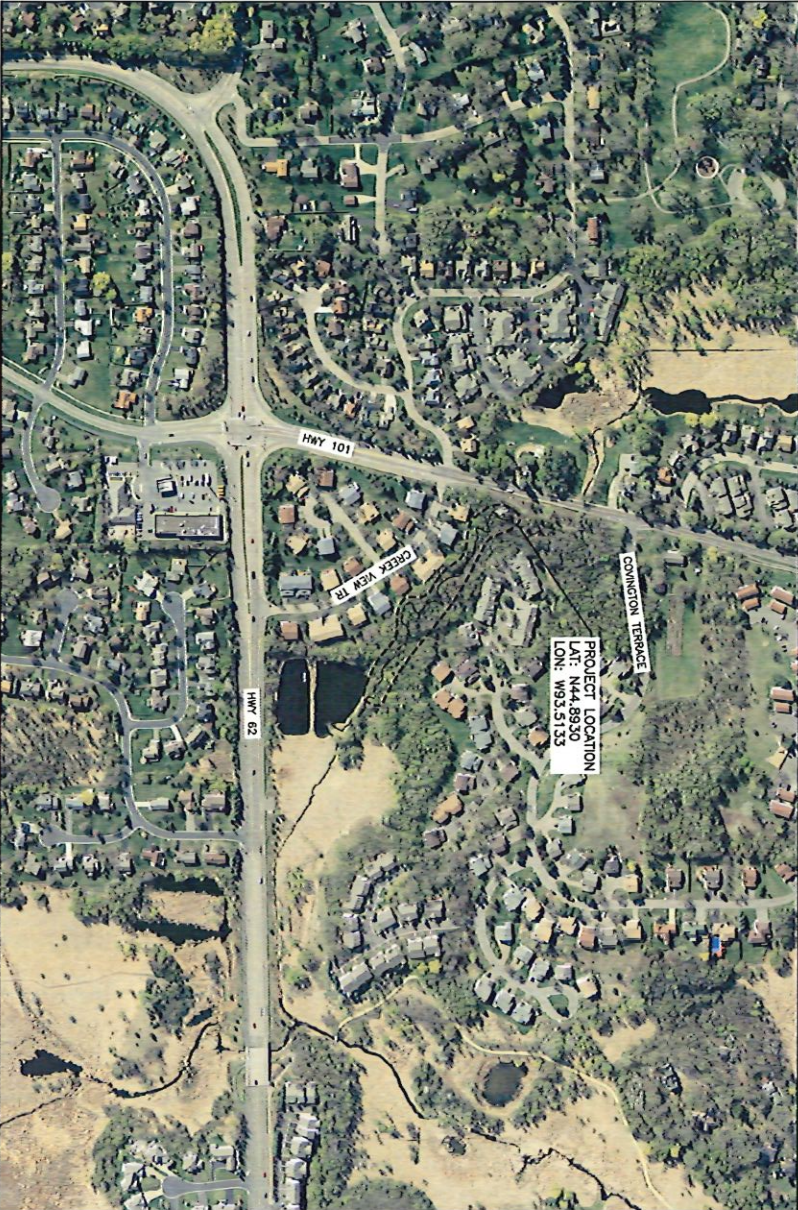


PURGATORY CREEK AT HWY 101 STABILIZATION PROJECT

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT



NOTE: TOPOGRAPHY AND MASTER REFERENCE
 MINNESOTA DEP. MINNESOTA COUNTY IS 1991

NO. BY CHG/APP	DATE	REVISION DESCRIPTION

DATE	BY	DESCRIPTION

PROJECT OFFICE:	DATE:
4700 WEST 77TH STREET	12/29/14
MINNEAPOLIS, MN 55425	09/03
PH: 763-823-2377	2009
FAX: 763-823-2381	2009
WWW.BARRCONSULTANTS.COM	

RILEY PURGATORY
 BLUFF CREEK
 WATERSHED DISTRICT

PURGATORY CREEK AT HWY 101
 SHEET INDEX AND
 LOCATION MAP

BARR CONSULTANTS
 PROJECT NO. 23/27-0053.14
 CLIENT PRODUCT NO. C-01
 SHEET NO. 8

ISSUED FOR
 BID

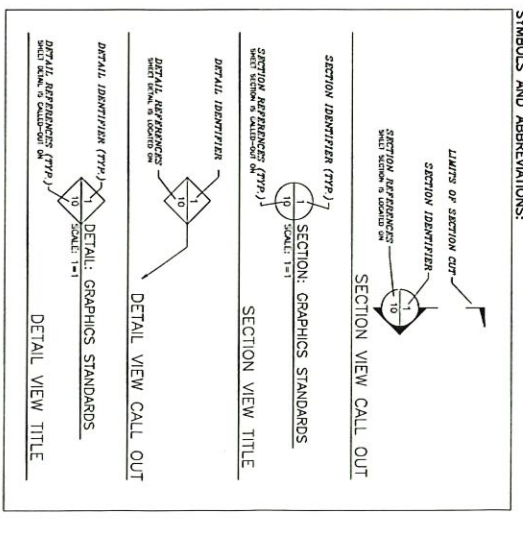
CONTACTS:

DESIGNER CONTACT:
 Jeff Wenzel
 4700 West 77th Street
 Minneapolis, MN 55425
 952-823-2300
 jwenzel@barr.com

OWNER'S REPRESENTATIVE CONTACT:
 Julie Bremer
 P.O. Box 1590
 Eden Prairie, MN 55344
 952-607-6512
 julie@edenprairie.org

SHEET INDEX:

DWG.	SHEET NAME
C-01	SHEET INDEX AND LOCATION MAP
C-02	SHEET LAYOUT
C-01	CREEK RESTORATIONS STA. 0+00 TO 3+50
C-02	CREEK RESTORATIONS STA. 3+50 TO 8+00
C-03	CREEK RESTORATIONS STA. 8+00 TO 10+84
C-04	SECTIONS - SITES 12 THROUGH 19
C-05	SECTIONS - SITES 18 THROUGH 24
L-01	THEE INVENTORY AND REVEGETATION PLAN STA. 0+00 TO 3+50
L-02	THEE INVENTORY AND REVEGETATION PLAN STA. 3+50 TO 8+00
L-03	THEE INVENTORY AND REVEGETATION PLAN STA. 8+00 TO 10+84
D-01	VESS SECTIONS AND DETAILS
D-02	ROOT WAD AND LOG WAD SECTIONS AND DETAILS
D-03	HOOK WAD AND CROSS WAD SECTIONS AND DETAILS
D-04	EROSION AND SEDIMENT CONTROL DETAILS
D-05	EROSION AND SEDIMENT CONTROL
D-06	SWPPP



NO.	BY	CHK/APP	DATE	REVISION DESCRIPTION

REVISION	DATE	DESCRIPTION
A		
B		
C		
1		
2		
3		

NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION



NOTE:
 1. COORDINATES ARE IN HENNINGSEN COUNTY COORDINATE SYSTEM.
 2. FOR MARKER DETAIL, SEE **BID**

Point Number	Northing	Eastng
1000	137118.5	486227.5
1001	137140.4	486235.8
1002	137167.5	486219.3
1003	137174.8	486198.4
1004	137180.3	486179
1005	137212.4	486174.9
1006	137217	486180.8
1007	137201.7	486133.8
1008	137256.8	486118.7
1009	137218.4	486101.0
1010	137239.9	486085.2
1011	137267.4	486040.9
1012	137296.8	486030.3
1013	137405.8	486078.9
1014	137401.4	486028.6
1015	137408.3	486029.8
1016	137435.2	486090.4
1017	137437.2	486088.3
1018	137455.2	486025.5
1019	137466.3	486033.6
1020	137609.3	486007.7
1021	137602.2	486091.4
1022	137501.6	486062
1027	137486.2	486078.6
1028	137463.4	486084.1
1029	137403.1	486087.8
1033	137296.3	486116.2
1034	137290.8	486129.4
1040	137256.7	486218.9
1045	137274.6	486208.4
1026	137252	486208.8
1027	137229.7	486230.7
1028	137170.1	486227.4
1029	137082.5	486282.8
1030	137035.1	486255.8
1031	137022	486248.3
1032	137060.3	486279.7
1033	137063.3	486241.6
1034	137058.4	486209.6
1035	137108.9	486240
1036	137147.3	486294.5

ISSUED FOR
 PURGATORY CREEK AT HWY 101
 CREEK STABILIZATION
 SHEET LAYOUT
 DATE: PRODUCT NO. 23/21-0053.14
 CLIENT: PROJECT NO. C-02
 DRAWN BY: B

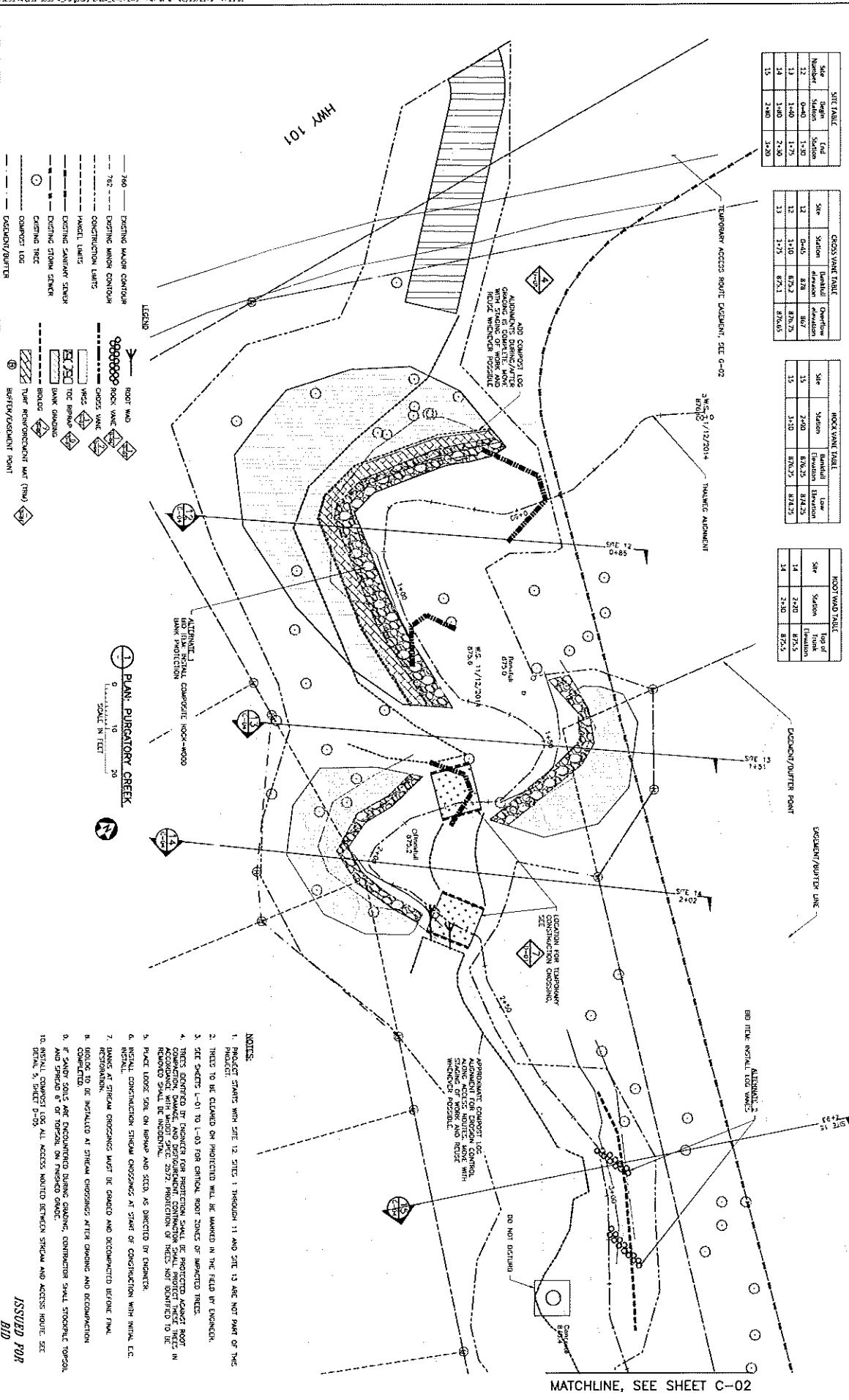
NO.	BY	CHKD	APPD	DATE	REVISION DESCRIPTION

NO.	BY	CHKD	APPD	DATE	REVISION DESCRIPTION

NO.	BY	CHKD	APPD	DATE	REVISION DESCRIPTION

NO.	BY	CHKD	APPD	DATE	REVISION DESCRIPTION

NO.	BY	CHKD	APPD	DATE	REVISION DESCRIPTION



Site Number	Begin Station	End Station
12	0+00	1+50
13	1+00	1+75
14	1+80	2+50
15	2+80	3+50

Site	Station	Span/Height	Overturn Elevation
12	0+40	8/20	807
13	1+10	8/20	870.25
14	1+75	8/20	870.65

Site	Station	Span/Height	Low Elevation	High Elevation
13	2+00	3/10	870.25	874.25
14	2+50	3/10	870.25	874.25

Site	Station	Top of Bank Elevation	Top of Rootwad Elevation
14	2+50	875.5	875.5

- NOTES:**
- PROJECT STARTS WITH SITE 12, SITES 1 THROUGH 11 AND SITE 13 ARE NOT PART OF THE PROJECT.
 - THESE TO BE CLEARED OR PROTECTED WILL BE MARKED IN THE FIELD BY ENGINEER.
 - SITE SHEETS L-01 TO L-03 FOR CRITICAL ROOT ZONES OF IMPACTED TREES.
 - THESE ARE TO BE INSTALLED AT STREAM CROSSINGS AFTER GRADING AND DECOMMISSION RESTORATION.
 - IF SANDY SOILS ARE ENCOUNTERED DURING GRADING, CONSTRUCTION SHALL STOP/PAUSE FOR 24 HOURS TO ALLOW FOR SOIL STABILIZATION.
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ISSUED FOR
 BID

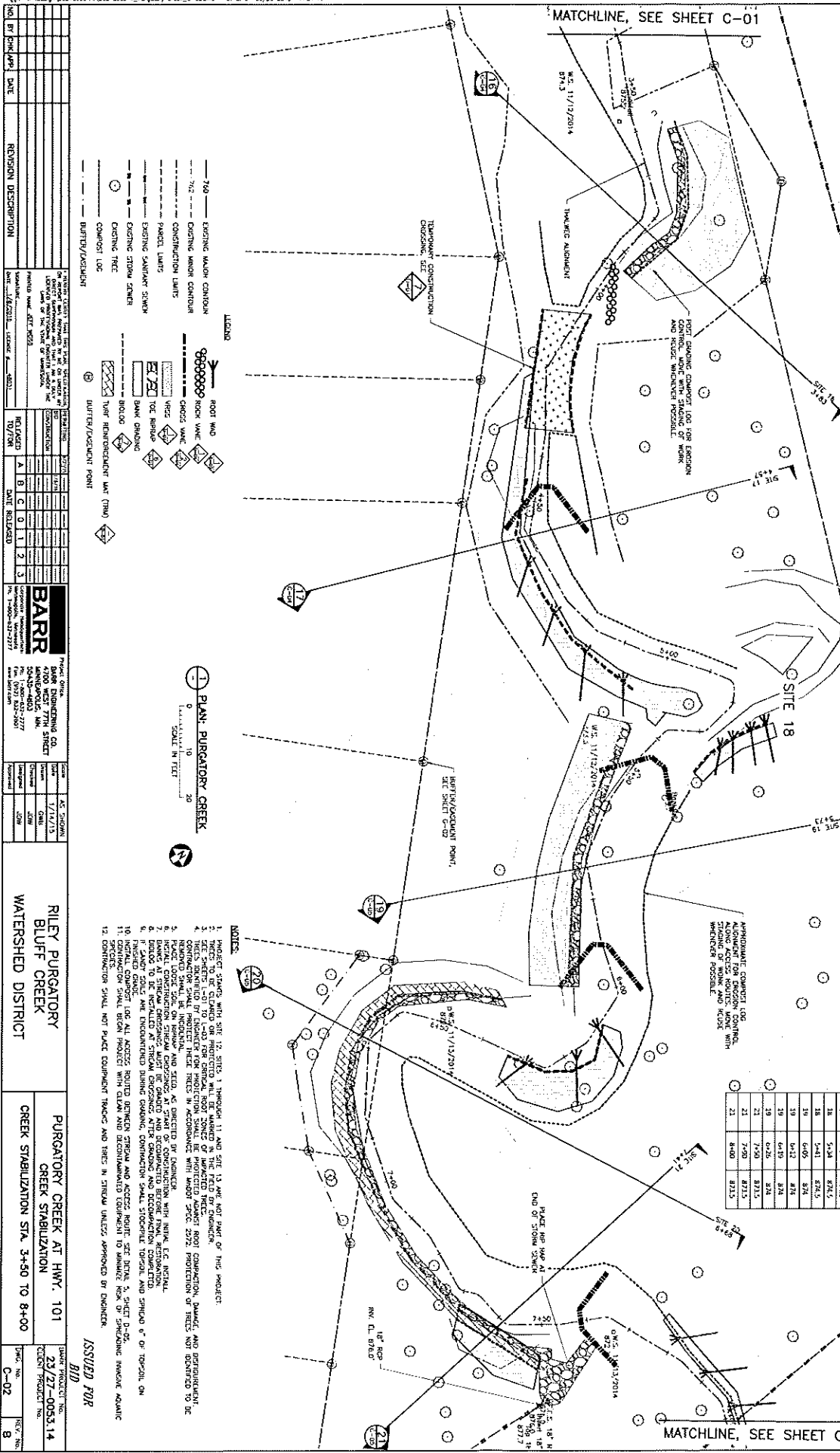
PURGATORY CREEK AT HWY. 101
 CREEK STABILIZATION STA. 0+00 TO 3+50

DATE PROJECT NO. 2/27/2014
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 PROJECT NO. C-01
 REV. NO. B

MATCHLINE, SEE SHEET C-02

Station	Bankfull Elevation	Overbank Elevation
17	4-50	823.5
17	4-40	823.5
17	4-30	823.5
17	4-20	823.5
17	4-10	823.5
17	4-00	823.5
17	3-50	823.5
17	3-40	823.5
17	3-30	823.5
17	3-20	823.5
17	3-10	823.5
17	3-00	823.5

Station	Bankfull Elevation	Low Elevation
18	3+95	818



NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

NO.	BY	CHK	APP.	DATE	DESCRIPTION

ISSUED FOR
 8/10
 RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT CREEK STABILIZATION STA. 3+50 TO 8+00
 DATE PROJECT NO.
 2/3/27-0053.14
 DRAWING NO.
 C-02
 SHEET NO.
 8

BARR
 PROJECT OFFICE
 ENGINEERING CO.
 4750 WEST 77TH STREET
 MANDANVILLE, MN.
 TEL: 763-832-2277
 FAX: 763-832-2777

PROJECT NOTES
 1. PROJECT STAYS WITH SITE 12, SITE 11 AND SITE 13 ARE NOT PART OF THIS PROJECT.
 2. SEE SHEETS 1-31 TO 1-40 FOR CRITICAL BODY TOPOGRAPHY.
 3. CONSTRUCTION SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 4. REMOVED SHALL BE REMOVED AND SITE AS DIRECTED BY INSPECTOR.
 5. METAL CONSTRUCTION SHALL BE METAL AND SHALL BE CONSTRUCTION WITH NINJA L.C. METAL.
 6. EXISTING TOPOGRAPHY MUST BE OBTAINED AND DETERMINED BEFORE FINAL CONSTRUCTION.
 7. ALL GRADING SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 8. ALL GRADING SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 9. ALL GRADING SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 10. CONSTRUCTION SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 11. CONSTRUCTION SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 12. CONSTRUCTION SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.

SCALE IN FEET
 0 10 20

LEGEND
 --- EXISTING MAJOR CONTOUR
 --- EXISTING MINOR CONTOUR
 - - - CONSTRUCTION LIMITS
 - - - PARCEL LIMITS
 --- EXISTING SANITARY SEWER
 --- EXISTING STORM SEWER
 --- EXISTING TREE
 --- COMPOST LID
 --- BUTTE/POCDAMENT

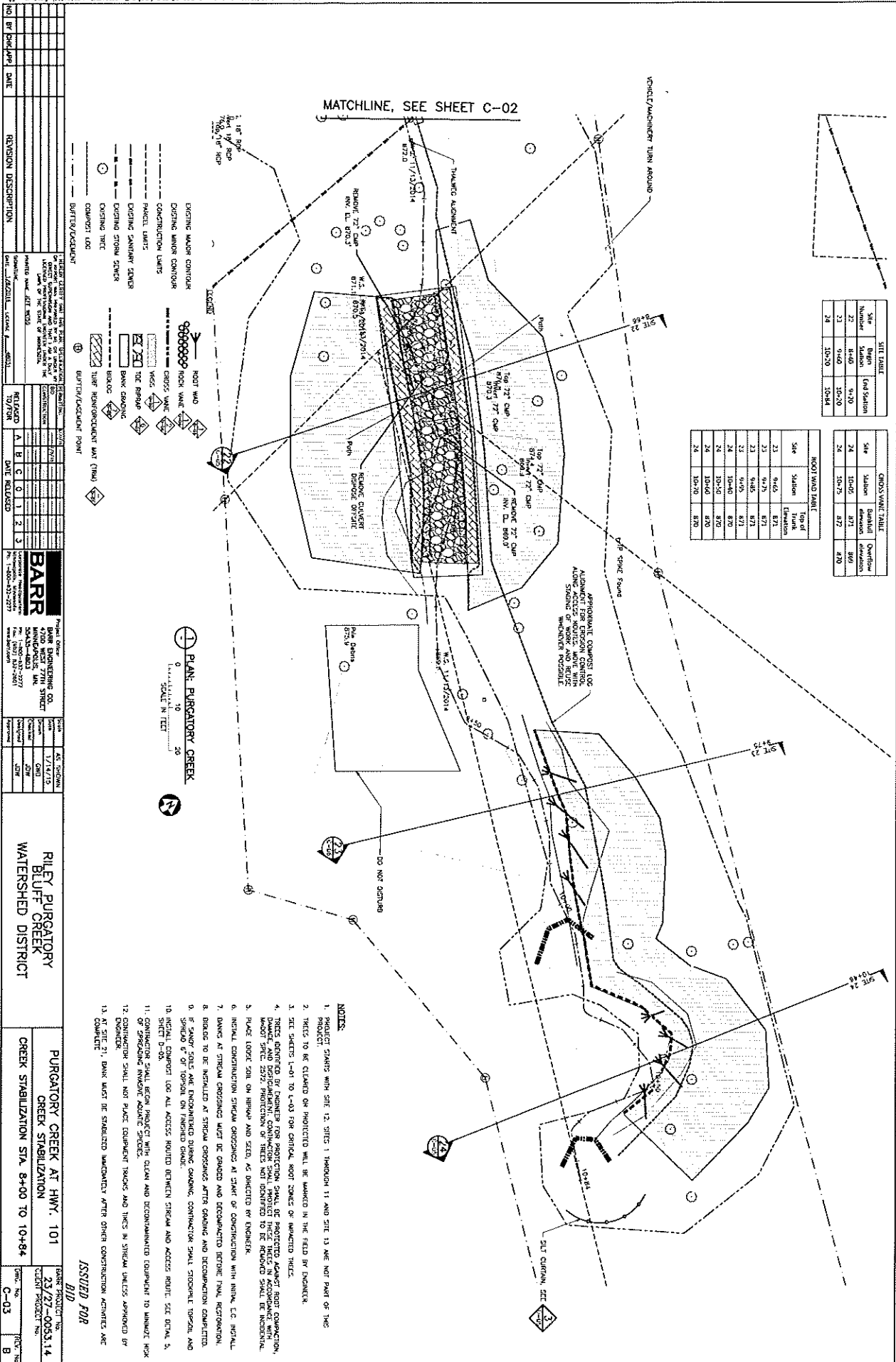
ROOT WALK
 --- ROCK WALK
 --- CHECK WALK
 --- VECS
 --- TOE BRIDGE
 --- BANK GRADING
 --- TYPED REINFORCEMENT MAT (TRM)
 --- BUTTE/POCDAMENT POINT

PLAN - PURGATORY CREEK
 SCALE IN FEET
 0 10 20

APPROXIMATE COMPACT LBS.
 ALONG EACH SIDE OF THE ROAD WITH WHICHEVER POSSIBLE.

Station	Top of Road Elevation	
17	4+40	824.5
17	4+30	824.5
17	4+20	824.5
17	4+10	824.5
17	4+00	824.5
17	3+50	824.5
17	3+40	824.5
17	3+30	824.5
17	3+20	824.5
17	3+10	824.5
17	3+00	824.5
17	2+50	824.5
17	2+40	824.5
17	2+30	824.5
17	2+20	824.5
17	2+10	824.5
17	2+00	824.5
17	1+50	824.5
17	1+40	824.5
17	1+30	824.5
17	1+20	824.5
17	1+10	824.5
17	1+00	824.5
17	0+50	824.5
17	0+40	824.5
17	0+30	824.5
17	0+20	824.5
17	0+10	824.5
17	0+00	824.5

NOTES
 1. PROJECT STAYS WITH SITE 12, SITE 11 AND SITE 13 ARE NOT PART OF THIS PROJECT.
 2. SEE SHEETS 1-31 TO 1-40 FOR CRITICAL BODY TOPOGRAPHY.
 3. CONSTRUCTION SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 4. REMOVED SHALL BE REMOVED AND SITE AS DIRECTED BY INSPECTOR.
 5. METAL CONSTRUCTION SHALL BE METAL AND SHALL BE CONSTRUCTION WITH NINJA L.C. METAL.
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 11. CONSTRUCTION SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.
 12. CONSTRUCTION SHALL BE ACCORDING TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT.



Site Number	Station	End Station
22	8+60	9+10
23	9+60	10+20
24	10+20	10+84

Site Number	Start Station	End Station	Volume
24	10+20	8+70	410

Site Number	Start Station	End Station	Volume
22	9+60	8+70	871
23	9+60	8+70	871
24	10+20	8+70	870
24	10+20	8+70	870

NO.	BY	DATE	REVISION DESCRIPTION

DATE	BY	DESCRIPTION

DATE	BY	DESCRIPTION

BARR
 PROJECT ENGINEER
 4750 WEST 77TH STREET
 MINNEAPOLIS, MN 55412
 TEL: 763-421-2277
 FAX: 763-421-2277

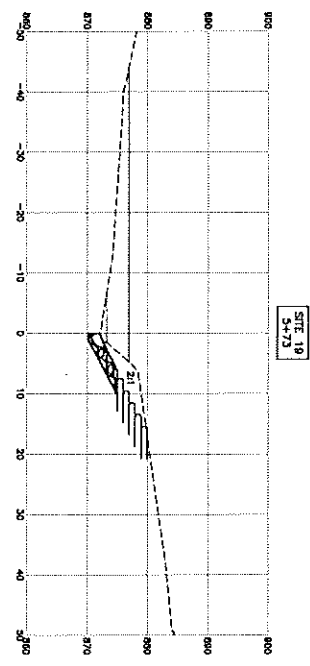
PURGATORY CREEK AT HWY. 101
 CREEK STABILIZATION STA. 8+00 TO 10+84

DATE: 01/25/2018
 SHEET: C-03
 SCALE: 1"=20'

- NOTES:**
- PROJECT STARTS WITH SITE 12, SITES 1 THROUGH 11 AND SITE 13 ARE NOT PART OF THIS PROJECT.
 - TREES TO BE CLEARED OR PROTECTED WILL BE MARKED IN THE FIELD BY ENGINEER.
 - SITE SPECIES L-01 TO L-03 FOR CRITICAL ROOT ZONES OR IMPACTED TREES.
 - TREES IDENTIFIED BY ENGINEER FOR PROTECTION SHALL BE PROTECTED AGAINST ROOT PRODUCTION, DAMAGE, AND DECOMPOSITION. CONTRACTOR SHALL PROTECT THESE TREES IN ACCORDANCE WITH MINN. RULES 2272. PROTECTION OF TREES NOT IDENTIFIED TO BE REMOVED SHALL BE INCIDENTAL.
 - PLACE LOGS IN STREAM ON BERM AND SEED, AS DIRECTED BY ENGINEER.
 - INSTALL CONSTRUCTION STRIP CROSSINGS AT START OF CONSTRUCTION WITH MINN. C.C. INSTALL.
 - DAMMS AT STREAM CROSSINGS MUST BE CLEANED AND DECOMMISSIONED BEFORE FINAL RESTORATION.
 - DAMMS TO BE INSTALLED AT STREAM CROSSINGS AFTER GRADING AND DECOMPOSITION COMPLETED.
 - IF SANDY SOILS ARE ENCOUNTERED DURING DAMMING, CONTRACTOR SHALL STOPPILLOT TRENCH AND SPREAD 6" OF TOPSOIL ON FINISHED GRADE.
 - INSTALL COMPOST LOG ALL ACCESS ROUTES BETWEEN STREAM AND ACCESS ROUTE. SEE DETAIL 5, SHEET D-08.
 - CONTRACTOR SHALL BEGIN PROJECT WITH CLEAN AND DECOMMISSIONED EQUIPMENT TO MINIMIZE WORK OF SPREADING IMPURE AGRICULTURAL PRODUCTS.
 - CONTRACTOR SHALL NOT PLACE EQUIPMENT TRACKS AND TIRES IN STREAM UNLESS APPROVED BY ENGINEER.
 - AT SITE 21, DAM MUST BE STABILIZED IMMEDIATELY AFTER OTHER CONSTRUCTION ACTIVITIES ARE COMPLETED.

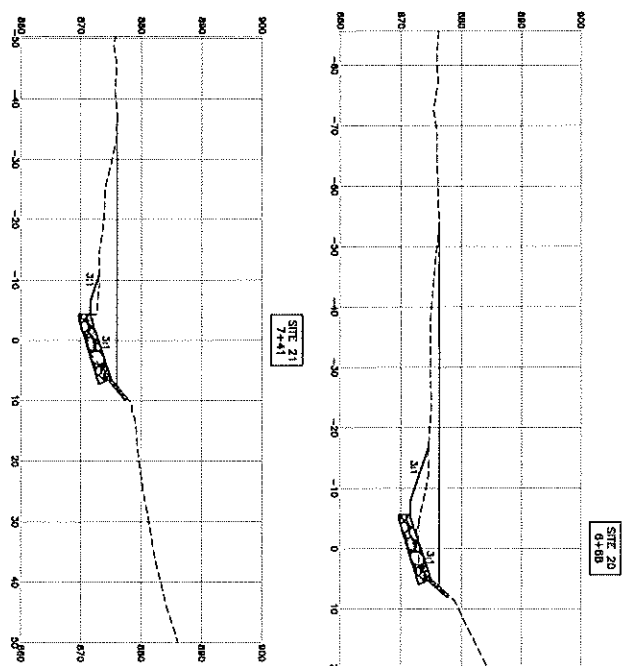
ISSUED FOR

SITE 18 - NO CROSS SECTION



- 1. ALL CUT VOLUMES SHALL BE DISPOSED OFF-SITE.
- 2. FILL QUANTITIES INCLUDE STABILIZATION FILTERS AND MATERIAL USED FOR ROCK WALLS.

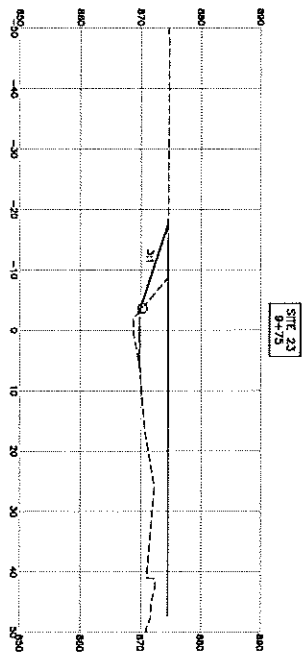
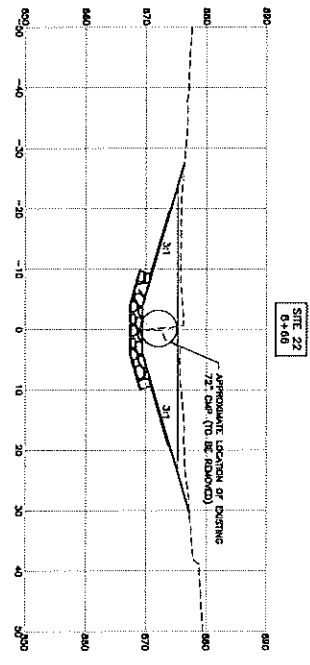
Site No.	Total Vol. (CY)	Total Vol. (CY)
17	509	44
18	50	77
19	79	13
20	11	11
21	0	0
22	0	0
23	179	55
24	147	94
25	40	0
26	40	0



LEGEND

- WSSS
- TIN
- RIPIRAP
- GRAVEL
- DESIGNING GRAVEL
- 100-YR WSE
- 60-YR FLOW WSE
- BOLDS
- ROCK WALL

SECTIONS: 19 THROUGH 24



NO. OF SHEETS	DATE	REVISION DESCRIPTION

PROJECT: PURGATORY CREEK AT HWY. 101
 LOCATION: RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
 SHEET: 23/27-0053.14
 DATE: 12/21/2013

BARR
 CIVIL ENGINEERING CO.
 1000 W. BROADWAY
 ANNAPOLIS, MD 21403
 TEL: (410) 291-1800
 FAX: (410) 291-1801

DESIGNED BY: J. S. SHOWN
 CHECKED BY: J. S. SHOWN
 DATE: 1/17/13

PURGATORY CREEK AT HWY. 101
 CREEK STABILIZATION
 SECTIONS 18 THROUGH 23

ISSUED FOR: BID
 BARR PROJECT NO.: 23/27-0053.14
 CDIST PROJECT NO.: C-05
 REVISION: B

PLANTING SCHEDULE (PLANTING SITES 12-15)

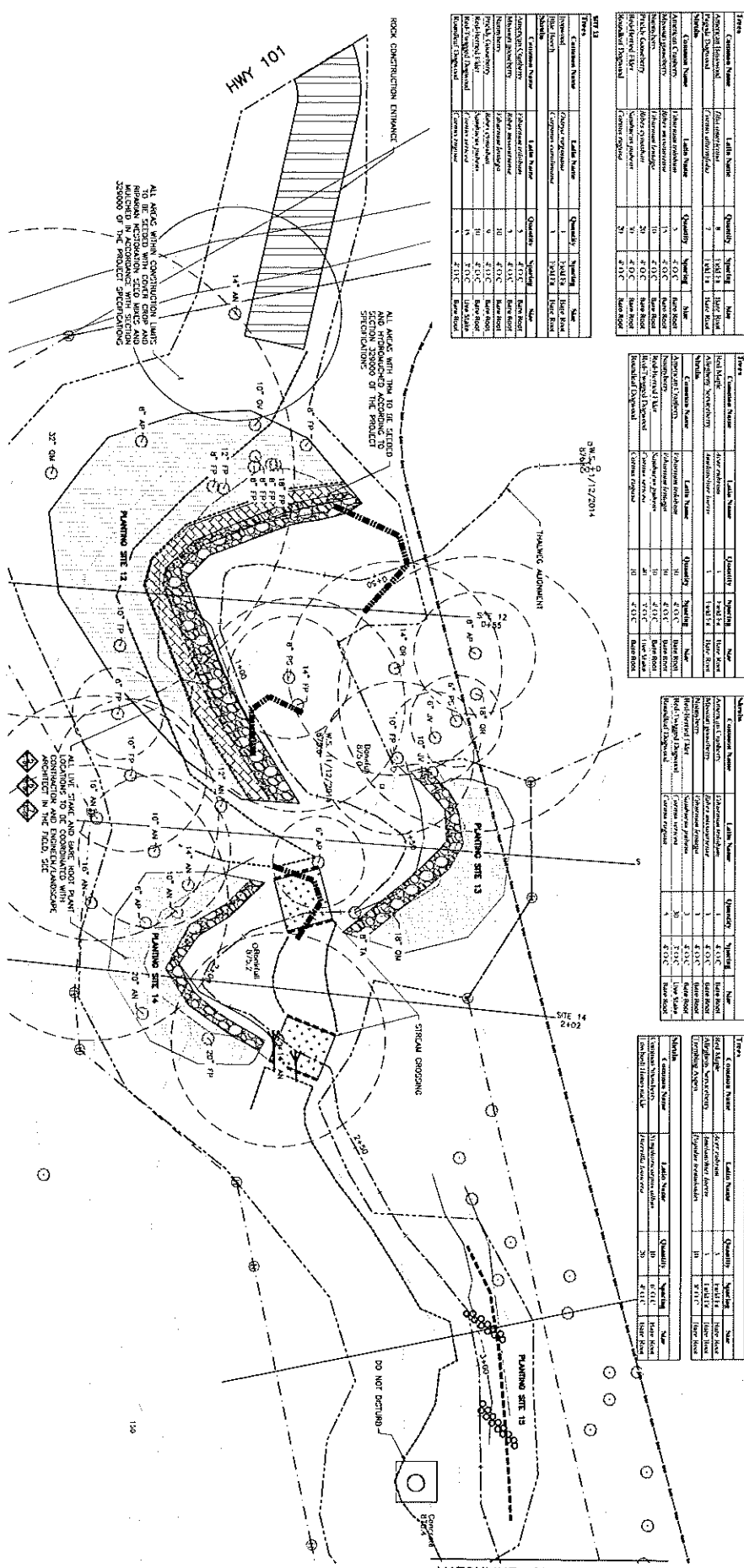
Planting Site	Quantity	Species	Size
Site 12	1	4.0" C	Bar Root
Site 13	1	4.0" C	Bar Root
Site 14	1	4.0" C	Bar Root
Site 15	1	4.0" C	Bar Root

Planting Site	Quantity	Species	Size
Site 12	1	4.0" C	Bar Root
Site 13	1	4.0" C	Bar Root
Site 14	1	4.0" C	Bar Root
Site 15	1	4.0" C	Bar Root

Planting Site	Quantity	Species	Size
Site 12	1	4.0" C	Bar Root
Site 13	1	4.0" C	Bar Root
Site 14	1	4.0" C	Bar Root
Site 15	1	4.0" C	Bar Root

Planting Site	Quantity	Species	Size
Site 12	1	4.0" C	Bar Root
Site 13	1	4.0" C	Bar Root
Site 14	1	4.0" C	Bar Root
Site 15	1	4.0" C	Bar Root

Planting Site	Quantity	Species	Size
Site 12	1	4.0" C	Bar Root
Site 13	1	4.0" C	Bar Root
Site 14	1	4.0" C	Bar Root
Site 15	1	4.0" C	Bar Root



LEGEND

- 750 --- CHANGING MAJOR CONTOUR
- 750 --- CHANGING MINOR CONTOUR
- CONSTRUCTION LIMITS
- PARCEL LIMITS
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING TRAIL
- EXISTING TREE
- EXISTING TREE ZONE

PLANTING SCHEDULE

Planting Site	Quantity	Species	Size
Site 12	1	4.0" C	Bar Root
Site 13	1	4.0" C	Bar Root
Site 14	1	4.0" C	Bar Root
Site 15	1	4.0" C	Bar Root

REVISIONS

NO.	DATE	DESCRIPTION
1	04/24/2019	ISSUED FOR BIDDING

PLANTING NOTES:

- CONTRACTOR SHALL CONDUCE LAYOUT OF ALL PLANTS WITH SURVEYOR PRESENT.
- CONTRACTOR SHALL MAINTAIN RECORD OF ALL PLANTS WITH SURVEYOR PRESENT.
- CONTRACTOR SHALL MAINTAIN RECORD OF ALL PLANTS WITH SURVEYOR PRESENT.
- CONTRACTOR SHALL MAINTAIN RECORD OF ALL PLANTS WITH SURVEYOR PRESENT.
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- CONTRACTOR SHALL MAINTAIN RECORD OF ALL PLANTS WITH SURVEYOR PRESENT.

TREE SURVEY NOTES:

DATE: 7/16/2015
 FIELD LOCATED TREES WITHIN CHANGING MAJOR CONTOUR TO BE RECORDED.

ALL TREES SHOWN ON PLAN MEET ALL REQUIREMENTS FOR PLANTING SPECIES AND SPACING ACCORDING TO HANDBOOK ZONING REGULATIONS FOR TREE PROTECTION.

LEGEND:

- TREE PLANTING
- TREE PLANTING
- TREE PLANTING
- TREE PLANTING
- TREE PLANTING
- TREE PLANTING
- TREE PLANTING
- TREE PLANTING
- TREE PLANTING
- TREE PLANTING

PLANTING SCHEDULE:

Planting Site	Quantity	Species	Size
Site 12	1	4.0" C	Bar Root
Site 13	1	4.0" C	Bar Root
Site 14	1	4.0" C	Bar Root
Site 15	1	4.0" C	Bar Root

PROJECT INFORMATION:

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
 PURGATORY CREEK AT HWY. 101
 CREEK STABILIZATION
 STA. 0+00 TO 3+50

ISSUED FOR BIDDING
 DATE: 04/24/2019
 SHEET NO. L-01
 PROJECT NO. B

PLANTING SCHEDULE (SITES 18-19)

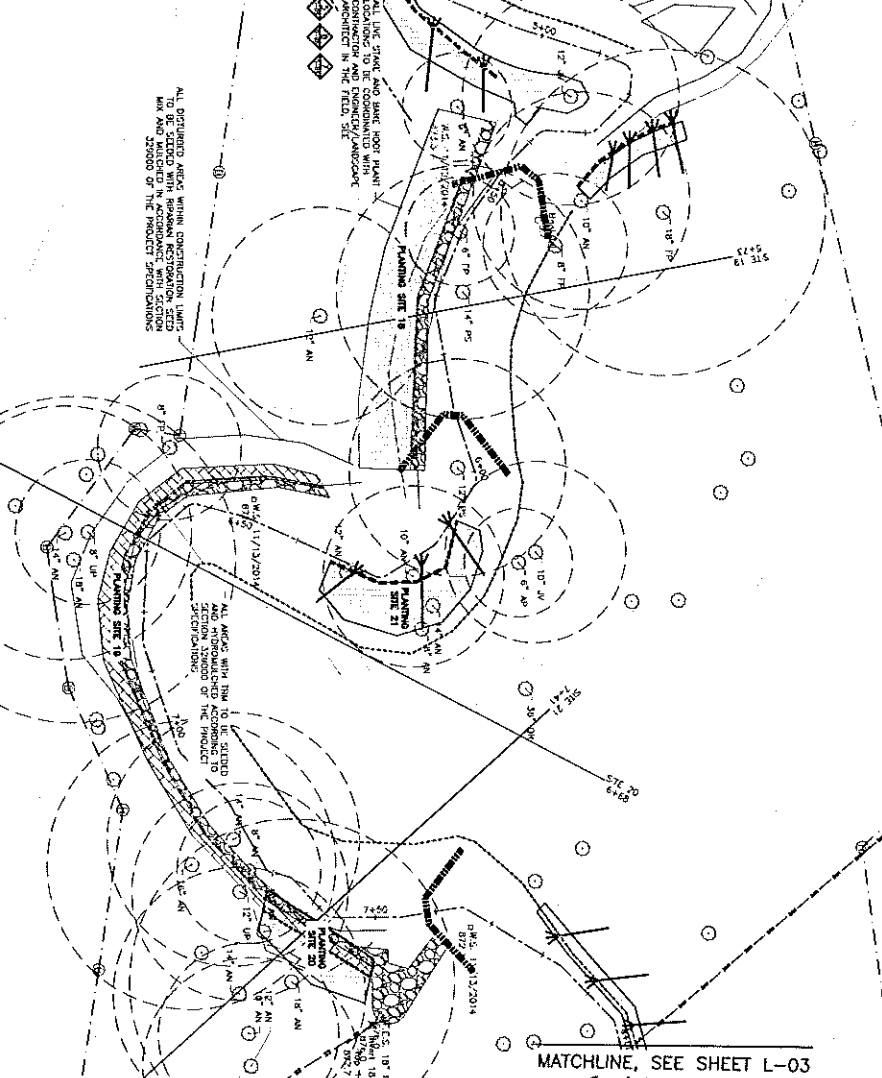
SITE #	Plant Name	Quantity	Species	Plant Size		
				Tree	Shrub	Flower
SITE 18	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None
SITE 19	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None

SITE #	Plant Name	Quantity	Species	Plant Size		
				Tree	Shrub	Flower
SITE 20	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None
SITE 21	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None

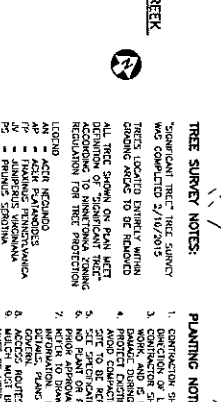
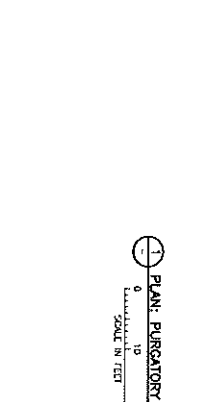
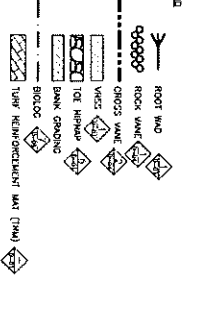
PLANTING SCHEDULE (SITES 19-21)

SITE #	Plant Name	Quantity	Species	Plant Size		
				Tree	Shrub	Flower
SITE 19	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None
SITE 20	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH </td <td>None</td> <td>None</td>	None	None
SITE 21	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None

SITE #	Plant Name	Quantity	Species	Plant Size		
				Tree	Shrub	Flower
SITE 18	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None
SITE 19	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None
SITE 20	Common Name	3	Fraxinus	14" DBH	None	None
	Latin Name	3	Fraxinus	14" DBH	None	None



LEGEND



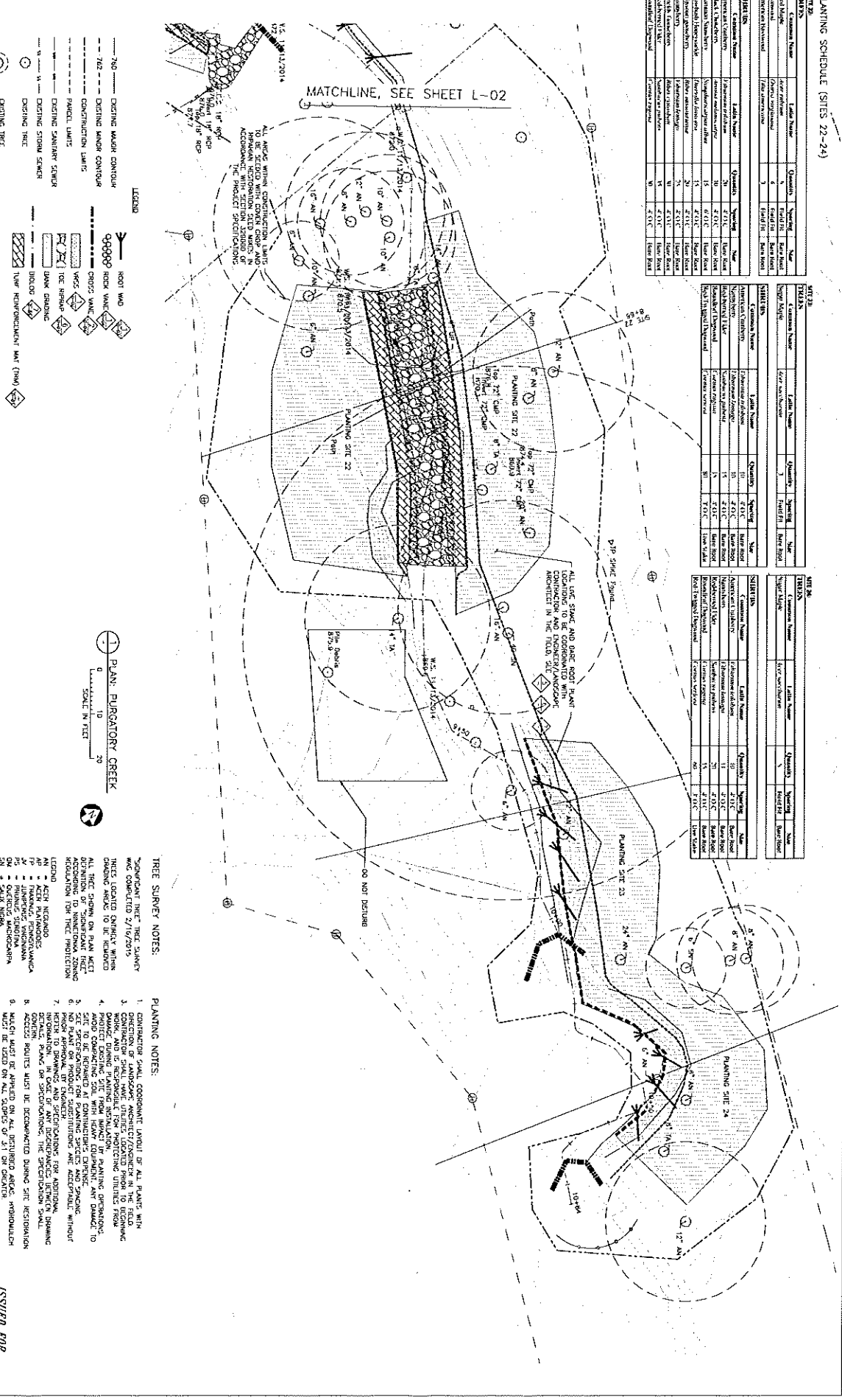
- TREE SURVEY NOTES:**
1. SIGNIFICANT TREE TREE SURVEY WAS COMPLETED 2/10/2015
 2. TREES LOCATED ENTIRELY WITHIN CONCRETE MAJOR TO BE REMOVED
 3. ALL TREE SPECIES ON PLAN WERE IDENTIFIED BY SURVEYOR WITH PHOTOGRAPHIC RECORDATION FOR TREE PROTECTION
- LEGEND:**
- AN - ACER NEGUNDO
 - FR - FRAXINUS
 - TR - TRIFOLIUM
 - NY - NYCTAGINIA
 - PM - PICEA MARIANA
 - QM - QUERCUS MAHOCCA
 - UP - QUERCUS PRINUS
- PLANTING NOTES:**
1. CONSTRUCTION SHALL COMPELANT LAYOUT OF ALL PLANTS WITH CONSTRUCTION AND PROTECT PLANTS FROM THE FIELD WORK AND IS RESPONSIBLE FOR PROTECTING UTILITIES FROM PLANTING OPERATIONS
 2. PROTECT EXISTING SITE FROM DAMAGE BY PLANTING OPERATIONS AND CONSTRUCTION WITH HEAVY EQUIPMENT ANY DAMAGE TO EXISTING SITE SHALL BE REPAIRED BY CONTRACTOR
 3. NO PLANT OR PRODUCT SUBSTITUTIONS ARE ACCEPTABLE WITHOUT WRITTEN APPROVAL FROM THE ENGINEER
 4. ALL PLANTS MUST BE PLANTED AT THE SPECIFIED PLANTING DEPTH TO BE 100% PLANTED AND STABILIZED BY THE END OF THE PROJECT
 5. CONSTRUCTION SHALL BE RESPONSIBLE FOR SITE REVEGETATION AND PROTECTING PLANTS FROM THE FIELD WORK AND IS RESPONSIBLE FOR PROTECTING UTILITIES FROM PLANTING OPERATIONS
 6. ALL PLANTS MUST BE PLANTED AT THE SPECIFIED PLANTING DEPTH TO BE 100% PLANTED AND STABILIZED BY THE END OF THE PROJECT

TREE INVENTORY		PLANTING SCHEDULE (SITES 22-24)	
Plant Name	Quantity	Plant Name	Quantity
Red maple	4	Red maple	4
White oak	3	White oak	3
Black locust	3	Black locust	3
Black locust	3	Black locust	3

TREE INVENTORY		PLANTING SCHEDULE (SITES 22-24)	
Plant Name	Quantity	Plant Name	Quantity
Red maple	4	Red maple	4
White oak	3	White oak	3
Black locust	3	Black locust	3
Black locust	3	Black locust	3

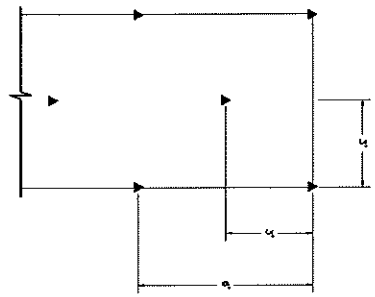
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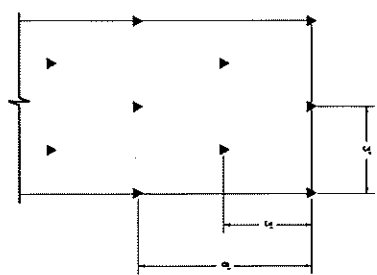
- TREE SURVEY NOTES:**
- 1. CONTRACTOR SHALL CORRECT ANY LAYOUT OF ALL PLANTS WITH W/3 COMPACTED 27/16/2015
 - 2. CONTRACTOR SHALL HAVE UTILITIES LOCATED PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR PROTECTING UTILITIES FROM DAMAGE.
 - 3. PROTECT EXISTING SITE FROM DAMAGE BY PLANTING OPERATIONS.
 - 4. PROTECT EXISTING SITE FROM DAMAGE BY PLANTING OPERATIONS.
 - 5. PROTECT EXISTING SITE FROM DAMAGE BY PLANTING OPERATIONS.
 - 6. PROTECT EXISTING SITE FROM DAMAGE BY PLANTING OPERATIONS.
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 - 8. PROTECT EXISTING SITE FROM DAMAGE BY PLANTING OPERATIONS.
 - 9. PROTECT EXISTING SITE FROM DAMAGE BY PLANTING OPERATIONS.



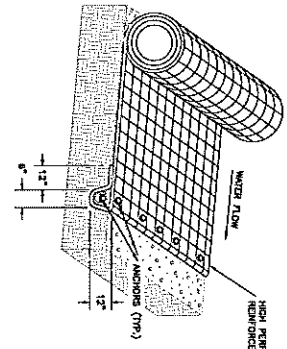
NOTES:
 1. ANCHOR PATTERN FOR SLOPES FLATTER THAN 3H:1V.
 2. U - SHAPED WIRE STAPLES, METAL, GEOTEXTILE PINS, TRIANGULAR WOODEN OR PLASTIC STAPLES CAN BE USED TO ANCHOR TRAM TO THE GROUND SURFACE.

DETAIL: ANCHOR PATTERN FOR SLOPES FLATTER THAN SHEET
 NOT TO SCALE

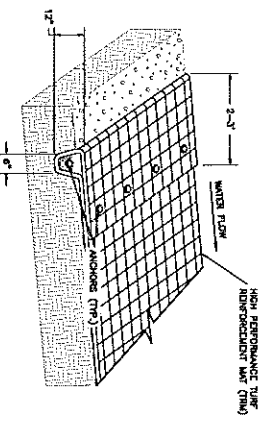


NOTES:
 1. ANCHOR PATTERN 1 1/2" ANCHORS/PIN FOR 1:3H:1V, < 3:1 V, < 3:1 H.
 2. U - SHAPED WIRE STAPLES, METAL, GEOTEXTILE PINS, TRIANGULAR WOODEN OR PLASTIC STAPLES CAN BE USED TO ANCHOR TRAM TO THE GROUND SURFACE.

DETAIL: ANCHOR PATTERN FOR SHEETS LOSES 2H:1V
 NOT TO SCALE

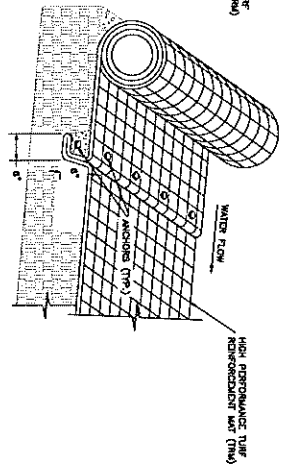


NOTES:
 1. SECURE AT 1' R INTERVALS, BACKFILL AND COMPACT SOIL.
 NOT TO SCALE

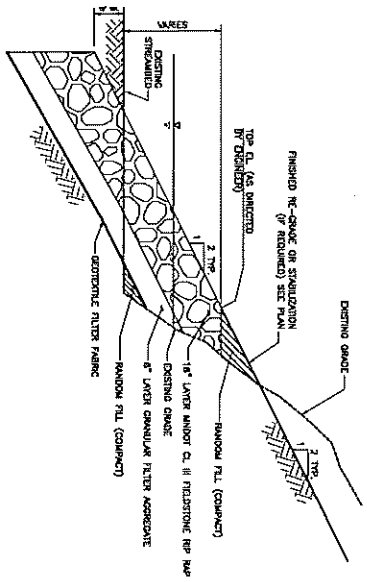


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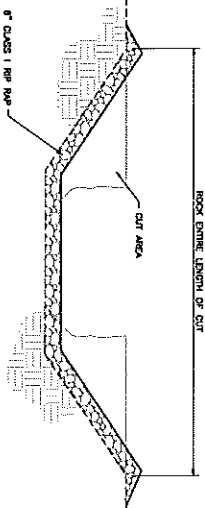
DETAIL: TERMINAL CHANNEL ANCHOR TRENCH
 NOT TO SCALE



NOTES:
 1. SECURE AT 1' R INTERVALS, BACKFILL AND COMPACT SOIL.
 2. CHECK SLOTS TO BE PLACED EVERY 50' ALONG FLOW LINE.
 NOT TO SCALE



DETAIL: RIP RAP TOE PROTECTION
 NOT TO SCALE



DETAIL: TEMPORARY CONSTRUCTION CROSSING
 NOT TO SCALE

NO.	BY	REVISION	DATE

NO.	BY	REVISION	DATE

DATE REVISION TAKEN FOR THE PROJECT	DATE REVISION TAKEN FOR THE PROJECT	DATE REVISION TAKEN FOR THE PROJECT	DATE REVISION TAKEN FOR THE PROJECT

NO.	BY	REVISION	DATE

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ISSUED FOR

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

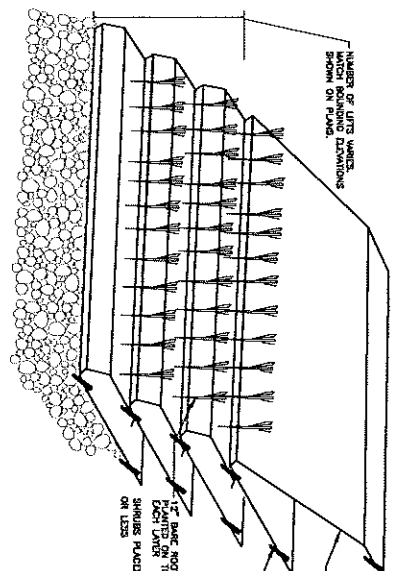
PURGATORY CREEK AT HWY. 101 CREEK STABILIZATION

CRIP AND TRM DETAILS

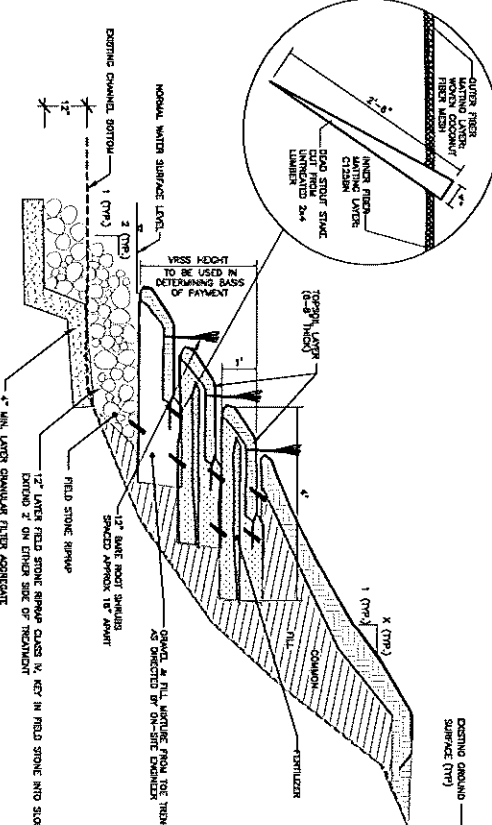
DATE PROJECT TAKEN 2/27/2014

PROJECT NO. 005314

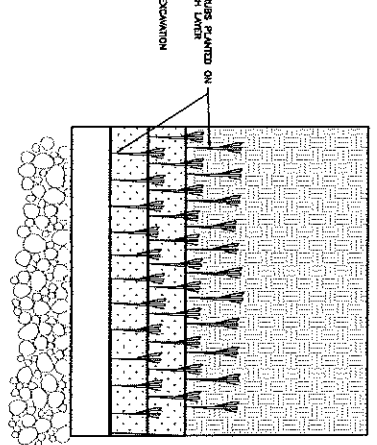
DATE PROJECT TAKEN 2/27/2014



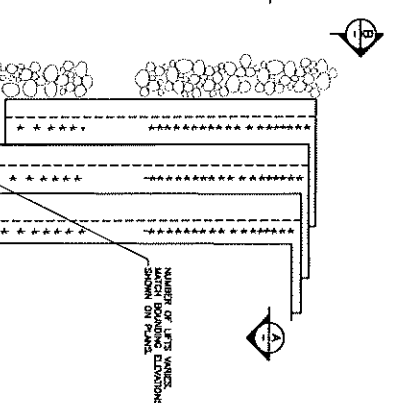
A ELEVATION: VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)



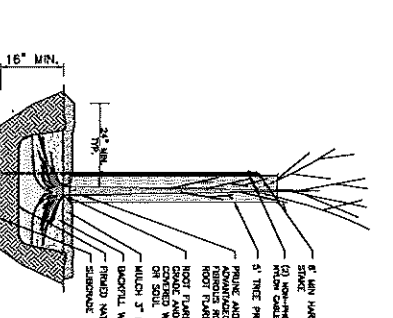
B PLAN: LIVE PLANT VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)



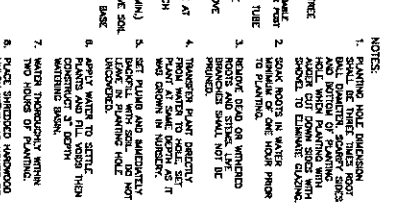
B ELEVATION: VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)



B ELEVATION: VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)



A DETAIL: SHRUB CONTAINER STOCK



B DETAIL: DECIDUOUS TREE BARE ROOT STOCK

GENERAL NOTES ON V.R.S.S.

1. THE ENGINEER MUST BE NOTIFIED AT LEAST 3 DAYS PRIOR TO ROOT AND INSULATION AND MUST BE ON SITE DURING INSTALLATION.
2. SOAK CONTAINERS FOR A MINIMUM OF 24 HOURS IN FRESH WATER BEFORE PLANTING. SOAKING FOR 3-7 DAYS IS CONSIDERED IDEAL.
3. THE SPRINKLING SYSTEMS SHALL BE INSTALLED PRIOR TO THE PLANTING OF ANY VEGETATION. SOAKING CONTAINERS SHALL BE INSTALLED PRIOR TO THE PLANTING OF ANY VEGETATION.
4. PLANTING SHALL BE COMPLETED WITHIN TWO HOURS OF DELIVERY TO THE SLOPE. PLANTS SHALL BE PLANTED AT THE END OF THE FIBER AND THE TOP OF THE FIBER SHALL BE AT THE TOP OF THE SURFACE LAYER.
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NO.	BY	DATE	REVISION DESCRIPTION

NO.	BY	DATE	REVISION DESCRIPTION

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RILEY PURGATORY
BLUFF CREEK
WATERSHED DISTRICT

ISSUED FOR
MID

PURGATORY CREEK AT HWY. 101
SOIL LIFT STABILIZATION
SECTION 11 AND DETAILS

DATE: 02/27/2010
DRAWN: BERRY
CHECKED: BERRY

NOTES:

1. PLANTING HOLE DIMENSIONS SHALL BE 18" DIA. X 18" DEEP.
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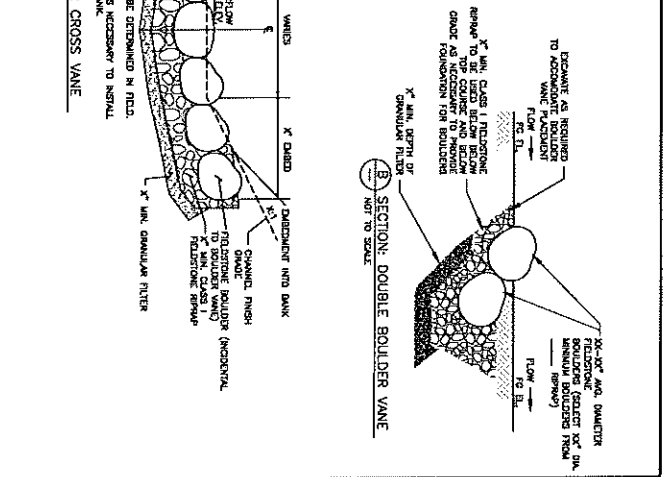
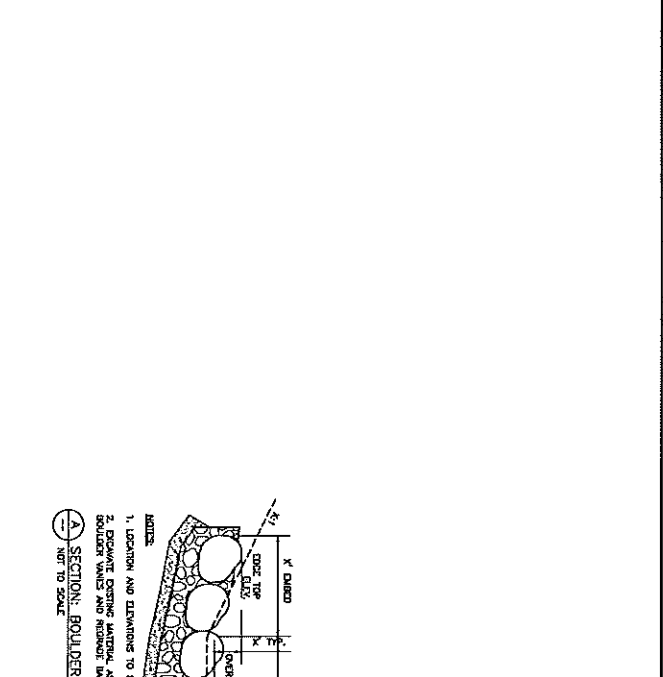
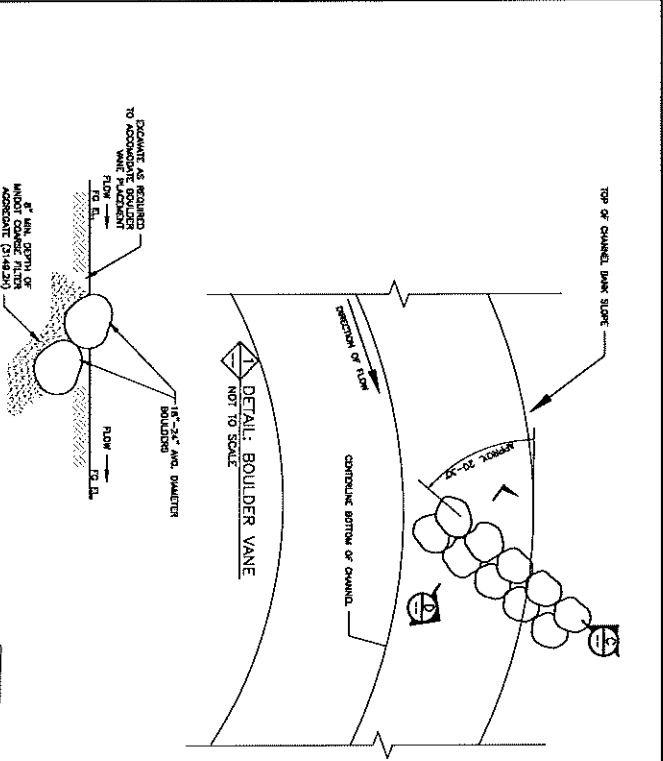
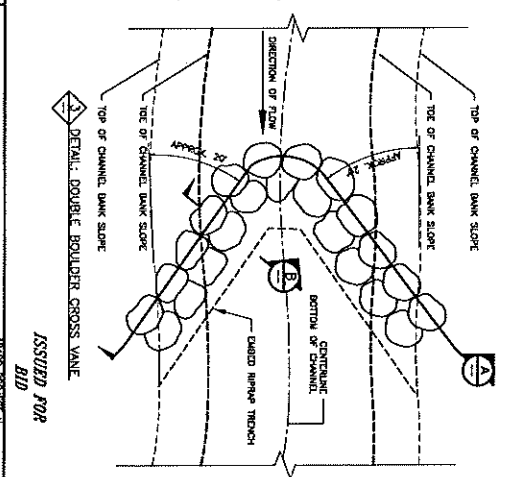
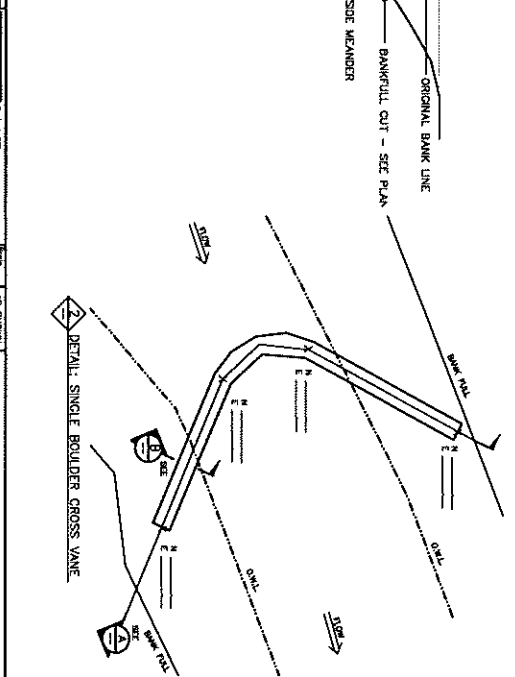
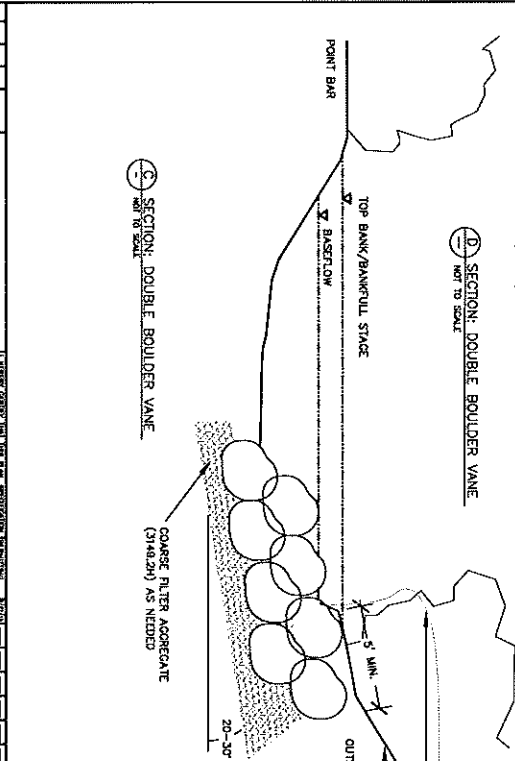
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DATE	BY	CHK'D BY	DATE	REVISION DESCRIPTION

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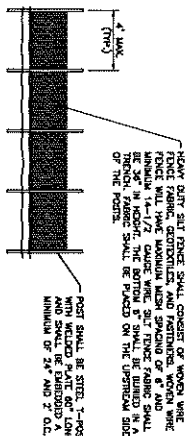
DATE	BY	CHK'D BY	DATE	REVISION DESCRIPTION



RILEY PURGATORY
BLUFF CREEK
WATERSHED DISTRICT

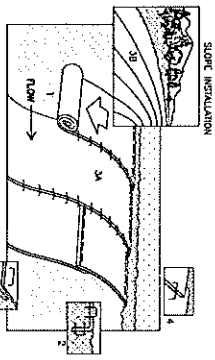
PURGATORY CREEK AT HWY. 101
CREEK STABILIZATION
SECTIONS AND DETAILS

ISSUED FOR
BID



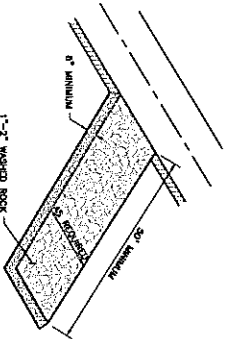
DETAIL - HEAVY DUTY SILT FENCE

- NOTES:**
1. SILT FENCE SHALL MEET W/POD SPECIFICATION SHALL FOR ALL HEAVY DUTY REQUIREMENTS.
 2. ALL OTHER SIZ FENCE USED AS TEMPORARY EROSION CONTROL SHALL BE ANCHORED IN THE SAME MANNER AS THE HEAVY DUTY SILT FENCE.
 3. MACHINE SIZED SILT FENCE MEETING W/POD SPECIFICATION SHALL MAY BE USED AS ALTERNATE TO W/POD PLACED HEAVY DUTY SILT FENCE.

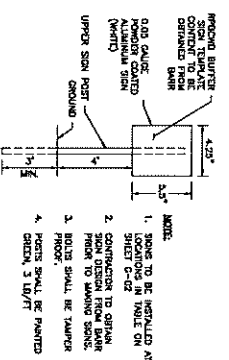


DETAIL - TEMPORARY EROSION CONTROL BLANKET

- NOTES:**
1. REFER TO MAINTENANCE RECOMMENDATIONS FOR SHALE PATTERNING FOR SLOPE INSTALLATIONS.
 2. PREPARE SLOPE BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF TERNURIN AND SEED.
 3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 8" DEEP X 4" WIDE TRENCH.
 4. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
 5. THE EDGES OF PLYWOOD BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP WITH THE NEXT BLANKET ON TOP.
 6. WHEN BLANKETS MUST BE STAPLED DOWN THE SLOPE, STAPLES SHOULD BE SPACED AT APPROXIMATELY 12" STAPLES WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPED AREA, APPROXIMATELY 12" FROM END OF BLANKET.

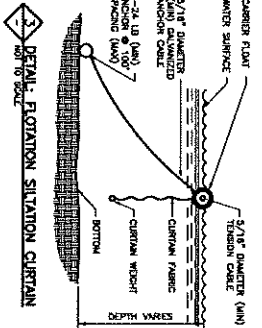


DETAIL - ROCK CONSTRUCTION ENTRANCE



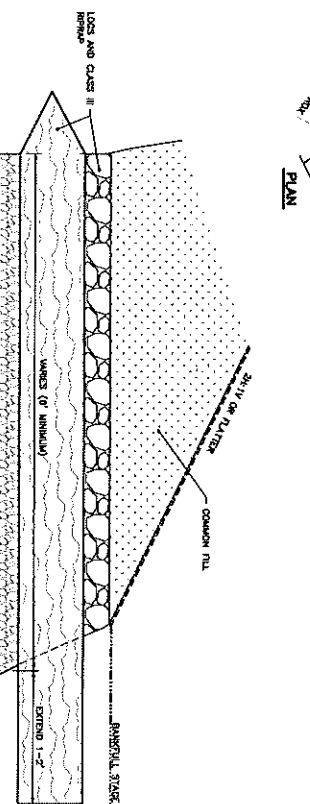
DETAIL - BUTTER SIGN INSTALLATION

- NOTES:**
1. ROCK TO BE INSTALLED AT THE END OF THE BUTTER SIGN AT THE DESIGNATED FROM FROM THE SIGN (MINIMUM 4" FROM).
 2. CONTRACTOR TO OBTAIN SIGN DESIGN FROM BARR PRIOR TO STARTING WORK.
 3. BOLTS SHALL BE TAMPOR PROOF.
 4. BOLTS SHALL BE PAINTED WITH RUST PROTECTANT.



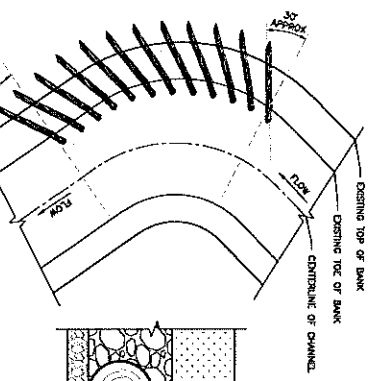
DETAIL - FLOTATION SITUATION CURTAIN

- NOTES:**
1. ANCHORS FOR WATER STOPPING UP TO 3'-0" DEEP AND 1'-0" WIDE.
 2. DRAINAGE ANCHORS AND CABLE FOR WATER STOPPING LESS THAN 3'-0" OR ANCHORS BETWEEN ANCHORS FOR TENSION CABLE OF LESS THAN 100'.
 3. ANCHOR TENSION CABLE AT BOTH ENDS WITH STEEL PIPES OF DIAMETER AND LENGTH TO PROTECT BEARING AND FULL-OUT AND WELLS TYPICAL FOR SITE.
 4. WELLS SHALL BE 22 OZ. VINYL COATED REINFORCING.
 5. CURTAIN - 8" MINIMUM DIAMETER PLASTIC SCHEDULE 40S.
 6. CURTAIN - CONTINUOUS GALVANIZED STEEL GRADE 50/55 WITH 1/4" MINIMUM THICKNESS AND 3/16" MINIMUM SPACING. END TO END WELDED TOGETHER.

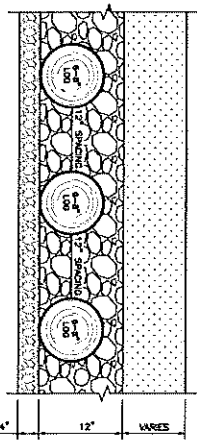


DETAIL - BANK PROTECTION - COMPOSITE ROCK WOOD

- NOTES:**
1. THE ENGINEER MUST BE NOTIFIED AT LEAST 3 DAYS PRIOR TO COMPOSITE ROCK WOOD BANK PROTECTION INSTALLATION AND MUST BE ON SITE DURING INSTALLATION.
 2. TO THE EXTENT POSSIBLE, COMPOSITE ROCK WOOD BANK PROTECTION SHOULD BE CREATED FROM TREES THAT WILL BE REMOVED FROM THE SITE WITHIN THE PROJECT AREA.
 3. CONSTRUCTION SHOULD PROCEED FROM THE DOWNSTREAM TO UPSTREAM IN AREAS AS SHOWN ON THE DRAWING.
 4. DISPLAY A LOGS, BRUSH ALONG THE STREAMBANK TO PLACE COARSE FILTER ASSESSMENT (MUD-STRAND) SPECIFICATION 314-20) AS NECESSARY TO PROVIDE A STABLE FOUNDATION FOR LOGS AND BUNDLES (NEEDS TO BE APPROVED BY THE DESIGNER).
 5. DESIGN BANK THE LOG INTO THE BANK, OR WITH THE AUTHORIZATION OF THE DESIGNER EXCAVATE A TRENCH IN WHICH TO PLACE THE LOG. IF THE LOG IS DIVERTED INTO THE BANK, SHEDDERS THE END OF THE LOG TO A POINT.
 6. THE LOGS MUST BE PLACED SUCH THAT EACH LOG IS ANCHORED UPSTREAM AS SHOWN, AND AS DIRECTED BY THE DESIGNER.
 7. PLACE BRUSH (MUD-STRAND) OR OTHER SIZ OF THE TRUNK OF EACH LOG WITH A THICKNESS AND TO THE LENGTH AS SHOWN, AND AS DIRECTED BY THE DESIGNER.



PLAN



SECTION

NO.	BY	CHECKED	DATE	REVISION DESCRIPTION

PROJECT: RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT LOCATION: PURGATORY BLUFF CREEK WATERSHED DISTRICT DRAWING NO.: 23/27-0033.14 DATE: 3/27/2013			
DATE	BY	REVISION	DESCRIPTION

BARR ENVIRONMENTAL RESTORATION CONSULTANTS 1230 W. 27TH AVENUE, SUITE 200 DENVER, CO 80202 TEL: (303) 755-3300 FAX: (303) 755-3301 WWW.BARRCONSULTANTS.COM	PROJECT SHEET NO. 23/27-0033.14 SHEET NO. 03 TOTAL SHEETS 14
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RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT	PURGATORY CREEK AT HWY. 101 CREEK STABILIZATION SECTIONS AND DETAILS
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