

Commercial/Industrial Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit has been issued to **CNX Gas Company, LLC**, and is for the approved commercial and/or industrial development project associated with this permit 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: #14-249 County Route 40 Curve Widening

Date Approved: 08/06/2014

Expires: N/A

Issued to: CNX Gas Company, LLC

**POC: Kelly Eddy
304-884-2027**

**Company Address: One Energy Drive
Jane Lew, WV 26378**

Project Address: Southwest District

Lat/Long: 39.178683N/80.755661W

Purpose of development: Road curve widening. Project does NOT impact floodplain.

Issued by: Edwin L. "Bo" Wriston, Doddridge County FPM (or designee)

Date: 08/06/2014

For additional information regarding this permit, please contact
Doddridge County Floodplain Manager at 304.873.2631, or via email at
doddridgecountyfpm@gmail.com
118 East Court Street; West Union, WV 26456

Legal Advertisement:
Doddridge County
Floodplain Permit Application

Please take notice that on the 31st day of July, 2014

CNX Gas Company LLC

filed an application for a Floodplain Permit to develop land located at or about:

Southwest District 39.178683N / 80.755661

Permit #14-249 County Route 40 Curve Widening

(Note: This project is not within the floodplain)

The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. As this project is outside the FEMA identified floodplain of Doddridge County, Doddridge County Floodplain Management has no regulatory authority.

Any interested persons who desire to comment shall present the same in writing by **August 27, 2014**, delivered to:

Clerk of the County Court
118 E. Court Street, West Union, WV 26456
Beth A Rogers, Doddridge County Clerk
Edwin L. "Bo" Wriston, Doddridge County Flood Plain Manager



P.O. BOX 150, GLENVILLE, WV 26351
 (304) 462-5634 • FAX (304) 462-5656

LETTER OF TRANSMITTAL

DATE 7/30/14	JOB NO. 8127
ATTENTION Bo Wriston	
RE: CNX Gas Company, LLC - Co. Rt. 40	

TO: Doddridge County Floodplain Manager
118 East Court Street
West Union, WV 26456

> WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings
 Prints
 Plans
 Samples
 Specifications
 Copy of letter
 Change order

COPIES	DATE	NO.	DESCRIPTION
1			Cover Letter with Signed Application
1			Maps
1			Site Plans

FILED
 2014 JUL 31 AM 11:03
 BETH A. ROBERTS
 COUNTY CLERK
 DODDRIDGE COUNTY, WV

THESE ARE TRANSMITTED as checked below:

- For approval
 Approved as submitted
 Resubmit _____ copies for approval
 For your use
 Approved as noted
 Submit _____ copies for distribution
 As requested
 Returned for corrections
 Return _____ corrected prints
 For review and comment

 FOR BIDS DUE _____, 20____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO SLS Files; CNX Gas Company, LLC

SIGNED: Deanna McVicker

If enclosures are not as noted, kindly notify us at once.



July 29, 2014

14-249

Bo Wriston
Doddridge County Flood Plain Manager
Doddridge County Commission
118 East Court Street
West Union, WV 26456

RE: CNX Gas Company, LLC County Route 40 Temporary Curve Widening

Mr. Wriston,

On behalf of CNX, SLS is submitting this letter pursuant to the requirements of the Doddridge County Floodplain Ordinance to apply for a Floodplain/Building Permit. This permit is for County Route 40 in Southwest District, Doddridge County. The plans include the temporary widening of three separate curves along a portion of County Route 40 along with some culvert upgrades. The coordinates of the three temporary curve widening's are as followed: Curve Widening #1- Latitude 39.178683 Longitude -80.755661 (NAD 83), Curve Widening #2- Latitude 39.176179 Longitude -80.753336 (NAD 83), Curve Widening #3- Latitude 39.173104 Longitude -80.751620 (NAD 83).

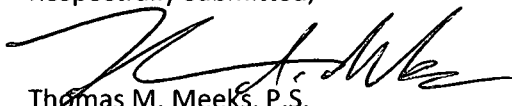
This project consists of the temporary widening of three separate curves along County Route 40. In two of these curves (#2 and #3) inlet and outlet protection will be added to two existing culverts. The culvert located along Temporary Curve Widening #2 (Sheet 7 of the plans) will also be extended by four feet. This is proposed to be done so the truck traffic associated with the three proposed sites (OXFD 13 well pad, Morris Tank Site No. 1 and the Morris Tank Site No. 2) is able to access the sites. All work outside the WV DOH right of way will be reclaimed back to the original condition once the drilling activities have been completed in the area. (Refer to the attached plans for additional details of the proposed work)

This project does not appear to be located within a flood plain.

Please see the attached project location map, site plans, FEMA firmette, and WV Flood Tool Map.

On behalf of CNX, SLS is requesting your approval to begin construction on the Doddridge County Route 40 Temporary Curve Widening project. Please feel to contact Thomas Meeks with SLS at 304-462-5634 or tmeeks@slssurveys.com, or Kelly Eddy with CNX at 304-884-2131 or KellyEddy@consolenergy.com should you have any questions or comments. Please send a copy of the correspondence to Smith Land Surveying.

Respectfully submitted,


Thomas M. Meeks, P.S.
Project Manager



cc: Kelly Eddy/CNX Gas Company LLC

DODDRIDGE COUNTY
FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

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 Kelly Eddy

DATE 7-29-14

SECTION 2: PROPOSE DEVELOPMENT (TO BE COMPLETED BY APPLICANT).

IF THE APPLICANT IS NOT A NATURAL PERSON, THE NAME, ADDRESS, AND TELEPHONE NUMBER OF A NATURAL PERSON WHO SHALL BE APPOINTED BY THE APPLICANT TO RECEIVE NOTICE PURSUANT TO ANY PROVISION OF THE CURRENT DODDRIDGE COUNTY FLOODPLAIN ORDINANCE.

APPLICANT'S NAME: CNX Gas Company, LLC

ADDRESS: One Energy Drive Jane Lew, WV 26378

TELEPHONE NUMBER: 304-884-2027

BUILDER'S NAME: CNX Gas Company, LLC

ADDRESS: One Energy Drive Jane Lew, WV 26378

TELEPHONE NUMBER: 304-884-2027

ENGINEER'S NAME: Stantec Consulting, Inc.

ADDRESS: 111 Elkins Street Fairmont, WV 26554

TELEPHONE NUMBER: 304-367-9401

PROJECT LOCATION: Proposed Curve Widening #1 is located at the intersection of County Route 40 and 54/1, and Curves #2 and #3 are located 0.24 miles and 0.50 miles in a southerly direction respectively from that intersection.

NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) WVDOH District 4 (Work to be completed is roadwork on CR 40), Susan Drennan, and Kevin and Teresa Mullin

ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) _____

I-79 and Meadowbrook Road, Clarksburg, WV 26302

DISTRICT: Southwest District

DATE/FROM WHOM PROPERTY

PURCHASED N/A

LAND BOOK DESCRIPTION: N/A

DEED BOOK REFERENCE: N/A

TAX MAP REFERENCE: N/A

EXISTING BUILDINGS/USES OF PROPERTY: _____

NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY N/A

ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY N/A

To avoid delay in processing the application, please provide enough information to easily identify the project location.

DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

<u>ACTIVITY</u>	<u>STRUCTURAL TYPE</u>
<input type="checkbox"/> New Structure	<input type="checkbox"/> Residential (1 – 4 Family)
<input type="checkbox"/> Addition	<input type="checkbox"/> Residential (more than 4 Family)
<input type="checkbox"/> Alteration	<input type="checkbox"/> Non-residential (floodproofing)
<input type="checkbox"/> Relocation	<input type="checkbox"/> Combined Use (res. & com.)
<input type="checkbox"/> Demolition	<input type="checkbox"/> Replacement
<input type="checkbox"/> Manufactured/Mobil Home	

B. OTHER DEVELOPMENT ACTIVITIES:

- Fill Mining Drilling Pipelining
- Grading
- Excavation (except for STRUCTURAL DEVELOPMENT checked above)
- Watercourse Altercation (including dredging and channel modification)
- Drainage Improvements (including culvert work)
- Road, Street, or Bridge Construction
- Subdivision (including new expansion)
- Individual Water or Sewer System
- Other (please specify)
 Temporary curve widening

C. STANDARD SITE PLAN OR SKETCH

- 1. SUBMIT ALL STANDARD SITE PLANS, IF ANY HAVE BEEN PREPARED.**
- 2. IF STANDARD SITE PLANS HAVE NOT BEEN PREPARED:**
SKETCH ON A SEPARATE 8 ½ X 11 INCH SHEET OF PAPER THE SHAPE AND LOCATION OF THE LOT. SHOW THE LOCATION OF THE INTENDED CONSTRUCTION OR LAND USE INDICATING BUILDING SETBACKS, SIZE & HEIGHT. IDENTIFY EXISTING BUILDINGS, STRUCTURES OR LAND USES ON THE PROPERTY.
- 3. SIGN AND DATE THE SKETCH.**

ACTUAL TOTAL CONSTRUCTION COSTS OF THE COMPLETE DEVELOPMENT IRRESPECTIVE OF WHETHER ALL OR ANY PART OF THE SUBJECT PROPOSED CONSTRUCTION PROJECT IS WITHIN THE FLOODPLAIN \$ 100,000

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

- 1. NAME AND ADDRESS OF ALL OWNERS OF SURFACE TRACTS ADJACENT TO THE AREA OF THE SURFACE TRACT (UP & DOWN STREAM) UPON WHICH THE PROPOSED ACTIVITY WILL OCCUR AND ALL OTHER SURFACE OWNERS UP & DOWN STREAM) WHO OWN PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY (IF ONE HAS BEEN COMPLETED).**

NAME: _____

ADDRESS: _____

NAME: _____

ADDRESS: _____

NAME: _____

ADDRESS: _____

NAME: _____

ADDRESS: _____

- 1. NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON ANY ADJACENT PROPERTY AT THE TIME THE FLOODPLAIN PERMIT APPLICATION IS FILED AND THE NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN ANY HOME ON ANY PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY.**

NAME: _____

ADDRESS: _____

NAME: _____

ADDRESS: _____

NAME: _____

ADDRESS: _____

NAME: _____

ADDRESS: _____

E. CONFIRMATION FORM

THE APPLICANT ACKNOWLEDGES, AGREES, AND CONFIRMS THAT HE/IT WILL PAY WITHIN 30 DAYS OF RECEIPT OF INVOICE BY THE COUNTY FOR ALL EXPENSES RELATIVE TO THE PERMIT APPLICATION PROCESS GREATER THAN THE REQUIRED DEPOSIT FOR EXPENSES INCLUDING:

- (A) PERSONAL SERVICE OF PROCESS BY THE DODDRIDGE COUNTY SHERIFF AT THE RATES PERMITTED BY LAW FOR SUCH SERVICE.
- (B) SERVICE BY CERTIFIED MAIL RETURN RECEIPT REQUESTED.
- (C) PUBLICATION.
- (D) COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT.
- (E) CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY FLOODPLAIN ADMINISTRATOR/MANAGER OR FLOODPLAIN APPEALS BOARD FOR REVIEW OF MATERIALS AND/OR TESTIMONY REGARDING THE EFFICACY OF GRANTING OR DENYING THE APPLICANT'S FLOODPLAIN PERMIT.

NAME (PRINT): Kelly Eddy

SIGNATURE: Kelly Eddy DATE: 7-29-14

After completing SECTION 2, APPLICANT should submit form to Floodplain Administrator/Manager or his/her representative for review.

SECTION 3: FLOODPLAIN DETERMINATION (to be completed by Floodplain Administrator/Manager or his/her representative)

THE PROPOSED DEVELOPMENT:

THE PROPOSED DEVELOPMENT IS LOCATED ON:

FIRM Panel: _____

Dated: _____

Is **NOT** located in a Specific Flood Hazard Area (Notify applicant that the application review is complete and **NO FLOODPLAIN DEVELOPMENT PERMIT IS REQUIRED**).

Is located in Special Flood Hazard Area.

FIRM zone designation _____

100-Year flood elevation is: _____ NGVD (MSL)

- Unavailable
- The proposed development is located in a floodway.
 FBFM Panel No. _____ Dated _____
- See section 4 for additional instructions.
SIGNED _____ **DATE** _____

SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Floodplain Administrator/Manager or his/her representative)

The applicant must submit the documents checked below before the application can be processed.

- A plan showing the location of all existing structures, water bodies, adjacent roads, lot dimensions and proposed development.
- Development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, storage tanks, proposed elevation of lowest floor, (including basement or crawl space), types of water resistant materials used below the first floor, details of flood proofing of utilities located below the first floor and details of enclosures below the first floor. Also _____

- Subdivision or other development plans (If the subdivision or development exceeds 50 lots or 5 acres, whichever is the lesser, the applicant must provide 100-year flood elevations if they are not otherwise available).
- Plans showing the extent of watercourse relocation and/or landform alterations.
- Top of new fill elevation _____ Ft. NGVD (MSL).
 For floodproofing structures applicant must attach certification from registered engineer or architect.

Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood. A copy of all data and calculations supporting this finding must also be submitted.

Manufactured homes located in a floodplain area must have a West Virginia Contractor's License and a Manufactured Home Installation License as required by the Federal Emergency Management Agency (FEMA).

Other:

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Administrator/Manager or his/her representative)

I have determined that the proposed activity **(type is or is not)** in conformance with provisions of the Floodplain Ordinance adopted by the County Commission of Doddridge County on May 21, 2013. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED _____ DATE _____

If the Floodplain Administrator/Manager found that the above was not in conformance with the provisions of the Doddridge County Floodplain Ordinance and/or denied that application, the applicant may complete an appealing process below.

APPEALS: Appealed to the County Commission of Doddridge County? Yes No
Hearing Date: _____
County Commission Decision - Approved Yes No

CONDITIONS: _____

SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Compliance is issued).

The following information must be provided for project structures. This section must be completed by a registered professional engineer or a licensed land surveyor (or attach a certification to this application).

COMPLETE 1 OR 2 BELOW:

- 1 Actual (As-Built) Elevation of the top of the lowest floor (including basement or crawl space is _____ FT. NGVD (MSL)
- 2 Actual (As Built) elevation of floodproofing is _____ FT. NGVD (MSL)

Note: Any work performed prior to submittal of the above information is at risk of the applicant.

SECTION 7: COMPLIANCE ACTION (To be completed by the Floodplain Administrator/Manager or his/her representative).

The Floodplain Administrator/Manager or his/her representative will complete this section as applicable based on inspection of the project to ensure compliance with the Doddridge County Floodplain Ordinance.

INSPECTIONS:

DATE: _____ BY: _____
DEFICIENCIES ? Y/N

COMMENTS _____

SECTION 8: CERTIFICATE OF COMPLIANCE (To be completed by Floodplain Administrator/Manager or his/her representative).

Certificate of Compliance issued: DATE: _____ BY: _____

**CERTIFICATE OF COMPLIANCE
FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREA
(OWNER MUST RETAIN)**

PERMIT NUMBER: _____

PERMIT DATE: _____

PURPOSE –

CONSTRUCTION LOCATION: _____

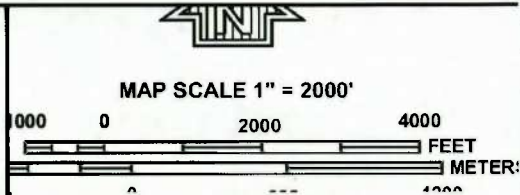
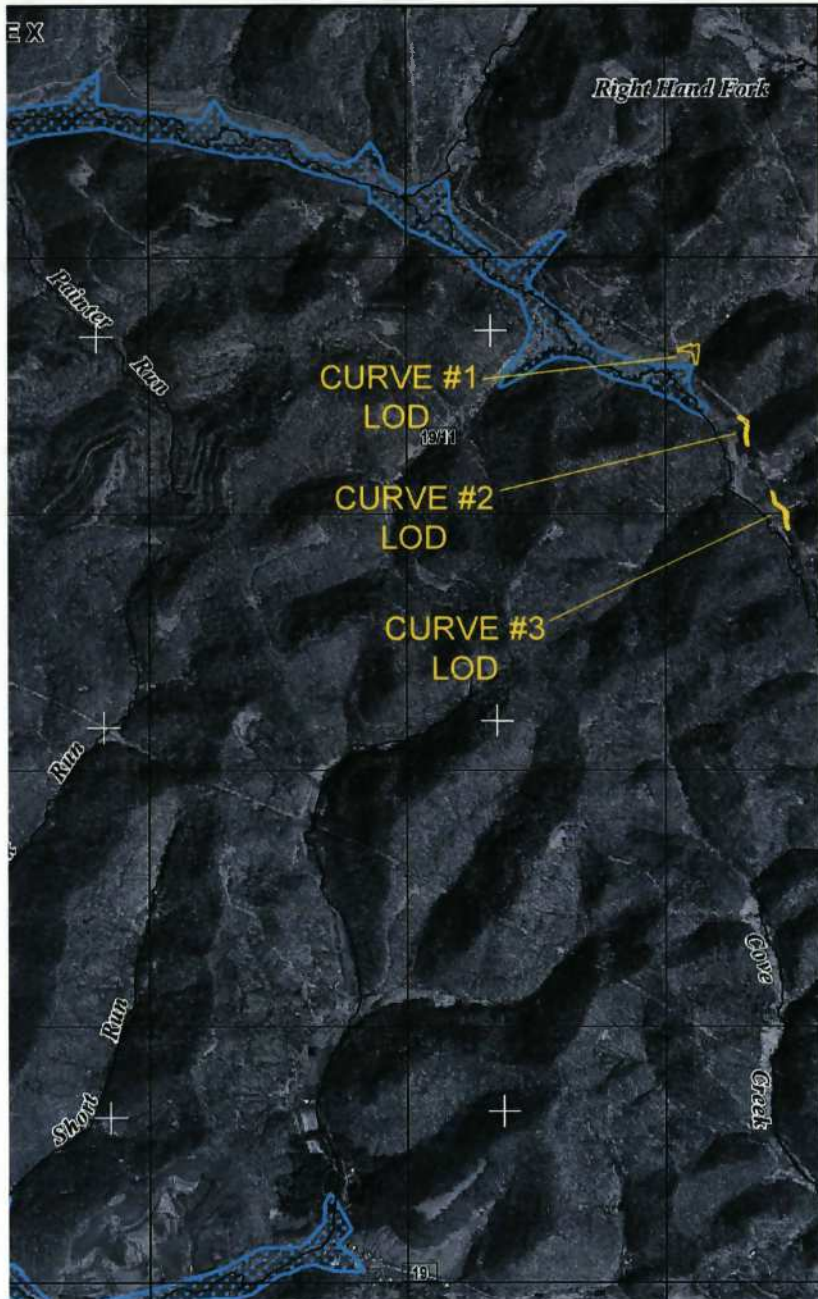
OWNER'S ADDRESS: _____

THE FOLLOWING MUST BE COMPLETED BY THE FLOODPLAIN ADMINISTRATOR/MANAGER OR HIS/HER AGENT.

COMPLIANCE IS HEREBY CERTIFIED WITH THE REQUIREMENT OF THE FLOODPLAIN ORDINANCE ADOPTED BY THE COUNTY COMMISSION OF DODDRIDGE COUNTY ON MAY 21, 2013.

SIGNED _____ **DATE** _____

DODDRIDGE COUNTY ROUTE 40 TEMPORARY CURVE WIDENING FEMA MAP



PANEL 0225C


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

PANEL 225 OF 325
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DODDRIDGE COUNTY	540024	0225	C

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
54017C0225C

MAP REVISED
OCTOBER 4, 2011

Federal Emergency Management Agency

SCALE
1 INCH = 2000-FEET

NOTES
FEMA MAP 54017C0225C

0' 2000' 4000' 6000'



JOB #: 8127
 DRAWN BY: CMH
 DATE: 07-24-14
 SCALE: 1" = 2000'

**DODDRIDGE COUNTY
 ROUTE 40 TEMPORARY
 CURVE WIDENING**

THIS DOCUMENT WAS PREPARED BY:
 SMITH LAND SURVEYING, INC.
 FOR: CNX



Professional Energy Consultants
 A DIVISION OF SMITH LAND SURVEYING, INC.

SLS

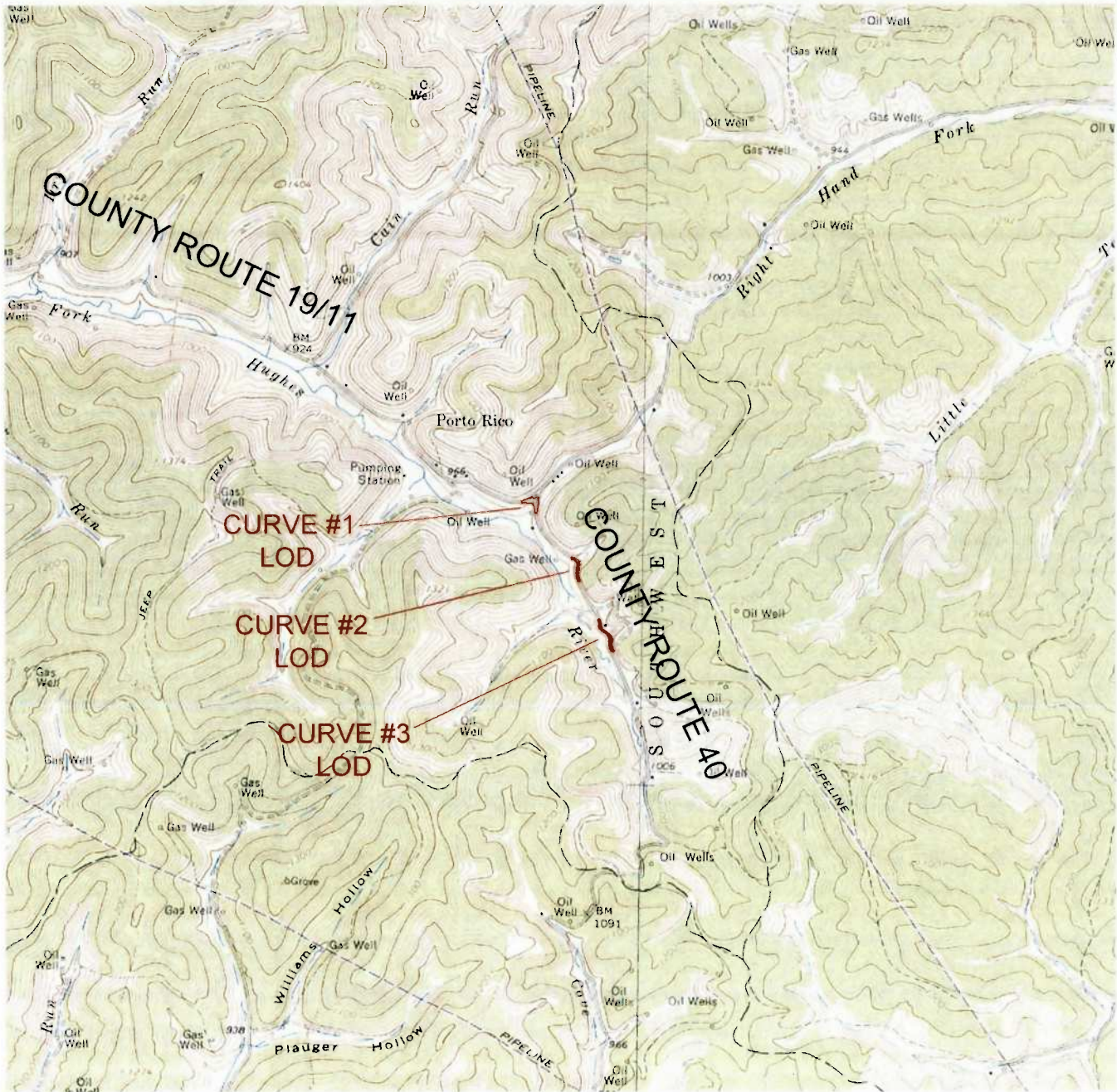
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

(304) 462-5634 WWW.SLSURVEYS.COM



CONSOL ENERGY

DODDRIDGE COUNTY ROUTE 40 TEMPORARY CURVE WIDENING MAP



SCALE
1 INCH = 2000-FEET

NOTES
OXFORD AND NEW MILTON
TOPO QUADS



JOB #: 8127
DRAWN BY: CMH
DATE: 07-24-14
SCALE: 1" = 2000'

DODDRIDGE COUNTY ROUTE 40 TEMPORARY CURVE WIDENING

THIS DOCUMENT WAS PREPARED BY:
SMITH LAND SURVEYING, INC.
FOR: CNX



Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.



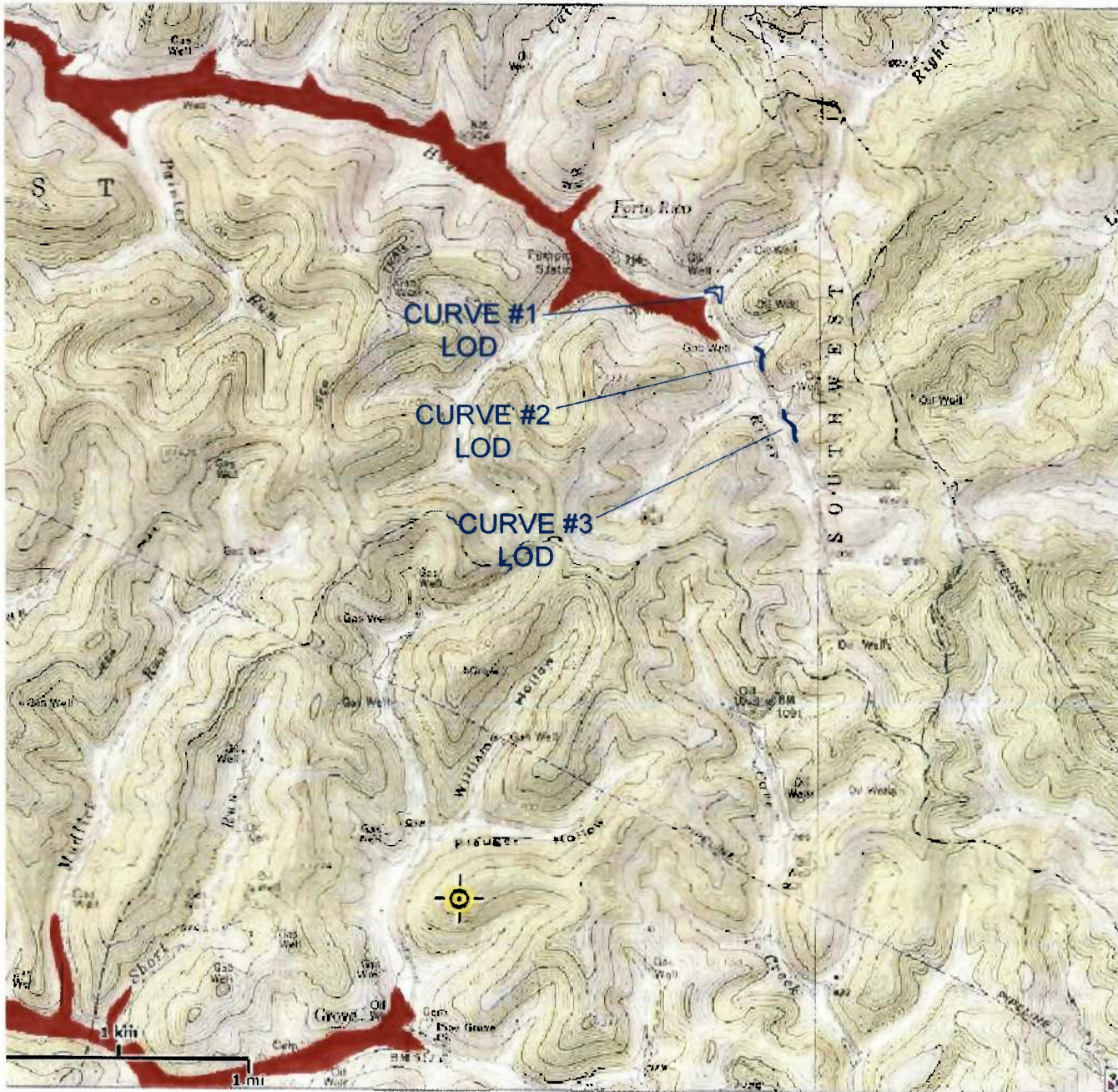
(304) 482-5634

SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

WWW.SLSURVEYS.COM



DODDRIDGE COUNTY ROUTE 40 TEMPORARY CURVE WIDENING WV FLOOD TOOL MAP



NOTES
OXFORD AND NEW MILTON
TOPO QUADS

SCALE
1 INCH = 2000 FEET



JOB #: 8127
DRAWN BY: CMH
DATE: 07-24-14
SCALE: 1" = 2000'

DODDRIDGE COUNTY ROUTE 40 TEMPORARY CURVE WIDENING

THIS DOCUMENT WAS PREPARED BY:
SMITH LAND SURVEYING, INC.
FOR: CNX

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.

SLS

(304) 462-5634

**SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.**

WWW.SLSSURVEYS.COM



STATE OF WEST VIRGINIA,
COUNTY OF DODDRIDGE, TO WIT

I, Virginia Nicholson, Editor of THE
HERALD RECORD, a weekly newspaper
published regularly, in Doddridge County,
West Virginia, Do Hereby Certify
That the Accompanying Legal Notice
Entitled:

Floodplain Permit
County Rd 40 Curve Widening
14-249

was published in said paper for ... *2*

successive weeks beginning with the issue
of ... *August 5th* ... 2014 and
ending with the issue of

... *August 12th* ... 2014 and

that said notice contains ... *189*

WORD SPACE at ... *115* ... cents a word

amounts to the sum of \$... *21.74*

FOR FIRST PUBLICATION, SECOND
PUBLICATION IS 75% OF THE FIRST
PUBLICATION

\$ *16.31*

and each publication thereafter

\$ *38.05* TOTAL

EDITOR

Virginia Nicholson

SWORN TO AND SUBSCRIBED

BEFORE ME THIS THE ... *14th* ... DAY

OF ... *August* ... 2014

NOTARY PUBLIC

Laura Adams

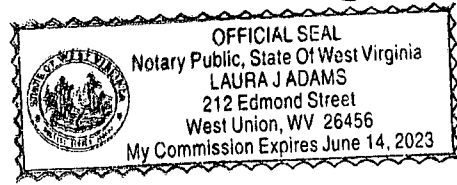
LEGAL ADVERTISEMENT
Doddridge County
Floodplain Permit Application

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CNX Gas Company LLC filed an application for a
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County Route 40 Curve Widening (Note: This project is
not within the floodplain)

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 4,
2014.

Delivered to the:
Clerk of the County Court
118 E. Court Street, West Union, WV 26456
Beth A. Rogers, Doddridge County Clerk
Edwin L. "Bo" Wriston, Doddridge County Flood Plain
Manager

8-5-2xb



Energy_2013
 Color_30_black.tbl
 PenMod01.ctb
 PlotSize: 24x36

CO. ROUTE 40 TEMPORARY CURVE WIDENING CNX GAS COMPANY, LLC

SITUATED ON THE WATERS OF SOUTH FORK OF HUGHES RIVER

WV DOH DISTRICT #4

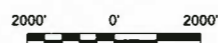
SOUTHWEST DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA

NORTH
 GRID NORTH AND ELEVATIONS
 SHOWN HEREON WERE
 ESTABLISHED BY CURVE
 GRADE GPS

LIST OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	SHEET LAYOUT
4	CURVE #1 PLAN SHEET
5	CURVE #1 PROFILE
6	CURVE #1 CROSS SECTIONS
7	CURVE #2 PLAN SHEET
8	CURVE #3 PLAN SHEET
9	MAINTENANCE OF TRAFFIC
10-11	CONSTRUCTION DETAILS



NEW MILTON AND OXFORD
 SOUTHWEST QUADRANGLE
 WEST VIRGINIA
 7.5 MINUTE SERIES



MISS Utility of West Virginia
 1-800-245-4848
 West Virginia State Law
 (Section XIV, Chapter 24-C)
 Requires that you call two
 business days before you dig in
 the state of West Virginia.
IT'S THE LAW!

LEGEND			
EX. INDEX CONTOUR		PROP. INDEX CONTOUR	
EX. INTERMEDIATE CONTOUR		PROP. INTERMEDIATE CONTOUR	
EX. BOUNDARY LINE		PROP. CUT LINE	
EX. EDGE OF ROAD PAVEMENT		PROP. FILL LINE	
EX. GUARDRAIL		PROP. LIMITS OF DISTURBANCE	
EX. FENCELINE		PROP. ROAD CENTERLINE	
EX. GATE		PROP. FLAT BOTTOM DITCH WITH CHECK DAMS	
EX. OVERHEAD UTILITY		PROP. V-DITCH WITH CHECK DAMS	
EX. OVERHEAD UTILITY R/W		PROP. CULVERT	
EX. UTILITY POLE		PROP. RIP-RAP OUTLET PROTECTION	
EX. GUY WIRE		PROP. RIP-RAP INLET PROTECTION	
EX. TELEPHONE LINE		PROP. COMPOST FILTERSOCK	
EX. GASLINE		PROP. CHECK DAM	
EX. GASLINE R/W		PROP. TREELINE	
EX. WATERLINE		PROP. ROCK CONSTRUCTION ENTRANCE	
EX. WATER WELL		X-SECTION GRID INDEX	
EX. GAS WELL		X-SECTION GRID INTERMEDIATE	
EX. TREELINE		X-SECTION PROPOSED GRADE	
EX. REFERENCE TREE		X-SECTION EXISTING GRADE	
EX. DELINEATED STREAM			
EX. DELINEATED WETLAND			
EX. BUILDING			
EX. WVDOT RIGHT OF WAY			

OPERATOR

CNX GAS COMPANY, LLC
 OPERATOR ID: 494458046
 P.O. BOX 1248
 JANE LEW, WV 26378
 PHONE: (304)889-2009

ENGINEER

STANTEC CONSULTING, INC.
 111 ELKINS STREET
 FAIRMONT, WV 26554
 PHONE: (304) 367-9401

SURVEYOR

SMITH LAND SURVEYING, INC.
 PO BOX 150
 12 VANHORN DRIVE
 GLENVILLE, WV 26351
 PHONE: (304) 462-5634

CO. ROUTE 40
 TEMPORARY CURVE WIDENING
 IMPROVEMENTS
TITLE SHEET
 SOUTHWEST DISTRICT
 DODDRIDGE COUNTY, WV

DATE: 07/22/2014

SCALE: AS SHOWN

DESIGNED BY: CSH

FILE NO: SLS-8258

SHEET 1 OF 11

REV:

Professional Energy Consultants
 A DIVISION OF SMITH LAND SURVEYING
SLS
 SURVEYORS
 PROJECT MGMT.
 ENGINEERS
 ENVIRONMENTAL
 228 West Main St.
 Fairmont, WV 26554
 (304) 367-9401
 HONESTY, INTEGRITY, QUALITY



THIS DOCUMENT WAS
 PREPARED BY:
 STANTEC
 FOR:
 CNX GAS COMPANY, LLC

Stantec
 111 ELKINS STREET
 FAIRMONT, WV 26554
 PHONE: 304-367-9401

7/22/2014
 WORKSPACE.DWG
 11/20/2012 7:51:37 AM
 CR 40 CIVIL PLAN IMPROVEMENTS.VP ES:1372est.tbl.dwg

7/24/2014 7:24:28 AM U:\2012\705137\Proje\Task_132_CNX CR 40\Civil\Plan_Sheets\TURN IMPROVEMENTS\p15\1372e.dgn
U:\2012\705137\Proje\Task_132_CNX CR 40\Civil\Plan_Sheets\TURN IMPROVEMENTS\p15\1372e.dgn
ENERGY 2013 Color Plot Black IBL Pen 001 Full Size PDF.plt

CONSTRUCTION NOTES

1. THE CONTRACTOR IS TO VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND WILL NOTIFY STANTEC AT (304) 367-9401 OR SMITH LAND SURVEYING AT (304) 462-5634 IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLAN. ANY WORK PERFORMED BY THE CONTRACTOR AFTER THE FINDING OF SUCH DISCREPANCIES, SHALL BE DONE AT THE CONTRACTOR'S RISK.
2. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS HEREIN SHALL CONFORM TO THE CURRENT COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR CURRENT WVDEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL STANDARDS AND SPECIFICATIONS. SHOULD A CONFLICT BETWEEN THE DESIGN, SPECIFICATIONS, AND PLANS OCCUR, THE MOST STRINGENT REQUIREMENT WILL APPLY. THE APPROVAL OF THESE PLANS IN NO WAY RELIEVES THE DEVELOPER OR HIS AGENT OF THE RESPONSIBILITIES CONTAINED IN THE WVDEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.
3. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. ALSO, A REPRESENTATIVE OF THE DEVELOPER MUST BE AVAILABLE AT ALL TIMES.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST, AND TO TAKE WHATEVER MEASURES ARE NECESSARY TO ENSURE THAT THE STREETS ARE MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES.
5. THE LOCATION OF EXISTING UTILITIES SHOWN IN THESE PLANS ARE FROM FIELD LOCATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES AS NEEDED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY CONFLICTS ARISING FROM HIS EXISTING UTILITY VERIFICATION AND THE PROPOSED CONSTRUCTION.
6. THE CONTRACTOR SHALL PROVIDE NOTIFICATION TO THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION OF WATER AND/OR GAS PIPE LINES. INFORMATION SHOULD ALSO BE OBTAINED FROM THE APPROPRIATE AUTHORITY CONCERNING PERMITS, CUT SHEETS, AND CONNECTIONS TO EXISTING LINES.
7. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE EXISTING STREETS AND UTILITIES WHICH OCCURS AS A RESULT OF HIS CONSTRUCTION PROJECT WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
8. WHEN GRADING IS PROPOSED WITHIN EASEMENTS OF UTILITIES, LETTERS OF PERMISSION FROM ALL INVOLVED COMPANIES MUST BE OBTAINED PRIOR TO GRADING AND/OR SITE DEVELOPMENT.
9. THE DEVELOPER WILL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITIES WHICH IS REQUIRED AS A RESULT OF HIS PROJECT. THE RELOCATION SHOULD BE DONE PRIOR TO CONSTRUCTION.
10. THESE PLANS IDENTIFY THE LOCATION OF ALL KNOWN GRAVE SITES. GRAVE SITES SHOWN ON THIS PLAN WILL BE PROTECTED IN ACCORDANCE WITH STATE LAW. IN THE EVENT GRAVE SITES ARE DISCOVERED DURING CONSTRUCTION, THE OWNER AND ENGINEER MUST BE NOTIFIED IMMEDIATELY.
11. THE CONTRACTOR(S) SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATING OR BLASTING AT LEAST TWO (2) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATING OR DEMOLITION.
12. THE CONTRACTOR IS TO CONTACT THE OPERATOR AND ENGINEER IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION. THE ENGINEER OR SURVEYOR IS NOT RESPONSIBLE FOR ANY BURIED WATER WELLS, SPRINGS OR ANY OTHER FEATURES UNCOVERED DURING CONSTRUCTION.
13. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE EROSION AND SEDIMENT CONTROL INSPECTOR TWO DAYS PRIOR TO THE START OF CONSTRUCTION.
14. THE CONTRACTOR IS RESPONSIBLE FOR ALL FILL MATERIAL TESTING REQUIRED DURING THE CONSTRUCTION OF THIS PROJECT. ALL MATERIAL TESTS SHALL BE CONDUCTED BY A CERTIFIED MATERIALS TESTING LABORATORY AND A CERTIFICATION OF THE MATERIALS TESTED SHALL BE PROVIDED BY A LICENSED PROFESSIONAL ENGINEER REPRESENTING THE LABORATORY. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER CERTIFYING THE CONSTRUCTED FACILITY. FAILURE TO CONDUCT THE DENSITY TEST SHALL BE CAUSE FOR NON-ACCEPTANCE OF THE CONSTRUCTED FACILITY.
15. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE SITE IN ACCORDANCE WITH THE DESIGN PLANS AND CONSTRUCTION DOCUMENTS AND THE SCOPE OF WORK SHALL CONFORM WITH THE GRADES, BERMS, DEPTHS, DIMENSIONS, ETC. SHOWN HEREON.

MAINTENANCE PROGRAM

1. BMPS WILL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH MEASURE ABLE RAINFALL EVENT DURING THE ACTIVE CONSTRUCTION PHASE OF THE PROJECT.
2. ALL REVEGETATED ACCESS ROADS AND FACILITIES ARE TO BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
3. CULVERTS, ROAD DITCHES, BROAD-BASED DIPS, DIVERSION DITCHES, AND ROCK CHECK DAMS MUST BE MAINTAINED IN PROPER WORKING ORDER AND WILL BE CLEANED OUT, REPAIRED, OR REPLACED AS NECESSARY.
4. SEDIMENT SHOULD BE REMOVED FROM COMPOST FILTER SOCK WHERE ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FILTER SOCK. REPLACE SECTIONS OF FAILED FILTER SOCK IMMEDIATELY. REMOVE ENTIRE FILTER SOCK UPON COMPLETION OF PROJECT AND ESTABLISHMENT OF VEGETATIVE GROWTH.
5. ALL AREAS OF EARTH DISTURBANCE WILL BE REPAIRED WHERE SIGNS OF ACCELERATED EROSION ARE DETECTED.
6. SEEDING AND MULCHING WILL BE REPEATED IN THOSE AREAS THAT APPEAR TO BE FAILING OR HAVE FAILED.

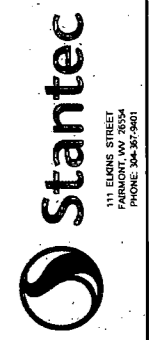
CONSTRUCTION SEQUENCE

THE DEVELOPMENT OF THE SITE SHALL BE CONSISTENT WITH THE FOLLOWING GENERAL SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT, MAINTAIN, AND OPERATE ALL PROPOSED EROSION AND SEDIMENT CONTROL MEASURES TO EFFECTIVELY MITIGATE THE HAZARD OF ACCELERATED EROSION AND SEDIMENTATION TO ACCEPTABLE LEVELS. MINOR DEVIATIONS FROM THIS SEQUENCE SHALL BE EXECUTED BY THE PROJECT'S SUPERINTENDENT AS NEEDED TO ELIMINATE ANY POTENTIAL EROSION CONDITION THAT MAY ARISE FOR THE DURATION OF THE PROJECT. THE WVDEP OFFICE OF OIL AND GAS SHALL BE NOTIFIED OF ANY AND ALL SUCH DEVIATIONS FROM THE APPROVED PLANS.

1. HOLD A PRE-CONSTRUCTION CONFERENCE WITH THE CONTRACTOR AND THE APPROPRIATE EROSION AND SEDIMENT CONTROL INSPECTOR 48 HOURS PRIOR TO BEGINNING WORK TO REVIEW THE CONSTRUCTION DRAWING AND PROVIDE ANY REQUESTED GUIDANCE.
2. STAKE THE LIMITS OF CONSTRUCTION.
3. INSTALL ANY ROCK CONSTRUCTION ENTRANCES AS SHOWN ON THE PLANS.
4. INSTALL ALL BMPS NECESSARY TO BEGIN CLEARING AND GRUBBING OF THE SITE AS SHOWN ON THE PLANS AND DETAILS.
5. CLEAR AND GRUB THE PROPOSED ROAD IMPROVEMENT AREA. ALL WOODY MATERIAL, BRUSH, TREES, STUMPS, LARGE ROOTS, BOULDERS, AND DEBRIS SHALL BE CLEARED FROM THE SITE AREA AND KEPT TO THE MINIMUM NECESSARY FOR PROPER CONSTRUCTION, INCLUDING THE INSTALLATION OF ANY NECESSARY SEDIMENT CONTROLS. TREES SIX INCHES IN DIAMETER AND LARGER SHALL BE CUT AND LOGS STACKED. SMALLER TREES, BRUSH, AND STUMPS SHALL BE CUT AND/OR GRUBBED AND WINDROWED IN APPROPRIATE AREAS FOR USE AS SEDIMENT BARRIERS AT WATER DRAINAGE OUTLETS, USED FOR WILDLIFE HABITAT, BURNED (AS PER WV FOREST FIRE LAWS), REMOVED FROM THE SITE, OR DISPOSED OF BY OTHER METHODS APPROVED BY DEP.
6. STRIP THE TOPSOIL FROM THE ROAD IMPROVEMENT AREAS. ALL STRIPPED TOPSOIL SHALL BE STOCKPILED ON AREAS SHOWN ON THE PLANS AND IMMEDIATELY STABILIZED. ADDITIONAL BMP MEASURES SHALL BE CONSTRUCTED AROUND TOPSOIL STOCKPILES, IF NECESSARY.
7. CONDUCT ROAD IMPROVEMENTS, PROPOSED CROSS CULVERTS AND ROAD SIDE DITCHES. AS FILL SLOPES ARE CONSTRUCTED, INSTALL SLOPE INTERRUPTION COMPOST FILTER SOCK AS LABELED ON THE PLANS AND SHOWN ON THE DETAILS.
8. INSTALL DITCH RELIEF CULVERTS AT A MINIMUM SLOPE OF 1% AND APPROXIMATELY 30 DEGREES DOWNGRADE TO THE CENTERLINE OF THE DITCH. INSTALL OUTLET PROTECTION AS SHOWN ON PLANS AND DETAILS AS CROSS CULVERTS ARE INSTALLED AND IMMEDIATELY STABILIZE ROAD SIDE DITCHES WITH ROCK. STABILIZE THE ROAD WITH GEOTEXTILE FABRIC AND STONE AND SIDE SLOPES AS SPECIFIED WITH PERMANENT SEEDING. STOCKPILE AND STABILIZE EXCESS MATERIAL ALONG THE ACCESS ROAD, AS NEEDED.
9. ALL DITCH LINES SHALL BE CLEANED PRIOR TO INSTALLATION OF LINED PROTECTION. ALL DITCHES SHALL BE ROCK LINED WITH D50 = 6" MIN. SIZED RIPRAP UNLESS SPECIFIED OTHERWISE.
10. FINALIZE GRADING OF CO. ROUTE 40. STABILIZE ALL SIDE SLOPES WITH COCONUT EROSION CONTROL BLANKETS. APPLY SEED AND MULCH TO ALL DISTURBED AREAS. THIS SHALL BE INCLUDED IN ALL AREAS THAT WILL NOT BE SUBJECT TO REGULAR TRAFFIC ACTIVITY (TO BE STABILIZED WITH STONE), OR ANY DISTURBED AREA THAT WILL NOT BE RE-DISTURBED BEFORE SITE RECLAMATION BEGINS.
11. PREVIOUSLY DISTURBED AREAS AND IMMEDIATE DOWN SLOPE AREAS SHALL BE INSPECTED AFTER EACH RAINFALL STORM EVENT AND MONITORED WEEKLY FOR SIGNS OF ACCELERATED EROSION. IMPLEMENT ADDITIONAL BMPS AS DEEMED NECESSARY. THESE INSPECTIONS SHALL CONTINUE DURING THE DURATION OF THE PROJECT AND SUBSEQUENT SITE RECLAMATION.
12. ONCE DISTURBED AREAS HAVE BEEN RE-VEGETATED AND STABILIZED FOLLOWING RECLAMATION, THE TEMPORARY BMPS IN THOSE AREAS MAY BE REMOVED. CONTINUE TO MONITOR THESE AREAS TO ENSURE A UNIFORM RATE OF 70% VEGETATIVE COVERAGE IS MAINTAINED. ANY AREAS FOUND TO BE DEFICIENT SHALL BE RE-SEEDING AND MULCHED.

SITE CLEANUP & RECYCLE PROGRAM

1. GARBAGE, FUELS OR ANY SUBSTANCE HARMFUL TO HUMAN, AQUATIC OR FISH LIFE, WILL BE PREVENTED FROM ENTERING SPRINGS, STREAMS, PONDS, LAKES, WETLANDS OR ANY WATER COURSE OR WATER BODY.
2. OILS, FUELS, LUBRICANTS AND COOLANTS WILL BE PLACED IN SUITABLE CONTAINERS AND DISPOSED PROPERLY.
3. ALL TRASH AND GARBAGE WILL BE COLLECTED AND DISPOSED PROPERLY.
4. ALL SEDIMENT REMOVED FROM SEDIMENT CAPTURING DEVICES SHALL BE PLACED ON THE TOPSOIL STOCKPILE, THEN SEEDING AND MULCHED, AS NECESSARY. ALTERNATIVELY, THE REMOVED SEDIMENT CAN BE TRANSPORTED TO A SITE WITH AN APPROVED PERMIT.



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CO. ROUTE 40
TEMPORARY CURVE WIDENING
IMPROVEMENTS
GENERAL NOTES
SOUTHWEST DISTRICT
DODD BRIDGE COUNTY, WV

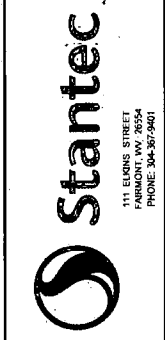
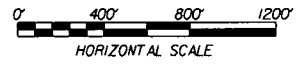
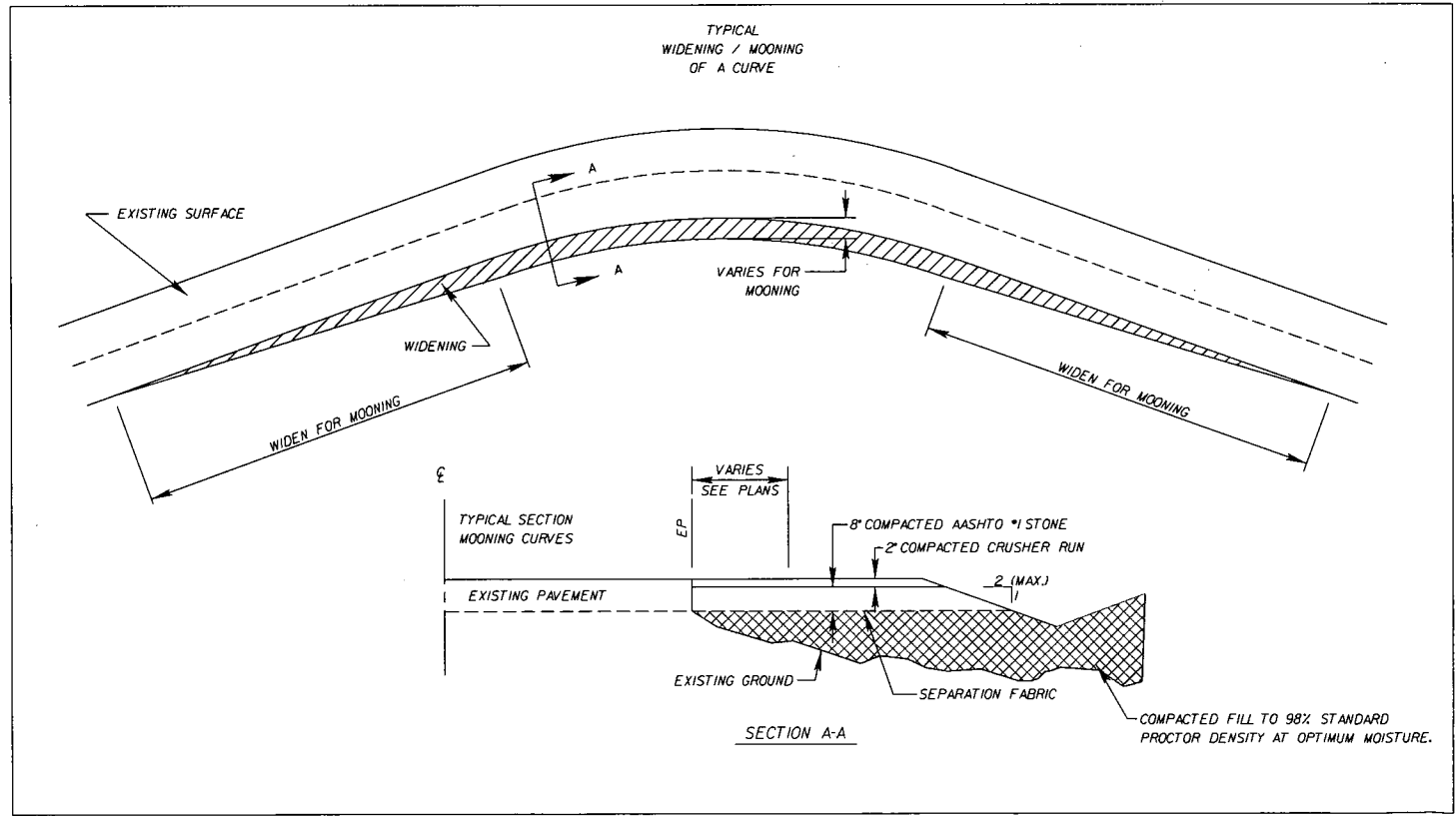
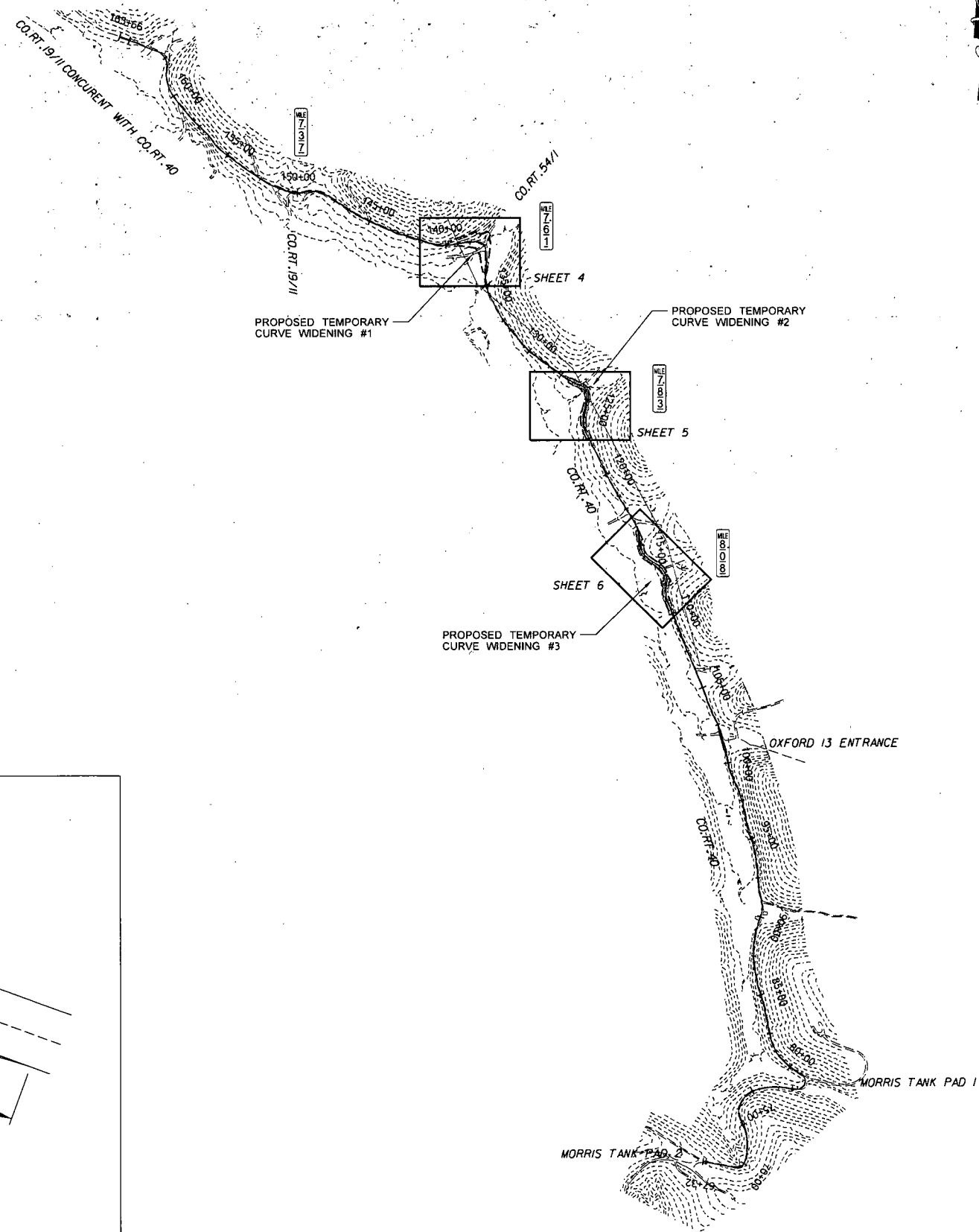
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SCALE: AS SHOWN
DESIGNED BY: CSH
FILE NO.: SLS-8258
SHEET 2 OF 11
REV:

Energy 2013
 Color Plot
 Pen: 0.175
 Plot Size: 20" x 31"

NOTES: ALL WORK OUTSIDE OF DOH RIGHT OF WAYS IS TO BE RECLAIMED BACK TO ORIGINAL CONDITION ONCE DRILLING ACTIVITIES ARE COMPLETED.

MILE POST ARE BASED ON PERMIT # _____

STATIONS ARE NOT BASED ON MILE MARKERS



Professional Energy Consultants
 A Division of Stantec Services Inc.
SLS
 Engineers
 Environmental
 Surveyors
 Product Mgmt.
 225 West Main St.
 Columbus, IN 47311
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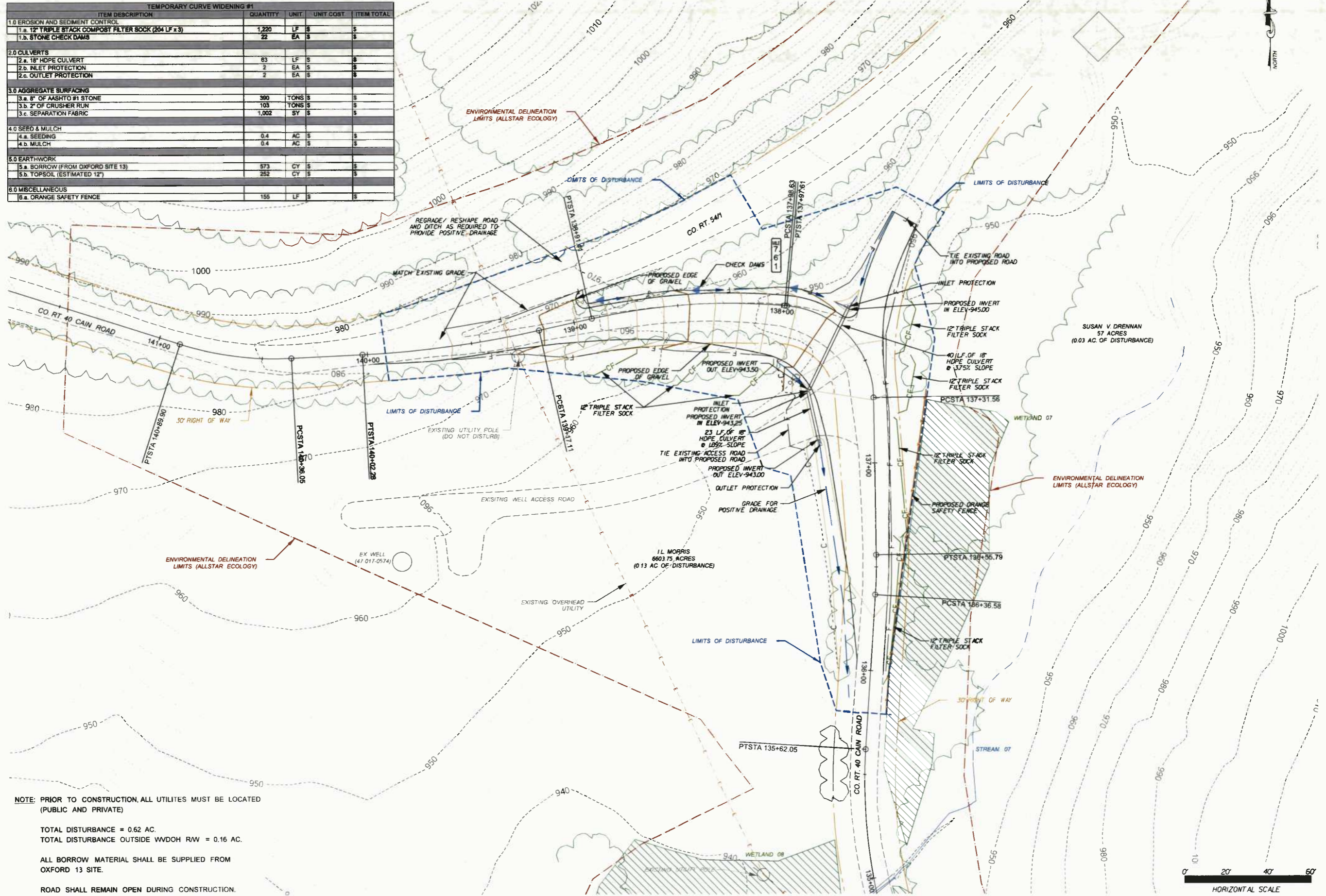
CO. ROUTE 40
 TEMPORARY CURVE WIDENING
 IMPROVEMENTS
SHEET LAYOUT
 SOUTHWEST DISTRICT
 DODDRIIDGE COUNTY, IN

DATE: 07/22/2014
 SCALE: AS SHOWN
 DESIGNED BY: CSH
 FILE NO.: SLS-8258
 SHEET 3 OF 11
 REV:

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TEMPORARY CURVE WIDENING #1

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	ITEM TOTAL
1.0 EROSION AND SEDIMENT CONTROL				
1.a. 12" TRIPLE STACK COMPOST FILTER SOCK (204 LF x 3)	1,220	LF	\$	\$
1.b. STONE CHECK DAMS	22	EA	\$	\$
2.0 CULVERTS				
2.a. 18" HDPE CULVERT	83	LF	\$	\$
2.b. INLET PROTECTION	2	EA	\$	\$
2.c. OUTLET PROTECTION	2	EA	\$	\$
3.0 AGGREGATE SURFACING				
3.a. 8" OF ASHTO #1 STONE	390	TONS	\$	\$
3.b. 2" OF CRUSHER RUN	103	TONS	\$	\$
3.c. SEPARATION FABRIC	1,002	SY	\$	\$
4.0 SEED & MULCH				
4.a. SEEDING	0.4	AC	\$	\$
4.b. MULCH	0.4	AC	\$	\$
5.0 EARTHWORK				
5.a. BORROW (FROM OXFORD SITE 13)	573	CY	\$	\$
5.b. TOPSOIL (ESTIMATED 12")	252	CY	\$	\$
6.0 MISCELLANEOUS				
6.a. ORANGE SAFETY FENCE	155	LF	\$	\$

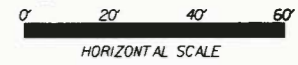


NOTE: PRIOR TO CONSTRUCTION, ALL UTILITIES MUST BE LOCATED (PUBLIC AND PRIVATE)

TOTAL DISTURBANCE = 0.62 AC.
 TOTAL DISTURBANCE OUTSIDE WDOH RW = 0.16 AC.

ALL BORROW MATERIAL SHALL BE SUPPLIED FROM OXFORD 13 SITE.

ROAD SHALL REMAIN OPEN DURING CONSTRUCTION.



SLS
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 228 West 4th St.
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 (417) 821-1811



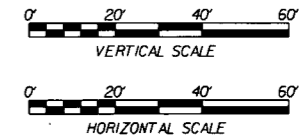
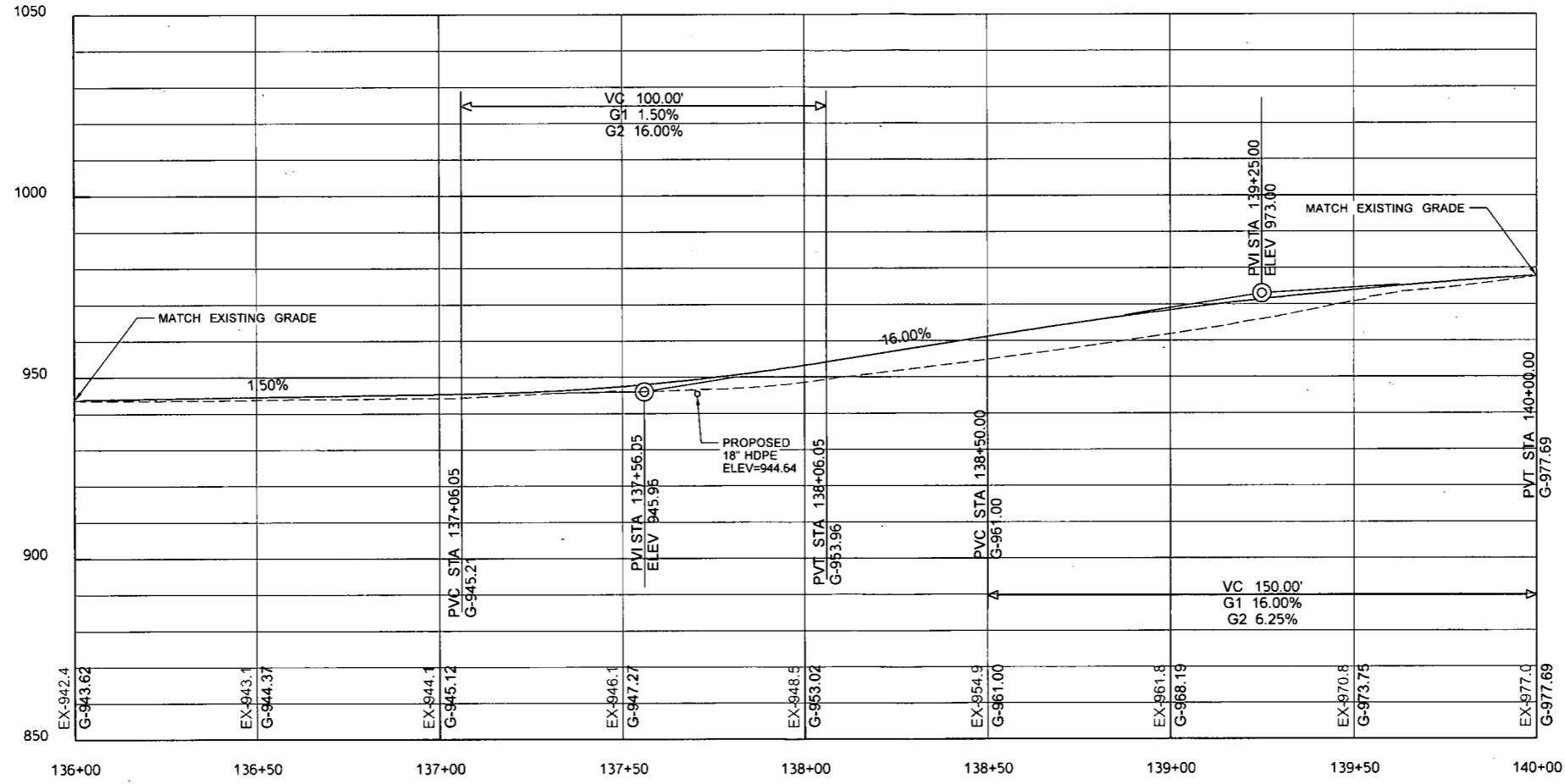
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CO. ROUTE 40
 TEMPORARY CURVE WIDENING
 IMPROVEMENTS
 PLAN SHEET
 SOUTHWEST DISTRICT
 DODDGEVILLE COUNTY, MO

DATE: 07/22/2014
 SCALE: AS SHOWN
 DESIGNED BY: CSH
 FILE NO: SLS-8258
 SHEET 4 OF 11
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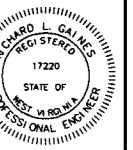


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 SLS
 220 West Main St.
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 Parkersburg, WV 26101
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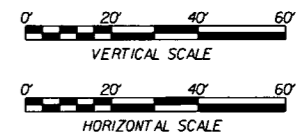
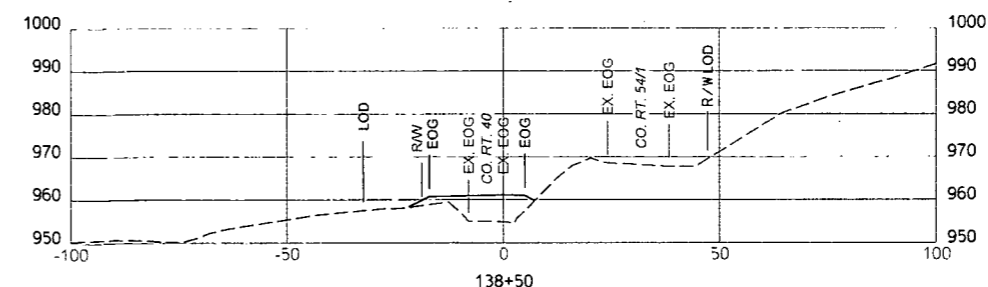
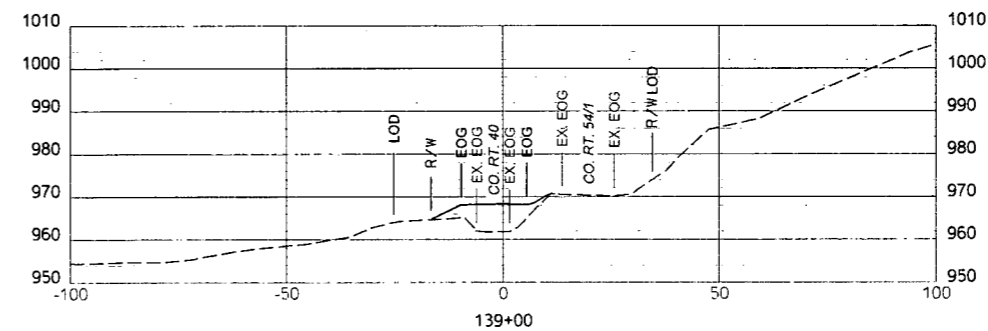
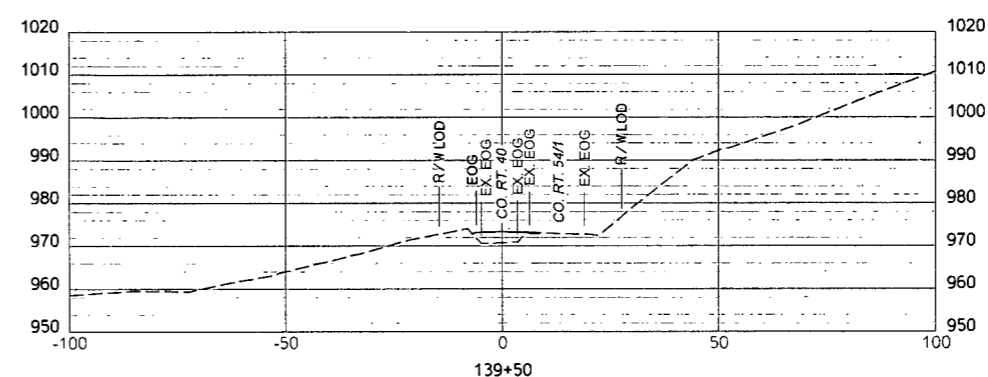
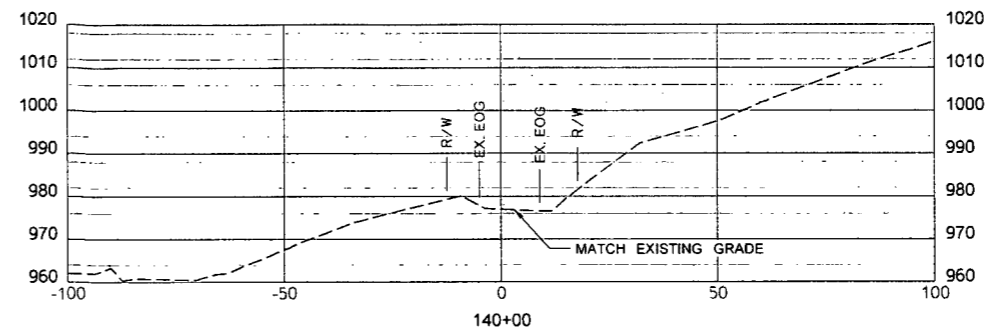
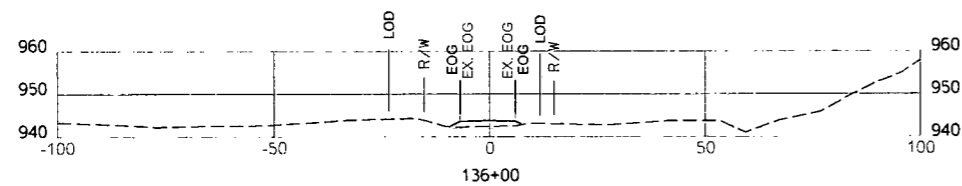
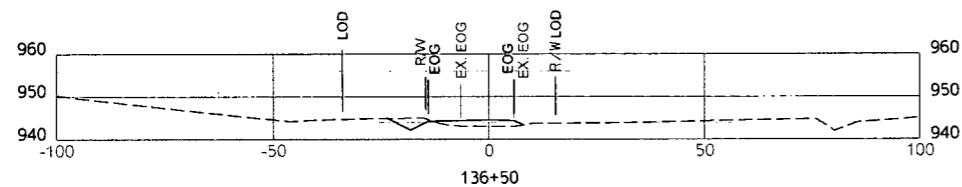
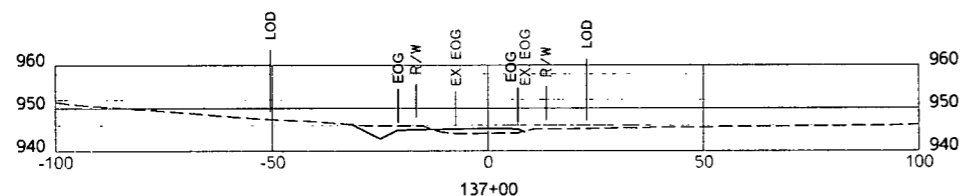
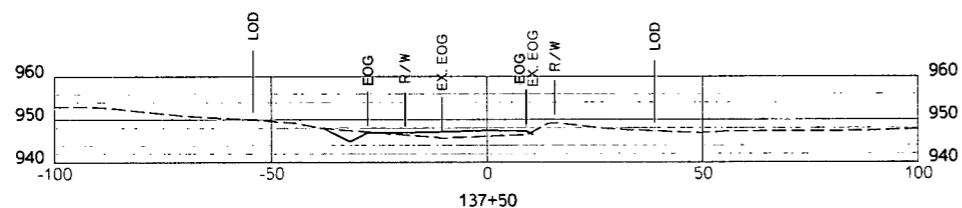
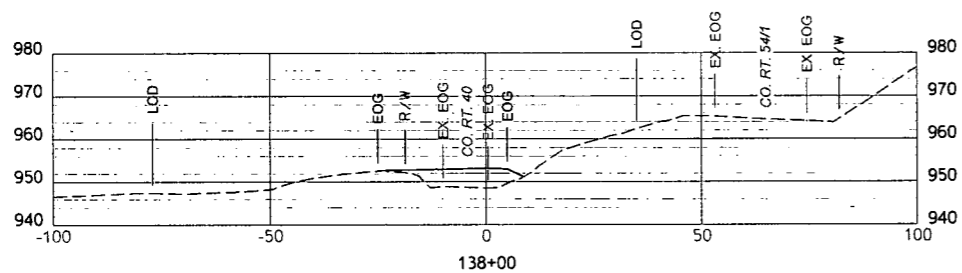


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CO. ROUTE 40
 TEMPORARY CURVE WIDENING
 IMPROVEMENTS
 PROFILE SHEET
 SOUTHWEST DISTRICT,
 DODDRIIDGE COUNTY, WV

DATE: 07/22/2014
 SCALE: AS SHOWN
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 FILE NO: SLS-8258
 SHEET 5 OF 11
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TEMPORARY CURVE WIDENING #1 CROSS SECTIONS



Professional Energy Consultants
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225 West Lake St.
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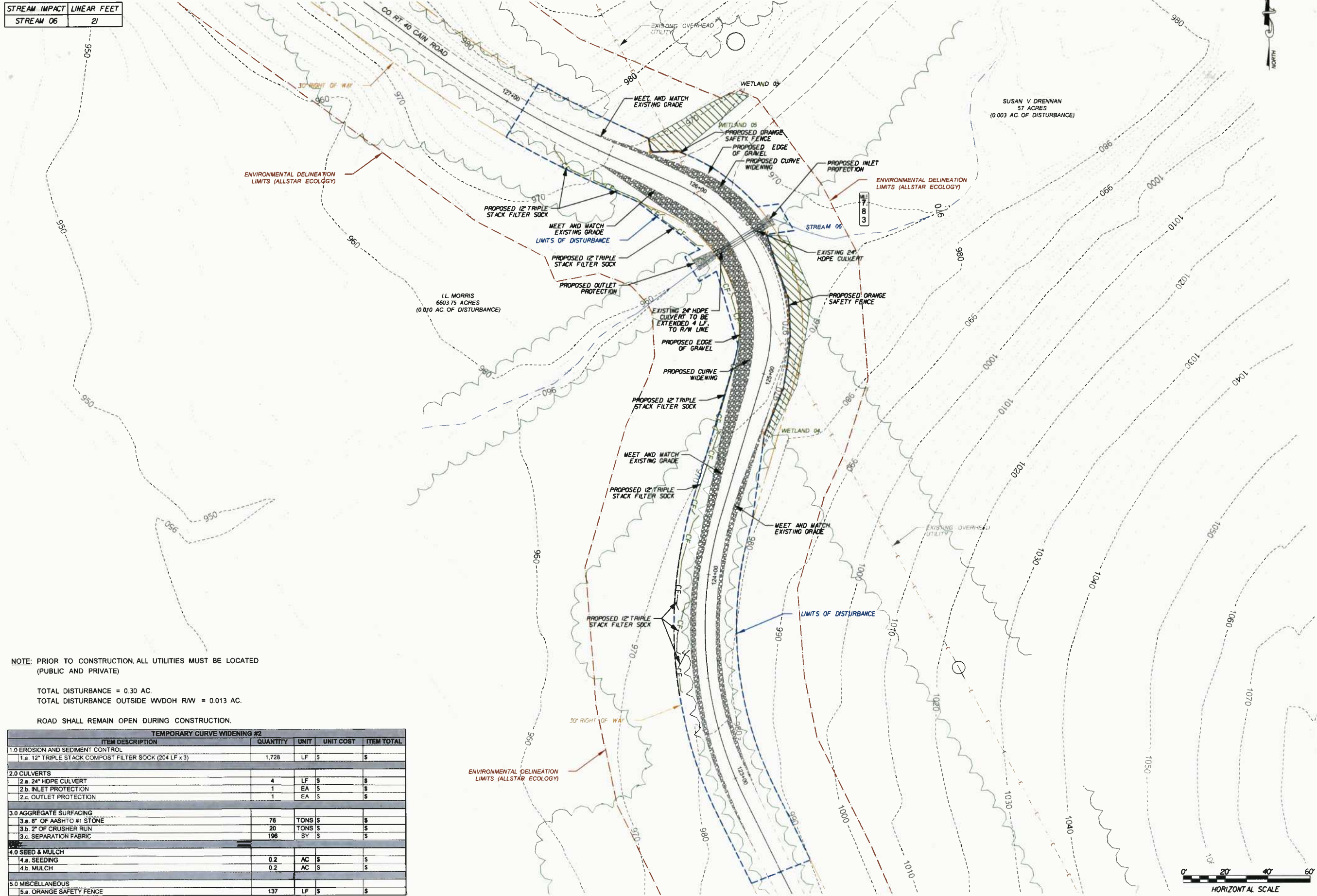
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FOR:
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CO. ROUTE 40
TEMPORARY CURVE WIDENING
IMPROVEMENTS
CROSS SECTION SHEET
SOUTHWEST DISTRICT
DODDRIIDGE COUNTY, MO

DATE: 07/22/2014
SCALE: AS SHOWN
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FILE NO: SLS-8258
SHEET 6 OF 11
REV:

TEMPORARY CURVE WIDENING #2

STREAM IMPACT	LINEAR FEET
STREAM 06	21



NOTE: PRIOR TO CONSTRUCTION, ALL UTILITIES MUST BE LOCATED (PUBLIC AND PRIVATE)

TOTAL DISTURBANCE = 0.30 AC.
 TOTAL DISTURBANCE OUTSIDE WDOH RW = 0.013 AC.

ROAD SHALL REMAIN OPEN DURING CONSTRUCTION.

TEMPORARY CURVE WIDENING #2				
ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	ITEM TOTAL
1.0 EROSION AND SEDIMENT CONTROL				
1.a. 12" TRIPLE STACK COMPOST FILTER SOCK (204 LF x 3)	1,728	LF	\$	\$
2.0 CULVERTS				
2.a. 24" HDPE CULVERT	4	LF	\$	\$
2.b. INLET PROTECTION	1	EA	\$	\$
2.c. OUTLET PROTECTION	1	EA	\$	\$
3.0 AGGREGATE SURFACING				
3.a. 8" OF AASHTO #1 STONE	76	TONS	\$	\$
3.b. 2" OF CRUSHER RUN	20	TONS	\$	\$
3.c. SEPARATION FABRIC	196	SY	\$	\$
4.0 SEED & MULCH				
4.a. SEEDING	0.2	AC	\$	\$
4.b. MULCH	0.2	AC	\$	\$
5.0 MISCELLANEOUS				
5.a. ORANGE SAFETY FENCE	137	LF	\$	\$



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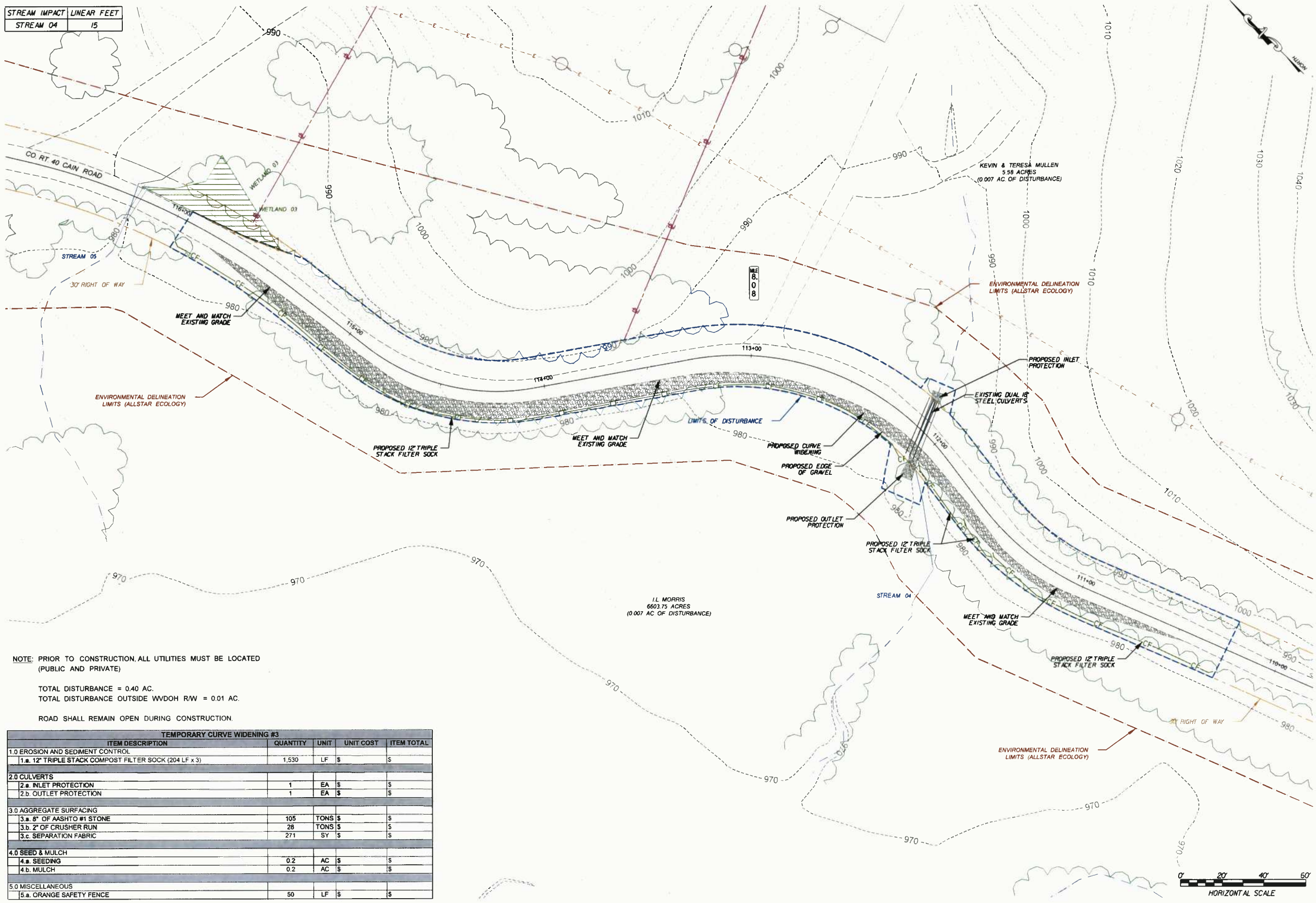
CO. ROUTE 40
 TEMPORARY CURVE WIDENING IMPROVEMENTS
PLAN SHEET
 SOUTHWEST DISTRICT
 DODDRIIDGE COUNTY, WV

DATE: 07/22/2014
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TEMPORARY CURVE WIDENING #3

STREAM IMPACT	LINEAR FEET
STREAM 04	15



NOTE: PRIOR TO CONSTRUCTION, ALL UTILITIES MUST BE LOCATED (PUBLIC AND PRIVATE)

TOTAL DISTURBANCE = 0.40 AC.
TOTAL DISTURBANCE OUTSIDE WDOH RW = 0.01 AC.

ROAD SHALL REMAIN OPEN DURING CONSTRUCTION.

TEMPORARY CURVE WIDENING #3				
ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	ITEM TOTAL
1.0 EROSION AND SEDIMENT CONTROL				
1.a. 12" TRIPLE STACK COMPOST FILTER SOCK (204 LF x 3)	1,530	LF	\$	\$
2.0 CULVERTS				
2.a. INLET PROTECTION	1	EA	\$	\$
2.b. OUTLET PROTECTION	1	EA	\$	\$
3.0 AGGREGATE SURFACING				
3.a. 8" OF AASHTO #1 STONE	105	TONS	\$	\$
3.b. 2" OF CRUSHER RUN	28	TONS	\$	\$
3.c. SEPARATION FABRIC	271	SY	\$	\$
4.0 SEED & MULCH				
4.a. SEEDING	0.2	AC	\$	\$
4.b. MULCH	0.2	AC	\$	\$
5.0 MISCELLANEOUS				
5.a. ORANGE SAFETY FENCE	50	LF	\$	\$

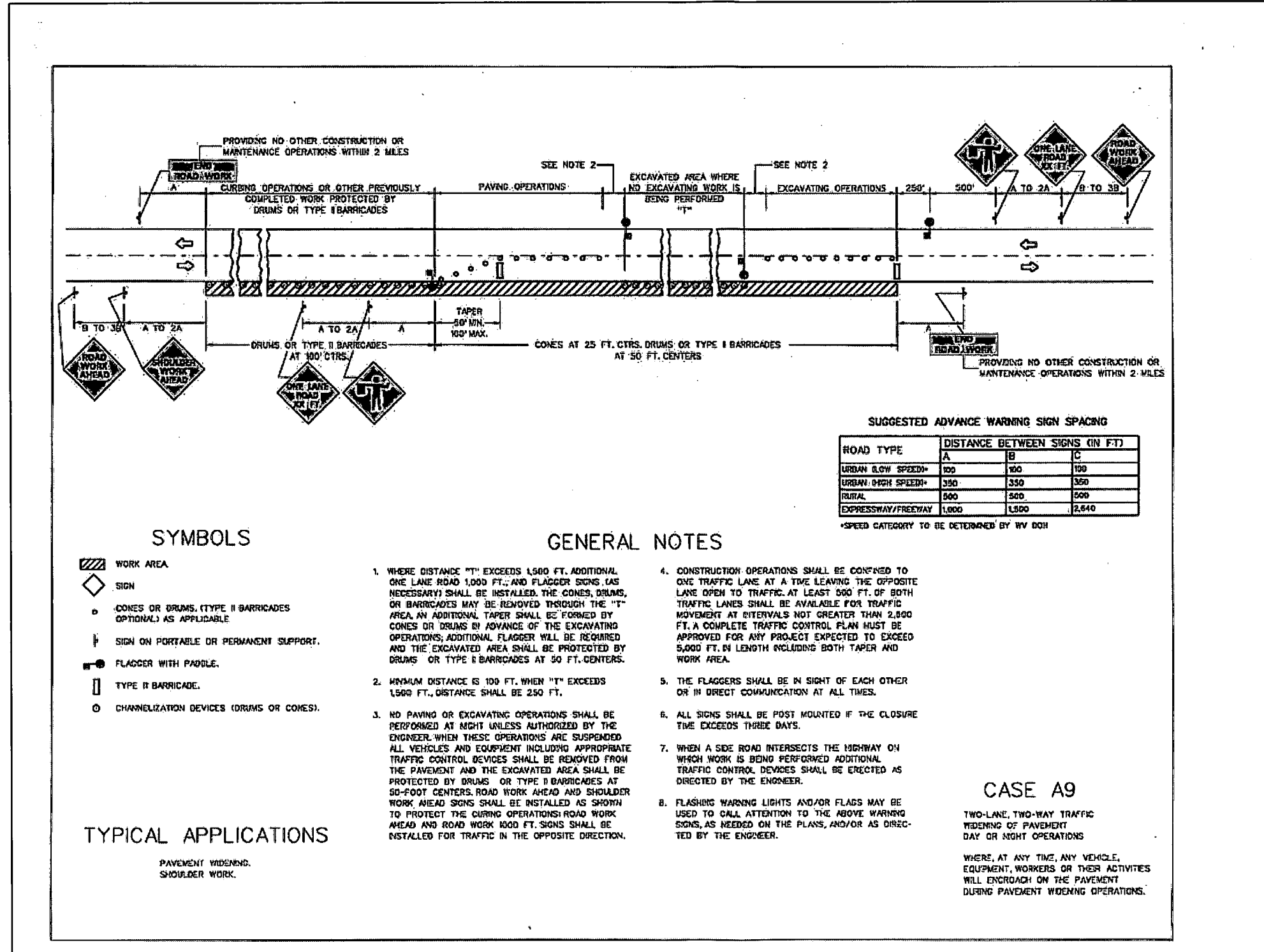


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CO. ROUTE 40
TEMPORARY CURVE WIDENING
IMPROVEMENTS
PLAN SHEET
SOUTHWEST DISTRICT
DODDRIIDGE COUNTY, WV

DATE: 07/22/2014
SCALE: AS SHOWN
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FILE NO: SLS-8258
SHEET 8 OF 11
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SUGGESTED ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS (IN FT.)		
	A	B	C
URBAN (LOW SPEED)*	100	100	100
URBAN (HIGH SPEED)*	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1,000	1,500	2,640

*SPEED CATEGORY TO BE DETERMINED BY WV DCH

- SYMBOLS**
- WORK AREA
 - SIGN
 - CONES OR DRUMS (TYPE II BARRICADES OPTIONAL) AS APPLICABLE
 - SIGN ON PORTABLE OR PERMANENT SUPPORT
 - FLAGGER WITH PADDLE
 - TYPE II BARRICADE
 - CHANNELIZATION DEVICES (DRUMS OR CONES)

- GENERAL NOTES**
- WHERE DISTANCE "T" EXCEEDS 1,500 FT., ADDITIONAL ONE LANE ROAD 1,000 FT. AND FLAGGER SIGNS (AS NECESSARY) SHALL BE INSTALLED. THE CONES, DRUMS, OR BARRICADES MAY BE REMOVED THROUGH THE "T" AREA, AN ADDITIONAL TAPER SHALL BE FORMED BY CONES OR DRUMS IN ADVANCE OF THE EXCAVATING OPERATIONS; ADDITIONAL FLAGGER WILL BE REQUIRED AND THE EXCAVATED AREA SHALL BE PROTECTED BY DRUMS OR TYPE II BARRICADES AT 50 FT. CENTERS.
 - MINIMUM DISTANCE IS 100 FT. WHEN "T" EXCEEDS 1,500 FT., DISTANCE SHALL BE 250 FT.
 - NO PAVING OR EXCAVATING OPERATIONS SHALL BE PERFORMED AT NIGHT UNLESS AUTHORIZED BY THE ENGINEER. WHEN THESE OPERATIONS ARE SUSPENDED ALL VEHICLES AND EQUIPMENT INCLUDING APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE PAVEMENT AND THE EXCAVATED AREA SHALL BE PROTECTED BY DRUMS OR TYPE II BARRICADES AT 50-FOOT CENTERS. ROAD WORK AHEAD AND SHOULDER WORK AHEAD SIGNS SHALL BE INSTALLED AS SHOWN TO PROTECT THE CURING OPERATIONS. ROAD WORK AHEAD AND ROAD WORK 1000 FT. SIGNS SHALL BE INSTALLED FOR TRAFFIC IN THE OPPOSITE DIRECTION.
 - CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE AT A TIME LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST 500 FT. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 2,500 FT. A COMPLETE TRAFFIC CONTROL PLAN MUST BE APPROVED FOR ANY PROJECT EXPECTED TO EXCEED 5,000 FT. IN LENGTH INCLUDING BOTH TAPER AND WORK AREA.
 - THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
 - ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS THREE DAYS.
 - WHEN A SIDE ROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERRECTED AS DIRECTED BY THE ENGINEER.
 - FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ABOVE WARNING SIGNS, AS NEEDED ON THE PLANS, AND/OR AS DIRECTED BY THE ENGINEER.

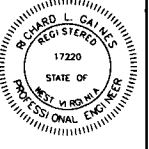
TYPICAL APPLICATIONS

PAVEMENT WIDENING
SHOULDER WORK

CASE A9

TWO-LANE, TWO-WAY TRAFFIC
WIDENING OF PAVEMENT
DAY OR NIGHT OPERATIONS

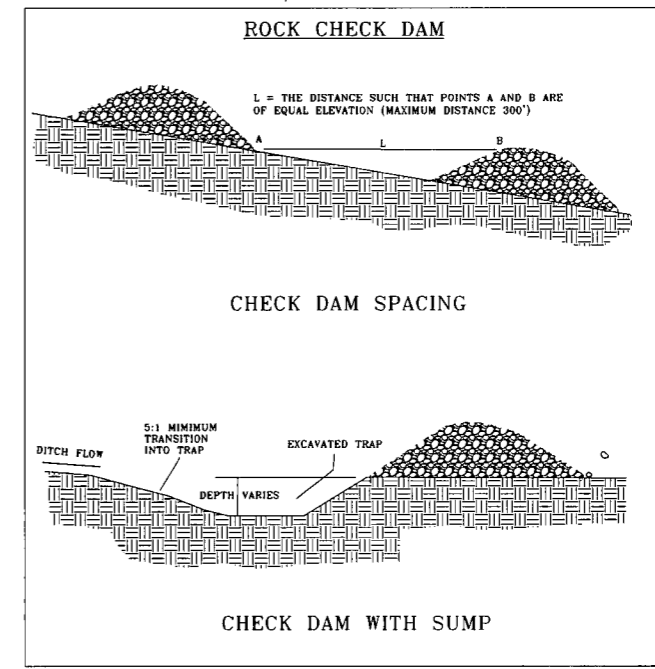
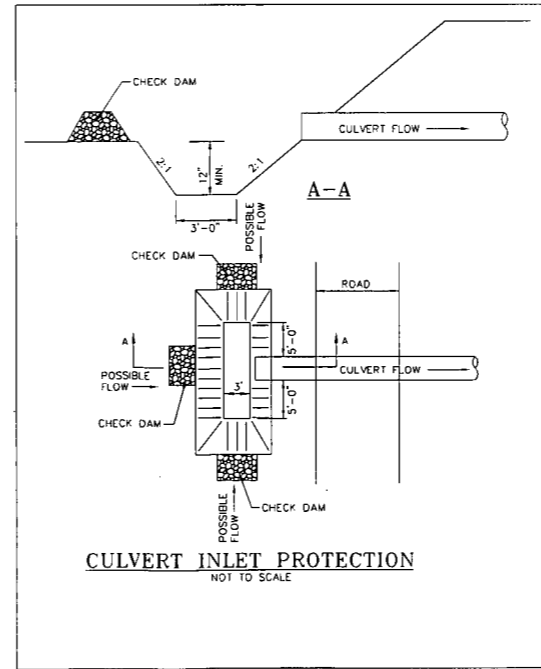
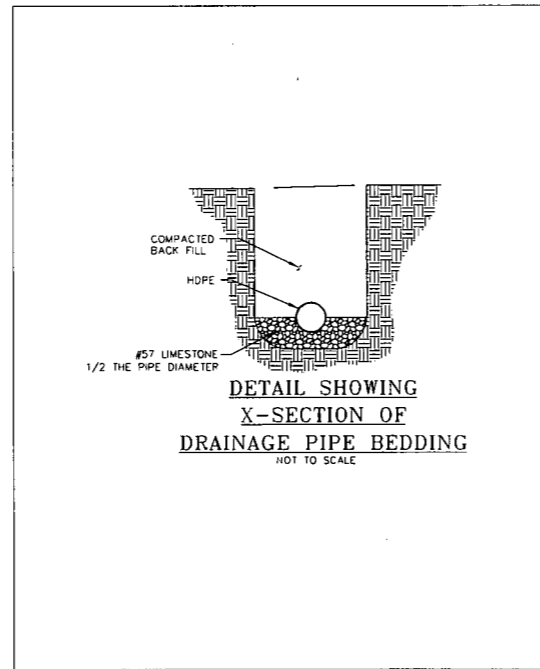
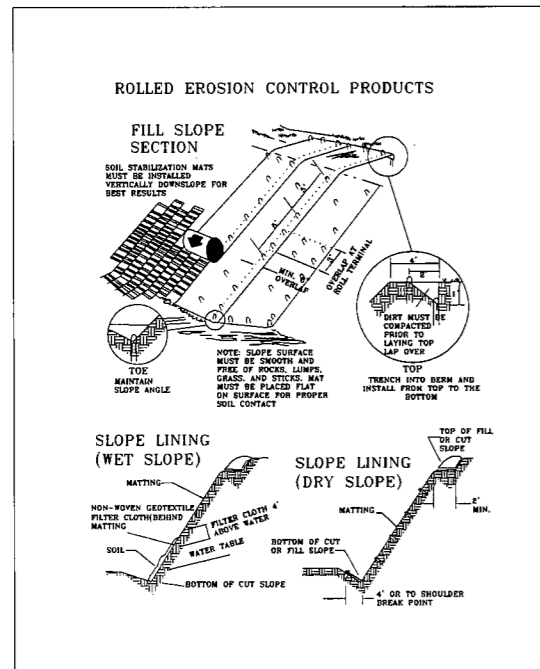
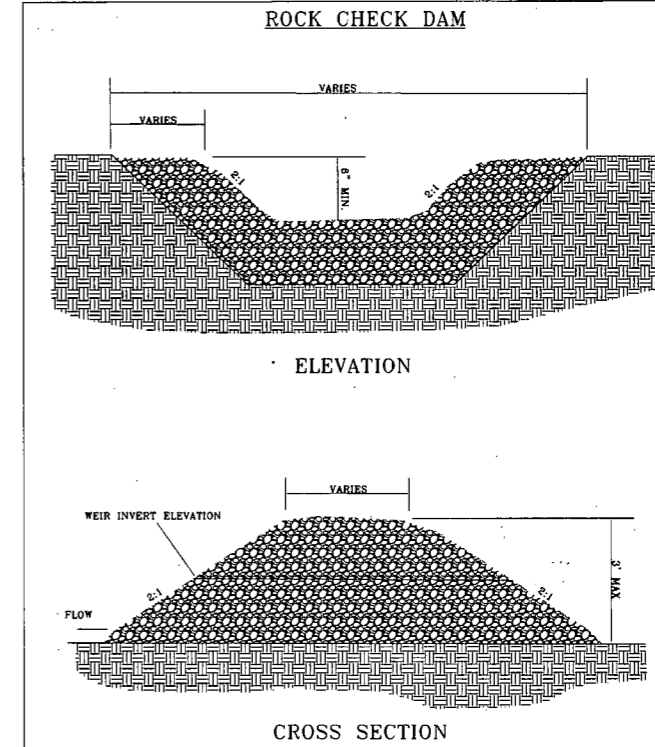
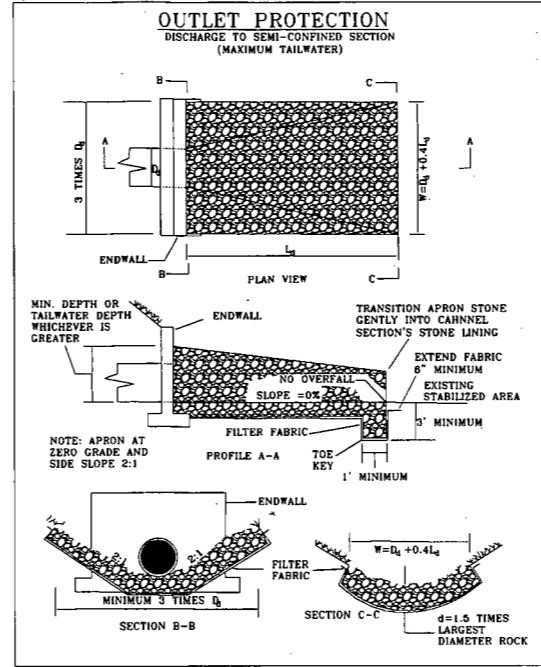
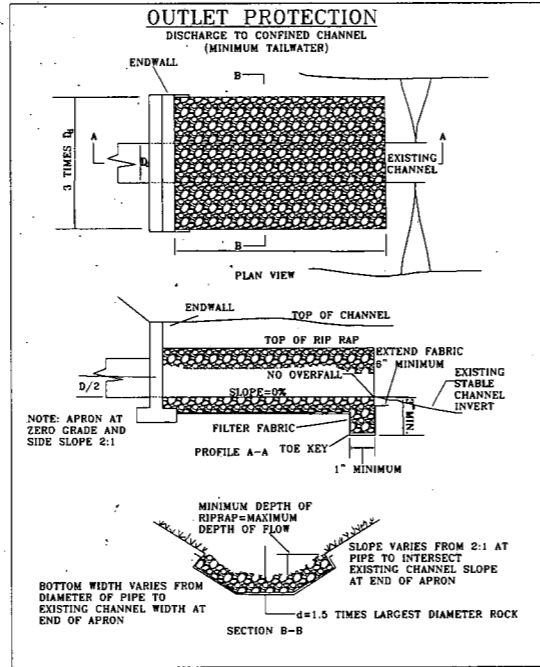
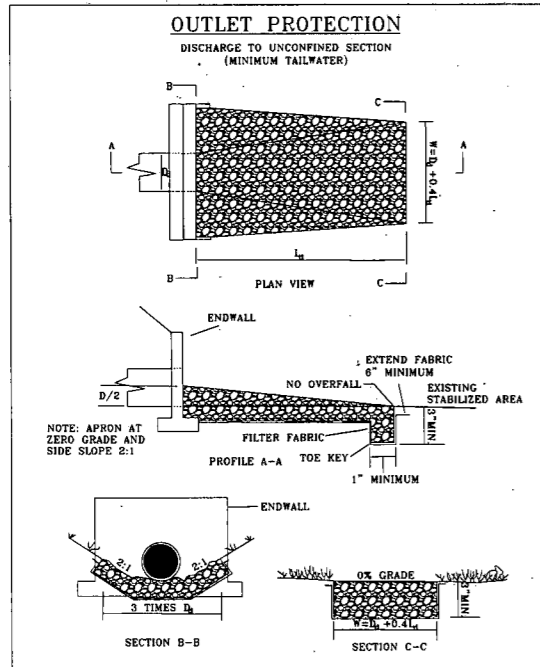
WHERE, AT ANY TIME, ANY VEHICLE,
EQUIPMENT, WORKERS OR THEIR ACTIVITIES
WILL ENCRDACH ON THE PAVEMENT
DURING PAVEMENT WIDENING OPERATIONS.



THIS DOCUMENT WAS
PREPARED BY:
STANTEC
FOR:
CNX GAS COMPANY, LLC

CO. ROUTE 40
TEMPORARY CURVE WIDENING
IMPROVEMENTS
MAINTENANCE OF TRAFFIC
SOUTHWEST DISTRICT
DODDRIIDGE COUNTY, WV

DATE: 07/22/2014
SCALE: AS SHOWN
DESIGNED BY: CSH
FILE NO.: SLS-8258
SHEET 9 OF 11
REV:



Professional Energy Consultants
A Division of Stantec Limited Liability Partnership

SLS
SUSTAINABLE SOLUTIONS
PRODUCT MGMT. ENGINEERING ENVIRONMENTAL

225 West Main St.
FARMINGTON, VT 05440
PHONE: 304-367-5401



THIS DOCUMENT WAS PREPARED BY: STANTEC FOR: CNX GAS COMPANY, LLC

CO. ROUTE 40
TEMPORARY CURVE WIDENING IMPROVEMENTS
CONSTRUCTION DETAILS
SOUTHWEST DISTRICT
DODDRIIDGE COUNTY, VT

DATE: 07/22/2014
SCALE: AS SHOWN
DESIGNED BY: CSH
FILE NO: SLS-8258
SHEET 10 OF 11
REV:

REVEGETATION

Taken from the
 West Virginia Erosion and Sediment Control Field Manual
 West Virginia Division of Environmental Protection Office of Oil and Gas
 Charleston, WV
 Section IV

Temporary Seeding

- General Conditions Where Practice Applies**
 Where exposed soil surfaces are not to be fine-graded or worked for periods longer than 21 days. Temporary vegetative cover with sediment controls must be established where runoff will go directly into a stream. Immediately upon construction of the site (this includes road and location), vegetation must be established on road bank and location slopes. A permanent vegetative cover shall be applied to areas that will be left unworked for a period of more than six months.
- Seed Mixtures and Planting Dates**
 Refer to Tables 2 through 4 for recommended dates to establish vegetative cover and the approved list of temporary and permanent plant species, and planting rates. Table 3 gives recommended types of temporary vegetation, rates of application, and optimum seeding dates. In situations where another cover is desired, contact the local soil conservation district for seeding recommendations.
- Seed Application**
 Apply seed by broadcasting, drilling, or by hydroseed according to the rates indicated in Table IV-1. Perform all planting operations at right angles to the slope. Necessary site preparation and tending of the soil surface should be done just prior to seeding. Seeded preparation may not be required on newly disturbed areas.

Permanent Seeding

- General**
 Permanent vegetative cover will be established where no further soil disturbance is anticipated or needed. Soil fertility and pH level should be tested and adjusted according to seed species planted. Planting of permanent vegetative covers must be performed on all disturbed areas after completion of the grading process. Any site that contains significant amounts of topsoil shall have the topsoil removed and stockpiled when feasible. Topsoil should not be added to slopes steeper than 2:1 unless a good bonding to the sub-layer can be achieved. After proper grading and seedbed preparation, the vegetation will reestablish ground cover for the control of surface water runoff erosion. All required seedbed preparation and loosening of soil by disk or dozer tracking should be performed just prior to seeding. If seedbed preparation is not feasible, 50% more seed shall be added to the recommended rates shown in Tables IV-3 and IV-4. When hydroseeding, seedbed preparation may not be necessary if adequate site preparation was performed. Incorporate the appropriate amount of lime and/or fertilizer in slurry mix when hydroseeding. When hydroseeding, first mix the lime, fertilizer, and hydro-mulch in the recommended amount of water. Mix the seed and inoculants together within one hour prior to planting, and add to the slurry just before seeding. Apply the slurry uniformly over the prepared site. Assume the application is continuous throughout the seeding operation and the mix is applied within one hour of initial mixing.
- Lime and Fertilizer**
 - Lime shall be applied to all permanent seedings. The pH of the soil is to be determined and lime applied accordingly. Once the pH is known, select the amount of lime to be applied from Table IV-5.
 - Fertilizer shall be applied in all permanent seedings. Apply the equivalent for 500 lbs. minimum 10-20-20 fertilizer per acre or use the amount of fertilizer and lime recommended by a certified soil test.
 - Application: For best results and maximum benefits, the lime and fertilizer are to be applied at the time of seedbed preparation.
- Permanent Seed Mixtures**
 Planters should take into consideration the species makeup of the existing pasture and the landowner's future pasture management plans when recommending seed mixtures. Selection: From Tables IV 4a and b. Permanent Seeding Mixtures Suitable for Establishment in West Virginia.

Notes:

 - All legumes must be planted with the proper inoculants prior to seeding.
 - Lathro's Flatpea is potentially poisonous to some livestock.
 - Only endophyte free varieties of Tall Fescue should be used. Tall Fescue and Crownvetch are also very invasive species, non-native to West Virginia.
 - For unprepared seedbeds or seeding outside the optimum timeframe, add 50% more seed to the specified rate. Mixtures in Table 4b are more wildlife and farm friendly; those listed in bold are suitable for use in shaded woodland settings. Mixtures in italics are suitable to use in filter strips.
- Seeding for Wildlife Habitat**
 Consider the uses of the native plants or locally adapted plants when selecting cover types and species for wildlife habitat. Wildlife friendly species or mixes that have multiple values should be considered. See wildlife friendly species/mixtures in Table IV-4b. Consider selecting no or low maintenance long-lived plants adaptable to sites which may be difficult to maintain with equipment.

Mulching

- General Organic Mulches**
 The application of straw, hay or other suitable materials to the soil surface to prevent erosion. Straw made from wheat or oats is the preferred mulch, the use of hay is permissible, but not encouraged due to the risk of spreading invasive species. Mulch must be applied to all temporary and permanent seeding on all disturbed areas. Depending on site conditions, in critical areas such as wetlands or steep slopes, additional or substitute soil protective measures may be used if deemed necessary. Examples include jute mesh and soil stabilization blankets or erosion control matting. Areas that have been temporary or permanently seeded should be mulched immediately following seeding. Mulches conserve desirable soil properties, reduce soil moisture loss, prevent crusting and sealing of the soil surface and provide a suitable microclimate for seed germination. Areas that cannot be seeded because of the season should be mulched to provide some protection to the soil surface. An organic mulch, straw or hay should be used and the area then seeded as soon as weather or seasonal conditions permit. Do not use fiber mulch (cellulose-hydroseed) alone for this practice. At normal application rates it will not give the soil protection of other types of mulch. Wood cellulose fiber mulch is used in hydroseeding operations and applied as part of the slurry. It creates the best seed-soil contact when applied over the top of (as a separate operation) newly seeded areas. Fiber mulch does not alone provide sufficient protection on highly erodible soils, or during less than favorable growing conditions. Fiber mulch should not be used alone during the dry summer months or when used for late fall mulch cover. Use straw mulch during these periods and fiber mulch may be used to tack (anchor) the straw mulch. Fiber mulch is well suited for steep slopes, critical areas and areas susceptible to wind.
- Chemical Mulches, Soil Binders and Tackifiers**
 A wide range of synthetic spray on materials are marketed to stabilize and protect the soil surface. These are mixed with water and sprayed over the mulch and to the soil. They may be used alone in some cases as temporary stabilizers, or in conjunction with fiber mulch, straw or hay. When used alone most chemical mulches do not have the capability to insulate the soil or retain soil moisture that organic mulches have.
- Specifications**
 From Table IV-6 select the type of mulch and rate of application that will best suit the conditions at the site.
- Anchoring**
 Depending on the field situation, mulch may not stay in place because of wind action or rapid water runoff. In such cases, mulch is to be anchored mechanically or with mulch netting.
 - Mechanical Anchoring**
 Apply mulch and pull mulch anchoring tool over the mulch. When a disk is used set the disk straight and pull across slope. Mulch material should be tacked into the soil about three inches.
 - Mulch netting**
 Follow manufacturer's recommendation when positioning and stapling the mulch netting in the soil.

CONSTRUCTION NOTES

- Each bale to be embedded in the soil a minimum of 4". concrete seal shall be installed against the barrier.
- Soil/fiber mix shall conform to the ground level or on the downhill side and shall be built up to 4" against the uphill side of the barrier.
- Inspection shall be frequent and repair or replacement shall be made promptly as needed. Repair bales after each rainfall and remove sediment when 1/2 the height of the barrier.
- Bales shall be removed when they show serious flow or drainage.

Table IV-1
Recommended Seeding Dates

Planting Dates	Suitability
March 1 - April 15 and August 1 - October 1	Best Seeding Periods
April 15 - August 1	HIGH RISK - moisture stress likely
October 1 - December 1	HIGH RISK - freeze damage to young seedlings
December 1 - March 1	Good seeding period. Dormant seeding

Table 2
Acceptable Fertilization Recommendation

Species	N (lbs/acre)	P2O5 (lbs/acre)	Example Rec. (per acre)
Cool Season Grass	40	80	400 lbs. 10-20-20
CS Grass & Legume	30	60	300 lbs. 10-20-20
Temporary Cover	40	40	200 lbs. 15-15-15

Table 3
Temporary Cover

Species	Seeding Rate (lbs/acre)	Optimum Seeding Dates	Drainage	pH Range
Annual Ryegrass	40	3/1 - 6/15 or 8/15 - 9/15	Well - Poorly	5.5 - 7.5
Field Bromegrass	40	3/1 - 6/15 or 8/15 - 9/15	Well - Mod. Well	6.0 - 7.0
Spring Oats	96	3/1 - 6/15	Well - Poorly	5.5 - 7.0
Sudangrass	40	6/15 - 8/15	Well - Poorly	5.5 - 7.5
Winter Rye	158	8/15 - 10/15	Well - Poorly	5.5 - 7.5
Winter Wheat	180	8/15 - 11/15	Well - Mod. Well	5.5 - 7.0
Japanese Millet	30	6/15 - 8/15	Well	4.5 - 7.0
Redtop	5	3/1 - 6/15	Well	4.0 - 7.5
Annual Ryegrass	25	3/1 - 6/15	Well - Poorly	5.5 - 7.5
Spring Oats	64	3/1 - 6/15	Well - Poorly	5.5 - 7.5

NOTE: These rates should be increased 50% if planted April 15 - August 1 and October 1 - March 1.

Table 4a
Permanent Seeding Mixture

Species/Mixtures	Seeding Rate (lbs/acre)	Drainage	pH Range
Crownvetch/ Tall Fescue	10 - 15	Well - Mod. Well	5.0 - 7.5
Crownvetch/ Perennial Ryegrass	10 - 15	Well - Mod. Well	5.0 - 7.5
Flatpea or perennia Pea/ Tall Fescue	20	Well - Mod. Well	4.0 - 8.0
Ladino Clover/ Serreda Lespedeza/ Tall Fescue	30	Well - Mod. Well	4.5 - 7.5
Tall Fescue/ Ladino Clover/ Redtop	40	Well - Mod. Well	5.0 - 7.5
Crownvetch/ Tall Fescue/ Redtop	10	Well - Mod. Well	5.0 - 7.5
Birdfoot Trefoil/ Redtop	10	Well - Mod. Well	5.0 - 7.5
Serreda Lespedeza/ Tall Fescue/ Redtop	25	Well - Mod. Well	4.5 - 7.5
Redtop/ Redtop	30	Well - Mod. Well	5.0 - 7.5
Tall Fescue/ Creeping Red	3	Well - Mod. Well	4.5 - 7.5
Tall Fescue/ Perennial Ryegrass/ Tall Fescue/ Lathro Flatpea*	10	Well - Poorly	5.0 - 8.0

*Lathro's Flatpea is potentially poisonous to some livestock. All legumes should be planted with proper inoculants prior to seeding. For unprepared seedbeds or seeding outside the optimum timeframe, add 50% more seed to the specified rate.

Mixtures listed in bold are suitable for use in shaded woodland settings; those in italics are suitable for use in filter strips.

Table 4b
Wildlife and Farm Friendly Seed Mixtures

Species/Mixtures	Seeding Rate (lbs/acre)	Drainage	pH Range
KY Bluegrass/ Redtop/ Ladino or Birdfoot Trefoil	20	Well - Mod. Well	5.5 - 7.5
Timothy/ Alfalfa	5	Well - Mod. Well	6.5 - 8.0
Timothy/ Birdfoot Trefoil	5	Well - Poorly	5.5 - 7.5
Orchardgrass/ Ladino Clover/ Redtop	10	Well - Mod. Well	5.5 - 7.5
Orchardgrass/ Ladino Clover	2	Well - Mod. Well	5.5 - 7.5
Orchardgrass/ Perennial Ryegrass	10	Well - Mod. Well	5.5 - 7.5
Creeping Red Fescue/ Perennial Ryegrass	10	Well - Mod. Well	5.5 - 7.5
Orchardgrass or KY Bluegrass	20	Well - Mod. Well	6.0 - 7.5
Birdfoot Trefoil/ Redtop	10	Well - Mod. Well	5.5 - 7.5
Orchardgrass/ Lathro Flatpea*	30	Well - Mod. Well	5.5 - 7.5
Perennial Ryegrass/ Lathro Flatpea*	20	Well - Mod. Well	5.5 - 7.5
Orchardgrass	20	Well - Mod. Well	5.5 - 7.5

*Lathro's Flatpea is potentially poisonous to some livestock. All legumes should be planted with proper inoculants prior to seeding. For unprepared seedbeds or seeding outside the optimum timeframe, add 50% more seed to the specified rate.

Mixtures listed in bold are suitable for use in shaded woodland settings; those in italics are suitable for use in filter strips.

Table IV-5
Lime and Fertilizer Table

pH of Soil	Lime in Tons per Acre	Fertilizer, Lbs. per Acre (10-20-20 or Equivalent)
Above 6.0	2	500
5.0 to 6.0	3	500
Below 5.0	4	500

Table IV-6
Mulch Materials Is Rates and Used

Material	Minimum Rates per acre	Coverage	Remarks
Hay or straw	2 to 3 Tons 10 to 150 bales	Cover 75% to 90% of Surface	Subject to wind blowing or washing unless tied down
Wood Fiber Pulp Fiber Wood - Cellulose Recycled Paper	1000 to 1500 lbs	Cover all Disturbed Areas	For hydroseeding

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK

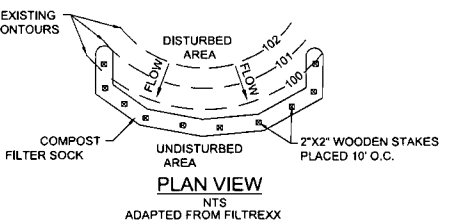
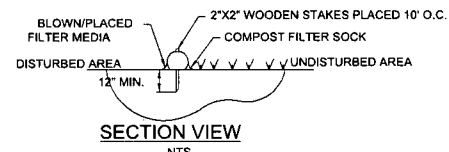
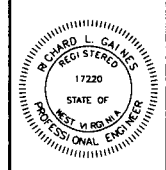
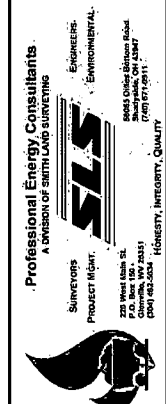
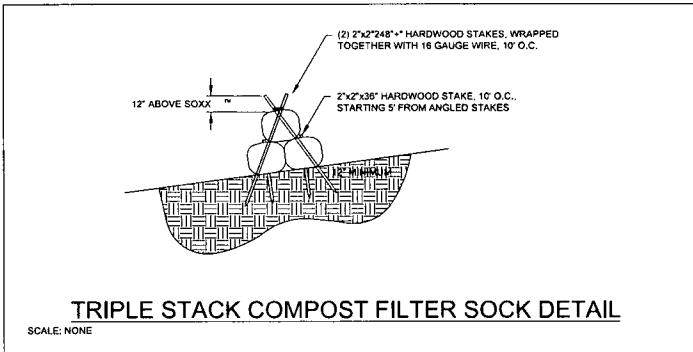
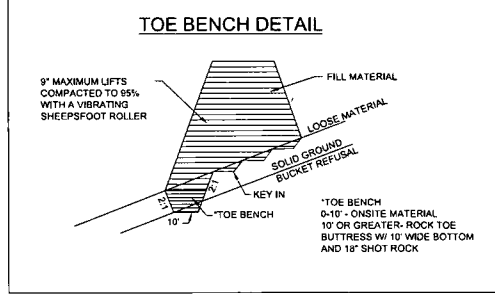


TABLE 4.1
COMPOST SOCK FABRIC SPECIFICATIONS

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPF)	Heavy Duty Multi-Filament Polypropylene (HDMFPF)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Dimensions	12" x 18"	12" x 18"	12" x 18"	12" x 18"	12" x 18"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength	26 psi	26 psi	44 psi	202 psi	202 psi
Ultraviolet Stability % Original strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.	100% at 1000 hr.	100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply systems					
Inner Containment Netting	HDPE biaxial net Continuously wound Fusion-welded junctions 3/4" x 3/4" Max. aperture size				
Outer Filtration Mesh	Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch) 3/16" Max. aperture size				
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					



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CO. ROUTE 40
 TEMPORARY CURVE WIDENING
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 SOUTHWEST DISTRICT
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