

Commercial/Industrial Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit has been issued to **ANTERO MIDSTREAM, 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 #: 15-367 – NOT IN FLOODPLAIN

Date Approved: 07/08/2015

Expires: 07/08/16

Issued to: ANTERO MIDSTREAM, LLC,

**POC: KLEINFELDER/ JEFFERY B. CRISP, P.E.
919-755-5011 EXT. 136**

**Company Address: 1615 WYNKOOP STREET
DENVER, COLORADO 80202**

Project Address: SOUTH OF GREENWOOD/CO. RT. 21/1

Firm: 54017C0225C & 54017C0200C

**Lat/Long: N 39.238697/W80.869017
N39.237101/W80.8798477**

Purpose of development: WELL PAD

Issued by: Doddridge County FPM (or designee)

Date: 07/08/2015

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



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

June 2, 2015

Doddridge County Commission
Attn: Bo Wriston, Doddridge County Floodplain Manager
118 East Court Street, Room 102
West Union, WV 26456

Mr. Wriston:

Antero Resources Corporation (Antero) would like to submit a Doddridge County Floodplain permit application for our Stanley Well Pad. Our project is located in Doddridge County, Central District where the site entrance will begin at coordinates 39.238697 N, 80.869017W and continue to the center of the well pad at coordinates 39.237101N, 80.879477W. Per the FIRM Maps #54017C0250C and #54017C0200C, this location is **not** in the floodplain.

Attached you will find the following:

- Doddridge County Floodplain Permit Application
- Design Plans
- Surface Owner Information
- FIRM Maps
- WV Flood Map

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

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rachel Grzybek".

Rachel Grzybek
Floodplain Engineer
Antero Resources Corporation

Enclosures



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Thank you in advance for your consideration.

Sincerely,

Rachel Grzybek
Floodplain Engineer
Antero Resources Corporation

Enclosures

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  _____

DATE 6/2/15

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: Randy Klobberdanz

ADDRESS: 1615 Wynkoop Street, Denver, CO 80202

TELEPHONE NUMBER: (303) 357-7310

BUILDER'S NAME: Antero Resources Corporation

ADDRESS: 1615 Wynkoop Street, Denver, CO 80202

TELEPHONE NUMBER: (303)-357-7310

ENGINEER'S NAME: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

PROJECT LOCATION:

NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see Surface Owner Table

ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see Surface Owner Table

DISTRICT: _____

DATE/FROM WHOM PROPERTY

PURCHASED: _____

LAND BOOK DESCRIPTION: Please see Surface Owner Table

DEED BOOK REFERENCE: Please see Surface Owner Table

TAX MAP REFERENCE: Please see Surface Owner Table

EXISTING BUILDINGS/USES OF PROPERTY: None

NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY Please see Surface Owner Table

ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY _____

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

ACTIVITY

STRUCTURAL TYPE

- | | | | |
|-------------------------------------|-------------------------|--------------------------|----------------------------------|
| <input checked="" 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:

- | | | | | | | | |
|-------------------------------------|--|--------------------------|--------|--------------------------|----------|--------------------------|------------|
| <input type="checkbox"/> | Fill | <input type="checkbox"/> | Mining | <input type="checkbox"/> | Drilling | <input type="checkbox"/> | Pipelining |
| <input checked="" type="checkbox"/> | Grading | | | | | | |
| <input type="checkbox"/> | Excavation (except for STRUCTURAL DEVELOPMENT checked above) | | | | | | |
| <input type="checkbox"/> | Watercourse Alteration (including dredging and channel modification) | | | | | | |
| <input type="checkbox"/> | Drainage Improvements (including culvert work) | | | | | | |
| <input type="checkbox"/> | Road, Street, or Bridge Construction | | | | | | |
| <input type="checkbox"/> | Subdivision (including new expansion) | | | | | | |
| <input type="checkbox"/> | Individual Water or Sewer System | | | | | | |
| <input type="checkbox"/> | Other (please specify) | | | | | | |

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 \$ N/A

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: Please see attached landowner
ADDRESS: information

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: Please see attached landowner
ADDRESS: information

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): Randy Kloberdanz

SIGNATURE:  DATE: 6/2/15

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 proffing 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** _____



June 2, 2015

Doddridge County Commission
118 East Court Street
West Union, WV 26456
Attn: Dan Wellings, Doddridge County Floodplain Administrator

**Subject: Stanley Well Pad & Water Containment Pad
Floodplain Analysis
Antero Resources Corporation**

Dear Mr. Wellings:

Kleinfelder has completed a floodplain analysis of the proposed Stanley Well Pad & Water Containment Pad site located south of Greenwood, along County Route 21/1 in Doddridge County, West Virginia. As shown on the Flood Insurance Rate Maps (FIRM) from the National Flood Insurance Program (NFIP), Map Numbers 54017C0225C and 54017C0200C effective October 4, 2011, this site is not within any FEMA Flood Zones.

Attached are the following documents associated with this submission:

- The 54017C0225C & 54017C0200C FIRM Panels;
- The Stanley Pad & Water Containment Pad construction plans, prepared by Kleinfelder which includes site design and construction specifications;
- The Surface Owner Information, and
- The Project Cost Estimate

Should any questions or comments arise during the review, please let us know and we will work to address them. Copies of all permits required for this site will be provided by the operator. Please let me know if you should need additional information. You can reach me by phone 919-755-5011 ext. 136 or by email at jcrisp@kleinfelder.com

Sincerely,

KLEINFELDER EAST, INC.

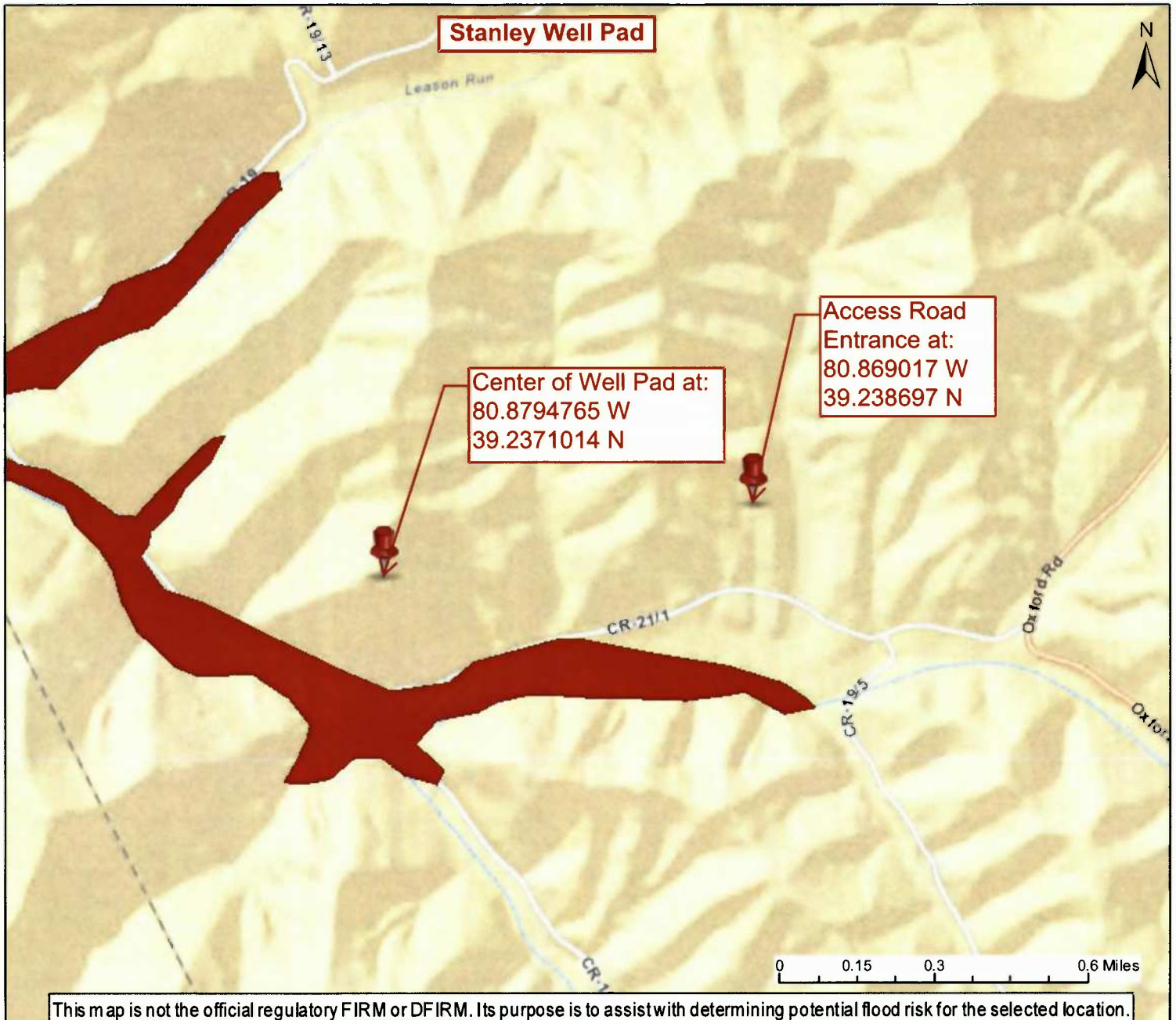
A handwritten signature in black ink, appearing to read "Jeffery B. Crisp".

Jeffery B. Crisp, P.E.
Program Manager

Attachments

June 2015

WV Flood Map



User Notes:

- 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 June 1, 2015

Flood Hazard Area:

Flood Hazard Area:

FEMA Issued Flood Map:

Watershed (HUC8):

Elevation:

Location (long, lat):

Location (UTM 17N):

Contacts:

CRS Information:

Parcel Number:



STANLEY WELL AND WATER CONTAINMENT PAD SITE DESIGN & CONSTRUCTION PLAN, EROSION & SEDIMENT CONTROL PLANS

ANTERO RESOURCES CORPORATION



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 15066
PHONE 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

PROJECT CONTACTS

PROJECT OWNER

ANTERO RESOURCES
1615 WYNKOPP STREET
DENVER, CO 80202

CONTACT: ANTHONY SMITH
FIELD ENGINEER
304.869.3405 OFFICE
304.673.6196 CELL

CONTACT: JOHN KAWCAK
ENGINEER
817.368.1553

CONTACT: ELI WAGONER
ENVIRONMENTAL
ENGINEER
304.622.3842, EXT 311
OFFICE

CONTACT: AARON KUNZLER
CONSTRUCTION
SUPERVISOR
405.227.8344

LOCATION SURVEYOR

WHITE BROTHERS CONSULTING, LLC
CONTACT: JASON COOK
447 CALL ROAD SUITE 216
CHARLESTON, WV 25312
304.550.9484

ENGINEER OF RECORD

KLEINFELDER EAST, INC.
CONTACT: JEFFERY B. CRISP, PE
WV PE #20354
3500 GATEWAY CENTRE BLVD, SUITE 200
MORRISVILLE, NC 27560
919.755.5011 OFFICE
919.755.1414 FAX

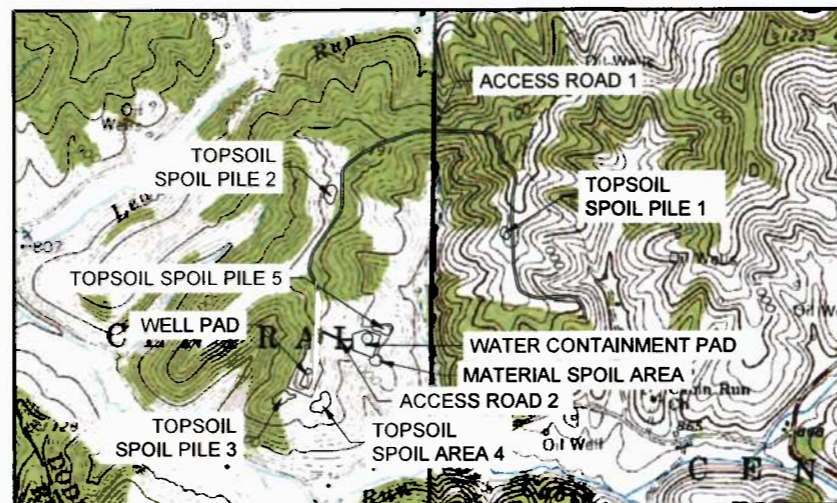
ENVIRONMENTAL/ DELINEATION BOUNDARY

GAI CONSULTANTS, INC.
CONTACT: JASON COOK
4198 COX ROAD, SUITE 114
GLEN ALLEN, VA 23060
804.270.9357 OFFICE
303.709.3306 CELL

TOPO SURVEYOR

BLUE MOUNTAIN AERIAL MAPPING
CONTACT: CRAIG FRY
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
304.662.2626 OFFICE
304.815.4890 CELL

KLEINFELDER EAST, INC.
CONTACT: JAMES M. BEIDEMAN
180 SHEREE BLVD, SUITE 3800
EXTON, PA 19341
610.594.1444 OFFICE
610.594.2743 FAX



NORTH MERIDIAN REFERENCED TO NAD83
WEST VIRGINIA STATE PLANE NORTH ZONE
AFFECTED TAX PARCELS:
SEE SHEET 2
OXFORD & PULLMAN 7.5 QUAD
LITTLE MUSKINGUM
MIDDLE ISLAND
WATERSHED

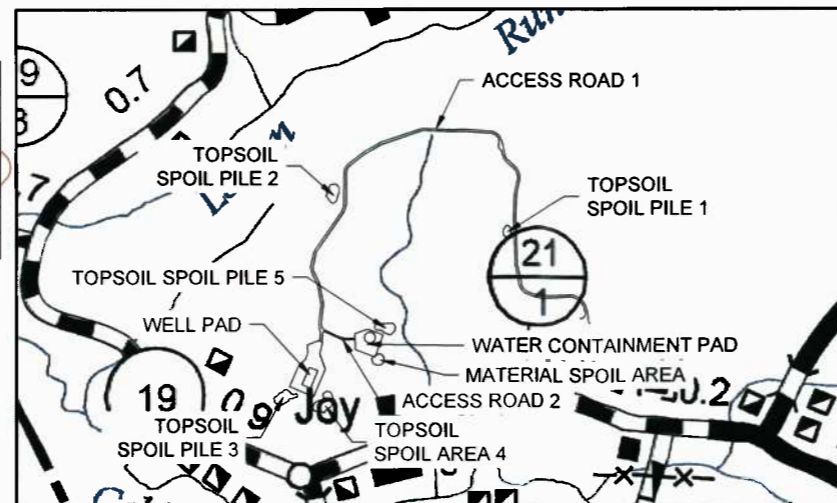
WELL NAME	NAD 83 (WV NORTH ZONE)			
	NORTHING	EASTING	LATITUDE	LONGITUDE
BURGESS UNIT 2H	271427.3202	1577799.5864	39.23697809	-80.87942190
HATTIE UNIT 3H	271418.1116	1577795.6876	39.23695264	-80.87943516
BURGESS UNIT 1H	271408.9029	1577791.7888	39.23692720	-80.87944843
COOL UNIT 2H	271399.6943	1577787.8899	39.23690175	-80.87946169
HATTIE UNIT 2H	271390.4856	1577783.9911	39.23687631	-80.87947495
COOL UNIT 1H	271381.2770	1577780.0923	39.23685087	-80.87948822
HATTIE UNIT 1H	271372.0683	1577776.1935	39.23682542	-80.87950148

WELL NAME	NAD 27 (WV NORTH ZONE)		UTM ZONE 17 (METERS)	
	NORTHING	EASTING	NORTHING	EASTING
BURGESS UNIT 2H	271392.7644	1609240.6569	4343081.7582	510406.1527
HATTIE UNIT 3H	271383.5558	1609236.7580	4343078.9330	510405.0118
BURGESS UNIT 1H	271374.3472	1609232.8591	4343076.1078	510403.8708
COOL UNIT 2H	271365.1386	1609228.9602	4343073.2825	510402.7299
HATTIE UNIT 2H	271355.9301	1609225.0613	4343070.4573	510401.5889
COOL UNIT 1H	271346.7215	1609221.1624	4343067.6321	510400.4480
HATTIE UNIT 1H	271337.5129	1609217.2634	4343064.8069	510399.3070

ISSUED FOR
CONSTRUCTION

SHEET INDEX	
PAGE NO.	DESCRIPTION
1	COVER PAGE & LOCATION MAP
2	SCHEDULE OF QUANTITIES
3	DELINEATION IMPACTS & TOE BENCH QUANTITIES
4	NOTES
5 - 7	EXISTING CONDITIONS
8	OVERALL PLAN
9 - 13	SITE PLAN
14	WELL PAD GRADING PLAN
15	WATER CONTAINMENT PAD GRADING PLAN
16	WELL PAD CROSS SECTIONS AND PROFILE
17	WATER CONTAINMENT PAD CROSS SECTIONS AND PROFILE
18 - 22	ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
23	ACCESS ROAD 2 CROSS SECTIONS AND PROFILE
24 - 29	DETAILS
30 - 34	RECLAMATION PLAN

DESCRIPTION	NAD 83 (WV NORTH)		UTM ZONE 17 (METERS)	
	LATITUDE	LONGITUDE	NORTHING	EASTING
CENTER OF WELL PAD	39.23710135	-80.87947654	4343095.4306	510401.4184
CENTER OF WATER CONTAINMENT PAD	39.23797324	-80.87732122	4343192.4394	510587.2961
STANLEY ACCESS ROAD ENTRANCE	39.23869666	-80.86901707	4343273.7250	511303.8363
JAMES WEBB ACCESS ROAD ENTRANCE	39.23622000	-80.86847100	4342998.9441	511351.3615



FLOODPLAIN CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN:	NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	NO
HEC-RAS STUDY COMPLETED:	N/A
FLOODPLAIN SHOWN ON DRAWINGS:	N/A
FIRM MAP NUMBER(S) FOR SITE:	54017C0200C & 54017C0225C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	N/A

ACCESS ROAD LENGTH (FEET)	
DESCRIPTION	FEET
ACCESS ROAD 1	6,490
ACCESS ROAD 2	368
TOTAL	6,858

DESIGN CERTIFICATION

THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS §35-8.

MM-109 PERMIT

ANTERO RESOURCES WILL OBTAIN AN ENCROACHMENT PERMIT (MM-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

PLAN REPRODUCTION WARNING

THE PLANS HAVE BEEN CREATED ON ANSI D (22"x34") SHEETS. FOR REDUCTIONS, REFER TO GRAPHIC SCALE.

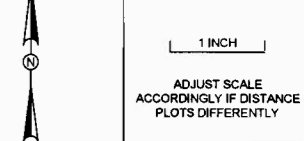
THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.

"WARNING": INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING.

WELL LOCATION RESTRICTIONS

- DRILL PAD IS TO COMPLY WITH WELL LOCATION RESTRICTIONS OF WV CODE 22-6A-12. THE PADS COMPLY WITH THE FOLLOWING RESTRICTIONS:
- 250' FROM AN EXISTING WELL OR DEVELOPED SPRING USED FOR HUMAN OR DOMESTIC ANIMALS
 - 625' FROM AN OCCUPIED DWELLING OR BARN GREATER THAN 2500 SF USED FOR POULTRY OR DAIRY MEASURED FROM THE CENTER OF THE PAD
 - 100' FROM EDGE OF DISTURBANCE TO WETLANDS, PERENNIAL STREAMS, NATURAL OR ARTIFICIAL LAKE, POND OR RESERVOIR
 - 300' FROM EDGE OF DISTURBANCE TO NATURALLY REPRODUCING TROUT STREAMS
 - 1000' OF SURFACE OR GROUND WATER INTAKE TO A PUBLIC WATER SUPPLY

SCALE VERIFICATION



500 250 0 500
SCALE 1 INCH = 500 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

COVER PAGE & LOCATION MAP

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

1

SHEET 1 of 34

SCHEDULE OF QUANTITIES				
STANLEY WELL PAD SITE				
DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FINAL PRICE
CLEARING & GRUBBING; EROSION & SEDIMENT CONTROLS				
MOBILIZATION	1.0	EA		\$0.00
CONSTRUCTION ENTRANCE	1.0	EA		\$0.00
CLEARING & GRUBBING (TREE REMOVAL = 22.7 ACRES)	43.3	AC		\$0.00
18" COMPOST FILTER SOCK	5505.0	LF		\$0.00
SUPER SILT FENCE	8549.0	LF		\$0.00
R-4 RIP RAP (ROCK FILTER OUTLETS)	200.0	TON		\$0.00
AASHTO #57 STONE (ROCK FILTER OUTLETS)	50.0	TON		\$0.00
EROSION CONTROL MATTING - NORTH AMERICAN GREEN C125BN SLOPE MATTING	40982.3	SY		\$0.00
TOTAL				\$0.00
SITE - UNCLASSIFIED EXCAVATION				
WELL PAD EXCAVATION (CUT TO FILL)	21959.0	CY		\$0.00
WELL PAD EXCAVATION (IMPORT FROM SPOIL AREA)	4886.0	CY		\$0.00
WATER CONTAINMENT PAD EXCAVATION (CUT TO FILL)	8010.0	CY		\$0.00
WATER CONTAINMENT PAD EXCAVATION (EXPORT TO SPOIL AREA)	12283.0	CY		\$0.00
ACCESS ROADS EXCAVATION (CUT TO FILL)	33988.0	CY		\$0.00
ACCESS ROADS EXCAVATION (EXPORT TO SPOIL AREA)	9608.0	CY		\$0.00
DIVERSION DITCHES (EXPORT TO SPOIL AREA)	255.0	CY		\$0.00
*TOPSOIL	13382.0	CY		\$0.00
ROADSIDE DITCH	6586.0	LF		\$0.00
TOE KEY/BONDING BENCH/COLLUVIUM MATERIAL EXCAVATION	117402.0	CY		\$0.00
AASHTO #57 STONE-INCLUDES BLANKET DRAIN & OUTLET DRAINS	4,752.0	TON		\$0.00
6 OZ MIRAFI 140N NON-WOVEN GEOTEXTILE	1,777.4	SY		\$0.00
4" PERFORATED PLASTIC PIPE	20,781.0	LF		\$0.00
TOTAL				\$0.00
SUMP(S) PER ANTERO RESOURCES STANDARD DETAIL				
INSTALL 102" x 78" x 44" PRE CAST SUMP	7.0	EA		\$0.00
4" PVC CONNECTIVE PIPE (ANTERO SUMP DRAIN DETAIL)	175.0	LF		\$0.00
PVC PIPE OUTLET PROTECTION - R-4 RIP RAP	176.0	TON		\$0.00
TOTAL				\$0.00
AGGREGATE SURFACING - SPREADING, COMPACTION, and/or INSTALLATION				
WELL PAD 6" OR 4" MINUS CRUSHER RUN AGGREGATE (6" THICK)	2237.0	TON		\$0.00
WELL PAD 1 1/2" OR 3/4" CRUSHER RUN STONE (2" THICK)	1228.0	TON		\$0.00
WELL PAD GEOTEXTILE FABRIC (US 200)	11692.6	SY		\$0.00
WATER CONTAINMENT PAD 6" OR 4" MINUS CRUSHER RUN AGGREGATE (6" THICK)	1750.0	TON		\$0.00
WATER CONTAINMENT PAD 1 1/2" OR 3/4" CRUSHER RUN STONE (2" THICK)	721.0	TON		\$0.00
WATER CONTAINMENT PAD GEOTEXTILE FABRIC (US 200)	6859.2	SY		\$0.00
ACCESS ROADS 6" OR 4" MINUS CRUSHER RUN AGGREGATE (6" THICK)	4748.0	TON		\$0.00
ACCESS ROAD 1 1/2" OR 3/4" CRUSHER RUN STONE (2" THICK)	1955.0	TON		\$0.00
ACCESS ROADS GEOTEXTILE FABRIC (US 200)	18618.8	SY		\$0.00
TOTAL				\$0.00
ROAD CULVERTS				
18" HDPE	425.0	LF		\$0.00
18" FLARED END SECTION	10.0	EA		\$0.00
R-4 RIP RAP (INLETS/OUTLETS)	645.5	TON		\$0.00
AASHTO #57 STONE (INLETS)	130.0	TON		\$0.00
R-4 RIP RAP (DITCH CHECKS)	569.9	TON		\$0.00
DITCH/CHANNEL LINING - R-5 RIP RAP (ACCESS ROAD)	3010.9	TON		\$0.00
DITCH/CHANNEL LINING - STRAW WITH NET	2396.7	SY		\$0.00
DITCH/CHANNEL LINING - NORTH AMERICAN GREEN C125BN MATTING	3419.7	SY		\$0.00
DITCH/CHANNEL LINING - NORTH AMERICAN GREEN SC250 MATTING	1674.1	SY		\$0.00
ACCESS ROAD BERMS, JERSEY BARRIERS, LARGE STONE, OR GUARD RAILS	4598.1	LF		\$0.00
TOTAL				\$0.00

SCHEDULE OF QUANTITIES				
STANLEY WELL PAD SITE				
DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FINAL PRICE
FENCING/GATES:				
PHASE 3 FENCING - ORANGE SAFETY FENCE w/T" POST (10FT CENTERS) - WELL PROTECTION	166.0	LF		\$0.00
TOTAL				\$0.00
MOBILE WATER CORRAL				
22,000 BBL MOBILE WATER CORRAL	1.0	EA		\$0.00
TOTAL				\$0.00
SEEDING:				
SITE SEEDING (LIME, FERTILIZER, SEEDING, AND HYDRO-MULCH w/TACK (HYC-2 OR EQUAL))	35.6	AC		\$0.00
TOTAL				\$0.00
FRENCH DRAINS				
4" PERFORATED PIPE	517.7	LF		\$0.00
FRENCH DRAIN GEOTEXTILE FABRIC (MIRAFI 140N)	3,106.3	SY		\$0.00
FRENCH DRAIN #57 STONE	55.0	TON		\$0.00
TOTAL				\$0.00
UNFORESEEN(SITE) CONDITIONS:				
**ROCK CLAUSE - HOE RAMMING	0.0	CY		\$0.00
**PHASE 1 FENCING - STEEL CORRUGATED PANELS w/T" POST (10 FT CENTERS) - WETLAND PROTECTION	0.0	LF		\$0.00
**PHASE 2 FENCING - FILTER SOCK OUTSIDE OF PHASE 3 FENCING - WETLAND PROTECTION	0.0	LF		\$0.00
**PHASE 3 FENCING - ORANGE SAFETY FENCE w/T" POST (10FT CENTERS)	0.0	LF		\$0.00
**SILT FENCE	0.0	LF		\$0.00
**TEMPORARY SEEDING	0.0	AC		\$0.00
**CONSTRUCTION STAKEOUT	0.0	HR		\$0.00
**JUTE MATTING - SLOPE MATTING	0.0	SY		\$0.00
**4 FT FARM FENCE (WOOD CORNER AND PULL POST & "T" POST - 10 FT SPACING)	0.0	LF		\$0.00
**5 STRAND BARB WIRE FENCE (WOOD CORNER AND PULL POST & "T" POST - 10 FT SPACING)	0.0	LF		\$0.00
TOTAL				\$0.00
GRAND TOTAL				
				\$0.00

**ANTERO RESOURCES WILL PROVIDE THE FOLLOWING:

- 102" x 78" x 54" PRE CAST SUMP
- VALVE FOR SUMP DISCHARGE
- TX 190 GEOGRID OR EQUIVALENT
- GEOTEXTILE FABRIC (US 200) OR EQUIVALENT
- ALL HDPE CULVERT PIPE
- ALL PVC CONNECTIVE PIPE
- ALL SSF, SF, WATTLES
- ALL AGGREGATE

STANLEY WELL & WATER CONTAINMENT PAD QUANTITIES						
DESCRIPTION	*CUT (CY)	FILL (CY)	SPOIL (CY)	BORROW (CY)	MAX. SLOPE	LENGTH OF SLOPE
WELL PAD	21959	26845	N/A	4886	N/A	N/A
WATER CONTAINMENT PAD	20293	8010	12283	N/A	N/A	N/A
ACCESS ROAD 1	34560	33987	572	N/A	20.00%	230'
ACCESS ROAD 2	9036	1	9036	N/A	20.00%	238
DIVERSION DITCHES	255	0	255	N/A	N/A	N/A
TOPSOIL SPOIL AREA 1	0	1685	N/A	1685	N/A	N/A
TOPSOIL SPOIL AREA 2	0	1850	N/A	1850	N/A	N/A
TOPSOIL SPOIL AREA 3	0	3629	N/A	3629	N/A	N/A
TOPSOIL SPOIL AREA 4	0	3422	N/A	3422	N/A	N/A
TOPSOIL SPOIL AREA 5	0	2797	N/A	2797	N/A	N/A
MATERIAL SPOIL AREA	219	4075	N/A	3856	N/A	N/A
TOTALS	86322	86300	22147	22124	N/A	N/A
TOTAL EXPORT (CY)				22		

*INCLUDES 5% SWELL
 THE QUANTITIES SHOWN MAY BE GREATER OR LESSER THAN ACTUALLY EXCAVATED. THE ENGINEER IS NOT RESPONSIBLE FOR VARIANCES FROM THE ESTIMATED QUANTITIES AND DOES NOT CERTIFY TO THEIR ACCURACY.

LIMITS OF DISTURBANCE			
DESCRIPTION	AREA	AFFECTED TAX PARCELS	
ACCESS ROAD 1	0.69	JAMES E WEBB TAX MAP # 15 PAGE # 3 DB: 221 / PG: 17	
JAMES WEBB ACCESS ROAD	2.37	SHIRLEY J. WILLIAMS TAX MAP # 12 PARCEL # 38 WB: 41 / PG: 168	
ACCESS ROAD 1	1.17	IKE MORRIS TAX MAP # 11 PARCEL # 8 DB: 230 / PG: 307	
ACCESS ROAD 2	0.43		
WATER CONTAINMENT PAD	1.14		
TOPSOIL SPOIL PILE 1	0.76		
TOPSOIL SPOIL PILE 2	1.18		
TOPSOIL SPOIL PILE 5	0.93		
DIVERSION DITCHES	0.16		
ACCESS ROAD 1	2.72	SHIRLEY J. WILLIAMS TAX MAP # 12 PARCEL # 37.2 WB: 41 / PG: 168	
ACCESS ROAD 1	0.68	RANDY REESE & GARY WHEELER TAX MAP # 12 PARCEL # 26 WB: 38 / PG: 219	
ACCESS ROAD 1	0.22	RANDY REESE & GARY WHEELER TAX MAP # 12 PARCEL # 25 WB: 38 / PG: 219	
ACCESS ROAD 1	1.06	WM P & SHARON DE BRITTON TAX MAP # 15 PARCEL # 1.1 DB: 149 / PG: 33	
ACCESS ROAD 2	0.04		
ACCESS ROAD 1	0.48		
ACCESS ROAD 2	0.65		
WATER CONTAINMENT PAD	1.80	STANLEY R. WEBB ET AL TAX MAP # 15 PARCEL # 2 DB: 192 / PG: 342	
MATERIAL SPOIL PILE 1	0.93		
WELL PAD	6.37		
TOPSOIL SPOIL AREA 3	1.23		
TOPSOIL SPOIL AREA 4	1.40		
DIVERSION DITCHES	0.55		
TOTAL	43.30		
TOTAL WOODED ACRES DISTURBED	22.65		
TOTAL NON-WOODED ACRES DISTURBED	20.65		

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230 EXECUTIVE DRIVE, SUITE 122
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 PHONE: 724-772-7072
 WWW.KLEINFELDER.COM

REGISTERED PROFESSIONAL ENGINEER
 20354
 STATE OF WEST VIRGINIA

Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
 1 INCH
 ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

SCHEDULE OF QUANTITIES

STANLEY WELL & W.C. PAD
 CENTRAL DISTRICT, DODDRIDGE COUNTY
 WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

2

SHEET 2 of 34

GRADING	
CUT SLOPE	2:1
FILL SLOPE	2:1
PAD CONTAINMENT BERM SLOPE	2:1
CUT SWELL FACTOR	5%
FILL SHRINK FACTOR	-
WELL PAD ELEVATION	1095'
WATER CONTAINMENT PAD ELEVATION	1037.5'

PLOTTED: 6/27/2015 7:45 AM BY: jmc
 LAYOUT: 2 SCHEDULE OF QUANTITIES
 CAD FILE: G:\data\Antero\Facilities\StanleyWellPad\StanleyWellPad.dwg
 FILE QUANTITIES & NOTES.dwg
 Antero Resources

*HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS.

**TOPSOIL QUANTITY FOR THIS SITE WAS ESTIMATED AT A UNIFORM THICKNESS OF 6" OVER THE ENTIRE EXCAVATED AREA. ACTUAL QUANTITY MAY VARY.

CONTINUED ON ADJACENT TABLE



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Signed By: JBC # 20354

REVISIONS

Table with 5 columns: REV, DESCRIPTION, DSN, CHK, DATE. Contains revision history for well pad and impact table additions.

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

DELINEATION IMPACTS & TOE BENCH QUANTITIES

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

Project information table including Project No. 20150562.001A, Issue Date 02-25-2015, Current Revision 3, and Design/Draw/Check/Approve by fields.

3

3 of 34

POND IMPACTS table with columns: POND AND IMPACT CAUSE, FILL (SF), CONST. DISTURB TO LOD (SF), TOTAL IMPACT (SF). Shows zero impact for ponds 1, 2, and 3.

WETLAND IMPACTS table with columns: WETLAND AND IMPACT CAUSE, FILL (SF), CONST. DISTURB TO LOD (SF), TOTAL IMPACT (SF). Shows zero impact for wetlands 1 through 6.

INTERMITTENT STREAM IMPACTS table with columns: STREAM AND IMPACT CAUSE, CULVERT (LF), INLETS/OUTLETS STRUCTURES (LF), CONST. DISTURB TO LOD (LF), TOTAL IMPACT (LF). Lists streams 3 through 65 with zero impact.

EPHEMERAL STREAM IMPACTS (CONT.) table with columns: STREAM AND IMPACT CAUSE, CULVERT (LF), INLETS/OUTLETS STRUCTURES (LF), CONST. DISTURB TO LOD (LF), TOTAL IMPACT (LF). Lists streams 68 through 97 with zero impact.

EPHEMERAL STREAM IMPACTS table with columns: STREAM AND IMPACT CAUSE, CULVERT (LF), INLETS/OUTLETS STRUCTURES (LF), CONST. DISTURB TO LOD (LF), TOTAL IMPACT (LF). Lists streams 1 through 67, with stream 8 having 45 impact.

TABLE 4 - TOE KEY EXCAVATION QUANTITIES table with columns: TOE BENCH NO., LOCATION, LENGTH OF SLOPE (FT), ANTICIPATED TOE KEY DEPTH - DOWNHILL SIDE (FT), ANTICIPATED TOE KEY DEPTH - UP HILL SIDE (FT), WIDTH AT BOTTOM OF TOE KEY (FT), TOTAL OVEREXCAVATION VOLUME (TOE KEY) (CY). Lists 25 items.

TOE KEY, BENCHING, DRAINAGE QUANTITIES table with columns: TOE BENCH NO., LOCATION, LENGTH (FT), NO. 57 STONE - TOE KEY (TONS), NO. 57 STONE - DRAINAGE BOND BENCHES (TONS), NO. 57 STONE - OUTLET/ DRAIN PIPES (TONS), 4-INCH PERFORATED PIPE (FT), NON-WOVEN GEOTEXTILE (SF). Lists 25 items.

PERENNIAL STREAM IMPACTS table with columns: STREAM AND IMPACT CAUSE, CULVERT (LF), INLETS/OUTLETS STRUCTURES (LF), CONST. DISTURB TO LOD (LF), TOTAL IMPACT (LF). Shows zero impact for streams 10 and 16.

NOTES:

1. WETLANDS/STREAMS DELINEATED BY:
GAI CONSULTANTS, INC.
4198 COX ROAD, SUITE 114
GLEN ALLEN, WV 23060
804-270-9357

4. BENCHMARK:
HORIZONTAL - NAD 83 WV STATE PLANE,
NORTH ZONE, US SURVEY FEET

VERTICAL - NAVD 88 (GEOID03), US
SURVEY FEET

2. LOCATION SURVEY PROVIDED BY:
WHITE BROTHERS CONSULTING, LLC
447 CALL ROAD, SUITE 216
CHARLESTON, WV 25312
304-550-9484

3. TOPOGRAPHIC SURVEY PROVIDED BY:
BLUE MOUNTAIN AERIAL MAPPING
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
304-662-2628

LEGEND	
1360	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	EX. PROPERTY LINE
[Blue Box]	EX. WETLAND
[Blue Box]	EX. POND
G	EX. STREAM
W	EX. GAS LINE
---	EX. WATER LINE
---	EX. ROAD
X	EX. FENCE
[Red Box]	EX. JAMES WEBB WELL PAD FEATURES
[Red Box]	EX. STRUCTURE
---	STREAM/WETLAND AREA OF INTEREST



PICTURE 6



PICTURE 1



PICTURE 2



PICTURE 3



PICTURE 4



PICTURE 5



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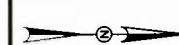
Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/23/2015
3	DELINEATION REVISIONS	CHT	JBC	5/12/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

100 50 0 100

SCALE: 1 INCH = 100 FEET

ORIGINAL DRAWING SIZE IS 22 x 34

EXISTING CONDITIONS

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

5

MATCHLINE SHEET 6

PLOTTED: 6/22/2015 7:46:AM BY: Ryan Parker
CAD FILE: G:\Clients\Antero\Projects\Stanley\Design\Condsite Plans - Final\CDL_CONDTIONS.dwg LAYOUT: 5 EXISTING CONDITIONS



Signed By: JBC # 20354

REVISIONS

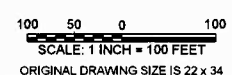
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1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

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SCALE VERIFICATION

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EXISTING CONDITIONS

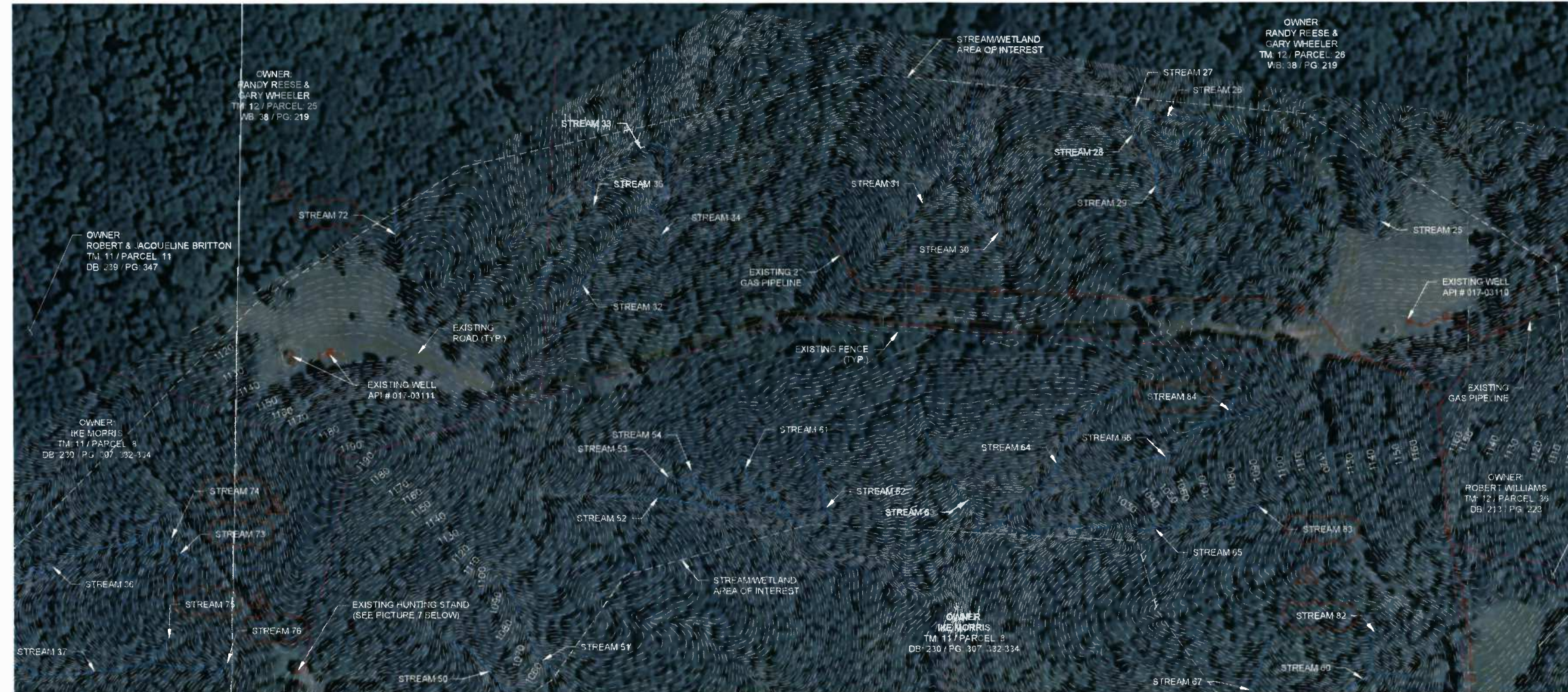
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

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DRAWN BY	-
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APPROVED BY	JMF

6



MATCHLINE SHEET 7

MATCHLINE SHEET 5

NOTES:

- WETLANDS/STREAMS DELINEATED BY:
GAJ CONSULTANTS, INC.
4198 COX ROAD, SUITE 114
GLEN ALLEN, WV 23060
804-270-9357
- LOCATION SURVEY PROVIDED BY:
WHITE BROTHERS CONSULTING, LLC
447 CALL ROAD, SUITE 216
CHARLESTON, WV 25312
304-550-9484
- TOPOGRAPHIC SURVEY PROVIDED BY:
BLUE MOUNTAIN AERIAL MAPPING
11023 MASON DIXON HIGHWAY
BURTON, WV 28562
304-662-2626
- BENCHMARK:
HORIZONTAL - NAD 83 WV STATE PLANE,
NORTH ZONE, US SURVEY FEET

VERTICAL - NAVD 88 (GEOID03), US
SURVEY FEET
- FEDERAL EMERGENCY MANAGEMENT
AGENCY (FEMA) FLOOD INSURANCE
RATE (FIRM) PANEL 54017C0200C &
54017C0225C INDICATES NO SPECIAL
FLOOD HAZARD AREAS WITHIN THE
PROJECT AREA.

LEGEND

--- 1360 ---	EX. INDEX CONTOUR
- - - - -	EX. INTERMEDIATE CONTOUR
---	EX. PROPERTY LINE
[Blue box with arrows]	EX. WETLAND
[Blue line]	EX. STREAM
[Orange line]	EX. GAS LINE
[Blue line]	EX. WATER LINE
[Yellow line]	EX. ROAD
[Green line]	EX. FENCE
[Red line]	EX. JAMES WEBB WELL PAD FEATURES
[Black line]	EX. STRUCTURE
[Dashed line]	STREAM/WETLAND AREA OF INTEREST



PICTURE 7

PLOTTED: 6/22/2015 7:40 AM BY: ryan.parker
 CAD FILE: G:\AnteroResources\StanleyWell\Design\Conditions - Final\EX. CONDITIONS.dwg LAYOUT: 6 EXISTING CONDITIONS

PLOTTED: 6/22/2015 8:00 AM BY: ryan packer
 LAYOUT: 7 EXISTING CONDITIONS
 CAD FILE: G:\Users\Antero\Folders\Stacey\Design\ConSite Plans - Final\EX. CONDITIONS.dwg



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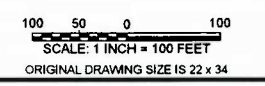
REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/26/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

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ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY



EXISTING CONDITIONS

STANLEY WELL & W.C. PAD
 CENTRAL DISTRICT, DODDRIDGE COUNTY
 WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

7

SHEET 7 of 34

MATCHLINE SHEET 6

LEGEND	
1360	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	EX. PROPERTY LINE
[Blue Area]	EX. WETLAND
[Blue Line]	EX. STREAM
[Orange Line]	EX. GAS LINE
[Blue Line]	EX. WATER LINE
[Red Line]	EX. ROAD
[Black Line]	EX. FENCE
[Black Line]	EX. JAMES WEBB WELL PAD FEATURES
[Black Line]	EX. STRUCTURE
[Dashed Line]	STREAMWETLAND AREA OF INTEREST

NOTES:

- WETLANDS/STREAMS DELINEATED BY:**
 GAI CONSULTANTS, INC.
 4198 COX ROAD, SUITE 114
 GLEN ALLEN, WV 23060
 804-270-9357

 KLEINFELDER EAST, INC.
 180 SHEREE BLVD., SUITE 3800
 EXTON, PA 19341
 610-594-1444
- LOCATION SURVEY PROVIDED BY:**
 WHITE BROTHERS CONSULTING, LLC
 447 CALL ROAD, SUITE 216
 CHARLESTON, WV 25312
 304-550-9484
- TOPOGRAPHIC SURVEY PROVIDED BY:**
 BLUE MOUNTAIN AERIAL MAPPING
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 304-662-2626
- BENCHMARK:**
 HORIZONTAL - NAD 83 WV STATE PLANE,
 NORTH ZONE, US SURVEY FEET

 VERTICAL - NAVD 88 (GEOID03), US
 SURVEY FEET
- FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANEL 54017C0225C & 54017C022500 INDICATES NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.**



PICTURE 8



PICTURE 9



PICTURE 10

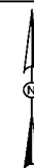


Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION



SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

100 50 0 100
SCALE: 1 INCH = 100 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

OVERALL PLAN

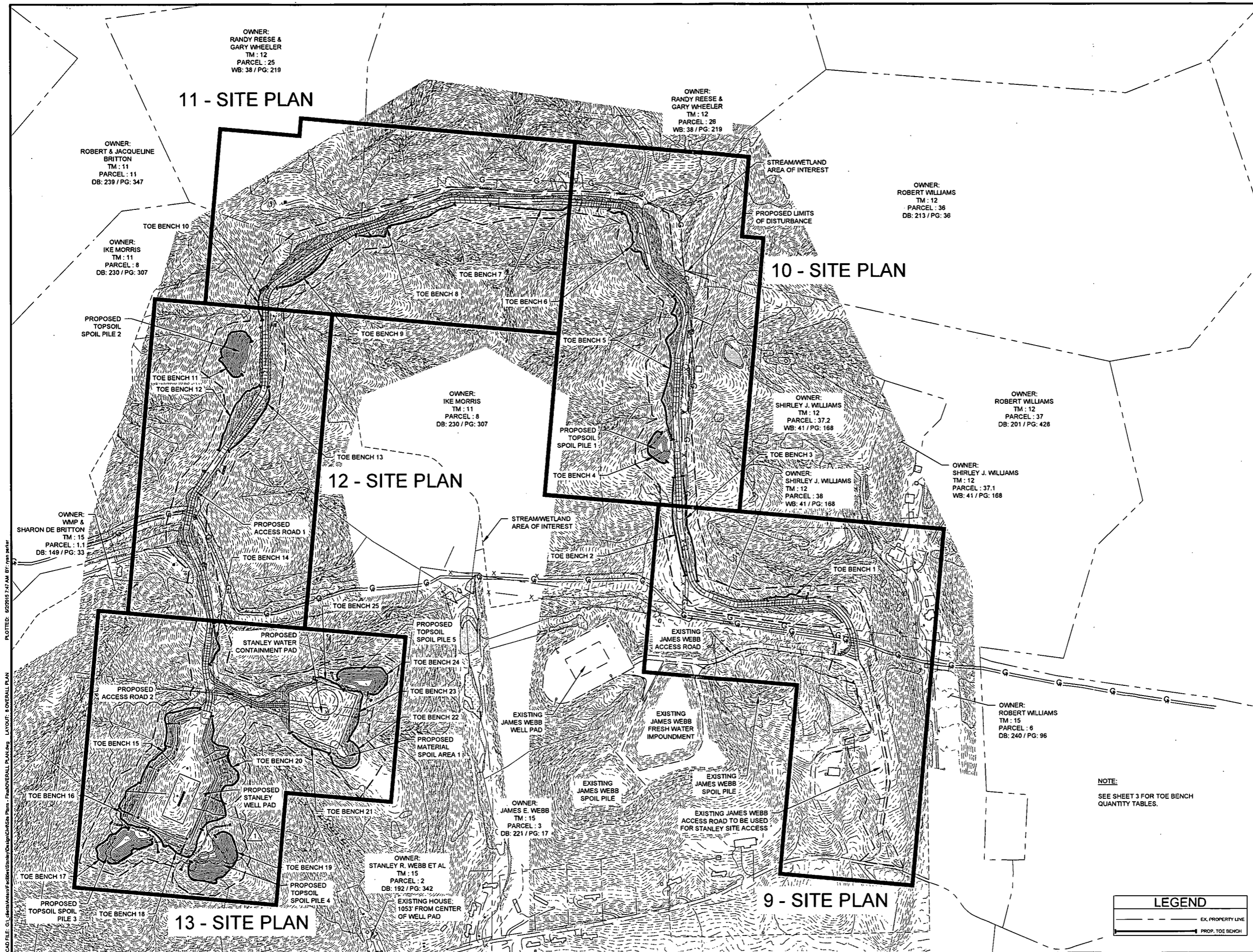
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO. 20150962.001A
ISSUE DATE 02-25-2015
CURRENT REVISION 3
DESIGNED BY CHT
DRAWN BY -
CHECKED BY JBC
APPROVED BY JMF SHEET

8



11 - SITE PLAN

10 - SITE PLAN

12 - SITE PLAN

9 - SITE PLAN

13 - SITE PLAN

LEGEND

	EX. PROPERTY LINE
	PROP. TOE BENCH

CAD FILE: G:\Users\jacob.fisher\Documents\Stanley\Overall Plan.dwg PLOTTED: 02/25/2015 7:47 AM BY: jacob.fisher LAYOUT: OVERALL PLAN.dwg

- NOTES:**
1. THE GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS.
 2. CUT AND FILL SLOPES SHALL BE AT 2H:1V UNLESS NOTED OTHERWISE. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.
 3. FILL SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.
 4. INTERMEDIATE TOE BENCHES SHALL BE INSTALLED ON FILL SLOPES PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 5. ALL FILL SLOPES SHALL BE TOE KEYED PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 6. POSITIVE FLOW FROM PAD TO SUMPS. SEDIMENTS AND MATERIAL REMOVED FROM THE PAD SUMPS SHALL BE PUMPED TO ON-SITE HOLDING/STORAGE TANKS AND SUBSEQUENTLY REMOVED FROM SITE BY AN APPROVED COMMERCIAL VENDOR.
 7. TOP OF SPOIL AREA FILL SLOPES TO BE GRADED AT A MINIMUM OF 3% FROM CENTER TO PROMOTE POSITIVE DRAINAGE.
 8. ALL STORMWATER CONVEYANCES ON THE SITE HAVE BEEN DESIGNED TO ACCOMMODATE THE 10-YEAR STORM EVENT.
 9. A 10-YEAR STORM EVENT RAIN FALL INTENSITY OF 6.44 IN/HR WAS USED FOR STORM SEWER AND ROAD-SIDE DITCH, CHANNEL, AND DIVERSION DITCH CALCULATIONS PER THE NOAA PRECIPITATION FREQUENCY DATA SERVER FOR DODDRIDGE CO., WV.
 10. SEE DETAIL 2, SHOWN ON SHEET 25 FOR RIP RAP OUTLET PROTECTION SIZING AND DESIGN.
 11. CONTRACTOR TO INSTALL ROCK CHECK DAMS WITHIN ROADSIDE DITCHES, CHANNELS, AND DIVERSION DITCHES. SEE DETAIL 4, SHOWN ON SHEET 26 FOR SPACING REQUIREMENTS. ROCK CHECK DAMS WILL BE INSTALLED DURING CONSTRUCTION AS EROSION CONTROL MEASURES AND REMAIN IN PLACE AS PERMANENT CHECK DAMS AFTER CONSTRUCTION IS COMPLETE.
 12. ALL FILTER SOCK TO BE 18" UNLESS OTHERWISE NOTED.
 13. IN TOPSOIL PLACEMENT AREAS, CONTRACTOR TO INSTALL PROPER BMPs TO ENSURE NO OFFSITE EROSION & SEDIMENTATION RUNOFF.
 14. INSTALL ROCK FILTER OUTLETS ALONG SEDIMENT BARRIERS AS SHOWN AND AT LOW POINTS AS IDENTIFIED IN THE FIELD.

STANLEY STORM DRAINAGE COMPUTATIONS

ACCESS ROAD CROSS-DRAINS	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL
PIPE 1	AR1 03+85	2.09	0.0222	18"	45.00	981.00	HDPE*
PIPE 2	AR1 05+32	0.80	0.0500	18"	40.00	1000.00	HDPE*
PIPE 3	AR1 26+88	2.94	0.0222	18"	45.00	1101.00	HDPE*
PIPE 4	AR1 27+97	0.36	0.0222	18"	45.00	1081.00	HDPE*
PIPE 5	AR1 28+82	0.42	0.0222	18"	45.00	1067.00	HDPE*
PIPE 6	AR1 32+45	4.72	0.0444	18"	45.00	1058.00	HDPE*
PIPE 7	AR1 37+58	0.48	0.0500	18"	40.00	1092.00	HDPE*
PIPE 8	AR1 38+53	0.46	0.0500	18"	40.00	1110.00	HDPE*
PIPE 9	AR1 39+62	0.85	0.0400	18"	50.00	1132.00	HDPE*
PIPE 10	AR2 01+98	0.84	0.0867	18"	30.00	1067.00	HDPE*

* DOUBLE WALL CORRUGATED PIPE

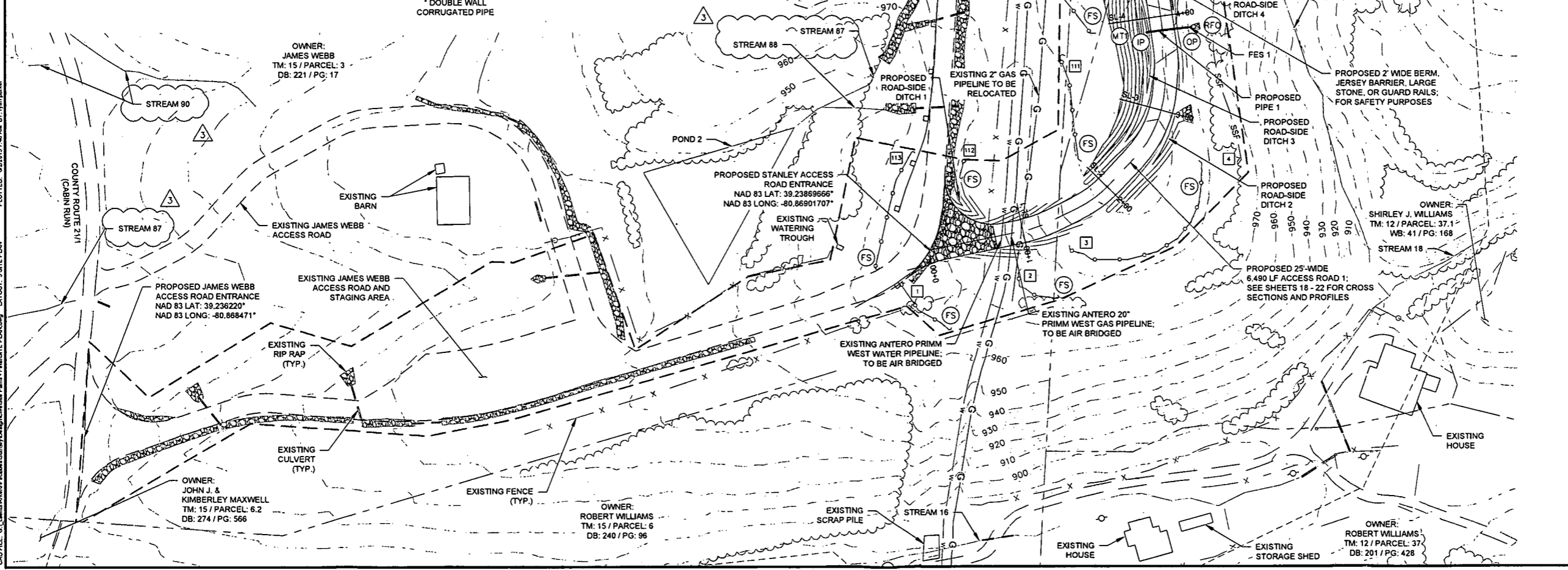
LEGEND

- 1360 — EX. INDEX CONTOUR
- EX. INTERMEDIATE CONTOUR
- EX. TREE LINE
- EX. PROPERTY LINE
- EX. WETLAND
- EX. POND
- EX. STREAM
- EX. GAS LINE
- EX. GAS LINE
- EX. ROAD
- EX. FENCE
- EX. STRUCTURE
- EX. JAMES WEBB WELL PAD FEATURES
- STREAM/WETLAND AREA OF INTEREST
- PROP. LIMITS OF DISTURBANCE
- 100' PERENNIAL WETLAND BUFFER
- PROP. FRENCH DRAIN
- 1360 — PROP. INDEX CONTOUR
- PROP. INTERMEDIATE CONTOUR
- PROP. ROAD CENTERLINE
- PROP. PADS & ROAD EDGE
- PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
- PROP. PAD PERIMETER SUMP
- PROP. WELL HEAD
- PROP. PVC PIPE FOR SUMP SYSTEM
- SUPER SILT FENCE AND FILTER SOCK INDICATION (SEE SHEET 26 FOR SUPER SILT FENCE AND FILTER SOCK TABLE)
- PROP. FILTER SOCK
- PROP. SUPER SILT FENCE
- PROP. NAG C 125BN EROSION CONTROL MATTING
- PROP. OUTLET PROTECTION
- PROP. INLET PROTECTION
- PROP. ROCK FILTER OUTLET
- PROP. CONSTRUCTION ENTRANCE

HYDRAMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURER'S SPECIFICATIONS

STORM DRAINAGE LEGEND

- FES FLARED END SECTION



KLEINFELDER
Bright People. Right Solutions.

230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16098
PHONE: 724-772-7072
WWW.KLEINFELDER.COM

REGISTERED PROFESSIONAL ENGINEER
STATE OF WEST VIRGINIA
20354

Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

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SITE PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

Antero Resources

CONSTRUCTION

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SHEET 9 of 34

CAD FILE: C:\Users\jmaxwell\Favorites\HighChickadee Plans - Final\SITE PLAN.dwg LAYOUT: 9 SITE PLAN PLOTTEC: 6/2015 7:46 AM BY: ryan.parker



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16068
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

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CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

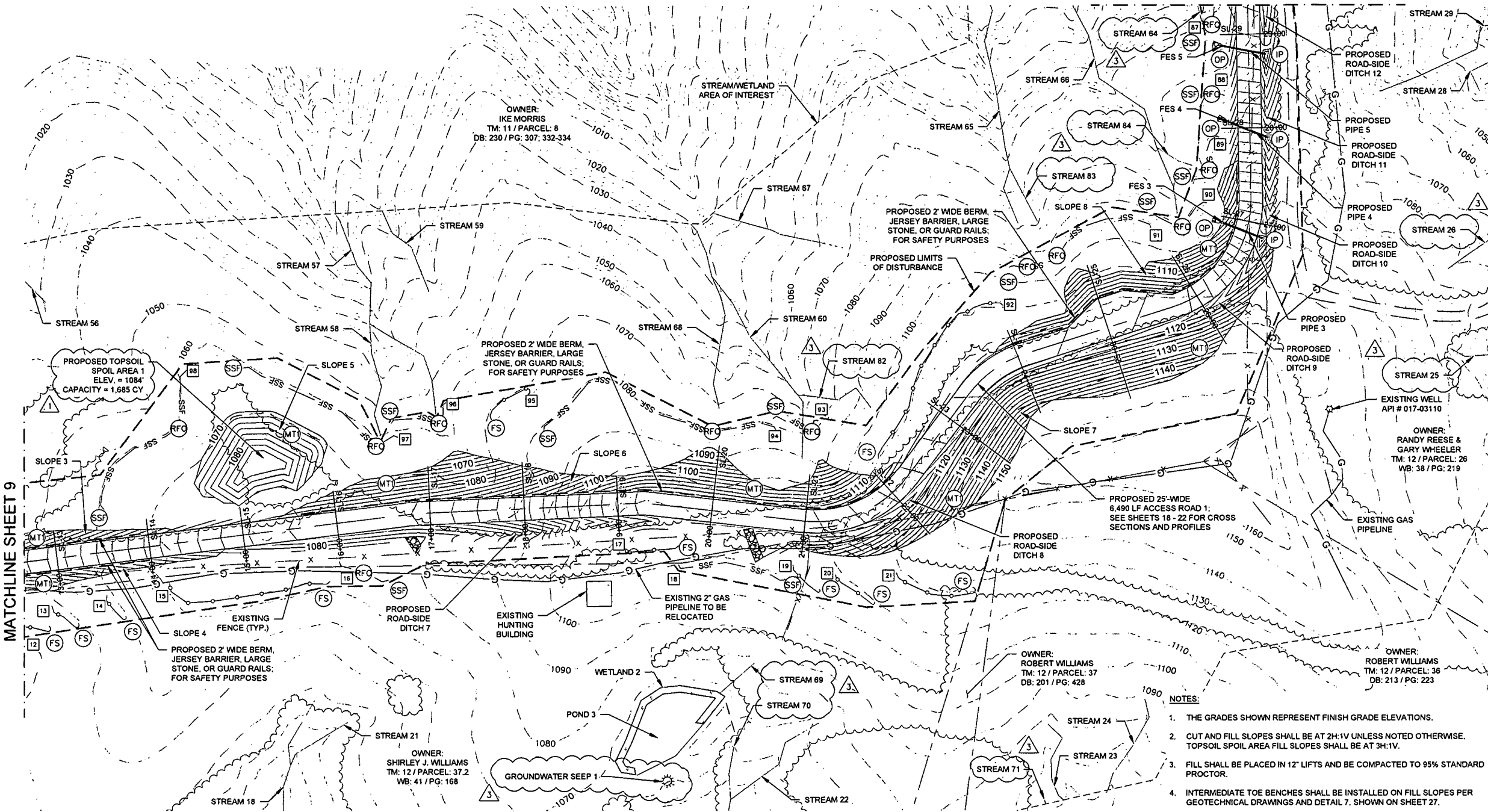


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10

SHEET 10 of 34



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LEGEND

1360	EX. INDEX CONTOUR	---	PROP. ROAD CENTERLINE
---	EX. IMMEDIATE CONTOUR	---	PROP. PADS & ROAD EDGE
---	EX. TREE LINE	---	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
---	EX. PROPERTY LINE	○	PROP. PAD PERIMETER SUMP
---	EX. WETLAND	○	PROP. WELL HEAD
---	EX. POND	24	PROP. PVC PIPE FOR SUMP SYSTEM
---	EX. STREAM	---	SUPER SILT FENCE AND FILTER SOCK INDICATION (SEE SHEET # FOR SUPER SILT FENCE AND FILTER SOCK TABLE)
---	EX. GAS LINE	---	PROP. FILTER SOCK
---	EX. GAS LINE	SSF	PROP. SUMP SILT FENCE
---	EX. ROAD	MT	PROP. MAG C125BN EROSION CONTROL MATTING
---	EX. FENCE	OP	PROP. OUTLET PROTECTION
---	EX. STRUCTURE	IP	PROP. INLET PROTECTION
---	STREAM/WETLAND AREA OF INTEREST	RFC	PROP. ROCK FILTER OUTLET
---	PROP. LIMITS OF DISTURBANCE	---	PROP. CONSTRUCTION ENTRANCE
---	100 PERENNIAL WETLAND BUFFER	---	
---	PROP. FRENCH DRAIN	---	
---	PROP. INDEX CONTOUR	---	
---	PROP. INTERMEDIATE CONTOUR	---	

STANLEY STORM DRAINAGE COMPUTATIONS

ACCESS ROAD CROSS-DRAINS	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL
PIPE 1 AR1 03+85	2.09	0.0222	18"	45.00	981.00	980.00	HDPE*
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PIPE 4 AR1 27+97	0.36	0.0222	18"	45.00	1081.00	1080.00	HDPE*
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PIPE 9 AR1 39+62	0.85	0.0400	18"	50.00	1132.00	1130.00	HDPE*
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* DOUBLE WALL CORRUGATED PIPE

STORM DRAINAGE LEGEND

FES	FLARED END SECTION
-----	--------------------

HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS

PLOTTED: 02/20/15 7:48 AM BY: ryan parker
 CAD FILE: C:_client\AnteroResources\Stanley\Design\Site Plans - Final\SITE PLAN.dwg LAYOUT: 10 SITE PLAN



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 15066
PHONE: 724-773-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
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ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

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60 30 0 60
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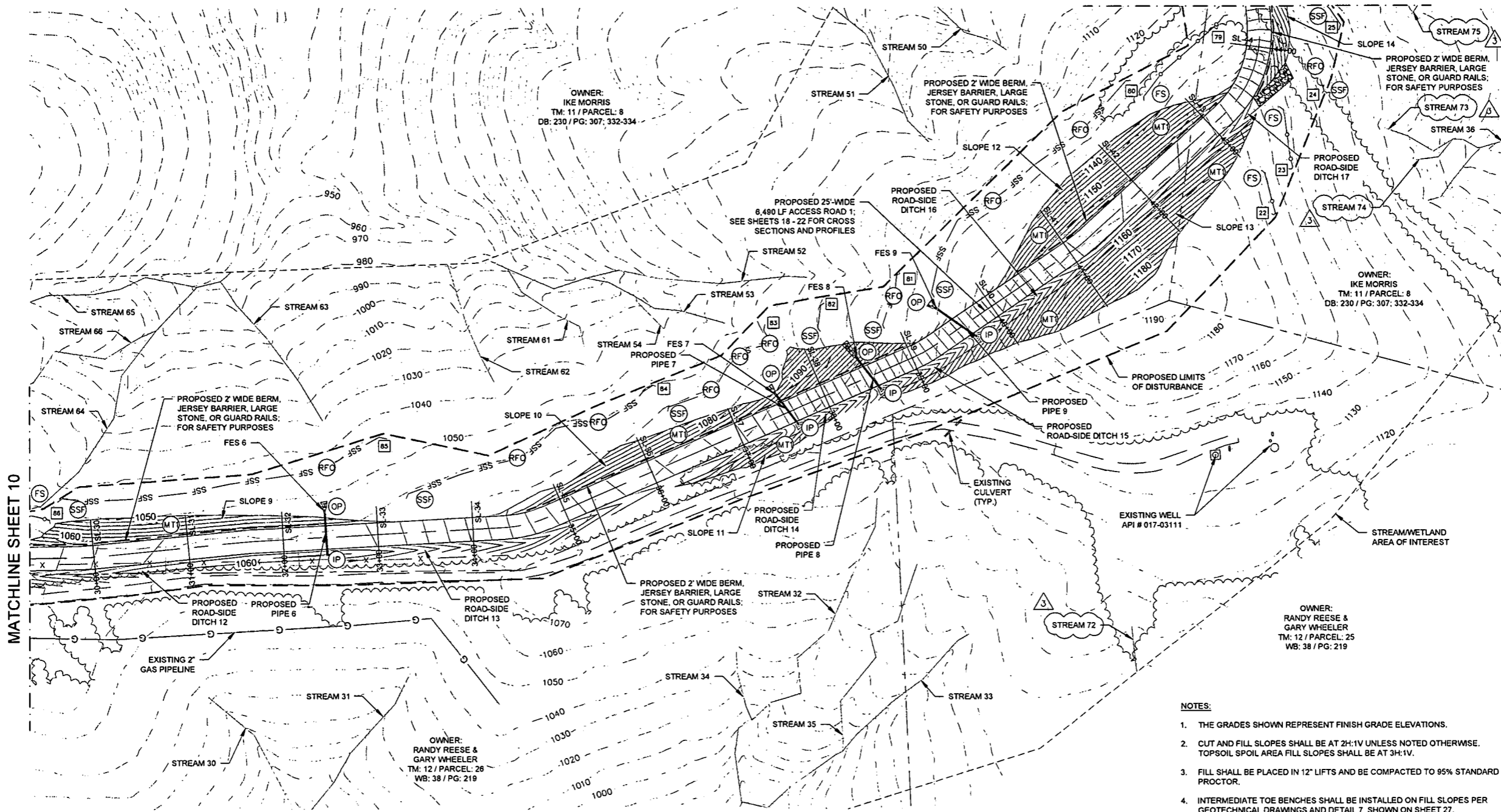
SITE PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
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DESIGNED BY	CHT
DRAWN BY	
CHECKED BY	JBC
APPROVED BY	JMF



MATCHLINE SHEET 10

STANLEY STORM DRAINAGE COMPUTATIONS

PIPE	STATION	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL
PIPE 1	AR1 03+85	2.09	0.0222	18"	45.00	981.00	980.00	HDPE*
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PIPE 6	AR1 32+45	4.72	0.0444	18"	45.00	1058.00	1056.00	HDPE*
PIPE 7	AR1 37+58	0.48	0.0500	18"	40.00	1092.00	1090.00	HDPE*
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* DOUBLE WALL CORRUGATED PIPE

LEGEND

1360	EX. INDEX CONTOUR	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
---	EX. INTERMEDIATE CONTOUR	PROP. PAD PERIMETER SUMP
----	EX. TREE LINE	PROP. PVC PIPE FOR SUMP SYSTEM
-----	EX. PROPERTY LINE	PROP. MAG. C-125M EROSION CONTROL MATTING
-----	EX. WETLAND	PROP. SUPER SILT FENCE
G	EX. STREAM	PROP. FILTER SOCK
W	EX. GAS LINE	PROP. OUTLET PROTECTION
---	EX. GAS LINE	PROP. INLET PROTECTION
---	EX. ROAD	PROP. ROCK FILTER OUTLET
---	EX. FENCE	PROP. CONSTRUCTION ENTRANCE
---	EX. STRUCTURE	
---	STREAM/WETLAND AREA OF INTEREST	
---	PROP. LIMITS OF DISTURBANCE	
---	100' PERENNIAL WETLAND BUFFER	
---	PROP. FRENCH DRAIN	
---	PROP. INDEX CONTOUR	
---	PROP. INTERMEDIATE CONTOUR	
---	PROP. ROAD CENTERLINE	
---	PROP. PADS & ROAD EDGE	

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STORM DRAINAGE LEGEND

FES	FLARED END SECTION
-----	--------------------

PLOTTED: 02/20/15 7:48 AM BY: jmc/paw
 LAYOUT: 11 SITE PLAN
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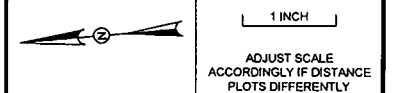


Signed By: JBC # 20354

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REV	DESCRIPTION	DSN	CHK	DATE
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ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

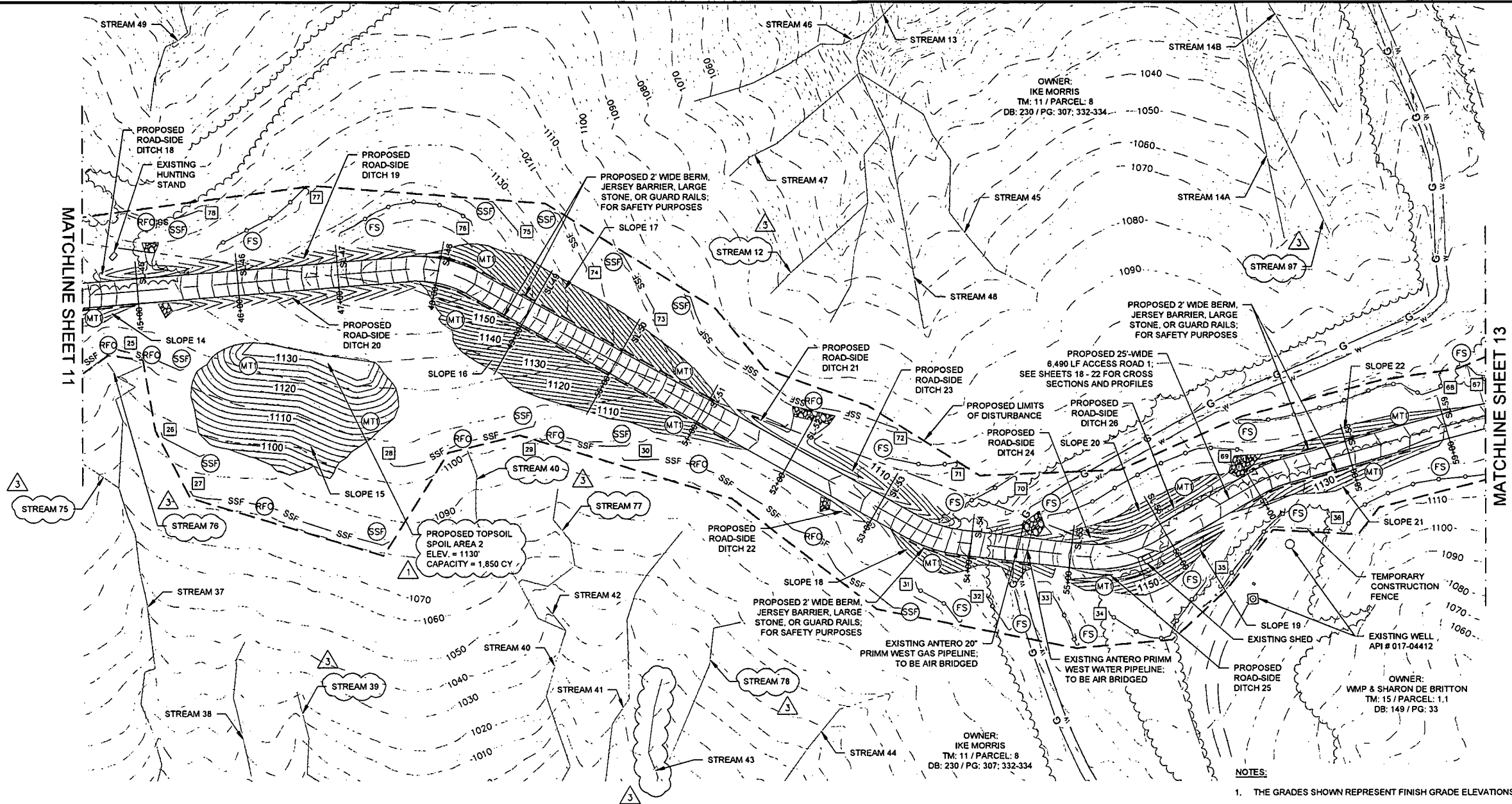


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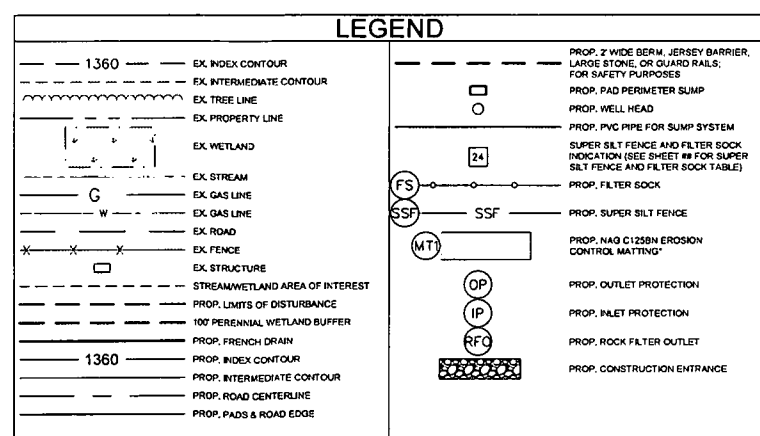
12

12 of 34



STANLEY STORM DRAINAGE COMPUTATIONS								
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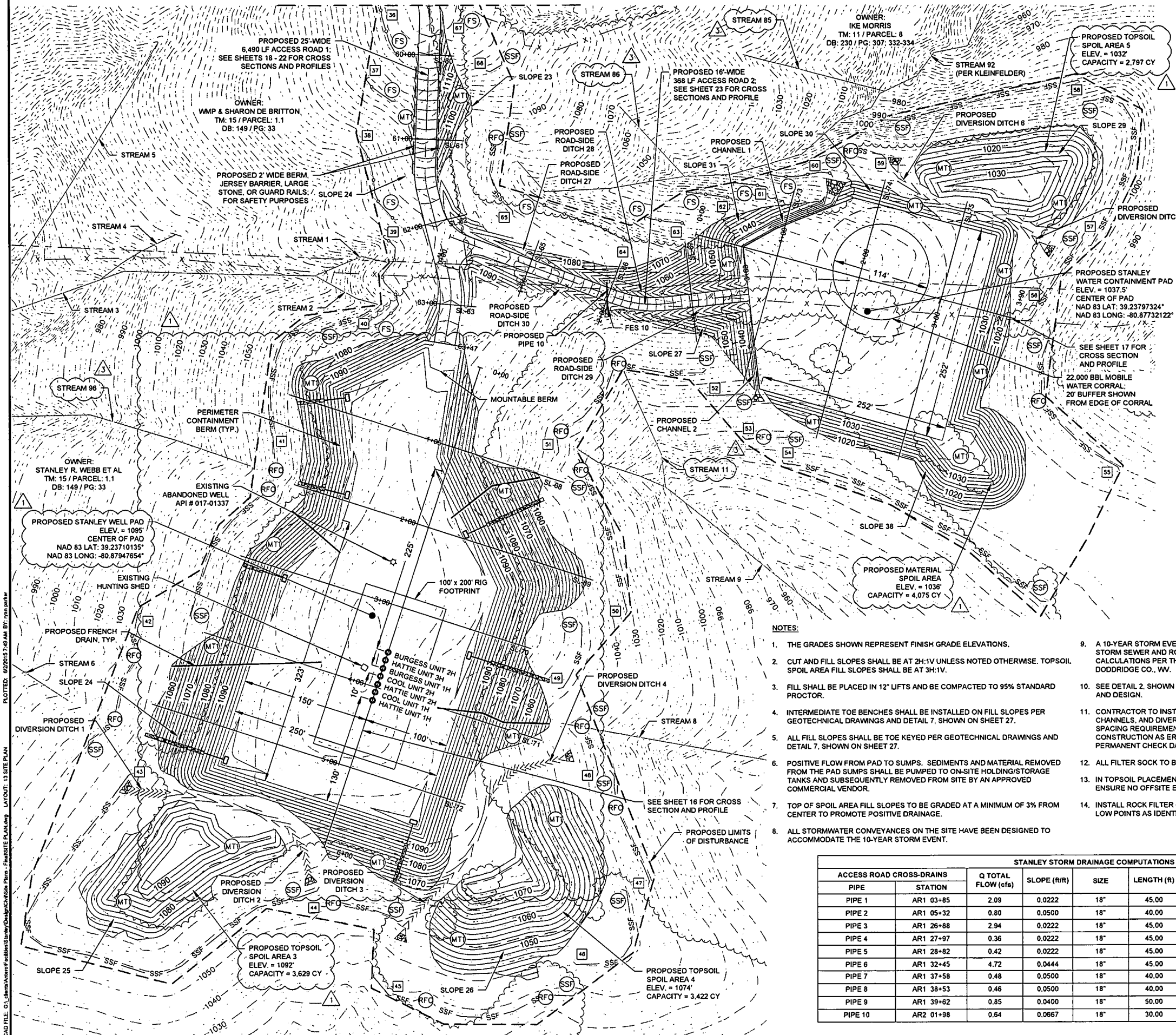


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 - A 10-YEAR STORM EVENT RAIN FALL INTENSITY OF 6.44 IN/HR WAS USED FOR STORM SEWER AND ROAD-SIDE DITCH, CHANNEL AND DIVERSION DITCH CALCULATIONS PER THE NOAA PRECIPITATION FREQUENCY DATA SERVER FOR DODDRIDGE CO., WV.
 - SEE DETAIL 2, SHOWN ON SHEET 25 FOR RIP RAP OUTLET PROTECTION SIZING AND DESIGN.
 - CONTRACTOR TO INSTALL ROCK CHECK DAMS WITHIN ROADSIDE DITCHES, CHANNELS, AND DIVERSION DITCHES. SEE DETAIL 4, SHOWN ON SHEET 26 FOR SPACING REQUIREMENTS. ROCK CHECK DAMS WILL BE INSTALLED DURING CONSTRUCTION AS EROSION CONTROL MEASURES AND REMAIN IN PLACE AS PERMANENT CHECK DAMS AFTER CONSTRUCTION IS COMPLETE.
 - ALL FILTER SOCK TO BE 18" UNLESS OTHERWISE NOTED.
 - IN TOPSOIL PLACEMENT AREAS, CONTRACTOR TO INSTALL PROPER BMPS TO ENSURE NO OFFSITE EROSION & SEDIMENTATION RUNOFF.
 - INSTALL ROCK FILTER OUTLETS ALONG SEDIMENT BARRIERS AS SHOWN AND AT LOW POINTS AS IDENTIFIED IN THE FIELD.

STORM DRAINAGE LEGEND
FES FLARED END SECTION

CAD FILE: G:_dems\wv\c\stn\Stanley\Design\Site Plans - Final\SITE PLAN.dwg LAYOUT: 12 SITE PLAN PLOTTED: 6/27/2015 7:48 AM BY: ryan parker

MATCHLINE SHEET 12



LEGEND

- 1360 --- EX. INDEX CONTOUR
- EX. INTERMEDIATE CONTOUR
- EX. TREE LINE
- EX. PROPERTY LINE
- EX. WETLAND
- EX. STREAM
- EX. GAS LINE
- EX. WATER LINE
- EX. ROAD
- EX. FENCE
- EX. STRUCTURE
- STREAM/WETLAND AREA OF INTEREST
- PROP. LIMITS OF DISTURBANCE
- 100' PERENNIAL WETLAND BUFFER
- PROP. FRENCH DRAIN
- 1360 --- PROP. INDEX CONTOUR
- PROP. INTERMEDIATE CONTOUR
- PROP. ROAD CENTERLINE
- PROP. PADS & ROAD EDGE
- PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS FOR SAFETY PURPOSES
- PROP. PAD PERIMETER SUMP
- PROP. WELL HEAD
- PROP. PVC PIPE FOR SUMP SYSTEM
- SUPER SILT FENCE AND FILTER SOCK INDICATION (SEE SHEET # FOR SUPER SILT FENCE AND FILTER SOCK TABLE)
- 24 --- PROP. FILTER SOCK
- SSF --- PROP. SUPER SILT FENCE
- PROP. MAG C135B EROSION CONTROL MATTING
- OP --- PROP. OUTLET PROTECTION
- IP --- PROP. INLET PROTECTION
- RFC --- PROP. ROCK FILTER OUTLET
- PROP. CONSTRUCTION ENTRANCE

*HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS

STORM DRAINAGE LEGEND

- FES --- FLARED END SECTION

- NOTES:
- THE GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS.
 - CUT AND FILL SLOPES SHALL BE AT 2H:1V UNLESS NOTED OTHERWISE. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.
 - FILL SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.
 - INTERMEDIATE TOE BENCHES SHALL BE INSTALLED ON FILL SLOPES PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 - ALL FILL SLOPES SHALL BE TOE KEYED PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 - POSITIVE FLOW FROM PAD TO SUMPS. SEDIMENTS AND MATERIAL REMOVED FROM THE PAD SUMPS SHALL BE PUMPED TO ON-SITE HOLDING/STORAGE TANKS AND SUBSEQUENTLY REMOVED FROM SITE BY AN APPROVED COMMERCIAL VENDOR.
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 - IN TOPSOIL PLACEMENT AREAS, CONTRACTOR TO INSTALL PROPER BMPS TO ENSURE NO OFFSITE EROSION & SEDIMENTATION RUNOFF.
 - INSTALL ROCK FILTER OUTLETS ALONG SEDIMENT BARRIERS AS SHOWN AND AT LOW POINTS AS IDENTIFIED IN THE FIELD.

STANLEY STORM DRAINAGE COMPUTATIONS								
ACCESS ROAD CROSS-DRAINS	STATION	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL
PIPE 1	AR1 03+85	2.09	0.0222	18"	45.00	981.00	980.00	HDPE*
PIPE 2	AR1 05+32	0.80	0.0500	18"	40.00	1000.00	998.00	HDPE*
PIPE 3	AR1 26+88	2.94	0.0222	18"	45.00	1101.00	1100.00	HDPE*
PIPE 4	AR1 27+97	0.36	0.0222	18"	45.00	1081.00	1080.00	HDPE*
PIPE 5	AR1 28+82	0.42	0.0222	18"	45.00	1087.00	1086.00	HDPE*
PIPE 6	AR1 32+45	4.72	0.0444	18"	45.00	1058.00	1056.00	HDPE*
PIPE 7	AR1 37+58	0.48	0.0500	18"	40.00	1092.00	1090.00	HDPE*
PIPE 8	AR1 38+53	0.46	0.0500	18"	40.00	1110.00	1108.00	HDPE*
PIPE 9	AR1 39+62	0.85	0.0400	18"	50.00	1132.00	1130.00	HDPE*
PIPE 10	AR2 01+98	0.64	0.0667	18"	30.00	1067.00	1065.00	HDPE*

* DOUBLE WALL CORRUGATED PIPE

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CRANBERRY TOWNSHIP, PA 16066
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Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

CONSTRUCTION

PROJECT NO. 20150962.001A
ISSUE DATE 02-25-2015
CURRENT REVISION 3
DESIGNED BY CHT
DRAWN BY
CHECKED BY JBC
APPROVED BY JMF SHEET 13 OF 34

CAD FILE: G:_Users\jcriss\Projects\Stanley\Design\2015\Plan - Final\SITE PLAN.dwg LAYOUT: 13 SITE PLAN PLOTTED: 02/25/15 7:40 AM BY: jcriss



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

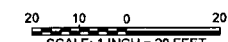
ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



1 INCH

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SCALE: 1 INCH = 20 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

WELL PAD GRADING PLAN

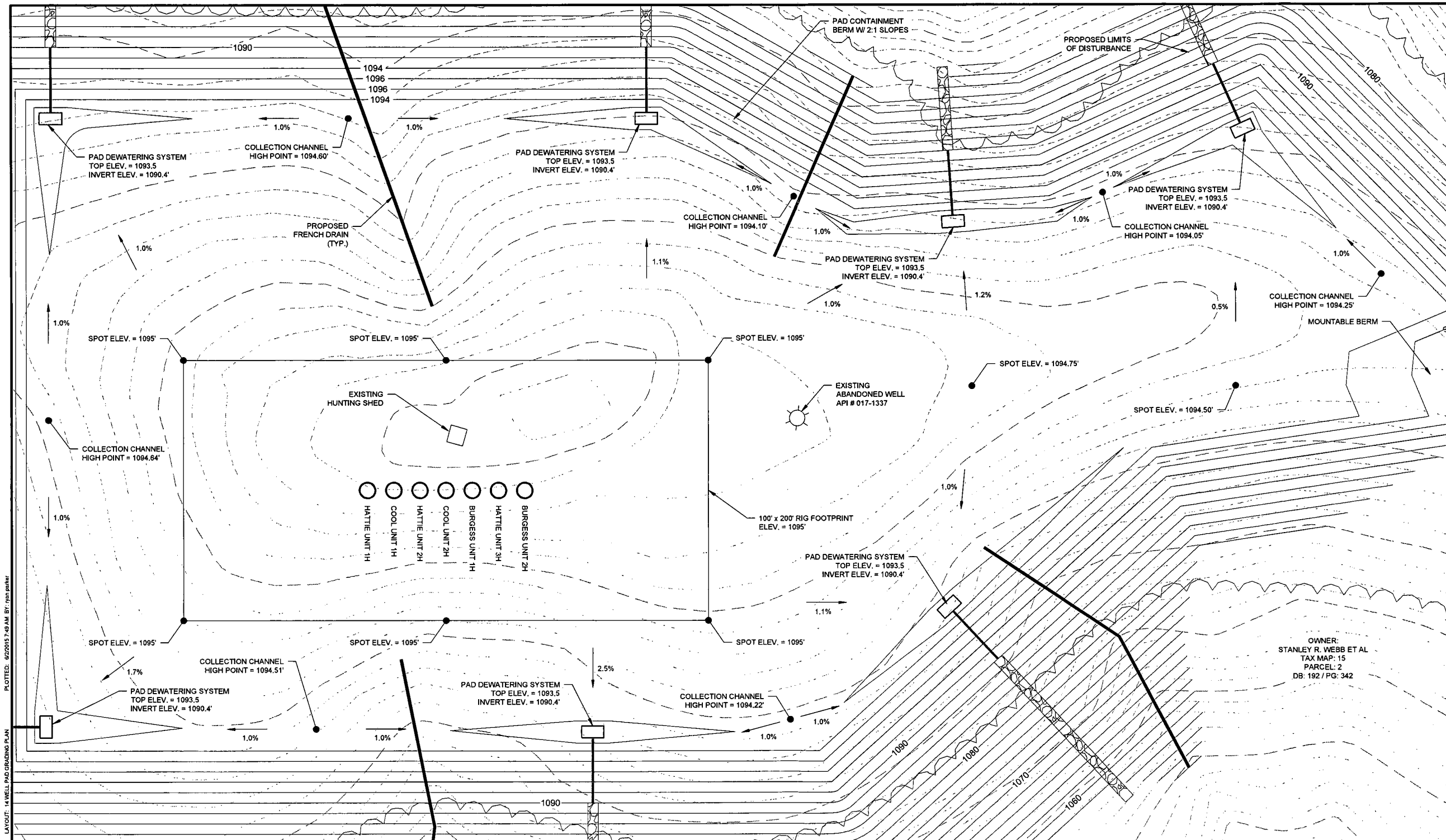
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO. 20150962.001A
ISSUE DATE 02-25-2015
CURRENT REVISION 3
DESIGNED BY CHT
DRAWN BY -
CHECKED BY JBC
APPROVED BY JMF SHEET

14



PLOTTED: 6/22/2015 7:49 AM BY: jbc/pmr

CAD FILE: G:\shimawater\Facilities\shimawater\Design\DWG\Plan - StanleyWell Pad Grading.dwg LAYOUT: 14 WELL PAD GRADING PLAN

LEGEND	
	EX. INDEX CONTOUR
	EX. INTERMEDIATE CONTOUR
	EX. TREE LINE
	EX. PROPERTY LINE
	EX. COUNTY LINE
	EX. WETLAND
	EX. STREAM
	EX. DRAINAGE FEATURE
	EX. CULVERT
	EX. GAS LINE
	EX. ROAD
	EX. TRAIL
	EX. FENCE
	EX. STRUCTURE
	STREAM/WETLAND AREA OF INTEREST
	100' WETLAND BUFFER
	PROP. LIMITS OF DISTURBANCE
	PROP. INDEX CONTOUR
	PROP. INTERMEDIATE CONTOUR
	PROP. ROAD CENTERLINE
	PROP. PADS & ROAD EDGE
	PROP. FRENCH DRAIN
	PROP. PAD PERIMETER SUMP
	PROP. WELL HEAD
	PROP. 4" PVC PIPE FOR SUMP SYSTEM

NOTES:

- THE GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS.
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OWNER:
WM P & SHARON DE BRITTON
TAX MAP: 15
PARCEL: 1.1
DB: 149 / PG: 33

OWNER:
STANLEY R. WEBB ET AL
TAX MAP: 15
PARCEL: 2
DB: 192 / PG: 342



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Signed By: JBC # 20354

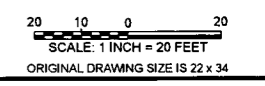
REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
		-	JMF	
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
		-	JMF	
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15
		-	JMF	

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY



WATER CONTAINMENT PAD GRADING PLAN

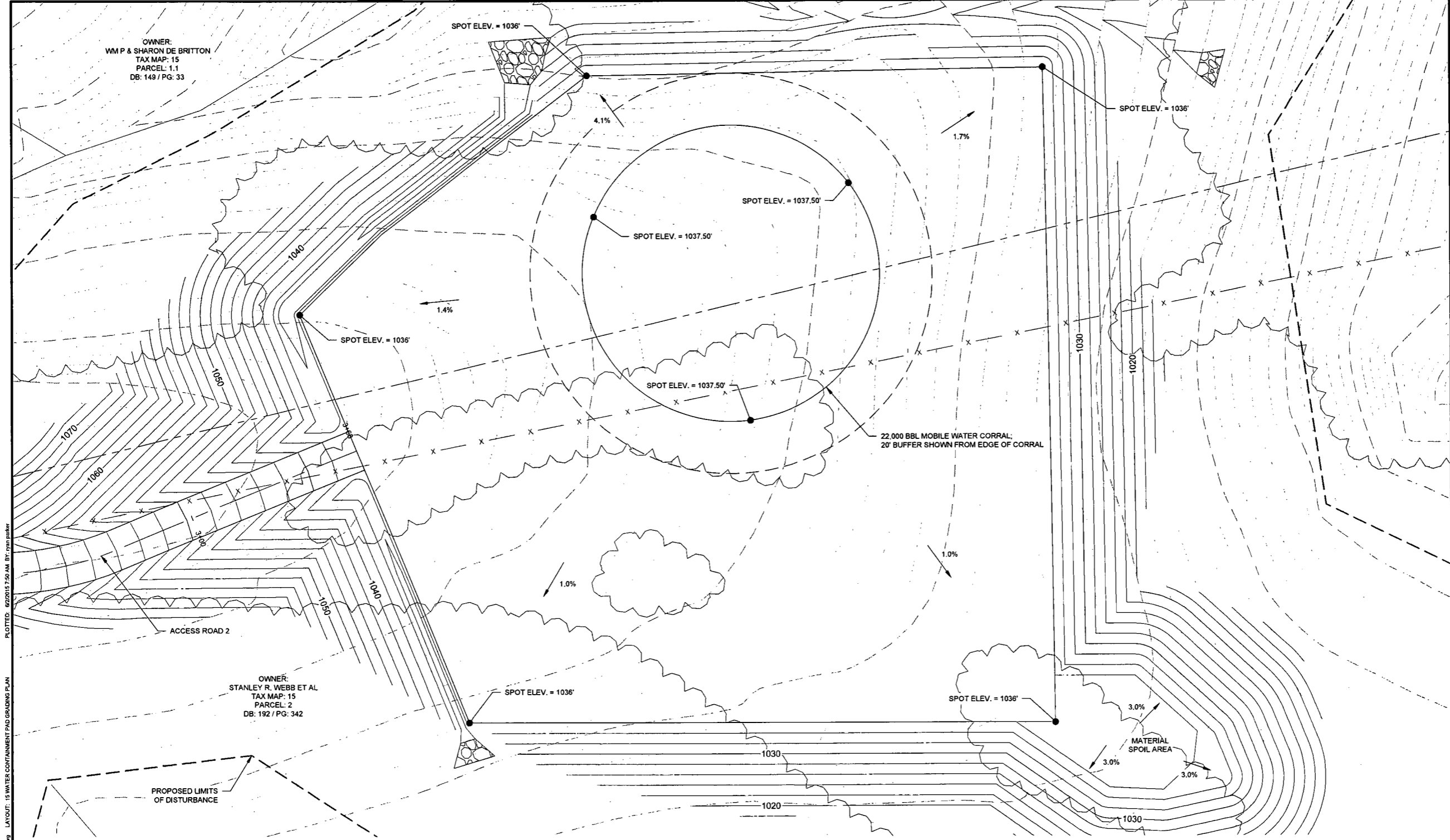
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

15



LEGEND			
1360	EX. INDEX CONTOUR	---	STREAM/WETLAND AREA OF INTEREST
---	EX. INTERMEDIATE CONTOUR	---	100' WETLAND BUFFER
---	EX. TREE LINE	---	PROP. LIMITS OF DISTURBANCE
---	EX. PROPERTY LINE	---	PROP. INDEX CONTOUR
---	EX. COUNTY LINE	---	PROP. INTERMEDIATE CONTOUR
---	EX. WETLAND	---	PROP. ROAD CENTERLINE
---	EX. STREAM	---	PROP. PADS & ROAD EDGE
---	EX. DRAINAGE FEATURE	---	PROP. FRENCH DRAIN
---	EX. CULVERT	---	PROP. PAD PERIMETER SUMP
---	EX. GAS LINE	---	PROP. WELL HEAD
---	EX. ROAD	---	PROP. 4" PVC PIPE FOR SUMP SYSTEM
---	EX. TRAIL	---	
X	EX. FENCE	---	
□	EX. STRUCTURE	---	

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PLOTTED: 02/25/2015 7:50 AM BY: jmc palker
CAD FILE: G:\Users\Antero\Public\Stanley\Design\Kris\Plm - Final\WELL PAD GRADING.dwg LAYOUT: 15 WATER CONTAINMENT PAD GRADING PLAN

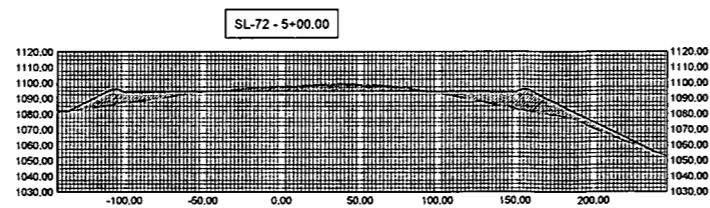
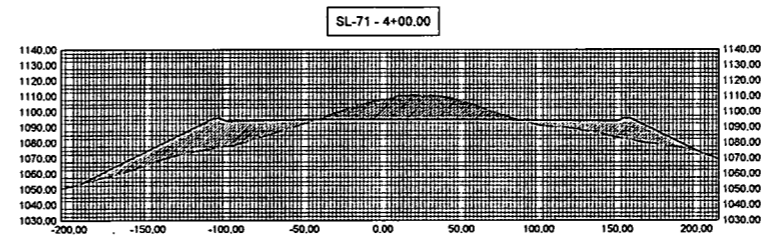
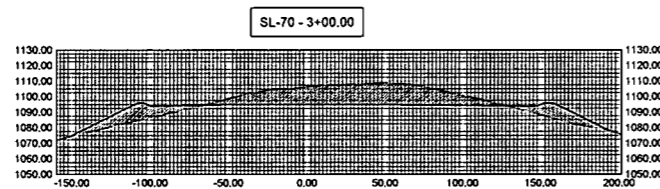
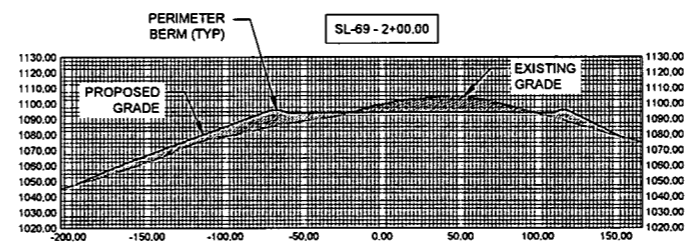
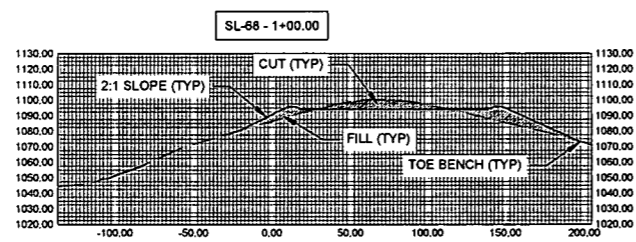
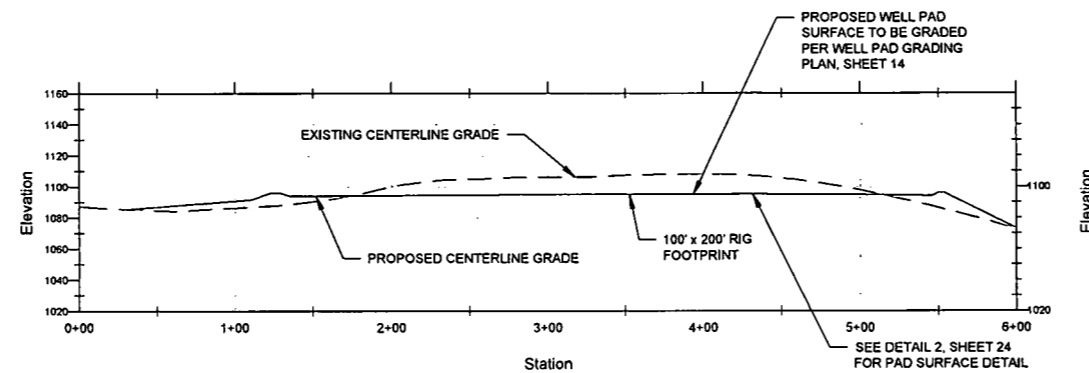


Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

**STANLEY WELL PAD
CROSS SECTIONS AND PROFILE**



**ISSUED FOR
CONSTRUCTION**

SCALE VERIFICATION

1 INCH

ADJUST SCALE
ACCORDINGLY IF DISTANCE
PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

WELL PAD CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



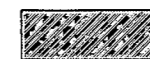
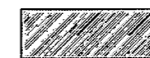
CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

16

SHEET 16 of 34

LEGEND



NOTES:

- PAD SURFACE AS SHOWN IS SLOPED FROM RIG FOOTPRINT. ALL GRADING AND MODIFICATIONS TO THE PAD SURFACE SHALL BE PERFORMED PER THE OWNER'S DIRECTION.

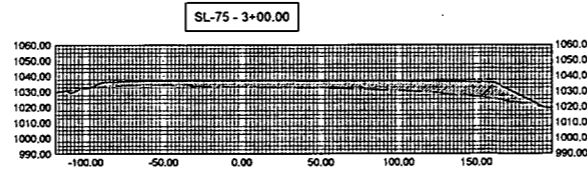
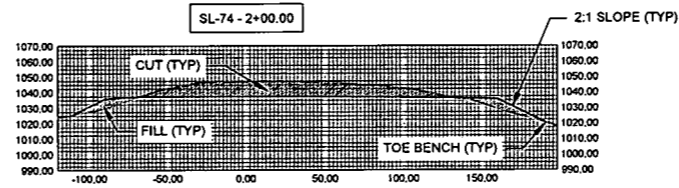
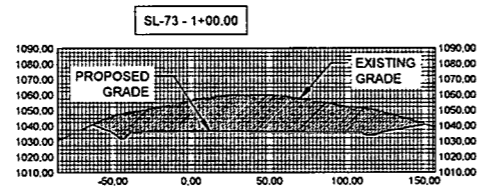
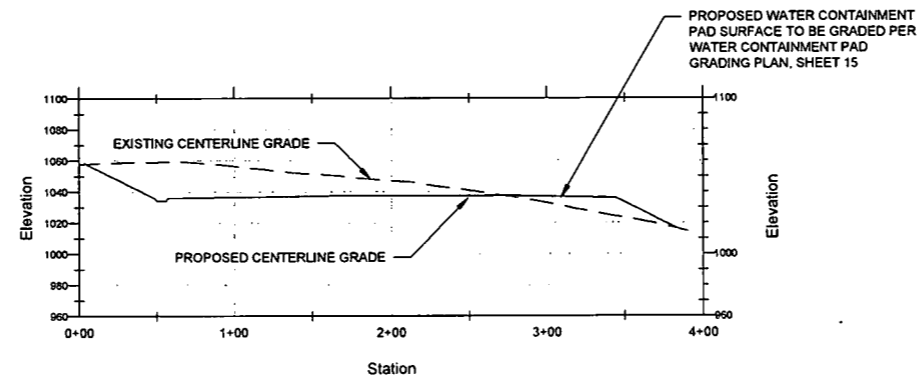


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STANLEY WATER CONTAINMENT PAD CROSS SECTIONS AND PROFILE



REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
		-	JMF	
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
		-	JMF	
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	8/1/15
		-	JMF	

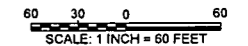
**ISSUED FOR
CONSTRUCTION**

SCALE VERIFICATION

1 INCH

ADJUST SCALE
ACCORDINGLY IF DISTANCE
PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE



SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

WATER CONTAINMENT PAD CROSS
SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



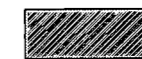
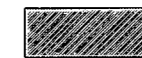
CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
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DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

17

17 of 34

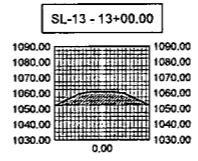
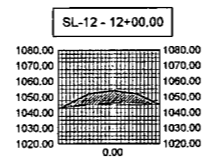
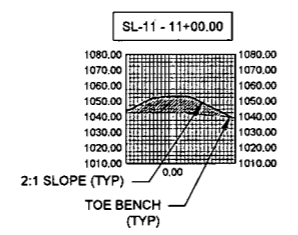
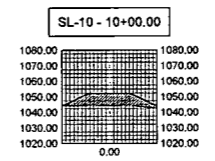
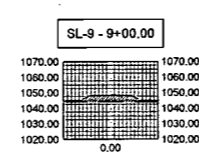
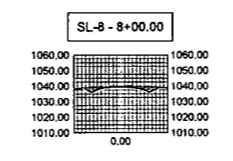
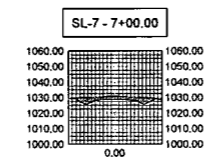
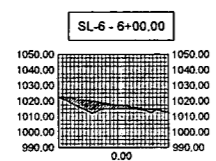
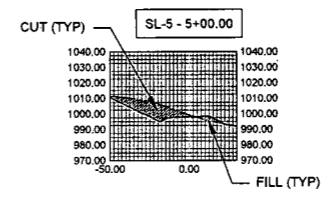
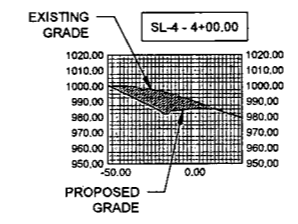
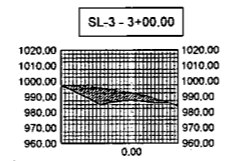
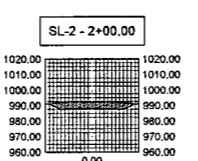
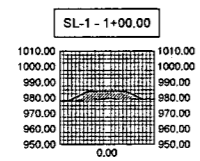
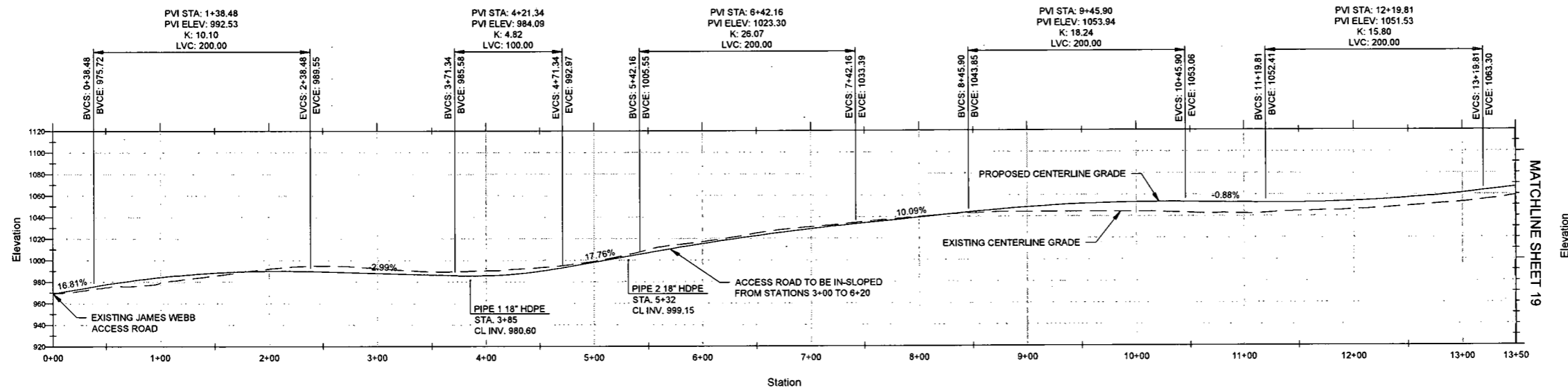
LEGEND



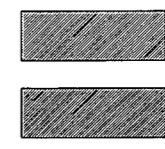
NOTES:

- REFER TO SITE PLAN SHEET FOR ADDITIONAL WATER CONTAINMENT PAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



LEGEND



NOTES:
 1. REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.



230 EXECUTIVE DRIVE, SUITE 122
 CRANBERRY TOWNSHIP, PA 16066
 PHONE: 724-772-7072
 WWW.KLEINFELDER.COM



Signed By: JBC # 20354

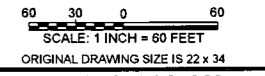
REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH
 ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE



ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
 STANLEY WELL & W.C. PAD
 CENTRAL DISTRICT, DODDRIDGE COUNTY
 WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

PLOTTED: 02/20/15 7:51 AM BY: Ryan Parker
 LAYOUT: 18 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE.dwg
 CAD FILE: C:\Users\Antero\Favorites\Antero\Design\Projects - Final\CROSS SECTIONS & PROFILES.dwg

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



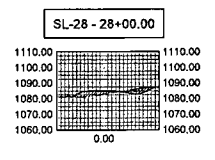
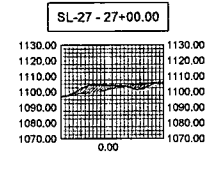
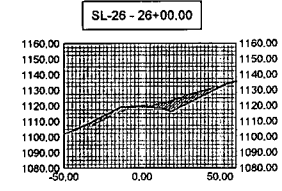
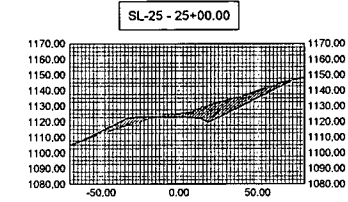
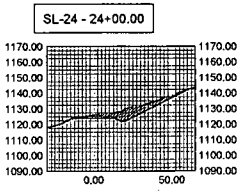
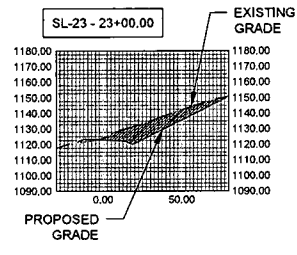
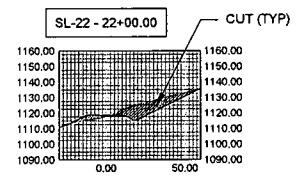
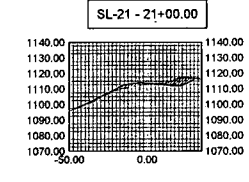
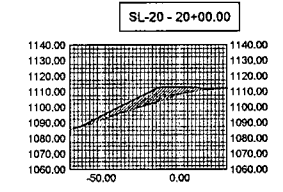
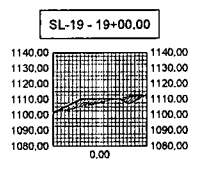
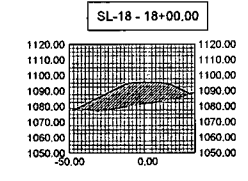
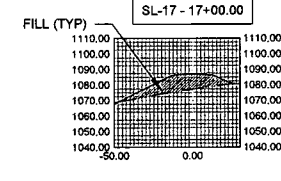
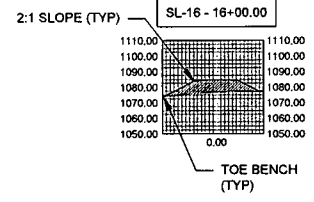
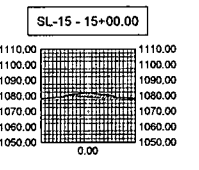
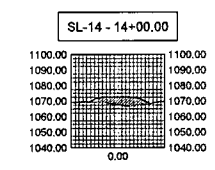
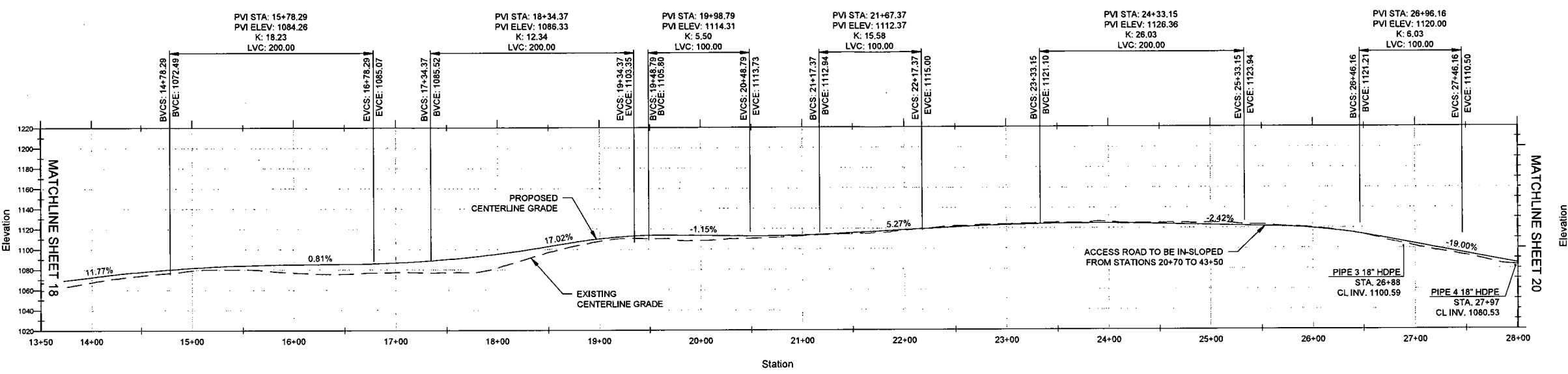
230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16098
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

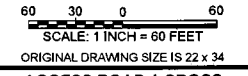


ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE



ACCESS ROAD 1 CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

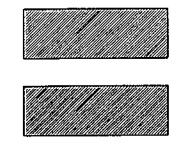


CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

19

LEGEND



NOTES

- REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

CAD FILE: G:\clients\Antero\Facilities\Stanley\Design\Profile Plots - Final\CROSS SECTIONS & PROFILES.dwg LAYOUT: 19 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE PLOTTED: 02/20/15 7:51 AM BY: ryan parker

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-773-7072
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Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

**ISSUED FOR
CONSTRUCTION**

SCALE VERIFICATION

1 INCH

ADJUST SCALE
ACCORDINGLY IF DISTANCE
PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 1 CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

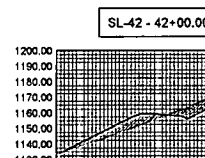
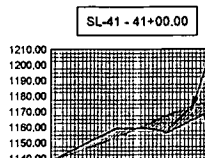
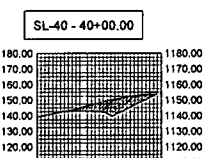
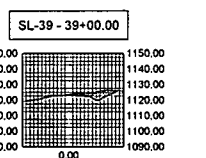
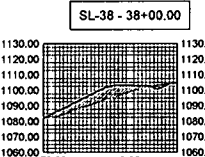
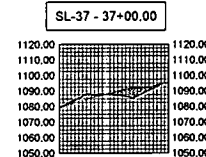
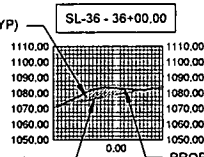
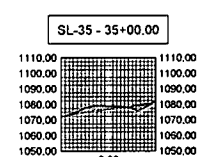
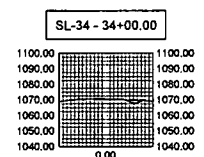
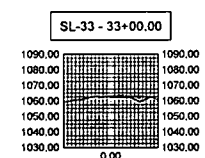
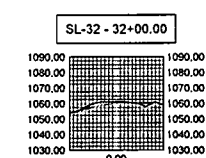
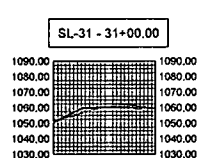
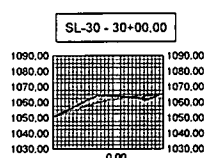
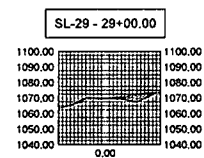
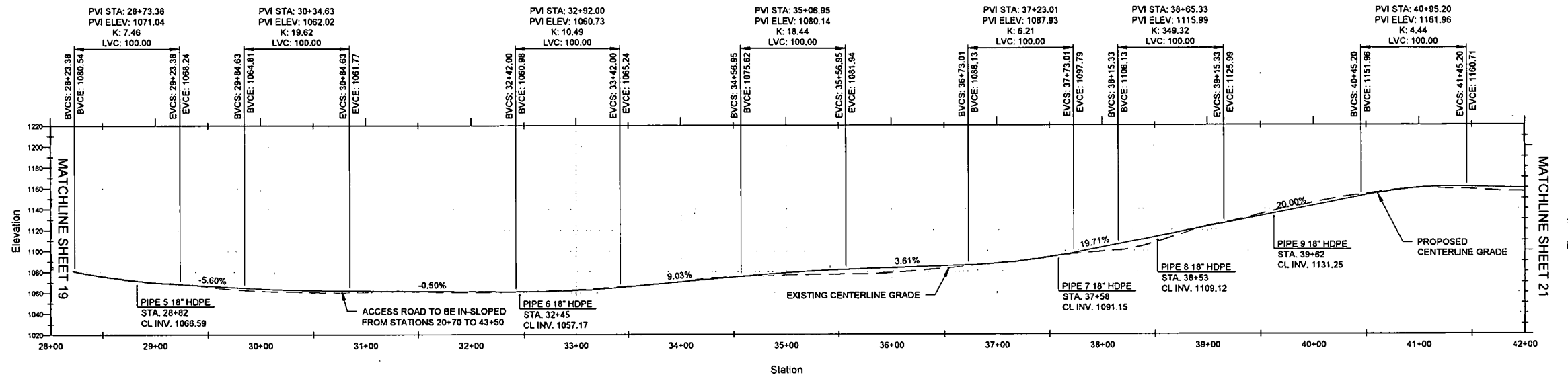


CONSTRUCTION

PROJECT NO. 20150962.001A
ISSUE DATE: 02-25-2015
CURRENT REVISION: 3
DESIGNED BY: CHT
DRAWN BY: -
CHECKED BY: JBC
APPROVED BY: JMF SHEET

20

20 of 34



LEGEND



NOTES:

- REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

CAD FILE: G:_Bama\Area\Folders\Stanley\Drawings\Profile - Final\CROSS SECTIONS & PROFILE.dwg LAYOUT: 20 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE PLOTTED: 02/20/15 7:51 AM BY: Ryan Parker

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE

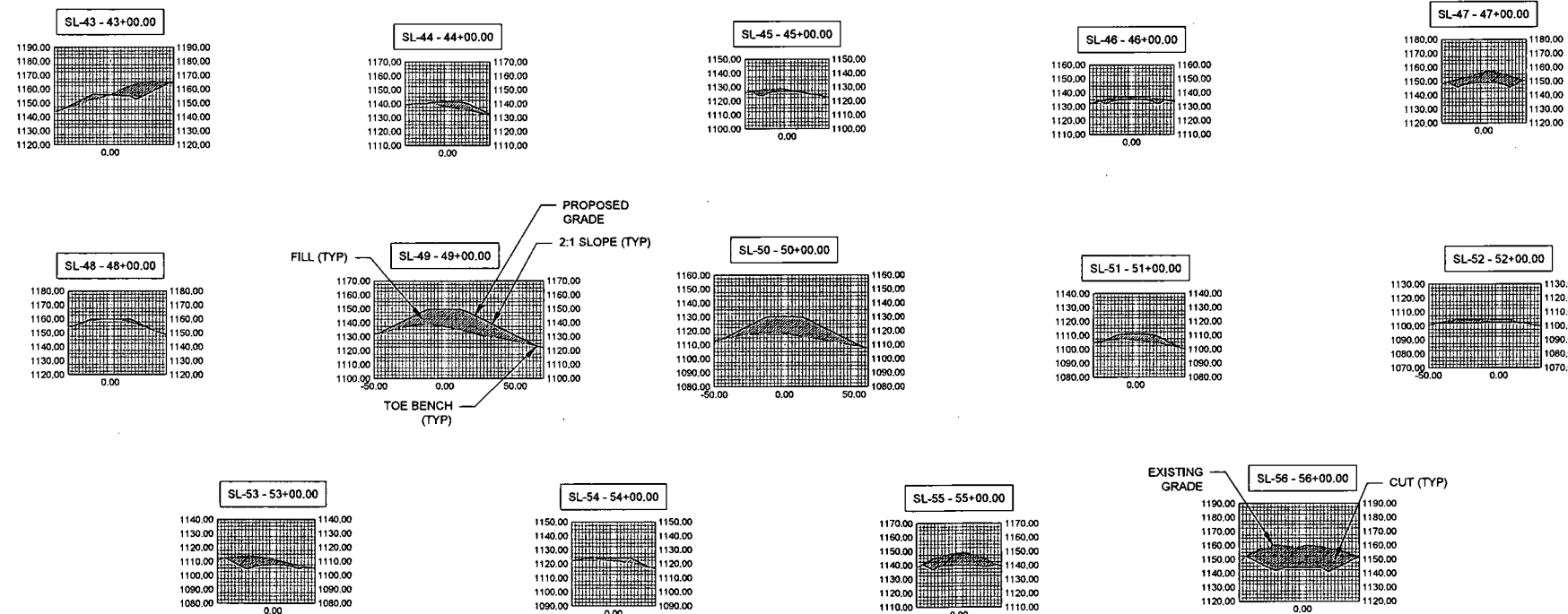
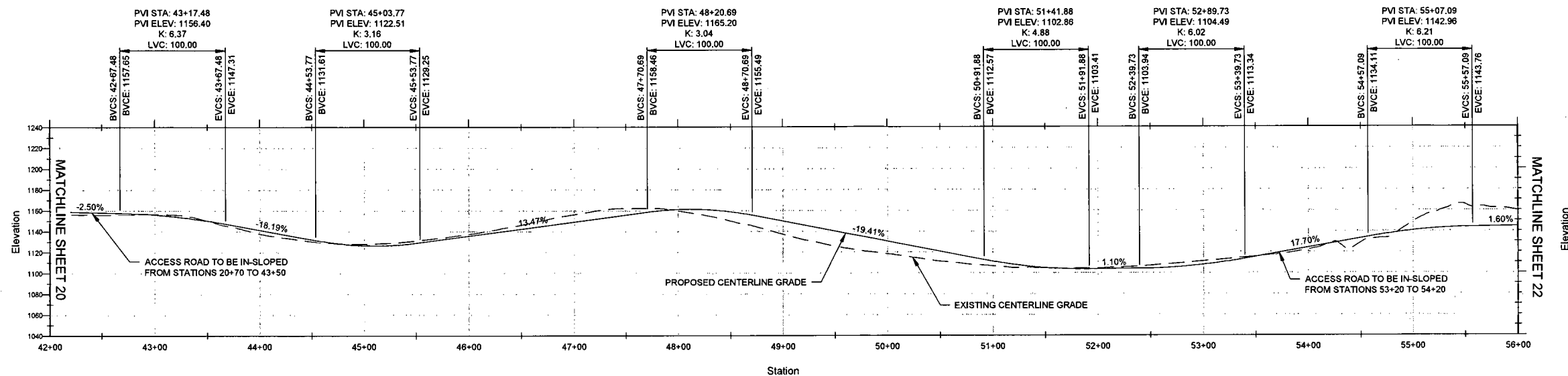


230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-773-7072
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Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	APP	3/9/2015
		CHT	JBC	
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
		-	JMF	
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15
		-	JMF	



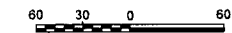
**ISSUED FOR
CONSTRUCTION**

SCALE VERIFICATION

1 INCH

ADJUST SCALE
ACCORDINGLY IF DISTANCE
PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE



SCALE: 1 INCH = 60 FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 1 CROSS
SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
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APPROVED BY	JMF

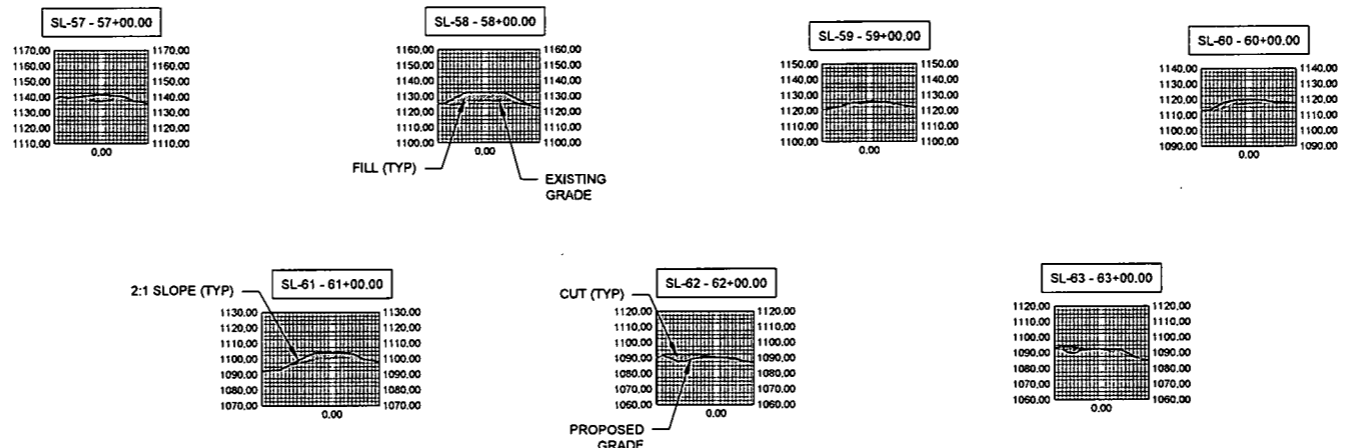
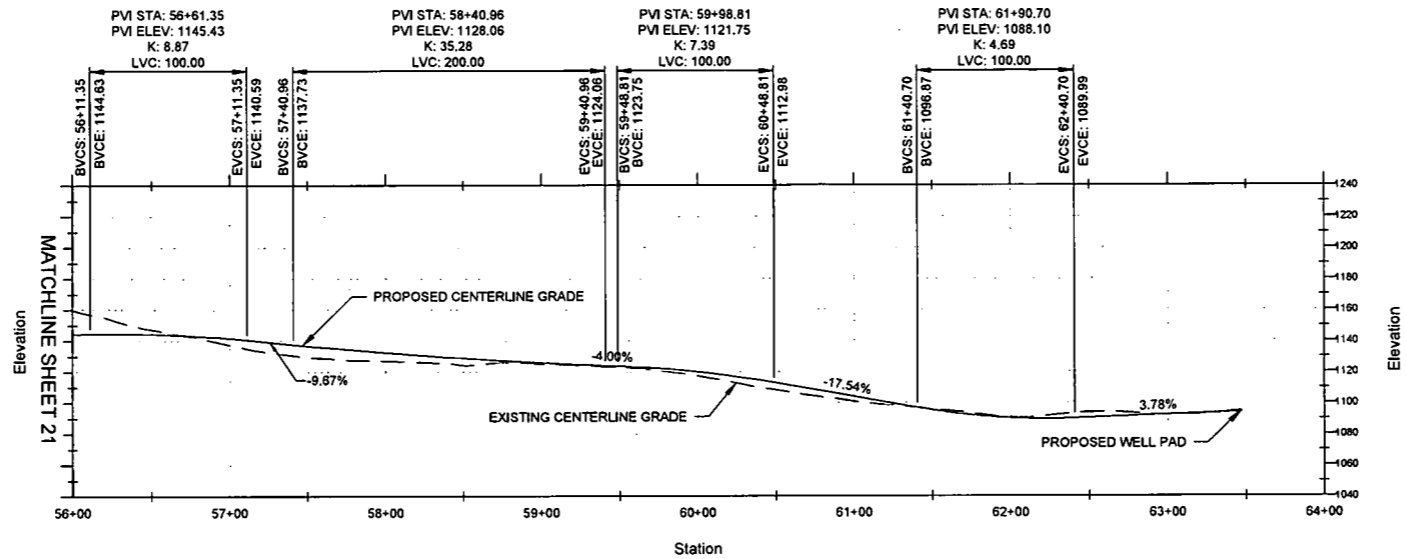
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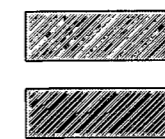
- REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

PLOTTED: 4/21/15 7:52 AM BY: yeh.park
 LAYOUT: 21 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
 CAD FILE: G:\Users\Antero\Folders\Stanley\Design\Site Plans - Final\CROSS SECTIONS & PROFILES.dwg

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



LEGEND



NOTES:
1. REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	APP	3/9/2015
		CHT	JBC	
		-	JMF	
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
		-	JMF	
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15
		-	JMF	

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 1 CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

22

PLOTTED: 02/20/15 7:52 AM BY: jbc
 CAD FILE: G:_Antero\Antero\Facilities\Stanley\Design\CRS1n Plns - Final\CROSS SECTIONS & PROFILES.dwg LAYOUT: 21 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 15066
PHONE: 724-772-7072
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Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	APP	3/9/2015
		CHT	JBC	
		-	JMF	
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
		-	JMF	
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15
		-	JMF	

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE

50 25 0 50

SCALE: 1 INCH = 50 FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 2 CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



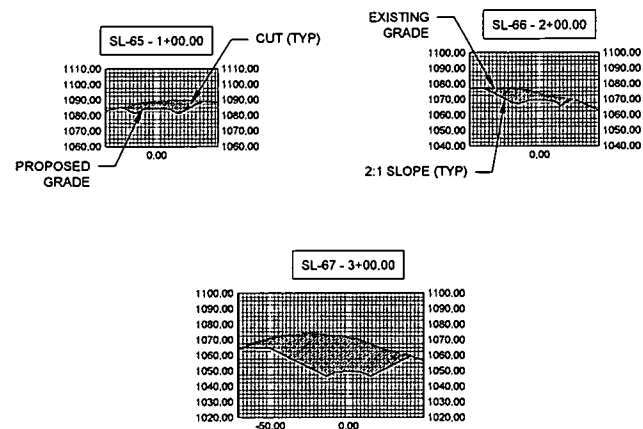
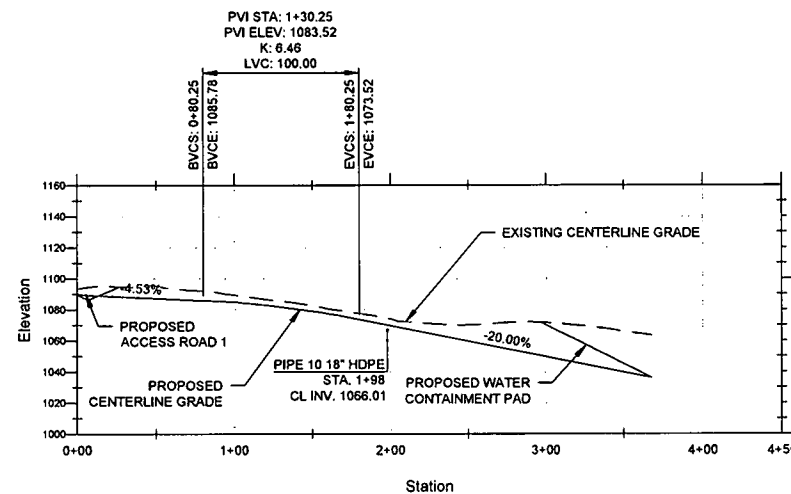
CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

23

23 of 34

**STANLEY ACCESS ROAD 2
CROSS SECTIONS AND PROFILE**



LEGEND



NOTES:

- REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	APP	3/9/2015
		CHT	JBC	
		-	JMF	
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
		-	JMF	
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15
		-	JMF	

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

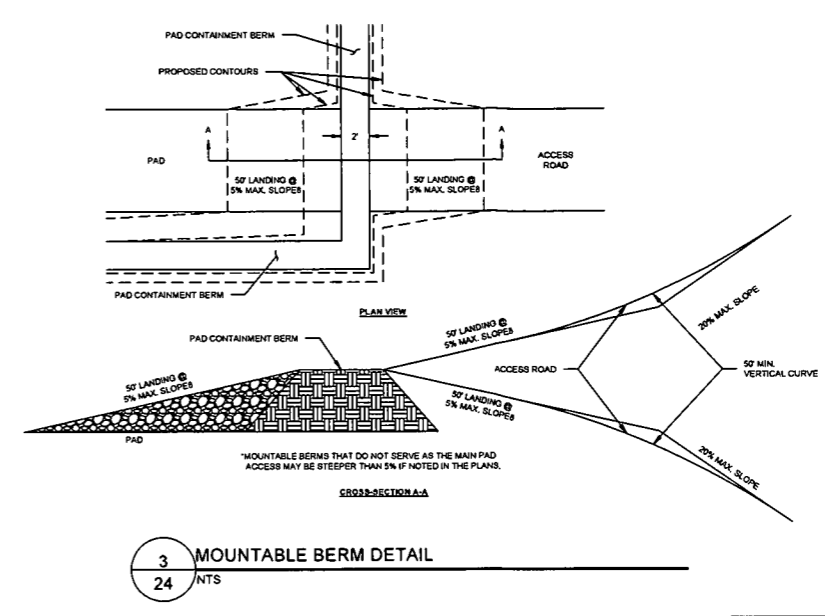
DETAILS

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

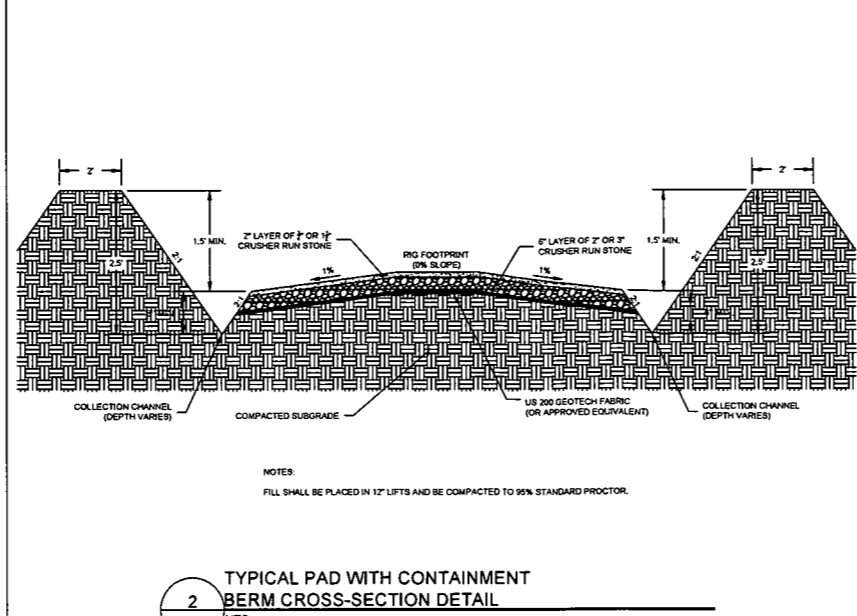


CONSTRUCTION

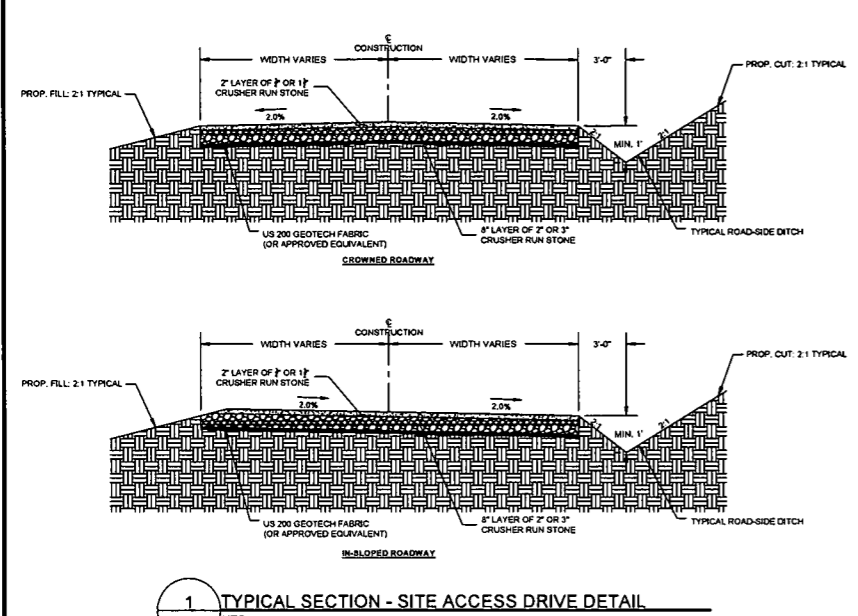
PROJECT NO. 20150962.001A
ISSUE DATE 02-25-2015
CURRENT REVISION 3
DESIGNED BY CHT
DRAWN BY CHT
CHECKED BY JBC
APPROVED BY JMF SHEET 24 of 34



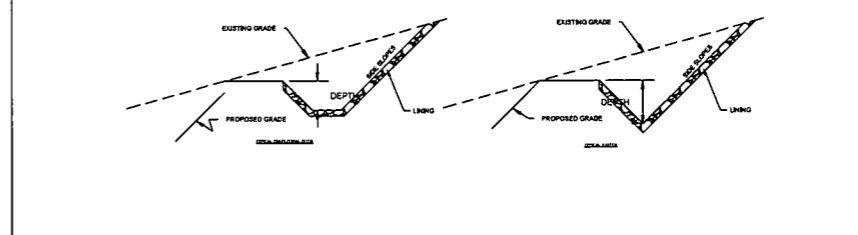
3 MOUNTABLE BERM DETAIL
24 NTS



2 TYPICAL PAD WITH CONTAINMENT BERM CROSS-SECTION DETAIL
24 NTS



1 TYPICAL SECTION - SITE ACCESS DRIVE DETAIL
24 NTS

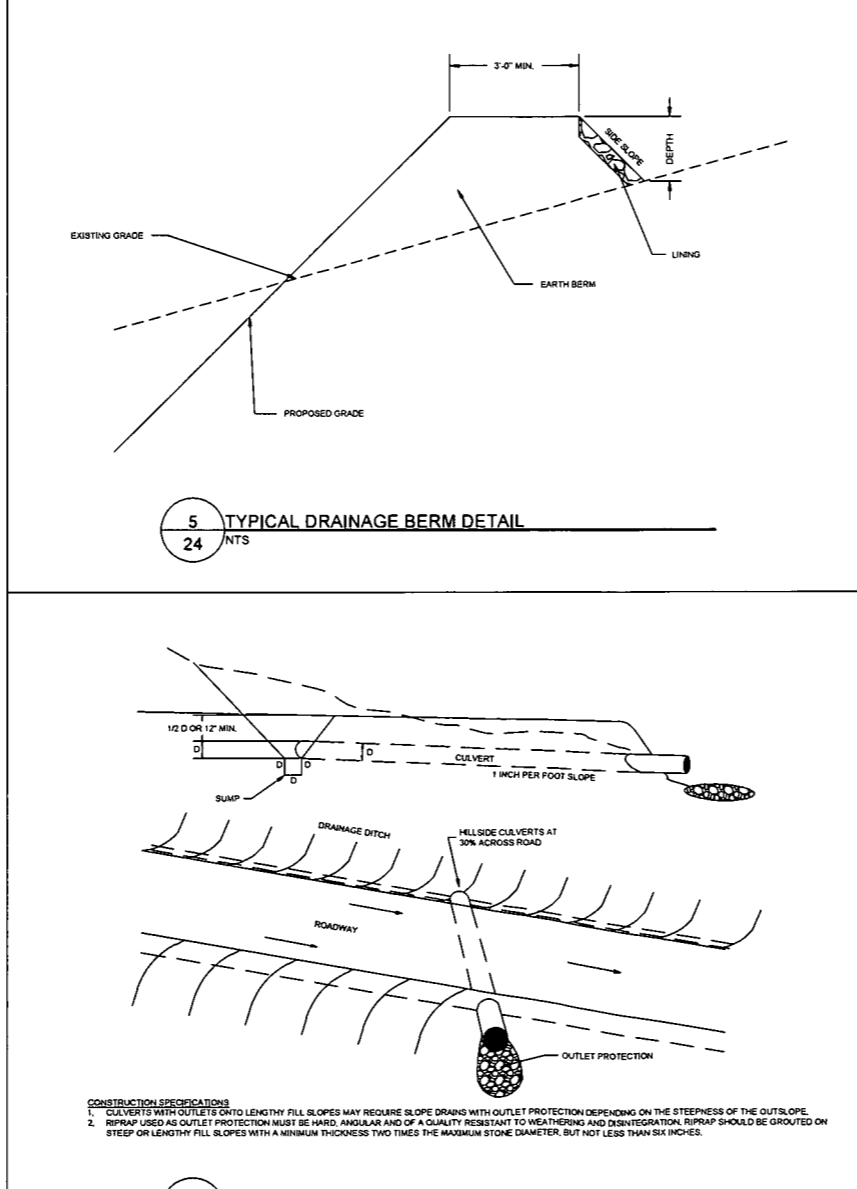


5 TYPICAL DRAINAGE BERM DETAIL
24 NTS

STANLEY ROAD-SIDE DITCH & CHANNEL DESIGN AND LINING

ROAD-SIDE DITCH / CHANNEL NAME	TOTAL RUNOFF, Q (cfs)	UPPER STATION	LOWER STATION	LENGTH (ft)	CHANNEL SECTION	BOTTOM WIDTH (ft)	LEFT SIDE SLOPE, Z:1 (ft)	RIGHT SIDE SLOPE, Z:1 (ft)	CHANNEL DEPTH (ft)	CHANNEL SLOPE (ft/ft)	TEMPORARY LINER	PERMANENT LINER
ROAD-SIDE DITCH 1	0.50	00+84	00+35	29	TRIANGULAR	-	2.00	2.00	3.00	0.24	NAG SC250	NAG SC250
ROAD-SIDE DITCH 2	0.32	01+83	03+00	117	TRIANGULAR	-	2.00	2.00	3.00	0.04	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 3	0.80	01+83	03+86	203	TRIANGULAR	-	2.00	2.00	3.00	0.03	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 4	1.13	05+32	03+86	146	TRIANGULAR	-	2.00	2.00	3.00	0.14	NAG SC250	NAG SC250
ROAD-SIDE DITCH 5	0.80	08+18	05+35	283	TRIANGULAR	-	2.00	2.00	3.00	0.14	NAG C125BN	NAG C125BN
ROAD-SIDE DITCH 6	0.81	08+44	05+85	295	TRIANGULAR	-	2.00	2.00	3.00	0.12	NAG C125BN	NAG C125BN
ROAD-SIDE DITCH 7	0.72	19+58	16+84	272	TRIANGULAR	-	2.00	2.00	3.00	0.12	NAG C125BN	NAG C125BN
ROAD-SIDE DITCH 8	2.30	23+91	20+53	338	TRIANGULAR	-	2.00	2.00	3.00	0.03	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 9	2.84	23+91	28+88	297	TRIANGULAR	-	2.00	2.00	3.00	0.07	NAG C125BN	NAG C125BN
ROAD-SIDE DITCH 10	0.38	28+91	27+90	89	TRIANGULAR	-	2.00	2.00	3.00	0.23	NAG SC250	NAG SC250
ROAD-SIDE DITCH 11	0.42	27+94	28+79	85	TRIANGULAR	-	2.00	2.00	3.00	0.20	NAG SC250	NAG SC250
ROAD-SIDE DITCH 12	1.83	28+88	32+48	360	TRIANGULAR	-	2.00	2.00	3.00	0.04	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 13	2.74	37+59	32+48	513	TRIANGULAR	-	2.00	2.00	3.00	0.07	NAG C125BN	NAG C125BN
ROAD-SIDE DITCH 14	0.48	38+53	37+63	90	TRIANGULAR	-	2.00	2.00	3.00	0.23	NAG SC250	NAG SC250
ROAD-SIDE DITCH 15	0.48	39+65	38+57	108	TRIANGULAR	-	2.00	2.00	3.00	0.23	NAG SC250	NAG SC250
ROAD-SIDE DITCH 16	0.85	41+38	39+69	169	TRIANGULAR	-	2.00	2.00	3.00	0.15	NAG SC250	NAG SC250
ROAD-SIDE DITCH 17	1.19	41+38	43+48	210	TRIANGULAR	-	2.00	2.00	3.00	0.04	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 18	0.30	44+55	45+14	59	TRIANGULAR	-	2.00	2.00	3.00	0.12	R-6 RIP RAP	R-6 RIP RAP
ROAD-SIDE DITCH 19	0.70	47+78	45+14	264	TRIANGULAR	-	2.00	2.00	3.00	0.12	NAG C125BN	NAG C125BN
ROAD-SIDE DITCH 20	0.70	47+78	45+26	252	TRIANGULAR	-	2.00	2.00	3.00	0.12	NAG C125BN	NAG C125BN
ROAD-SIDE DITCH 21	0.32	51+26	51+99	73	TRIANGULAR	-	2.00	2.00	3.00	0.07	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 22	0.45	53+08	52+59	49	TRIANGULAR	-	2.00	2.00	3.00	0.10	R-6 RIP RAP	R-6 RIP RAP
ROAD-SIDE DITCH 23	0.71	53+87	51+99	188	TRIANGULAR	-	2.00	2.00	3.00	0.10	R-6 RIP RAP	R-6 RIP RAP
ROAD-SIDE DITCH 24	0.29	55+94	54+68	128	TRIANGULAR	-	2.00	2.00	3.00	0.07	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 25	0.44	54+68	55+00	34	TRIANGULAR	-	2.00	2.00	3.00	0.12	R-6 RIP RAP	R-6 RIP RAP
ROAD-SIDE DITCH 26	0.25	55+84	56+88	94	TRIANGULAR	-	2.00	2.00	3.00	0.03	STRAW WITH NET	CLASS C VEGETATION
ROAD-SIDE DITCH 27	0.84	81+51	81+92	248	TRIANGULAR	-	2.00	2.00	3.00	0.10	R-6 RIP RAP	R-6 RIP RAP
ROAD-SIDE DITCH 28	0.52	81+97	83+63	166	TRIANGULAR	-	2.00	2.00	3.00	0.20	NAG SC250	NAG SC250
ROAD-SIDE DITCH 29	0.43	82+06	83+65	159	TRIANGULAR	-	2.00	2.00	3.00	0.10	NAG SC250	NAG SC250
ROAD-SIDE DITCH 30	0.78	83+06	82+11	245	TRIANGULAR	-	2.00	2.00	3.00	0.10	R-6 RIP RAP	R-6 RIP RAP
DIVERSION DITCH 1	0.53	N/A	N/A	149	TRIANGULAR	-	2.00	2.00	1.50	0.16	NAG C125BN	NAG C125BN
DIVERSION DITCH 2	0.24	N/A	N/A	113	TRIANGULAR	-	2.00	2.00	1.50	0.18	R-6 RIP RAP	R-6 RIP RAP
DIVERSION DITCH 3	0.34	N/A	N/A	159	TRIANGULAR	-	2.00	2.00	1.50	0.19	NAG C125BN	NAG C125BN
DIVERSION DITCH 4	0.29	N/A	N/A	144	TRIANGULAR	-	2.00	2.00	1.50	0.22	NAG SC250	NAG SC250
DIVERSION DITCH 5	0.48	N/A	N/A	118	TRIANGULAR	-	2.00	2.00	1.50	0.10	R-6 RIP RAP	R-6 RIP RAP
DIVERSION DITCH 6	0.43	N/A	N/A	98	TRIANGULAR	-	2.00	2.00	1.50	0.10	R-6 RIP RAP	R-6 RIP RAP
CHANNEL 1	1.55	N/A	N/A	161	TRIANGULAR	-	1.00	1.00	1.50	0.02	STRAW WITH NET	CLASS C VEGETATION
CHANNEL 2	1.30	N/A	N/A	107	TRIANGULAR	-	1.00	1.00	1.50	0.02	STRAW WITH NET	CLASS C VEGETATION

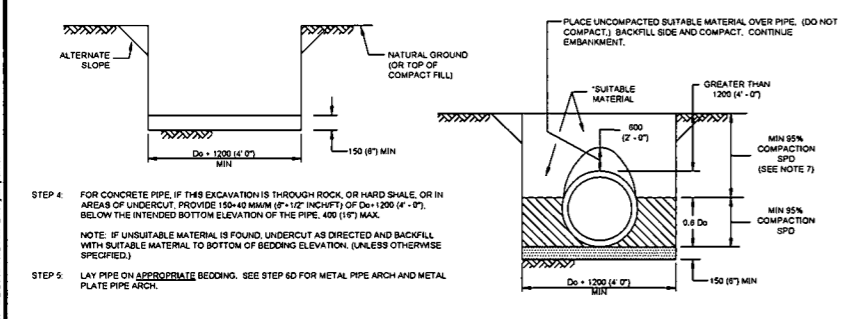
6 TYPICAL DRAINAGE CHANNEL DETAIL
24 NTS



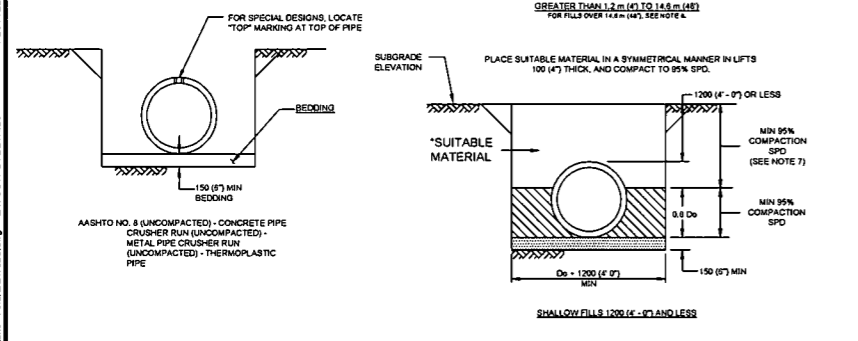
7 TYPICAL DITCH RELIEF CULVERT DETAIL
24 NTS

PIPE INSTALLATION PROCEDURES
CONSTRUCTION DETAILS BELOW COVER THE FOLLOWING CONDITIONS:
A. PIPE LYING ON TOP OF THE NATURAL GROUND, ROCK OR COMPACTED (95% SPD) FILL.
B. THE EXISTING GROUND IS BETWEEN THE TOP AND THE BOTTOM OF THE PROPOSED PIPE AND THE PIPE IS TO BE COVERED WITH EARTH FILL.
C. THE TOP OF PIPE IS BELOW THE LEVEL OF THE NATURAL GROUND OR COMPACTED FILL, (TO MINIMUM 95% SPD) AND TO BE COVERED WITH EARTH FILL TO HEIGHTS ABOVE THE NATURAL GROUND.

STEP 1: REMOVE TOPSOIL (COMPRESSIBLE LAYER OF ORGANIC MATERIAL) TO A WIDTH EQUAL TO 5 OUTSIDE DIAMETERS OF THE PIPE IN ALL FILL CONDITIONS ABOVE A, B & C. ALSO IF SPECIFIED ON THE CONTRACT DRAWING, UNDERCUT FOR THE DEPTH BELOW THE BEDDING AS SHOWN BY DESIGN (MAKE MIN WIDTH 5 DIAMETERS OF PIPE). PAY AS CLASS 1 EXCAVATION.
STEP 2: CONSTRUCT THE EMBANKMENT TO 1200 (4' - 0") ABOVE THE TOP OF PIPE OR TO THE SUBGRADE ELEVATION, WHICHEVER IS LESS. FOR PIPES 1800 (7') OR GREATER SEE NOTE 1.
STEP 3: EXCAVATE THE TRENCH TO THE WIDTH OF THE OUTSIDE DIAMETER OF THE PIPE BARREL PLUS 1200 (4' - 0") AND CREATE AN APPROPRIATE BEDDING 150 (6") DEEP.
STEP 4: FOR CONCRETE PIPE, IF THE EXCAVATION IS THROUGH ROCK, OR HARD SHALE, OR IN AREAS OF UNDERCUT, PROVIDE 150-40 MM (6" - 1 1/2" INCHES) OF D_o+1200 (4' - 0") BELOW THE INTENDED BOTTOM ELEVATION OF THE PIPE, 400 (16") MAX.
NOTE: IF UNSUITABLE MATERIAL IS FOUND, UNDERCUT AS DIRECTED AND BACKFILL WITH SUITABLE MATERIAL TO BOTTOM OF BEDDING ELEVATION, UNLESS OTHERWISE SPECIFIED.
STEP 5: LAY PIPE ON APPROPRIATE BEDDING. SEE STEP 6D FOR METAL PIPE ARCH AND METAL PLATE PIPE ARCH.



4 CIRCULAR PIPE INSTALLATION DETAIL
24 NTS

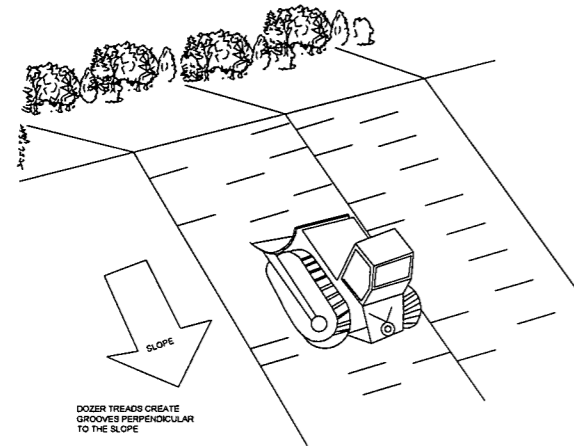


CONSTRUCTION SPECIFICATIONS
1. CULVERTS WITH OUTLETS ONTO LENGTHY FILL SLOPES MAY REQUIRE SLOPE DRAINS WITH OUTLET PROTECTION DEPENDING ON THE STEEPNESS OF THE OUTSLOPE.
2. RIPRAP USED AS OUTLET PROTECTION MUST BE HARD, ANGULAR AND OF A QUALITY RESISTANT TO WEATHERING AND DISINTEGRATION. RIPRAP SHOULD BE GROUDED ON STEEP OR LENGTHY FILL SLOPES WITH A MINIMUM THICKNESS TWO TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN SIX INCHES.

LEGEND

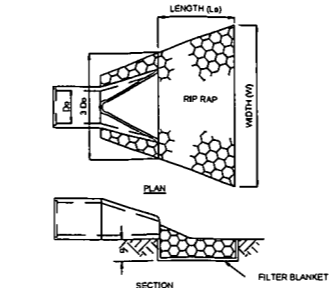
	AGGREGATE FOR BEDDING (ASHTO NO. 8)	D _o =	OUTSIDE DIAMETER OF PIPE, MILLIMETERS (INCHES)
	COARSE AGGREGATE (CRUSHER RUN)	SPD =	STANDARD PROCTOR DENSITY
	SUITABLE MATERIAL	ID =	INSIDE DIAMETER
			SUITABLE MATERIAL = MATERIAL CONTAINING NO DEBRIS, ORGANIC MATTER, FROZEN MATERIAL OR LARGE STONES WITH A DIAMETER GREATER THAN ONE-HALF THE THICKNESS OF THE COMPACTED LAYERS BEING PLACED.

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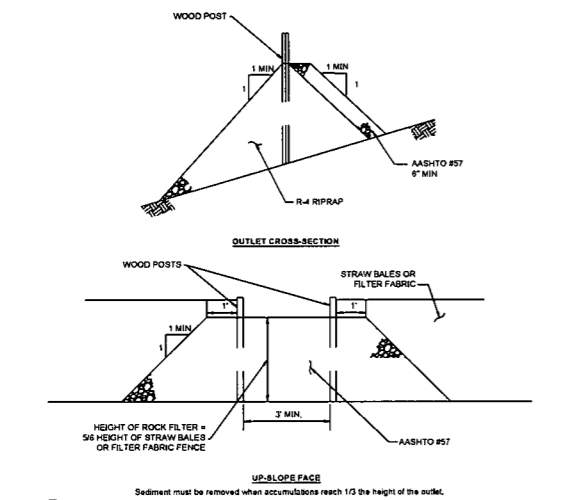


1 BULLDOZER TRACKING DETAIL
25 NTS

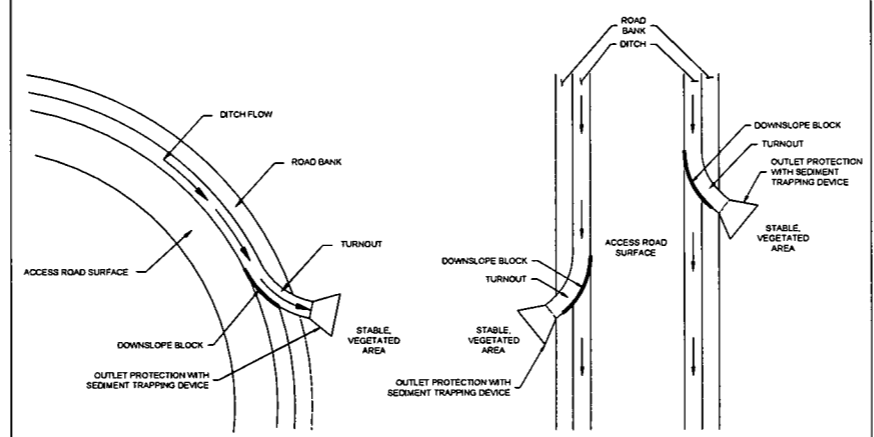
OUTLET	D _o	D _o	L _o	W	RIP RAP	d
FES 1	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 2	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 3	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 4	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 5	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 6	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 7	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 8	18"	4.5'	10.8'	7.7'	R-4 RIPRAP	18"
FES 9	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 10	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"



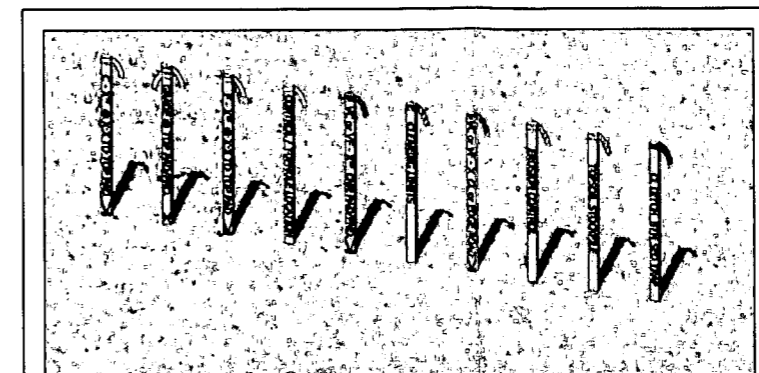
2 RIP RAP OUTLET PROTECTION DETAIL
25 NTS



3 ROCK FILTER OUTLET DETAIL
25 NTS

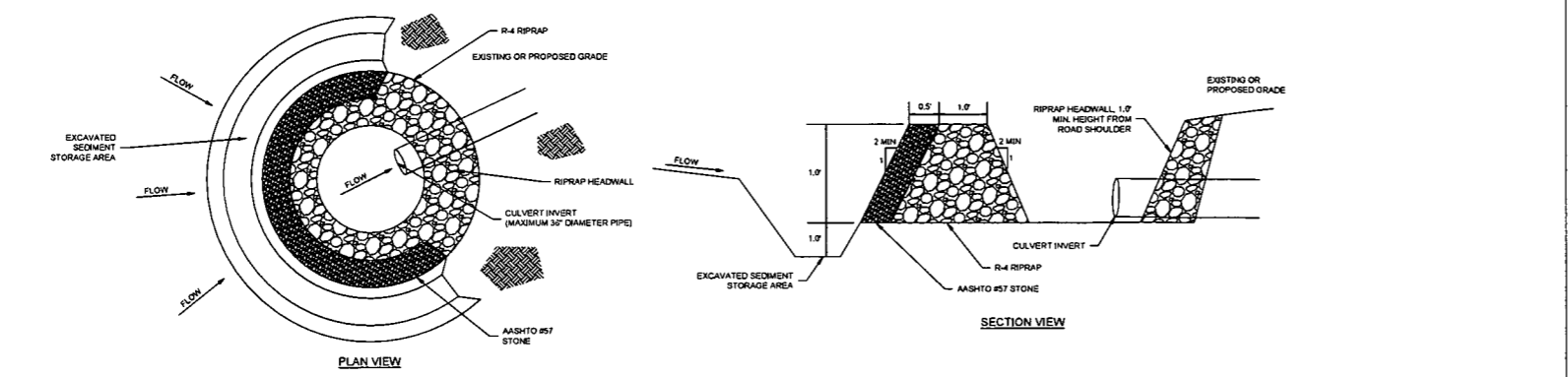


4 TURN OUT DETAIL
25 NTS



Color/Pattern	Description
Yellow Ribbon	Yellow Ribbon used to indicate top of Cuts (C) Cut to be determined at time of stakeout Slope determined by site design
Yellow and Orange Ribbon	Yellow and Orange Ribbon used to indicate Grade at Top of Pad/Pond/Pit
Orange Ribbon	Orange Ribbon used to indicate toes of Fills (F) Fill to be determined at time of stakeout Slope determined by site design
Pink Ribbon	Pink Ribbon used to indicate Top Hole Location Pink Ribbon used to indicate Survey Control Location
Pink & Black Stripe Ribbon	Pink & Black Stripe Ribbon used to indicate Vertical Cur (VC) at Pad/Pond/Pit corner or edge Pink & Black Stripe Ribbon used to indicate Vertical Fill (VF) at Pad/Pond/Pit corner or edge Vertical Cur/Vertical Fill to be determined at time of stakeout
Blue & White Stripe Ribbon	Blue & White Stripe Ribbon used to indicate clearing limits/construction limits
Orange & Black Stripe Ribbon	Orange & Black Stripe Ribbon used to indicate Vertical Cur (VC) at Centerline or edge of access road Orange & Black Stripe Ribbon used to indicate Vertical Fill (VF) at centerline or edge of access road
Pink & White Stripe Ribbon	Pink & White Stripe Ribbon used to indicate Erosion and Sediment Control Structures Silk Fence (SF) Reinforced Filter Fence (RFF) Super Silt Fence (SSF) Filter Sock (FS)
Orange & White Stripe Ribbon	Orange & White Stripe Ribbon used to indicate Topsoil Stockpile Locations
Blue Ribbon	Blue Ribbon used to indicate Centerline (C) Ditch Blue Ribbon used to indicate Bottom (BTM) Sediment Traps

5 ANTERO RESOURCES STANDARD RIBBON COLOR SCHEME
25 NTS



6 ROCK PIPE INLET DETAIL
25 NTS



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

DETAILS
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

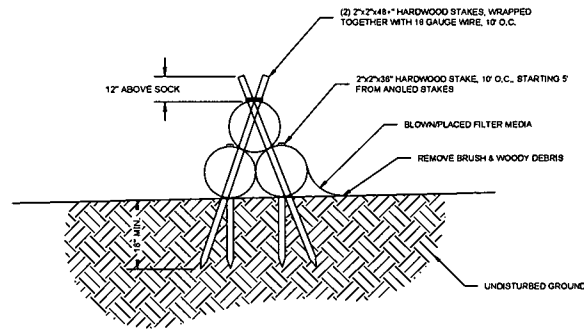


CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	CHT
CHECKED BY	JBC
APPROVED BY	JMF

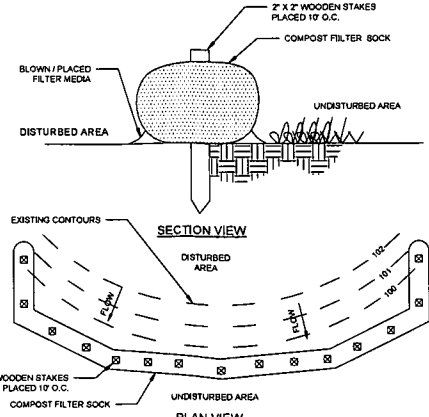
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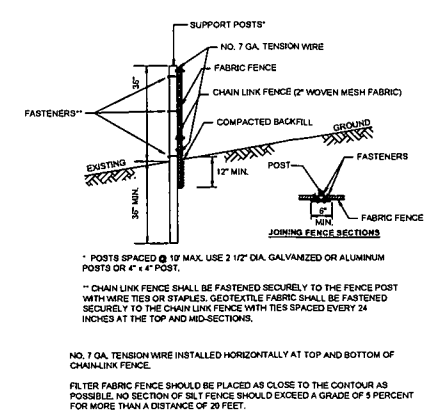


1 TRIPLE STACKED FILTER SOCK DETAIL
26 NTS

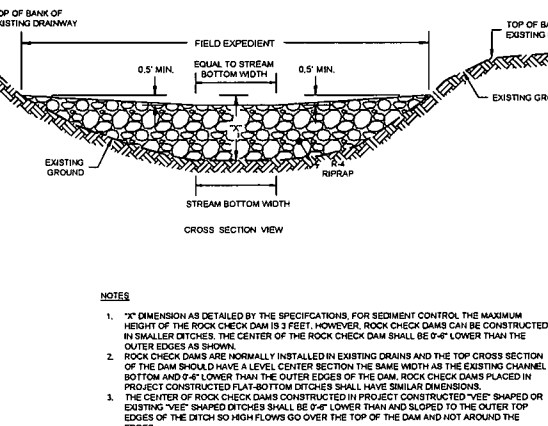
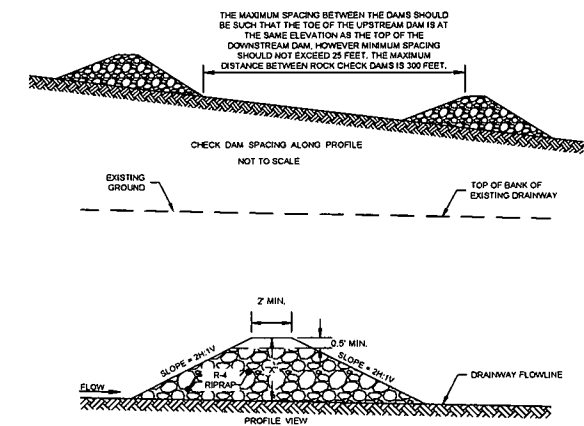
COMPOST SOCK FABRIC NOMINAL SPECIFICATIONS					
MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (Jumbo)	HEAVY DUTY Multi-Filament Polypropylene (Jumbo)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	ISO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIMENSIONS	12" x 12"	12" x 12" x 12"	12" x 12" x 12"	12" x 12" x 12"	12" x 12" x 12"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	3/8"
TENSILE STRENGTH	28 psi	28 psi	28 psi	44 psi	202 psi
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM D 733)	25% @ 1000 hrs.	25% @ 1000 hrs.		100% @ 1000 hrs.	100% @ 1000 hrs.
NOMINAL FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	8 MONTHS	1 YEAR	2 YEARS



2 COMPOST FILTER SOCK DETAIL
26 NTS



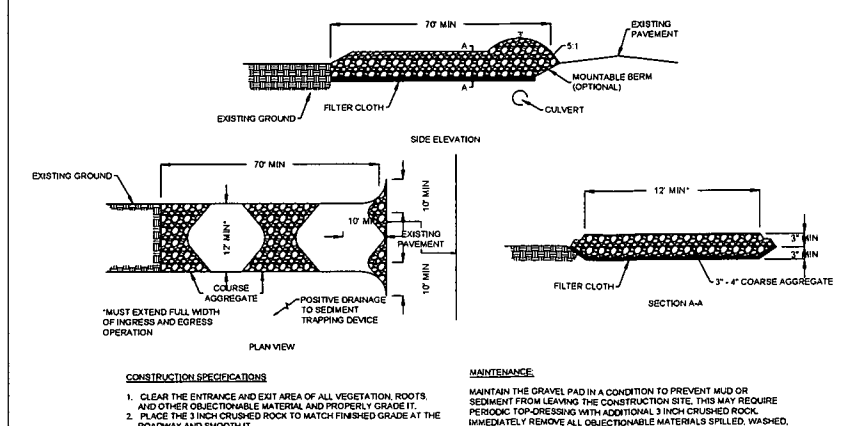
3 SUPER SILT FENCE DETAIL
26 NTS



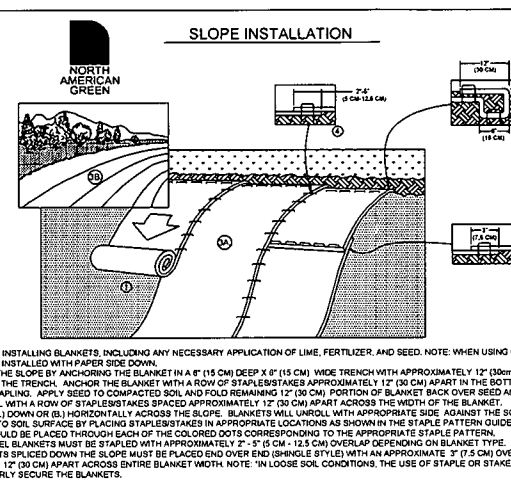
4 ROCK CHECK DAM DETAIL
26 NTS

SUPER SILT FENCE & FILTER SOCK TABLE											
ID NUMBER	SS(F/L)	F(L/F)	ID NUMBER	SS(F/L)	F(L/F)	ID NUMBER	SS(F/L)	F(L/F)	ID NUMBER	SS(F/L)	F(L/F)
1	80	20	56	39	145	58	241	77	117	96	77
2	87	21	89	40	88	59	59	84	78	88	87
3	215	22	52	41	420	60	84	78	129	88	108
4	245	23	72	42	181	81	46	80	325	99	42
5	36	24	59	43	620	62	91	81	84	100	132
6	50	25	145	44	103	63	55	82	33	101	69
7	58	26	52	45	268	64	151	83	159	102	233
8	74	27	208	46	150	65	115	84	208	103	41
9	116	28	158	47	146	66	25	85	381	104	60
10	140	29	93	48	84	67	46	86	38	105	43
11	65	30	332	49	91	68	233	87	33	106	42
12	90	31	87	50	199	69	213	88	20	107	73
13	43	32	47	51	245	70	84	89	73	108	39
14	39	33	63	52	50	71	77	90	78	109	45
15	184	34	141	53	57	72	287	91	174	110	62
16	60	35	108	54	360	73	72	92	230	111	121
17	61	36	229	55	213	74	70	93	58	112	27
18	120	37	49	56	121	75	48	94	200	113	139
19	46	38	111	57	237	76	151	95	84	TOTALS	6548

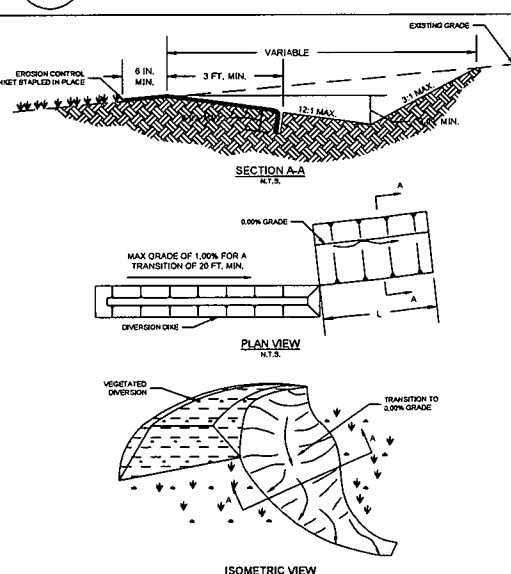
5 SUPER SILT FENCE & FILTER SOCK TABLE
26 NTS



7 STONE CONSTRUCTION ENTRANCE DETAIL
26 NTS



6 SLOPE PROTECTION INSTALLATION DETAIL
26 NTS



9 EARTHEN LEVEL SPREADER DETAIL
26 NTS



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16068
PHONE: 724-773-7072
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REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
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DETAILS
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
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DESIGNED BY	CHT
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APPROVED BY	JMF

26

SHEET 26 of 34

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REVISIONS				
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1	WELL PAD REVISION	DWN	APP	3/9/2015
		CHT	JBC	
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		-	JMF	
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		-	JMF	

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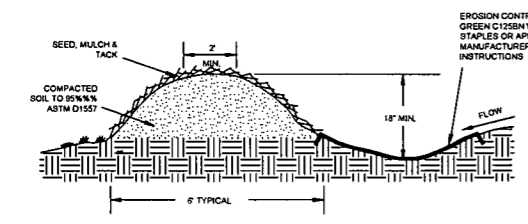
DETAILS
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



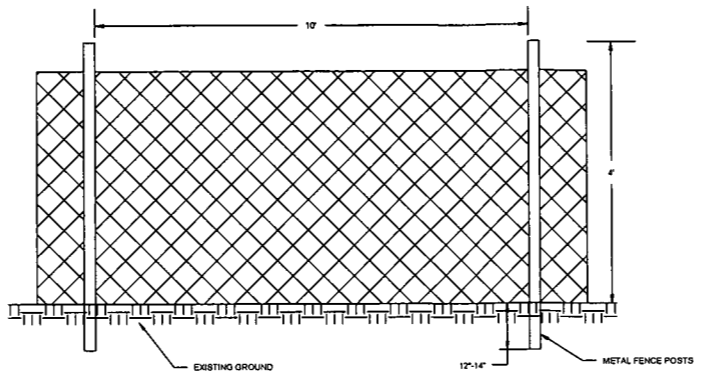
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PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
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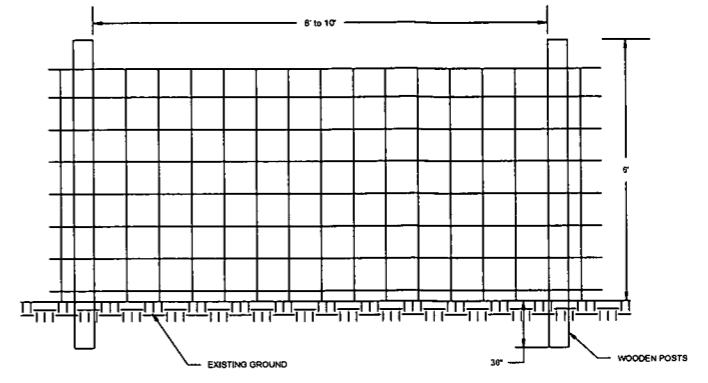
- INSTALLATION**
1. WHEN CLEARING THE LOCATION FOR THE DIVERSION, ONLY CLEAR ENOUGH ROOM FOR CONSTRUCTION AND MAINTENANCE EQUIPMENT ACCESS. DO NOT CLEAR ANY ADDITIONAL AREA UNTIL ALL EROSION CONTROL DEVICES ARE IN PLACE.
 2. REMOVE ALL STUMPS, ROOTS AND OTHER DEBRIS AND DISPOSE OF THEM PROPERLY.
 3. INSTALL DIVERSION AND COMPACT AS SHOWN IN DETAIL. INSURE POSITIVE DRAINAGE DURING CONSTRUCTION OF BERM.
 4. SCARIFY, SEED, MULCH AND TACK DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF BERM.
 5. INSTALL EROSION CONTROL MAT N.A.G. C125BN PER MANUFACTURER'S RECOMMENDATIONS AND KEY INTO SIDES OF CHANNEL TO PREVENT WATER FROM UNDERMINING OR DAMAGING CHANNEL LINER.
- MAINTENANCE**
- INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.



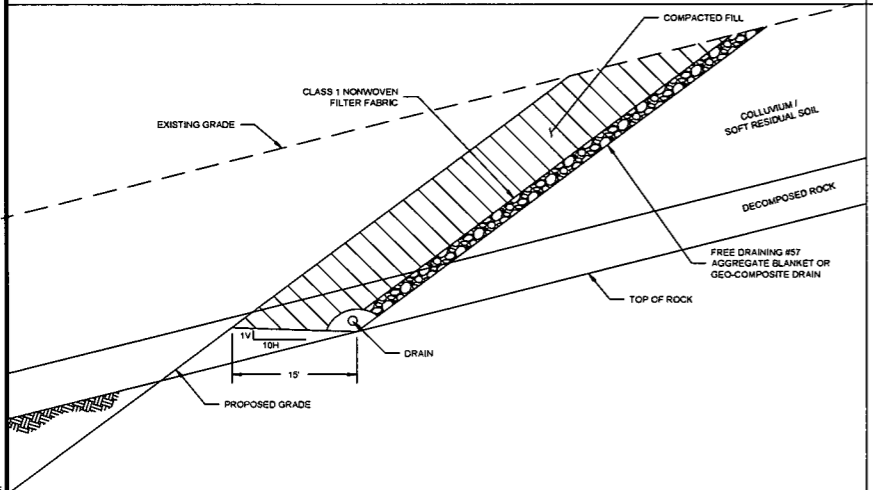
1 TEMPORARY DIVERSION BERM DETAIL
27 NTS



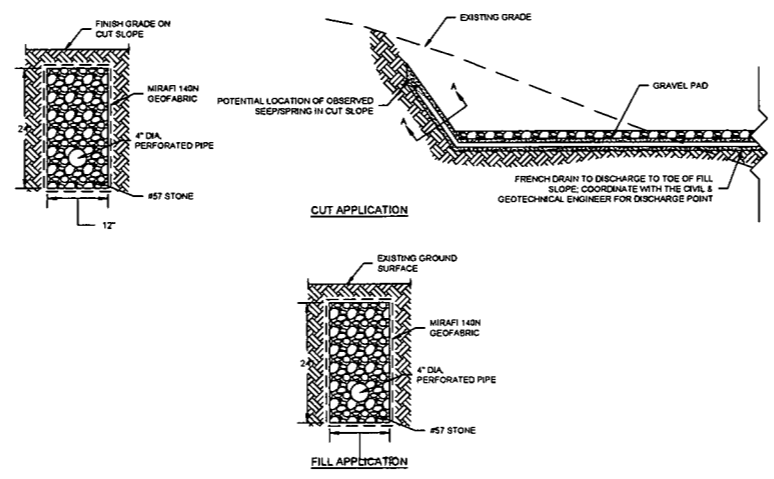
2 TYPICAL CONSTRUCTION FENCE DETAIL
27 NTS



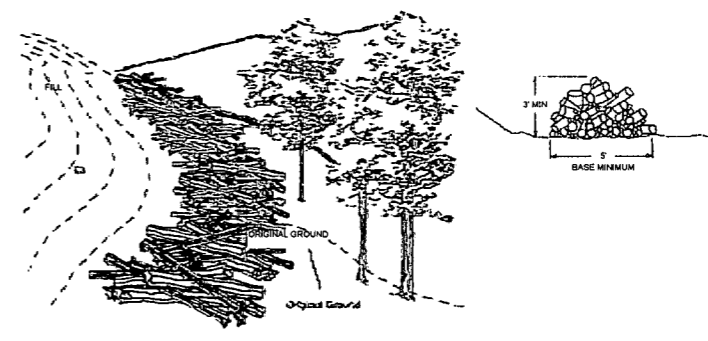
3 TYPICAL WOVEN WIRE FENCE DETAIL
27 NTS



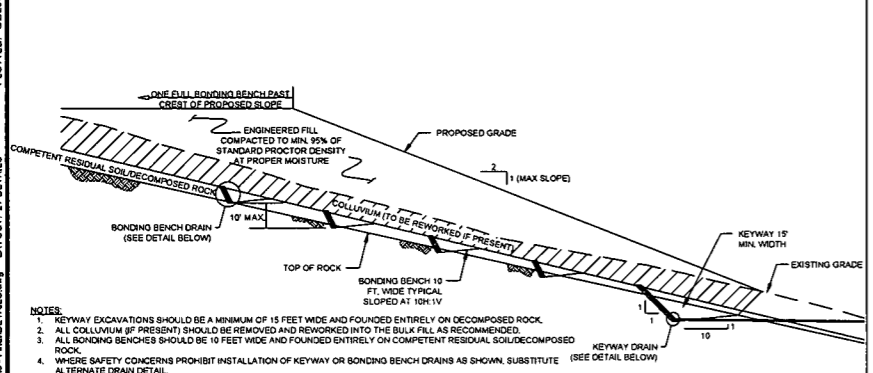
4 CUT SLOPE OVER EXCAVATION DETAIL (TYP.)
27 NTS



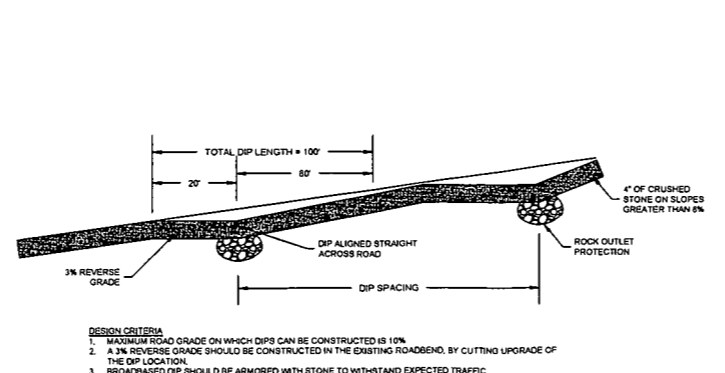
5 SEEP/SPRING FRENCH DRAIN DETAIL
27 NTS



6 BRUSH PILE SEDIMENT BARRIER DETAIL
27 NTS



7 TYPICAL KEYWAY, BENCH, AND DRAINAGE DETAIL
27 NTS

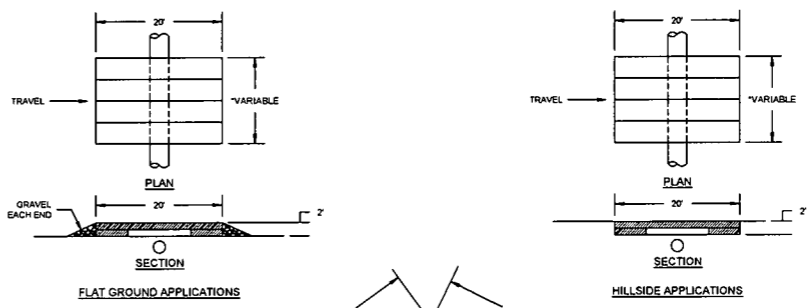


8 BROAD-BASED DIP DETAIL
27 NTS

DESIGN CRITERIA

1. MAXIMUM ROAD GRADE ON WHICH DIPS CAN BE CONSTRUCTED IS 10%.
2. A 3% REVERSE GRADE SHOULD BE CONSTRUCTED IN THE EXISTING ROADBED, BY CUTTING UPGRADE OF THE DIP LOCATION.
3. BROADBASED DIP SHOULD BE ARMORED WITH STONE TO WITHSTAND EXPECTED TRAFFIC.
4. DRAINAGE OUTLET PROTECTION SHALL BE PROVIDED WITH APPROPRIATE SEDIMENT BARRIER STRUCTURES.

ROAD GRADE (%)	DIP LENGTH (FT)
1	300
2	225
3	150
4	100
5	75
6	60
7	45
8	30
9	15
10	10



9 AIR BRIDGE DETAIL
27 NTS

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Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

DETAILS

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
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CHECKED BY	JBC
APPROVED BY	JMF

28

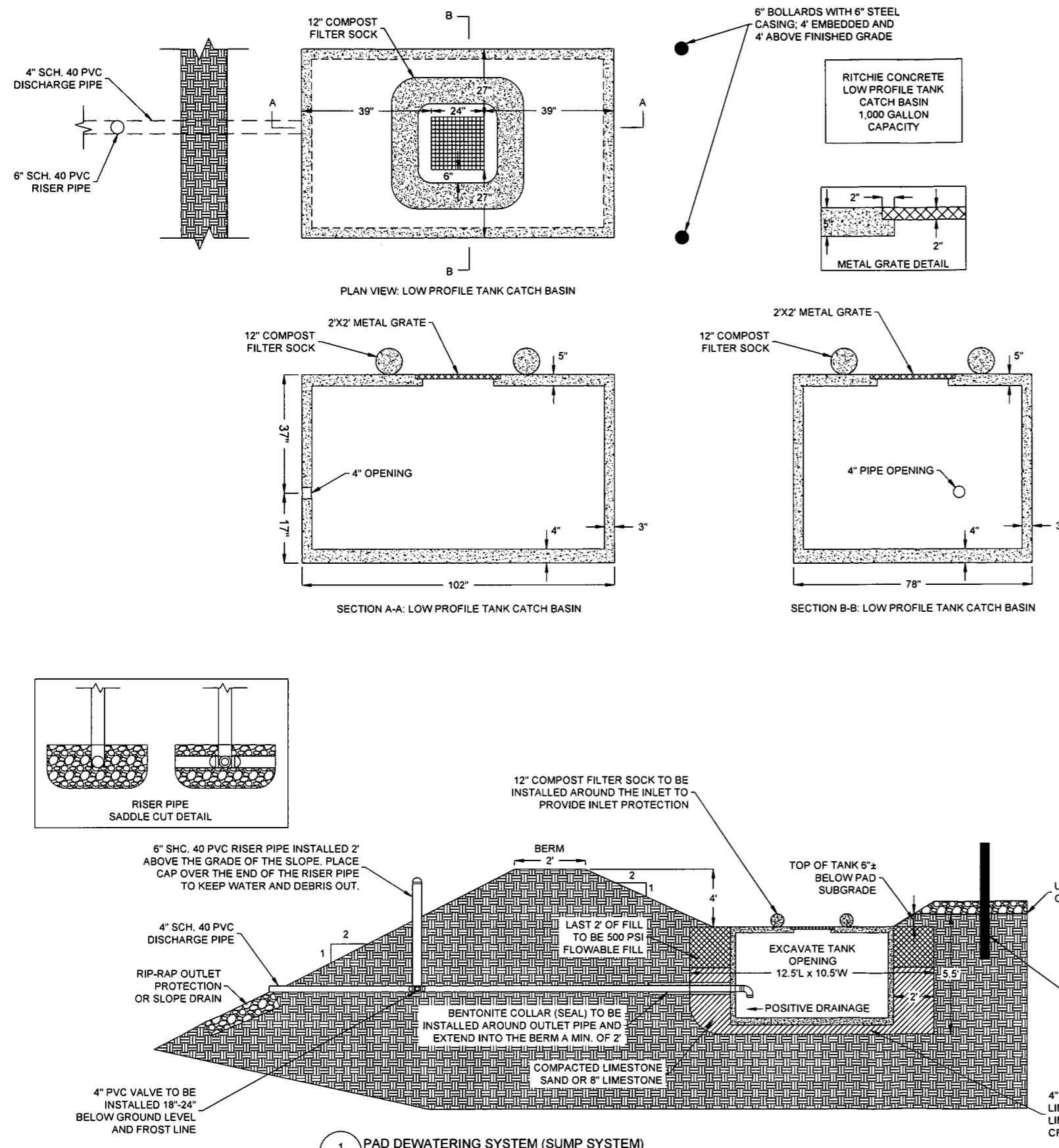
28 of 34

INSTALLATION SEQUENCE

- CONSTRUCT WELL PAD TO SUBGRADE.
- EXCAVATE SUMP HOLE 1' LARGER THAN THE LENGTH, WIDTH, AND HEIGHT OF TANK.
- USE CRUSHER RUN STONE TO PREPARE THE BOTTOM OF THE EXCAVATION. MAKE SURE TO LEVEL THE TANK FROM SIDE TO SIDE AND HAVE POSITIVE FLOW TOWARD THE OUTLET (APPROXIMATELY 1-2").
- MAKE CERTAIN THE OUTLET ON THE TANK LINES UP WITH THE DISCHARGE DITCH FOR INSTALLING THE DISCHARGE PIPE AND VALVE.
- SET THE TANK IN THE EXCAVATION AND LEVEL.
- INSTALL PIPE SECTION, (APPROXIMATELY 1-2' PIECE) INTO THE OUTLET FITTING ON THE TANK. USE HYDRAULIC CEMENT AROUND THE CONNECTION TO ENSURE POSITIVE SEAL.
- INSTALL 4" VALVE ONTO SHORT SECTION OF THE PIPE WITH GLUE (MAKE CERTAIN TO CLEAN AND PRIME BOTH VALVE AND PIPE BEFORE GLUING CONNECTION).
- INSTALL SECTIONS OF PIPE ONTO THE OUTLET SIDE OF THE VALVE UNTIL THE PIPE EXTENDS THROUGH THE BERM AND SLOPE APPROXIMATELY 1'. LEAVE THE END OF THE PIPE EXPOSED (MAKE CERTAIN TO CLEAN AND PRIME THE PIPE AND JOINTS BEFORE GLUING THE CONNECTIONS).
- MAKE CERTAIN THAT THE PIPE IS SUPPORTED AND MAINTAINS POSITIVE FLOW AWAY FROM THE VALVE. USE EXCAVATED SOIL FROM THE DISCHARGE DITCH TO SUPPORT THE PIPE.
- INSTALL THE RISER FOR THE VALVE. USE A SECTION OF HDPE PIPE WITH A LARGER DIAMETER THAN THE VALVE (MINIMUM 8" DIAMETER HDPE PIPE). CUT A "SADDLE" ON THE BOTTOM OF THE RISER PIPE SO THAT THE RISER PIPE WILL REST ON THE DISCHARGE PIPE, SURROUNDING THE VALVE AND KEEPING DIRT AWAY FROM THE OPERATION OF THE VALVE.
- FILL AROUND THE VALVE WITH CRUSHER RUN STONE AND 1' ON THE RISER PIPE TO KEEP SOIL OUT.
- STABILIZE THE RISER PIPE SO THAT IT REMAINS PERPENDICULAR TO THE VALVE (RISER PIPE NEEDS TO BE PERPENDICULAR TO ALLOW SMOOTH OPERATION OF HANDLE AND VALVE). MAKE SURE TO REMOVE THE FACTORY HANDLE ON THE VALVE AND TO FIT "T" HANDLE (ALTERNATE HANDLE) ONTO THE EXPOSED PLUG ON THE TOP OF THE VALVE.
- BEGIN BACKFILLING THE TANK EXCAVATION AND DISCHARGE DITCH. USE THE SOIL EXCAVATED FROM THE TANK HOLE TO BACKFILL THE TANK AND DISCHARGE DITCH. DO NOT BACKFILL WITH ANY LARGE ROCKS AGAINST THE TANK AND BE CERTAIN NOT TO OVER-COMPACT AROUND THE TANK. IMPROPER BACKFILLING AND OVER-COMPACTION AROUND THE TANK WILL LEAD TO THE TANK COLLAPSING. IT IS RECOMMENDED THAT FINER SOILS ARE USED TO BACKFILL AROUND THE TANK AND DISCHARGE PIPE TO REDUCE VOIDS AND EXCESSIVE SETTLING.
- ONCE BACKFILLING IS COMPLETE, THE TOP OF THE TANK SHOULD BE FLUSH WITH THE SUB-GRADE.
- CUT THE RISER PIPE OFF 2' ABOVE SUB-GRADE TO ALLOW FOR THE RISER PIPE TO EXTEND 1' ABOVE THE FINAL GRADE AND KEEP SURFACE WATER FROM ENTERING THE PIPE.
- REPAIR THE PAD BERM AND FILL SLOPE.
- INSTALL RIP-RAP SPILLWAY FROM THE DISCHARGE PIPE OUTLET TO THE BOTTOM OF THE SLOPE. DEPENDING ON SITE CONDITIONS, THE SPILLWAY WILL DISCHARGE THROUGH A LEVEL SPREADER TO VEGETATION OR E&S CONTROLS OR DISCHARGE FROM THE SPILLWAY INTO AN ACCESS ROAD DITCH.
- WITH TANK INSTALLATION COMPLETE, THE WELL PAD CAN THEN BE STONED. WHEN USING GEO-FABRIC (TYPAR), BE SURE TO LAP THE FABRIC OVER THE EDGE OF THE LID ON THE TANK. THIS LAP WILL HELP RUN-OFF TO FLOW INTO THE TANK. TAPER STONE DOWN FROM THE PAD TO THE TANK, SO THERE IS NOT A "LIP" OR TRIP HAZARD ON THE EDGE OF STONE.
- BE SURE NOT TO RUN A SMOOTH DRUM OR SHEEPS-FOOTED ROLLER OVER THE TANK LID OR VIBRATE TOO CLOSE TO THE SIDES OF THE TANK. COMPACTING OR OPERATING HEAVY EQUIPMENT NEAR THE TANK MAY CAUSE THE WALLS ON THE TANK TO FAIL. KEEP TRAFFIC OFF OF THE TANK. IT IS RECOMMENDED THAT BARRIERS BE INSTALLED TO PREVENT TRAFFIC FROM DRIVING OVER OR PARKING ON OR NEAR THE TANK.

OPERATIONAL NOTE:

THE DEWATERING VALVE WILL REMAIN CLOSED DURING DRILLING AND COMPLETION OPERATIONS. ANY WATER CAPTURED DURING THE DRILLING AND COMPLETION OPERATIONS WILL BE PUMPED BY A COMMERCIAL VENDOR. AFTER DRILLING AND COMPLETION OPERATIONS ARE COMPLETE, THE VALVE WILL BE OPENED BY A DESIGNATED RESPONSIBLE PERSON ONLY.



1 PAD DEWATERING SYSTEM (SUMP SYSTEM)
28 NTS



Signed By: JBC # 20354

REVISIONS

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SCALE VERIFICATION

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DETAILS

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CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



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29

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet - BioNet® C125BN™ Erosion Control Blanket

DESCRIPTION
The long-term double net erosion control blanket shall be a machine-produced mat of 100% coconut fiber with a functional longevity of up to 24 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as Leno weave) to form an approximate 0.50 x 1.0 in (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The C125BN shall meet Type 4 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

Material	Content	Weight
Mats	100% Coconut Fiber	0.5 lb/ft ² (0.2 kg/m ²)
	Leno Woven 100% biodegradable Leno	9.3 lb/1000 sq ft (4.5 kg/100 sq m)
Netting	100% biodegradable Leno	7.7 lb/1000 sq ft (3.76 kg/100 sq m)
Thread	biodegradable	

Property	Test Method	Typical
Thickness	ASTM D6525	0.23 in (5.94 mm)
Resiliency	ECTC Guidelines	95%
Water Absorbency	ASTM D1117	355%
Mass/Unit Area	ASTM G475	9.79 g/ft ² (331 g/m ²)
Soil	ECTC Guidelines	40%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	0.11 oz-in
Light Penetration	ASTM D5657	16.3%
Tensile Strength - MD	ASTM D5610	206.4 lb/ft (1.03 kN/m)
Elongation - MD	ASTM D6818	15.3%
Tensile Strength - TD	ASTM D5610	145.7 lb/ft (2.15 kN/m)
Elongation - TD	ASTM D6818	12.9%
Biomass Improvement	ASTM 7322	47%

Design Permissible Shear Stress	
Unvegetated Shear Stress	2.15 psf (112 Pa)
Unvegetated Velocity	10.0 fps (3.05 m/s)

Slope Design Data Factors			
Slope Length (L)	> 11	0.1 - 2.1	> 2.1
4.70 ft (1.4 m)	0.0001	0.010	0.050
70-60 ft	0.001	0.040	0.160
4.50 ft (1.4 m)	0.002	0.020	0.020

Roughness Coefficients - Unveg	
Flow Depth	Manning's n
4.00 ft (1.2 m)	0.021
0.50 - 3.0 ft	0.022-0.024
> 3.0 ft (0.9 m)	0.014

Standard Roll Sizes

Width	6.7 (2.03 m)	8.0 (2.4 m)
Length	108 ft (32.92 m)	132 ft (40.23 m)
Weight ± 10%	52.22 lbs (23.69 kg)	65.25 lbs (29.61 kg)
Area	811 sq yd (66.9 sq m)	1101 sq yd (81.6 sq m)
	Leno weave top only	Leno weave top and bottom

Tensar
NORTH AMERICAN GREEN™

Tensar International Corporation
2500 Northwinds Parkway
Suite 500
Alpharetta, GA 30009
800-TENSAR-1
tensarcorp.com

Tensar International Corporation warrants that at the time of delivery the product furnished hereunder shall conform to the specification stated herein. Any other warranty, including merchantability and fitness for a particular purpose, is hereby disclaimed. It is the purchaser's responsibility to verify the product's performance prior to installation. Tensar will replace the product at no cost to the purchaser. This product specification supersedes all other specifications for the product described above and is not applicable to any products shown on previous drawings.
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1 NORTH AMERICAN GREEN C125BN EROSION CONTROL BLANKET (OR EQUIVALENT)
29 NTS

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet - VMax® SC250® Turf Reinforcement Mat

DESCRIPTION
The composite turf reinforcement mat (CTRM) shall be a machine-produced mat of 70% straw and 30% coconut fiber matrix incorporated into permanent three-dimensional turf reinforcement matting. The matrix shall be evenly distributed across the entire width of the matting and stretch bonded between a heavy duty UV stabilized nettings with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings, an ultra heavy UV stabilized, dramatically corrugated (rimped) intermediate netting with 0.5 x 0.5 inch (1.27 x 1.27 cm) openings, and covered by an heavy duty UV stabilized nettings with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings. The middle corrugated netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stretched together on 1.50 inch (3.81 cm) centers with UV stabilized polypropylene thread to form permanent three-dimensional turf reinforcement matting. All mats shall be manufactured with a colored thread stitched along both outer edges as an overlap guide for adjacent mats.

The SC250 shall meet Type 5A, 5B, and 5C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.19

Material	Content	Weight
Mats	70% Straw Fiber	0.15 lb/ft ² (0.19 kg/m ²)
	30% Coconut Fiber	0.15 lb/ft ² (0.19 kg/m ²)
Netting	Top and Bottom, UV Stabilized Polypropylene	1.0 lb/1000 sq ft (0.47 kg/100 sq m)
	Middle, Corrugated UV Stabilized Polypropylene	1.4 lb/1000 sq ft (0.64 kg/100 sq m)
Thread	Polypropylene, UV Stable	

Property	Test Method	Typical
Thickness	ASTM D6525	0.63 in (16.26 mm)
Resiliency	ASTM D524	95.2%
Density	ASTM D792	0.891 g/cm ³
Mass/Unit Area	ASTM D666	16.13 oz/ft ² (548 g/m ²)
UV Stability	ASTM D4137/1090 IRD	100%
Pore Size	ECTC Guidelines	15%
Stiffness	ASTM D1368	722.65 oz-in
Light Penetration	ASTM D5657	4.7%
Tensile Strength - MD	ASTM D6810	708 lb/ft (12.51 kN/m)
Elongation - MD	ASTM D6818	73.9%
Tensile Strength - TD	ASTM D6810	712 lb/ft (10.56 kN/m)
Elongation - TD	ASTM D6818	30.9%
Biomass Improvement	ASTM D7322	44%

Design Permissible Shear Stress	
Phase 1: Unvegetated	3.0 psf (144 Pa)
Phase 2: Partially Veg.	8.0 psf (381 Pa)
Phase 3: Fully Veg.	10.0 psf (480 Pa)
Unvegetated Velocity	9.5 fps (2.9 m/s)
Vegetated Velocity	15.0 fps (4.6 m/s)

Standard Roll Sizes	
Width	6.5 ft (2.0 m)
Length	55.5 ft (16.9 m)
Weight ± 10%	14.0 lbs (6.4 kg)
Area	40.12 sq (33.4 sq m)

2 NORTH AMERICAN GREEN SC250 TURF REINFORCEMENT MATTING (OR EQUIVALENT)
29 NTS

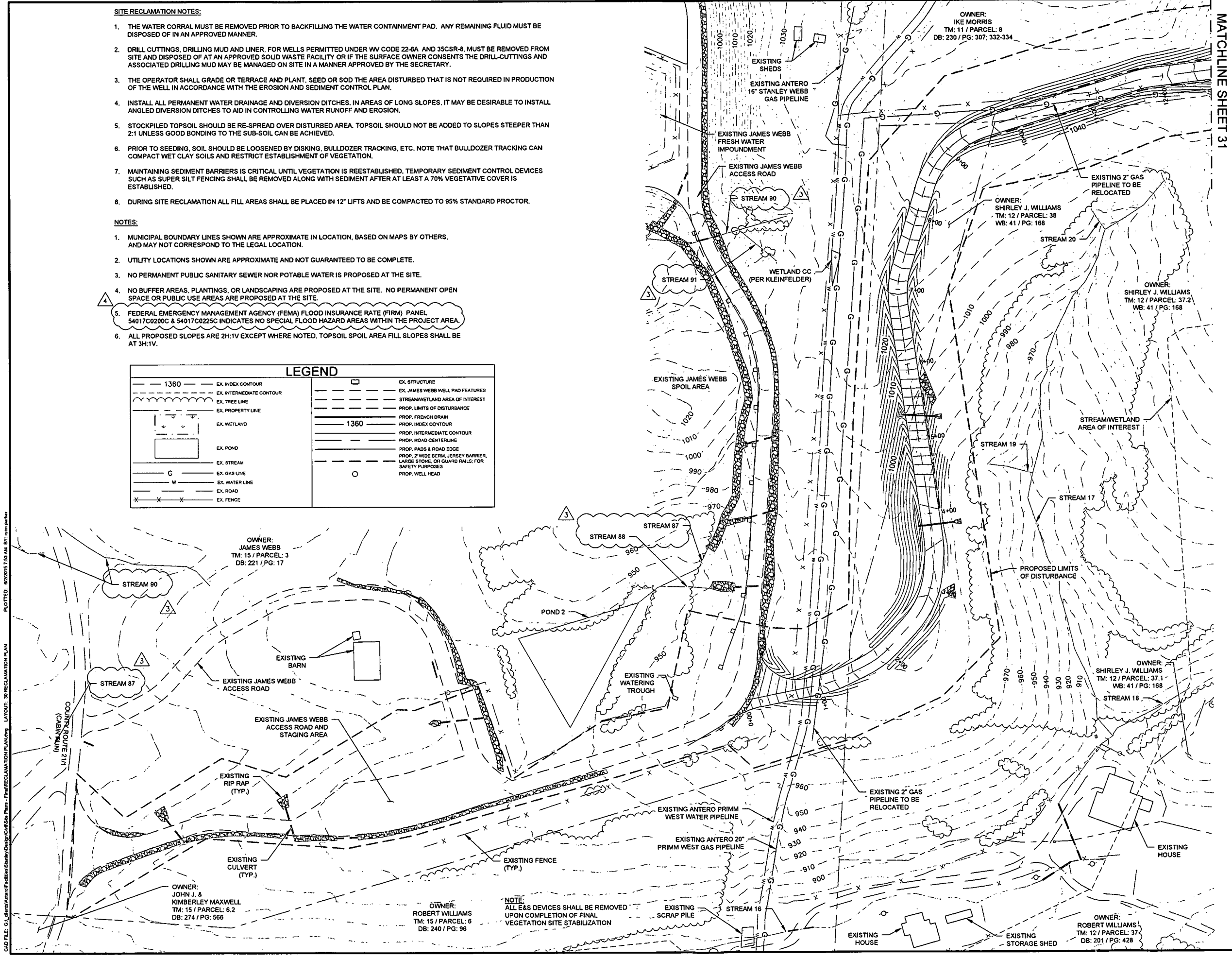
SITE RECLAMATION NOTES:

1. THE WATER CORRAL MUST BE REMOVED PRIOR TO BACKFILLING THE WATER CONTAINMENT PAD. ANY REMAINING FLUID MUST BE DISPOSED OF IN AN APPROVED MANNER.
2. DRILL CUTTINGS, DRILLING MUD AND LINER, FOR WELLS PERMITTED UNDER WV CODE 22-6A AND 35CSR-8, MUST BE REMOVED FROM SITE AND DISPOSED OF AT AN APPROVED SOLID WASTE FACILITY OR IF THE SURFACE OWNER CONSENTS THE DRILL-CUTTINGS AND ASSOCIATED DRILLING MUD MAY BE MANAGED ON SITE IN A MANNER APPROVED BY THE SECRETARY.
3. THE OPERATOR SHALL GRADE OR TERRACE AND PLANT, SEED OR SOD THE AREA DISTURBED THAT IS NOT REQUIRED IN PRODUCTION OF THE WELL IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
4. INSTALL ALL PERMANENT WATER DRAINAGE AND DIVERSION DITCHES. IN AREAS OF LONG SLOPES, IT MAY BE DESIRABLE TO INSTALL ANGLED DIVERSION DITCHES TO AID IN CONTROLLING WATER RUNOFF AND EROSION.
5. STOCKPILED TOPSOIL SHOULD BE RE-SPREAD OVER DISTURBED AREA. TOPSOIL SHOULD NOT BE ADDED TO SLOPES STEEPER THAN 2:1 UNLESS GOOD BONDING TO THE SUB-SOIL CAN BE ACHIEVED.
6. PRIOR TO SEEDING, SOIL SHOULD BE LOOSENEED BY DISKING, BULLDOZER TRACKING, ETC. NOTE THAT BULLDOZER TRACKING CAN COMPACT WET CLAY SOILS AND RESTRICT ESTABLISHMENT OF VEGETATION.
7. MAINTAINING SEDIMENT BARRIERS IS CRITICAL UNTIL VEGETATION IS REESTABLISHED. TEMPORARY SEDIMENT CONTROL DEVICES SUCH AS SUPER SILT FENCING SHALL BE REMOVED ALONG WITH SEDIMENT AFTER AT LEAST A 70% VEGETATIVE COVER IS ESTABLISHED.
8. DURING SITE RECLAMATION ALL FILL AREAS SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.

NOTES:

1. MUNICIPAL BOUNDARY LINES SHOWN ARE APPROXIMATE IN LOCATION, BASED ON MAPS BY OTHERS, AND MAY NOT CORRESPOND TO THE LEGAL LOCATION.
2. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED TO BE COMPLETE.
3. NO PERMANENT PUBLIC SANITARY SEWER NOR POTABLE WATER IS PROPOSED AT THE SITE.
4. NO BUFFER AREAS, PLANTINGS, OR LANDSCAPING ARE PROPOSED AT THE SITE. NO PERMANENT OPEN SPACE OR PUBLIC USE AREAS ARE PROPOSED AT THE SITE.
5. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANEL 54017C0200C & 54017C0225C INDICATES NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.
6. ALL PROPOSED SLOPES ARE 2H:1V EXCEPT WHERE NOTED. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.

LEGEND	
	EX. INDEX CONTOUR
	EX. INTERMEDIATE CONTOUR
	EX. TREE LINE
	EX. PROPERTY LINE
	EX. WETLAND
	EX. POND
	EX. STREAM
	EX. GAS LINE
	EX. WATER LINE
	EX. ROAD
	EX. FENCE
	EX. STRUCTURE
	EX. JAMES WEBB WELL PAD FEATURES
	STREAM/WETLAND AREA OF INTEREST
	PROP. LIMITS OF DISTURBANCE
	PROP. FRENCH DRAIN
	PROP. INDEX CONTOUR
	PROP. INTERMEDIATE CONTOUR
	PROP. ROAD CENTERLINE
	PROP. PADS & ROAD EDGE
	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
	PROP. WELL HEAD



MATCHLINE SHEET 31



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 15068
PHONE: 724-773-1072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	CHT	JBC	3/20/2015
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SCALE VERIFICATION

1 INCH

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60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

RECLAMATION PLAN
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



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30

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230 EXECUTIVE DRIVE, SUITE 122
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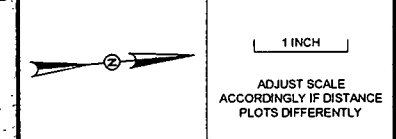
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RECLAMATION PLAN

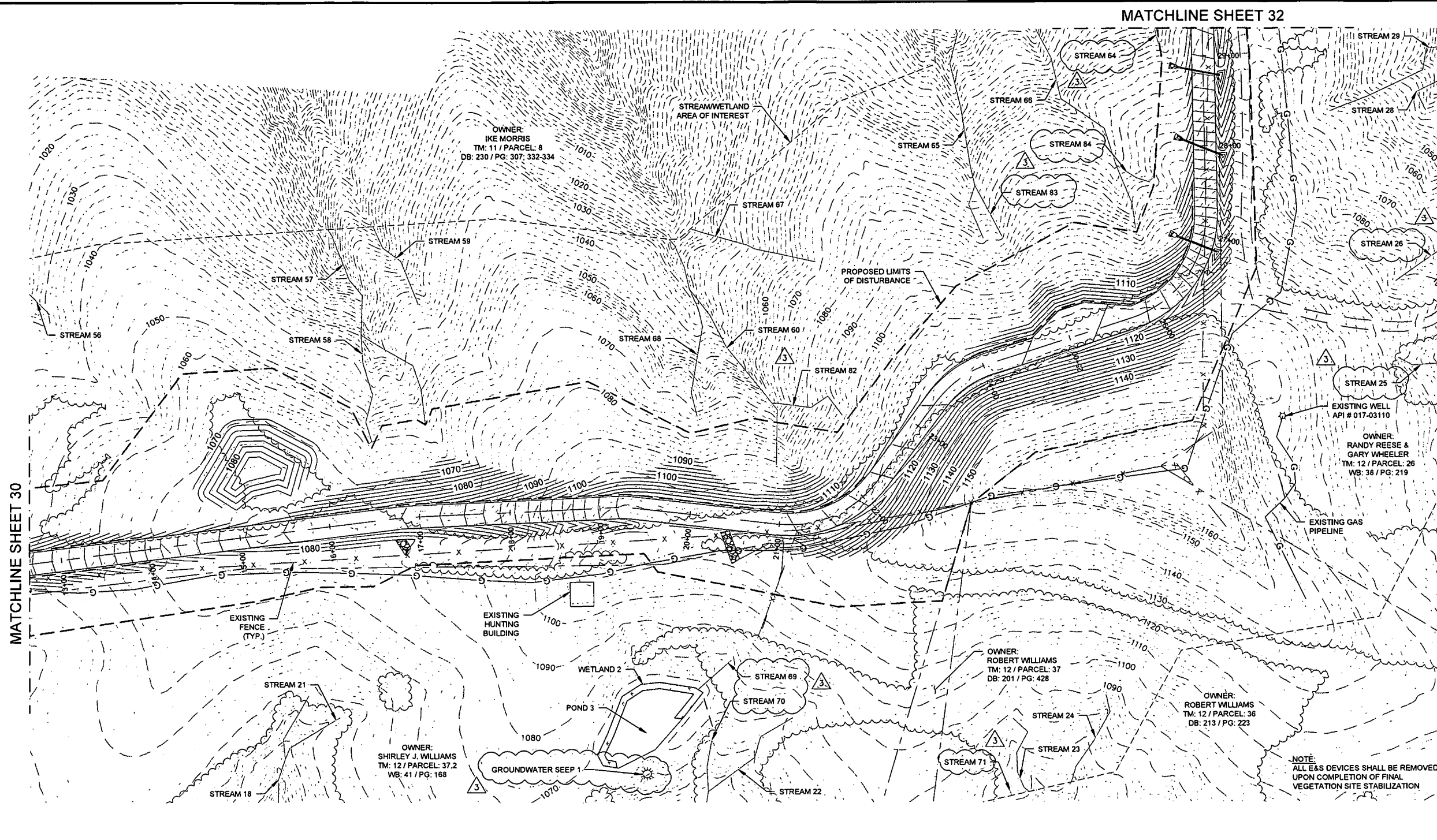
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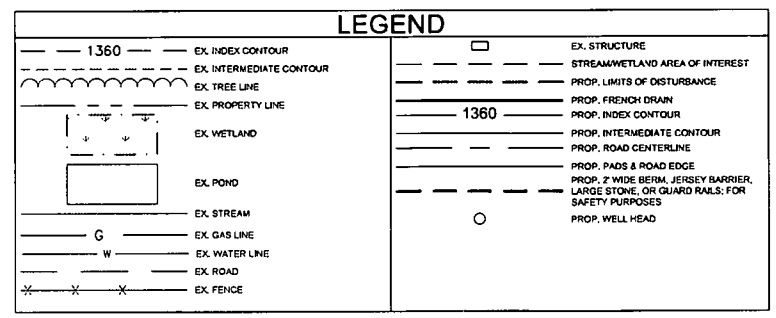


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- DRILL CUTTINGS, DRILLING MUD AND LINER, FOR WELLS PERMITTED UNDER WV CODE 22-6A AND 35CSR-8, MUST BE REMOVED FROM SITE AND DISPOSED OF AT AN APPROVED SOLID WASTE FACILITY OR IF THE SURFACE OWNER CONSENTS THE DRILL-CUTTINGS AND ASSOCIATED DRILLING MUD MAY BE MANAGED ON SITE IN A MANNER APPROVED BY THE SECRETARY.
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- DURING SITE RECLAMATION ALL FILL AREAS SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.



PLOTTED: 02/20/15 7:53 AM BY: jmf/psw
CAD FILE: G:\data\Antero\Fishkill\StanleyWell\0225C\Reclam\Reclam.dwg LAYOUT: 31 RECLAMATION PLAN



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 15066
PHONE: 724-773-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

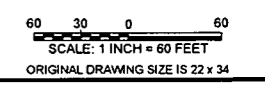
REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY



RECLAMATION PLAN

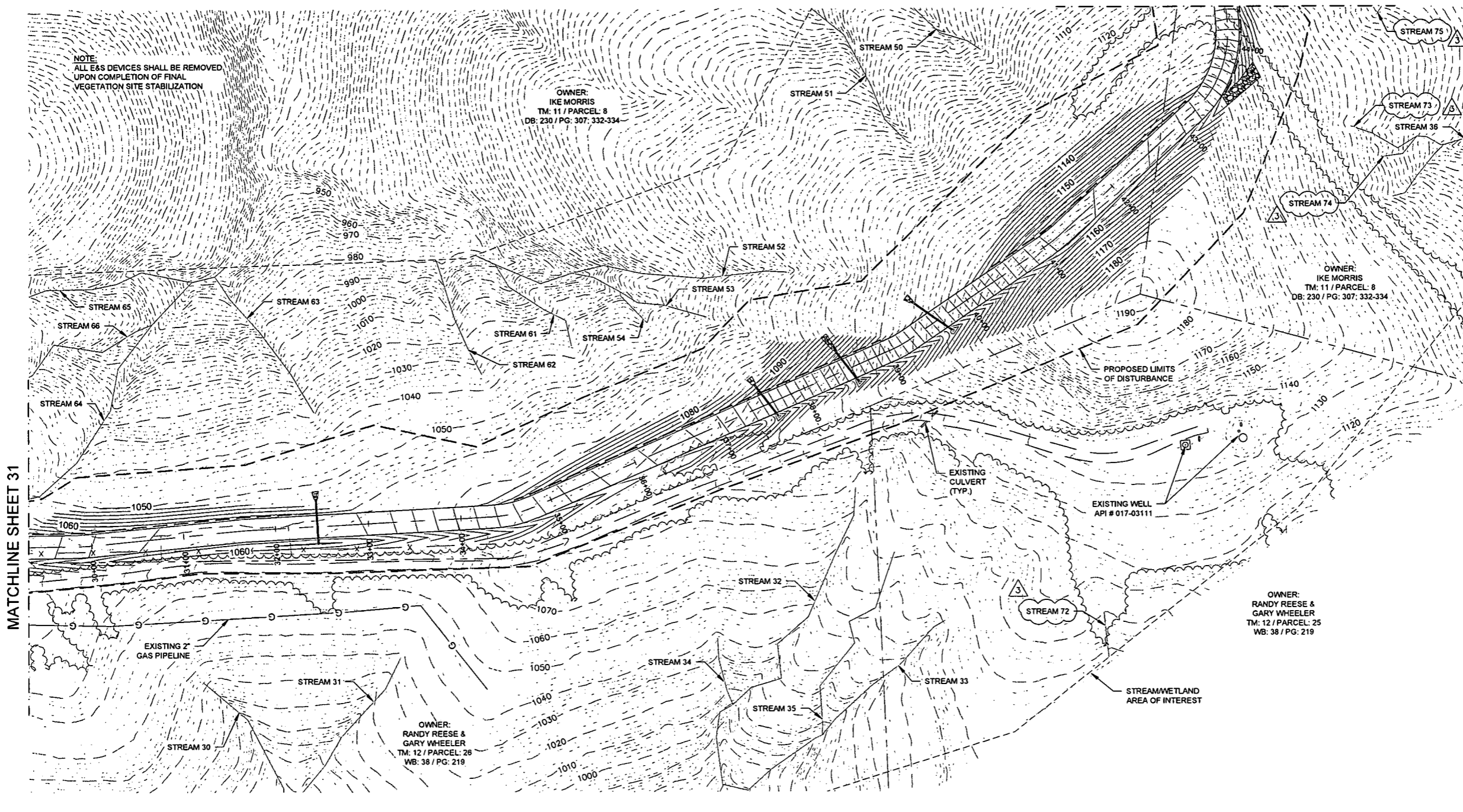
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	2015062.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

32



NOTE:
ALL E&S DEVICES SHALL BE REMOVED UPON COMPLETION OF FINAL VEGETATION SITE STABILIZATION

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307, 332-334

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307, 332-334

OWNER:
RANDY REESE & GARY WHEELER
TM: 12 / PARCEL: 25
WB: 38 / PG: 219

OWNER:
RANDY REESE & GARY WHEELER
TM: 12 / PARCEL: 25
WB: 38 / PG: 219

NOTES:

- MUNICIPAL BOUNDARY LINES SHOWN ARE APPROXIMATE IN LOCATION, BASED ON MAPS BY OTHERS, AND MAY NOT CORRESPOND TO THE LEGAL LOCATION.
- UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED TO BE COMPLETE.
- NO PERMANENT PUBLIC SANITARY SEWER NOR POTABLE WATER IS PROPOSED AT THE SITE.
- NO BUFFER AREAS, PLANTINGS, OR LANDSCAPING ARE PROPOSED AT THE SITE. NO PERMANENT OPEN SPACE OR PUBLIC USE AREAS ARE PROPOSED AT THE SITE.
- FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANEL 54017C0200C & 54017C0225C INDICATES NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.
- ALL PROPOSED SLOPES ARE 2H:1V EXCEPT WHERE NOTED. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.

SITE RECLAMATION NOTES:

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- DURING SITE RECLAMATION ALL FILL AREAS SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.

LEGEND

1360	EX. INDEX CONTOUR	□	EX. STRUCTURE
---	EX. INTERMEDIATE CONTOUR	---	STREAM/WETLAND AREA OF INTEREST
---	EX. TREE LINE	---	PROP. LIMITS OF DISTURBANCE
---	EX. PROPERTY LINE	---	PROP. FRENCH DRAIN
---	EX. WETLAND	---	PROP. INDEX CONTOUR
---	EX. STREAM	---	PROP. INTERMEDIATE CONTOUR
G	EX. GAS LINE	---	PROP. ROAD CENTERLINE
W	EX. WATER LINE	---	PROP. PADS & ROAD EDGE
---	EX. ROAD	---	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE OR GUARD RAILS, FOR SAFETY PURPOSES
X-X-X	EX. FENCE	○	PROP. WELL HEAD

PLOTTED: 02/20/15 7:53 AM BT: ryan.parker LAYOUT: 31 RECLAMATION PLAN



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-773-7072
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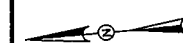
Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	APP	3/9/2015
2	IMPACT TABLE ADDITIONS	CHT	JBC	3/20/2015
3	DELINEATION REVISIONS	RAP	JBC	5/1/2015
4	FIRM NUMBER CHANGE	CHT	JBC	9/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

RECLAMATION PLAN

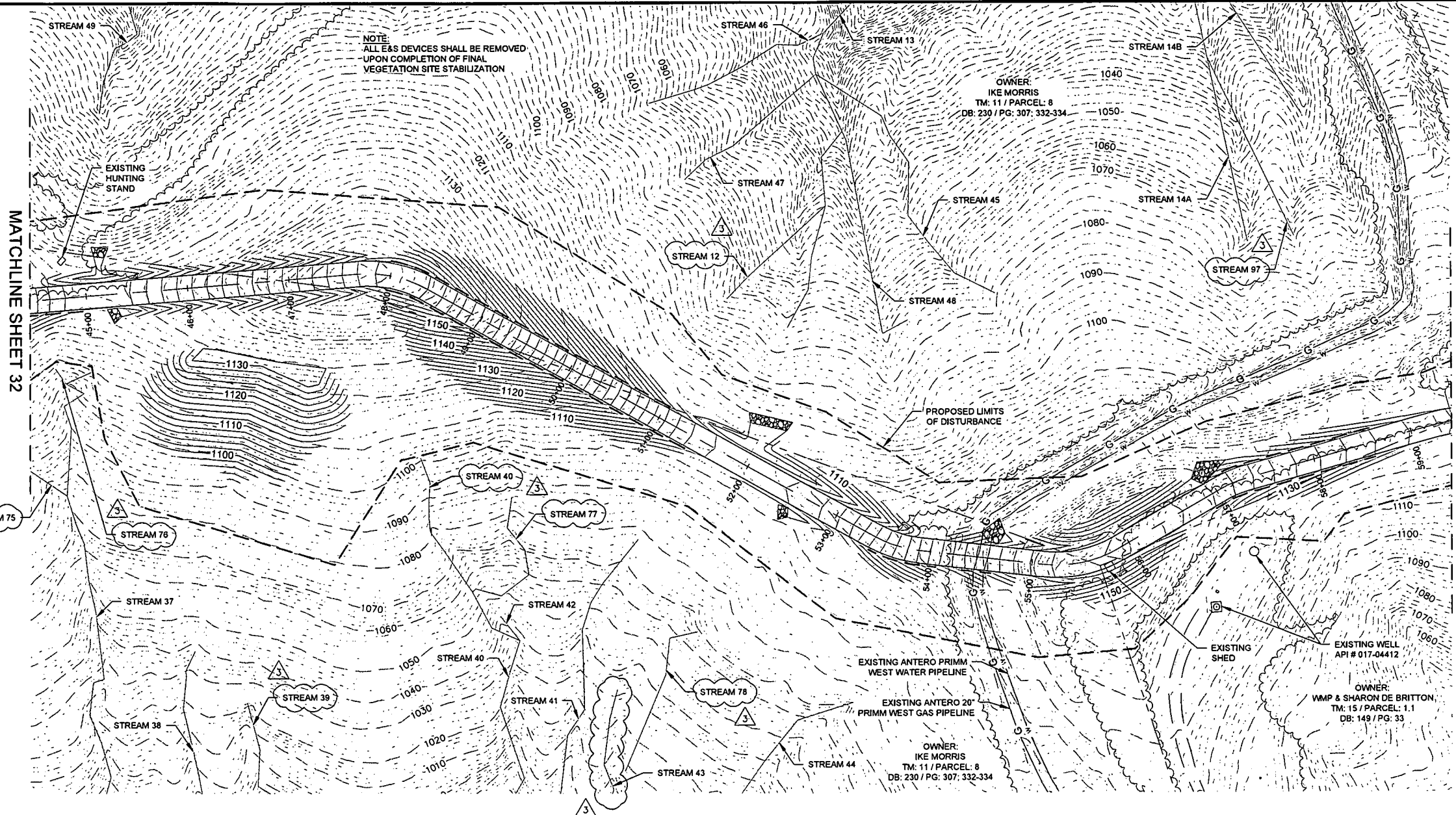
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO. 20150962.001A
ISSUE DATE 02-25-2015
CURRENT REVISION 3
DESIGNED BY CHT
DRAWN BY -
CHECKED BY JBC
APPROVED BY JMF SHEET

33



NOTE:
ALL E&S DEVICES SHALL BE REMOVED
UPON COMPLETION OF FINAL
VEGETATION SITE STABILIZATION

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307: 332-334

OWNER:
WMP & SHARON DE BRITTON
TM: 15 / PARCEL: 1.1
DB: 149 / PG: 33

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307: 332-334

- NOTES:**
- MUNICIPAL BOUNDARY LINES SHOWN ARE APPROXIMATE IN LOCATION, BASED ON MAPS BY OTHERS, AND MAY NOT CORRESPOND TO THE LEGAL LOCATION.
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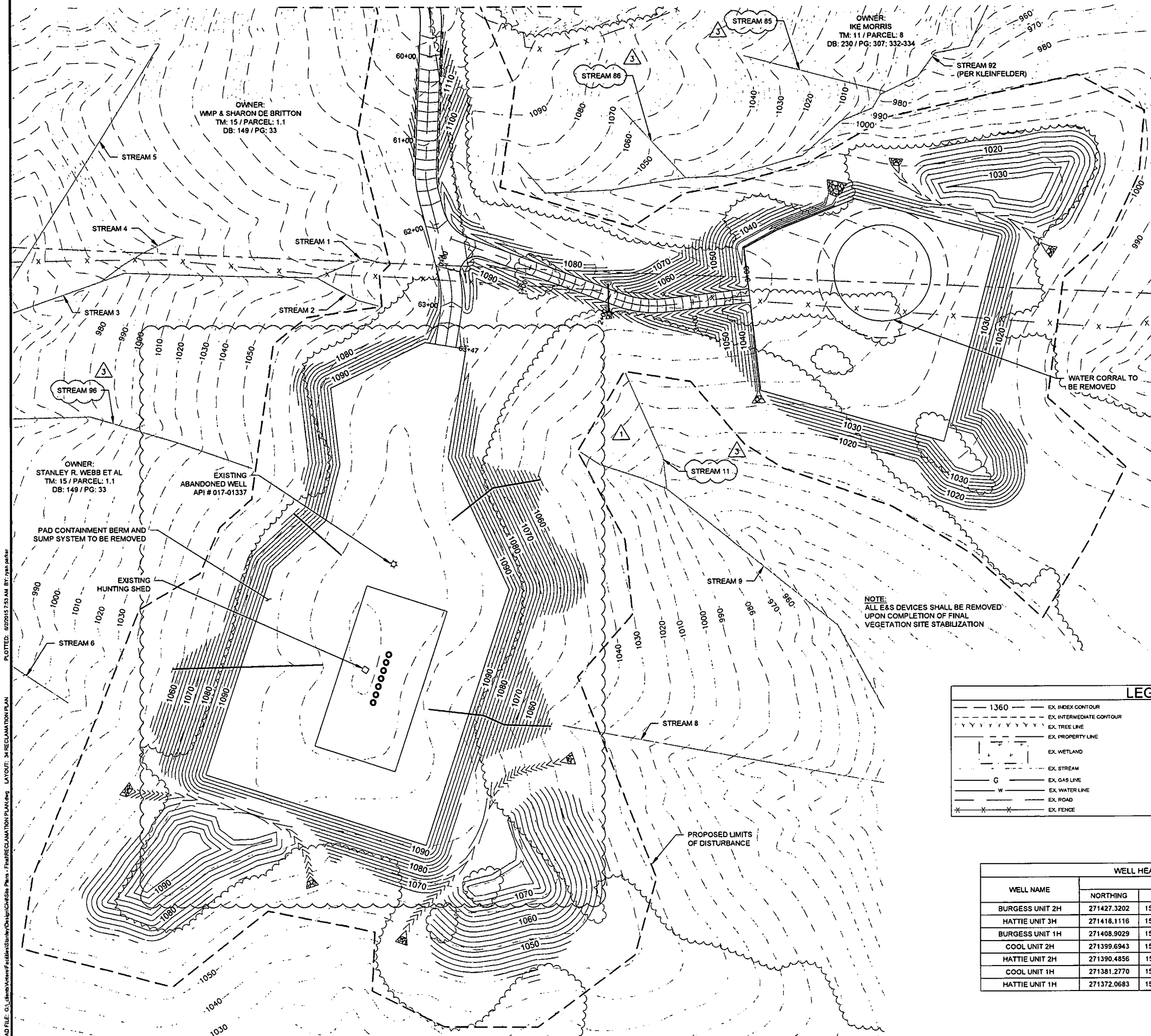
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LEGEND

--- 1360 ---	EX. INDEX CONTOUR	□	EX. STRUCTURE
--- 1360 ---	EX. INTERMEDIATE CONTOUR	▭	STREAM/WETLAND AREA OF INTEREST
---	EX. TREE LINE	---	PROP. LIMITS OF DISTURBANCE
---	EX. PROPERTY LINE	---	PROP. FRENCH DRAIN
---	EX. WETLAND	---	PROP. INDEX CONTOUR
---	EX. STREAM	---	PROP. INTERMEDIATE CONTOUR
---	EX. GAS LINE	---	PROP. ROAD CENTERLINE
---	EX. WATER LINE	---	PROP. PADS & ROAD EDGE
---	EX. ROAD	---	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS FOR SAFETY PURPOSES
---	EX. FENCE	○	PROP. WELL HEAD

PLOTTED: 02/25/2015 7:53 AM BY: sgm/pam
LAYOUT: 33 RECLAMATION PLAN
CAD FILE: G:\clients\Antero Resources\Stanley\Stanley\022515\022515.dwg

MATCHLINE SHEET 33



- NOTES:**
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LEGEND

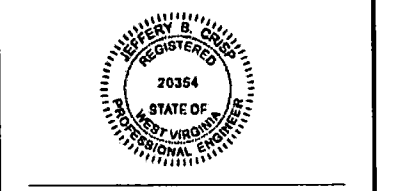
1360	EX. INDEX CONTOUR	□	EX. STRUCTURE
---	EX. INTERMEDIATE CONTOUR	---	STREAM/WETLAND AREA OF INTEREST
	EX. TREE LINE	---	PROP. LIMITS OF DISTURBANCE
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---	EX. WETLAND	---	PROP. INDEX CONTOUR
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G	EX. GAS LINE	---	PROP. ROAD CENTERLINE
W	EX. WATER LINE	---	PROP. PADS & ROAD EDGE
---	EX. ROAD	---	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS: FOR SAFETY PURPOSES
x x x	EX. FENCE	○	PROP. WELL HEAD

WELL HEAD LAYOUT

WELL NAME	NAD 83 (WV NORTH ZONE)			
	NORTHING	EASTING	LATITUDE	LONGITUDE
BURGESS UNIT 2H	271427.3202	1577799.5864	39.23697809	-80.87942190
HATTIE UNIT 3H	271418.1116	1577795.6876	39.23695264	-80.87943516
BURGESS UNIT 1H	271408.9029	1577791.7888	39.23692720	-80.87944843
COOL UNIT 2H	271399.6943	1577787.8899	39.23690175	-80.87946169
HATTIE UNIT 2H	271390.4856	1577783.9911	39.23687631	-80.87947495
COOL UNIT 1H	271381.2770	1577780.0923	39.23685087	-80.87948822
HATTIE UNIT 1H	271372.0683	1577776.1935	39.23682542	-80.87950148



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM

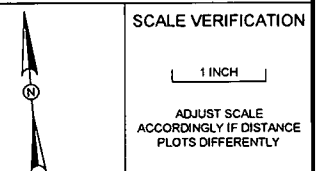


Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	DWN	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	CHT	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION



60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

RECLAMATION PLAN
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
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APPROVED BY	JMF



230 EXECUTIVE DRIVE, SUITE 122
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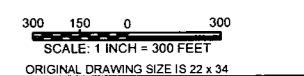
REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
		-	JMF	
2	FIRM NUMBER CHANGE	RAP	JBC	8/2/2015
		-	JMF	

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY



FLOOD ZONE MAP

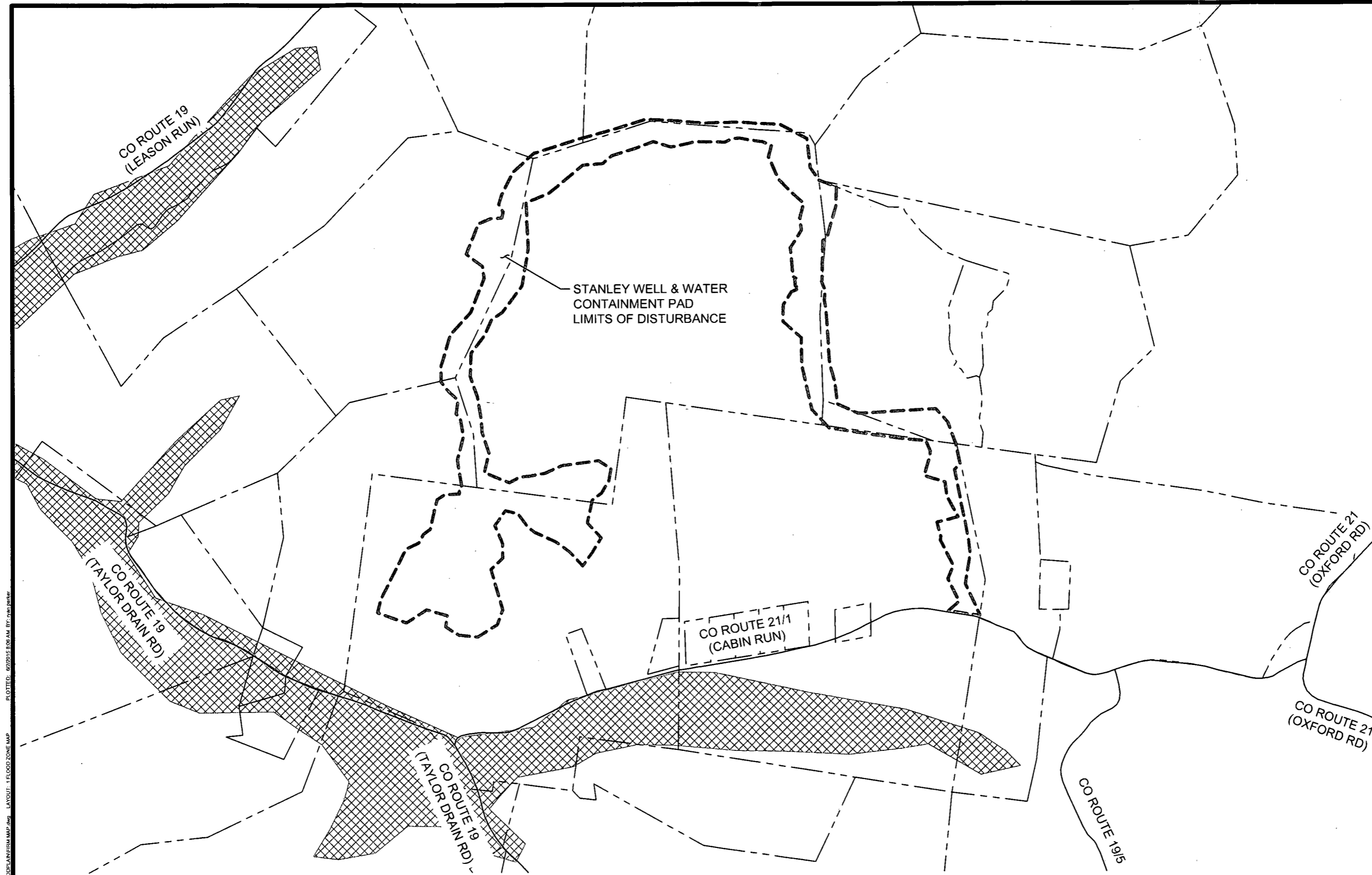
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



FIRM MAP

PROJECT NO.	20150602.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	0
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

1



LEGEND

- EXISTING ROAD
- EXISTING PROPERTY LINE
- LIMIT OF DISTURBANCE
- FLOOD HAZARD AREA




NOTES:

1. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANELS 54017C0200C & 54017C0225C INDICATE NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.

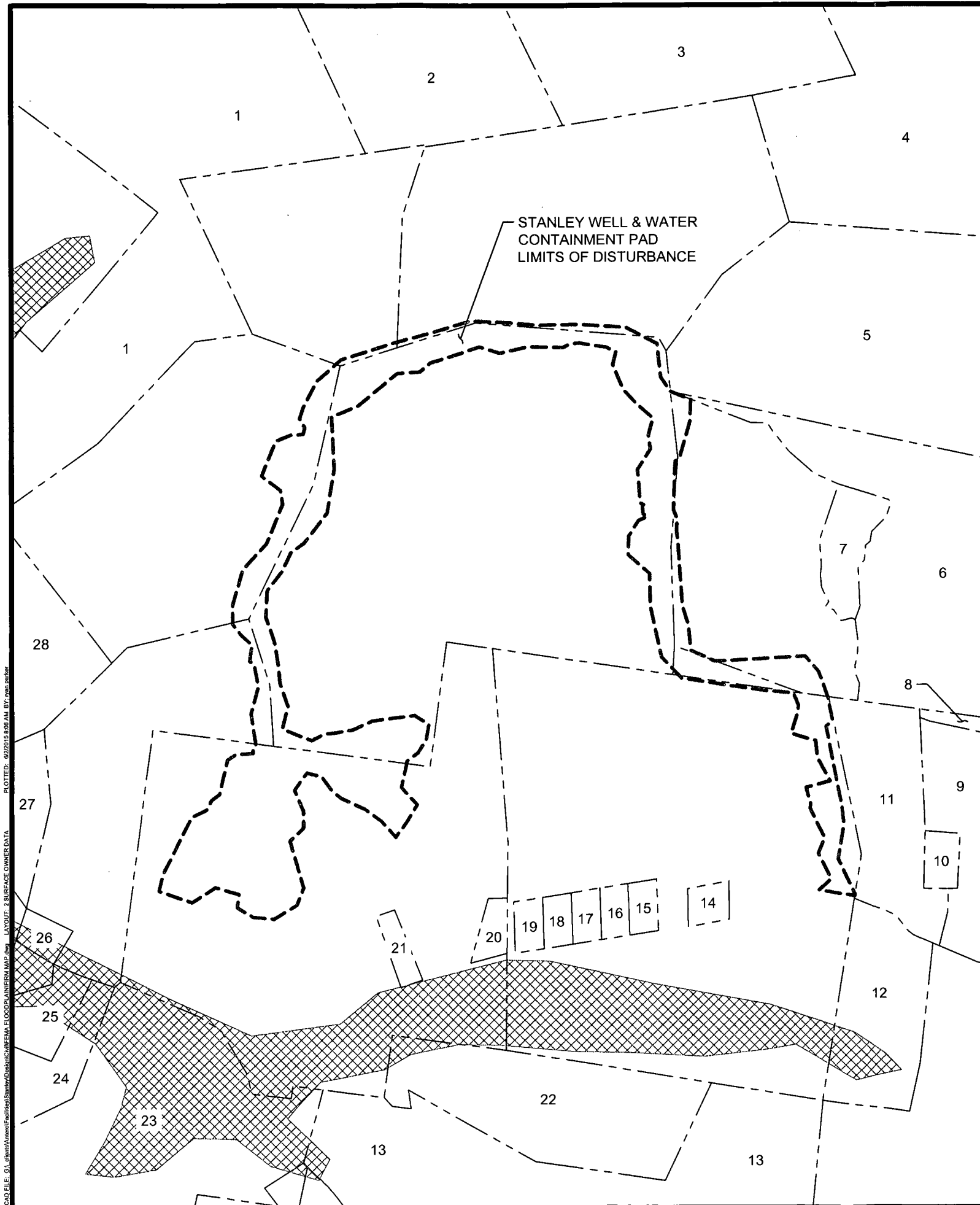
CAD FILE: G:\chem\Antero\Projects\Stanley\Stanley\Stanley\Stanley\FLOODPLAN\FIRM MAP.dwg PLOTTED: 02/25/15 8:08 AM BY: JMF

LEGEND

- EXISTING PROPERTY LINE
- LIMIT OF DISTURBANCE
-  FLOOD HAZARD AREA

NOTES:

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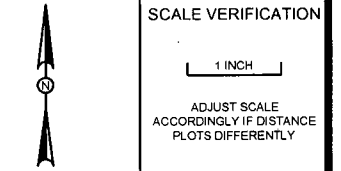
230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
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2	FIRM NUMBER CHANGE	RAP	JBC	8/2/2015
			JMF	

CAD FILE: G:_client\AnteroResources\Stanley\Flood\FIRM MAP.dwg LAYOUT: 2 SURFACE OWNER DATA PLOT DATE: 02/25/2015 8:08 AM BY: jmf

STANLEY SURFACE OWNER DATA								
PROPERTY #	OWNER	TAX MAP #	PARCEL #	DEED BOOK #	PAGE #	WILL BOOK #	PAGE #	ADDRESS
1	ROBERT & JACQUELINE BRITTON	11	11	239	347	-	-	RT 1 BOX 553 GREENWOOD, WV 26415
2	RANDY REESE & GARY WHEELER	12	25	-	-	38	219	RT 1 BOX 534 GREENWOOD, WV 26415
3	RANDY REESE & GARY WHEELER	12	16	-	-	38	219	RT 1 BOX 534 GREENWOOD, WV 26415
4	RAY HADSEL RICHARDS	12	27	143	101	-	-	RT 1 BOX 522 GREENWOOD, WV 26415
5	ROBERT WILLIAMS	12	36	213	223	-	-	RT 1 BOX 212 WEST UNION, WV 26456
6	ROBERT WILLIAMS	12	37	201	428	-	-	RT 1 BOX 212 WEST UNION, WV 26456
7	SHIRLEY J. WILLIAMS	12	37.1	168	561	-	-	RT 1 BOX 212A WEST UNION, WV 26456
8	OLIN & MARY PRIMM	12	1	153	251	-	-	RT 1 BOX 225 WEST UNION, WV 26456
9	ROBERT WILLIAMS	15	6.4	252	128	-	-	RT 1 BOX 212 WEST UNION, WV 26456
10	TURNING LEAF LLC	15	5	253	410	-	-	7004 WINTERBERRY LANE BETHESDA, MD 20817
11	ROBERT WILLIAMS	15	6	240	96	-	-	RT 1 BOX 212 WEST UNION, WV 26456
12	JOHN J. & KIMBERLY MAXWELL	15	6.2	274	566	-	-	358 COLOGNE PORT EGG HARBOR CITY, NJ 08215
13	JOHN K. DEBRULAR	15	12	136	456	-	-	2604 27TH ST PARKERSBURG, WV 26104
14	JAMES E. WEBB	15	4.0	221	17	-	-	RT 1 BOX 208-A WEST UNION WV 26456
15	BRIAN WEBB	15	3.2	261	458	-	-	RT 1 BOX 207 WEST UNION, WV 26456
16	DEREK S. WEBB	15	3.4	221	27	-	-	RT 1 BOX 206-A WEST UNION, WV 26456
17	DANIEL M. WEBB	15	3.6	221	33	-	-	RT 1 BOX 206-A WEST UNION, WV 26456
18	ASHLEY K. WEBB	15	3.3	221	24	-	-	RT 1 BOX 207 WEST UNION, WV 26456
19	BRIAN M. WEBB	15	3.5	221	30	-	-	RT 1 BOX 207 WEST UNION, WV 26456
20	JAMES E. WEBB	15	2.1	245	358	-	-	RT 1 BOX 208-A WEST UNION, WV 26456
21	ROBERT P. HARRIS LIFE	15	2.9	249	454	-	-	RT 1 BOX 207-1 WEST UNION, WV 26456
22	BETTY J. WHITEHAIR	15	11	AP25	134	-	-	RT 1 BOX 211 WEST UNION, WV 26456
23	WILLIAM P. BRITTON	15	10	243	480	-	-	RT 1 BOX 203 WEST UNION, WV 26456
24	WILLIAM P. & SHARON BRITTON	15	1	149	33	-	-	RT 1 BOX 203 WEST UNION, WV 26456
25	KEVIN P. BRITTON	15	1.4	235	670	-	-	RT 1 BOX 206-1 WEST UNION, WV 26456
26	ROBERT L. BRITTON	15	1.3	166	387	-	-	RT 1 BOX 553 GREENWOOD, WV 26415
27	WILLIAM P. & SHARON BRITTON	14	3	149	33	-	-	RT 1 BOX 203 WEST UNION, WV 26456
28	I. L. IKE MORRIS	11	8	230	307	-	-	PO BOX 397 GLENVILLE, WV 26351



300 150 0 300
SCALE: 1 INCH = 300 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SURFACE OWNER DATA
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



FIRM MAP	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	0
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	FIRM NUMBER CHANGE	RAP	JBC	6/2/2015

SCALE VERIFICATION



ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

FIRM MAP

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



FIRM MAP

PROJECT NO.	2015062.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	0
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

3

LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INSURATION BY THE 1% ANNUAL CHANCE FLOOD**
 - Zone A:** 1% Annual Chance Flood (SFHA) area subject to insurance by the 1% Annual Chance Flood. The 1% Annual Chance Flood (SFHA) area is the area subject to insurance by the 1% Annual Chance Flood. The 1% Annual Chance Flood (SFHA) area is the area subject to insurance by the 1% Annual Chance Flood.
 - Zone AE:** Flood depths of 1 to 3 feet (usually areas of parking), Base Flood Elevations determined.
 - Zone AH:** Flood depths of 3 to 5 feet (usually areas of storage tanks), average depths determined. For areas of shallow flooding, elevations are determined.
 - Zone A1:** Special Flood Hazard Areas (SFHAs) protected from the 1% Annual Chance Flood by a flood control system that is hydraulically designed. Zone A1 indicates that the flood control system is being retained to provide protection from the 1% Annual Chance Flood. A Flood Hazard Protection System (FHPS) is shown under construction, no Base Flood Elevations determined.
 - Zone A2:** Coastal Flood zone with velocity based (wave action), no Base Flood Elevations determined.
 - Zone VE:** Coastal Flood zone with velocity based (wave action), Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
 - The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachments so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
 - Zone B:** Areas of 0.2% Annual Chance Flood, areas of 1% Annual Chance Flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% Annual Chance Flood.
 - Zone D:** Areas determined to be outside the 0.2% Annual Chance Flood.
 - Zone X:** Areas in which flood heights are undetermined, but depths are.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
- OTHERWISE PROTECTED AREAS (OPAs)**
 - CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
 - 1% Annual Chance Flood Boundary:** 1% Annual Chance Flood Boundary.
 - Zone D boundary:** Zone D boundary.
 - Zone X boundary:** Zone X boundary.
 - Other Flood Hazard Areas:** Other Flood Hazard Areas (SFHAs) and boundaries including Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
 - Base Flood Elevation:** Base Flood Elevation and water elevation in feet.
 - Water Elevation:** Water Elevation water elevation within zone, elevation in feet.

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachments so that the 1% annual chance flood can be carried without substantial increases in flood heights.

- OTHER FLOOD AREAS**
 - Zone B:** Areas of 0.2% Annual Chance Flood, areas of 1% Annual Chance Flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% Annual Chance Flood.
 - Zone D:** Areas determined to be outside the 0.2% Annual Chance Flood.
 - Zone X:** Areas in which flood heights are undetermined, but depths are.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
- OTHERWISE PROTECTED AREAS (OPAs)**
 - CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
 - 1% Annual Chance Flood Boundary:** 1% Annual Chance Flood Boundary.
 - Zone D boundary:** Zone D boundary.
 - Zone X boundary:** Zone X boundary.
 - Other Flood Hazard Areas:** Other Flood Hazard Areas (SFHAs) and boundaries including Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
 - Base Flood Elevation:** Base Flood Elevation and water elevation in feet.
 - Water Elevation:** Water Elevation water elevation within zone, elevation in feet.

Referenced to the North American Datum of 1983

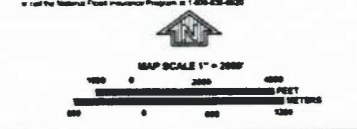
- CHT** - CHT
- JBC** - JBC
- JMF** - JMF

44° 02' 00" N 121° 00' 00" W
1:25000 FT
1:25000 FT
1:25000 FT
1:25000 FT
1:25000 FT
1:25000 FT
1:25000 FT
1:25000 FT

MAP REVISIONS
Refer to Map Revisions for on Map notes

EFFECTIVE DATE OF COUNTYWIDE FLOOD HAZARD MAP: March 14, 2011

EFFECTIVE DATE OF REVISIONS TO THIS PANEL: October 4, 2014. In update compliance with the National Flood Insurance Program (NFIP) Flood Hazard Area, in various map format and in all media and web maps.



NFIP
NATIONAL FLOOD INSURANCE PROGRAM

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 SLURBER MODEL 3/22/11
(EFFECTIVE DATE) NAME MAP

Note 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

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify areas subject to flooding, particularly from local drainage sources of small size. The community map preparator should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or Floodway Data and/or Summary of Stationing Data are shown, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stationing Data tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and floodplain management.

Coastal Base Flood Elevations shown on this map apply only to landward of 0.5 of North American Vertical Datum of 1988 (NAVD 88). Users of the FIRM should be aware that coastal flood elevations are also provided in the Summary of Stationing Data tables in the Flood Insurance Study Report for the jurisdiction. Elevations shown in the Summary of Stationing Data tables should be used for construction and floodplain management purposes when they are higher than the elevations shown on this FIRM.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for the jurisdiction.

The projections used in the preparation of this map were Universal Transverse Mercator (UTM) zone 17. The horizontal datum was NAD 83, GRS 1980 spheroid. Differences in datum, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov>, or contact the National Geodetic Survey at the following address:

NGS Information Service
NOAA HANGS 12
National Geodetic Survey
SSMC-3, 6002
1715 East-West Highway
Silver Spring, Maryland 20910-3002
(301) 713-3347

To obtain current elevation, description, and/or location information for each marker shown on this map, please contact the Information Service Branch of the National Geodetic Survey at (301) 713-3347, or visit its website at <http://www.ngs.noaa.gov>.

Base map created by the NY Statewide Addressing and Mapping Board (SAM) imagery was captured at a scale of 1:24000 in the spring of 2009 for the purpose of producing raster color digital orthophotos at a 7 pixel resolution.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for the jurisdiction. The floodplains and floodways that were delineated from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables for maps prepared in the Flood Insurance Study Report which contain authoritative hydraulic data may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate and locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels, community map repository addresses, and a listing of Communities table containing National Flood Insurance Program data for each community as well as a listing of the panel on which each community is located.

For information on available products associated with the FIRM and the Map Service Center (MSC) website at <http://www.firm.gov>, available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the FIRM Map Information Exchange (FIME) at 1-877-FEMA-8MAP (1-877-336-2627) or visit the FEMA website at www.fema.gov.



STANLEY WELL & WATER
CONTAINMENT PAD
LIMITS OF DISTURBANCE

NOTES TO USERS

The 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. The community map repository should be consulted for possible additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or Floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Elevation Tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRMA. Users should be aware that BFEs shown on the FIRMA represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRMA for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on the map apply only to landward of 0.7 North American Vertical Datum of 1988 (NAVD 88) from the FIRMA should be aware that coastal flood elevations are also provided in the Summary of Elevation Tables in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Elevation Tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRMA.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map uses Universal Transverse Mercator (UTM) zone 17. The horizontal datum used is NAD 83. GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMA for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRMA.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NOIS Information Services
 NOAA, WH2012
 National Geodetic Survey
 SSMC-3, #6202
 1215 East-West Highway
 Silver Spring, Maryland 20910-3282
 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map created by the RV Standards Addressing and Mapping Board (SAMM) imagery was captured at a scale of 1:24000 in the spring of 2003 for the purpose of producing natural color digital orthophotos at a 2.7 pixel resolution.

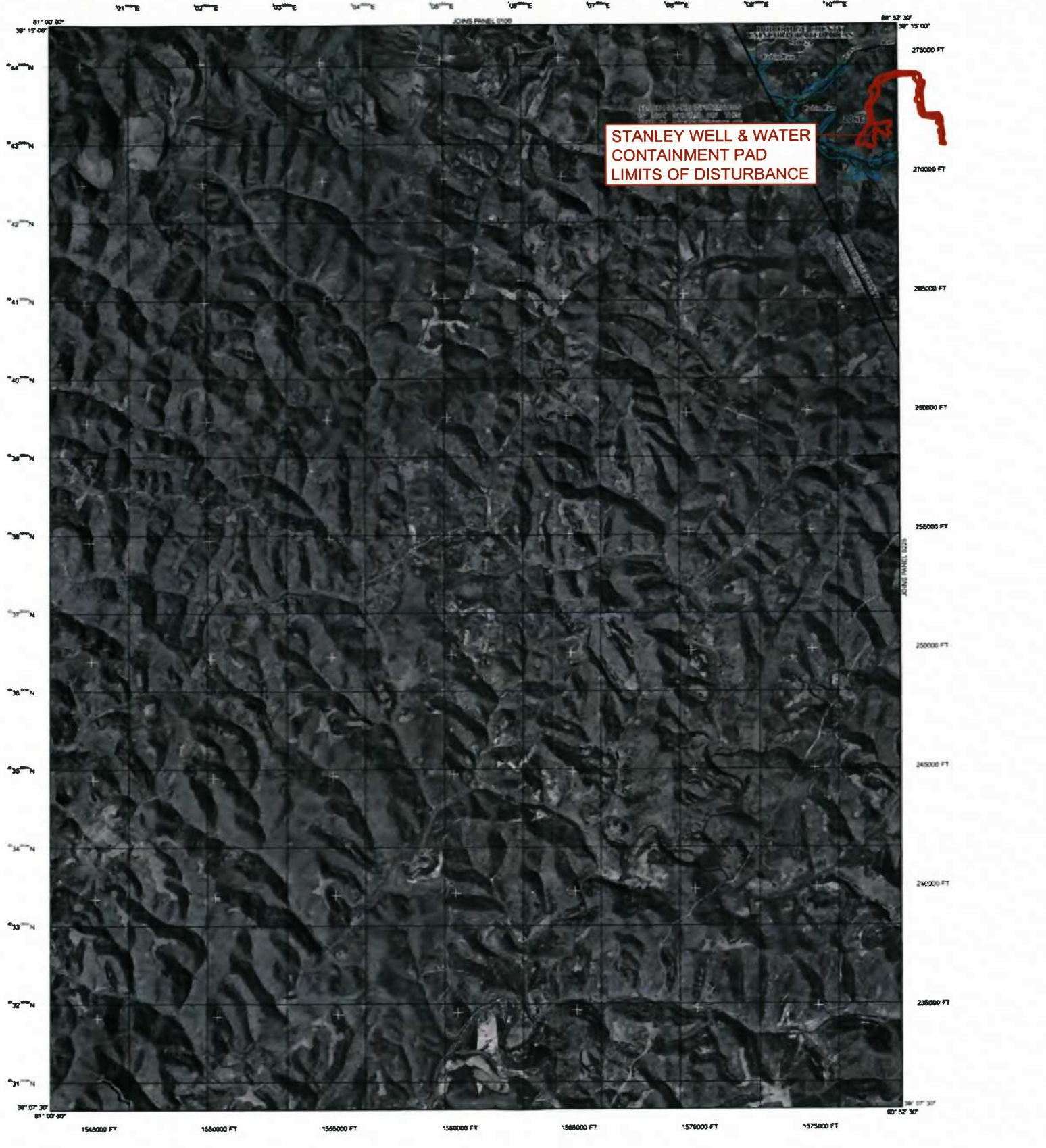
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRMA for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRMA may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report which contains authoritative hydraulic data may reflect stream channel locations that differ from what is shown on this map.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or dis-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed map index for an overview map of the county showing the layout of map panels, community map repository addresses, and a listing of Communities with National Flood Insurance Program data for each community as well as a listing of the panels on which each community is located.

For information on available products associated with the FIRMA visit the Map Service Center (MSC) website at www.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report and/or digital versions of the map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information Hotline (FMIH) at 1-877-FEMA-8287 or 1-877-336-2671 or visit the FEMA website at www.fema.gov.



**STANLEY WELL & WATER
CONTAINMENT PAD
LIMITS OF DISTURBANCE**

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHA) SUBJECT TO REGULATION BY THE 1% ANNUAL CHANCE FLOOD
 The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, X, XE, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

ZONE A: No Base Flood Elevation Determined
ZONE AE: Base Flood Elevation Determined
ZONE AH: Flood depths of 1 to 3 feet (usually areas of ponding). Base Flood Elevation Determined.
ZONE AO: Flood depths of 1 to 3 feet (usually areas of ponding). Average depths determined. For areas of critical flood, reduction was determined.
ZONE AR: Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was substantially destroyed. Zone AR indicates that the former flood control system is being retained to provide protection from the 1% annual chance or greater flood. Area to be protected from 1% annual chance flood by a Federal flood protection system under construction. No Base Flood Elevation Determined.
ZONE AV: Coastal flood zone with velocity hazard (wave action). No Base Flood Elevation Determined.
ZONE VE: Coastal flood zone with velocity hazard (wave action). Base Flood Elevation Determined.

FLOODWAY AREAS IN ZONE AE
 The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood height.

OTHER FLOOD AREAS
ZONE B: Areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.
OTHER AREAS
ZONE C: Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D: Areas in which flood hazards are unquantified, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
OTHERWISE PROTECTED AREAS (OPA)
 CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
 1% Annual Chance Floodplain Boundary
 0.2% Annual Chance Floodplain Boundary
 Floodway boundary
 Zone A boundary
 CBRS and OPA boundary
 Boundary defining Special Flood Hazard Area Zones and boundaries showing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
 Base Flood Elevation line and values, elevation in feet
 SL 8071
 Base Flood Elevation value where uniform water stage, elevation in feet

Referenced to the North American Vertical Datum of 1988

Other symbols:
 Cross section line
 Trench cut
 42° 02' 00" N 80° 52' 30" W
 3'-00000 FT
 1:24000
 1:24000
 3'-00000 FT
 1:24000
 3'-00000 FT
 1:24000

MAP REPORTING:
 Refer to Map Repository for map status.
EFFECTIVE DATE OF COMMUNITY FLOOD INSURANCE RATE MAP:
 March 18, 2011

EFFECTIVE DATES OF REVISIONS TO THIS PANEL:
 October 4, 2011, to update elevation limits to determine Base Flood Elevations, to change Special Flood Hazard Areas, to adjust map format and to add roads and area names.

For additional map revision history and to determine flooding, refer to the Community Map History table located in the Flood Insurance Study Report for this jurisdiction.
 To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-425-6237.

MAP SCALE 1" = 2000'
 0 2000 4000
 0 200 400
 METERS FEET

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

PANEL 280 OF 325
 (SEE MAP INDEX FOR FIRMA PANEL LAYOUT)

CONTAINS:
 COMMUNITY: DODDRIDGE COUNTY
 SCALE: 1" = 2000'
 PANEL: 280
 BASIS: C

Notes 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 54017C0200C
MAP REVISED OCTOBER 4, 2011
 Federal Emergency Management Agency

KLEINFELDER
 Bright People. Right Solutions.

230 EXECUTIVE DRIVE, SUITE 122
 CRANBERRY TOWNSHIP, PA 16008
 PHONE: 724-772-7072
 WWW.KLEINFELDER.COM

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	FIRM NUMBER CHANGE	RAP	JBC	8/2/2015

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

FIRM MAP

STANLEY WELL & W.C. PAD
 CENTRAL DISTRICT, DODDRIDGE COUNTY
 WEST VIRGINIA



FIRM MAP

PROJECT NO.	20150062.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	0
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

SHEET 4 of 4

The Doddridge Independent



The Doddridge Independent PUBLISHER'S CERTIFICATE

I, Michael D. Zorn, Publisher of The Doddridge Independent, A newspaper of general circulation published in the town of West Union, Doddridge County, West Virginia, do hereby certify that:


Please take notice that on the 26th day of June, 2015
15-367 - Antero - Stanley Well Pad & Containment Pad
filed an application for a Floodplain Permit to develop land
located at or about:
Permit Application # 15-367 -Not In FloodPlain
Location: South of Greenwood/ Co. Rt. 21/1
39.238697N/80.869017W & 39.237101N/80.8798477W

was published in The Doddridge Independent
2 times commencing on Friday, July 24, 2015 and
Ending on Friday, July 31, 2015 at the request of:

**George Eidel, Doddridge County Floodplain
Manager**

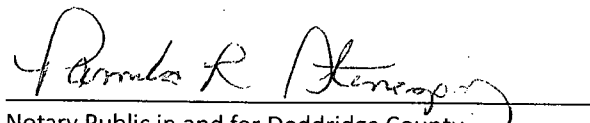
Given under my hand this Monday, August 3, 2015

The publisher's fee for said publication is:
\$ 25.27 1st Run/\$ 18.95 Subsequent Runs
This Legal Ad Total: \$ 44.22



Michael D. Zorn
Publisher of The Doddridge Independent

Subscribed to and sworn to before me on
this date: 8/3/15

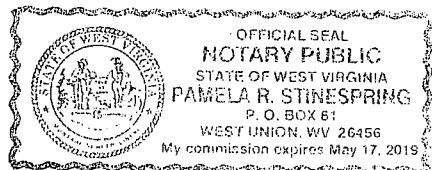


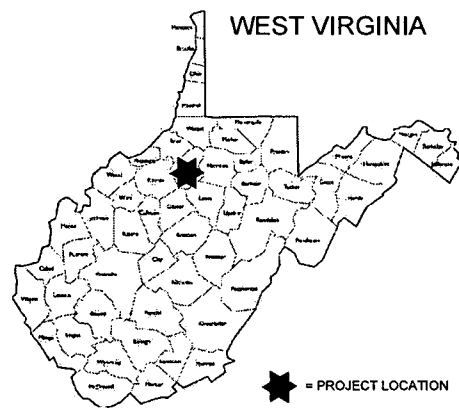
Notary Public in and for Doddridge County
My Commission expires on
The 17th day of MAY 20 19

Legal Advertisement: 7/24 - 7/31
Doddridge County
Floodplain Permit Application

Please take notice that on the 26th day of June, 2015
15-367 - Antero - Stanley Well Pad & Containment Pad
filed an application for a Floodplain Permit to develop land located at or
about:
Permit Application # 15-367 -Not In FloodPlain
Location: South of Greenwood/ Co. Rt. 21/1
39.238697N/80.869017W & 39.237101N/80.8798477W
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 10, 2015, delivered to:

Clerk of the County Court
118 E. Court Street, West Union, WV 26456
Beth A Rogers, Doddridge County Clerk
George Eidel, Doddridge County Flood Plain Manager





STANLEY WELL AND WATER CONTAINMENT PAD SITE DESIGN & CONSTRUCTION PLAN, EROSION & SEDIMENT CONTROL PLANS

ANTERO RESOURCES CORPORATION

PROJECT CONTACTS

PROJECT OWNER

ANTERO RESOURCES
1615 WYNKOPP STREET
DENVER, CO 80202

CONTACT: ANTHONY SMITH
FIELD ENGINEER
304.869.3405 OFFICE
304.673.6196 CELL

CONTACT: JOHN KAWCAK
ENGINEER
817.368.1553

CONTACT: ELI WAGONER
ENVIRONMENTAL
ENGINEER
304.622.3842, EXT 311
OFFICE

CONTACT: AARON KUNZLER
CONSTRUCTION
SUPERVISOR
405.227.8344

LOCATION SURVEYOR

WHITE BROTHERS CONSULTING, LLC
CONTACT: LEE SNYDER, PS
447 CALL ROAD SUITE 216
CHARLESTON, WV 25312
304.550.9484

ENGINEER OF RECORD

KLEINFELDER EAST, INC.
CONTACT: JEFFERY B. CRISP, PE
WV PE #20354
3500 GATEWAY CENTRE BLVD, SUITE 200
MORRISVILLE, NC 27560
919.755.5011 OFFICE
919.755.1414 FAX

ENVIRONMENTAL/ DELINEATION BOUNDARY

GAI CONSULTANTS, INC.
CONTACT: JASON COOK
4198 COX ROAD, SUITE 114
GLEN ALLEN, VA 23060
804.270.9357 OFFICE
303.709.3306 CELL

TOPO SURVEYOR

BLUE MOUNTAIN AERIAL MAPPING
CONTACT: CRAIG FRY
11023 MASON DIXON HIGHWAY
BURTON, WV 25562
304.862.2828 OFFICE
304.815.4690 CELL

SITE LOCATIONS

DESCRIPTION	NAD 83 (WV NORTH)		UTM ZONE 17 (METERS)	
	LATITUDE	LONGITUDE	NORTHING	EASTING
CENTER OF WELL PAD	39.23710135	-80.87947654	4343095.4306	510401.4184
CENTER OF WATER CONTAINMENT PAD	39.23797324	-80.87732122	4343192.4394	510587.2961
STANLEY ACCESS ROAD ENTRANCE	39.23869666	-80.86901707	4343273.7250	511303.8363
JAMES WEBB ACCESS ROAD ENTRANCE	39.23622000	-80.86847100	4342998.9441	511351.3615

FLOODPLAIN CONDITIONS

DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN:	NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	NO
HEC-RAS STUDY COMPLETED:	N/A
FLOODPLAIN SHOWN ON DRAWINGS:	N/A
FIRM MAP NUMBER(S) FOR SITE:	54017C0200C & 54017C0225C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	N/A

ACCESS ROAD LENGTH (FEET)

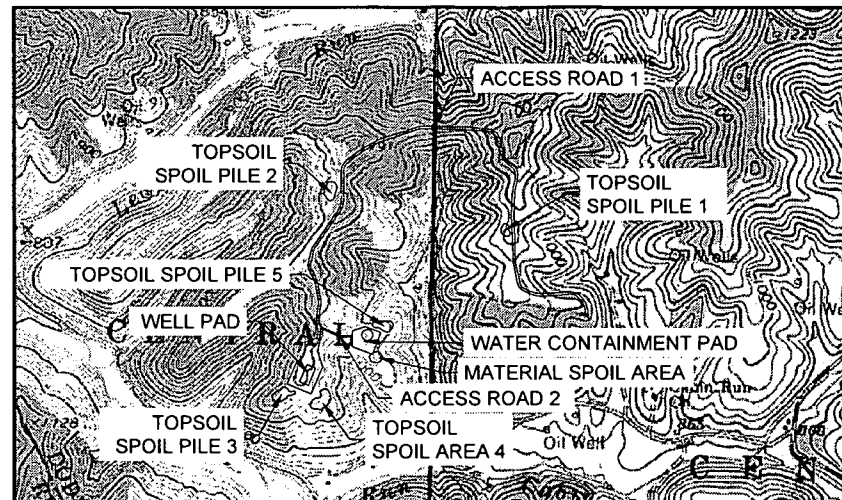
DESCRIPTION	FEET
ACCESS ROAD 1	6,490
ACCESS ROAD 2	368
TOTAL	6,858

DESIGN CERTIFICATION

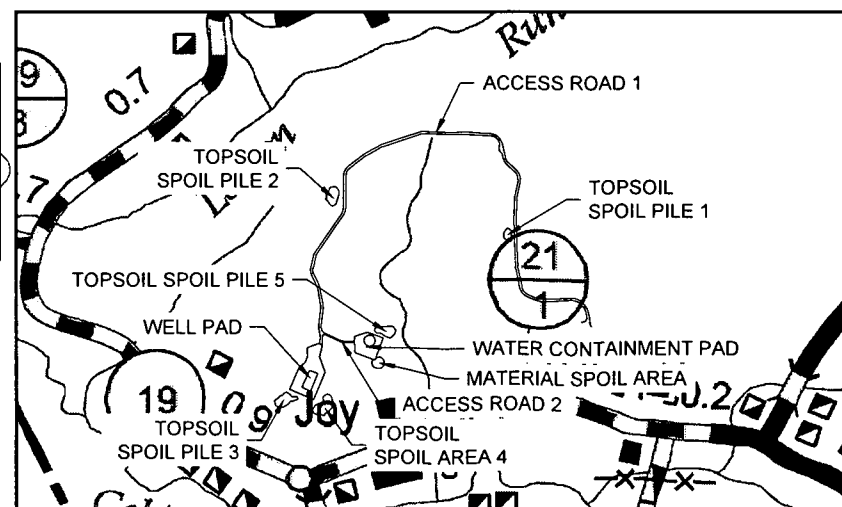
THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS §35-8.

MM-109 PERMIT

ANTERO RESOURCES WILL OBTAIN AN ENCROACHMENT PERMIT (MM-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.



NORTH MERIDIAN REFERENCED TO NAD83 WEST VIRGINIA STATE PLANE NORTH ZONE
AFFECTED TAX PARCELS: SEE SHEET 2
OXFORD & PULLMAN 7.5 QUAD
LITTLE MUSKINGUM MIDDLE ISLAND WATERSHED



WELL HEAD LAYOUT

WELL NAME	NAD 83 (WV NORTH ZONE)			
	NORTHING	EASTING	LATITUDE	LONGITUDE
BURGESS UNIT 2H	271427.3202	1577799.5864	39.23697809	-80.87942190
HATTIE UNIT 3H	271418.1116	1577795.6876	39.23695264	-80.87943516
BURGESS UNIT 1H	271408.9029	1577791.7888	39.23692720	-80.87944843
COOL UNIT 2H	271399.6943	1577787.8899	39.23690175	-80.87946169
HATTIE UNIT 2H	271390.4856	1577783.9911	39.23687631	-80.87947495
COOL UNIT 1H	271381.2770	1577780.0923	39.23685087	-80.87948822
HATTIE UNIT 1H	271372.0683	1577776.1935	39.23682542	-80.87950148

WELL HEAD LAYOUT

WELL NAME	NAD 27 (WV NORTH ZONE)		UTM ZONE 17 (METERS)	
	NORTHING	EASTING	NORTHING	EASTING
BURGESS UNIT 2H	271392.7644	1609240.6569	4343081.7582	510406.1527
HATTIE UNIT 3H	271383.5558	1609236.7580	4343078.9330	510405.0118
BURGESS UNIT 1H	271374.3472	1609232.8591	4343076.1078	510403.8708
COOL UNIT 2H	271365.1386	1609228.9602	4343073.2825	510402.7299
HATTIE UNIT 2H	271355.9301	1609225.0613	4343070.4573	510401.5889
COOL UNIT 1H	271346.7215	1609221.1624	4343067.6321	510400.4480
HATTIE UNIT 1H	271337.5129	1609217.2634	4343064.8069	510399.3070

SHEET INDEX

PAGE NO.	DESCRIPTION
1	COVER PAGE & LOCATION MAP
2	SCHEDULE OF QUANTITIES
3	DELINEATION IMPACTS & TOE BENCH QUANTITIES
4	NOTES
5 - 7	EXISTING CONDITIONS
8	OVERALL PLAN
9 - 13	SITE PLAN
14	WELL PAD GRADING PLAN
15	WATER CONTAINMENT PAD GRADING PLAN
16	WELL PAD CROSS SECTIONS AND PROFILE
17	WATER CONTAINMENT PAD CROSS SECTIONS AND PROFILE
18 - 22	ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
23	ACCESS ROAD 2 CROSS SECTIONS AND PROFILE
24 - 29	DETAILS
30 - 34	RECLAMATION PLAN

WELL LOCATION RESTRICTIONS

- DRILL PAD IS TO COMPLY WITH WELL LOCATION RESTRICTIONS OF WV CODE 22-6A-12. THE PADS COMPLY WITH THE FOLLOWING RESTRICTIONS:
- 250' FROM AN EXISTING WELL OR DEVELOPED SPRING USED FOR HUMAN OR DOMESTIC ANIMALS
 - 625' FROM AN OCCUPIED DWELLING OR BARN GREATER THAN 2500 SF USED FOR POULTRY OR DAIRY MEASURED FROM THE CENTER OF THE PAD
 - 100' FROM EDGE OF DISTURBANCE TO WETLANDS, PERENNIAL STREAMS, NATURAL OR ARTIFICIAL LAKE, POND OR RESERVOIR
 - 300' FROM EDGE OF DISTURBANCE TO NATURALLY REPRODUCING TROUT STREAMS
 - 1000' OF SURFACE OR GROUND WATER INTAKE TO A PUBLIC WATER SUPPLY

PLAN REPRODUCTION WARNING

THE PLANS HAVE BEEN CREATED ON ANSI D (22"x34") SHEETS. FOR REDUCTIONS, REFER TO GRAPHIC SCALE.

THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.

WARNING: INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING.



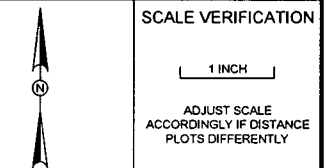
230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC #20354

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION



500 250 0 500
SCALE: 1 INCH = 500 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

COVER PAGE & LOCATION MAP

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A	1
ISSUE DATE	02-25-2015	
CURRENT REVISION	3	
DESIGNED BY	CHT	
DRAWN BY	-	
CHECKED BY	JBC	
APPROVED BY	JMF	SHEET



230 EXECUTIVE DRIVE, SUITE 122
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PHONE: 724-772-7072
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Signed By: JBC # 20354

Table with 4 columns: REV, DESCRIPTION, DSN, CHK, DATE. Lists revisions to the well pad excavation plan, including impact table additions and delineation revisions.

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SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

SCHEDULE OF QUANTITIES

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

Project metadata table with columns: PROJECT NO., ISSUE DATE, CURRENT REVISION, DESIGNED BY, DRAWN BY, CHECKED BY, APPROVED BY.

2

Table titled 'LIMITS OF DISTURBANCE' showing areas affected by construction, including access roads, water containment pads, and spoil piles, with corresponding tax parcel information.

SCHEDULE OF QUANTITIES for fencing, mobile water corral, seeding, and french drains.

**ANTERO RESOURCES WILL PROVIDE THE FOLLOWING:
102" x 78" x 54" PRE CAST SUMP
VALVE FOR SUMP DISCHARGE
TX 190 GEOGRID OR EQUIVALENT
GEOTEXTILE FABRIC (US 200) OR EQUIVALENT
ALL HDPE CULVERT PIPE
ALL PVC CONNECTIVE PIPE
ALL SSF, SF, WATTLES
ALL AGGREGATE

Table titled 'STANLEY WELL & WATER CONTAINMENT PAD QUANTITIES' showing quantities for well pad, water containment pad, access roads, and diversion ditches.

*INCLUDES 5% SWELL
THE QUANTITIES SHOWN MAY BE GREATER OR LESSER THAN ACTUALLY EXCAVATED. THE ENGINEER IS NOT RESPONSIBLE FOR VARIANCES FROM THE ESTIMATED QUANTITIES AND DOES NOT CERTIFY TO THEIR ACCURACY.

Main SCHEDULE OF QUANTITIES for Stanley Well Pad Site, covering clearing, mobilization, excavation, aggregate, culverts, and road work.

*HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS.
**TOPSOIL QUANTITY FOR THIS SITE WAS ESTIMATED AT A UNIFORM THICKNESS OF 6" OVER THE ENTIRE EXCAVATED AREA. ACTUAL QUANTITY MAY VARY.

Table titled 'GRADING' showing slope and swell/shrink factors for different types of grading work.

VERTICAL SCALE: 82,201.5 TO 112.5 FT. BY 100 FT. INCH
LAYOUT: 1. SCHEDULE OF QUANTITIES
PLOT: 1. SCHEDULE OF QUANTITIES
PLOT: 1. SCHEDULE OF QUANTITIES
PLOT: 1. SCHEDULE OF QUANTITIES

NOTES:

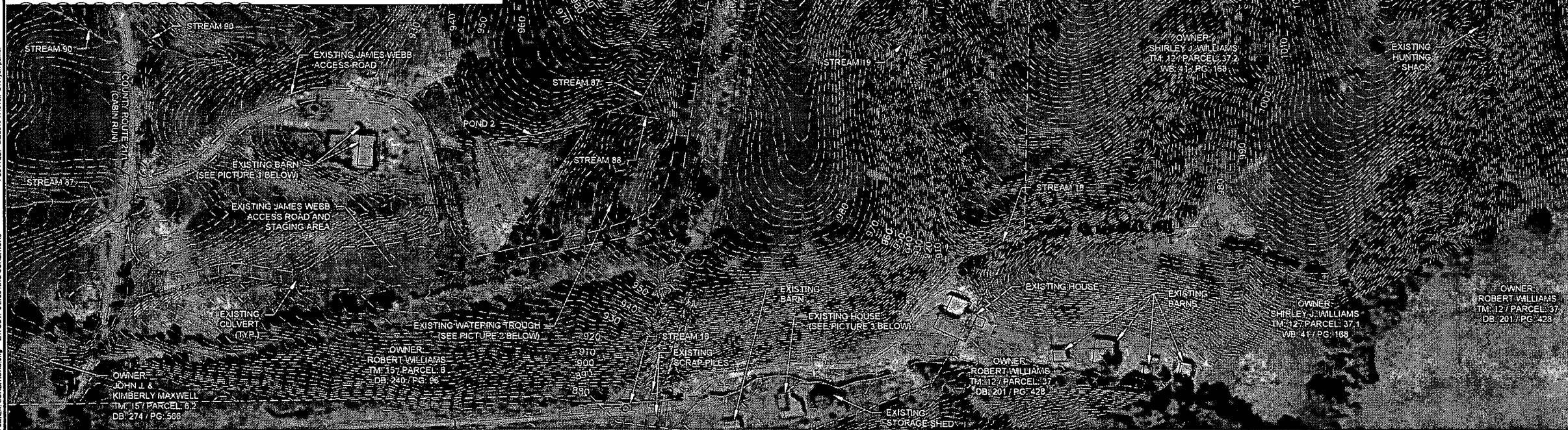
1. WETLANDS/STREAMS DELINEATED BY:
GAI CONSULTANTS, INC.
4198 COX ROAD, SUITE 114
GLEN ALLEN, WV 23060
804-270-9357
2. LOCATION SURVEY PROVIDED BY:
WHITE BROTHERS CONSULTING, LLC
447 CALL ROAD, SUITE 216
CHARLESTON, WV 25312
304-550-9484
3. TOPOGRAPHIC SURVEY PROVIDED BY:
BLUE MOUNTAIN AERIAL MAPPING
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
304-682-2626
4. BENCHMARK:
HORIZONTAL - NAD 83 WV STATE PLANE,
NORTH ZONE, US SURVEY FEET
VERTICAL - NAVD 88 (GEOID03), US
SURVEY FEET
5. FEDERAL EMERGENCY MANAGEMENT
AGENCY (FEMA) FLOOD INSURANCE RATE
(FIRM) PANEL 54017C0225C & 54017C0200C
INDICATES NO SPECIAL FLOOD HAZARD
AREAS WITHIN THE PROJECT AREA.

LEGEND

--- 1360 ---	EX. INDEX CONTOUR
- - - - -	EX. INTERMEDIATE CONTOUR
---	EX. PROPERTY LINE
[Symbol]	EX. WETLAND
[Symbol]	EX. POND
---	EX. STREAM
G	EX. GAS LINE
W	EX. WATER LINE
---	EX. ROAD
X	EX. FENCE
[Symbol]	EX. JAMES WEBB WELL PAD FEATURES
[Symbol]	EX. STRUCTURE
- - - - -	STREAM/WETLAND AREA OF INTEREST



PICTURE 6



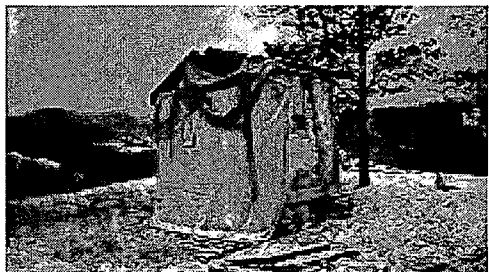
PICTURE 1



PICTURE 2



PICTURE 3



PICTURE 4



PICTURE 5



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
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2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
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4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

100 50 0 100
SCALE: 1 INCH = 100 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

EXISTING CONDITIONS
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
PROJECT NO. 20150962.001A	5
ISSUE DATE 02-25-2015	
CURRENT REVISION 3	
DESIGNED BY CHT	
DRAWN BY -	
CHECKED BY JBC	
APPROVED BY JMF	SHEET 5 of 34

PLOTTED: 02/25/15 7:48 AM BY: jbc
 LAYOUT: EXISTING CONDITIONS.dwg
 CAD FILE: G:\data\mtn\wv\2015\StanleyWellPad\StanleyWellPad.dwg

MATCHLINE SHEET 6



230 EXECUTIVE DRIVE, SUITE 122
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Signed By: JBC # 20354

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MATCHLINE SHEET 6

ISSUED FOR CONSTRUCTION

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100 50 0 100
SCALE: 1 INCH = 100 FEET
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EXISTING CONDITIONS
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

7

SHEET 7 of 34

PLOTTED: 6/22/15 8:00 AM BY: ryan.miller
CAD FILE: G:\drainage\4816\4816.dwg
LAYOUT: EXISTING CONDITIONS.dwg

LEGEND

1360	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	EX. PROPERTY LINE
[Symbol]	EX. WETLAND
G	EX. STREAM
W	EX. WATER LINE
X	EX. ROAD
[Symbol]	EX. FENCE
[Symbol]	EX. JAMES WEBB WELL PAD FEATURES
[Symbol]	EX. STRUCTURE
[Symbol]	STREAM/WETLAND AREA OF INTEREST

- NOTES:**
- WETLANDS/STREAMS DELINEATED BY:
GAJ CONSULTANTS, INC.
4198 COX ROAD, SUITE 214
GLEN ALLEN, WV 23060
804-270-9357

KLEINFELDER EAST, INC.
180 SHEREE BLVD., SUITE 3800
EXTON, PA 19341
610-594-1444
 - LOCATION SURVEY PROVIDED BY:
WHITE BROTHERS CONSULTING, LLC
447 CALL ROAD, SUITE 216
CHARLESTON, WV 25312
304-550-9484
 - TOPOGRAPHIC SURVEY PROVIDED BY:
BLUE MOUNTAIN AERIAL MAPPING
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
304-662-2626
 - BENCHMARK:
HORIZONTAL - NAD 83 WV STATE PLANE,
NORTH ZONE, US SURVEY FEET

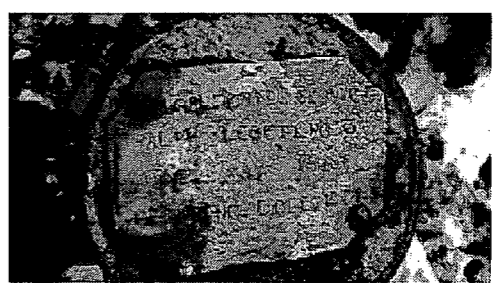
VERTICAL - NAVD 88 (GEOID03), US
SURVEY FEET
 - FEDERAL EMERGENCY MANAGEMENT
AGENCY (FEMA) FLOOD INSURANCE
RATE (FIRM) PANEL 54017C0225C &
54017C022500 INDICATES NO SPECIAL
FLOOD HAZARD AREAS WITHIN THE
PROJECT AREA.



PICTURE 8



PICTURE 9



PICTURE 10



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
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ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
1 INCH
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100 50 0 100
SCALE: 1 INCH = 100 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

OVERALL PLAN

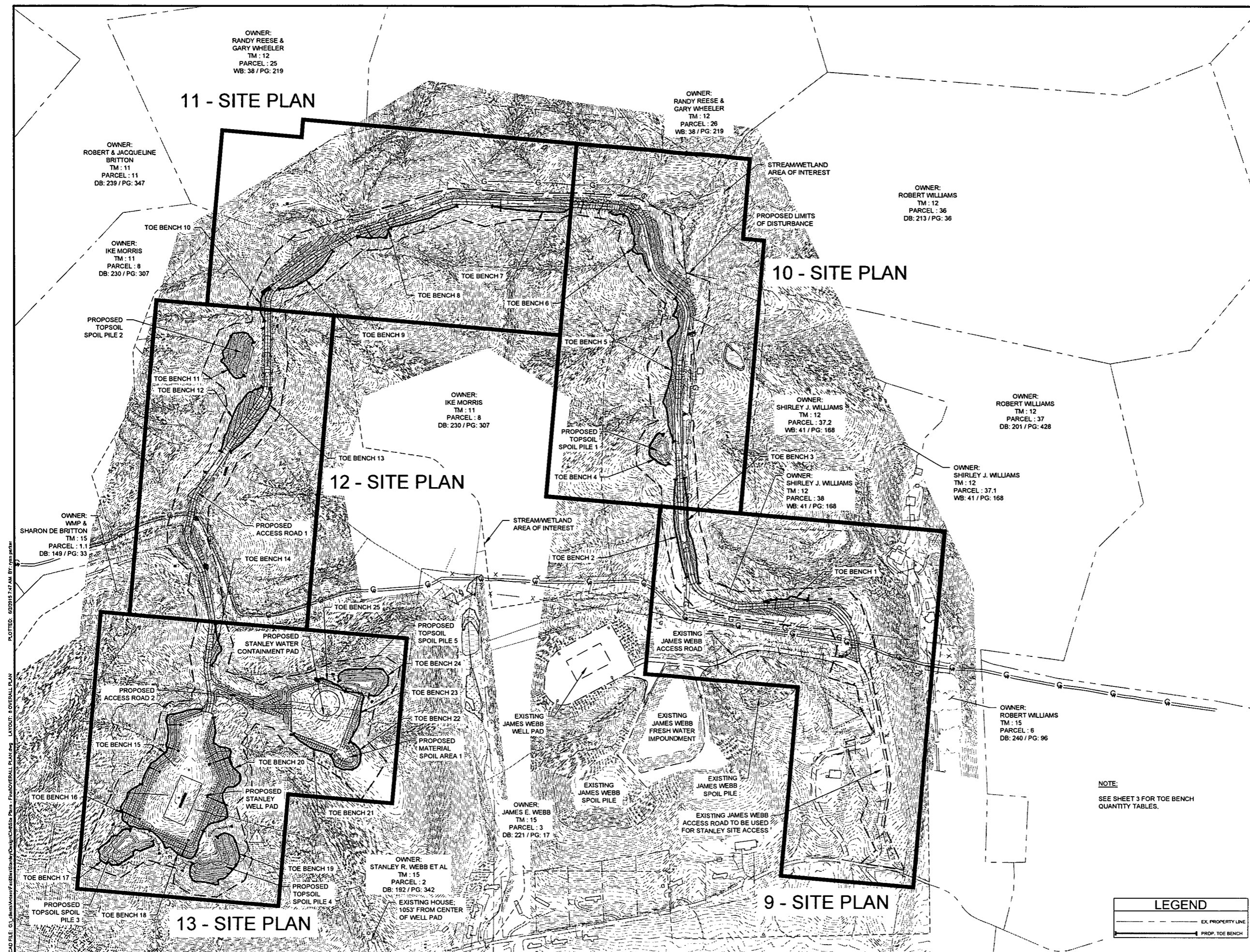
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO. 20150962.001A
ISSUE DATE 02-25-2015
CURRENT REVISION 3
DESIGNED BY CHT
DRAWN BY
CHECKED BY JBC
APPROVED BY JMF

8



NOTE:
SEE SHEET 3 FOR TOE BENCH QUANTITY TABLES.

LEGEND

---	EX. PROPERTY LINE
---	PROP. TOE BENCH

CAD FILE: G:\clients\AnteroResources\Projects\Cherry\Plan - Final\OVERALL PLAN.dwg PLOTTED: 02/25/15 7:47 AM BY: jmf

NOTES:

1. THE GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS.
2. CUT AND FILL SLOPES SHALL BE AT 2H:1V UNLESS NOTED OTHERWISE. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.
3. FILL SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.
4. INTERMEDIATE TOE BENCHES SHALL BE INSTALLED ON FILL SLOPES PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
5. ALL FILL SLOPES SHALL BE TOE KEYED PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
6. POSITIVE FLOW FROM PAD TO SUMPS. SEDIMENTS AND MATERIAL REMOVED FROM THE PAD SUMPS SHALL BE PUMPED TO ON-SITE HOLDING/STORAGE TANKS AND SUBSEQUENTLY REMOVED FROM SITE BY AN APPROVED COMMERCIAL VENDOR.
7. TOP OF SPOIL AREA FILL SLOPES TO BE GRADED AT A MINIMUM OF 3% FROM CENTER TO PROMOTE POSITIVE DRAINAGE.
8. ALL STORMWATER CONVEYANCES ON THE SITE HAVE BEEN DESIGNED TO ACCOMMODATE THE 10-YEAR STORM EVENT.
9. A 10-YEAR STORM EVENT RAIN FALL INTENSITY OF 6.44 IN/HR WAS USED FOR STORM SEWER AND ROAD-SIDE DITCH, CHANNEL, AND DIVERSION DITCH CALCULATIONS PER THE NOAA PRECIPITATION FREQUENCY DATA SERVER FOR DODDRIDGE CO., WV.
10. SEE DETAIL 2, SHOWN ON SHEET 25 FOR RIP RAP OUTLET PROTECTION SIZING AND DESIGN.
11. CONTRACTOR TO INSTALL ROCK CHECK DAMS WITHIN ROADSIDE DITCHES, CHANNELS, AND DIVERSION DITCHES. SEE DETAIL 4, SHOWN ON SHEET 26 FOR SPACING REQUIREMENTS. ROCK CHECK DAMS WILL BE INSTALLED DURING CONSTRUCTION AS EROSION CONTROL MEASURES AND REMAIN IN PLACE AS PERMANENT CHECK DAMS AFTER CONSTRUCTION IS COMPLETE.
12. ALL FILTER SOCK TO BE 18" UNLESS OTHERWISE NOTED.
13. IN TOPSOIL PLACEMENT AREAS, CONTRACTOR TO INSTALL PROPER BMPs TO ENSURE NO OFFSITE EROSION & SEDIMENTATION RUNOFF.
14. INSTALL ROCK FILTER OUTLETS ALONG SEDIMENT BARRIERS AS SHOWN AND AT LOW POINTS AS IDENTIFIED IN THE FIELD.

LEGEND

- 1360 --- EX. INDEX CONTOUR
- EX. INTERMEDIATE CONTOUR
- EX. TREE LINE
- EX. PROPERTY LINE
- EX. WETLAND
- EX. POND
- EX. STREAM
- G --- EX. GAS LINE
- W --- EX. GAS LINE
- EX. ROAD
- X-X --- EX. FENCE
- EX. STRUCTURE
- EX. JAMES WEBB WELL PAD FEATURES
- STREAM/WETLAND AREA OF INTEREST
- PROP. LIMITS OF DISTURBANCE
- 100' PERENNIAL WETLAND BUFFER
- PROP. FRENCH DRAIN
- 1360 --- PROP. INDEX CONTOUR
- PROP. INTERMEDIATE CONTOUR
- PROP. ROAD CENTERLINE
- PROP. PADS & ROAD EDGE
- PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS; FOR SAFETY PURPOSES
- PROP. PAD PERIMETER SUMP
- PROP. WELL HEAD
- PROP. PVC PIPE FOR SUMP SYSTEM
- SUPER SILT FENCE AND FILTER SOCK INDICATION (SEE SHEET # FOR SUPER SILT FENCE AND FILTER SOCK TABLE)
- PROP. FILTER SOCK
- PROP. SUPER SILT FENCE
- PROP. HAO C125BN EROSION CONTROL MATTING*
- PROP. OUTLET PROTECTION
- PROP. INLET PROTECTION
- PROP. ROCK FILTER OUTLET
- PROP. CONSTRUCTION ENTRANCE

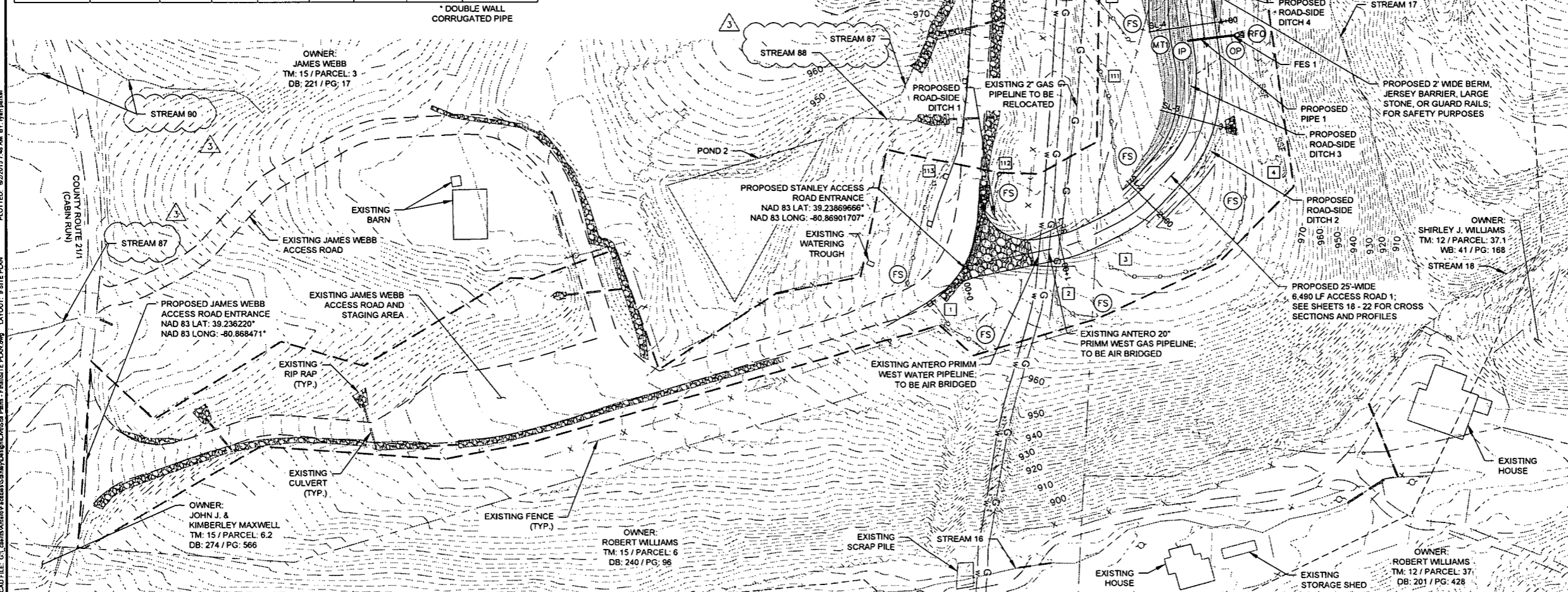
*HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS

STORM DRAINAGE LEGEND

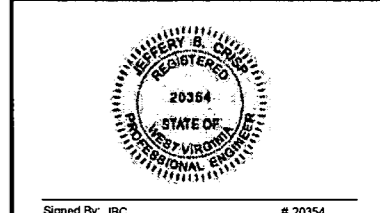
- FES --- FLARED END SECTION

STANLEY STORM DRAINAGE COMPUTATIONS

ACCESS ROAD CROSS-DRAINS	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL	
PIPE 1	AR1 03+85	2.09	0.0222	18"	45.00	981.00	980.00	HDPE*
PIPE 2	AR1 05+32	0.80	0.0500	18"	40.00	1000.00	998.00	HDPE*
PIPE 3	AR1 26+88	2.94	0.0222	18"	45.00	1101.00	1100.00	HDPE*
PIPE 4	AR1 27+97	0.36	0.0222	18"	45.00	1081.00	1080.00	HDPE*
PIPE 5	AR1 28+82	0.42	0.0222	18"	45.00	1067.00	1066.00	HDPE*
PIPE 6	AR1 32+45	4.72	0.0444	18"	45.00	1058.00	1056.00	HDPE*
PIPE 7	AR1 37+58	0.48	0.0500	18"	40.00	1092.00	1090.00	HDPE*
PIPE 8	AR1 38+53	0.46	0.0500	18"	40.00	1110.00	1108.00	HDPE*
PIPE 9	AR1 39+62	0.85	0.0400	18"	50.00	1132.00	1130.00	HDPE*
PIPE 10	AR2 01+98	0.64	0.0667	18"	30.00	1067.00	1065.00	HDPE*



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	8/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

9
9 of 34

PLOTTED: 02/20/15 7:45 AM BY: jmf
 LAYOUT: 9 SITE PLAN
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230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 15066
PHONE: 724-772-7072
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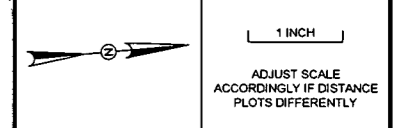


Signed By: JBC # 20354

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SCALE VERIFICATION



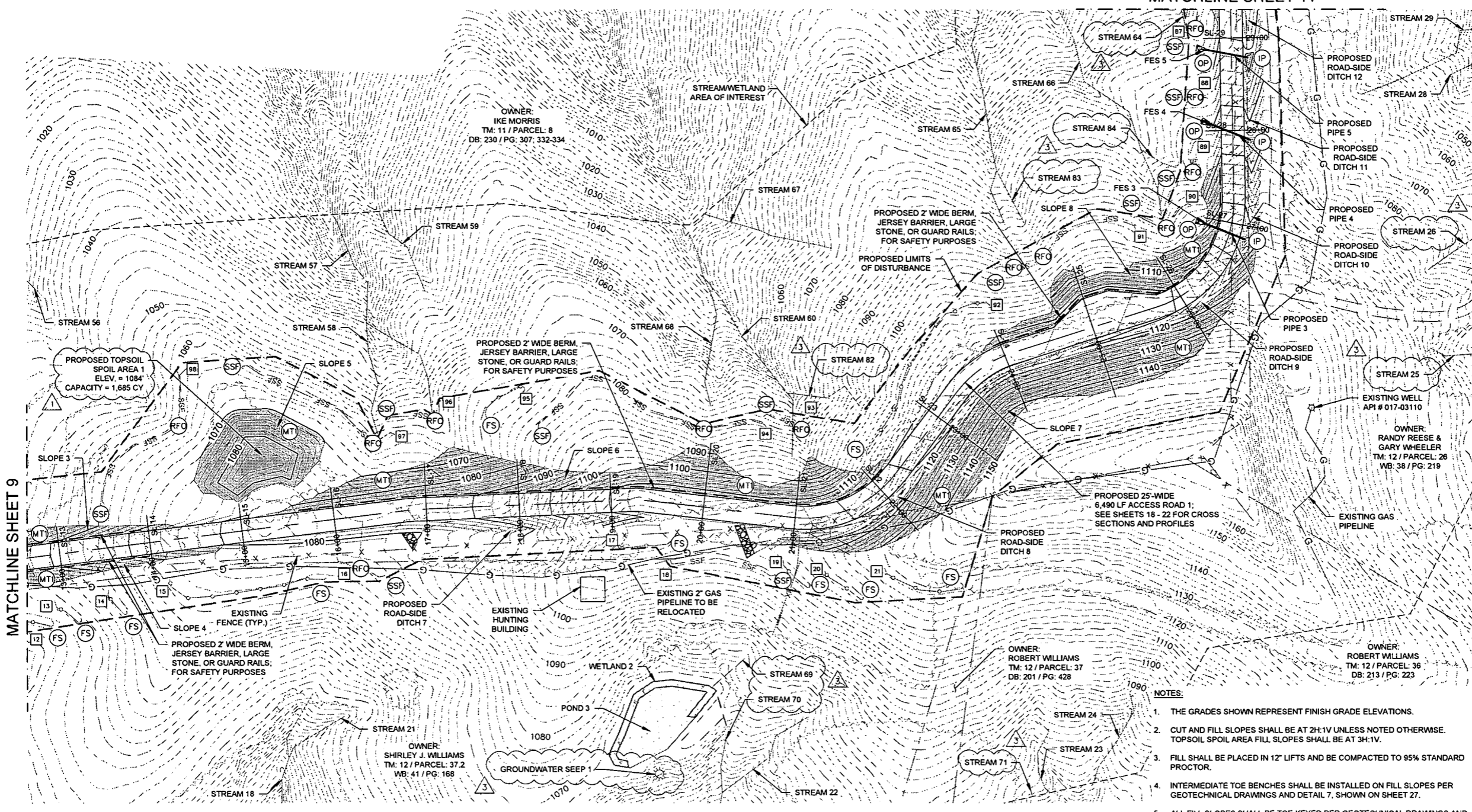
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SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

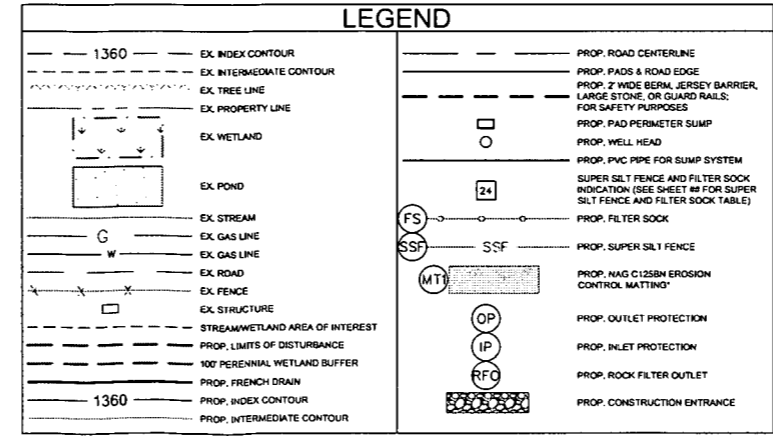


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 - INTERMEDIATE TOE BENCHES SHALL BE INSTALLED ON FILL SLOPES PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 - ALL FILL SLOPES SHALL BE TOE KEYED PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 - POSITIVE FLOW FROM PAD TO SUMPS. SEDIMENTS AND MATERIAL REMOVED FROM THE PAD SUMPS SHALL BE PUMPED TO ON-SITE HOLDING/STORAGE TANKS AND SUBSEQUENTLY REMOVED FROM SITE BY AN APPROVED COMMERCIAL VENDOR.
 - TOP OF SPOIL AREA FILL SLOPES TO BE GRADED AT A MINIMUM OF 3% FROM CENTER TO PROMOTE POSITIVE DRAINAGE.
 - ALL STORMWATER CONVEYANCES ON THE SITE HAVE BEEN DESIGNED TO ACCOMMODATE THE 10-YEAR STORM EVENT.
 - A 10-YEAR STORM EVENT RAIN FALL INTENSITY OF 6.44 IN/HR WAS USED FOR STORM SEWER AND ROAD-SIDE DITCH, CHANNEL, AND DIVERSION DITCH CALCULATIONS PER THE NOAA PRECIPITATION FREQUENCY DATA SERVER FOR DODDRIDGE CO., WV.
 - SEE DETAIL 2, SHOWN ON SHEET 25 FOR RIP RAP OUTLET PROTECTION SIZING AND DESIGN.
 - CONTRACTOR TO INSTALL ROCK CHECK DAMS WITHIN ROADSIDE DITCHES, CHANNELS, AND DIVERSION DITCHES. SEE DETAIL 4, SHOWN ON SHEET 26 FOR SPACING REQUIREMENTS. ROCK CHECK DAMS WILL BE INSTALLED DURING CONSTRUCTION AS EROSION CONTROL MEASURES AND REMAIN IN PLACE AS PERMANENT CHECK DAMS AFTER CONSTRUCTION IS COMPLETE.
 - ALL FILTER SOCK TO BE 18" UNLESS OTHERWISE NOTED.
 - IN TOPSOIL PLACEMENT AREAS, CONTRACTOR TO INSTALL PROPER BMPS TO ENSURE NO OFFSITE EROSION & SEDIMENTATION RUNOFF.
 - INSTALL ROCK FILTER OUTLETS ALONG SEDIMENT BARRIERS AS SHOWN AND AT LOW POINTS AS IDENTIFIED IN THE FIELD.



STANLEY STORM DRAINAGE COMPUTATIONS

ACCESS ROAD CROSS-DRAINS	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL
PIPE 1 AR1 03+85	2.09	0.0222	18"	45.00	981.00	980.00	HDPE*
PIPE 2 AR1 05+32	0.80	0.0500	18"	40.00	1000.00	998.00	HDPE*
PIPE 3 AR1 26+88	2.94	0.0222	18"	45.00	1101.00	1100.00	HDPE*
PIPE 4 AR1 27+97	0.36	0.0222	18"	45.00	1081.00	1080.00	HDPE*
PIPE 5 AR1 28+82	0.42	0.0222	18"	45.00	1067.00	1066.00	HDPE*
PIPE 6 AR1 32+45	4.72	0.0444	18"	45.00	1058.00	1056.00	HDPE*
PIPE 7 AR1 37+58	0.48	0.0500	18"	40.00	1092.00	1090.00	HDPE*
PIPE 8 AR1 38+53	0.46	0.0500	18"	40.00	1110.00	1108.00	HDPE*
PIPE 9 AR1 39+62	0.85	0.0400	18"	50.00	1132.00	1130.00	HDPE*
PIPE 10 AR2 01+98	0.64	0.0667	18"	30.00	1067.00	1065.00	HDPE*

* DOUBLE WALL CORRUGATED PIPE

STORM DRAINAGE LEGEND

FES	FLARED END SECTION
-----	--------------------

PLOTTED: 6/20/15 7:48 AM BY: jmc/parker
 LAYOUT: 10 SITE PLAN



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH = 60 FEET

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

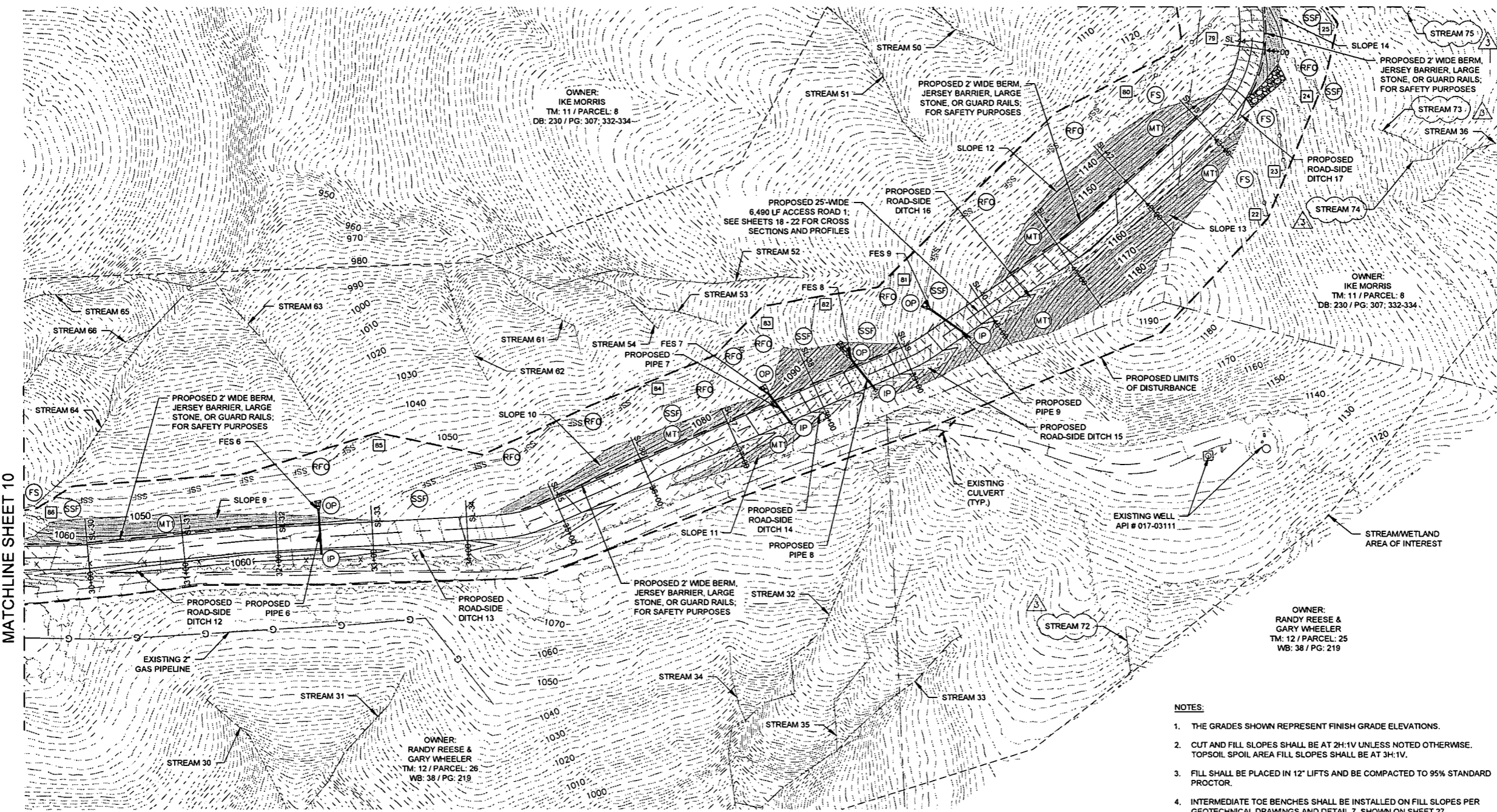


CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

11

11 of 34



- NOTES:**
- THE GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS.
 - CUT AND FILL SLOPES SHALL BE AT 2H:1V UNLESS NOTED OTHERWISE. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.
 - FILL SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.
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 - INSTALL ROCK FILTER OUTLETS ALONG SEDIMENT BARRIERS AS SHOWN AND AT LOW POINTS AS IDENTIFIED IN THE FIELD.

LEGEND

1360	EX. INDEX CONTOUR	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS: FOR SAFETY PURPOSES
---	EX. INTERMEDIATE CONTOUR	PROP. PERIMETER SUMP
---	EX. TREE LINE	PROP. WELL HEAD
---	EX. PROPERTY LINE	PROP. PVC PIPE FOR SUMP SYSTEM
---	EX. WETLAND	PROP. SUPER SILT FENCE AND FILTER SOCK INDICATION (SEE SHEET #4 FOR SUPER SILT FENCE AND FILTER SOCK TABLE)
G	EX. STREAM	PROP. FILTER SOCK
W	EX. GAS LINE	PROP. NAG C125BN EROSION CONTROL MATTING
---	EX. GAS LINE	PROP. OUTLET PROTECTION
X	EX. FENCE	PROP. INLET PROTECTION
---	EX. STRUCTURE	PROP. ROCK FILTER OUTLET
---	STREAMWETLAND AREA OF INTEREST	PROP. CONSTRUCTION ENTRANCE
---	PROP. LIMITS OF DISTURBANCE	
---	100' PERENNIAL WETLAND BUFFER	
---	PROP. FRENCH DRAIN	
1360	PROP. INDEX CONTOUR	
---	PROP. INTERMEDIATE CONTOUR	
---	PROP. ROAD CENTERLINE	
---	PROP. PADS & ROAD EDGE	

*HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS

STANLEY STORM DRAINAGE COMPUTATIONS

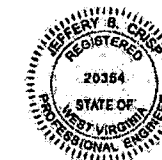
ACCESS ROAD CROSS-DRAINS	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL
PIPE 1 AR1 03+85	2.09	0.0222	18"	45.00	981.00	980.00	HDPE*
PIPE 2 AR1 05+32	0.80	0.0500	18"	40.00	1000.00	998.00	HDPE*
PIPE 3 AR1 26+88	2.94	0.0222	18"	45.00	1101.00	1100.00	HDPE*
PIPE 4 AR1 27+97	0.36	0.0222	18"	45.00	1081.00	1080.00	HDPE*
PIPE 5 AR1 28+82	0.42	0.0222	18"	45.00	1067.00	1066.00	HDPE*
PIPE 6 AR1 32+45	4.72	0.0444	18"	45.00	1058.00	1056.00	HDPE*
PIPE 7 AR1 37+58	0.48	0.0500	18"	40.00	1092.00	1090.00	HDPE*
PIPE 8 AR1 38+53	0.46	0.0500	18"	40.00	1110.00	1108.00	HDPE*
PIPE 9 AR1 39+62	0.85	0.0400	18"	50.00	1132.00	1130.00	HDPE*
PIPE 10 AR2 01+88	0.64	0.0667	18"	30.00	1067.00	1065.00	HDPE*

* DOUBLE WALL CORRUGATED PIPE

STORM DRAINAGE LEGEND

FES	FLARED END SECTION
-----	--------------------

PLOTTED: 02/20/15 7:48 AM BY: ryan parker
 LAYOUT: 11 SITE PLAN



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

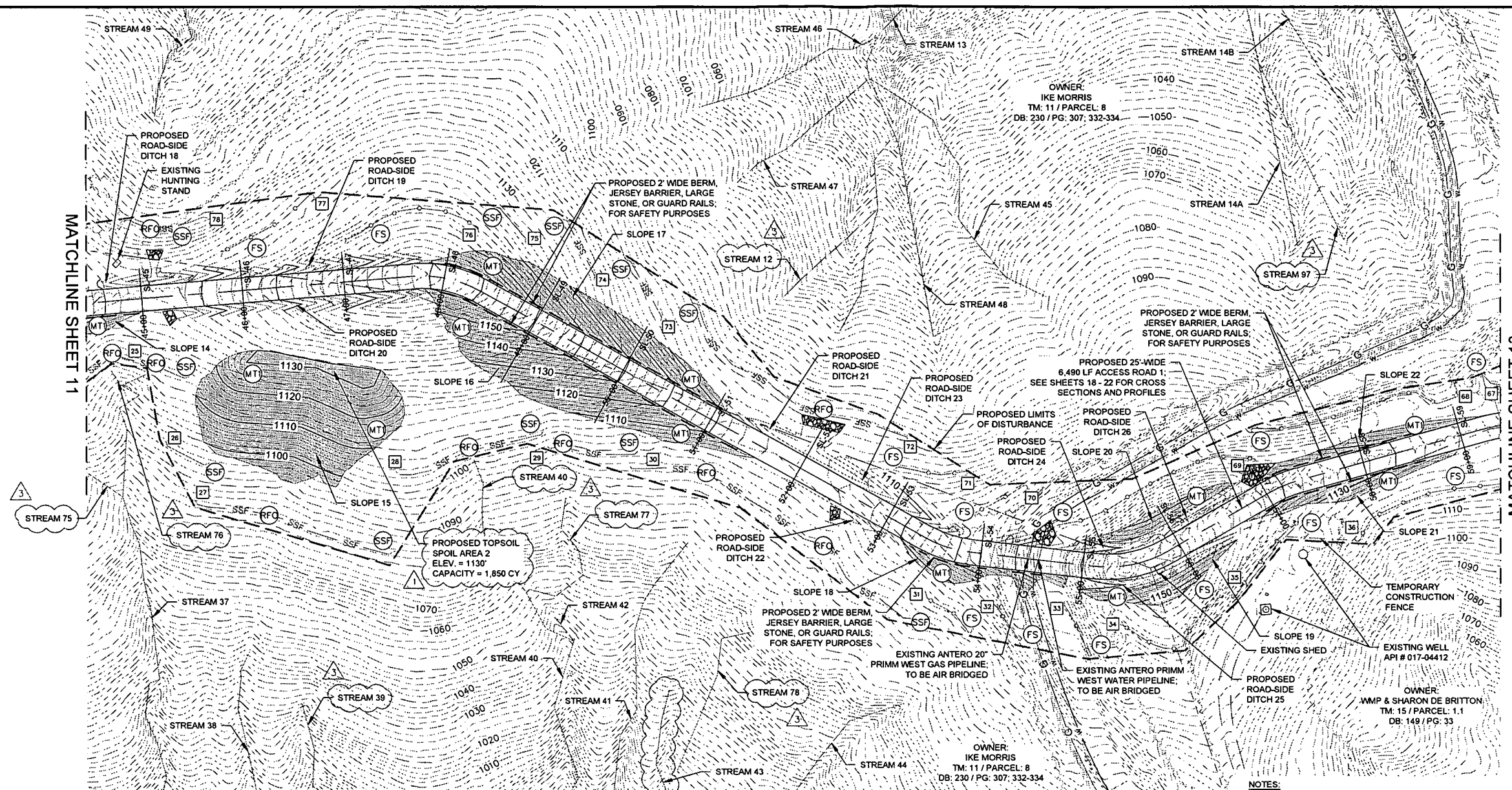


CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

12

12 of 34



MATCHLINE SHEET 11

MATCHLINE SHEET 13

ACCESS ROAD CROSS-DRAINS	Q TOTAL FLOW (cfs)	SLOPE (ft/ft)	SIZE	LENGTH (ft)	UPPER INVERT (ft)	LOWER INVERT (ft)	PIPE MATERIAL
PIPE 1 AR1 03+85	2.09	0.0222	18"	45.00	981.00	980.00	HDPE*
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* DOUBLE WALL CORRUGATED PIPE

1360	EX. INDEX CONTOUR	PROF. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
- - - - -	EX. INTERMEDIATE CONTOUR	PROF. PAD PERIMETER SLUMP
---	EX. TREE LINE	PROF. WELL HEAD
---	EX. PROPERTY LINE	PROF. PVC PIPE FOR SUMP SYSTEM
---	EX. WETLAND	SUPER SILT FENCE AND FILTER SOCK INDICATION (SEE SHEET #8 FOR SUPER SILT FENCE AND FILTER SOCK TABLE)
---	EX. STREAM	PROF. FILTER SOCK
---	EX. GAS LINE	PROF. SUPER SILT FENCE
---	EX. GAS LINE	PROF. NAG C125BN EROSION CONTROL MATTING*
---	EX. ROAD	PROF. OUTLET PROTECTION
---	EX. FENCE	PROF. INLET PROTECTION
---	EX. STRUCTURE	PROF. ROCK FILTER OUTLET
---	STREAM/WETLAND AREA OF INTEREST	PROF. CONSTRUCTION ENTRANCE
---	PROP. LIMITS OF DISTURBANCE	
---	100' PERENNIAL WETLAND BUFFER	
---	PROP. FRENCH DRAIN	
---	PROP. INDEX CONTOUR	
---	PROP. INTERMEDIATE CONTOUR	
---	PROP. ROAD CENTERLINE	
---	PROP. PADS & ROAD EDGE	

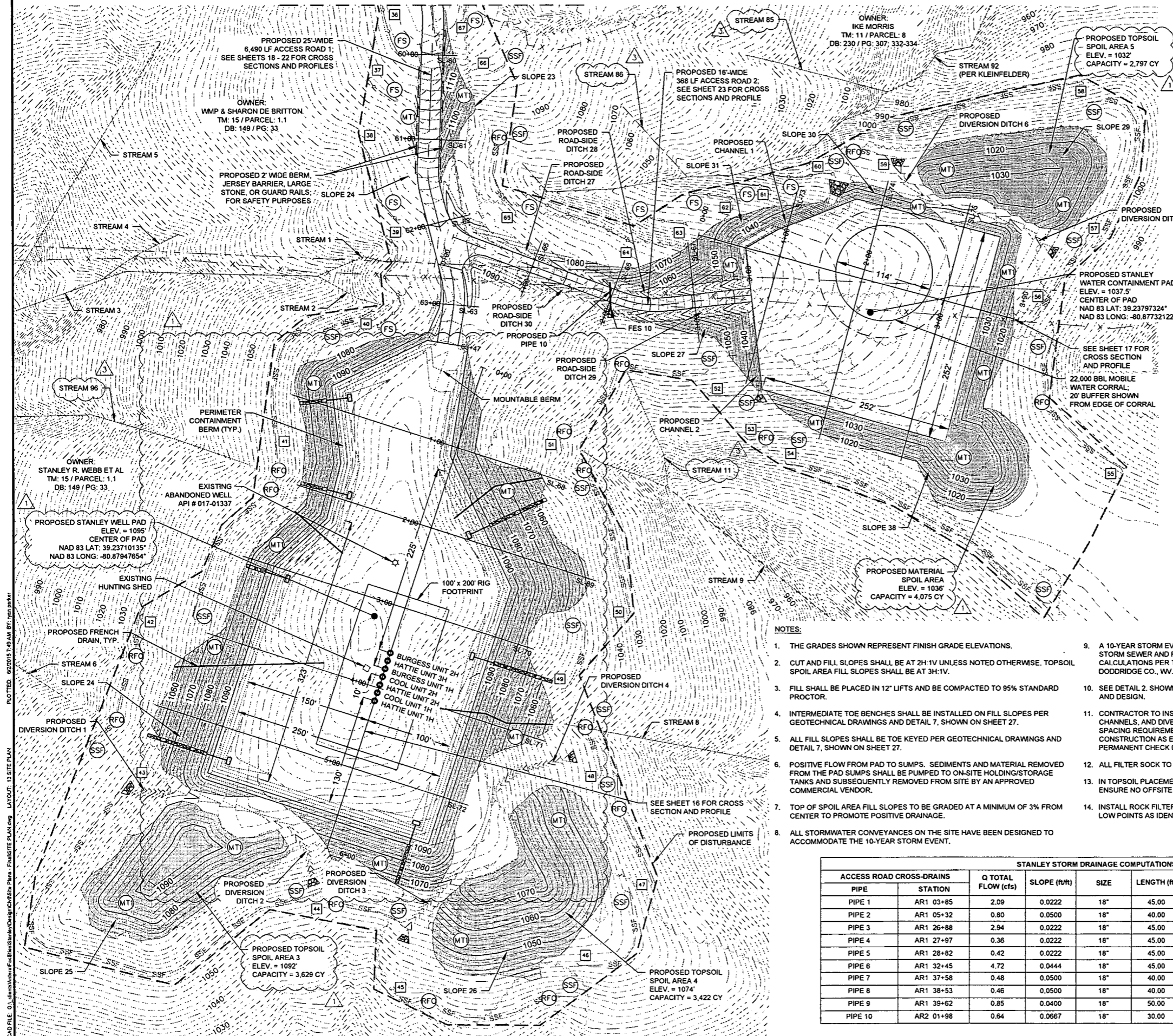
*HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS

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FES	FLARED END SECTION
-----	--------------------

PLOTTED: 6/20/15 7:49 AM BY: ryan.parker
CAD FILE: C:\devel\Antero\Projects\Stanley\Output\Chk\Site Plan - Final\SITE PLAN.dwg LAYOUT: 12 SITE PLAN

MATCHLINE SHEET 12



LEGEND

- 1360 --- EX. INDEX CONTOUR
- EX. INTERMEDIATE CONTOUR
- EX. TREE LINE
- EX. PROPERTY LINE
- EX. WETLAND
- EX. STREAM
- G --- EX. GAS LINE
- W --- EX. WATER LINE
- EX. ROAD
- EX. FENCE
- EX. STRUCTURE
- STREAM/WETLAND AREA OF INTEREST
- PROP. LIMITS OF DISTURBANCE
- 100' PERENNIAL WETLAND BUFFER
- PROP. FRENCH DRAIN
- 1360 --- PROP. INDEX CONTOUR
- PROP. INTERMEDIATE CONTOUR
- PROP. ROAD CENTERLINE
- PROP. PADS & ROAD EDGE
- PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS: FOR SAFETY PURPOSES
- --- PROP. PAD PERIMETER SLUMP
- --- PROP. WELL HEAD
- PROP. PVC PIPE FOR SUMP SYSTEM
- SUPER SILT FENCE AND FILTER SOCK INDICATION (SEE SHEET #1 FOR SUPER SILT FENCE AND FILTER SOCK TABLE)
- PROP. FILTER SOCK
- PROP. SUPER SILT FENCE
- PROP. NAG C125BN EROSION CONTROL MATTING*
- --- PROP. OUTLET PROTECTION
- --- PROP. INLET PROTECTION
- --- PROP. ROCK FILTER OUTLET
- PROP. CONSTRUCTION ENTRANCE

*HYDROMULCHING MAY BE USED IN LIEU OF MATTING PER MANUFACTURERS SPECIFICATIONS

STORM DRAINAGE LEGEND

- FES --- FLARED END SECTION

NOTES:

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STANLEY STORM DRAINAGE COMPUTATIONS								
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* DOUBLE WALL CORRUGATED PIPE

230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM

Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
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3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

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SCALE: 1 INCH = 20 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

WELL PAD GRADING PLAN

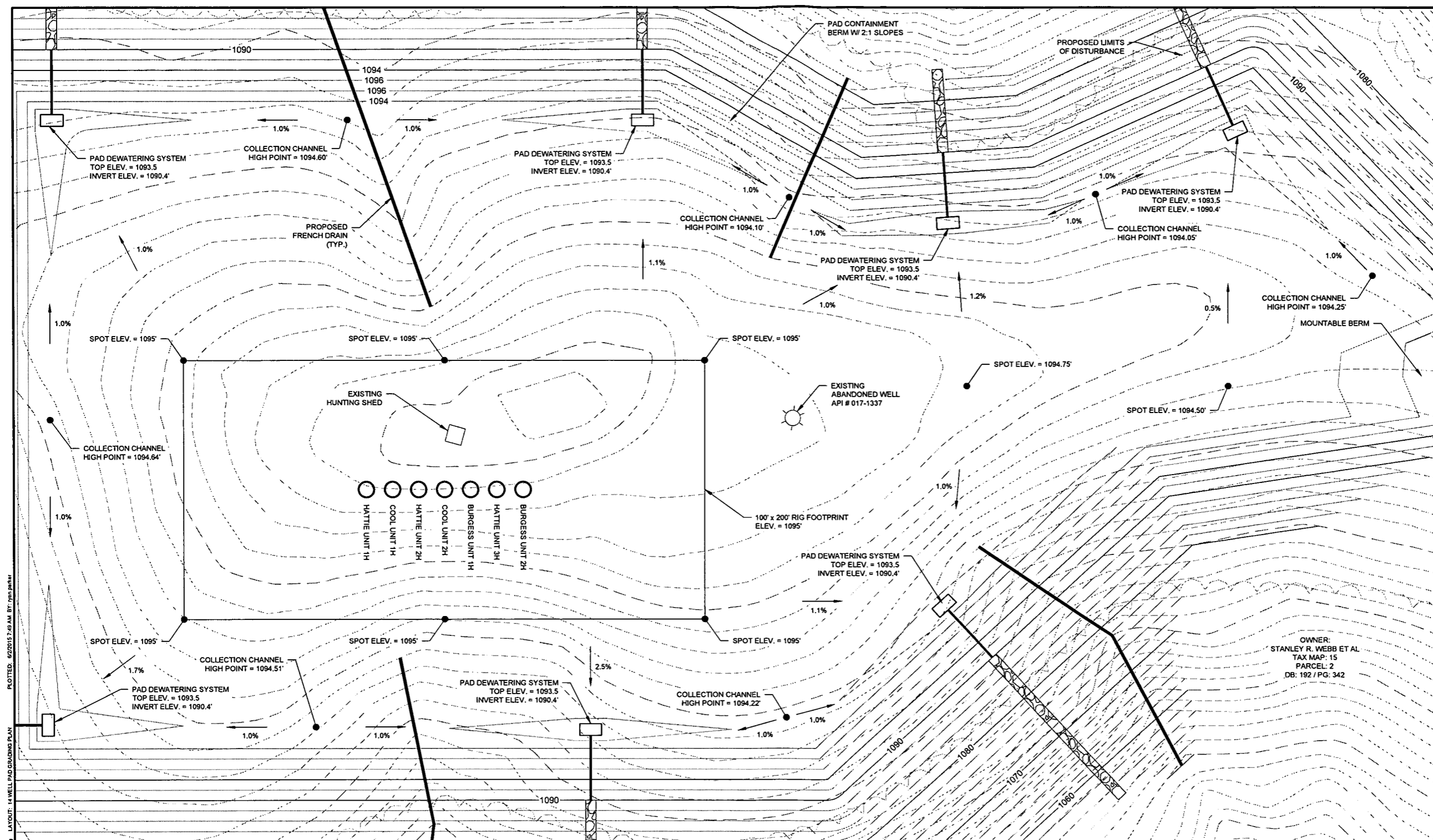
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

14

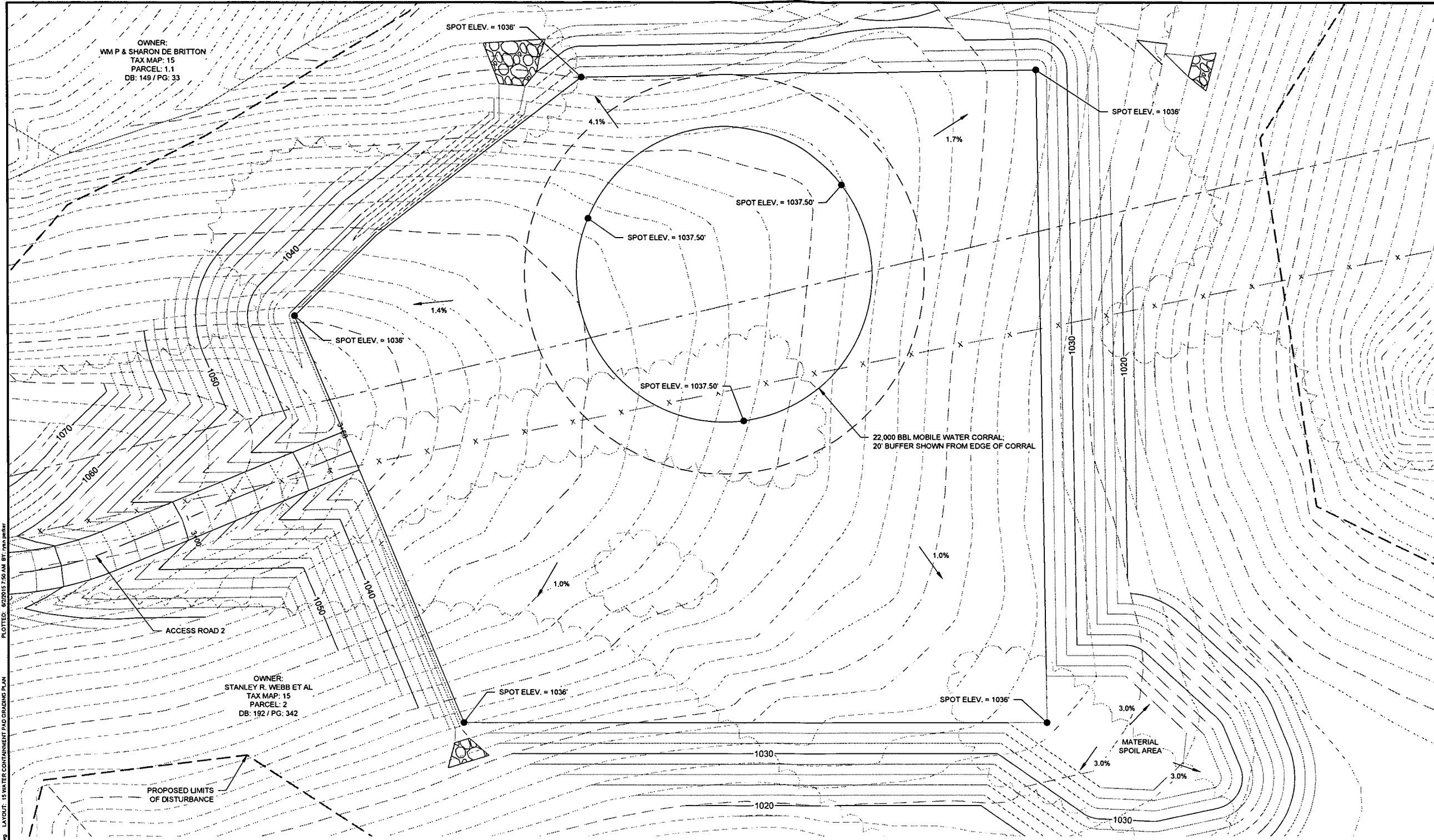


PLOTTED: 6/20/15 7:49 AM BY: jmc 2844
 LAYOUT: 14 WELL PAD GRADING PLAN
 CAD FILE: C:\Users\jmc\Documents\Projects\2015\Stanley Well & W.C. Pad\Stanley Well & W.C. Pad.dwg

LEGEND

1360	EX. INDEX CONTOUR	STREAM/WETLAND AREA OF INTEREST
---	EX. INTERMEDIATE CONTOUR	100' WETLAND BUFFER
---	EX. TREE LINE	PROP. LIMITS OF DISTURBANCE
---	EX. PROPERTY LINE	PROP. INDEX CONTOUR
---	EX. COUNTY LINE	PROP. INTERMEDIATE CONTOUR
---	EX. WETLAND	PROP. ROAD CENTERLINE
---	EX. STREAM	PROP. PADS & ROAD EDGE
---	EX. DRAINAGE FEATURE	PROP. FRENCH DRAIN
---	EX. CULVERT	PROP. PAD PERIMETER SUMP
---	EX. GAS LINE	PROP. WELL HEAD
---	EX. ROAD	PROP. 4" PVC PIPE FOR SUMP SYSTEM
---	EX. TRAIL	
---	EX. FENCE	
---	EX. STRUCTURE	

- NOTES:**
- THE GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS.
 - CUT AND FILL SLOPES SHALL BE AT 2H:1V UNLESS NOTED OTHERWISE. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.
 - FILL SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.
 - INTERMEDIATE TOE BENCHES SHALL BE INSTALLED ON FILL SLOPES PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 - ALL FILL SLOPES SHALL BE TOE KEYED PER GEOTECHNICAL DRAWINGS AND DETAIL 7, SHOWN ON SHEET 27.
 - POSITIVE FLOW FROM PAD TO SUMPS. SEDIMENTS AND MATERIAL REMOVED FROM THE PAD SUMPS SHALL BE PUMPED TO ON-SITE HOLDING/STORAGE TANKS AND SUBSEQUENTLY REMOVED FROM SITE BY AN APPROVED COMMERCIAL VENDOR.
 - TOP OF SPOIL AREA FILL SLOPES TO BE GRADED AT A MINIMUM OF 3% FROM CENTER TO PROMOTE POSITIVE DRAINAGE.
 - ALL STORMWATER CONVEYANCES ON THE SITE HAVE BEEN DESIGNED TO ACCOMMODATE THE 10-YEAR STORM EVENT.
 - A 10-YEAR STORM EVENT RAIN FALL INTENSITY OF 6.44 IN/HR WAS USED FOR STORM SEWER AND ROAD-SIDE DITCH, CHANNEL, AND DIVERSION DITCH CALCULATIONS PER THE NOAA PRECIPITATION FREQUENCY DATA SERVER FOR DODDRIDGE CO., WV.



OWNER:
WM P & SHARON DE BRITTON
TAX MAP: 15
PARCEL: 1.1
DB: 149 / PG: 33

OWNER:
STANLEY R. WEBB ET AL
TAX MAP: 15
PARCEL: 2
DB: 192 / PG: 342

PROPOSED LIMITS
OF DISTURBANCE

22,000 BBL MOBILE WATER CORRAL
20' BUFFER SHOWN FROM EDGE OF CORRAL

SPOT ELEV. = 1036'

SPOT ELEV. = 1037.50'

SPOT ELEV. = 1036'

SPOT ELEV. = 1037.50'

SPOT ELEV. = 1036'

SPOT ELEV. = 1036'

SPOT ELEV. = 1036'

3.0%

3.0%

3.0%

1030

1030

1030

1030

1030

1030

1030

1030

1030

1030

1030

1030

1030

1030



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/8/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

20 10 0 20
SCALE: 1 INCH = 20 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

WATER CONTAINMENT PAD GRADING PLAN
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

15

15 of 34

LEGEND			
1360	EX. INDEX CONTOUR	---	STREAM/WETLAND AREA OF INTEREST
---	EX. INTERMEDIATE CONTOUR	---	100' WETLAND BUFFER
---	EX. TREE LINE	---	PROP. LIMITS OF DISTURBANCE
---	EX. PROPERTY LINE	---	1360
---	EX. COUNTY LINE	---	PROP. INDEX CONTOUR
---	EX. WETLAND	---	PROP. INTERMEDIATE CONTOUR
---	EX. STREAM	---	PROP. ROAD CENTERLINE
---	EX. DRAINAGE FEATURE	---	PROP. PADS & ROAD EDGE
---	EX. CULVERT	---	PROP. FRENCH DRAIN
G	EX. GAS LINE	---	PROP. PAD PERIMETER SUMP
---	EX. ROAD	---	PROP. WELL HEAD
---	EX. TRAIL	---	PROP. 4" PVC PIPE FOR SUMP SYSTEM
X	EX. FENCE	---	
---	EX. STRUCTURE	---	

- NOTES:
- THE GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS.
 - CUT AND FILL SLOPES SHALL BE AT 2H:1V UNLESS NOTED OTHERWISE. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.
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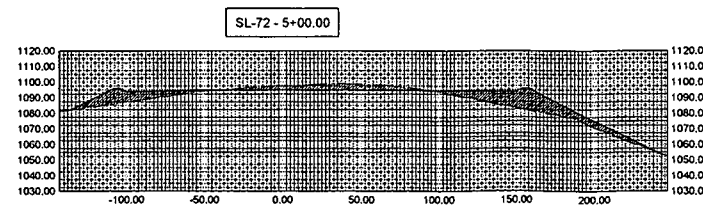
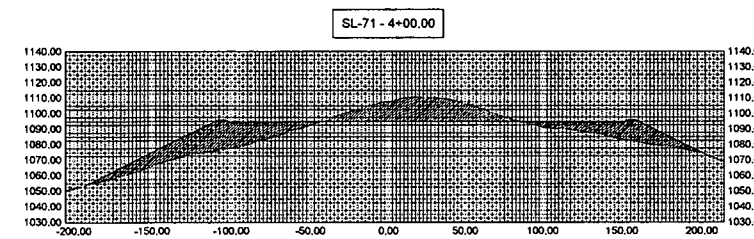
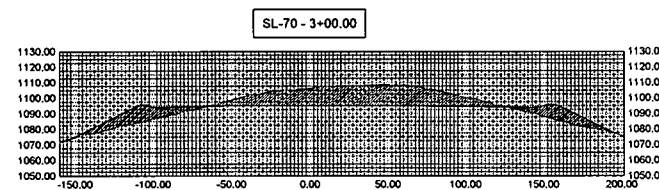
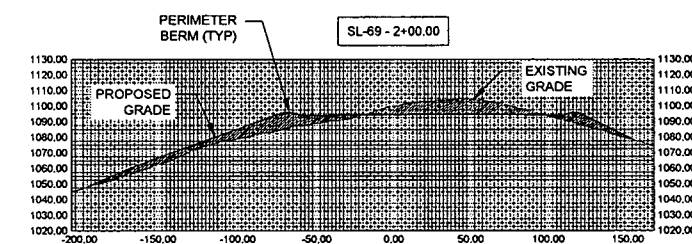
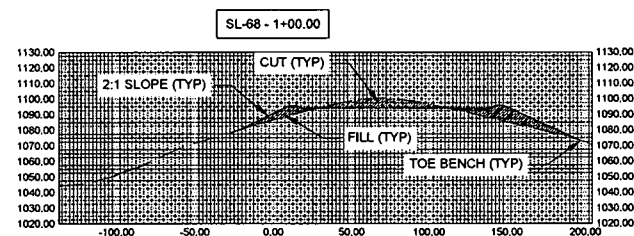
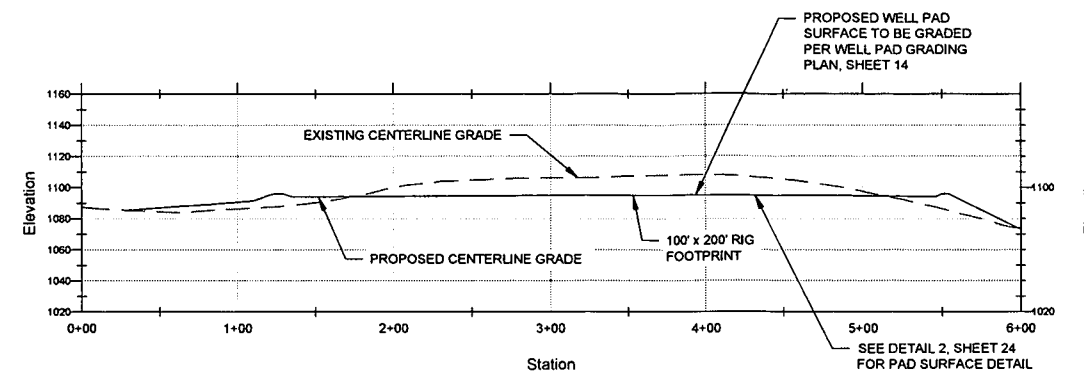
CAD FILE: C:\cadd\stn\wells\stanleywell\std\std.dwg PLOT: 15 WATER CONTAINMENT PAD GRADING PLAN LAYOUT: 15 WATER CONTAINMENT PAD GRADING PLAN PLOTTED: 6/20/15 3:50 AM BY: jbc



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	-	CHT JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	-	RAP JBC	3/20/2015
3	DELINEATION REVISIONS	-	CHT JBC	5/12/2015
4	FIRM NUMBER CHANGE	-	RAP JBC	6/1/15

**STANLEY WELL PAD
CROSS SECTIONS AND PROFILE**



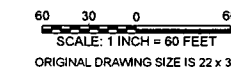
**ISSUED FOR
CONSTRUCTION**

SCALE VERIFICATION

1 INCH

ADJUST SCALE
ACCORDINGLY IF DISTANCE
PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE



WELL PAD CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

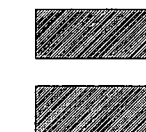


CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

16

LEGEND



NOTES:

- PAD SURFACE AS SHOWN IS SLOPED FROM RIG FOOTPRINT. ALL GRADING AND MODIFICATIONS TO THE PAD SURFACE SHALL BE PERFORMED PER THE OWNER'S DIRECTION.

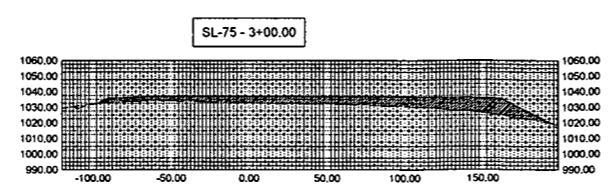
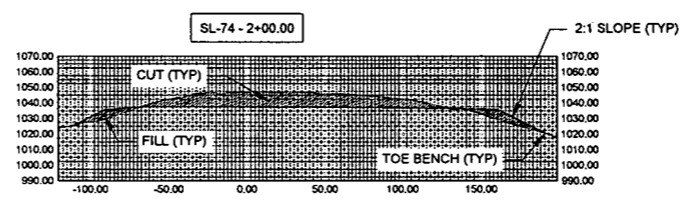
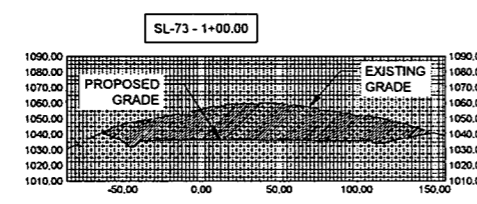
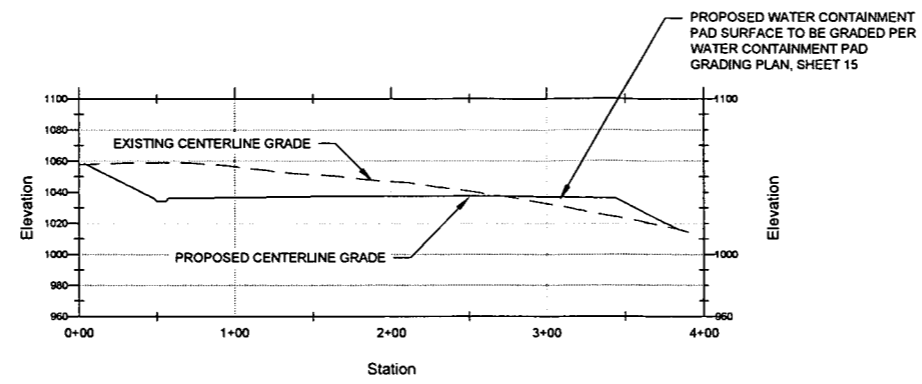


230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

STANLEY WATER CONTAINMENT PAD CROSS SECTIONS AND PROFILE



REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
		-	JMF	
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
		-	JMF	
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15
		-	JMF	

**ISSUED FOR
CONSTRUCTION**

SCALE VERIFICATION
1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

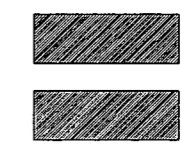
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SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

WATER CONTAINMENT PAD CROSS SECTIONS AND PROFILE
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

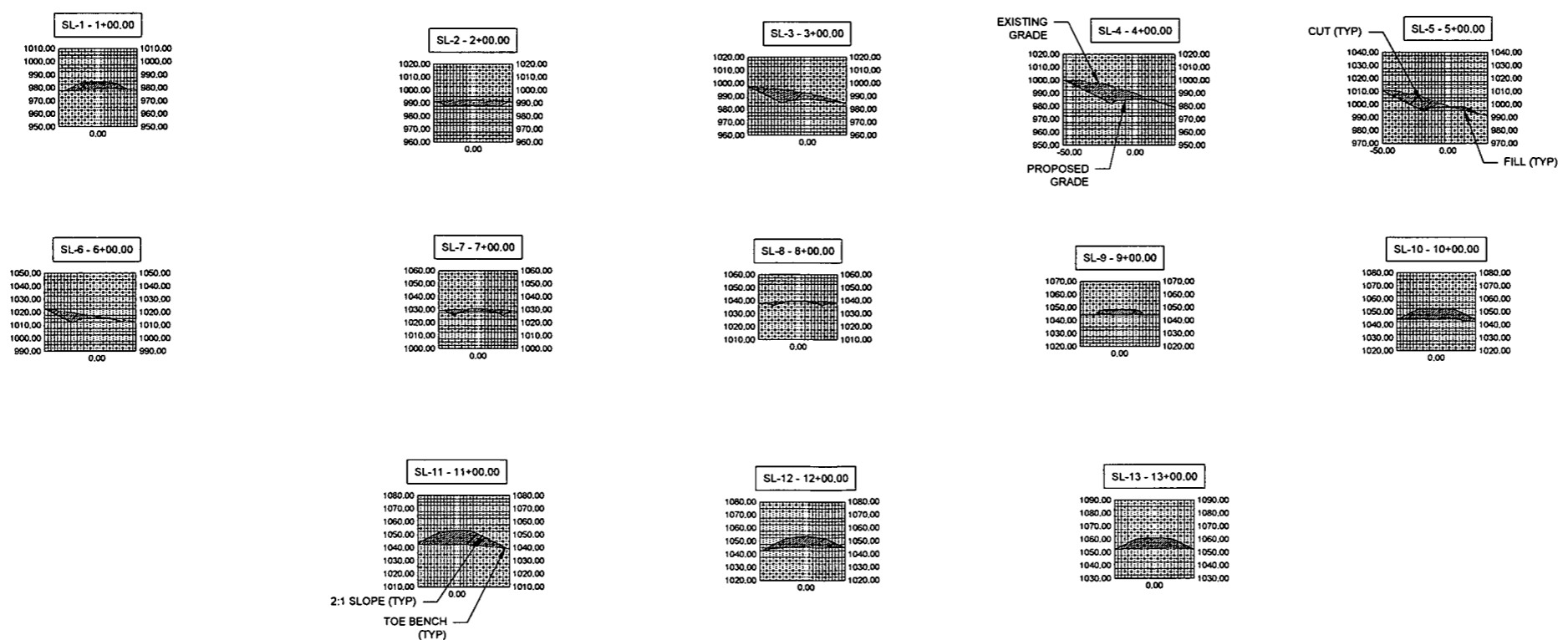
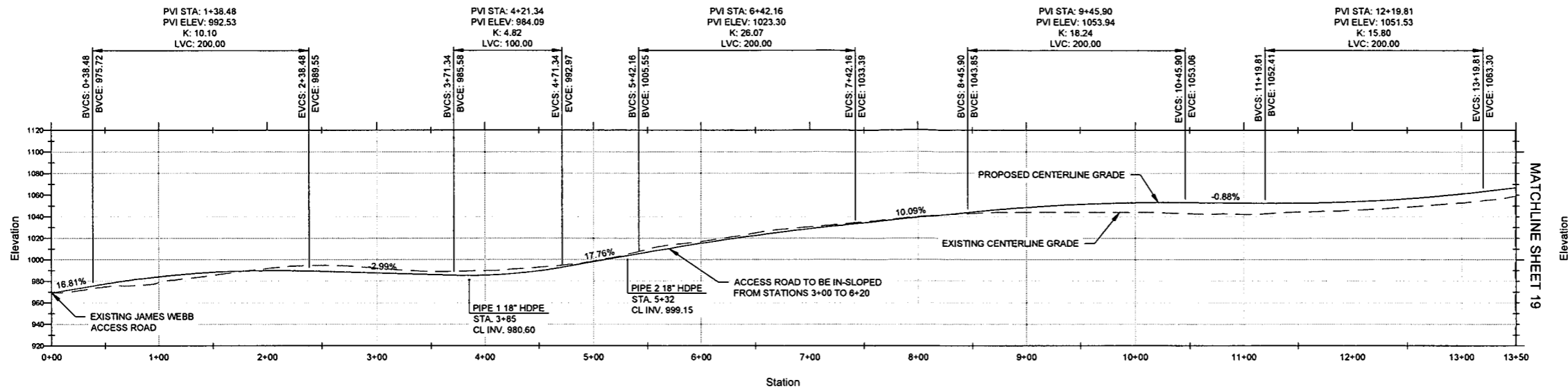
LEGEND



NOTES:
1. REFER TO SITE PLAN SHEET FOR ADDITIONAL WATER CONTAINMENT PAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

CADD FILE: G:\edms\Antero\Full\2015\0962\001A\StanleyWell\Design\2015\Plan - Final\CROSS SECTIONS & PROFILES.dwg LAYOUT: 17 WATER CONTAINMENT PAD CROSS SECTIONS AND PROFILE PLOTTED: 02/25/15 1:51:44 PM BY: jmcgheer

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



230 EXECUTIVE DRIVE, SUITE 122
CRANGERY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	-	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	-	JBC	3/20/2015
3	DELINEATION REVISIONS	-	JBC	5/1/2015
4	FIRM NUMBER CHANGE	-	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE
60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

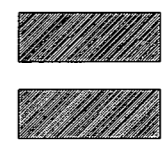


CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

18

LEGEND



NOTES:
1. REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

PLOTTED: 6/20/15 7:51 AM BY: jmc/parker
 LAYOUT: 18 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
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STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE

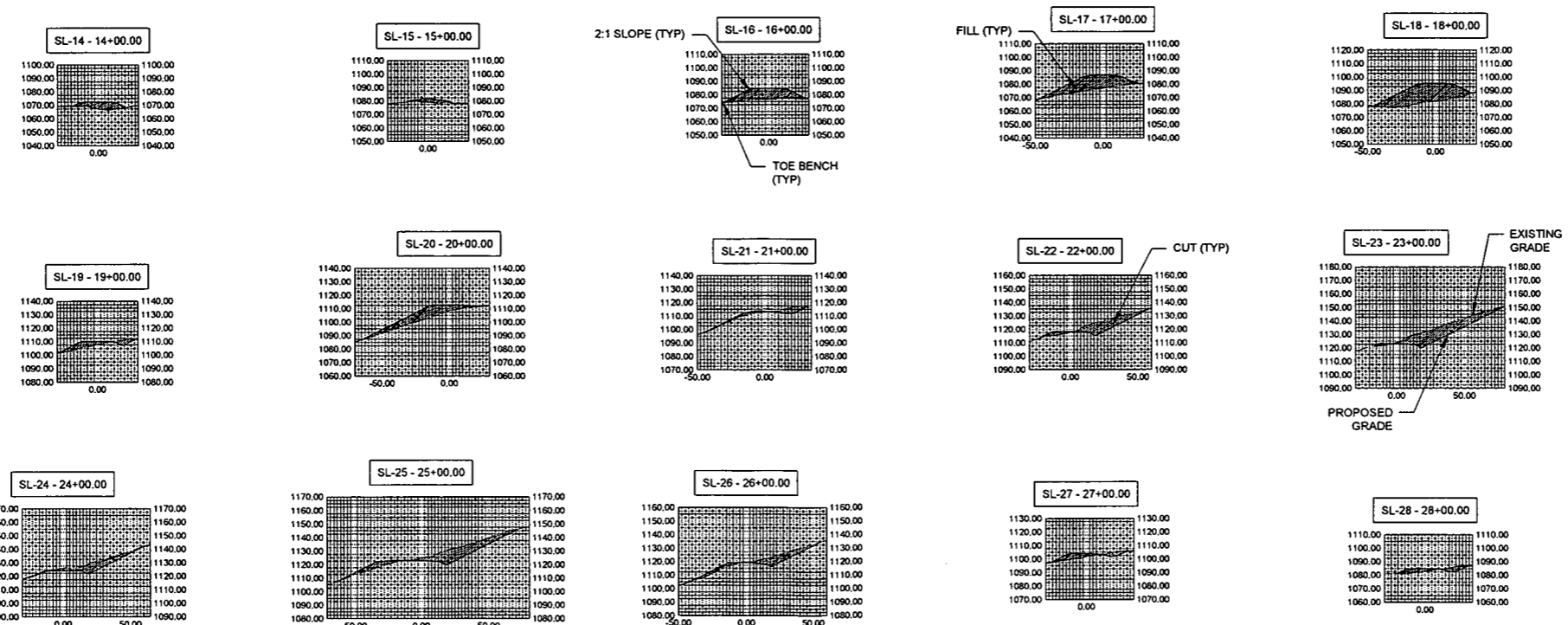
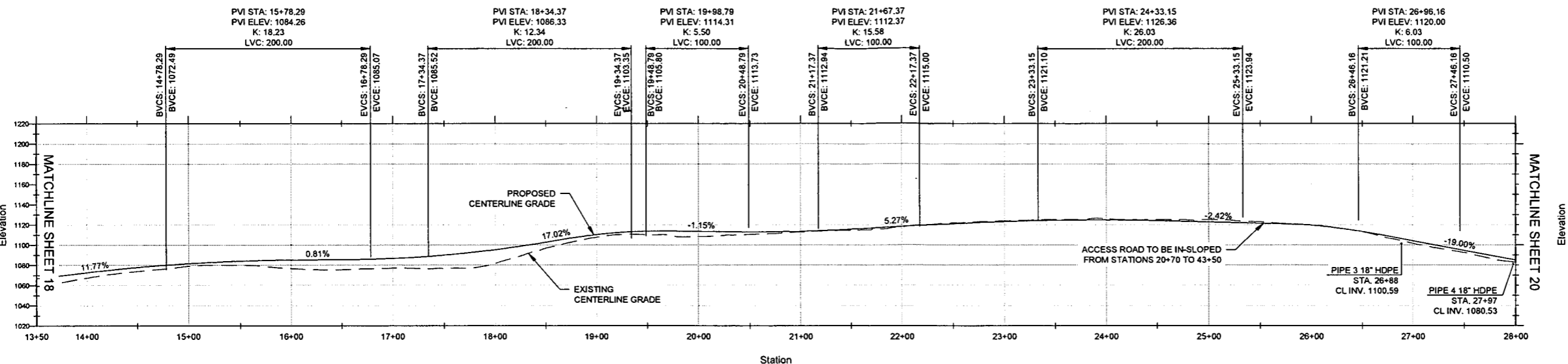


230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
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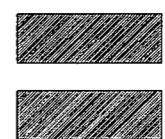


Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15



LEGEND



NOTES:
1. REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

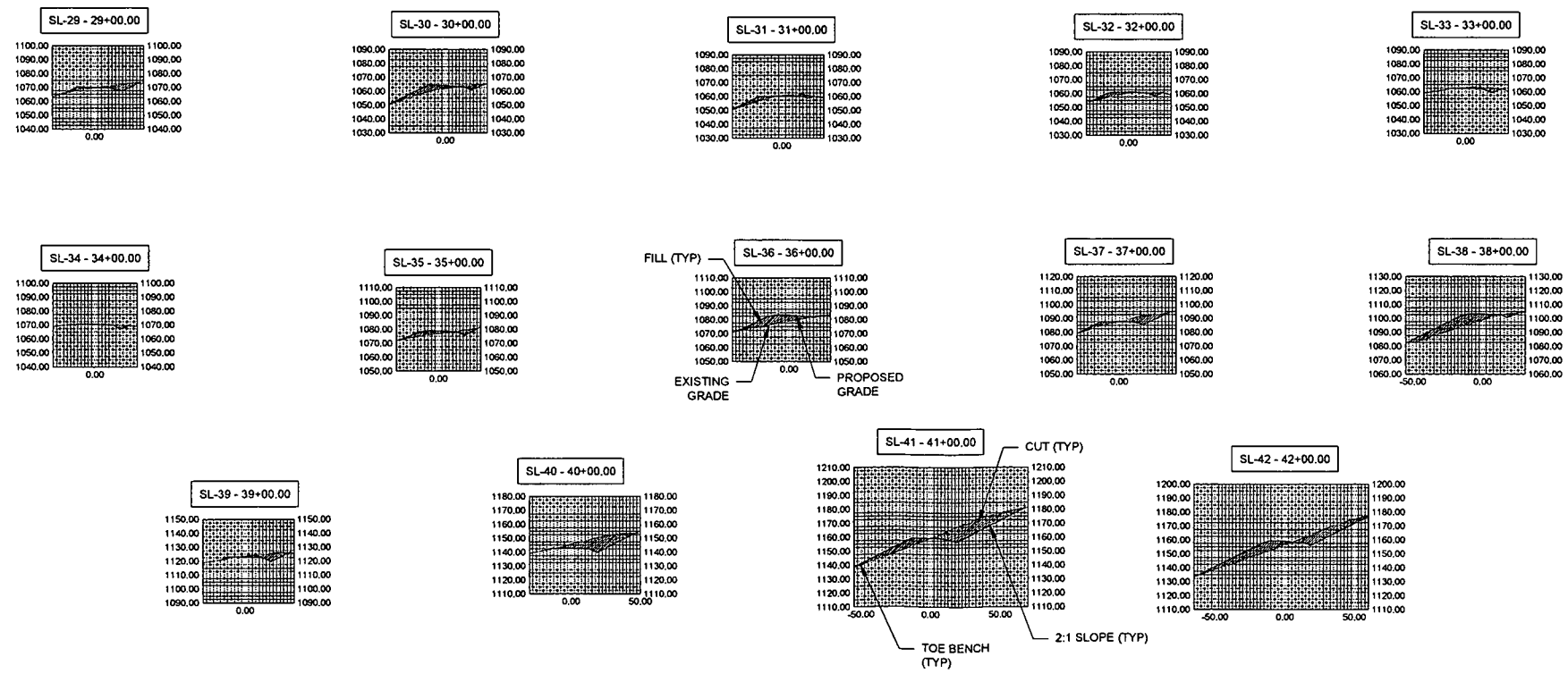
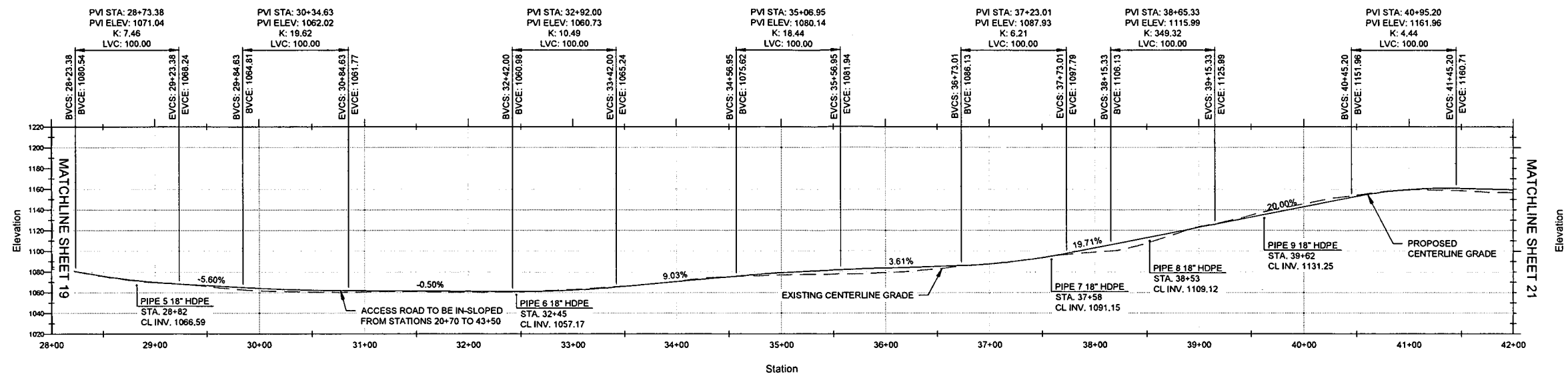
HORIZONTAL AND VERTICAL SCALE
60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34
ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



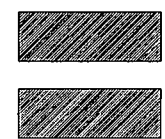
CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

C:\DWGFILES\01_drawing\Antero\cd\bls\Stanley\Drawings\Profiles.dwg LAYOUT: 19 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE PLOTTED: 6/22/15 7:51 AM BY: jbc

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



LEGEND



NOTES:
1. REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	-	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	-	JBC	3/20/2015
3	DELINEATION REVISIONS	-	JBC	5/1/2015
4	FIRM NUMBER CHANGE	-	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE
60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

CAD FILE: C:\damb\Antero\Projects\Stanley Well\Drawings\Profile.dwg LAYOUT: 20 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
 PLOTTED: 6/22/15 7:51 AM BY: jmf

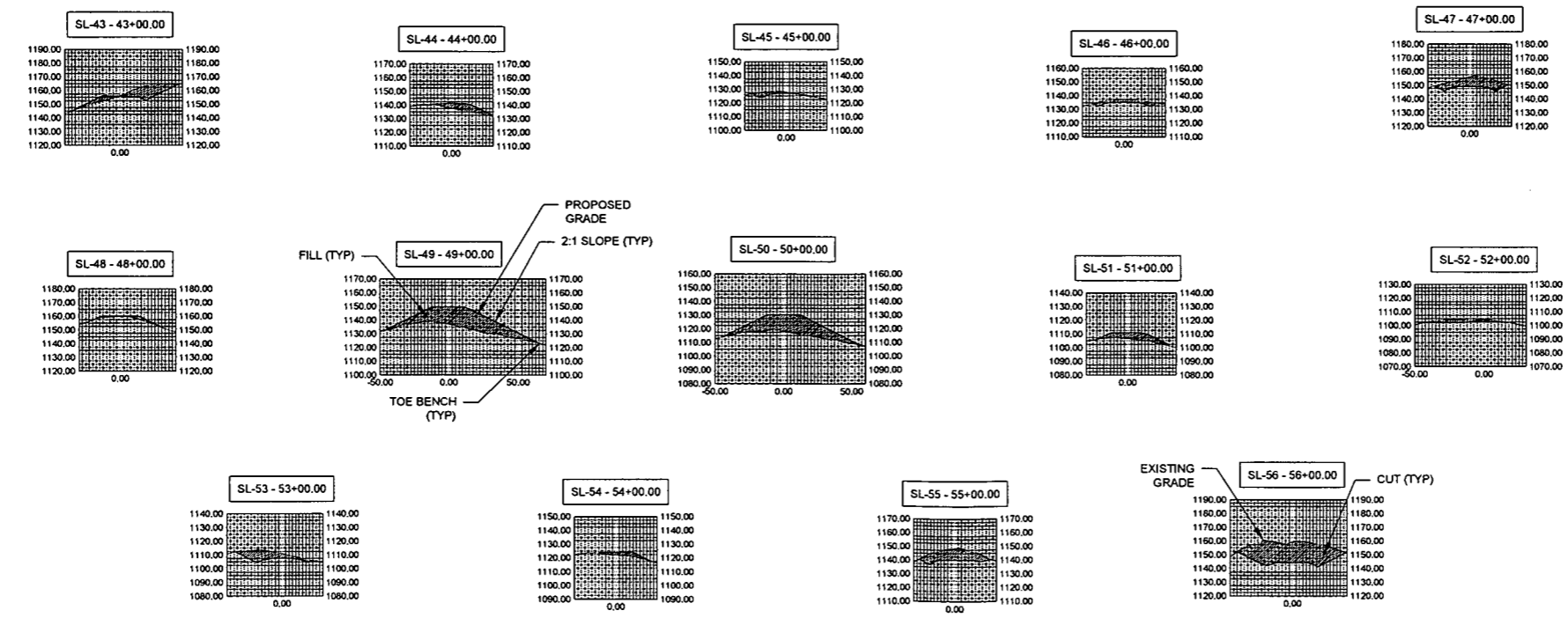
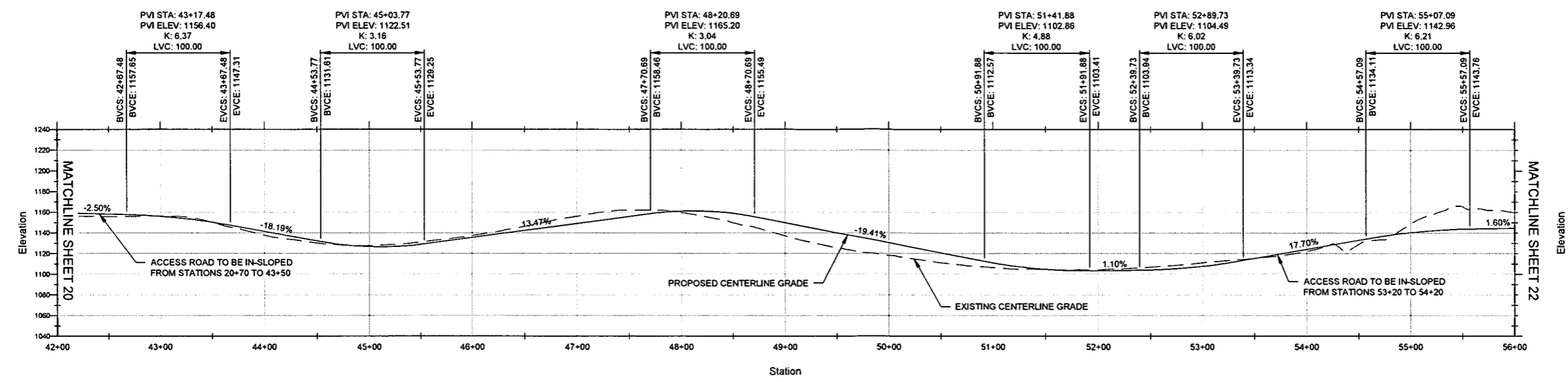
STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



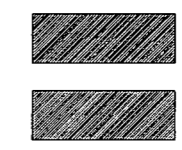
230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354



LEGEND



NOTES:

- REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

REVISIONS				
REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH
ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 1 CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



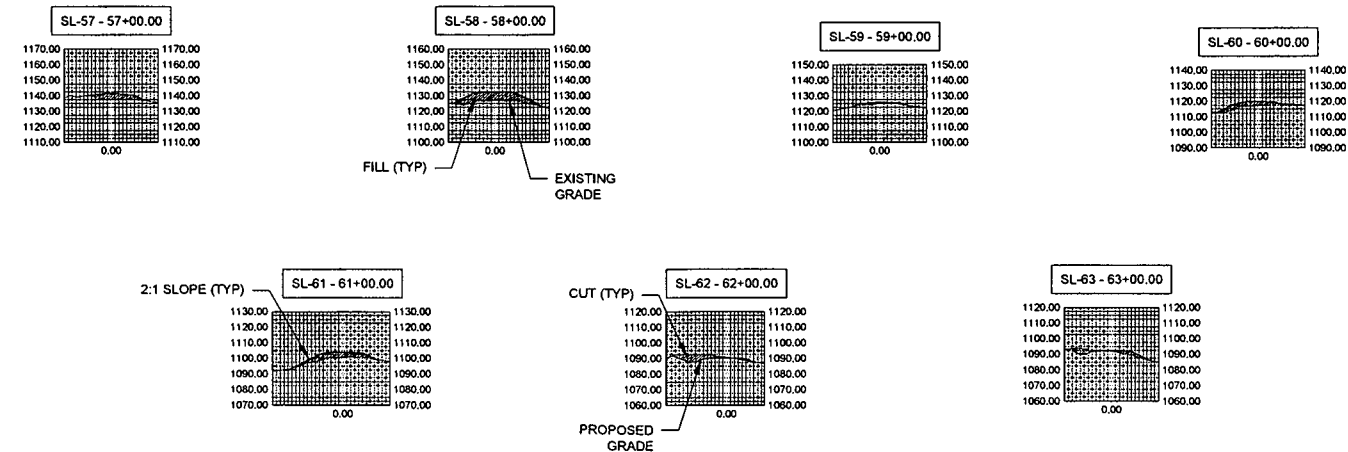
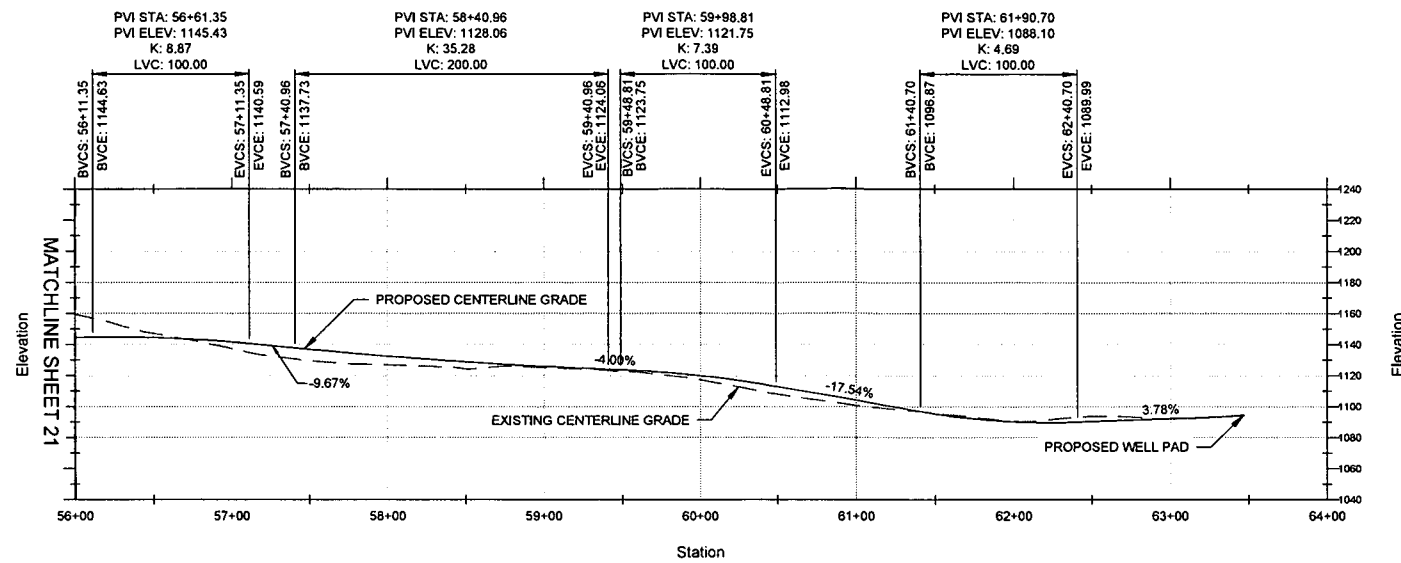
CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

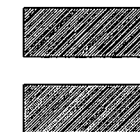
21

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 LAYOUT: 21 ACCESS ROAD 1 CROSS SECTIONS AND PROFILE
 PLOTTED: 02/25/2015 7:52:48 AM BY: jbc

STANLEY ACCESS ROAD 1 CROSS SECTIONS AND PROFILE



LEGEND



NOTES:

- REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.



238 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE

60 30 0 60
SCALE: 1 INCH = 60 FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 1 CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

22

SHEET 22 of 34



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
		-	JMF	
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		-	JMF	
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		-	JMF	
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15
		-	JMF	

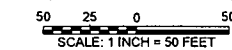
ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

HORIZONTAL AND VERTICAL SCALE



ORIGINAL DRAWING SIZE IS 22 x 34

ACCESS ROAD 2 CROSS SECTIONS AND PROFILE

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



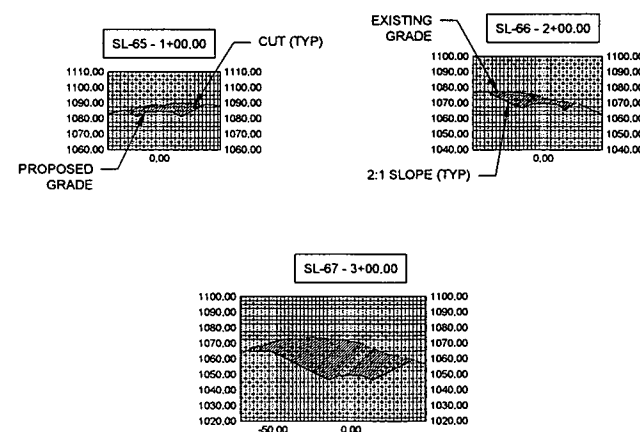
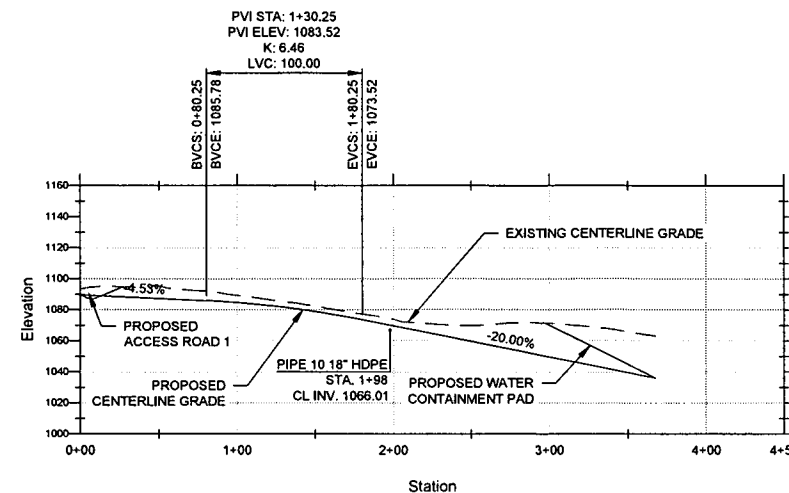
CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

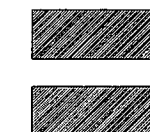
23

SHEET 23 of 34

**STANLEY ACCESS ROAD 2
CROSS SECTIONS AND PROFILE**



LEGEND

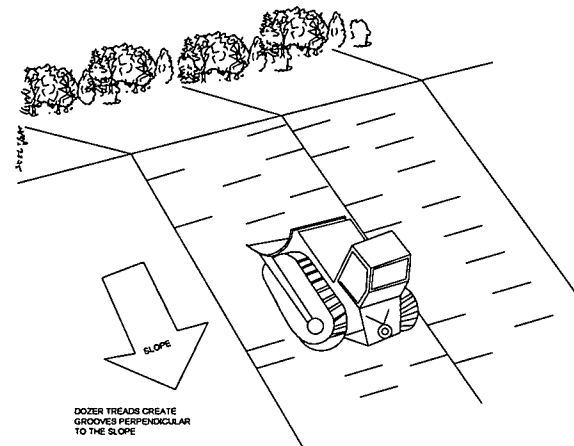


NOTES:

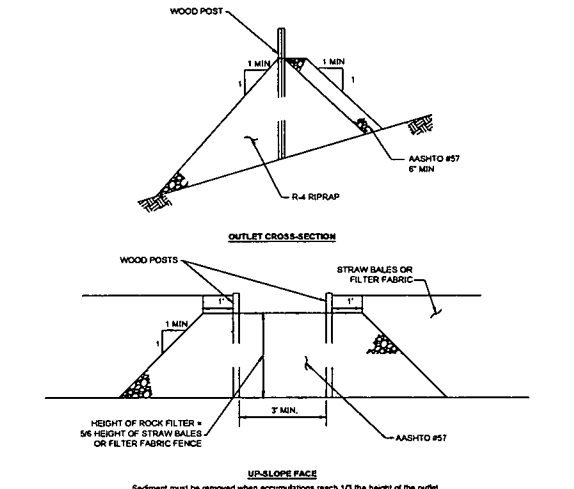
- REFER TO SITE PLAN SHEET FOR ADDITIONAL ACCESS ROAD INFORMATION INCLUDING STORMWATER AND EROSION CONTROL MEASURES.

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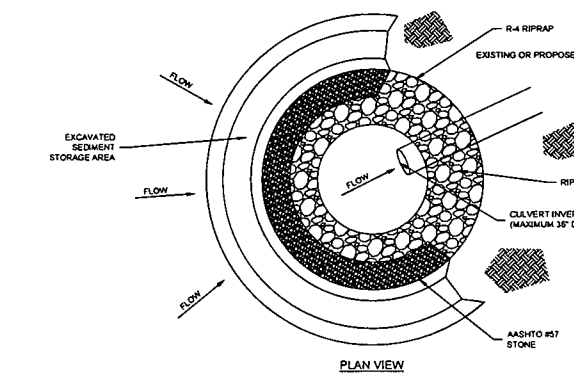
CAD FILE: C:\Users\jmn\Documents\Projects\2015\20150962\20150962.dwg LAYOUT: 23 ACCESS ROAD 2 CROSS SECTIONS AND PROFILE



1 BULLDOZER TRACKING DETAIL
25 NTS



3 ROCK FILTER OUTLET DETAIL
25 NTS

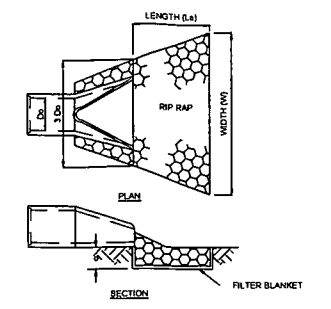


DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS

- MINIMUM STONE HEIGHT SHOULD BE 1.0' WITH SIDE SLOPES NO STEEPER THAN 2:1. THE STONE "HORSESHOE" AROUND THE PIPE INLET SHOULD BE CONSTRUCTED OF R-4 RIPRAP WITH A MINIMUM CREST WIDTH OF 1.0'. THE OUTSIDE FACE OF THE RIPRAP SHOULD BE COVERED WITH A 6" THICK LAYER OF #57 STONE. THE EMBANKMENT OVER THE PIPE MUST BE PROTECTED FROM OVERTOPPING. THE TOP OF THE STONE SHOULD BE A MINIMUM OF 1.0' BELOW THE TOP OF THE FILL OVER THE PIPE AND 18" INTO THE FILL ON BOTH SIDES OF THE PIPE. THE INSIDE TOE OF THE RIPRAP SHOULD BE NO CLOSER THAN 2' FROM THE CULVERT OPENING TO ALLOW PASSAGE OF HIGH FLOWS.
- THE SEDIMENT STORAGE AREA SHOULD BE EXCAVATED UPSTREAM OF THE ROCK PIPE INLET PROTECTION, WITH A MINIMUM DEPTH OF 1.0' BELOW GRADE.
- CLEAR THE AREA OF ALL DEBRIS THAT MIGHT HINDER EXCAVATION AND DISPOSAL OF SPOIL.
- INSTALL THE R-4 RIPRAP IN A SEMI-CIRCLE AROUND THE PIPE INLET. THE STONE SHOULD BE BUILT UP HIGHER ON EACH END WHERE IT TIES INTO THE EMBANKMENT, ADJUST CREST AND BOTTOM WITH AS NECESSARY TO FACILITATE PLACEMENT WITHIN THE DITCH CHANNEL. THE MINIMUM HEIGHT SHOULD BE 1.0', BUT ALSO LOWER THAN THE SHOULDER OF THE EMBANKMENT OR OVERSILING.
- THE SEDIMENT STORAGE AREA SHOULD BE EXCAVATED AROUND THE OUTSIDE OF THE STONE HORSESHOE 1.0' BELOW NATURAL GRADE.
- WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, FILL DEPRESSION AND ESTABLISH FINAL GRADING ELEVATIONS, COMPACT AREA PROPERLY, AND STABILIZE WITH GROUND COVER.

6 ROCK PIPE INLET DETAIL
25 NTS

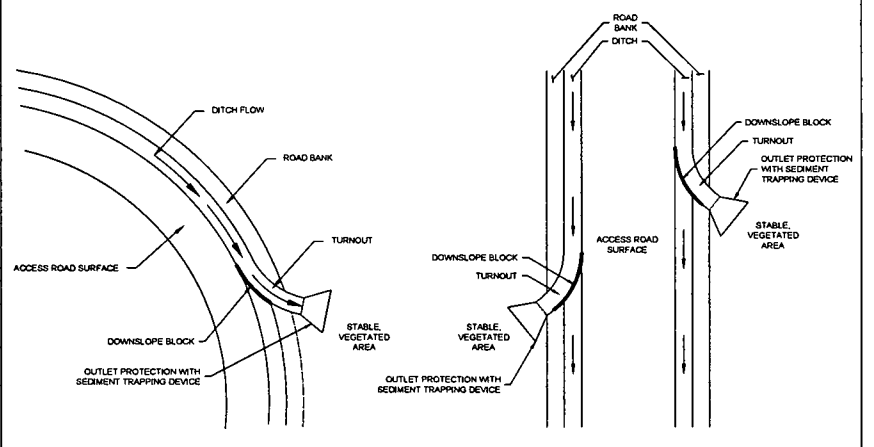
OUTLET	D _o	D _o	L _o	W	RIP RAP	d
FES 1	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 2	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 3	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 4	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 5	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 6	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 7	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 8	18"	4.5'	18.8'	7.7'	R-4 RIPRAP	18"
FES 9	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"
FES 10	18"	4.5'	8'	7.7'	R-4 RIPRAP	18"



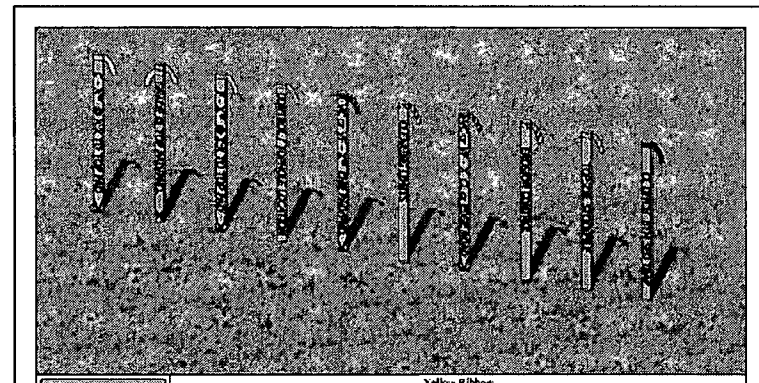
NOTES

- IF FLARED END SECTION IS DISCHARGING INTO DITCH FROM THE SIDE, EXTEND RIP RAP UP DITCH BANK ON OFF-SIDE A MINIMUM OF 4 FEET.
- USE WIDER RIP RAP OR GATION AND FILTER BLANKET REQUIREMENTS PER THE TABLE ON SHEET 3.17.3 OF THE "WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MANUAL, 2006" FOR BLANKET THICKNESS.
- A SUITABLE NONWOVEN GEOTEXTILE FABRIC, USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, MAY BE SUBSTITUTED FOR FILTER BLANKET STONE UNDER THE RIP RAP.
- D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6". IN ADDITION TO OUTLET PROTECTION SHOWN ABOVE, PROVIDE RIP RAP DRAINAGE TO BOTTOM OF FILL SLOPES.

2 RIP RAP OUTLET PROTECTION DETAIL
25 NTS



4 TURN OUT DETAIL
25 NTS



	Yellow Ribbon: Yellow Ribbon used to indicate top of Cuts (C) Cut to be determined at time of embankment Slope determined by site design
	Yellow & Orange Ribbons: Yellow and Orange Ribbons used to indicate Grade at Top of Pad/Pond/Fill
	Orange Ribbons: Orange Ribbons used to indicate toes of Fills (F) Fill to be determined at time of embankment Slope determined by site design
	Pink Ribbons: Pink Ribbons used to indicate Top Eriic Location Pink Ribbons used to indicate Survey Control Location
	Pink & Black Stripe Ribbons: Pink & Black Stripe Ribbons used to indicate Vertical Cut (VC) at Pad/Pond/Fill corner or edge Pink & Black Stripe Ribbons used to indicate Vertical Fill (VF) at Pad/Pond/Fill corner or edge Vertical Cut/Vertical Fill to be determined at time of stakeout
	Blue & White Stripe Ribbons: Blue & White Stripe Ribbons used to indicate clearing limits/construction limits
	Orange & Black Stripe Ribbons: Orange & Black Stripe Ribbons used to indicate Vertical Cut (VC) at Centerline or edge of access road Orange & Black Stripe Ribbons used to indicate Vertical Fill (VF) at centerline or edge of access road
	Pink & White Stripe Ribbons: Pink & White Stripe Ribbons used to indicate Erosion and Sediment Control Structures Silt Fence (SF), Reinforced Filter Fence (RFF), Super Silt Fence (SSF), Filter Sock (FS)
	Orange & White Stripe Ribbons: Orange & White Stripe Ribbons used to indicate Tapsail Stockpile Locations
	Blue Ribbons: Blue Ribbons used to indicate Centerline (CL) Ditch Blue Ribbons used to indicate Bottom (BTM) Sediment Traps

5 ANTERO RESOURCES STANDARD RIBBON COLOR SCHEME
25 NTS



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
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Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
1 INCH
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ORIGINAL DRAWING SIZE IS 22 x 34

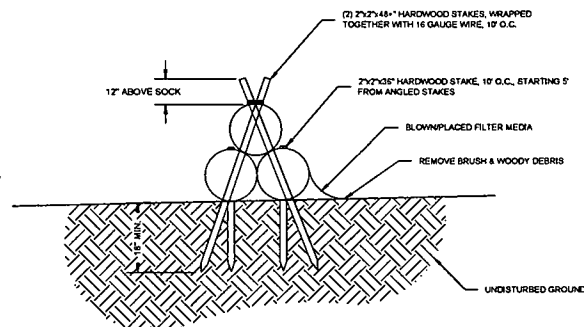
DETAILS
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



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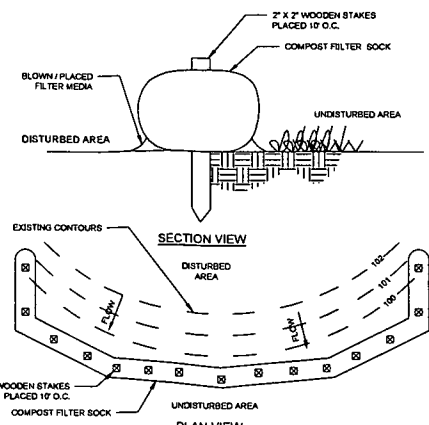
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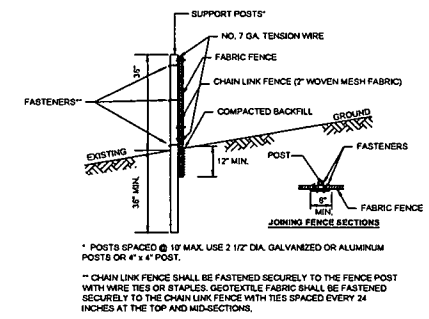


1 TRIPLE STACKED FILTER SOCK DETAIL
26 NTS

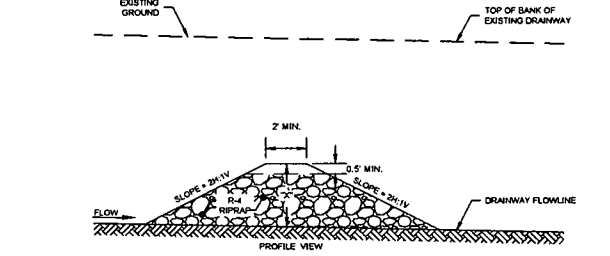
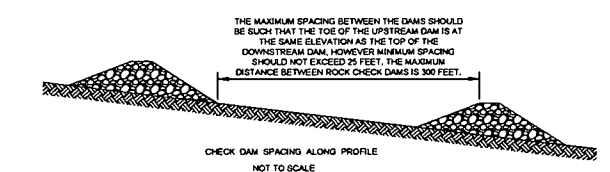
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS				
MATERIAL TYPE	3 #8 HDPE	5 #8 HDPE	5 #8 HDPE	HEAVY DUTY Multi-Fluorene Polypropylene (DMFPP)
MATERIAL CHARACTERISTICS	PHOTO DEGRADABLE	PHOTO DEGRADABLE	PHOTO DEGRADABLE	PHOTO DEGRADABLE
SOCK DIAMETERS	17" 18" 24" 32"	17" 18" 24" 32"	17" 18" 24" 32"	17" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"
TENSILE STRENGTH	20 psi	20 psi	20 psi	200 psi
ULTRA VIOLET STABILITY (ASTM G-155)	27% @ 1000 H.	27% @ 1000 H.	100% @ 1000 H.	100% @ 1000 H.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	8 MONTHS	4 MONTHS	1 YEAR



2 COMPOST FILTER SOCK DETAIL
26 NTS



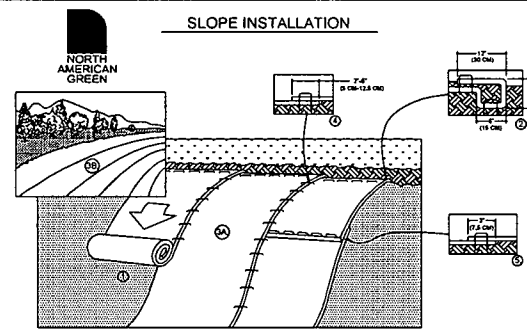
3 SUPER SILT FENCE DETAIL
26 NTS



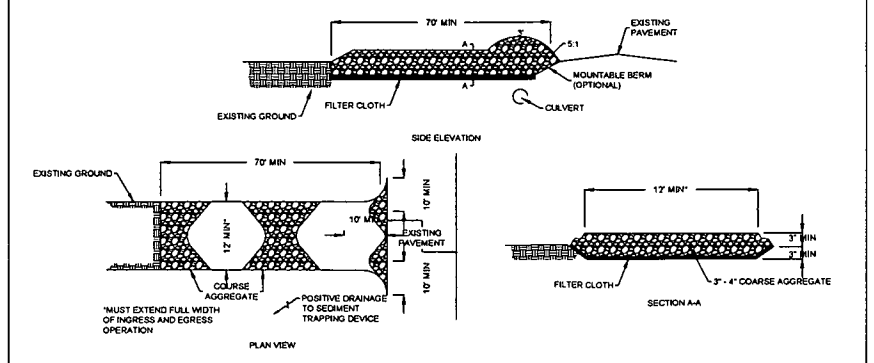
4 ROCK CHECK DAM DETAIL
26 NTS

SUPER SILT FENCE & FILTER SOCK TABLE																	
ID NUMBER	SS(F/L)	FR(L/P)	ID NUMBER	SS(F/L)	FR(L/P)	ID NUMBER	SS(F/L)	FR(L/P)	ID NUMBER	SS(F/L)	FR(L/P)	ID NUMBER	SS(F/L)	FR(L/P)	ID NUMBER	SS(F/L)	FR(L/P)
1	80	20		58	39	145	58	241		77		117	86	77			
2	67	21		99	40	68				78	86			87	195		
3	215	22		52	41	420	60		64	78		120	88	198			
4	245	23		72	42	181	81		48	80	325		89		42		
5	38	24	58	43	820	62	81	81	64			101		89			
6	50	25	145	44	103	63	53	82	33			102		83			
7	58	26	52	45	268	64		151	83	158		102		233			
8	74	27	208	46	150	65	115		84	296		103		41			
9	118	28	158	47	146	66	25		85	351		104		60			
10	140	29	83	48	84	67		46	86		30	105		43			
11	65	30	332	49	91	68		233	87	33		106		42			
12	90	31		67	50	139	69		213	88	29		107		73		
13	43	32		47	51	245	70		84	89	73		108		35		
14	39	33		83	52	50	71		67	90	78		109		40		
15	184	34		141	53	57	72	287		91	174		110		62		
16	60	35		108	54	360	73	72		92		230	111		121		
17	61	36		229	55	213	74	70		93	58		112		27		
18	130	37		49	56	121	75	48		94	290		113		138		
19	48	38		111	57	237	76		151	95		84	TOTALS	8549	5905		

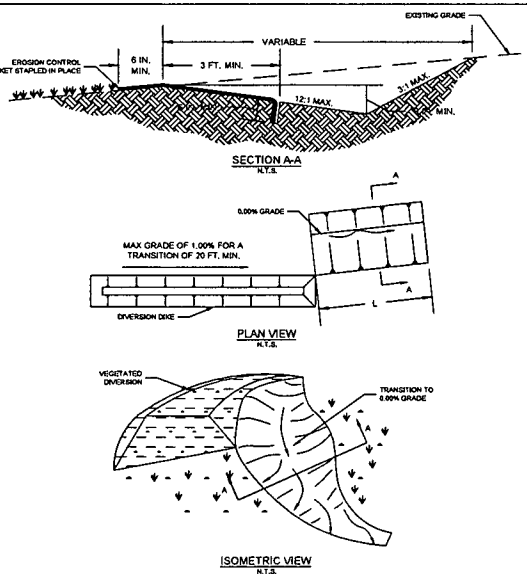
5 SUPER SILT FENCE & FILTER SOCK TABLE
26 NTS



6 SLOPE PROTECTION INSTALLATION DETAIL
26 NTS



7 STONE CONSTRUCTION ENTRANCE DETAIL
26 NTS



9 EARTHEN LEVEL SPREADER DETAIL
26 NTS



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REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	-	JMF	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION
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ORIGINAL DRAWING SIZE IS 22 x 34

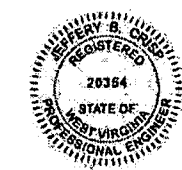
DETAILS
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
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26

PLOTTED: 02/20/15 7:52 AM BY: jym/pank
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Signed By: JBC # 20354

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WEST VIRGINIA

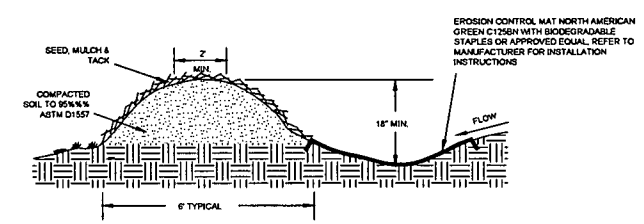


CONSTRUCTION

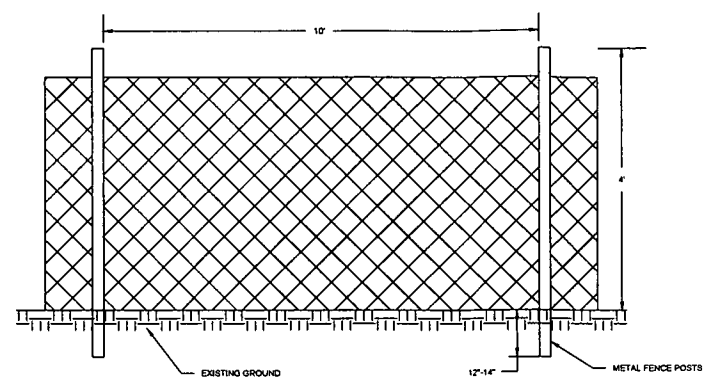
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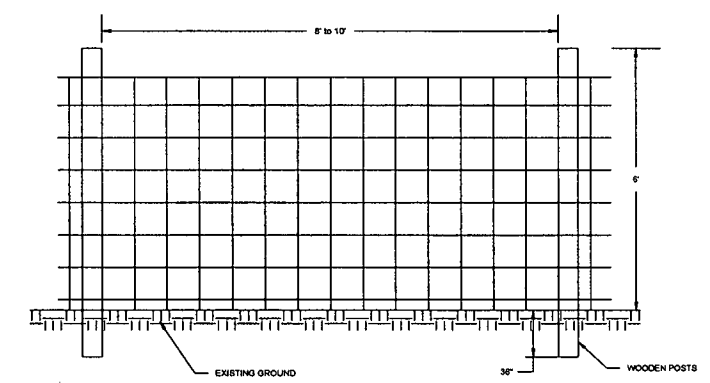
- INSTALLATION**
- WHEN CLEARING THE LOCATION FOR THE DIVERSION, ONLY CLEAR ENOUGH ROOM FOR CONSTRUCTION AND MAINTENANCE EQUIPMENT ACCESS. DO NOT CLEAR ANY ADDITIONAL AREA UNTIL ALL EROSION CONTROL DEVICES ARE IN PLACE.
 - REMOVE ALL STUMPS, ROOTS AND OTHER DEBRIS AND DISPOSE OF THEM PROPERLY. DURING CONSTRUCTION OF BERM.
 - INSTALL DIVERSION AND COMPACT AS SHOWN IN DETAIL. INSURE POSITIVE DRAINAGE DURING CONSTRUCTION OF BERM.
 - SCARIFY, SEED, MULCH AND TACK DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF BERM.
 - INSTALL EROSION CONTROL MAT N.A.G. C125B PER MANUFACTURER'S RECOMMENDATIONS AND KEY INTO SIDES OF CHANNEL TO PREVENT WATER FROM UNDERMINING OR DAMAGING CHANNEL LINER.
- MAINTENANCE**
- INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION ROOF. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.



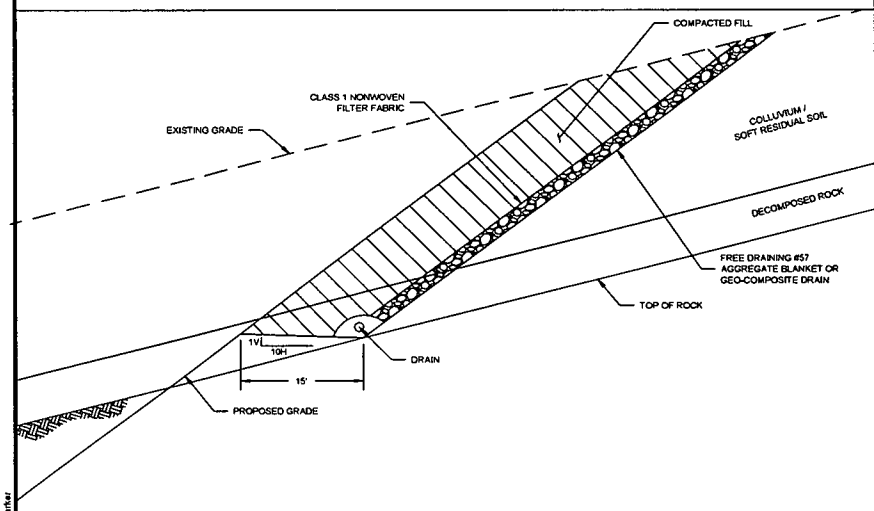
1 TEMPORARY DIVERSION BERM DETAIL
27 NTS



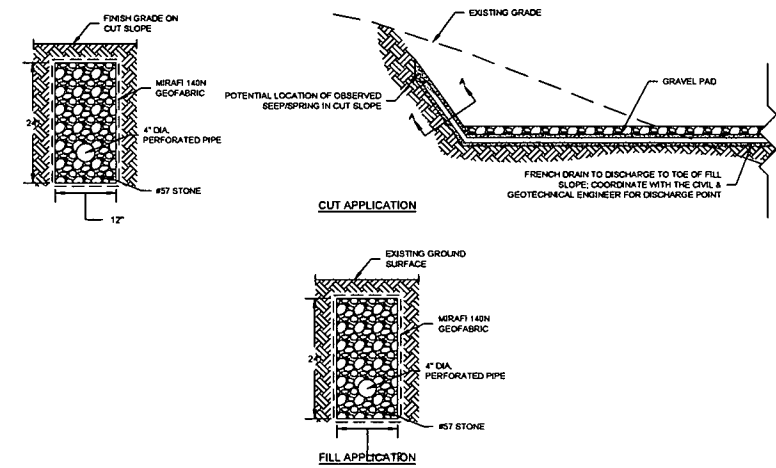
2 TYPICAL CONSTRUCTION FENCE DETAIL
27 NTS



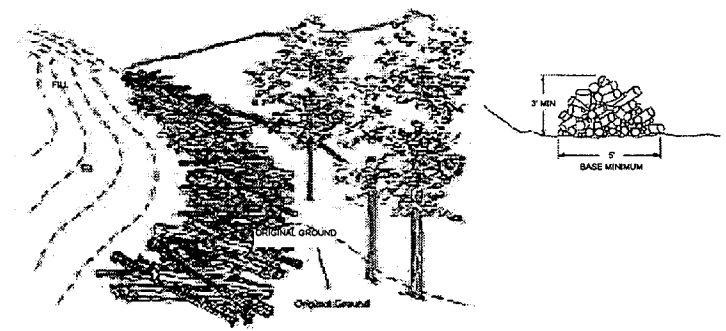
3 TYPICAL WOVEN WIRE FENCE DETAIL
27 NTS



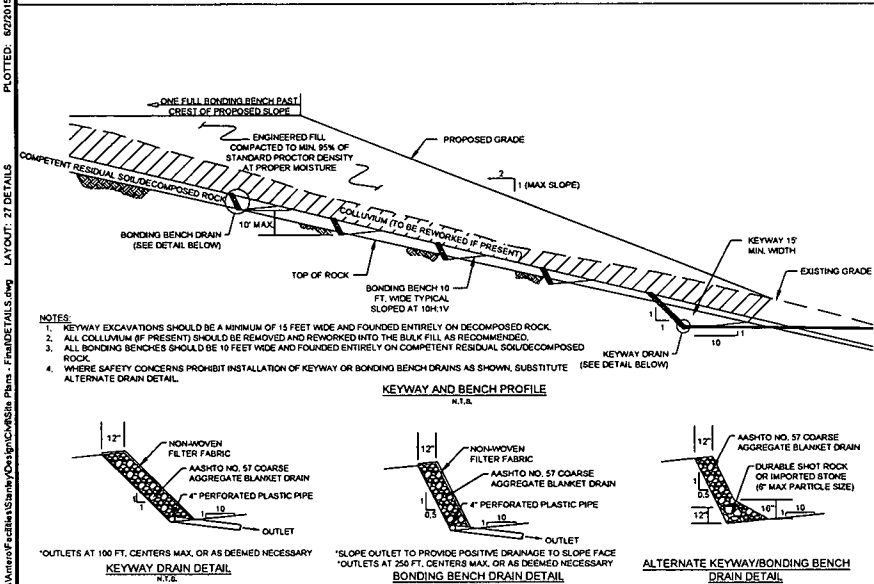
4 CUT SLOPE OVER EXCAVATION DETAIL (TYP.)
27 NTS



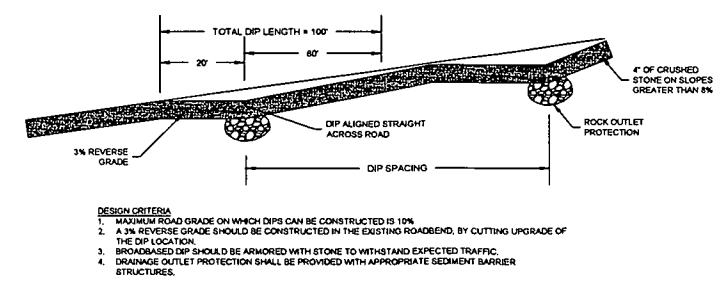
5 SEEP/SPRING FRENCH DRAIN DETAIL
27 NTS



6 BRUSH PILE SEDIMENT BARRIER DETAIL
27 NTS



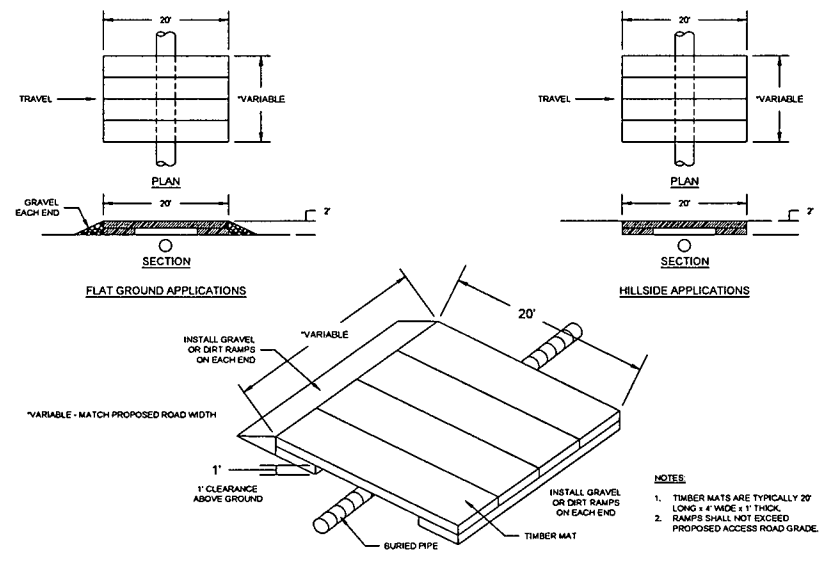
7 TYPICAL KEYWAY, BENCH, AND DRAINAGE DETAIL
27 NTS



8 BROAD-BASED DIP DETAIL
27 NTS

- DESIGN CRITERIA**
- MAXIMUM ROAD GRADE ON WHICH DIPS CAN BE CONSTRUCTED IS 10%.
 - A 3% REVERSE GRADE SHOULD BE CONSTRUCTED IN THE EXISTING ROADBED, BY CUTTING UPGRADE OF THE DIP LOCATION.
 - BROAD-BASED DIP SHOULD BE ARMORED WITH STONE TO WITHSTAND EXPECTED TRAFFIC.
 - DRAINAGE OUTLET PROTECTION SHALL BE PROVIDED WITH APPROPRIATE SEDIMENT BARRIER STRUCTURES.

ROAD GRADE (%)	DIP LENGTH (FT)
2	200
3	235
4	270
5	305
6	340
7	375
8	410
9	445
10	480



9 AIR BRIDGE DETAIL
27 NTS

CAD FILE: C:\Users\jmc\OneDrive\Documents\Projects\2015\Stanley Well & W.C. Pad\Drawings\DWG\27 DETAILS.dwg LAYOUT: 27 DETAILS



Signed By: JBC # 20354

REVISIONS

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DETAILS

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



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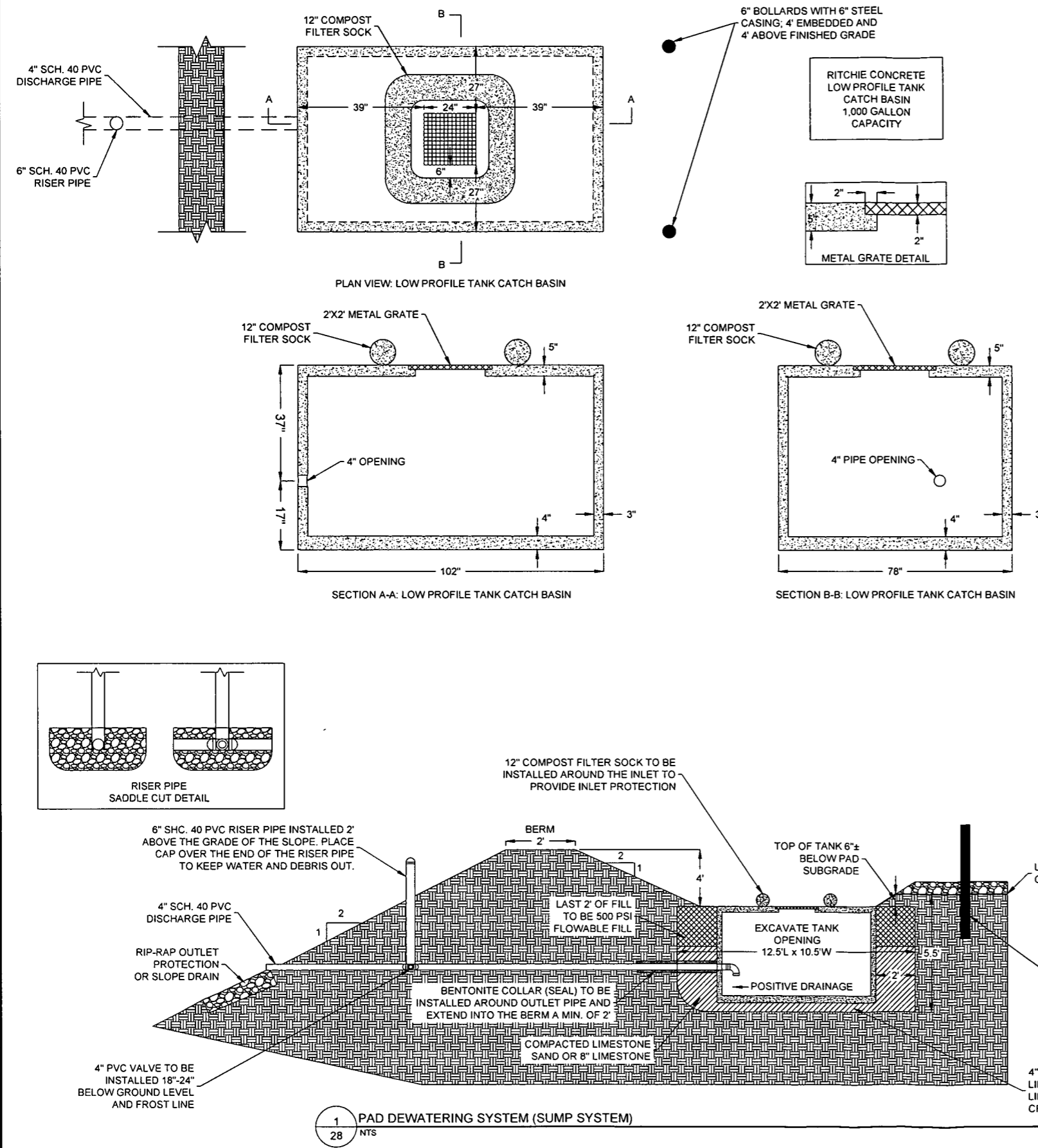
SHEET 28 of 34

INSTALLATION SEQUENCE

- CONSTRUCT WELL PAD TO SUBGRADE.
- EXCAVATE SUMP HOLE 1' LARGER THAN THE LENGTH, WIDTH, AND HEIGHT OF TANK.
- USE CRUSHER RUN STONE TO PREPARE THE BOTTOM OF THE EXCAVATION. MAKE SURE TO LEVEL THE TANK FROM SIDE TO SIDE AND HAVE POSITIVE FLOW TOWARD THE OUTLET (APPROXIMATELY 1-2").
- MAKE CERTAIN THE OUTLET ON THE TANK LINES UP WITH THE DISCHARGE DITCH FOR INSTALLING THE DISCHARGE PIPE AND VALVE.
- SET THE TANK IN THE EXCAVATION AND LEVEL.
- INSTALL PIPE SECTION, (APPROXIMATELY 1-2' PIECE) INTO THE OUTLET FITTING ON THE TANK. USE HYDRAULIC CEMENT AROUND THE CONNECTION TO ENSURE POSITIVE SEAL.
- INSTALL 4" VALVE ONTO SHORT SECTION OF THE PIPE WITH GLUE (MAKE CERTAIN TO CLEAN AND PRIME BOTH VALVE AND PIPE BEFORE GLUING CONNECTION).
- INSTALL SECTIONS OF PIPE ONTO THE OUTLET SIDE OF THE VALVE UNTIL THE PIPE EXTENDS THROUGH THE BERM AND SLOPE APPROXIMATELY 1'. LEAVE THE END OF THE PIPE EXPOSED (MAKE CERTAIN TO CLEAN AND PRIME THE PIPE AND JOINTS BEFORE GLUING THE CONNECTIONS).
- MAKE CERTAIN THAT THE PIPE IS SUPPORTED AND MAINTAINS POSITIVE FLOW AWAY FROM THE VALVE. USE EXCAVATED SOIL FROM THE DISCHARGE DITCH TO SUPPORT THE PIPE.
- INSTALL THE RISER FOR THE VALVE. USE A SECTION OF HDPE PIPE WITH A LARGER DIAMETER THAN THE VALVE (MINIMUM 8" DIAMETER HDPE PIPE). CUT A "SADDLE" ON THE BOTTOM OF THE RISER PIPE SO THAT THE RISER PIPE WILL REST ON THE DISCHARGE PIPE, SURROUNDING THE VALVE AND KEEPING DIRT AWAY FROM THE OPERATION OF THE VALVE.
- FILL AROUND THE VALVE WITH CRUSHER RUN STONE AND 1' ON THE RISER PIPE TO KEEP SOIL OUT.
- STABILIZE THE RISER PIPE SO THAT IT REMAINS PERPENDICULAR TO THE VALVE (RISER PIPE NEEDS TO BE PERPENDICULAR TO ALLOW SMOOTH OPERATION OF HANDLE AND VALVE). MAKE SURE TO REMOVE THE FACTORY HANDLE ON THE VALVE AND TO FIT "T" HANDLE (ALTERNATE HANDLE) ONTO THE EXPOSED PLUG ON THE TOP OF THE VALVE.
- BEGIN BACKFILLING THE TANK EXCAVATION AND DISCHARGE DITCH. USE THE SOIL EXCAVATED FROM THE TANK HOLE TO BACKFILL THE TANK AND DISCHARGE DITCH. DO NOT BACKFILL WITH ANY LARGE ROCKS AGAINST THE TANK AND BE CERTAIN NOT TO OVER-COMPACT AROUND THE TANK. IMPROPER BACKFILLING AND OVER-COMPACTATION AROUND THE TANK WILL LEAD TO THE TANK COLLAPSING. IT IS RECOMMENDED THAT FINER SOILS ARE USED TO BACKFILL AROUND THE TANK AND DISCHARGE PIPE TO REDUCE VOIDS AND EXCESSIVE SETTLING.
- ONCE BACKFILLING IS COMPLETE, THE TOP OF THE TANK SHOULD BE FLUSH WITH THE SUB-GRADE.
- CUT THE RISER PIPE OFF 2' ABOVE SUB-GRADE TO ALLOW FOR THE RISER PIPE TO EXTEND 1' ABOVE THE FINAL GRADE AND KEEP SURFACE WATER FROM ENTERING THE PIPE.
- REPAIR THE PAD BERM AND FILL SLOPE.
- INSTALL RIP-RAP SPILLWAY FROM THE DISCHARGE PIPE OUTLET TO THE BOTTOM OF THE SLOPE. DEPENDING ON SITE CONDITIONS, THE SPILLWAY WILL DISCHARGE THROUGH A LEVEL SPREADER TO VEGETATION OR E&S CONTROLS OR DISCHARGE FROM THE SPILLWAY INTO AN ACCESS ROAD DITCH.
- WITH TANK INSTALLATION COMPLETE, THE WELL PAD CAN THEN BE STONED. WHEN USING GEO-FABRIC (TYPAR), BE SURE TO LAP THE FABRIC OVER THE EDGE OF THE LID ON THE TANK. THIS LAP WILL HELP RUN-OFF TO FLOW INTO THE TANK. TAPER STONE DOWN FROM THE PAD TO THE TANK, SO THERE IS NOT A "LIP" OR TRIP HAZARD ON THE EDGE OF STONE.
- BE SURE NOT TO RUN A SMOOTH DRUM OR SHEEPS-FOOTED ROLLER OVER THE TANK LID OR VIBRATE TOO CLOSE TO THE SIDES OF THE TANK. COMPACTING OR OPERATING HEAVY EQUIPMENT NEAR THE TANK MAY CAUSE THE WALLS ON THE TANK TO FAIL. KEEP TRAFFIC OFF OF THE TANK. IT IS RECOMMENDED THAT BARRIERS BE INSTALLED TO PREVENT TRAFFIC FROM DRIVING OVER OR PARKING ON OR NEAR THE TANK.

OPERATIONAL NOTE:

THE DEWATERING VALVE WILL REMAIN CLOSED DURING DRILLING AND COMPLETION OPERATIONS. ANY WATER CAPTURED DURING THE DRILLING AND COMPLETION OPERATIONS WILL BE PUMPED BY A COMMERCIAL VENDOR. AFTER DRILLING AND COMPLETION OPERATIONS ARE COMPLETE, THE VALVE WILL BE OPENED BY A DESIGNATED RESPONSIBLE PERSON ONLY.



1
28 NTS
PAD DEWATERING SYSTEM (SUMP SYSTEM)



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



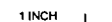
Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN OWN	CHK APP	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR
CONSTRUCTION

SCALE VERIFICATION



ADJUST SCALE
ACCORDINGLY IF DISTANCE
PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

DETAILS

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	CHT
CHECKED BY	JBC
APPROVED BY	JMF

29

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet - BioNet® C125BN™ Erosion Control Blanket

DESCRIPTION
The long-term double net erosion control blanket shall be a machine-produced mat of 100% coconut fiber with a functional longevity of up to 24 months. (NOTES: functional longevity may vary depending upon climate conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as Leno weave) to form an approximate 0.50 x 1.0 in (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with deep saddle thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The C125BN shall meet Type 4 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-23 Section 719.17

Index Property	Test Method	Typical
Thickness	ASTM D6911	0.23 in (5.84 mm)
Rail Jancy	ECTC Guidelines	65%
Wear Absorbency	ASTM D1017	85%
Mass/Unit Area	ASTM D475	9.79 oz/yd (133 g/m ²)
Shrink	ECTC Guidelines	40%
Shrinkage Resistance	ECTC Guidelines	Yes
Softness	ASTM D1998	0.11 oz-in
Light Penetration	ASTM D6562	16.2%
Tensile Strength - MD	ASTM D5034	206.4 lb/ft
Elongation - MD	ASTM D5034	15.3%
Tensile Strength - TD	ASTM D5034	145.2 lb/ft
Elongation - TD	ASTM D5034	12.3%
Biomass Improvement	ASTM D722	47%

Design Permissible Shear Stress	
Unvegetated Shear Stress	2.75 psf (130 Pa)
Unvegetated Velocity	10.0 fps (3.05 m/s)

Slope Design Data: C Factors	
Slope Length (L)	Slope Gradient (S)
4-20 ft (1.2-6.1 m)	0.011 - 0.021
20-50 ft (6.1-15.2 m)	0.011 - 0.021
50-100 ft (15.2-30.5 m)	0.011 - 0.021

Roughness Coefficients - Unveg.	
Flow Depth	Manning's n
0.50 ft (0.15 m)	0.022
1.00 ft (0.30 m)	0.022-0.024
2.00 ft (0.60 m)	0.024

Material Content	
Mat: 100% Coconut Fiber	0.5 lbs/ft ² (23.9 kg/m ²)
Netting: 100% Biodegradable Fiber	9.3 lbs/1000 sq ft (4.1 kg/100 m ²)
Thread: Biodegradable	7.1 oz/1000 sq ft (2.06 kg/100 m ²)

Standard Roll Sizes	
Width	6.0 ft (1.83 m)
Length	120 ft (36.6 m)
Weight ± 10%	85.27 lbs (38.67 kg) - 99.75 lbs (45.01 kg)
Area	720 sq ft (66.45 m ²) - 838 sq ft (77.46 m ²)
	Length: 120 ft (36.6 m)
	Length: 120 ft (36.6 m)

NORTH AMERICAN GREEN™

Tensar International Corporation
2507 Northwoods Parkway
Suite 500
Alpharetta, GA 30009
800-875-5283
tensarusa.com

Tensar International Corporation warrants that at the time of delivery the products furnished hereunder conform to the specification stated hereon. Any other warranty, express or implied, made by the manufacturer or supplier for comparable products, shall remain the property of the manufacturer or supplier. Tensar disclaims any and all warranties, express or implied, for this product. This product is not a substitute for any other product. This product is not intended for use as a permanent erosion control. All products shipped prior to January 1, 2015.
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ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet - VMax® SC250® Turf Reinforcement Mat

DESCRIPTION
The composite turf reinforcement mat (CTRM) shall be a machine-produced mat of 70% straw and 30% coir fiber matrix incorporated in a permanent three-dimensional turf reinforcement matting. The matrix shall be evenly distributed across the entire width of the matting and stitch bonded between a heavy duty UV stabilized netting with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings, an ultra heavy UV stabilized, dramatically corrugated (rimpled) intermediate netting with 3.5 x 0.5 inch (1.27 x 1.27 cm) openings, and covered by an heavy duty UV stabilized nettings with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings. The middle corrugated netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 1.50 inch (3.81 cm) centers with UV stabilized polypropylene thread to form permanent three-dimensional turf reinforcement matting. All mats shall be manufactured with a colored thread stitched along both outer edges as an overlap guide for adjacent mats.

The SC250 shall meet Type SA, SB, and SC specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 719.15

Index Property	Test Method	Typical
Thickness	ASTM D6925	0.02 in (0.51 mm)
Rail Jancy	ASTM D624	95.4%
Density	ASTM D692	0.86 g/cm ³
Mass/Unit Area	ASTM G668	16.13 oz/yd (146 g/m ²)
UV Stability	ASTM D4151	100%
Porosity	ECTC Guidelines	19%
Stiffness	ASTM D1938	722.83 oz-in
Light Penetration	ASTM D6562	4.9%
Tensile Strength - MD	ASTM D6924	209.10 lb/ft
Elongation - MD	ASTM D6924	23.0%
Tensile Strength - TD	ASTM D6924	143.00 lb/ft
Elongation - TD	ASTM D6924	16.4%
Biomass Improvement	ASTM D722	64%

Design Permissible Shear Stress	
Unvegetated Shear Stress	0.3 psf (14.6 N/m ²)
Unvegetated Velocity	15 fps (4.6 m/s)

Material Content	
Mat: 70% Straw Fiber	0.33 lb/ft ² (15.11 kg/m ²)
Mat: 30% Coconut Fiber	0.13 lb/ft ² (5.96 kg/m ²)
Netting: Top and Bottom, UV-Stabilized Polypropylene	5.00 lb/1000 sq ft (2.27 kg/100 m ²)
Netting: Middle, Corrugated UV-Stabilized Polypropylene	24.11 lb/1000 sq ft (11.02 kg/m ²)
Thread: Polypropylene, UV Stable	

Standard Roll Sizes	
Width	6.5 ft (2.0 m)
Length	56.5 ft (17.3 m)
Weight ± 10%	34.11 lbs (15.45 kg)
Area	40 sq yd (37.6 m ²)

1 NORTH AMERICAN GREEN C125BN EROSION CONTROL BLANKET (OR EQUIVALENT)
29 NTS

2 NORTH AMERICAN GREEN SC250 TURF REINFORCEMENT MATTING (OR EQUIVALENT)
29 NTS

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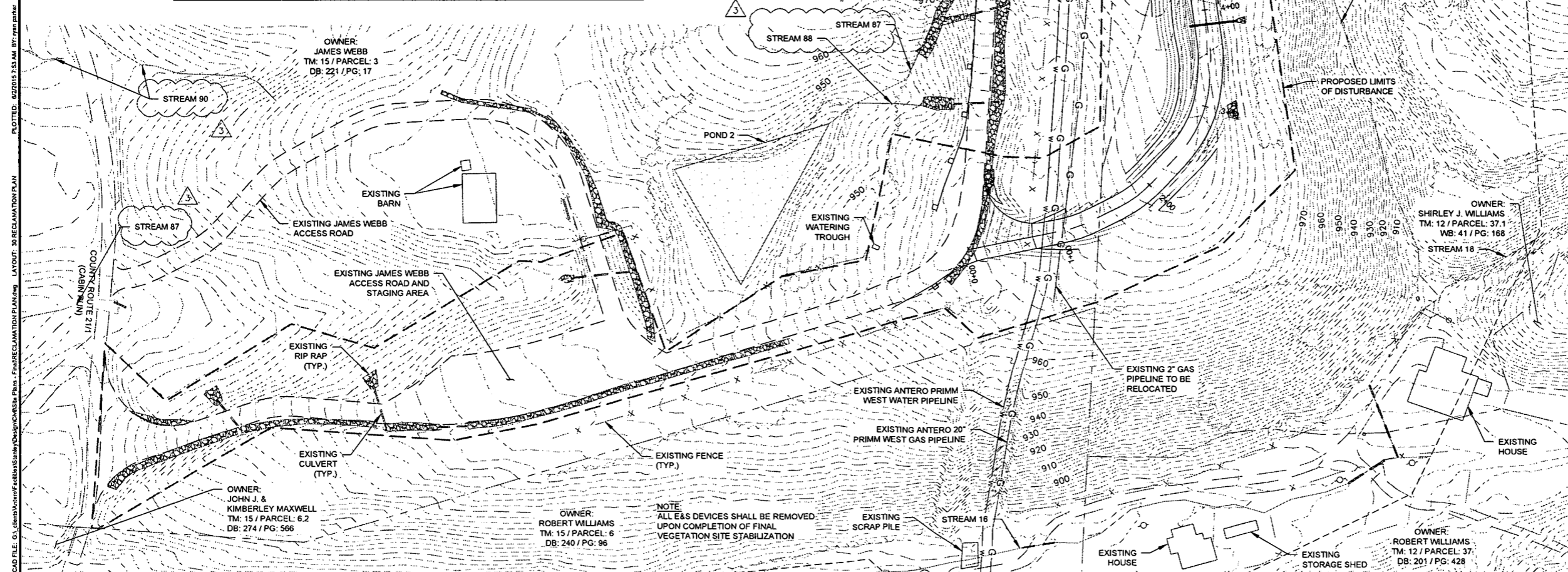
SITE RECLAMATION NOTES:

1. THE WATER CORRAL MUST BE REMOVED PRIOR TO BACKFILLING THE WATER CONTAINMENT PAD. ANY REMAINING FLUID MUST BE DISPOSED OF IN AN APPROVED MANNER.
2. DRILL CUTTINGS, DRILLING MUD AND LINER, FOR WELLS PERMITTED UNDER WV CODE 22-6A AND 35CSR-8, MUST BE REMOVED FROM SITE AND DISPOSED OF AT AN APPROVED SOLID WASTE FACILITY OR IF THE SURFACE OWNER CONSENTS THE DRILL-CUTTINGS AND ASSOCIATED DRILLING MUD MAY BE MANAGED ON SITE IN A MANNER APPROVED BY THE SECRETARY.
3. THE OPERATOR SHALL GRADE OR TERRACE AND PLANT, SEED OR SOD THE AREA DISTURBED THAT IS NOT REQUIRED IN PRODUCTION OF THE WELL, IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
4. INSTALL ALL PERMANENT WATER DRAINAGE AND DIVERSION DITCHES. IN AREAS OF LONG SLOPES, IT MAY BE DESIRABLE TO INSTALL ANGLED DIVERSION DITCHES TO AID IN CONTROLLING WATER RUNOFF AND EROSION.
5. STOCKPILED TOPSOIL SHOULD BE RE-SPREAD OVER DISTURBED AREA. TOPSOIL SHOULD NOT BE ADDED TO SLOPES STEEPER THAN 2:1 UNLESS GOOD BONDING TO THE SUB-SOIL CAN BE ACHIEVED.
6. PRIOR TO SEEDING, SOIL SHOULD BE LOOSENEED BY DISKING, BULLDOZER TRACKING, ETC. NOTE THAT BULLDOZER TRACKING CAN COMPACT WET CLAY SOILS AND RESTRICT ESTABLISHMENT OF VEGETATION.
7. MAINTAINING SEDIMENT BARRIERS IS CRITICAL UNTIL VEGETATION IS REESTABLISHED. TEMPORARY SEDIMENT CONTROL DEVICES SUCH AS SUPER SILT FENCING SHALL BE REMOVED ALONG WITH SEDIMENT AFTER AT LEAST A 70% VEGETATIVE COVER IS ESTABLISHED.
8. DURING SITE RECLAMATION ALL FILL AREAS SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.

NOTES:

1. MUNICIPAL BOUNDARY LINES SHOWN ARE APPROXIMATE IN LOCATION, BASED ON MAPS BY OTHERS, AND MAY NOT CORRESPOND TO THE LEGAL LOCATION.
2. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED TO BE COMPLETE.
3. NO PERMANENT PUBLIC SANITARY SEWER NOR POTABLE WATER IS PROPOSED AT THE SITE.
4. NO BUFFER AREAS, PLANTINGS, OR LANDSCAPING ARE PROPOSED AT THE SITE. NO PERMANENT OPEN SPACE OR PUBLIC USE AREAS ARE PROPOSED AT THE SITE.
5. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANEL 54017C0206C & 54017C0225C INDICATES NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.
6. ALL PROPOSED SLOPES ARE 2H:1V EXCEPT WHERE NOTED. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.

LEGEND			
1360	EX. INDEX CONTOUR	□	EX. STRUCTURE
- - -	EX. INTERMEDIATE CONTOUR	- - -	EX. JAMES WEBB WELL PAD FEATURES
---	EX. TREE LINE	- - -	STREAM/WETLAND AREA OF INTEREST
- - -	EX. PROPERTY LINE	- - -	PROP. LIMITS OF DISTURBANCE
- - -	EX. WETLAND	- - -	PROP. FRENCH DRAIN
□	EX. POND	- - -	PROP. INDEX CONTOUR
- - -	EX. STREAM	- - -	PROP. INTERMEDIATE CONTOUR
- - -	EX. GAS LINE	- - -	PROP. ROAD CENTERLINE
- - -	EX. WATER LINE	- - -	PROP. PADS & ROAD EDGE
- - -	EX. ROAD	- - -	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
- - -	EX. FENCE	○	PROP. WELL HEAD



MATCHLINE SHEET 31



230 EXECUTIVE DRIVE, SUITE 122
GRANBERRY TOWNSHIP, PA 16966
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

RECLAMATION PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

30

SHEET 30 of 34

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230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



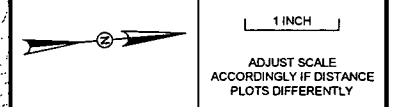
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ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



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SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

RECLAMATION PLAN

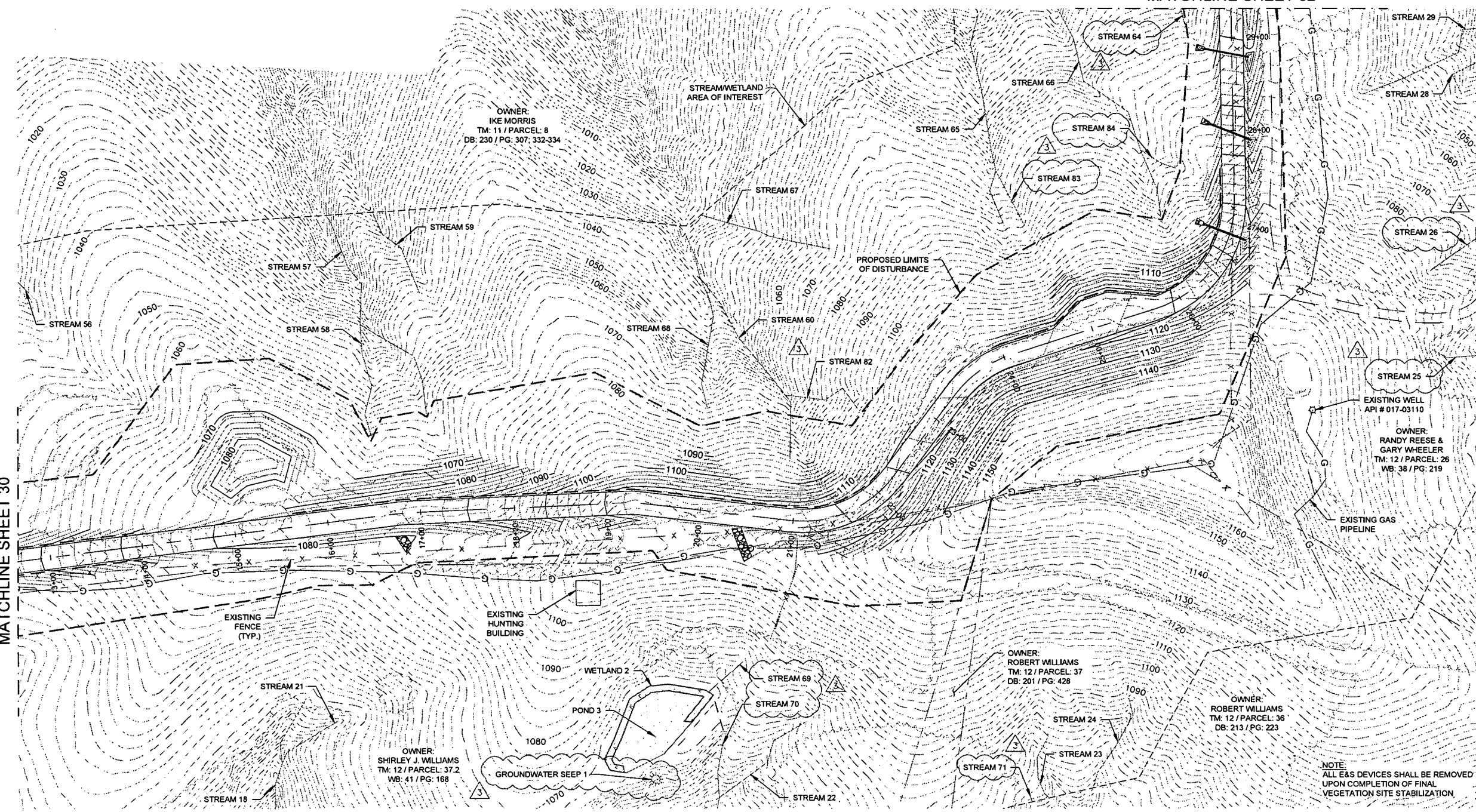
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A	31
ISSUE DATE	02-25-2015	
CURRENT REVISION	3	
DESIGNED BY	CHT	
DRAWN BY	-	
CHECKED BY	JBC	
APPROVED BY	JMF	SHEET 31 of 34

MATCHLINE SHEET 30



NOTES:

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- UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED TO BE COMPLETE.
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SITE RECLAMATION NOTES:

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LEGEND		
1360	EX. INDEX CONTOUR	EX. STRUCTURE
1360	EX. INTERMEDIATE CONTOUR	STREAMWETLAND AREA OF INTEREST
---	EX. TREE LINE	PROP. LIMITS OF DISTURBANCE
---	EX. PROPERTY LINE	PROP. FRENCH DRAIN
---	EX. WETLAND	PROP. INDEX CONTOUR
---	EX. POND	PROP. PADS & ROAD EDGE
G	EX. STREAM	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
W	EX. GAS LINE	PROP. WELL HEAD
---	EX. WATER LINE	
---	EX. ROAD	
---	EX. FENCE	

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230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

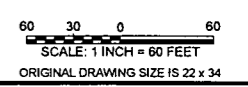
REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
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4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY



RECLAMATION PLAN

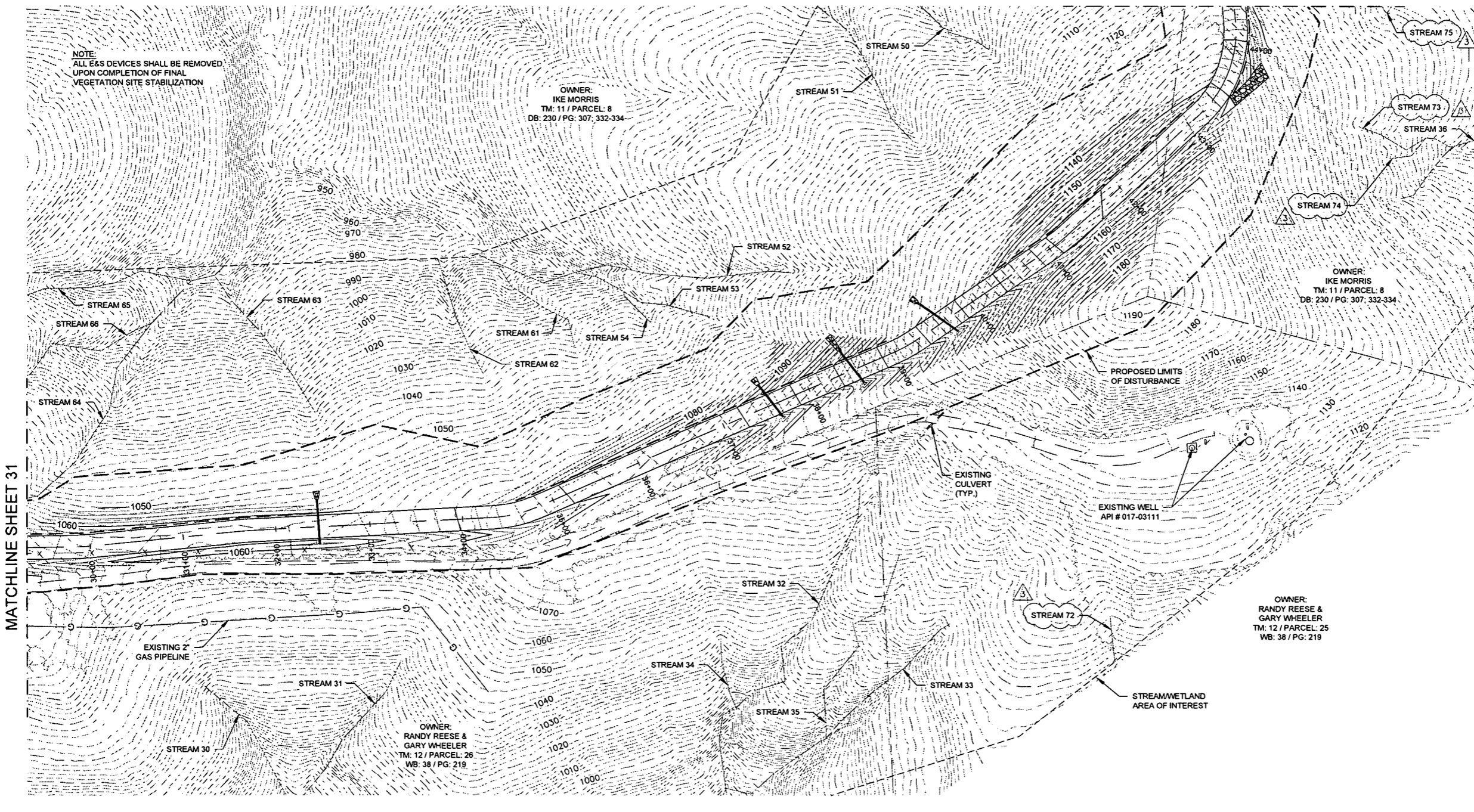
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A	32
ISSUE DATE	02-25-2015	
CURRENT REVISION	3	
DESIGNED BY	CHT	
CHECKED BY	JBC	
APPROVED BY	JMF	

SHEET 32 OF 34



NOTE:
ALL E&S DEVICES SHALL BE REMOVED UPON COMPLETION OF FINAL VEGETATION SITE STABILIZATION

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307, 332-334

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307, 332-334

OWNER:
RANDY REESE & GARY WHEELER
TM: 12 / PARCEL: 25
WB: 38 / PG: 219

OWNER:
RANDY REESE & GARY WHEELER
TM: 12 / PARCEL: 26
WB: 38 / PG: 219

NOTES:

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SITE RECLAMATION NOTES:

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- DURING SITE RECLAMATION ALL FILL AREAS SHALL BE PLACED IN 12" LIFTS AND BE COMPACTED TO 95% STANDARD PROCTOR.

LEGEND	
--- 1360 ---	EX. INDEX CONTOUR
--- 1360 ---	EX. INTERMEDIATE CONTOUR
---	EX. TREE LINE
---	EX. PROPERTY LINE
---	EX. WETLAND
---	EX. STREAM
G	EX. GAS LINE
W	EX. WATER LINE
---	EX. ROAD
---	EX. FENCE
□	EX. STRUCTURE
---	STREAM/WETLAND AREA OF INTEREST
---	PROP. LIMITS OF DISTURBANCE
---	PROP. FRENCH DRAIN
---	PROP. INDEX CONTOUR
---	PROP. INTERMEDIATE CONTOUR
---	PROP. ROAD CENTERLINE
---	PROP. PADS & ROAD EDGE
---	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
○	PROP. WELL HEAD

PLOTTED: 02/20/15 7:53 AM BY: Ryan Parker
 LAYOUT: 02/20/15 10:00 AM BY: Ryan Parker
 CADD FILE: G:\Clients\AnteroResources\Oxygas\Chassis Plans\FinalReclamationPlan.dwg



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CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
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Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION



1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

RECLAMATION PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

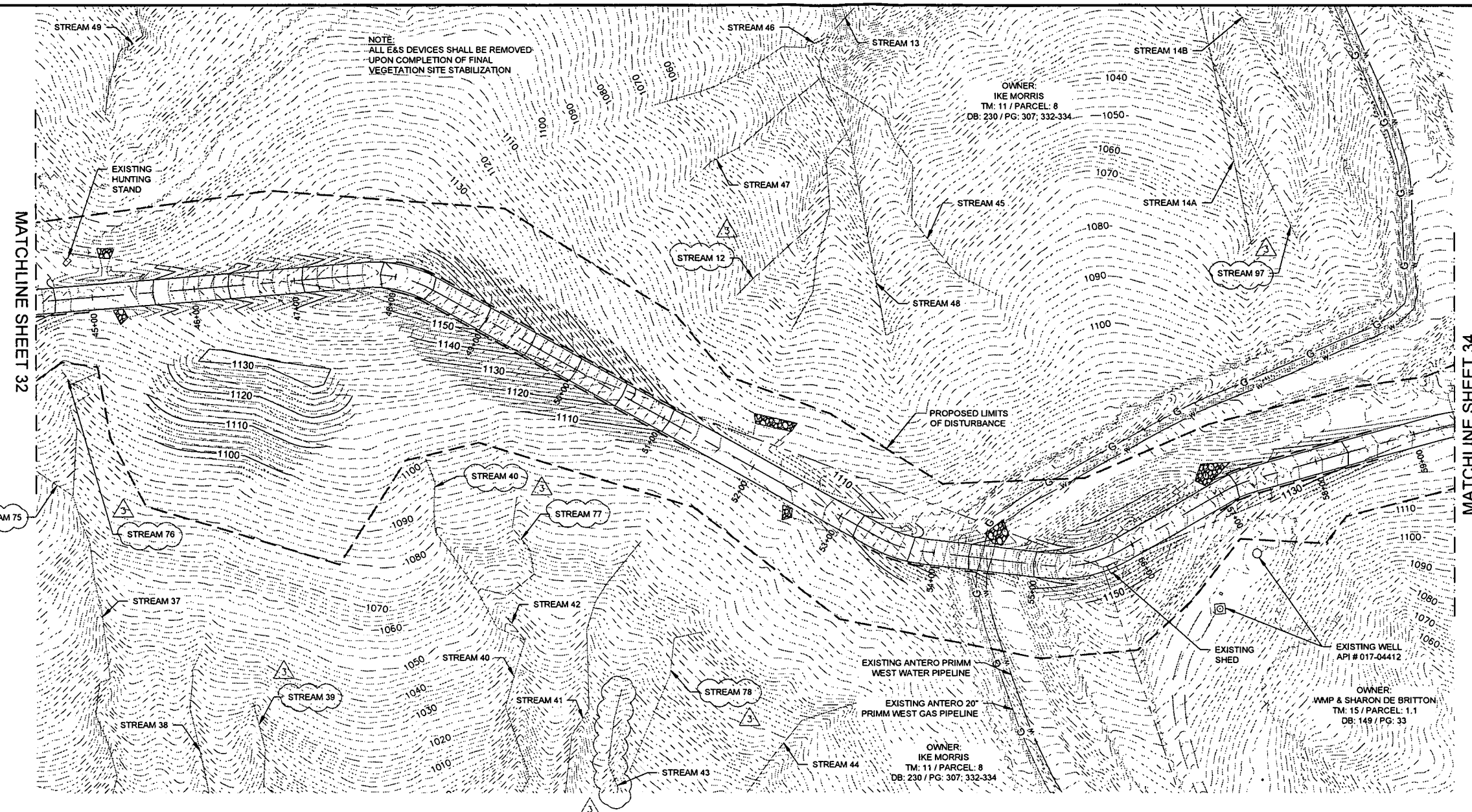


CONSTRUCTION

PROJECT NO. 20150962.001A
ISSUE DATE 02-25-2015
CURRENT REVISION 3
DESIGNED BY CHT
DRAWN BY -
CHECKED BY JBC
APPROVED BY JMF

SHEET 33 of 34

33



NOTE
ALL E&S DEVICES SHALL BE REMOVED
UPON COMPLETION OF FINAL
VEGETATION SITE STABILIZATION

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307, 332-334

OWNER:
WMP & SHARON DE BRITTON
TM: 15 / PARCEL: 1.1
DB: 149 / PG: 33

OWNER:
IKE MORRIS
TM: 11 / PARCEL: 8
DB: 230 / PG: 307, 332-334

NOTES:

- MUNICIPAL BOUNDARY LINES SHOWN ARE APPROXIMATE IN LOCATION, BASED ON MAPS BY OTHERS, AND MAY NOT CORRESPOND TO THE LEGAL LOCATION.
- UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED TO BE COMPLETE.
- NO PERMANENT PUBLIC SANITARY SEWER NOR POTABLE WATER IS PROPOSED AT THE SITE.
- NO BUFFER AREAS, PLANTINGS, OR LANDSCAPING ARE PROPOSED AT THE SITE. NO PERMANENT OPEN SPACE OR PUBLIC USE AREAS ARE PROPOSED AT THE SITE.
- FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANEL 54017C0200C & 54017C0225C INDICATES NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.
- ALL PROPOSED SLOPES ARE 2H:1V EXCEPT WHERE NOTED. TOPSOIL SPOIL AREA FILL SLOPES SHALL BE AT 3H:1V.

SITE RECLAMATION NOTES:

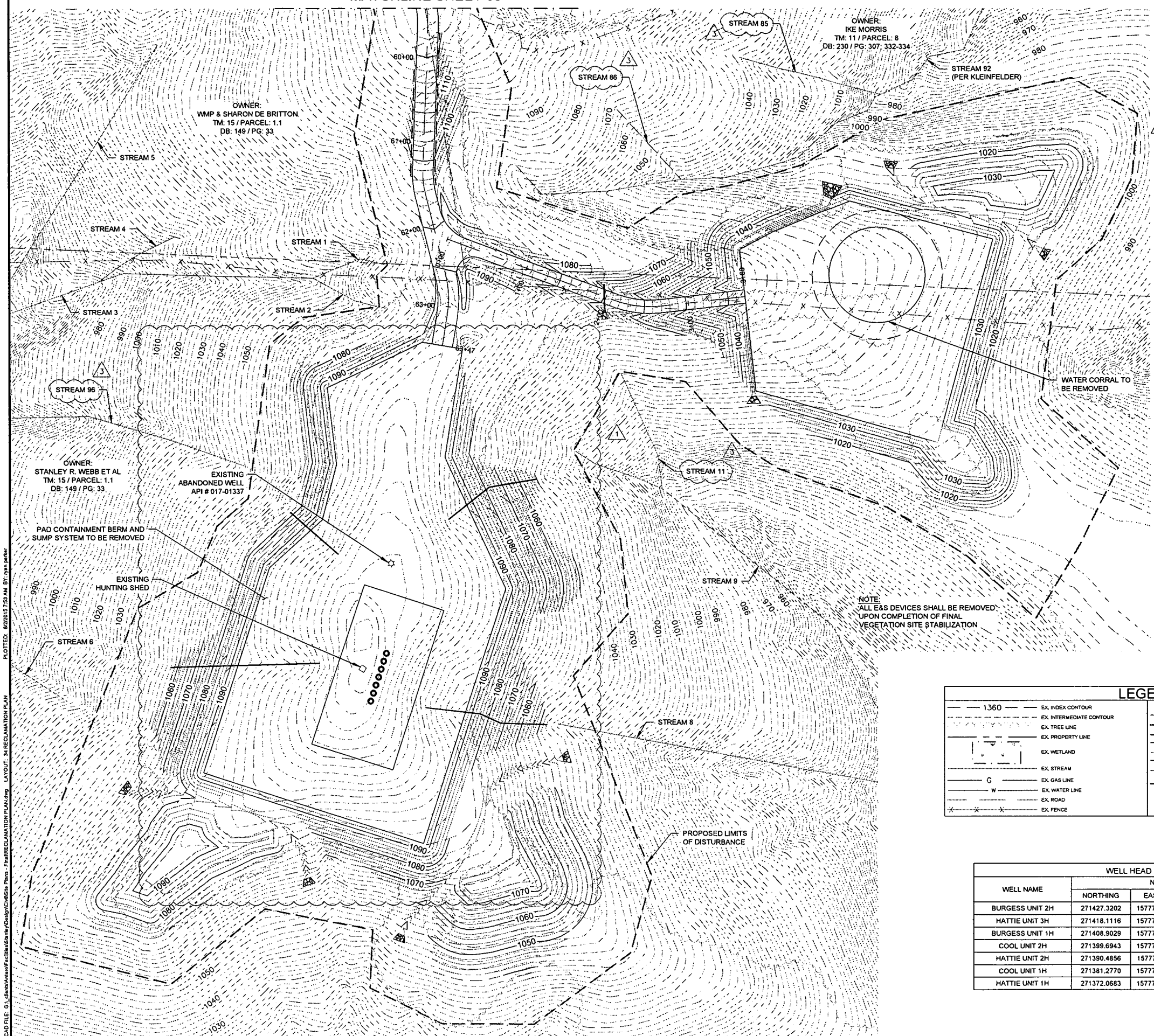
- THE WATER CORRAL MUST BE REMOVED PRIOR TO BACKFILLING THE WATER CONTAINMENT PAD. ANY REMAINING FLUID MUST BE DISPOSED OF IN AN APPROVED MANNER.
- DRILL CUTTINGS, DRILLING MUD AND LINER, FOR WELLS PERMITTED UNDER WV CODE 22-8A AND 35CSR-8, MUST BE REMOVED FROM SITE AND DISPOSED OF AT AN APPROVED SOLID WASTE FACILITY OR IF THE SURFACE OWNER CONSENTS THE DRILL-CUTTINGS AND ASSOCIATED DRILLING MUD MAY BE MANAGED ON SITE IN A MANNER APPROVED BY THE SECRETARY.
- THE OPERATOR SHALL GRADE OR TERRACE AND PLANT, SEED OR SOO THE AREA DISTURBED THAT IS NOT REQUIRED IN PRODUCTION OF THE WELL IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
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LEGEND

1360	EX. INDEX CONTOUR	□	EX. STRUCTURE
---	EX. INTERMEDIATE CONTOUR	---	STREAM/WETLAND AREA OF INTEREST
---	EX. TREE LINE	---	PROP. LIMITS OF DISTURBANCE
---	EX. PROPERTY LINE	---	PROP. FRENCH DRAIN
---	EX. WETLAND	---	PROP. INDEX CONTOUR
G	EX. STREAM	---	PROP. INTERMEDIATE CONTOUR
W	EX. GAS LINE	---	PROP. ROAD CENTERLINE
---	EX. WATER LINE	---	PROP. PADS & ROAD EDGE
X-X-X	EX. ROAD	---	PROP. 2' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
	EX. FENCE	○	PROP. WELL HEAD

PLOT FILE: G:\dtdm\Antero\FullScale\StanleyWell\Chas\Chas.dwg LAYOUT: 33 RECLAMATION PLAN PLOT DATE: 02/25/15 7:53 AM BY: jay parker

MATCHLINE SHEET 33



- NOTES:**
- MUNICIPAL BOUNDARY LINES SHOWN ARE APPROXIMATE IN LOCATION, BASED ON MAPS BY OTHERS, AND MAY NOT CORRESPOND TO THE LEGAL LOCATION.
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LEGEND

1360	EX. INDEX CONTOUR	□	EX. STRUCTURE
- - -	EX. INTERMEDIATE CONTOUR	▭	STREAM/WETLAND AREA OF INTEREST
—	EX. TREE LINE	—	PROP. LIMITS OF DISTURBANCE
- - -	EX. PROPERTY LINE	—	PROP. FRENCH DRAIN
—	EX. WETLAND	1360	PROP. INDEX CONTOUR
—	EX. STREAM	- - -	PROP. INTERMEDIATE CONTOUR
G	EX. GAS LINE	—	PROP. ROAD CENTERLINE
W	EX. WATER LINE	—	PROP. PADS & ROAD EDGE
—	EX. ROAD	—	PROP. 7' WIDE BERM, JERSEY BARRIER, LARGE STONE, OR GUARD RAILS, FOR SAFETY PURPOSES
—	EX. FENCE	○	PROP. WELL HEAD

WELL HEAD LAYOUT

NAD 83 (WV NORTH ZONE)

WELL NAME	NORTHING	EASTING	LATITUDE	LONGITUDE
BURGESS UNIT 2H	271427.3202	1577799.5864	39.23697809	-80.87942190
HATTIE UNIT 3H	271418.1116	1577795.6876	39.23695264	-80.87943516
BURGESS UNIT 1H	271408.9029	1577791.7888	39.23692720	-80.87944843
COOL UNIT 2H	271399.6943	1577787.8899	39.23690175	-80.87946169
HATTIE UNIT 2H	271390.4856	1577783.9911	39.23687631	-80.87947495
COOL UNIT 1H	271381.2770	1577780.0923	39.23685087	-80.87948822
HATTIE UNIT 1H	271372.0683	1577776.1935	39.23682542	-80.87950148

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PHONE: 724-772-7072
WWW.KLEINFELDER.COM



Signed By: JBC # 20354

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	IMPACT TABLE ADDITIONS	RAP	JBC	3/20/2015
3	DELINEATION REVISIONS	CHT	JBC	5/1/2015
4	FIRM NUMBER CHANGE	RAP	JBC	6/1/15

ISSUED FOR CONSTRUCTION

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

60 30 0 60
SCALE: 1 INCH = 60 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

RECLAMATION PLAN

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



CONSTRUCTION

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	3
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

SHEET 34 OF 34

PLOTTED: 02/25/15 7:53 AM BY: jbc
 CAD FILE: G:\data\mine\cadd\stn\reclamation\plan.dwg LAYOUT: RECLAMATION PLAN
 DATE: 02/25/15 7:53 AM BY: jbc



230 EXECUTIVE DRIVE, SUITE 1122
CRANBERRY TOWNSHIP, PA 16066
PHONE: 724-772-7072
WWW.KLEINFELDER.COM

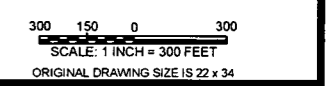
REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	FIRM NUMBER CHANGE	RAP	JBC	6/2/2015

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY



FLOOD ZONE MAP
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

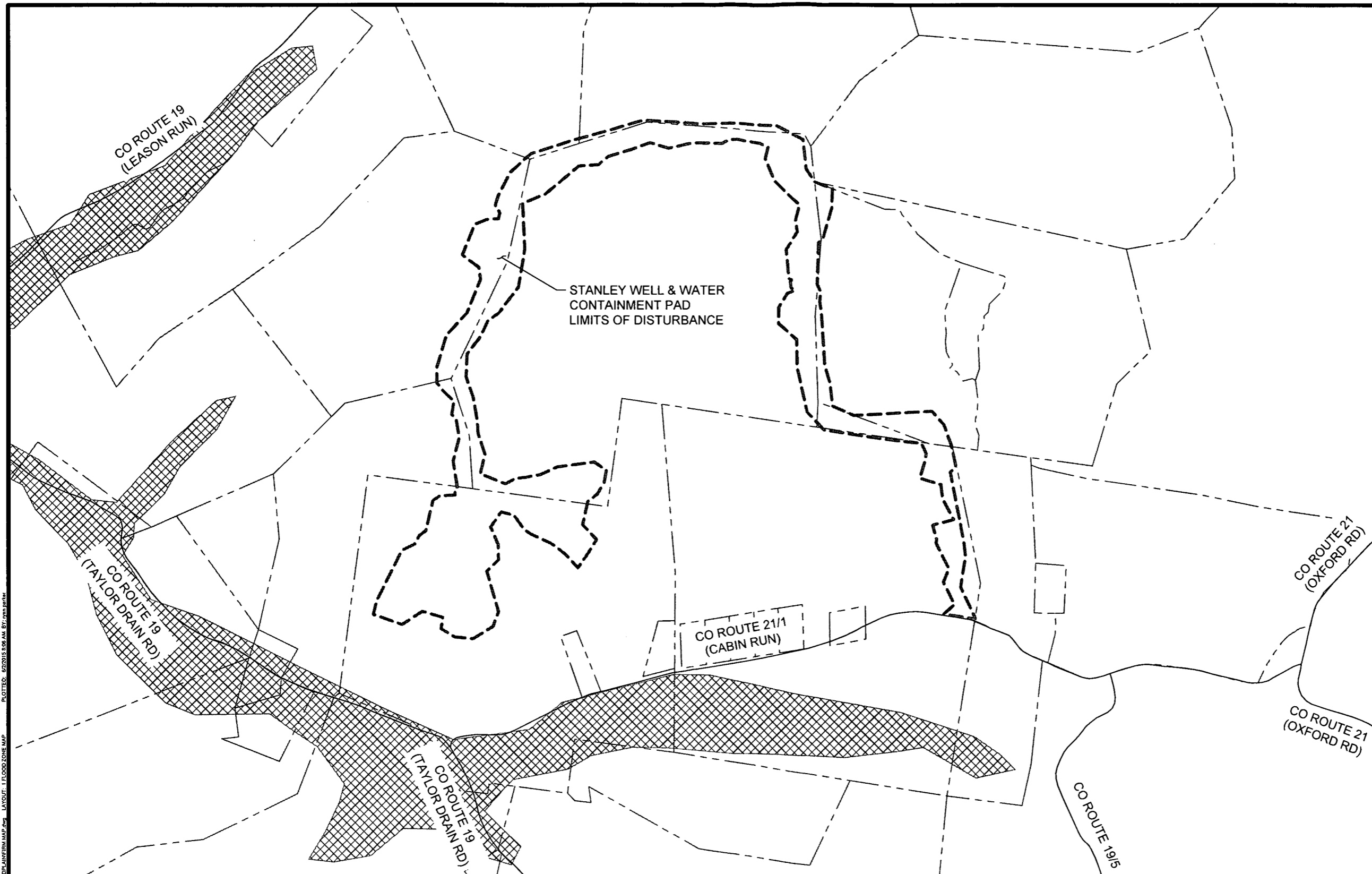


FIRM MAP

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	0
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

1

1 of 4



LEGEND

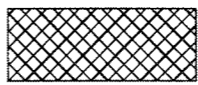
- EXISTING ROAD
- EXISTING PROPERTY LINE
- LIMIT OF DISTURBANCE
- FLOOD HAZARD AREA

NOTES:

- FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANELS 54017C0200C & 54017C0225C INDICATE NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.

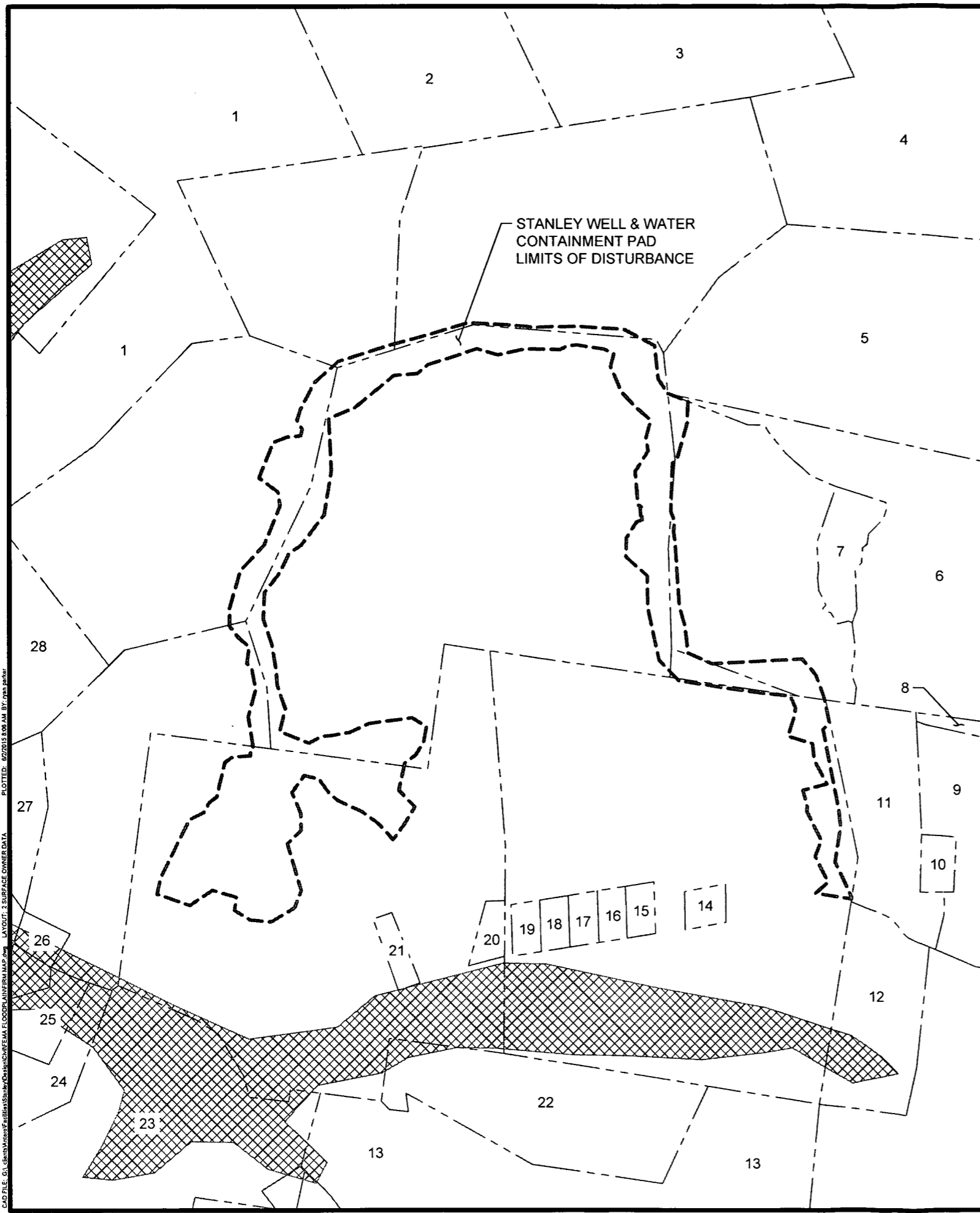
CADD FILE: G:\AnteroResources\Projects\West Virginia\Central District\Stanley Well & W.C. Pad\FLOOD_ZONE_MAP.dwg PLOTTED: 6/22/2015 8:08 AM BY: jmf/patm

LEGEND

- EXISTING PROPERTY LINE
- LIMIT OF DISTURBANCE
-  FLOOD HAZARD AREA

NOTES:

1. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE (FIRM) PANELS 5401C0200C & 5401C0225C INDICATE NO SPECIAL FLOOD HAZARD AREAS WITHIN THE PROJECT AREA.

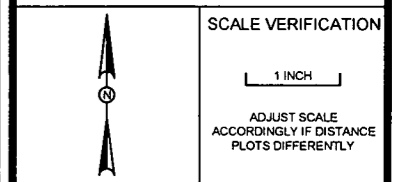


STANLEY SURFACE OWNER DATA								
PROPERTY #	OWNER	TAX MAP #	PARCEL #	DEED BOOK #	PAGE #	WILL BOOK #	PAGE #	ADDRESS
1	ROBERT & JACQUELINE BRITTON	11	11	239	347	-	-	RT 1 BOX 553 GREENWOOD, WV 26415
2	RANDY REESE & GARY WHEELER	12	25	-	-	38	219	RT 1 BOX 534 GREENWOOD, WV 26415
3	RANDY REESE & GARY WHEELER	12	16	-	-	38	219	RT 1 BOX 534 GREENWOOD, WV 26415
4	RAY HADSEL RICHARDS	12	27	143	101	-	-	RT 1 BOX 522 GREENWOOD, WV 26415
5	ROBERT WILLIAMS	12	36	213	223	-	-	RT 1 BOX 212 WEST UNION, WV 26456
6	ROBERT WILLIAMS	12	37	201	428	-	-	RT 1 BOX 212 WEST UNION, WV 26456
7	SHIRLEY J. WILLIAMS	12	37.1	168	561	-	-	RT 1 BOX 212A WEST UNION, WV 26456
8	OLIN & MARY PRIMM	12	1	153	251	-	-	RT 1 BOX 225 WEST UNION, WV 26456
9	ROBERT WILLIAMS	15	6.4	252	128	-	-	RT 1 BOX 212 WEST UNION, WV 26456
10	TURNING LEAF LLC	15	5	253	410	-	-	7004 WINTERBERRY LANE BETHESDA, MD 20817
11	ROBERT WILLIAMS	15	6	240	96	-	-	RT 1 BOX 212 WEST UNION, WV 26456
12	JOHN J. & KIMBERLY MAXWELL	15	6.2	274	566	-	-	358 COLOGNE PORT EGG HARBOR CITY, NJ 08215
13	JOHN K. DEBRULAR	15	12	136	456	-	-	2604 27TH ST PARKERSBURG, WV 26104
14	JAMES E. WEBB	15	4.0	221	17	-	-	RT 1 BOX 208-A WEST UNION WV 26456
15	BRIAN WEBB	15	3.2	261	458	-	-	RT 1 BOX 207 WEST UNION, WV 26456
16	DEREK S. WEBB	15	3.4	221	27	-	-	RT 1 BOX 206-A WEST UNION, WV 26456
17	DANIEL M. WEBB	15	3.6	221	33	-	-	RT 1 BOX 206-A WEST UNION, WV 26456
18	ASHLEY K. WEBB	15	3.3	221	24	-	-	RT 1 BOX 207 WEST UNION, WV 26456
19	BRIAN M. WEBB	15	3.5	221	30	-	-	RT 1 BOX 207 WEST UNION, WV 26456
20	JAMES E. WEBB	15	2.1	245	358	-	-	RT 1 BOX 208-A WEST UNION, WV 26456
21	ROBERT P. HARRIS LIFE	15	2.9	249	454	-	-	RT 1 BOX 207-1 WEST UNION, WV 26456
22	BETTY J. WHITEHAIR	15	11	AP25	134	-	-	RT 1 BOX 211 WEST UNION, WV 26456
23	WILLIAM P. BRITTON	15	10	243	480	-	-	RT 1 BOX 203 WEST UNION, WV 26456
24	WILLIAM P. & SHARON BRITTON	15	1	149	33	-	-	RT 1 BOX 203 WEST UNION, WV 26456
25	KEVIN P. BRITTON	15	1.4	235	670	-	-	RT 1 BOX 206-1 WEST UNION, WV 26456
26	ROBERT L. BRITTON	15	1.3	166	387	-	-	RT 1 BOX 553 GREENWOOD, WV 26415
27	WILLIAM P. & SHARON BRITTON	14	3	149	33	-	-	RT 1 BOX 203 WEST UNION, WV 26456
28	I. L. IKE MORRIS	11	8	230	307	-	-	PO BOX 397 GLENVILLE, WV 26351



230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16068
PHONE: 724-772-7072
WWW.KLEINFELDER.COM

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	FIRM NUMBER CHANGE	RAP	JBC	6/2/2015
		JMF		



300 150 0 300
SCALE: 1 INCH = 300 FEET
ORIGINAL DRAWING SIZE IS 22 x 34

SURFACE OWNER DATA
STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



FIRM MAP	
PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	0
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

C:\D:\FILE_G\J\AnteroResources\Projects\KICKSTART\FLOODPLAIN\MAP.LAYOUT_3 SURFACE OWNER DATA PLOTTED: 6/20/15 9:08 AM BY: JMD

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily depict all areas subject to flooding, nor does it depict the boundaries of individual parcels. The responsible map preparator should be consulted for accurate updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs), and/or Floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Floodway Data located within the Flood Insurance Study (FIS) Report that accompanies this FEMA. Users should be aware that BFEs shown on this map represent rounded elevation elevations. These BFEs are intended for flood insurance rating purposes only and should not be used for any other purpose of flood elevation information. Accordingly, flood elevation data presented in this FIS Report should be utilized in conjunction with the FIS Report for purposes of construction and/or floodplain management.

Designated Flood Elevations shown on this map apply only to buildings of 100 North American Vertical Datum of 1985 (NAVD 85). Users of this FIS should be aware that coastal flood elevations are also provided in the Boundary of Significant Floodway Data and the Flood Insurance Study Report for the jurisdiction. Elevations shown in the Summary of Significant Floodway Data should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIS.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The projection used in the production of this map was National Transverse Mercator (NTM) zone 17. The horizontal datum was NAD 83, GRS 1980 Spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of labels for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIS.

Flood elevations on this map are referenced to the North American Vertical Datum of 1985. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1985, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NGA-1876232
National Geodetic Survey
9500 VA Road
1215 East-West Highway
Crown Spring, Maryland 20775-3026
(410) 773-8032

To obtain current elevation, description, and/or location information for brands marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (202) 715-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map created by the NY Economic Planning and Mapping Board (EMRB) using data collected at a scale of 1:20,000 to the north of 2000 for the purpose of showing natural geographic features at a 2' pixel resolution.

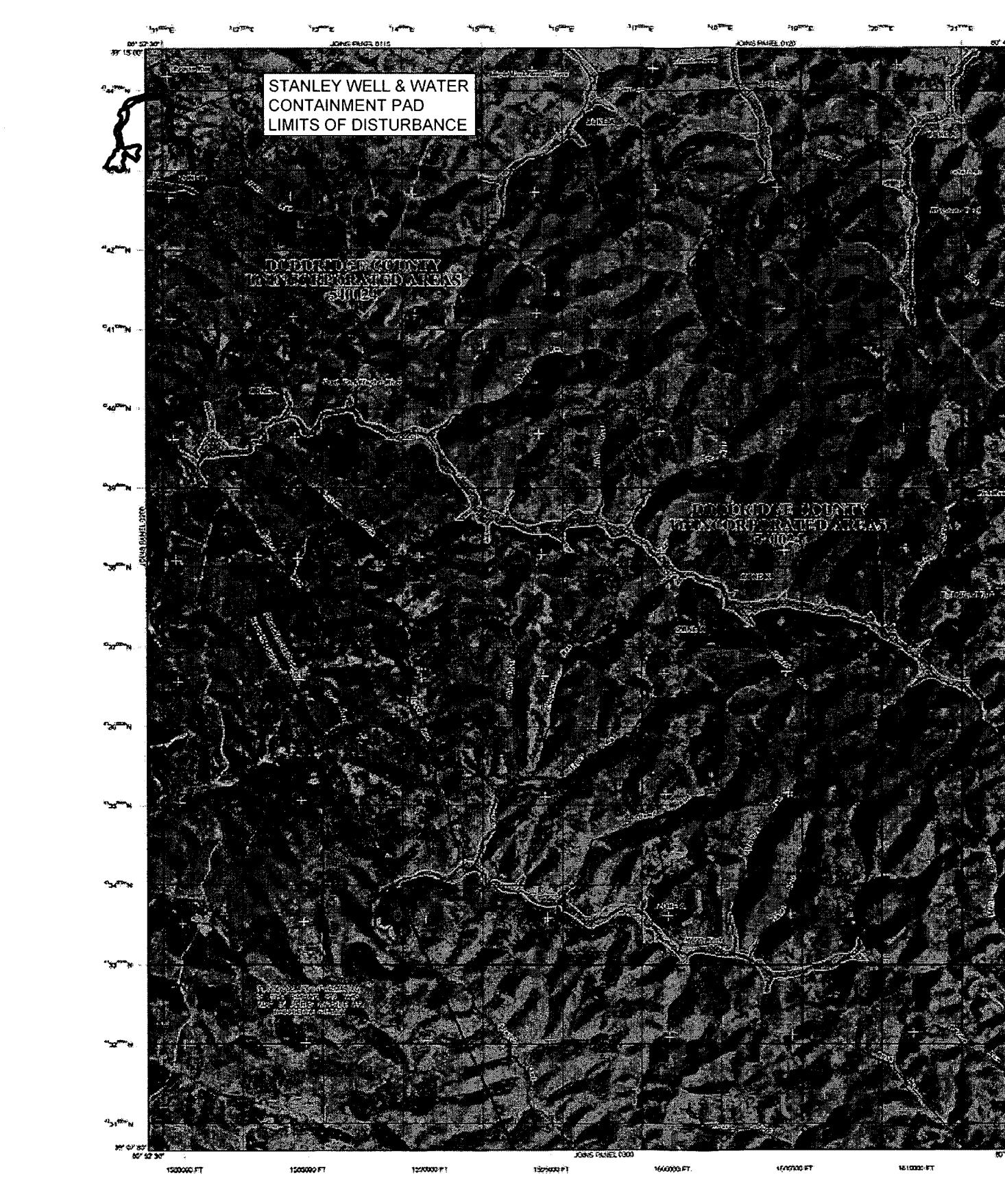
This map reflects the existing and up-to-date stream channel configurations from those shown on the previous FIS for this jurisdiction. The floodway boundaries that were transferred from the previous FIS may have been adjusted to conform to these more current channel configurations. As a result, the Flood Profiles and Floodway Data tables in multiple sheets in the Flood Insurance Study Report (which contain authoritative hydraulic data) may reflect stream channel locations that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to incorporations or disincorporations may have occurred since this map was published, map users should contact appropriate community officials to verify current corporate limits locations.

Please refer to the respective community map sheets for an overview map of the county showing the layout of map sheets, community map structure abbreviations, and a listing of communities with National Flood Insurance Program data for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIS visit the Map Service Center (MSC) website at <http://www.fema.gov>. Available products may include previously issued editions of this FIS, Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or acquired directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the FIS Map Information Challenge (FIMIC) at 1-877-FEMA-HELP (1-877-366-3267) or visit the FEMA website at www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD

The 1% Annual Chance Flood (ACF) was shown as the base Flood in the Flood Insurance Study Report for this jurisdiction. The 1% Annual Chance Flood is the most frequent flood of this type to which the community is likely to be subjected during its life span. The 1% Annual Chance Flood is the same as the 1% Annual Flood.

ZONE A: No Base Flood Elevations determined.

ZONE B: Base Flood Elevations determined.

ZONE AH: Flood depths of 1 to 3 feet (shallow water) at average flow; Base Flood Elevation determined.

ZONE AD: Flood depths of 3 to 5 feet (shallow water) on average flow; average monthly determination; for areas of shallow flow, flooding depths are determined.

ZONE AE: Special Flood Hazard Areas (SFHAs) protected from the 1% Annual Chance Flood by a flood control structure (such as a levee, dike, or wall) with a return period of 500 years.

ZONE AP: Areas to the upstream of a flood control structure that are protected from the 1% Annual Chance Flood by a federal flood protection system which has a return period of 100 years.

ZONE V: Coastal flood areas with velocity hazard shown; no base Flood Elevation determined.

ZONE VE: Coastal flood areas with velocity hazard shown; Base Flood Elevation determined.

FLOODWAY AREAS IN ZONE AE:

The boundary of the Floodway for a Floodway in Zone AE is shown as a dashed line with the 1% Annual Chance Flood can be carried without excessive flowback in floodway.

OTHER FLOOD AREAS

ZONE F: Areas of 1 to 3 feet (shallow water) at average flow; Base Flood Elevation determined; for areas of shallow flow, flooding depths are determined.

OTHER AREAS

ZONE H: Areas shown as hazardous for the 1% Annual Chance Flood; Areas in which flood hazards are undetermined; for Zone H.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

Other areas and structures protected within an approved Floodway Protection System (FPS) or other flood control structure.

CBRS AREAS:

Coastal Barrier Resources System (CBRS) - Areas of coastal barrier resources (CBRS) which are not included in the Flood Insurance Study Report.

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Coastal Barrier Resources System (CBRS) - Areas of coastal barrier resources (CBRS) which are not included in the Flood Insurance Study Report.

Reference to the North American Vertical Datum of 1985:

Flow direction:

Flow direction arrows shown on the map are based on the 1% Annual Chance Flood (ACF) data.

CONTRACT INFORMATION:

Contract information referenced to the North American Vertical Datum of 1985 (NAVD 85) is shown as follows:

1:25000 FT: 500-403 HAZ. West Virginia State Plans (West Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1).

1:25000 FT: 500-403 HAZ. West Virginia State Plans (West Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1).

1:25000 FT: 500-403 HAZ. West Virginia State Plans (West Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1).

DATE: The date of publication is shown in the upper right corner of the FIS Report.

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REVISIONS					
REV	DESCRIPTION	DSN	CHK	DATE	
1	WELL PAD REVISION	CHT	JBC	3/9/2015	
2	FIRM NUMBER CHANGE	RAP	JBC	6/2/2015	

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

FIRM

FLOOD INSURANCE RATE MAP

DODDRIDGE COUNTY, WEST VIRGINIA AND INCORPORATED AREAS

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

CONTRACT: 500-403 HAZ. West Virginia State Plans (West Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1), Eastern Lateral Area (East Virginia, Zone A-1).

DATE: The date of publication is shown in the upper right corner of the FIS Report.

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MAP NUMBER: 5401TC225C

MAP REVISION: OCTOBER 4, 2011

Federal Emergency Management Agency

ORIGINAL DRAWING SIZE IS 22 x 34

FIRM MAP

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA

Antero Resources

FIRM MAP

PROJECT NO.	20150862.001A	
ISSUE DATE	02-25-2015	
CURRENT REVISION	0	
DESIGNED BY	CHT	
DRAWN BY	-	
CHECKED BY	JBC	
APPROVED BY	JMF	

SHEET 3 of 4

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
1	WELL PAD REVISION	CHT	JBC	3/9/2015
2	FIRM NUMBER CHANGE	RAP	JBC	6/2/2015

SCALE VERIFICATION

1 INCH

ADJUST SCALE ACCORDINGLY IF DISTANCE PLOTS DIFFERENTLY

ORIGINAL DRAWING SIZE IS 22 x 34

FIRM MAP

STANLEY WELL & W.C. PAD
CENTRAL DISTRICT, DODDRIDGE COUNTY
WEST VIRGINIA



FIRM MAP

PROJECT NO.	20150962.001A
ISSUE DATE	02-25-2015
CURRENT REVISION	0
DESIGNED BY	CHT
DRAWN BY	-
CHECKED BY	JBC
APPROVED BY	JMF

SHEET 4 of 4

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO ENFORCEMENT BY THE 1% ANNUAL CHANCE FLOOD
The 1% annual chance flood (ACF) map (Panel C200C) shows the 1% annual chance flood (ACF) hazard areas. The 1% annual chance flood (ACF) hazard areas are the areas subject to flooding by the 1% annual chance flood (ACF). The 1% annual chance flood (ACF) hazard areas are the areas subject to flooding by the 1% annual chance flood (ACF). The 1% annual chance flood (ACF) hazard areas are the areas subject to flooding by the 1% annual chance flood (ACF).

OTHER FLOOD AREAS

COASTAL HURRICANE RESOURCES SYSTEM (CHRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

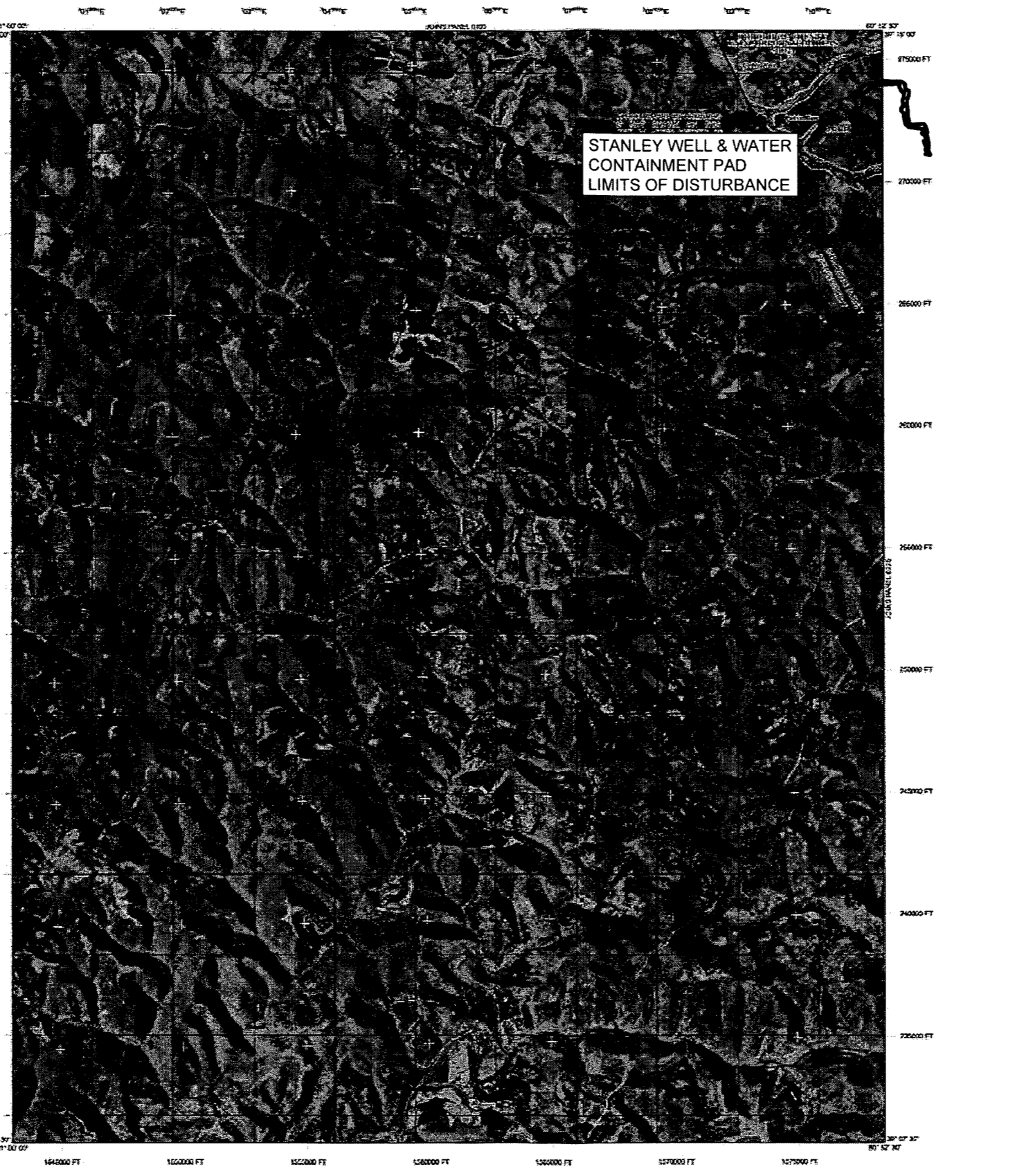
MAP REVISIONS

EFFECTIVE DATE OF FLOOD HAZARD MAPPING

EFFECTIVE DATE OF FLOOD HAZARD MAPPING

MAP SCALE 1" = 2000'

STANLEY WELL & WATER CONTAINMENT PAD LIMITS OF DISTURBANCE



NOTES TO USERS

This 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 low tide. The community map repository should be consulted for possible updates of additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or Floodway Limits have been determined, users are encouraged to consult the Flood Profiles and Floodway Limits and/or Summary of Damaged Elevations tables contained within the Flood Insurance Study (FIS) Reports for the community. Users should be aware that BFEs shown on the FIS are representative whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS (Reports) should be utilized in conjunction with the FIS for purposes of construction and floodplain management.

Coastal Base Flood Elevations shown on this map apply only to coastal areas of the North American Vertical Datum of 1988 (NAVD 88). Users of this FIS should be aware that coastal flood elevations are also provided in the Summary of Damaged Elevations tables in the Flood Insurance Study Report for the jurisdiction. Elevations shown in the Summary of Damaged Elevations tables should be used for construction and floodplain management purposes when they are higher than the elevations shown on this FIS.

Certain areas not in Special Flood Hazard Areas may be protected by flood vented structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood vented structures for the jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 17. The horizontal datum was NAD 83, GRS 1980 spheroid. Differences in datum, projection, or datum conversion used in the preparation of FISs for adjacent jurisdictions may result in slight positional differences to map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIS.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geospatial Vertical Datum of 1929 and the North American Vertical Datum of 1988, call the National Geospatial Data Service at 1-877-676-6768 or contact the National Geospatial Survey at the following address:

NCGS Information Services
NDMA, RMG512
National Geospatial Survey
5540-3, W5002
3115 Road-Peak Highway
Silver Spring, Maryland 20910-0202
(301) 741-3342

To obtain current elevation, description, and/or location information for lands marks shown on this map, please contact the Information Service Branch of the National Geospatial Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map created by the West Virginia State Addressing and Mapping Board (SAMB). Imagery was captured at a scale of 1:24000 in the spring of 2003 for the purpose of producing national color digital orthophotos at a 30-foot resolution.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIS for this jurisdiction. The boundaries and floodway limits shown on this map may have been updated to conform to these new channel configurations. As a result, the Flood Profiles and Floodway Limits tables for multiple channels in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel configurations that differ from what is shown on this map.

Corporate data shown on this map are based on the best data available at the time of publication. Because changes due to acquisitions or divestitures may have occurred after this map was published, map users should contact jurisdiction community officials to verify current corporate land boundaries.

Please refer to the specially printed blue labels for an overview map of the county showing the layout of map sheets. Community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program data for each community as well as a listing of the people on which each community is located.

For information on available products associated with the FIS visit the Web Service Center (WSC) website at <http://www.flood.gov>. Available products may include previously issued FIS, Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or downloaded directly from the WSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information exchange (INFO) at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.