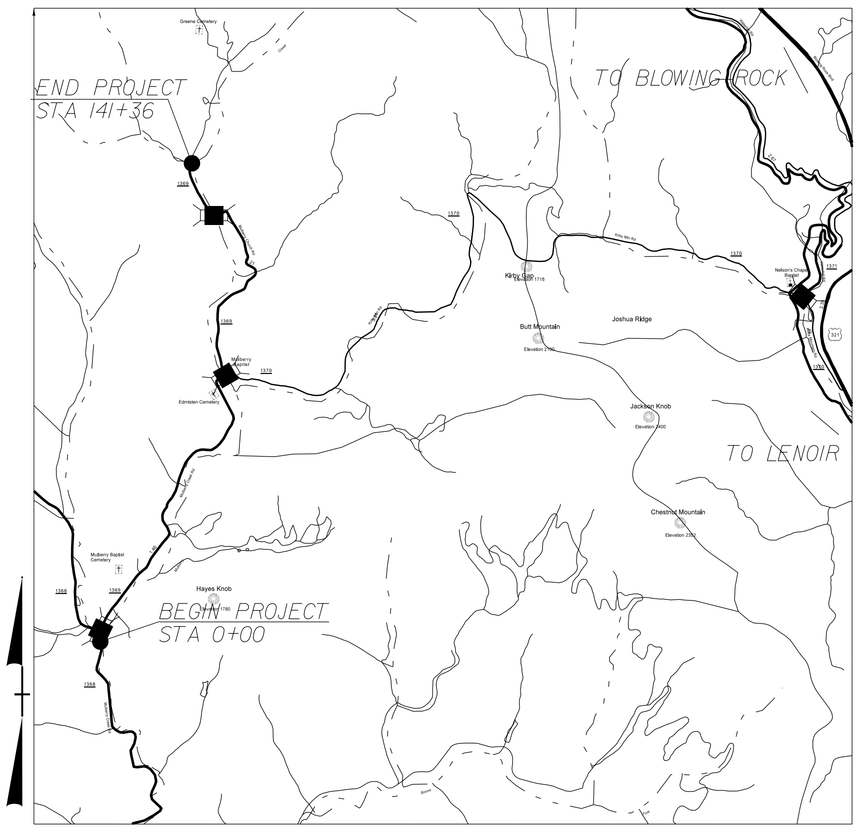
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	11C.014088	EC-1	26

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

PROJECT: 11C.014088

VICINITY MAP



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

CALDWELL COUNTY

LOCATION: ***SR 1369 MULBERRY CREEK RD FROM SR 1368 TO END OF MAINT. STA 0+00 TO 127+50, AND 133+15 TO E.O.P. 141+36***

TYPE OF WORK: ***GRADING, DRAINAGE, BASE AND PAVING – 2.43 MILES***

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

HIGH QUALITY WATER(S) EXIST ON THIS PROJECT

High Quality Water Zone(s) Exist
From Sta. 0+00
to Sta. 141+36
Refer To E. C. Special Provisions for Special Considerations.

Porous Baffle Spacing
*Baffles in Silt Basins at drainage turnouts and all other temporary rock sediment dams–Type B:
–If basin length=10′ or less;1 baffle
–If basin length=11′ to 20′;2 baffles
–If basin length=20′ or more;3 baffles equally spaced in basin

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

Level III Cert # 3474

GRAPHIC SCALE

25 0 50
PLANS

5 0 10
PROFILE (HORIZONTAL)

5 0 10
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:
DIVISION OF HIGHWAYS
DIVISION 11, DISTRICT 2 BOONE
P.O. BOX 1460, BOONE, N.C. 28607
2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail
1605.01 Temporary Silt Fence
1606.01 Special Sediment Control Fence
1607.01 Gravel Construction Entrance
1622.01 Temporary Berms and Slope Drains
1630.01 Riser Basin
1630.02 Silt Basin Type B
1630.03 Temporary Silt Ditch
1630.04 Stilling Basin
1630.05 Temporary Diversion
1630.06 Special Stilling Basin
1631.01 Matting Installation
1632.01 Rock Inlet Sediment Trap Type A
1632.02 Rock Inlet Sediment Trap Type B
1632.03 Rock Inlet Sediment Trap Type C
1633.01 Temporary Rock Silt Check Type A
1633.02 Temporary Rock Silt Check Type B
1634.01 Temporary Rock Sediment Dam Type A
1634.02 Temporary Rock Sediment Dam Type B
1635.01 Rock Pipe Inlet Sediment Trap Type A
1635.02 Rock Pipe Inlet Sediment Trap Type B
1640.01 Coir Fiber Baffle
1645.01 Temporary Stream Crossing

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	1A

EROSION CONTROL & PIPE INSTALLATION SCHEDULE
TROUT BUFFER ZONE SEQUENCE
GENERAL E&SC NOTES
GROUND STABILIZATION CHART

Erosion Control Schedule and Notes

1. Generally, the order of installation of the erosion control measures will be as follows:

   A. Temporary silt basins shall be installed before clearing and grubbing begins.

   B. Silt fences and temporary silt ditches shall be installed after clearing and before grading.

   C. Temporary stone ditch checks with PAM or wattles with PAM shall be installed in all disturbed areas as soon as the disturbance begins.

   D. Final stone ditch checks or wattles shall be installed as soon as ditch line is established.

   E. Pipe outlet and inlet protection will be done as soon as the pipe is installed.

   F. Other permanent erosion control measures are to be implemented as soon as practical.

2. Temporary rock silt checks, type B will be spaced by percent grade as shown in the erosion control plan.

3. No. 5 stone, or equivalent, will be used in conjunction with the temporary rock silt checks in locations where water is leaving the project or entering a pipe.

4. All devices are to be cleaned out when half full.

5. Establish permanent vegetation per ground stabilization chart.

Notes:

For silt basin size see the attached erosion control plans.

PAM is to be placed on all Type A checks and wattles in the erosion control chain except for the final device in HWQ and Trout projects.

Wet Pipe Installation Schedule and Notes

1. Prior to installing any E&SC measures identify permit conditions and impact area limits.

2. Install erosion control devices.

3. Manage the water course. The pipe must be placed in the dry. Install dewatering measures.

4. Remove material and existing pipe while limiting, material and sediment from entering stream and escaping the project.

5. Excavation of stream channel shall not exceed 10' on either side of new pipe or culvert unless indicated on permit.

6. Per permit conditions for Corps of Engineers and the Wildlife Resources Commission, all pipes in streams 48"or greater must be buried 12" below streambed elevation. Pipes less than 48"must be buried with 20% of the diameter below streambed elevation.

7. Place the new pipe and compact backfill.

8. Install slope protection on the outlet and inlet ends of the pipe. Also complete installation of erosion control measures and perform maintenance as needed on existing measures.

9. Establish permanent vegetation per ground stabilization chart.

10. More information on wet pipe installation can be found in the BMP manual section 4.2 "Pipe & Culvert installation"

General Erosion Control Sequence & Notes for NC DOT Projects in Trout Buffer Zones

1. Prior to installing any E&SC measures identify permit conditions and impact area limits. Review trout buffer variance approval conditions for any special provisions.

2. All materials should be on the hand before work is commenced.

3. Install EC devices

4. Work within the buffer zone should be sequenced to minimize the length of time that disturbed areas are exposed. Stream bank stabilization, which includes the area from the edge of water to the top of bank, should be phased so that each day's work is a completed work, including provision of adequate ground cover.

5. Graded slopes and fills within the trout buffer zone will within 7 calendar days of completion of any phase of grading be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion.

6. Graded slopes and fills within the trout buffer zone (excluding road shoulders) shall be protected with rolled erosion control product, bonded fiber matrix, or flexible growth medium after seeding.

Notes:

Silt fence backed by woven wire, with a post spacing of 6 feet, shall be used instead of standard silt fence in trout buffer zone. Special sediment control fence shall be used in areas where bedrock is encountered which prohibits the proper anchoring of fabric, and in low points of the silt fence in 3-foot sections to allow for concentrated flows.

The disturbed areas within the stream buffer shall be restored to native vegetation characteristic of an undisturbed buffer to the extent practical upon completion of construction.

Flyrock protection such as blast mats should be provided for blasting in close proximity to streams.

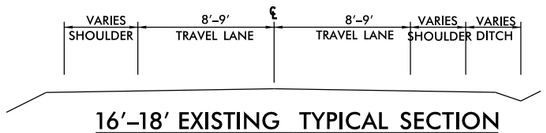
PAM is to be placed on all Type A checks and wattles in the erosion control chain except for the final device in HWQ and Trout projects.

GROUND STABILIZATION CHART

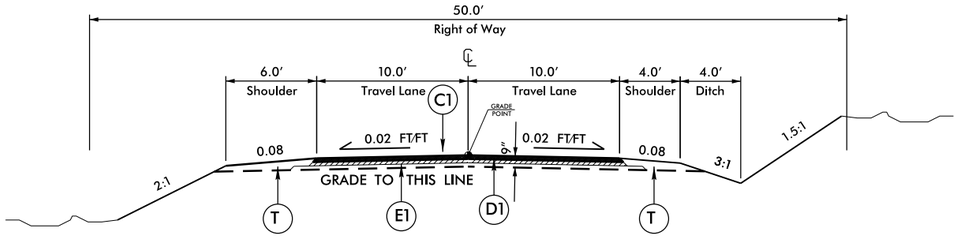
Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10 ft. or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in lenght
All other areas flatter than 4:1	14 days	None (except for perimeters and HQW zones)

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
IIC.014088	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

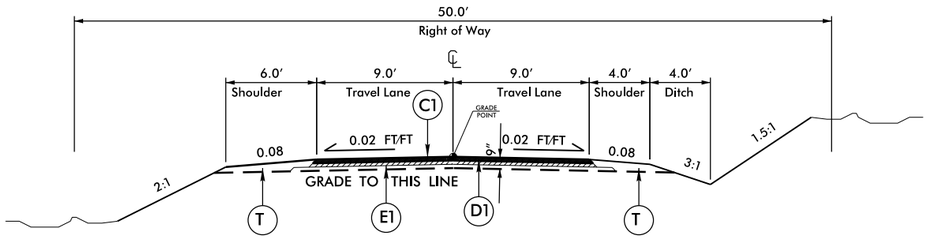


16'–18' EXISTING TYPICAL SECTION
SR 1369



TYPICAL SECTION NO. 1

Sta. 00+00(B.O.P.) to Sta. 77+50

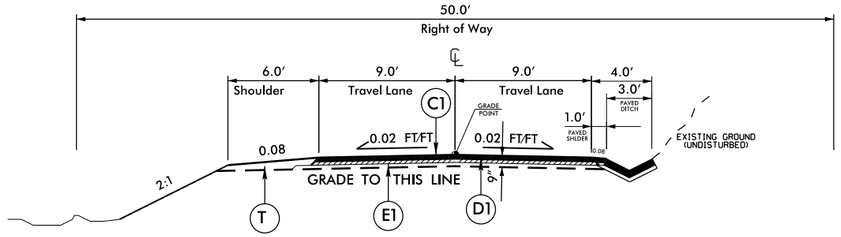


TYPICAL SECTION NO. 3

Sta. 81+55 to Sta. 109+50

Sta. 113+50 to Sta. 127+50

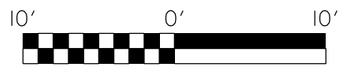
Sta. 133+15 to Sta. 141+36(E.O.P.)



TYPICAL SECTION NO. 2

Sta. 79+50 to Sta. 81+55

Sta. 109+50 to Sta. 113+50



GRAPHIC SCALE

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	-L-	15+35	17+90	LT	190
10	-L-	37+00	38+00	LT	75
10	-L-	38+00	39+65	LT	120
10	-L-	39+65	42+70	LT	225
11	-L-	42+70	47+13	LT	325
12	-L-	50+27	52+00	LT	130
12	-L-	55+00	66+75	LT	855
15	-L-	67+00	69+62	LT	195
15	-L-	70+50	71+82	LT	100
16	-L-	74+42	75+13	LT	55
17	-L-	82+00	83+00	RT	75
18	-L-	89+70	91+00	RT	95
20	-L-	105+00	107+00	RT	150
21	-L-	107+00	108+15	RT	85
21	-L-	109+00	110+50	RT	110
22	-L-	116+13	121+50	RT	395
23	-L-	125+50	127+00	RT	110
25	-L-	138+42	140+50	LT	155
26	-L-	140+71	141+36	LT	50
26	-L-	140+13	140+50	LT	30
				SUBTOTAL	3525
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					
				TOTAL	3525
				SAY	3525

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
9	-L-	33+50	37+00	LT	255
22	-L-	114+00	116+13	RT	155
23	-L-	121+50	125+50	RT	295
				SUBTOTAL	705
		ADDITIONAL PSRM TO BE INSTALLED			
				TOTAL	705
				SAY	705

PROJECT REFERENCE NO.	SHEET NO.
IIC.014088	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	*STABILIZATION TIME*	*TIMEFRAME EXCEPTIONS*
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

D11CAD-224780

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
SR 1369	3-C

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

SIZE TYPE STATION	LOCATION (LT, RT, OR CL)'	NEW PIPES ALUMINIZED C.S. PIPE CULVERTS (UNLESS NOTED OTHERWISE) 12"	15"	18"	24"	30"	36"	42"	48"		EXISTING PIPES 12"	15"	18"	24"	30"	36"	42"	48"	PIPE REMOVAL	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	J.B. STD. 840.31 OR 840.32	OTCB STD. 840.04 OR 840.05	REMARKS
08+27	CL			44'								21'							21'					
15+34	CL			40'								23'							23'					
17+89	CL				55'									40'					40'					Wet Pipe
20+85	CL			45'									23'						23'					
28+58	CL			40'									27'						27'					
31+17	CL			48'									86'						86'					Wet Pipe
34+55	LT		40'									40'							40'					Replace Drive Pipe
37+95	CL						55'							40'					40'					Wet Pipe
42+70	CL				40'									25'					25'					Wet Pipe
47+13	CL			40'									36'						36'					
50+27	CL			40'									29'						29'					
51+91	CL				50'								30'						30'					Wet Pipe
54+65	CL	9'			50'									28'					28'	1	1			Wet Pipe, DI #1 at Sta 54+56 17' LT
69+62	CL			40'									23'						23'					
71+82	CL			40'									20'						20'					
75+25	LT		38'																0'					Add Drive Pipe
77+00	RT											23'							23'					Remove Drive Pipe
80+36	CL			43'								40'							40'				1	OTCB #2 at Sta.80+41 14.7' RT
84+50	CL			40'															0'					Add Pipe
89+65	CL			45'									34'						34'					Wet Pipe
97+11	CL			42'									25'						25'					
108+15	CL			47'									36'						36'					
109+00	CL								75'									48'	48'					Wet Pipe
116+11	CL			73'									34'						34'					Wet Pipe
116+61	RT		30'																0'					Add Drive Pipe
125+50	CL			40'															0'					Add Pipe
126+87	CL				53'									47'					47'					Wet Pipe
128+90	CL			40'									29'						29'					
131+06	LT		15'																0'					Add Drive Pipe
131+98	LT		25'																0'					Add Drive Pipe
133+17	CL			26'									19'						19'					Wet Pipe
135+29	LT		20'																0'					
135+57	CL			40'									19'						19'					Wet Pipe
138+42	CL			40'									20'						20'					
140+13	CL			39'															0'					
																			0'					
																			0'					
																			0'					
																			0'					
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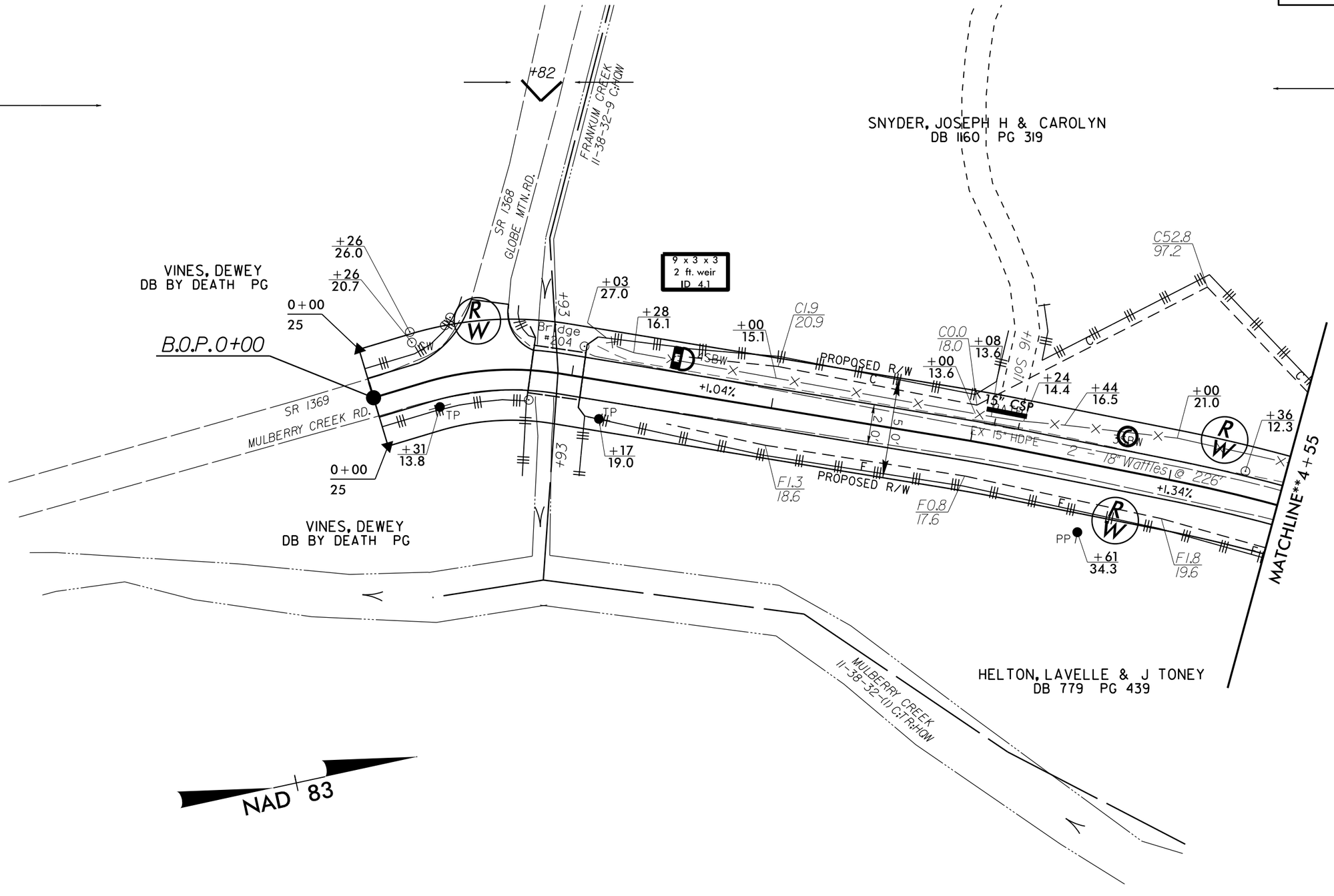
																			0'					
SHEET TOTALS		9	168	892	248	0	55	0	75	**1447**	0	147	490	180	0	0	0	48	**865**					

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS



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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

SNYDER, JOSEPH H & CAROLYN
DB 1160 PG 319

5+00

10+00

1.25:1 C96.2 / 138.3

C8.6 / 30.9

C17.8 / 44.7

C2.2 / 21.3

C0.8 / 19.2

C1.3 / 20.0

+00 25.0

+00 20.0

+00 24.0

+30 24.4

+45 15.2

+24 Soil

+00 14.8

+00 14.4

+00 13.8

+70 14.1

3SBW

4SBW

15" CSP

18" CSP

+1.04%

+0.12%

+1.12%

18" Wattles @ 175'

UG Tel

GW

PP

F2.5 / 21.0

F3.5 / 23.0

F3.7 / 23.4

F2.9 / 21.8

F2.0 / 20.0

F1.0 / 18.0

+34 16.2

+25 29.8

+90 43.9

+13 Gravel

+12 Soil

9 x 3 x 3
2 ft. weir
ID 5.1

9 x 3 x 3
2 ft. weir
ID 5.2

9 x 3 x 3
2 ft. weir
ID 5.3

9 x 3 x 3
2 ft. weir
ID 5.4

MATCHLINE**4+55

MATCHLINE**10+95

NAD 83

HELTON, LAVELLE & J TONEY
DB 779 PG 439

MULBERRY CREEK

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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

SNYDER, JOSEPH H & CAROLYN
DB 1160 PG 319

BARN

SHED

15+00

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 6.3

9 x 3 x 3
2 ft. weir
ID 6.1

9 x 3 x 3
2 ft. weir
ID 6.2

MATCHLINE**10+95

MATCHLINE**17+35

+95 Gravel

C1.0 19.5 +00 14.3
C0.8 19.2 +00 15.3
C1.0 19.5 +00 16.4
C1.9 20.9 +00 15.0
C2.8 22.2 +00 12.5
C1.0 19.5 +89 11.7
C2.4 21.6 +94 25.0
+26 20.4

4SBW

18" CSP

15" CMP

15" RCP

1 - 18" Wattles @ 128'

+1.31%

+2.11%

PP +90 12.2

F1.0 18.0
F1.8 19.6
F0.5 17.0
F0.4 16.8
F0.0 16.0
F0.0 16.0
F0.0 16.0

MULBERRY CREEK

NAD 83

HELTON, LAVELLE & J TONEY
DB 779 PG 439

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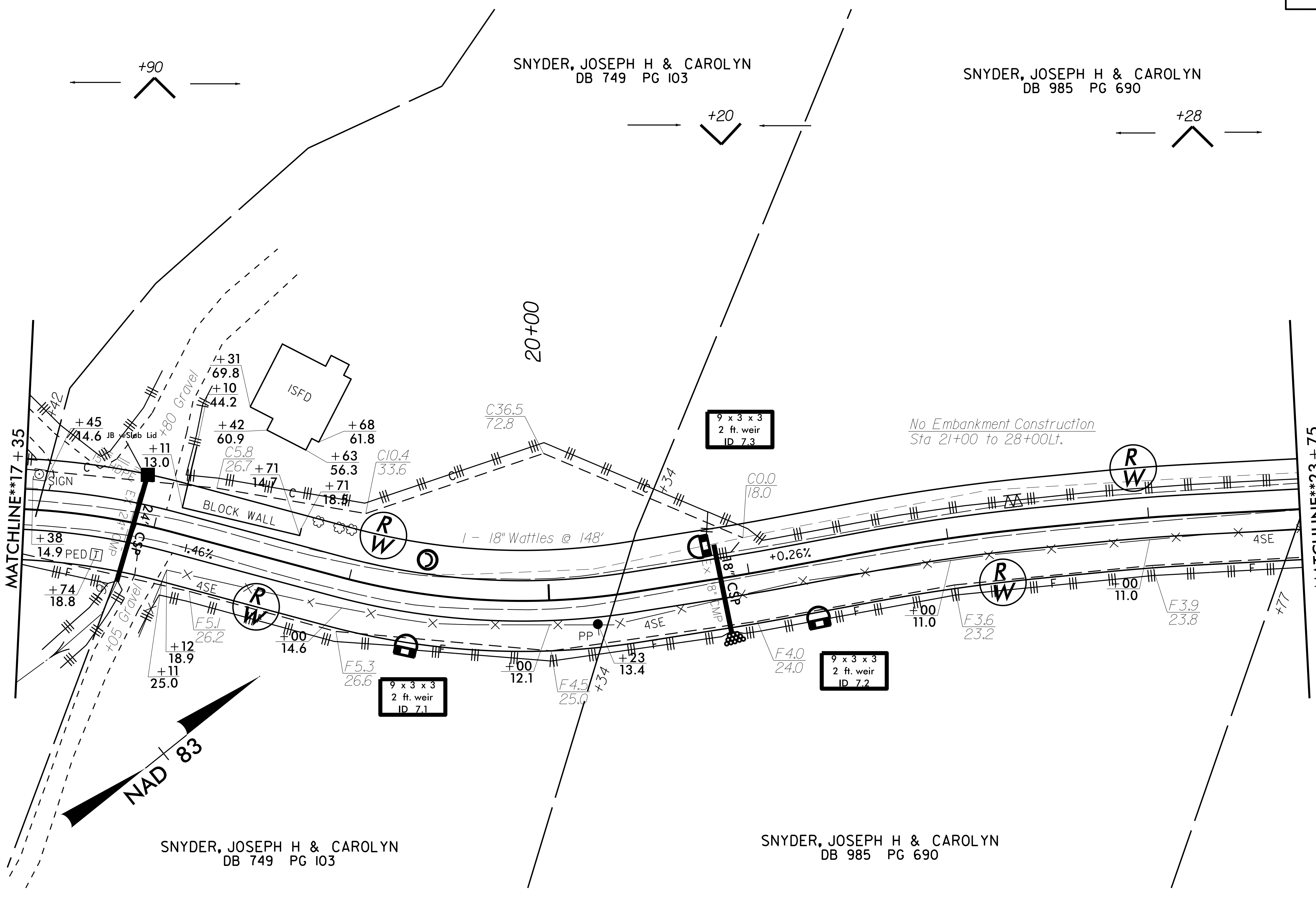
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

8/17/99



SNYDER, JOSEPH H & CAROLYN
DB 749 PG 103
SNYDER, JOSEPH H & CAROLYN
DB 985 PG 690
+90
+20
+28
20+00
ISFD
BLOCK WALL
SIGN
PED
PP
JB w/Slab Lid
24" CSP
18" CSP
1.46%
+0.26%
I - 18" Wattles @ 148'
No Embankment Construction
Sta 21+00 to 28+00Lt.
9 x 3 x 3
2 ft. weir
ID 7.1
9 x 3 x 3
2 ft. weir
ID 7.2
9 x 3 x 3
2 ft. weir
ID 7.3
4SE
R/W
MATCHLINE**17+35
MATCHLINE**23+75
NAD 83
C36.5
72.8
C10.4
33.6
C5.8
26.7
C0.0
18.0
F5.1
26.2
F5.3
26.6
F4.5
25.0
F4.0
24.0
F3.6
23.2
F3.9
23.8

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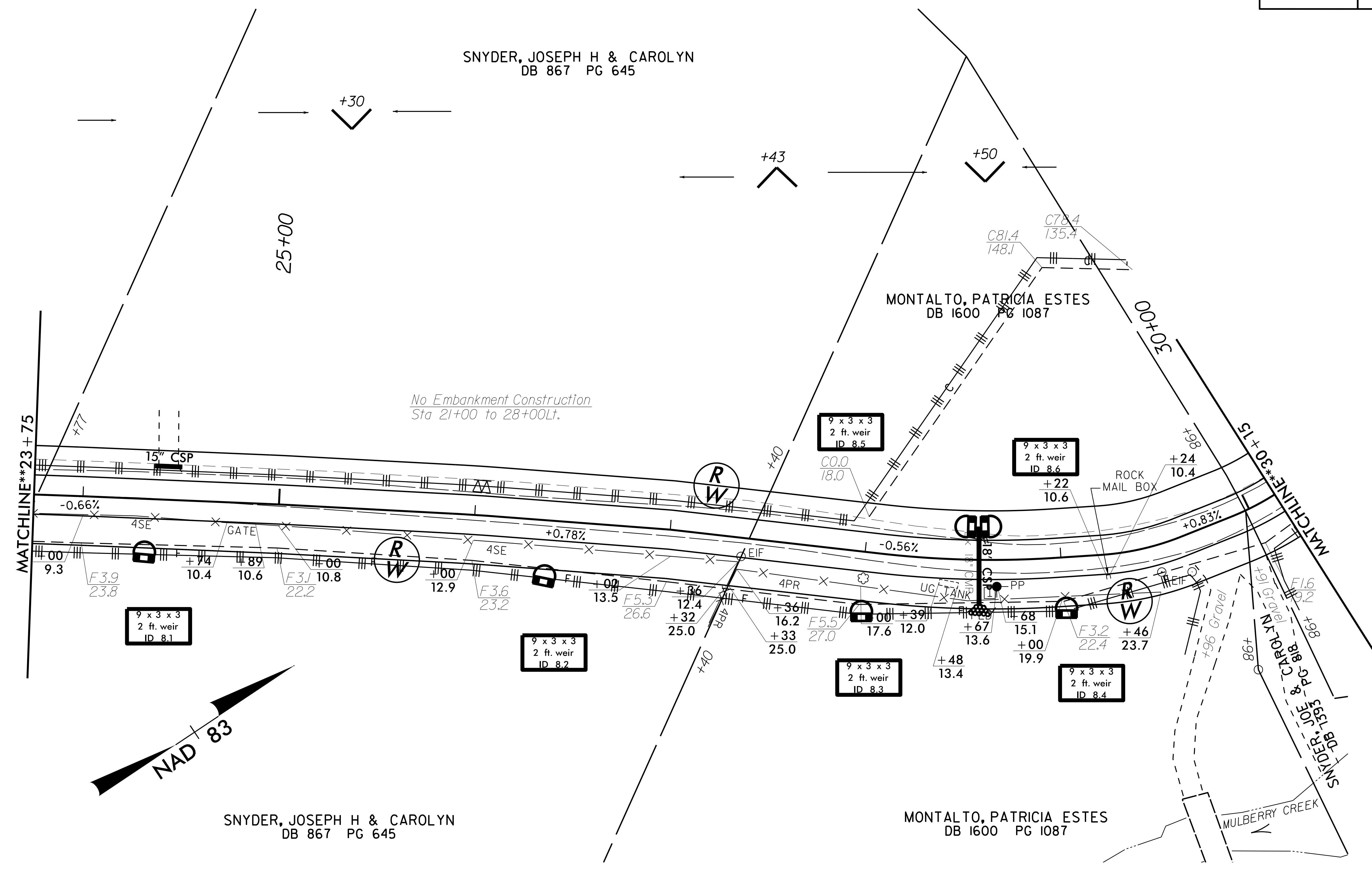
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS



SNYDER, JOSEPH H & CAROLYN
DB 867 PG 645
+30
+43
+50
25+00
30+00
C81.4
148.1
C78.4
135.4
MONTALTO, PATRICIA ESTES
DB 1600 PG 1087
No Embankment Construction
Sta 21+00 to 28+00Lt.
MATCHLINE**23+75
MATCHLINE**30+15
+77
15" CSP
9 x 3 x 3
2 ft. weir
ID 8.5
9 x 3 x 3
2 ft. weir
ID 8.6
C0.0
18.0
+40
ROCK
MAIL BOX
+24
10.4
+22
10.6
-0.66%
+0.78%
-0.56%
+0.83%
4SE
GATE
4SE
4PR
EIF
UG
TANK
PP
18" CSP
+00
9.3
+74
10.4
+89
10.6
+00
10.8
+00
12.9
+02
13.5
+36
12.4
+32
25.0
+36
16.2
+33
25.0
+00
17.6
+39
12.0
+67
13.6
+48
13.4
+68
15.1
+00
19.9
+46
23.7
F3.9
23.8
F3.1
22.2
F3.6
23.2
F5.3
26.6
F5.5
27.0
F3.2
22.4
F1.6
9.2
9 x 3 x 3
2 ft. weir
ID 8.1
9 x 3 x 3
2 ft. weir
ID 8.2
9 x 3 x 3
2 ft. weir
ID 8.3
9 x 3 x 3
2 ft. weir
ID 8.4
+96 Gravel
SNYDER, JOE & CAROLYN
DB 1393 PG 818
MULBERRY CREEK
NAD 83
SNYDER, JOSEPH H & CAROLYN
DB 867 PG 645
MONTALTO, PATRICIA ESTES
DB 1600 PG 1087

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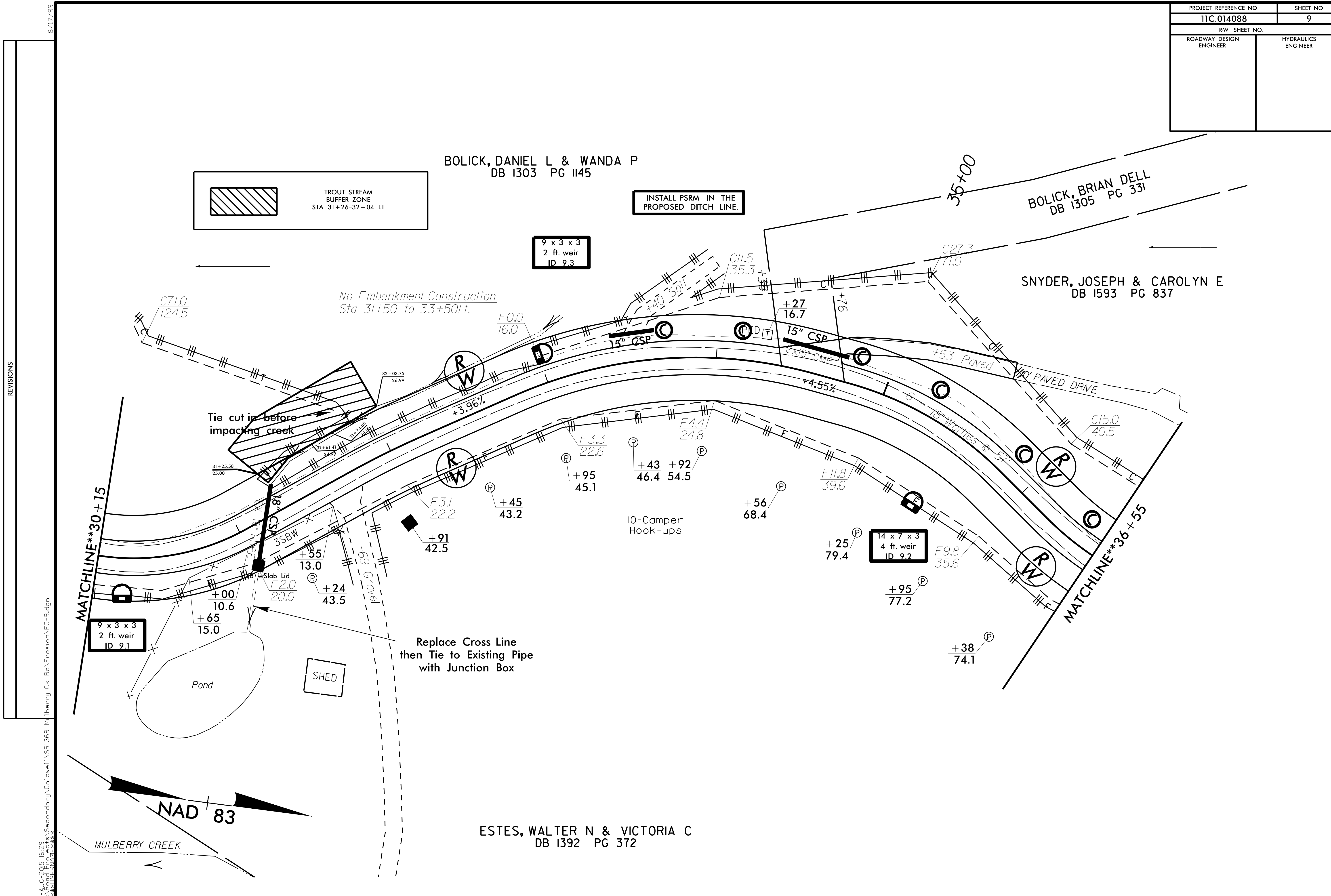
PROJECT REFERENCE NO.
11C.014088
SHEET NO.
9
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
REVISIONS
8/17/99
BOLICK, DANIEL L & WANDA P
DB 1303 PG 1145
TROUT STREAM BUFFER ZONE STA 31+26-32+04 LT
INSTALL PSRM IN THE PROPOSED DITCH LINE.
9 x 3 x 3
2 ft. weir
ID 9.3
35+00
BOLICK, BRIAN DELL
DB 1305 PG 331
SNYDER, JOSEPH & CAROLYN E
DB 1593 PG 837
No Embankment Construction
Sta 31+50 to 33+50Lt.
C71.0
124.5
F0.0
16.0
C11.5
35.3
+40 Soil
C27.3
71.0
+27
16.7
+76
15" CSP
15" CSP
Ex15" CMP
+53 Paved
10' PAVED DRIVE
+4.55%
+3.96%
18" Wattles @ 57'
C15.0
40.5
Tie cut in before impacting creek
32+03.75
26.99
31+74.85
31+61.41
31+25.58
25.00
18" CSP
3SBW
F3.3
22.6
F4.4
24.8
+43
46.4
+92
54.5
+95
45.1
F11.8
39.6
+45
43.2
F3.1
22.2
+56
68.4
10-Camper Hook-ups
+91
42.5
+55
13.0
+24
43.5
+69 Gravel
F2.0
20.0
B w/Slab Lid
+00
10.6
+65
15.0
MATCHLINE**30+15
9 x 3 x 3
2 ft. weir
ID 9.1
+25
79.4
14 x 7 x 3
4 ft. weir
ID 9.2
F9.8
35.6
+95
77.2
+38
74.1
MATCHLINE**36+55
Replace Cross Line then Tie to Existing Pipe with Junction Box
SHED
Pond
NAD 83
MULBERRY CREEK
ESTES, WALTER N & VICTORIA C
DB 1392 PG 372
10-AUG-2015 16:29
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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

SNYDER, JOSEPH & CAROLYN E
DB 1593 PG 837

GREENE, RONNIE & TERRY
DB 1535 PG 207

BOLICK, BRIAN DELL & TAMMY G
DB 1512 PG 959

+00

+00

+65

40+00

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

ISFD

9 x 3 x 3
2 ft. weir
ID 10.1

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 10.2

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 10.3

C17.9
44.9

C1.0
19.5

+21 Soil

C10.8
34.2

C11.4
35.1

C20.1
48.2

C4.6
24.9

+40 Soil

15" CSP

15" CSP

MATCHLINE**36+55

MATCHLINE**42+95

-2.09%

+3.61%

-2.25%

2 - 18" Wattles @ 83'

3 - 18" Wattles @ 102'

36" CSP

Ex 24" CMP

Ex 24" RCP

24" CSP

+70 Soil

+94

+41 Soil

+22

+29 Gravel

F5.5
27.0

F2.3
20.6

F7.5
31.0

F6.7
29.4

F9.2
34.4

F0.0
16.0

9 x 3 x 3
2 ft. weir
ID 10.4

9 x 3 x 3
2 ft. weir
ID 10.5

9 x 3 x 3
2 ft. weir
ID 10.6

TOILET

PED

SHRUBS

WELL

PP

+48
22.7

+72
67.6

+97
74.9

+24
55.3

ISFD

NAD 83

CLARK, THOMAS W & DALE A
DB 1629 PG 1406

BURKE, LINDA S
DB 1639 PG 990

06-AUG-2015 09:17
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$$$$LICENSE$$$$

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BOLICK, BRIAN DELL & TAMMY G
DB 1512 PG 959

EDMISTEN, FRED MORRIS & BETTY
DB 505 PG 87

+13

45+00

C81.1
139.7

C51.4
95.1

C34.5
69.8

C12.4
36.6

C30.9
64.4

C8.2
30.3

C7.0
28.5

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 11.3

9 x 3 x 3
2 ft. weir
ID 11.2

9 x 3 x 3
2 ft. weir
ID 11.1

2 - 18" Wattles @ 148'

-1.48%

+0.85%

18" CSP

EX 18" DIP

EIF

F0.0
16.0

F8.0
32.0

F0.0
16.0

MULBERRY CREEK

No Embankment Construction
Sta 45+00 to 51+00Rt..

MATCHLINE**42+95

MATCHLINE**49+35

NAD 83

EDMISTEN, FRED MORRIS & BETTY
DB 505 PG 87

REVISIONS

8/17/99

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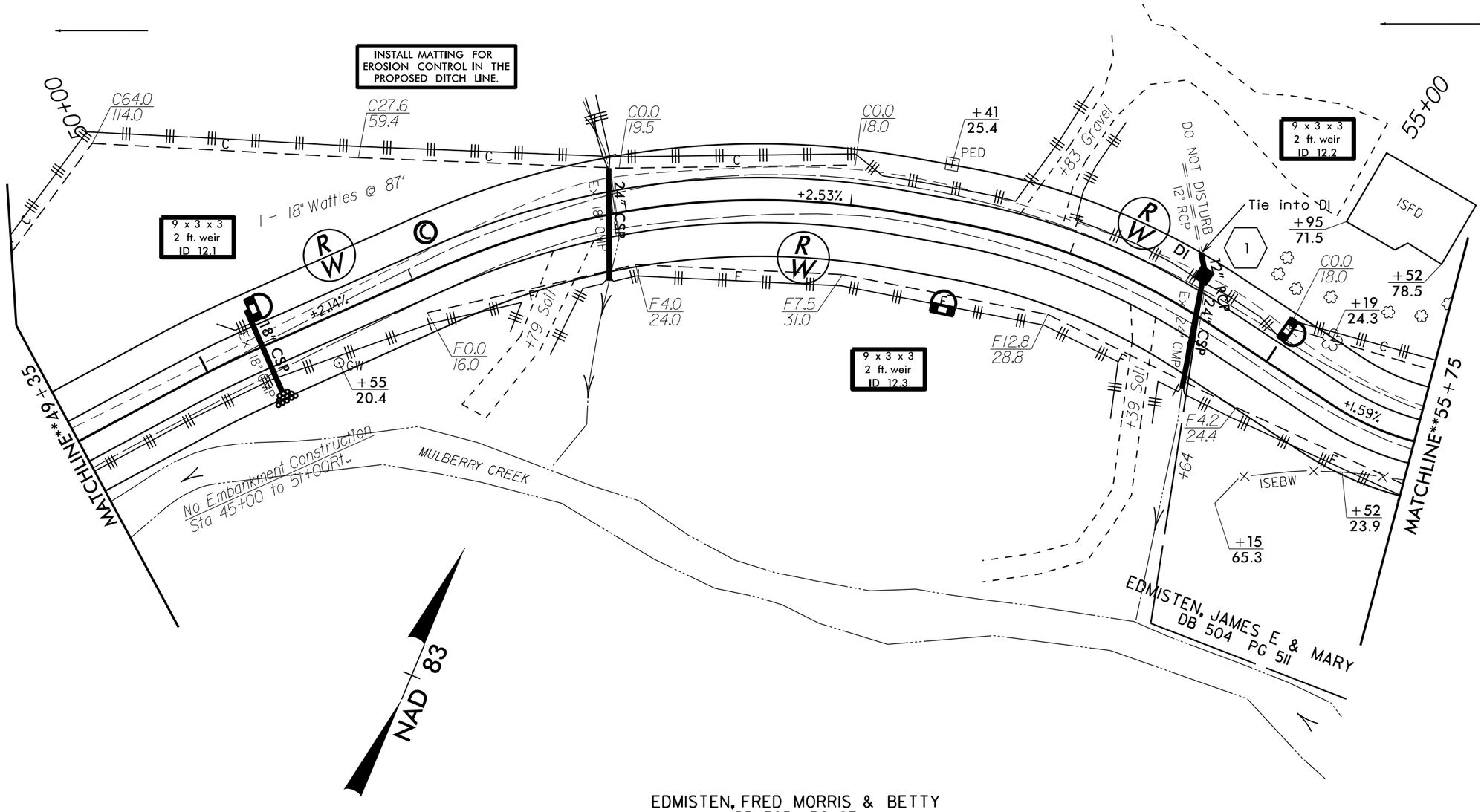
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EDMISTEN, FRED MORRIS & BETTY
DB 505 PG 87



REVISIONS 8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

EDMISTEN, FRED MORRIS & BETTY
DB 505 PG 87

EDMISTEN, JAMES E & MARY
DB 504 PG 511

60+00

MATCHLINE**55+75

MATCHLINE**62+15

+08
72.8

SHED

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

C8.2
30.3

+33
58.5

+55
60.9

C10.0
33.0

C23.3
53.0

C17.8
44.7

C23.6
53.4

C23.6
53.4

C47.6
89.4

+1.49%

+2.61%

6 - 18" Wattles @ 168'

ISEBW

F6.0
28.0

+00
16.1

12 x 4 x 3
3 ft. weir
ID 13.1

F2.6
21.2

+00
15.1

+67
25.9

PP

F2.6
21.2

+00
21.2

F4.8
25.6

+00
24.1

F6.8
29.6

+00
27.7

+73
38.9

PP

+00
27.0

F8.4
32.8

ISEBW

F9.0
34.0

NAD 83

MULBERRY CREEK

EDMISTEN, JAMES E & MARY
DB 504 PG 511

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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EDMISTEN, JAMES E & MARY
DB 626 PG 802

EDMISTEN, JAMES E & MARY
DB 504 PG 511

+00

MATCHLINE**62+15

65+00

MATCHLINE**68+55

C37.2
73.8

C11.9
35.9

C24.4
54.6

+11
52.5

SHED

+56
54.8

C15.0
40.5

+61
26.1

C3.1
22.7

+71 Conc

SHED

ISFD

C14.0
39.0

PROPOSED R/W

1 - 18" Wattles @ 131'

-2.05%

+1.49%

F7.2
30.4

+00
28.2

F1.0
18.0

+00
28.2

+00
27.7

F11.0
38.0

1SEBW

+88 Soil

+14
39.8

F0.0
16.0

+00
26.8

F4.3
24.6

PP

PED

+00
28.3

F0.0
16.0

+99
17.7

9 x 3 x 3
2 ft. weir
ID 14.1

NAD 83

EDMISTEN, JAMES E & MARY
DB 504 PG 511

REVISIONS

8/17/99

19-JUN-2015 15:29
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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

EDMISTEN, JAMES E & MARY
DB 626 PG 802

EDMISTEN CEMETERY

EDMISTEN, JAMES E & MARY
DB 504 PG 511

+62

70+00

+00

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 15.4

9 x 3 x 3
2 ft. weir
ID 15.5

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 15.6

9 x 3 x 3
2 ft. weir
ID 15.7

CEMETERY

HEMLOCK HEDGE ROW

18"

2SFD

+33 99.9

+40 94.3

+70 103.1

+64 96.4

+26 Paved

C3.6 23.4

+40 Soil

CH4 Soil

C4.8 25.2

C8.4 30.6

C7.2 28.8

C7.3 29.0

C2.7 22.1

MATCHLINE**68+55

15" CSP

18" CMP

18" CSP

-2.05%

-1.23%

+0.94%

PED

TP

ISEBW

PROPOSED R/W

MATCHLINE**74+95

+00 23.6

F3.6 23.2

9 x 3 x 3
2 ft. weir
ID 15.1

+00 23.3

F4.3 24.6

9 x 3 x 3
2 ft. weir
ID 15.2

F3.5 23.0

+00 20.2

ISEBW

+00 9.4

F4.0 24.0

F3.5 23.0

+00 6.6

9 x 3 x 3
2 ft. weir
ID 15.3

+00 2.4

F6.0 22.0

+21 2.0

+23 3.4

NAD 83

EDMISTEN, JAMES E & MARY
DB 504 PG 511

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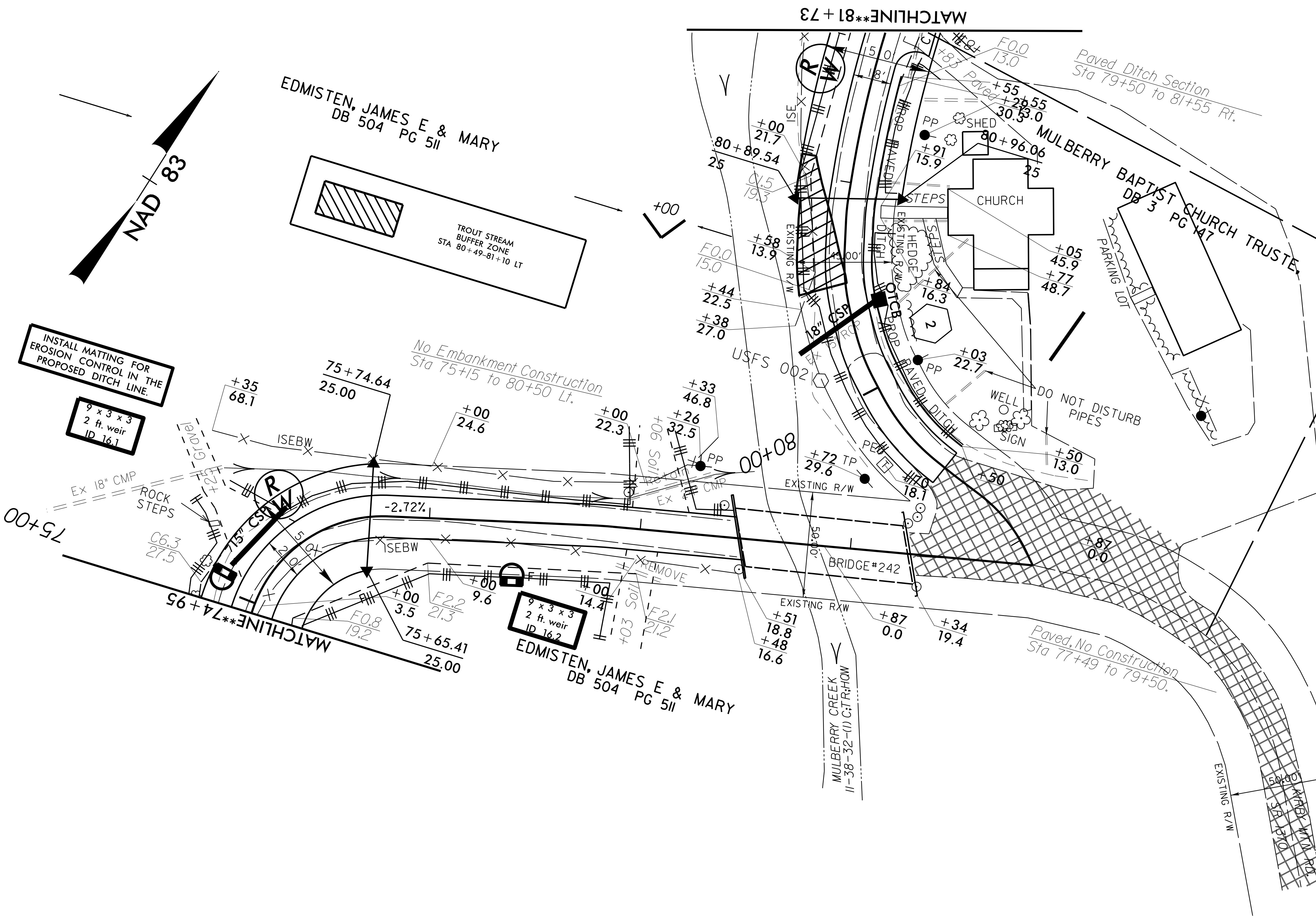
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE**81+73
MATCHLINE**74+95
NAD 83
EDMISTEN, JAMES E & MARY
DB 504 PG 511
TROUT STREAM BUFFER ZONE STA 80+49-81+10 LT
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
9 x 3 x 3
2 ft. weir
ID 16.1
9 x 3 x 3
2 ft. weir
ID 16.2
No Embankment Construction
Sta 75+15 to 80+50 Lt.
Paved Ditch Section
Sta 79+50 to 81+55 Rt.
Paved, No Construction
Sta 77+49 to 79+50.
MULBERRY BAPTIST CHURCH TRUSTE.
DB 3 PG 147
CHURCH
SHED
STEPS
HEDGE
PARKING LOT
WELL
SIGN
DO NOT DISTURB PIPES
USFS 002
BRIDGE #242
EXISTING R/W
ISEBW
ROCK STEPS
Ex 18" CMP
15" CSP
18" CSP
-2.72%
MULBERRY CREEK
11-38-32-(1) C;Tr:HQW
75+74.64
25.00
75+65.41
25.00
80+89.54
25
80+96.06
25
75+00
80+00

REVISIONS

8/17/99

10-AUG-2015 16:30
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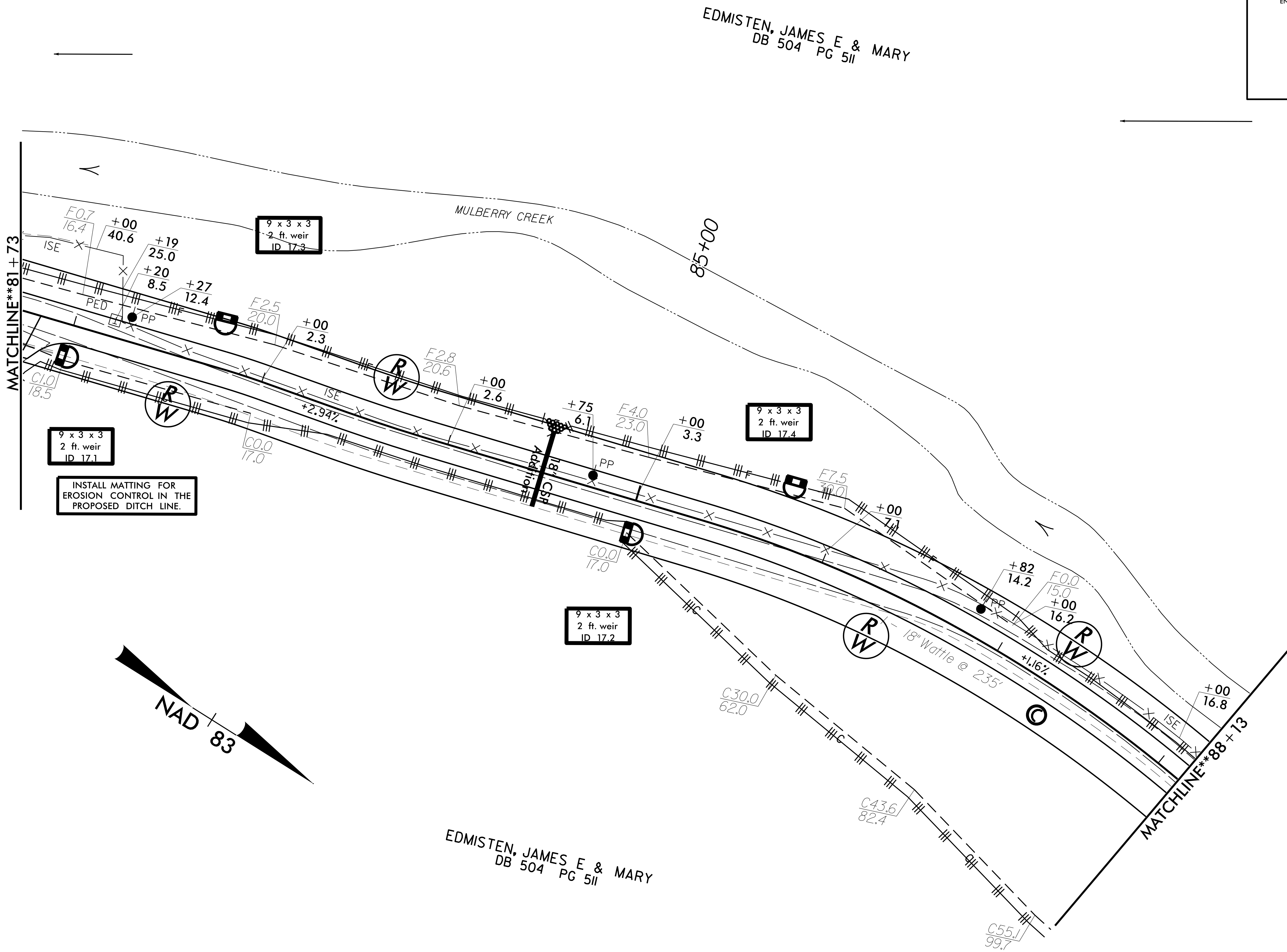
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

8/17/99

EDMISTEN, JAMES E & MARY
DB 504 PG 511

MULBERRY CREEK

EDMISTEN, JAMES E & MARY
PB. 20 PG 14

90+06

+86

MATCHLINE**88+13

MATCHLINE**94+53

9 x 3 x 3
2 ft. weir
ID 18.1

9 x 3 x 3
2 ft. weir
ID 18.2

9 x 3 x 3
2 ft. weir
ID 18.3

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

F0.0 / 15.0

+00 / 14.3

F4.5 / 24.0

F0.6 / 16.2

+87 / 25.0

+83 / 5.3

+00 Gravel

ISE

PP

TP

+11 / 25.0

PED

F6.7 / 28.4

+00 / 3.3

F9.2 / 33.4

+00 / 12.4

+83 / 3.2

F9.0 / 33.0

+00 / 1.7

+1.16%

+1.65%

-1.58%

18" CS

1 - 18" Wattle @ 65'

C1.0 / 18.5

C0.0 / 17.0

+15 / 5.2

+26 / 6.7

C56.6 / 101.9

No Embankment Construction
Sta 91+00 to 105+00 Rt.

EDMISTEN, JAMES E & MARY
DB 504 PG 511

NAD 83

19-JUN-2015 15:29
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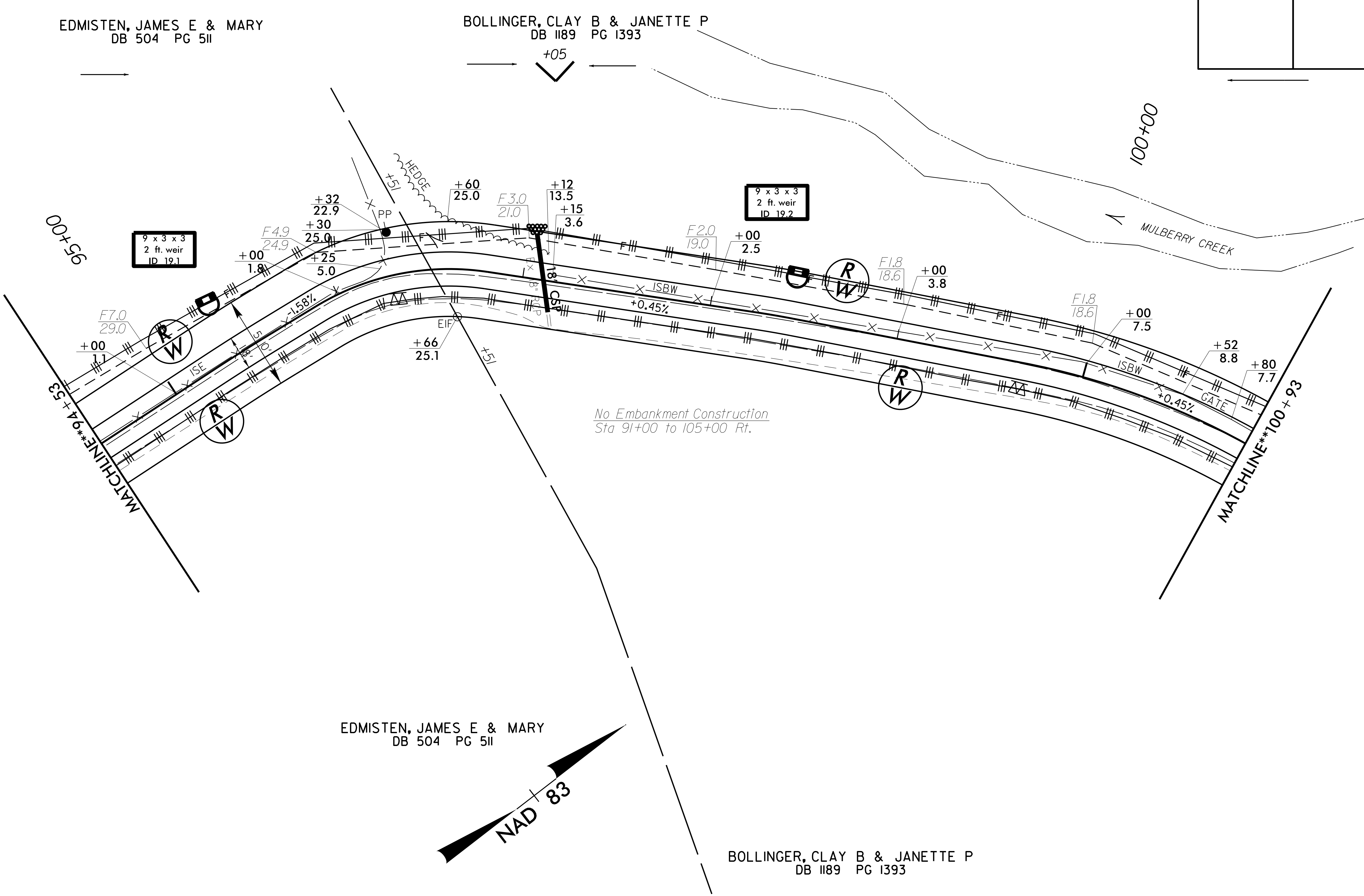
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

BOLLINGER, CLAY B & JANETTE P
DB 1189 PG 1393

MULBERRY CREEK

MATCHLINE**100+93

105+00

+00
7.3
F1.5
18.0

+00
5.9
F2.1
19.2

12 x 4 x 3
3 ft. weir
ID 20.1

F2.0
19.0

+00
5.5

+00
3.3
F3.5
22.0

+00
6.9
F7.7
31.4

F0.8
0.0

2SBW

+3.74%

+3.74%

+00

CANE BRANCH

+38
22.8

+00
16.4
F0.0
15.0

2SBW

+2.00%

1 - 18" Wattle @ 100'

C13.1
36.7

C0.0
17.0

C26.1
56.2

9 x 3 x 3
2 ft. weir
ID 20.2

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

MATCHLINE**107+33

No Embankment Construction
Sta 91+00 to 105+00 Rt.

NAD 83

BOLLINGER, CLAY B & JANETTE P
DB 1189 PG 1393

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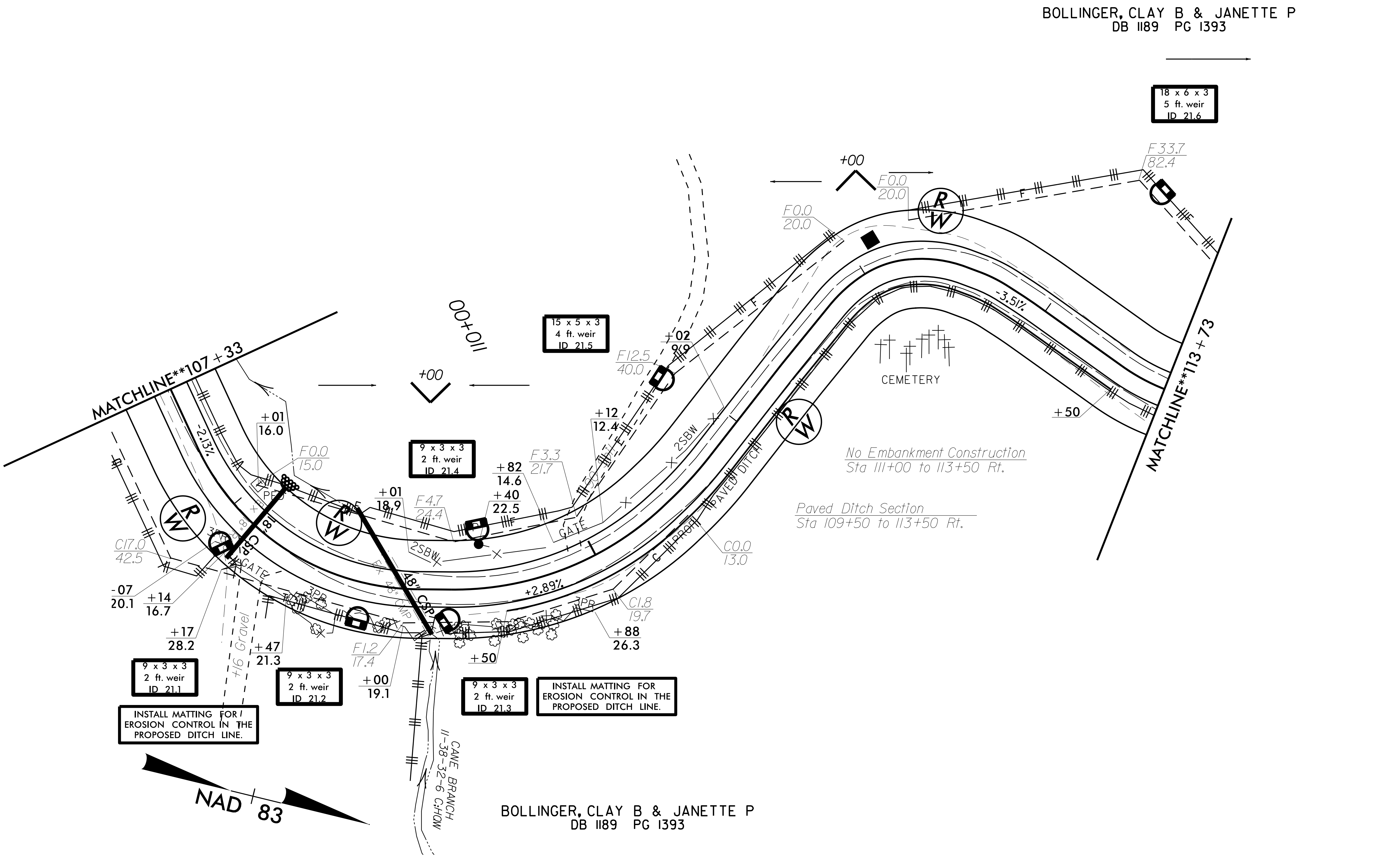
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BOLLINGER, CLAY B & JANETTE P
DB 1189 PG 1393
18 x 6 x 3
5 ft. weir
ID 21.6
F33.7
82.4
+00
F0.0
20.0
F0.0
20.0
15 x 5 x 3
4 ft. weir
ID 21.5
110+00
+00
+02
9.9
F12.5
40.0
+12
12.4
-3.51%
CEMETERY
+50
MATCHLINE**113+73
MATCHLINE**107+33
-2.13%
+01
16.0
F0.0
15.0
9 x 3 x 3
2 ft. weir
ID 21.4
+82
14.6
F3.3
21.7
+40
22.5
+01
18.9
F4.7
24.4
2SBW
GATE
PAVED DITCH
PROF
No Embankment Construction
Sta 111+00 to 113+50 Rt.
Paved Ditch Section
Sta 109+50 to 113+50 Rt.
C0.0
13.0
C17.0
42.5
-07
20.1
+14
16.7
+17
28.2
18" CSP
48" CSP
+2.89%
C1.8
19.7
+88
26.3
+47
21.3
F1.2
17.4
+00
19.1
+50
+16 Gravel
9 x 3 x 3
2 ft. weir
ID 21.1
9 x 3 x 3
2 ft. weir
ID 21.2
9 x 3 x 3
2 ft. weir
ID 21.3
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
CANE BRANCH
11-38-32-6 C;HQW
NAD 83
BOLLINGER, CLAY B & JANETTE P
DB 1189 PG 1393

REVISIONS

8/17/99

10-AUG-2015 16:31
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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS 8/17/99

GREENE, CLARENCE EUGENE & MILD
DB 963 PG 146

115+00

+00

120+00

BOLLINGER, CLAY B & JANETTE P
DB 1189 PG 1393

MATCHLINE**113+73

MATCHLINE**120+13

F23.4 / 62.4

F21.2 / 57.8

EDGE

F1.3 / 0.0

F1.1 / 0.0

F7.1 / 29.8

F0.4 / 0.0

F5.7 / 27.0

F0.7 / 0.0

F0.3 / 0.0

F8.7 / 32.9

F0.4 / 0.0

F11.2 / 37.9

F13.7 / 43.0

F0.4 / 0.0

LI-ALT-

18" CSP

2 - 18" Wattles @ 71' -4.05%

4 - 18" Wattles @ 107' +2.38%

15" CSP

+25 Soil

C3.9 / 22.8

C1.6 / 19.3

C17.0 / 42.4

C3.9 / 22.9

C2.9 / 21.3

C1.5 / 19.3

C1.2 / 18.7

C2.0 / 20.0

5.0'

INSTALL PSRM IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 22.1

9 x 3 x 3
2 ft. weir
ID 22.2

15 x 5 x 3
4 ft. weir
ID 22.3

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

NAD 83

BOLLINGER, CLAY B & JANETTE P
DB 1189 PG 1393

GREENE, CLARENCE EUGENE & MILD
DB 963 PG 146

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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

GREENE, CLARENCE EUGENE & MILD
DB 963 PG 146

+50

MATCHLINE**120+13

15 x 5 x 3
4 ft. weir
ID 23.1

F13.2
41.9

F0.4
0.0

F12.5
40.5

+93
18.1

CHERRY TREE

+2.38%

RW

C1.2
18.8

F0.3
0.0

+76
0.6

APPLE TREE

F3.0
21.5

+19
8.1

LI-ALT-

7 - 18" Wattles @ 50'

15" CSP

C2.3
20.5

F0.5
0.0

C9.0
30.5

F0.5
0.0

F0.6
16.8

C1.9
19.9

+05
37.4

PEAR TREE

+33
46.6

-5.34%

F0.7
0.0

F0.3
16.1

C1.0
18.5

125+00

+50

9 x 3 x 3
2 ft. weir
ID 23.2

+21
45.8

+51
8.8

MATCHLINE*126+53

F1.0
0.0

F0.3
16.1

18" CSP
Addition

18" Wattle @ 75'

+77 Gravel

C0.7
18.0

+31
11.8

9 x 3 x 3
2 ft. weir
ID 23.3

+65
6.1

9 x 3 x 3
2 ft. weir
ID 23.4

+19
73.7

+35
82.6

+72
80.4

+10
73.9

2SFD

HEDGE

PP

PED

WELL

Abandon Old SR1369

INSTALL PSRM IN THE PROPOSED DITCH LINE.

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

CELLAR

Tank

SHED

Prop Owner Poles

SHED

SHED

SHED

SHED

NAD 83

GREENE, CLARENCE EUGENE & MILD
DB 963 PG 146

19-JUN-2015 15:29
R:\Road Projects\Secondary\Caldwell\SR1369 Mulberry Ck Rd\Erosion\EC-23.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

GREENE, FRED H & REBA VINES
DB 1399 PG 1861

GREENE, FRED H & REBA VINES
DB 1399 PG 1861

130+00

F0.6
16.2

C1.5
19.3

C2.0
20.0

Prop Owner Pole

+07 Gravel

+97
14.8

+97 Gravel

+20
27.5

ISFD

+33
26.2

+62
23.6

C12.0
35.0

Prop Owner Pole

APPLE TREES

15" CSP

15" CSP

+05

+239

+05

F3.7
23.0

+60
23.0

PED

PP

+70
27.9

MULBERRY CREEK

No Road Construction
Sta 127+00 to 133+15.

F0.4
0.0

C1.2
18.8

+2.29%

MATCHLINE**126+53

MATCHLINE**132+93

No Road Construction
Sta 127+00 to 133+15.

MULBERRY CRE

NAD 83

GREENE, CLARENCE EUGENE & MILD
DB 963 PG 146

REVISIONS

8/17/99

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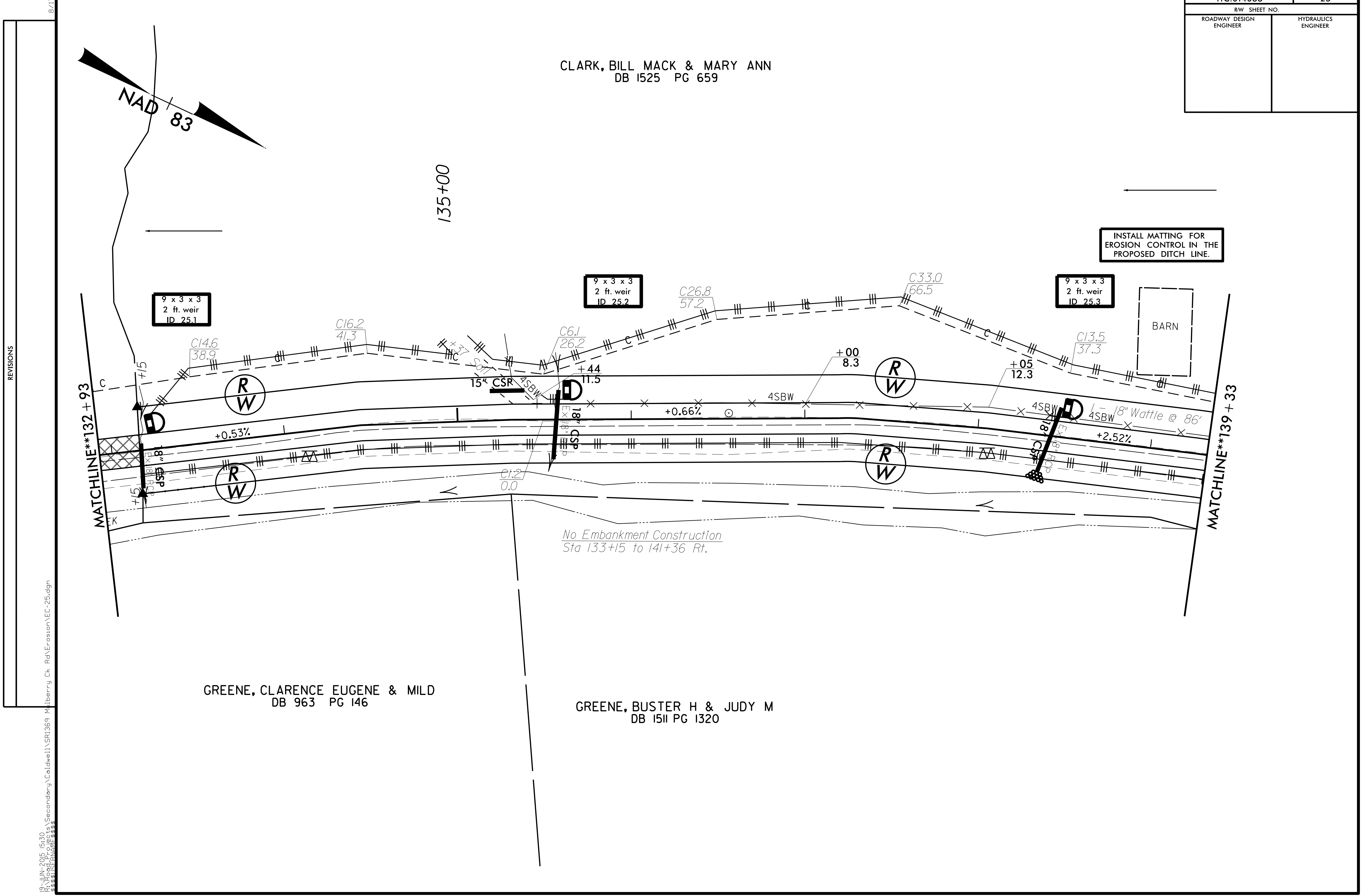
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NAD 83
CLARK, BILL MACK & MARY ANN
DB 1525 PG 659
135+00
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
9 x 3 x 3
2 ft. weir
ID 25.1
9 x 3 x 3
2 ft. weir
ID 25.2
9 x 3 x 3
2 ft. weir
ID 25.3
BARN
MATCHLINE**132+93
MATCHLINE**139+33
+0.53%
+0.66%
+2.52%
15" CSR
18" CSP
4SBW
+00
8.3
+44
11.5
+05
12.3
18" Wattle @ 86'
No Embankment Construction
Sta 133+15 to 141+36 Rt.
GREENE, CLARENCE EUGENE & MILD
DB 963 PG 146
GREENE, BUSTER H & JUDY M
DB 1511 PG 1320
REVISIONS
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

CLARK, BILL MACK & MARY ANN
DB 1525 PG 659

NAD 83

+62

140+00

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 26.2

9 x 3 x 3
2 ft. weir
ID 26.1

SHED

SHED

SHED

CONC SLAB

ISFD

+76 43.6

+47 38.7

C8.8 30.2

+88 39.7

+76 40.0

+96 50.4

+24 48.9

+20 21.3

C5.2 24.8

GATE

3P RAIL

SIDEWALK

+05 7.7

+11 7.1

HEDGE

C0.0 17.0

+46 40.0

+83 8.0

+07 22.7

+38 2.9

+46 25.0

+62 Gravel

WW SBW

ROCK WALL

WALL

WALL

E.O.P
Sta. 141+36

+30 6.8

MATCHLINE 139+33

+2.52%

-1.57%

+05 Soil

18" CSP

PED

PP

+82 15.8

+75 20.8

+74 14.0

+74 25.0

+13 14.0

+13 25.0

MILLS CREEK
11-38-32-5 C;HOW

GRAVEL DRIVE

No Embankment Construction
Sta 133+15 to 141+36 Rt.

MULBERRY CREEK
11-38-32-(1) C;TR;HOW

CLARK, BILL MACK & MARY ANN
DB 1525 PG 655

GREENE, BUSTER H & JUDY M
DB 1511 PG 1320

19-JUN-2015 15:30
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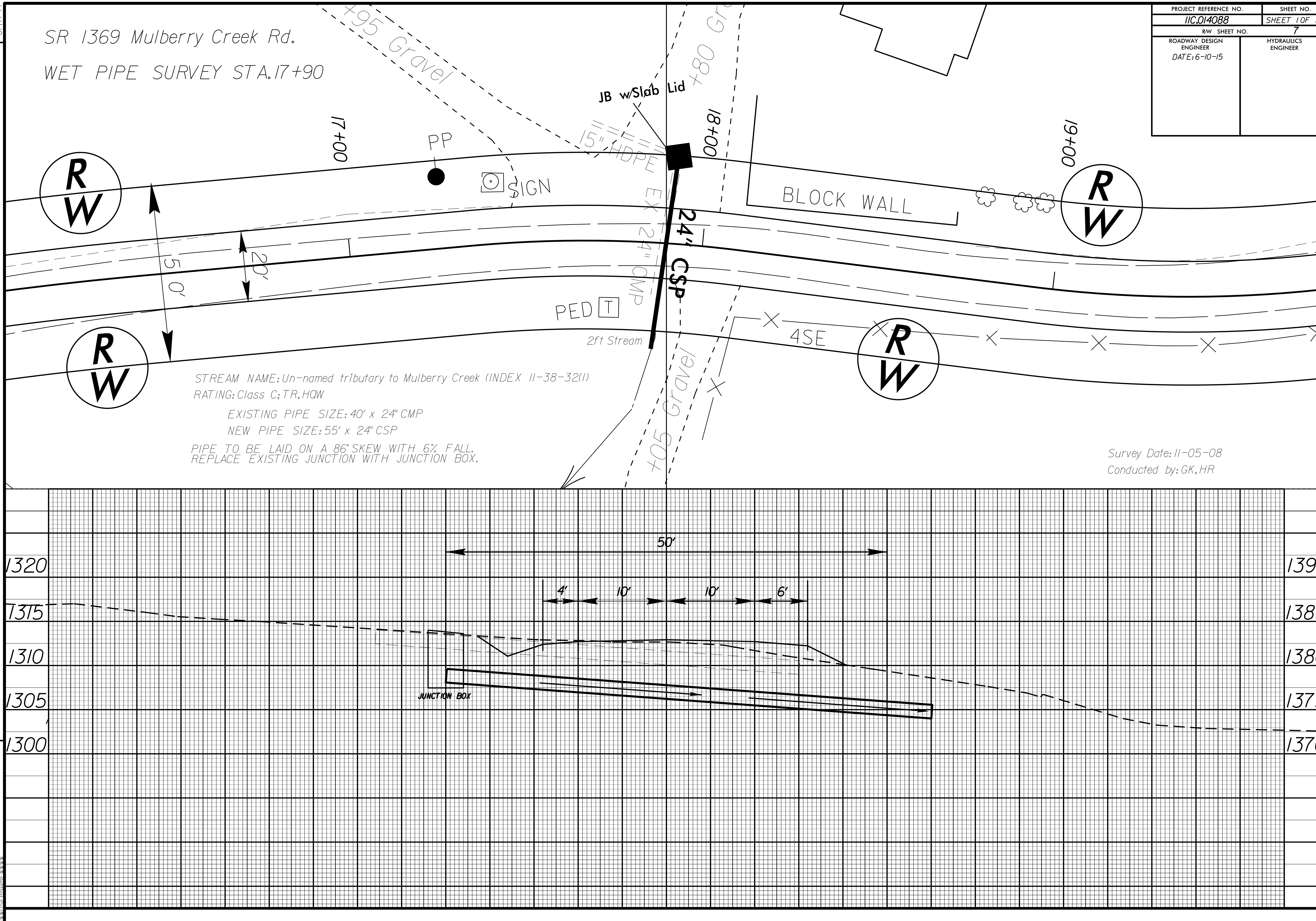
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 1 OF 11
RW SHEET NO.	7
ROADWAY DESIGN ENGINEER DATE: 6-10-15	HYDRAULICS ENGINEER

SR 1369 Mulberry Creek Rd.

WET PIPE SURVEY STA. 17+90



JB w/Slab Lid
17+00
18+00
19+00
+95 Gravel
+80 Gravel
+05 Gravel
PP
SIGN
15" HDPE
EX 24" CMP
24" CSP
BLOCK WALL
PED T
2ft Stream
4SE
50'
20'
R W
STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)
RATING: Class C;TR,HQW
EXISTING PIPE SIZE: 40' x 24" CMP
NEW PIPE SIZE: 55' x 24" CSP
PIPE TO BE LAID ON A 86° SKEW WITH 6% FALL.
REPLACE EXISTING JUNCTION WITH JUNCTION BOX.
Survey Date: 11-05-08
Conducted by: GK,HR
50'
4'
10'
10'
6'
JUNCTION BOX
1320
1315
1310
1305
1300
1390
1385
1380
1375
1370

REVISIONS

8/17/99

19-JUN-2015 14:35
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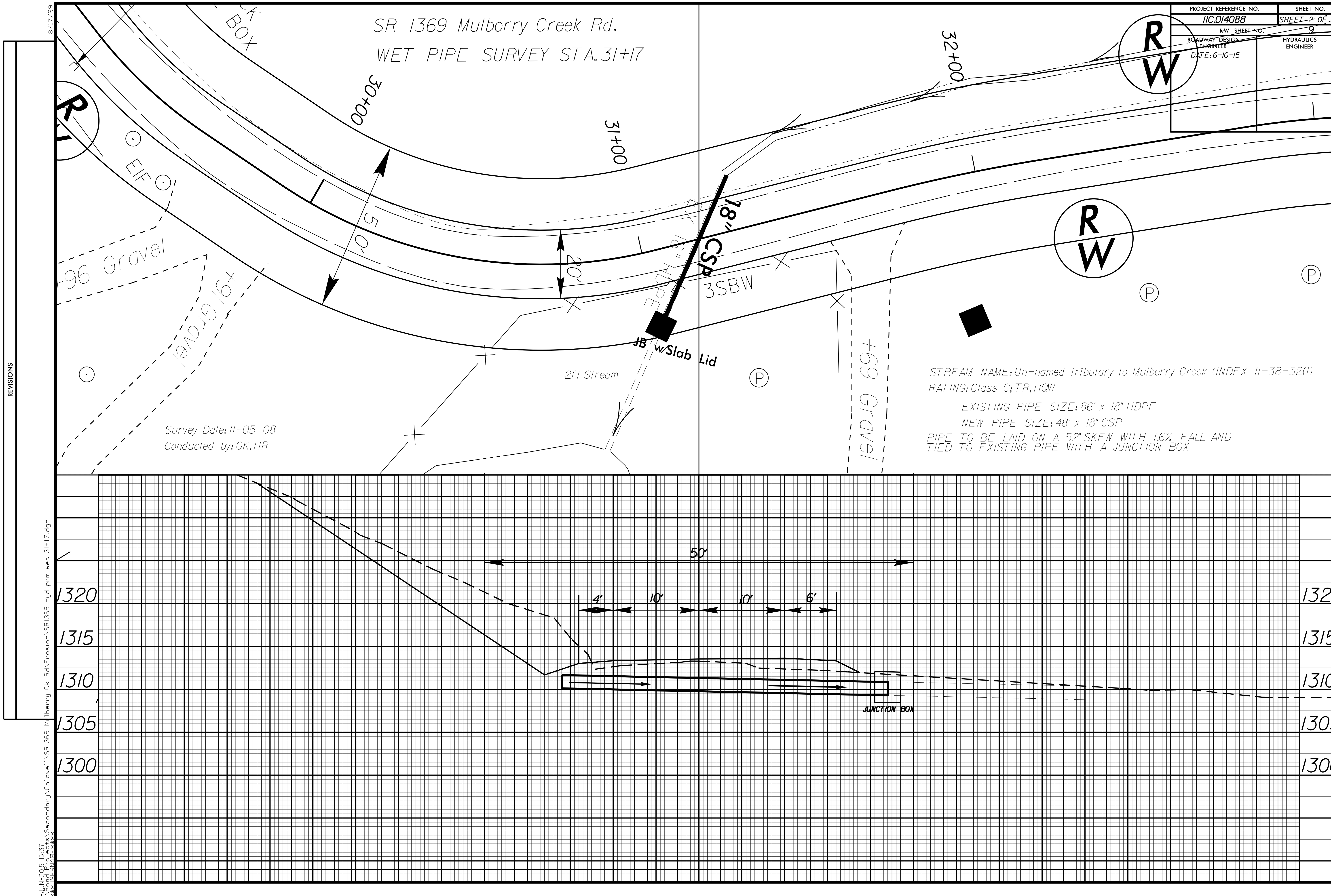
$$$$USERNAME$$$$



SR 1369 Mulberry Creek Rd.
WET PIPE SURVEY STA. 31+17
PROJECT REFERENCE NO.
11C.014088
SHEET NO.
SHEET 2 OF 11
RW SHEET NO.
9
ROADWAY DESIGN ENGINEER
DATE: 6-10-15
HYDRAULICS ENGINEER
30+00
31+00
32+00
RW
50'
20'
18" CSP
18" HDPE
3SBW
JB w/Slab Lid
2ft Stream
EIF
Gravel
+91 Gravel
+69 Gravel
Survey Date: 11-05-08
Conducted by: GK, HR
STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)
RATING: Class C;TR,HQW
EXISTING PIPE SIZE: 86' x 18" HDPE
NEW PIPE SIZE: 48' x 18" CSP
PIPE TO BE LAID ON A 52° SKEW WITH 1.6% FALL AND TIED TO EXISTING PIPE WITH A JUNCTION BOX
50'
4'
10'
10'
6'
JUNCTION BOX
1320
1315
1310
1305
1300
REVISIONS
8/17/99
19-JUN-2015 15:37
R:\Road_Projects\Secondary\Caldwell\SR1369 Mulberry Ck Rd\Erosion\SR1369_Hyd_prm_wet_31+17.dgn

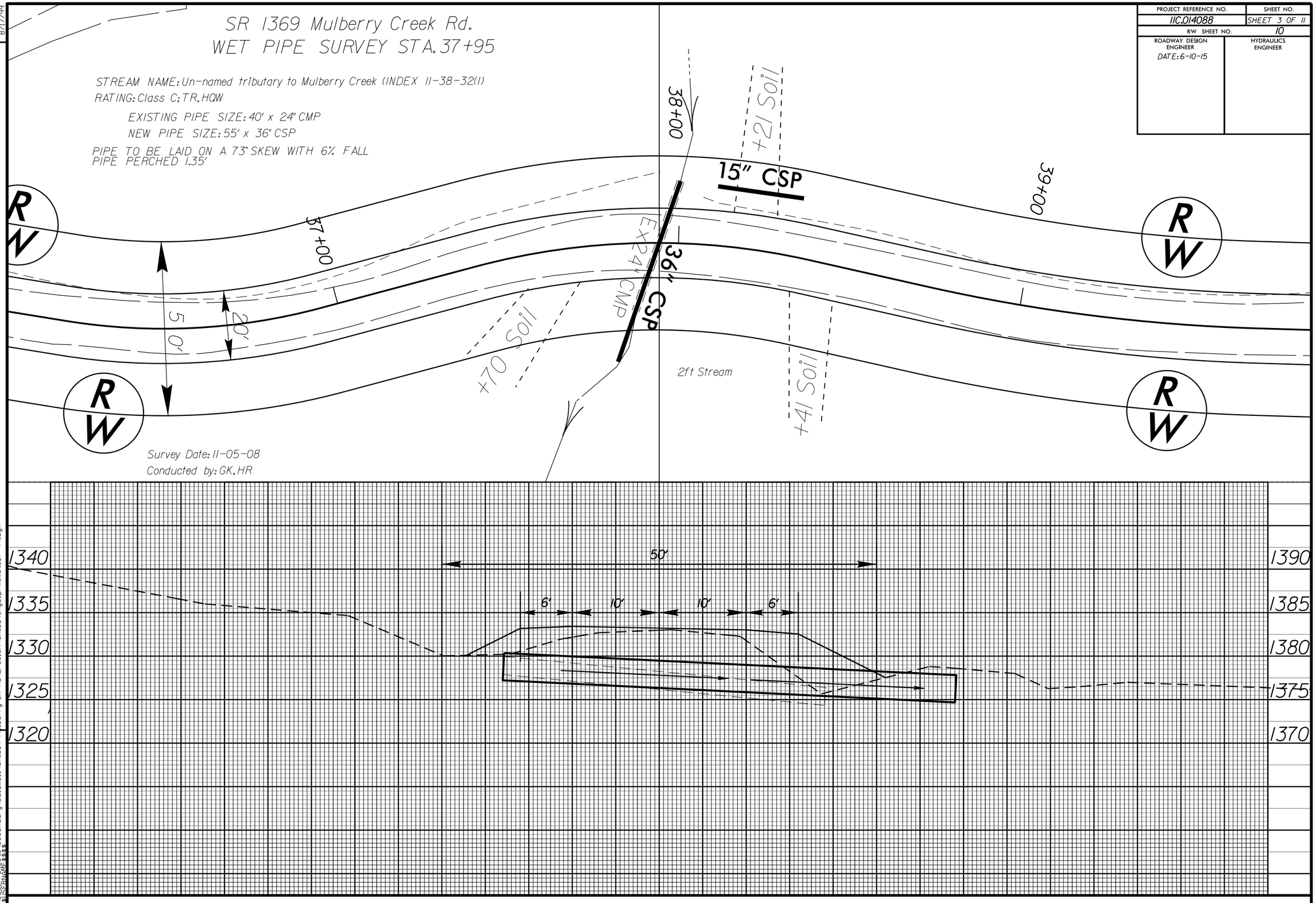
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 3 OF 11
R/W SHEET NO.	10
ROADWAY DESIGN ENGINEER DATE: 6-10-15	HYDRAULICS ENGINEER

SR 1369 Mulberry Creek Rd.
WET PIPE SURVEY STA. 37+95

STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)
RATING: Class C; TR, HQW

EXISTING PIPE SIZE: 40' x 24" CMP
NEW PIPE SIZE: 55' x 36" CSP

PIPE TO BE LAID ON A 73° SKEW WITH 6% FALL
PIPE PERCHED 1.35'



Survey Date: 11-05-08
Conducted by: GK, HR

REVISIONS
8/17/99

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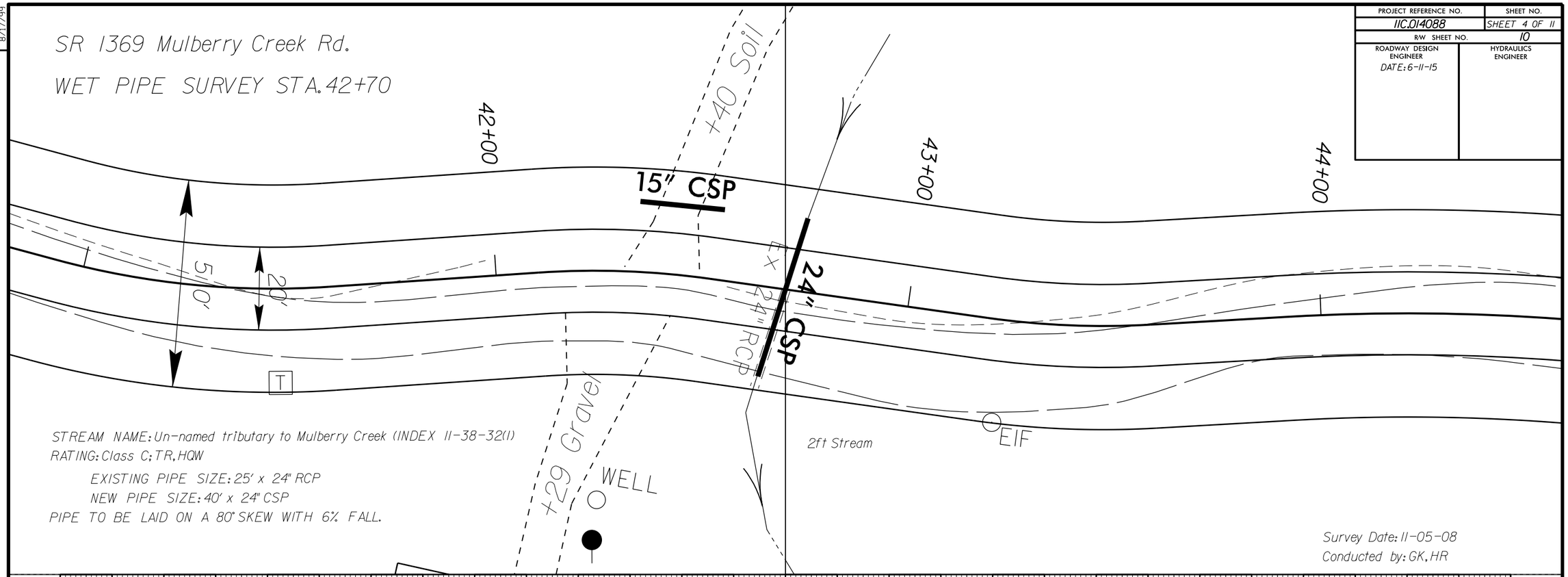
8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 4 OF 11
R/W SHEET NO.	10
ROADWAY DESIGN ENGINEER DATE: 6-11-15	HYDRAULICS ENGINEER

SR 1369 Mulberry Creek Rd.

WET PIPE SURVEY STA. 42+70

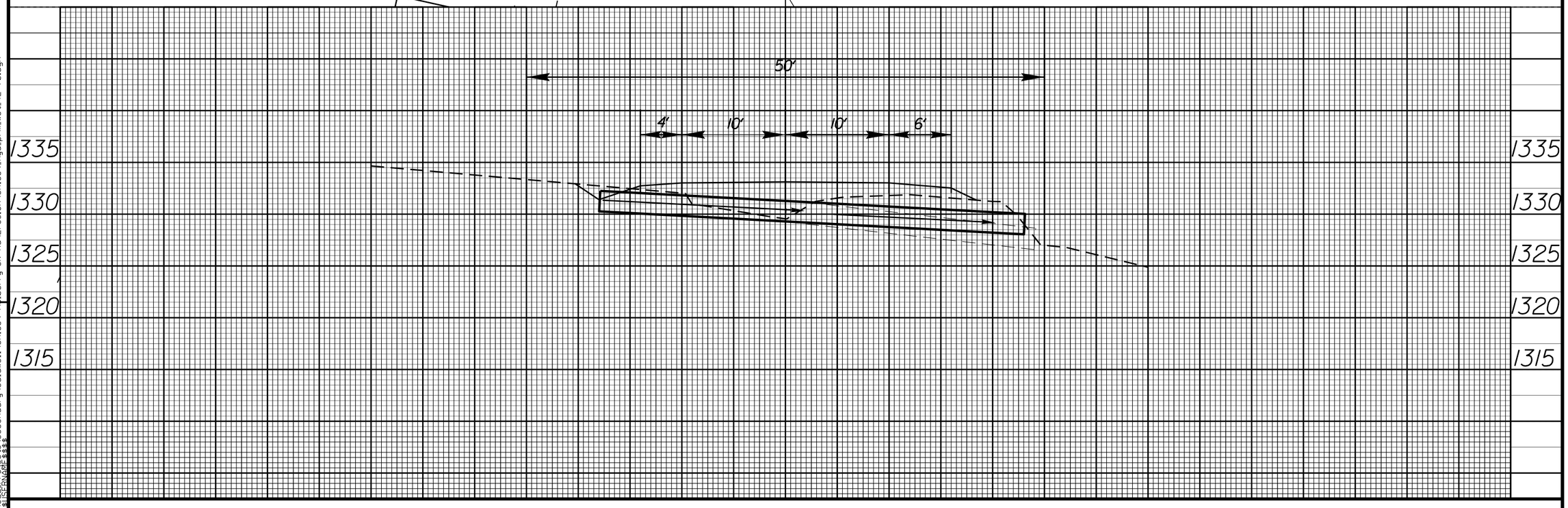


STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1))
RATING: Class C; TR, HQW

EXISTING PIPE SIZE: 25' x 24" RCP
NEW PIPE SIZE: 40' x 24" CSP

PIPE TO BE LAID ON A 80° SKEW WITH 6% FALL.

Survey Date: 11-05-08
Conducted by: GK, HR



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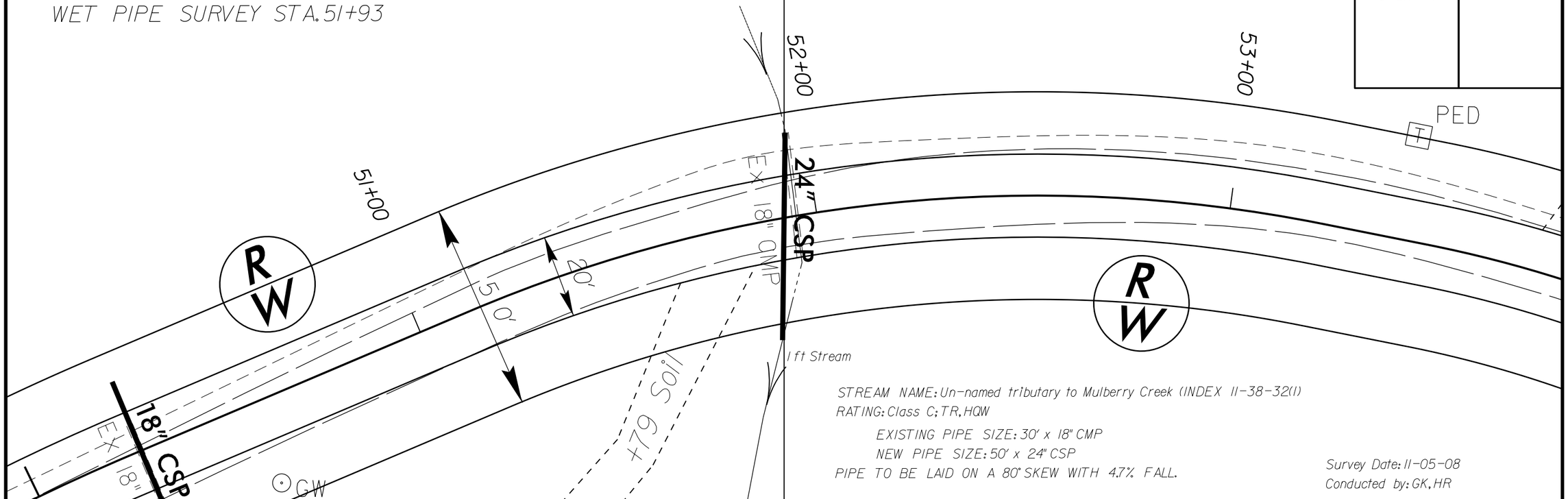
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 5 OF 11
R/W SHEET NO.	12
ROADWAY DESIGN ENGINEER DATE: 6-11-15	HYDRAULICS ENGINEER

REVISIONS 8/17/99

SR 1369 Mulberry Creek Rd.

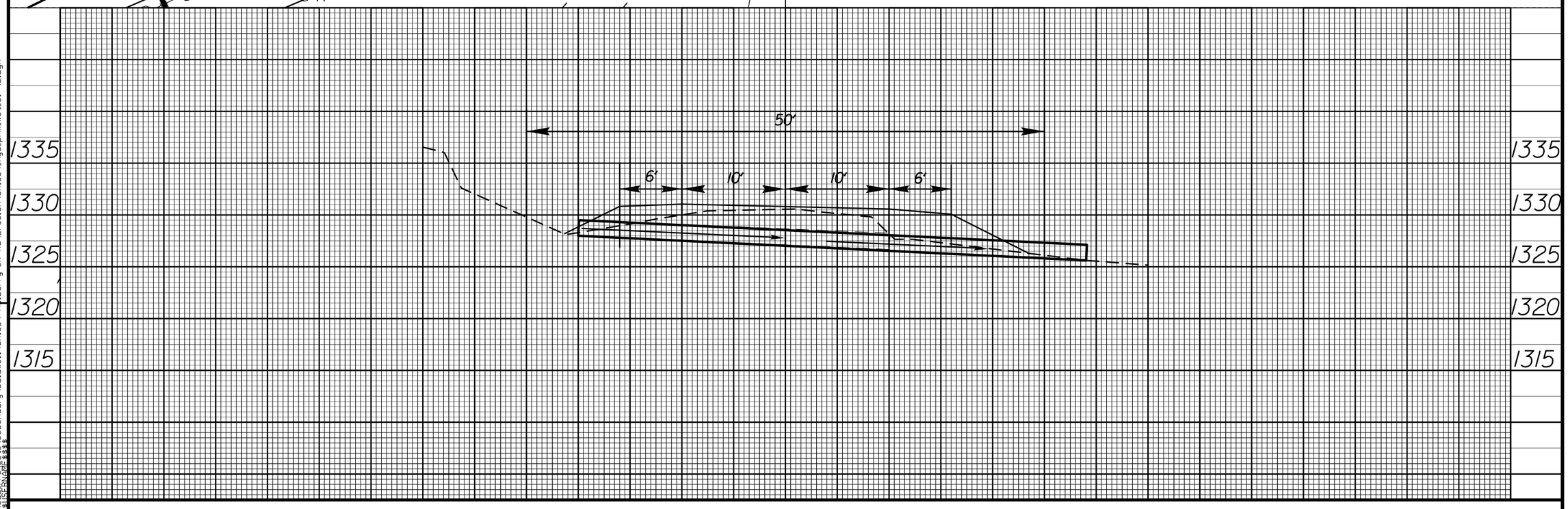
WET PIPE SURVEY STA. 51+93



STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)
RATING: Class C; TR, HQW

EXISTING PIPE SIZE: 30' x 18" CMP
NEW PIPE SIZE: 50' x 24" CSP
PIPE TO BE LAID ON A 80° SKEW WITH 4.7% FALL.

Survey Date: 11-05-08
Conducted by: GK, HR



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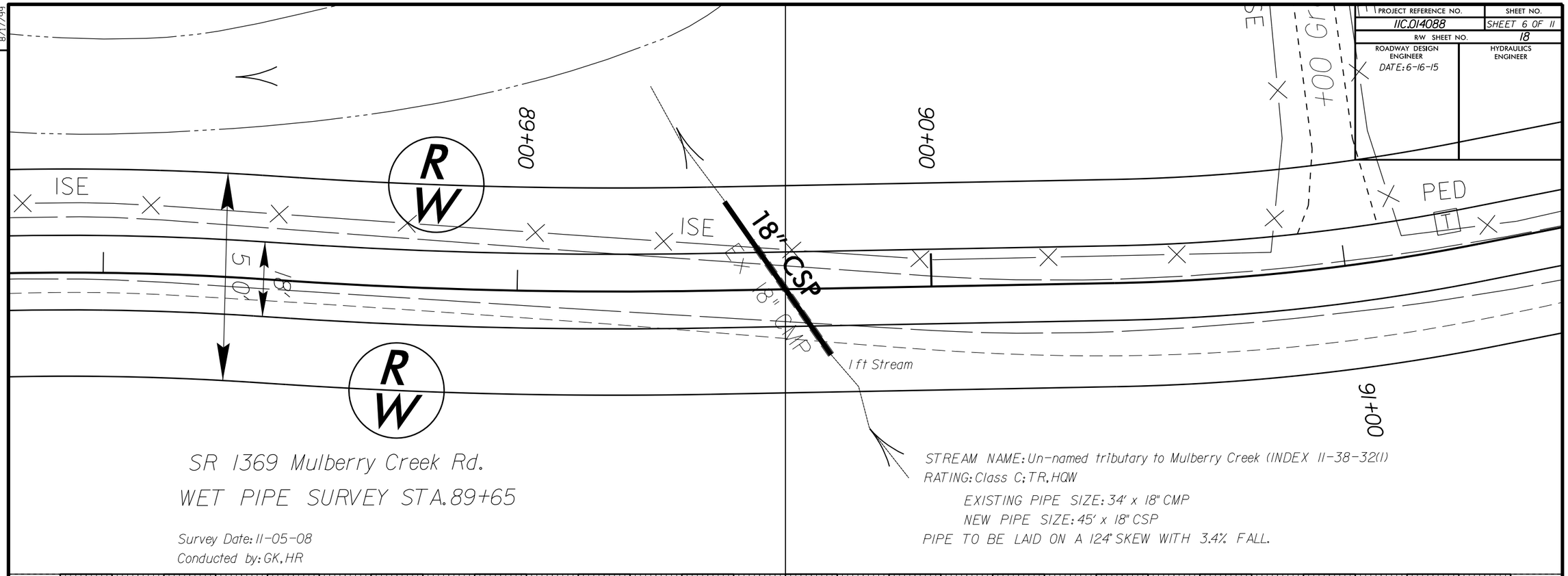
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 6 OF 11
R/W SHEET NO.	18
ROADWAY DESIGN ENGINEER DATE: 6-16-15	HYDRAULICS ENGINEER

8/17/99

REVISIONS



SR 1369 Mulberry Creek Rd.

WET PIPE SURVEY STA. 89+65

Survey Date: 11-05-08

Conducted by: GK, HR

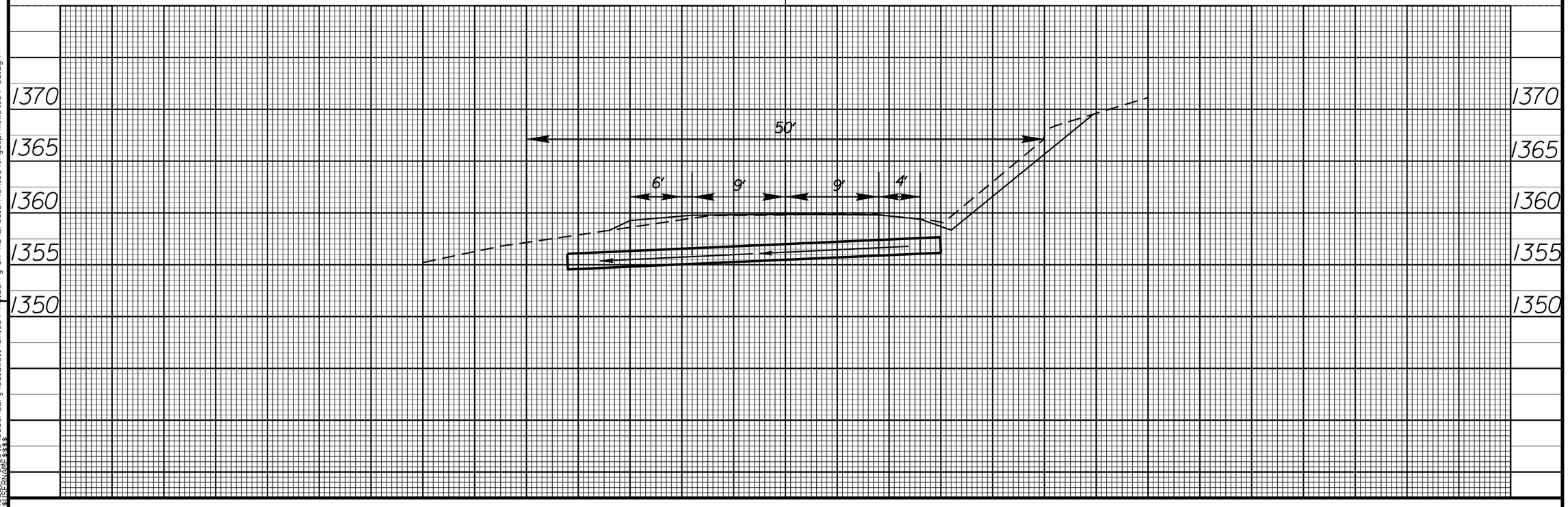
STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)

RATING: Class C; TR, HQW

EXISTING PIPE SIZE: 34' x 18" CMP

NEW PIPE SIZE: 45' x 18" CSP

PIPE TO BE LAID ON A 124° SKEW WITH 3.4% FALL.



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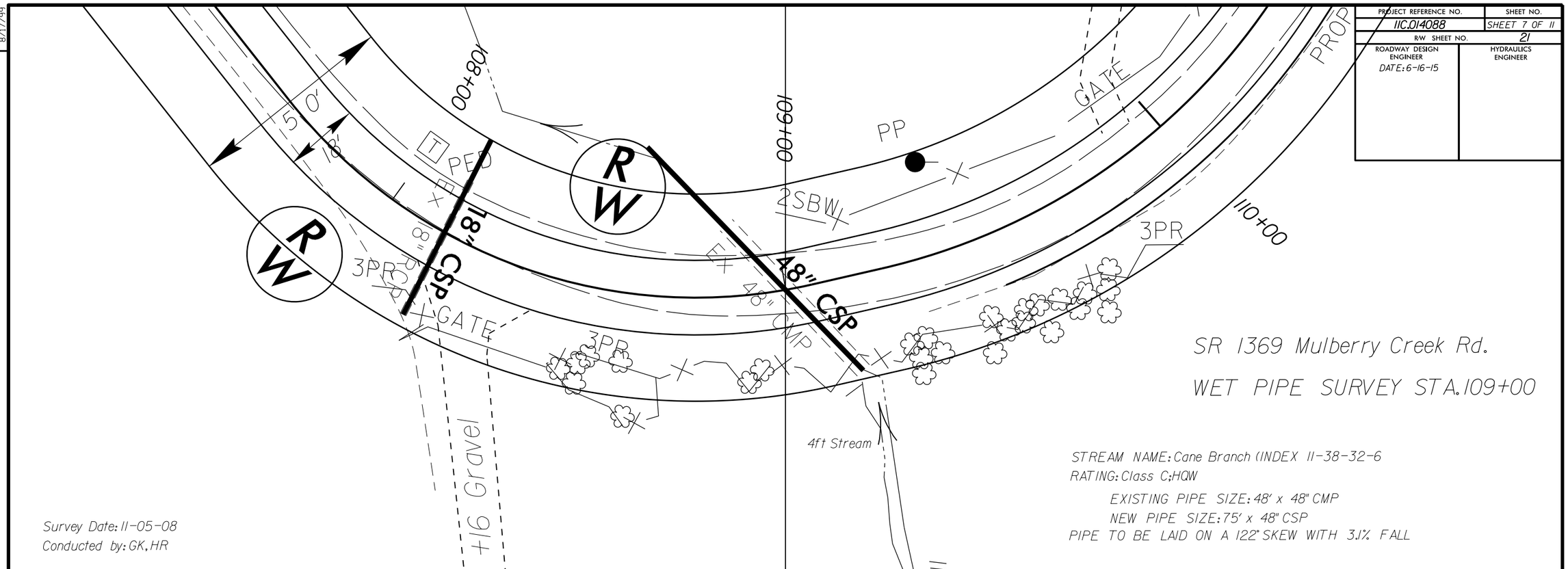
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 7 OF 11
R/W SHEET NO.	21
ROADWAY DESIGN ENGINEER DATE: 6-16-15	HYDRAULICS ENGINEER

REVISIONS

8/17/99

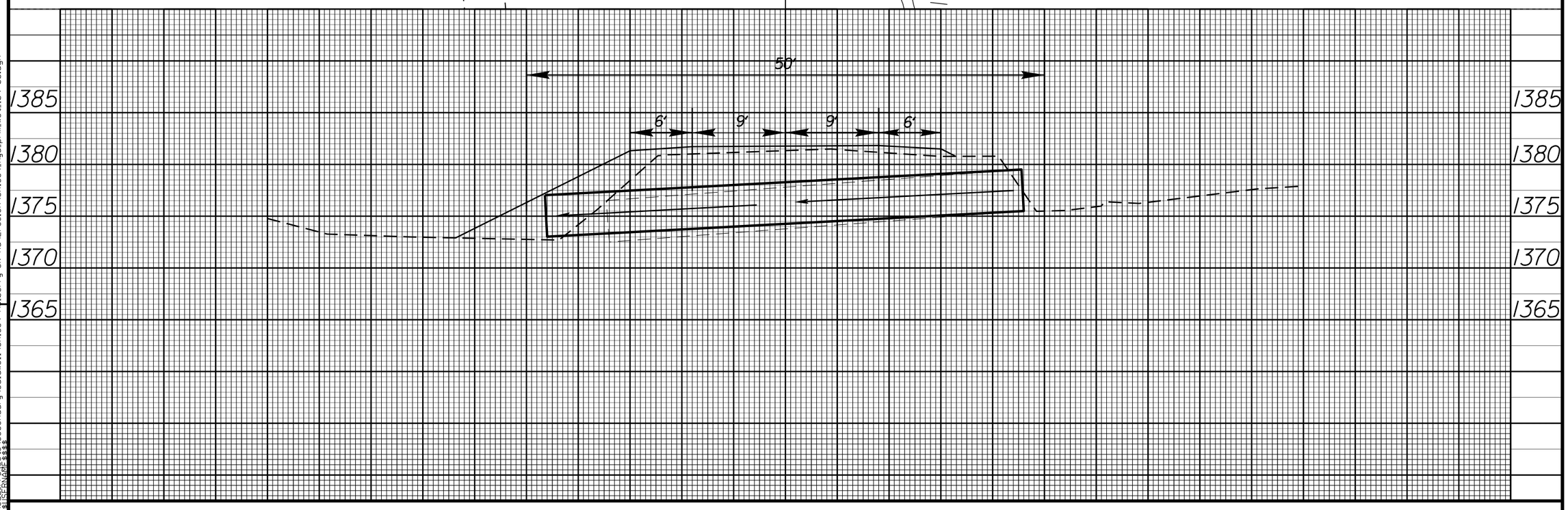


SR 1369 Mulberry Creek Rd.

WET PIPE SURVEY STA. 109+00

STREAM NAME: Cane Branch (INDEX 11-38-32-6
RATING: Class C;HQW
EXISTING PIPE SIZE: 48' x 48" CMP
NEW PIPE SIZE: 75' x 48" CSP
PIPE TO BE LAID ON A 122° SKEW WITH 3.1% FALL

Survey Date: 11-05-08
Conducted by: GK, HR



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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 8 OF 11
R/W SHEET NO.	22
ROADWAY DESIGN ENGINEER DATE: 8-01-14	HYDRAULICS ENGINEER

SR 1369 Mulberry Creek Rd.

WET PIPE SURVEY STA. 116+11

HEDGE

115+00

116+00

117+00

R/W

LI-ALT-

18" CSP

EX. 18" CMP

15" CSP

50'

8'

R/W

1ft Stream

+25 Soil

STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)

RATING: Class C; TR, HQW

EXISTING PIPE SIZE: 34' x 18" CMP

NEW PIPE SIZE: 73' x 18" CSP

PIPE TO BE LAID ON A 130° SKEW WITH 6% FALL

Survey Date: 11-05-08

Conducted by: GK, HR

50'

6' 9' 9' 4'

3:1

1390

1385

1380

1375

1370

REVISIONS

8/17/99

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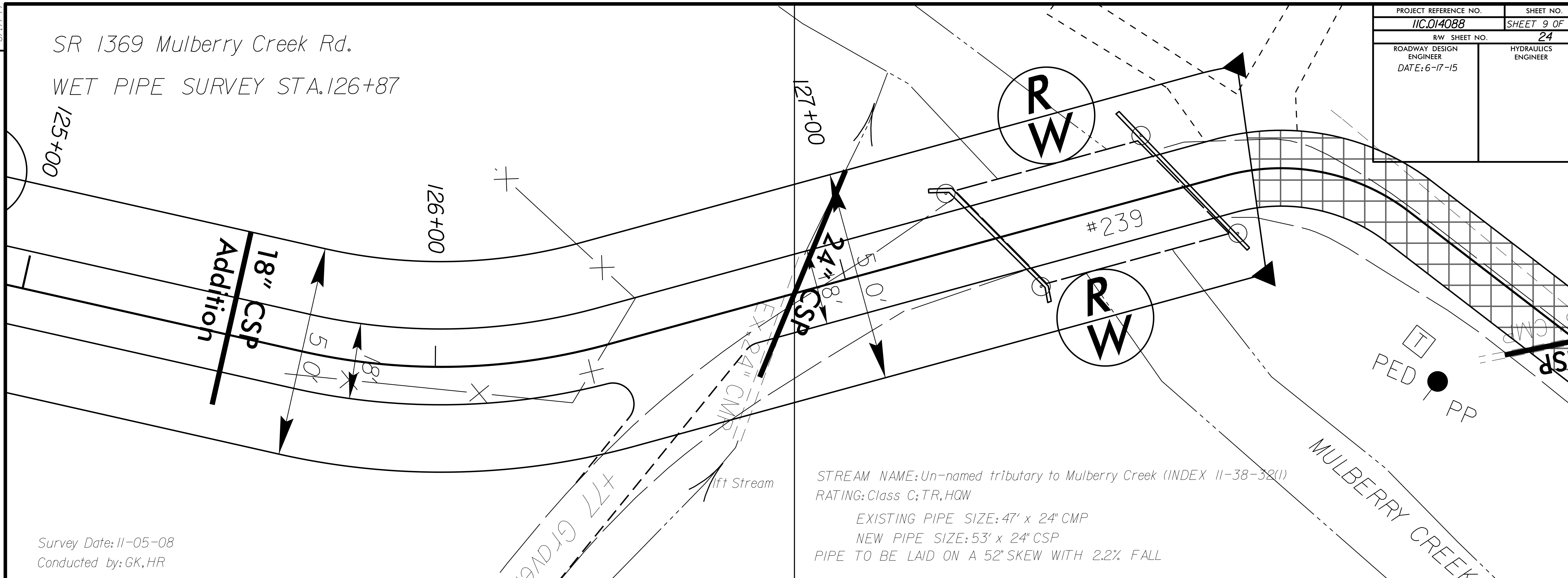
PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 9 OF 11
R/W SHEET NO.	24
ROADWAY DESIGN ENGINEER DATE: 6-17-15	HYDRAULICS ENGINEER

SR 1369 Mulberry Creek Rd.

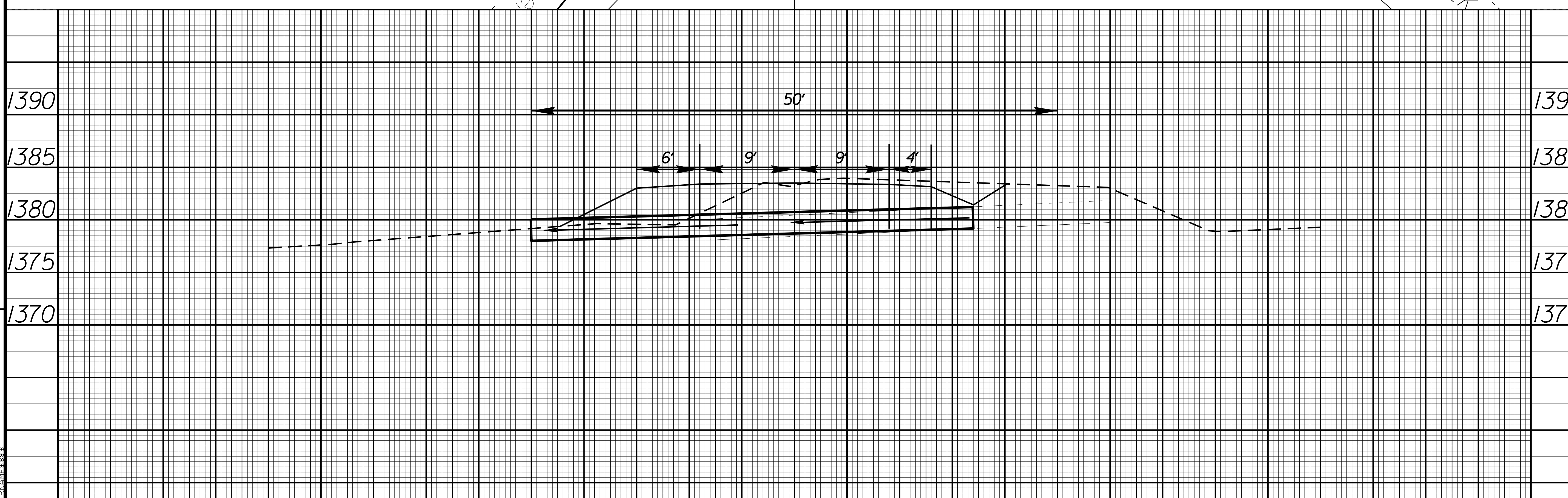
WET PIPE SURVEY STA. 126+87



STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1))
RATING: Class C;TR,HQW

EXISTING PIPE SIZE: 47' x 24" CMP
NEW PIPE SIZE: 53' x 24" CSP
PIPE TO BE LAID ON A 52° SKEW WITH 2.2% FALL

Survey Date: 11-05-08
Conducted by: GK,HR



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PROJECT REFERENCE NO.	SHEET NO.
11C.014088	SHEET 10 OF 11
R/W SHEET NO.	25
ROADWAY DESIGN ENGINEER DATE: 6-17-15	HYDRAULICS ENGINEER

SR 1369 Mulberry Creek Rd.
WET PIPE SURVEY STA. 133+17

APPLE TREES

Prop Owner Pole

15" CSP

133+15

18" CSP

Ift Stream

No Road Construction
Sta 127+00 to 133+15.

MULBERRY CREEK

R/W

R/W

134+00

135+00

50'

18'

Survey Date: 11-05-08
Conducted by: GK, HR

STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)
RATING: Class C; TR, HQW
EXISTING PIPE SIZE: 19' x 18" RCP
NEW PIPE SIZE: 26' x 18" CSP
PIPE TO BE LAID ON A 87° SKEW WITH 6% FALL

50'

1400
1395
1390
1385
1380

REVISIONS

8/17/99

19-JUN-2015 14:35
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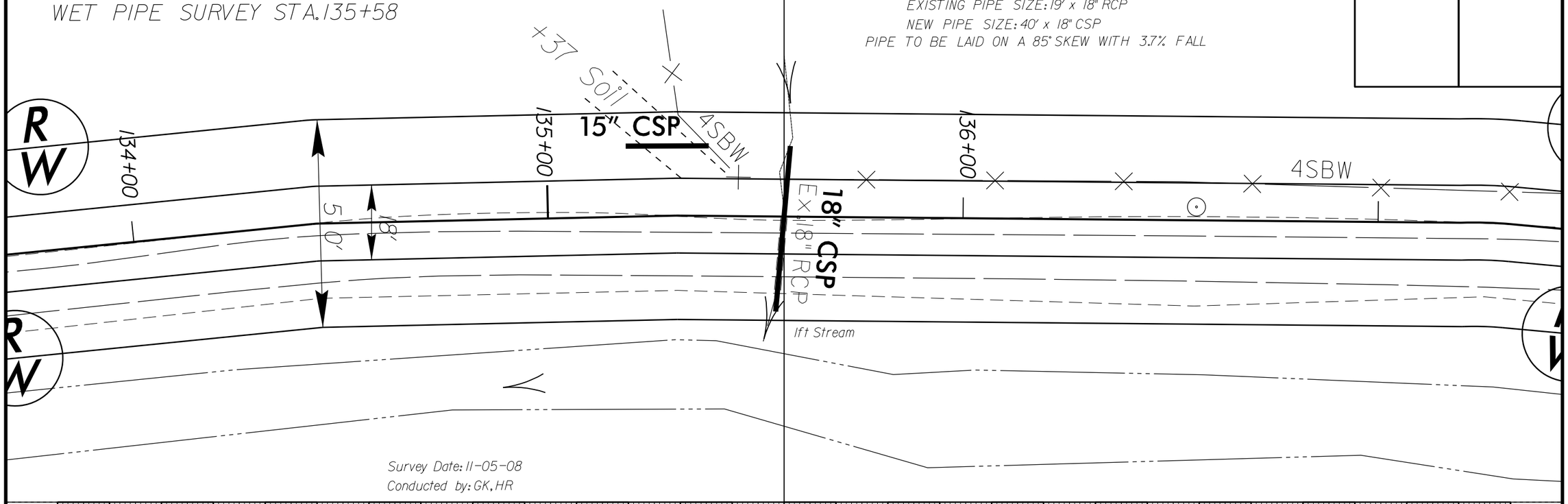
PROJECT REFERENCE NO.	SHEET NO.
IIC.014088	SHEET II OF II
R/W SHEET NO.	25
ROADWAY DESIGN ENGINEER DATE: 6-17-15	HYDRAULICS ENGINEER

SR 1369 Mulberry Creek Rd.

WET PIPE SURVEY STA. 135+58

STREAM NAME: Un-named tributary to Mulberry Creek (INDEX 11-38-32(1)
RATING: Class C; TR, HQW

EXISTING PIPE SIZE: 19" x 18" RCP
NEW PIPE SIZE: 40" x 18" CSP
PIPE TO BE LAID ON A 85° SKEW WITH 3.7% FALL



Survey Date: 11-05-08
Conducted by: GK, HR

REVISIONS

8/17/99

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