM NO. DESCRIPTION UNIT TOTAL (A) (B) 663001-004 EDGE LINE, TYPE II - 4 IN, WHITE 0 663001-028 LF 1198 EDGE LINE, TYPE IX - 6 IN, WHITE © 0 © 663001-028 EDGE LINE, TYPE IX - 6 IN, YELLOW LF 1198 663002-028 LANE LINE, TYPE IX - 6 IN, WHITE ĻF 1850 663002-038 CENTERLINE, TYPE II, 4 IN, YELLOW LF 0 (Ē) 663004-011 CHANNELIZING LINE, TYPE V - 8 IN LF 0 <u>©</u> 663005-010 STOP LINE, TYPE V - 12" LF 0 ® () () 663005-011 STOP LINE, TYPE V - 24" LF 0 663010-010 ONE DIRECTION LANE ASSIGNMENT ARROW, TYPE ĒΑ 0 663011-010 LANE LETTER, TYPE V 0 EΑ 663012-208 RAISED PAVEMENT MARKER, TYPE P-2* 16 EΑ ĒΑ 40

0 663012-208 RAISED PAVEMENT MARKER, TYPE P-2** BI-DIRECTIONAL (WHITE/RED) WITH WHITE REFLECTOR FACING TRAFFIC MONO-DIRECTIONAL (WHITE)

SCALE IN FEET

	ORYS LINE OF STATE OF
1	NALE CONAL EMPLOYMENT

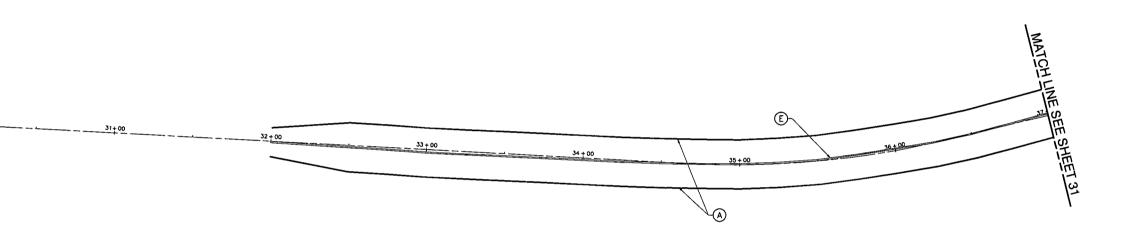
PAVEMENT MARKING PLAN

ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

Civil & Envir 600 Marketplace

NORTH

30+00



ПЕМ	ITEM NO.	DESCRIPTION	UNIT	TOTAL
(A)	663001-004	EDGE LINE, TYPE II - 4 IN, WHITE	LF	1000
B	663001-028	EDGE LINE, TYPE IX - 6 IN, WHITE	LF	0
0	663001-028	EDGE LINE, TYPE IX - 6 IN, YELLOW	LF	0
0	663002-028	LANE LINE, TYPE IX - 6 IN, WHITE	LF	0
(E)	663002-038	CENTERLINE, TYPE II, 4 IN, YELLOW	LF	1000
(Ē)	663004-011	CHANNELIZING LINE, TYPE V - 8 IN	LF	0
©	663005-010	STOP LINE, TYPE V - 12"	LF	0
Θ	663005-011	STOP LINE, TYPE V - 24"	LF	0
0	663010-010	ONE DIRECTION LANE ASSIGNMENT ARROW, TYPE V	EA	0
(663011-010	LANE LETTER, TYPE V	EA	0
(K)	663012-208	RAISED PAVEMENT MARKER, TYPE P-2*	EA	0
(L)	663012-208	RAISED PAVEMENT MARKER, TYPE P-2**	EA	40

BI-DIRECTIONAL (WHITE/RED) WITH WHITE REFLECTOR FACING TRAFFIC MONO-DIRECTIONAL (WHITE)

,	STATE OF THE STATE

PAVEMENT MARKING PLAN

ANTERO RESOURCES CORPORATION SUNNY SIDE ROAD INTERSECTION IMPROVEMENT DODDRIDGE COUNTY, WV

Civil & Environmental Consultants, Inc. 600 Marketplace Ave · Sulte 200 · Bridgeport, WV 26330 Ph.: 304.933.3119 · 865.488.9639 · Fax: 304.933.327

