STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SS-4914BA	1	17

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
WBS-43375.3.1		

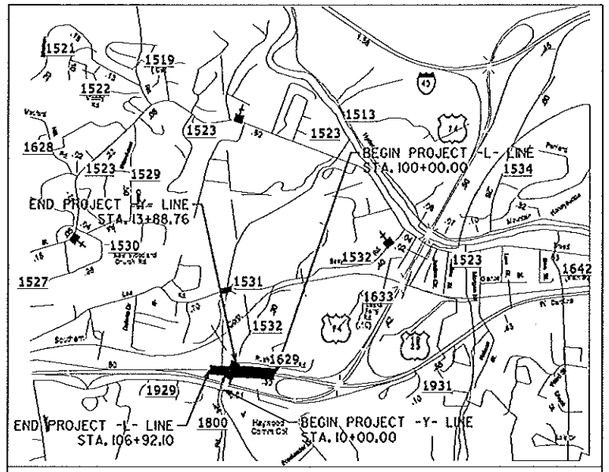
See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

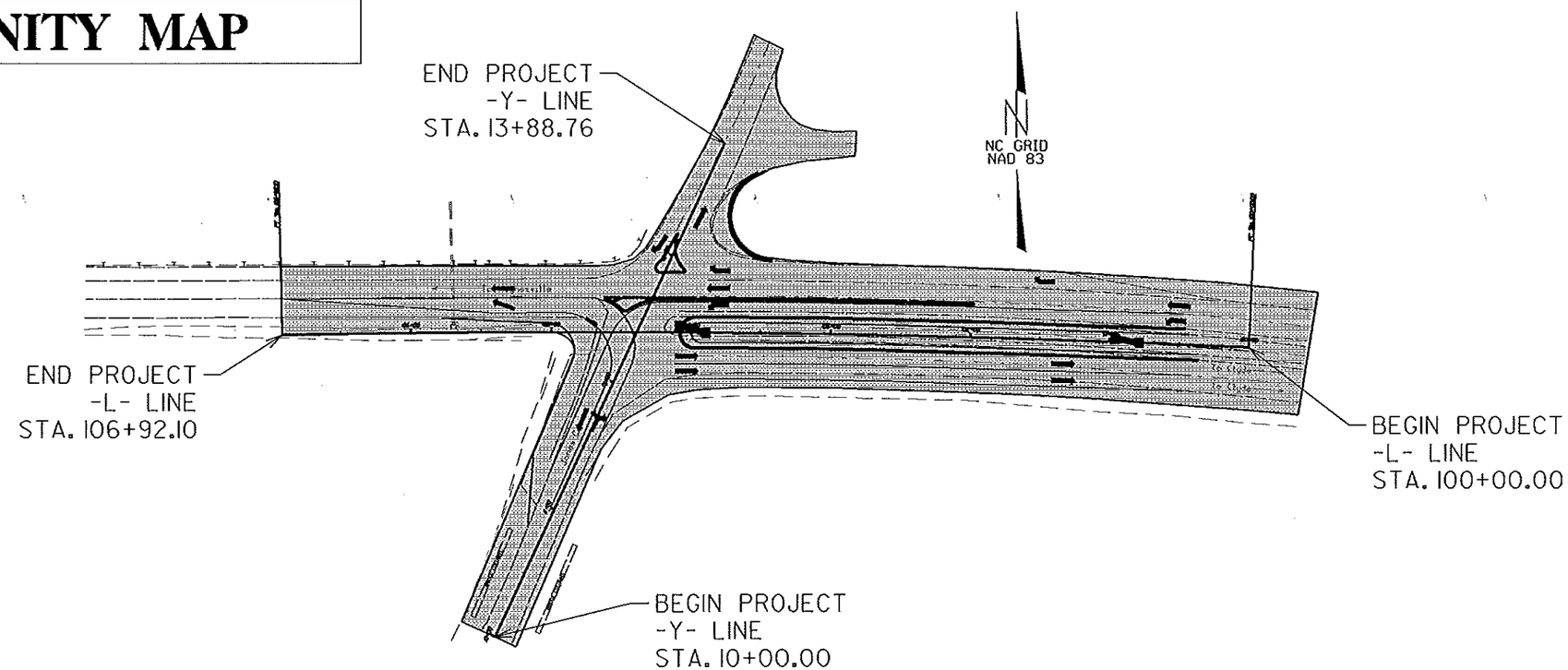
HAYWOOD COUNTY

LOCATION: U.S. 19 - 23 AT S.R. 1532 & S.R. 1800

TYPE OF WORK: GRADING, PAVING, DRAINAGE



VICINITY MAP



TIP PROJECT: SS-4914BA

CONTRACT: DN00101

GRAPHIC SCALES

20' 10' 0 20' 40'
PLANS

30' 15' 0 30' 60'
TRAFFIC CONTROL PLANS

5' 2.5' 0 5' 10'
X-SECTIONS

DESIGN DATA

PROJECT LENGTH

1,030 L.F.

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

Jonathan L. Woodard, P.E.
PROJECT ENGINEER

Jeffrey E. Alspaugh, E.I.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

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PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	1-A

ROADWAY DESIGN ENGINEER

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
3	SUMMARY OF QUANTITIES
~~3A~~	~~SUMMARY OF DRAINAGE QUANTITIES~~ ~~SUMMARY OF GUARDRAIL, EARTHWORK SUMMARY, AND ASPHALT PAVEMENT REMOVAL SUMMARY~~
4 THRU 5	PLAN SHEET
	~~PROFILE SHEET~~
TCP-1 THRU TCP-5	TRAFFIC CONTROL PLANS
PM-1 THRU PM-2	PAVEMENT MARKING PLANS
~~L-1 THRU L~~	~~LANDSCAPE PLANS~~
~~RF-1 THRU RF~~	~~REFORESTATION PLANS~~
EC-1 THRU EC-2	EROSION CONTROL PLANS
~~SIGN-1 THRU SIGN~~	~~SIGNING PLANS~~
~~U-1 THRU U~~	~~UTILITIES PLANS~~
X-1 THRU X-3	CROSS-SECTIONS
~~S-1 THRU S~~	~~STRUCTURE PLANS~~

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.

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 11/01/11

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD

MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE NCDOT Traffic Services

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch – N. C. Department of Transportation – Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 – EARTHWORK	
200.02	Method of Clearing – Method II
DIVISION 3 – PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 – SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction – High Side of Superelevated Curve – Method 1
DIVISION 6 – ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 – INCIDENTALS	
840.00	Concrete Base Pad for Drainage Structures
840.14	Concrete Drop Inlet – 12" thru 30" Pipe
840.15	Brick Drop Inlet – 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates – for use with Std. Dwg 840.14 and 840.15
840.31	Concrete Junction Box – 12" thru 66" Pipe
840.32	Brick Junction Box – 12" thru 66" Pipe
840.45	Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
852.01	Concrete Islands

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PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	1-B

Note: Not to Scale

**S.U.E. = Subsurface Utility Engineering*

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite R/W Marker
- Proposed Control of Access Line with Concrete C/A Marker
- Existing Control of Access
- Proposed Control of Access
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

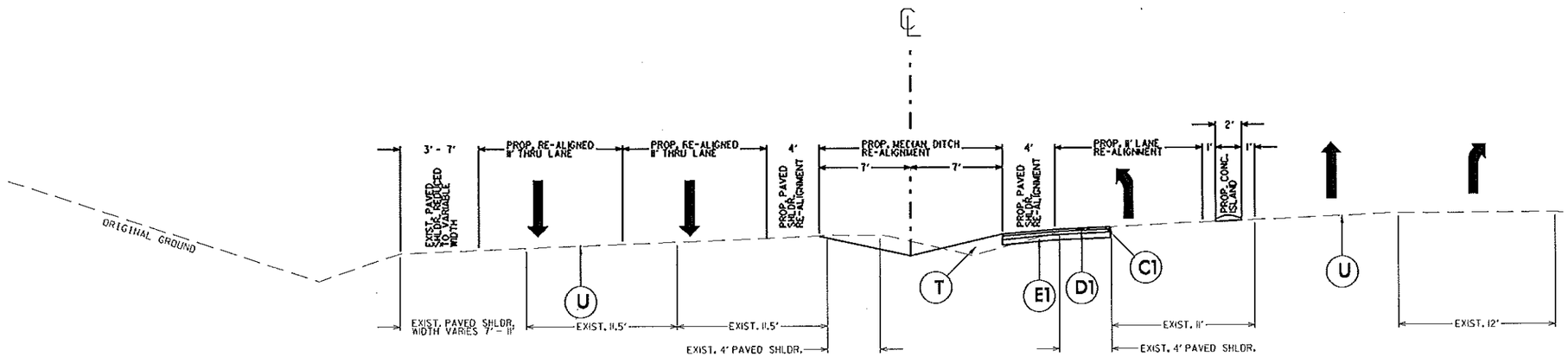
SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — XUTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of information — E.O.I.

PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER



TYPICAL SECTION NO. 1

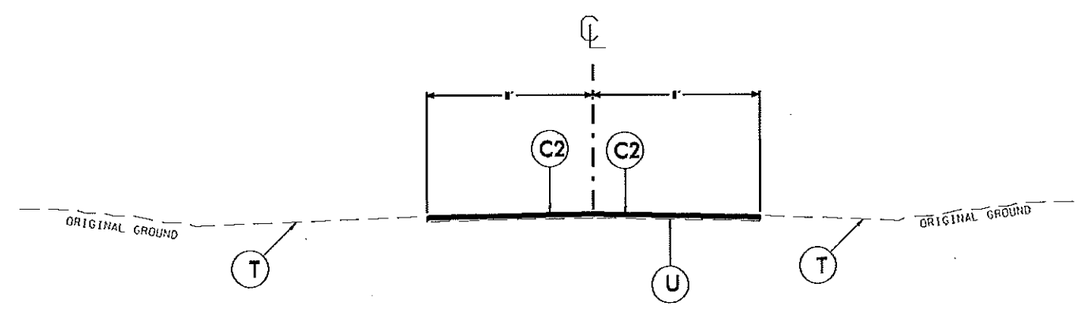
U.S. 19-23
STA. 101+97.52 TO STA. 104+20.83
NOT TO SCALE

PAVEMENT SCHEDULE

(FINAL PAVEMENT DESIGN)

C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 336 LBS. PER SQ. YD.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

NOTES: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
PAVEMENT RE-ALIGNMENT TO MATCH EXISTING PAVEMENT CROSS SLOPE.
SHOULDER RE-ALIGNMENT TO MATCH EXISTING SHOULDER CROSS SLOPE.
DITCH RE-ALIGNMENT TO MATCH EXISTING DITCH FLOW-LINE SLOPE AND SIDE SLOPES.



TYPICAL SECTION NO. 2

S.R. 1800 (JONES COVE RD)
STA. 10+00.00 TO STA. 11+30.33
NOT TO SCALE

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COMPUTED BY: J.E. Alspaugh, E.I. DATE:
CHECKED BY: J.L. Woodard, P.E. DATE:

PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	3

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT, RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION (EFFLUENT)	INVERT ELEVATION (INFLUENT)	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 12"	15"	18"	24"	30"	36"	42"	48"	BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE) 12"	15"	18"	24"	30"	36"	42"	48"	CLASS III R.C. PIPE OR ALUMINIZED C.S. PIPE, TYPE IR OR HDPE PIPE, TYPE S OR D 12"	15"	18"	24"	30"	36"	42"	48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS: STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES: FOR EACH (0' THRU 5.0')	LIN. FT. A: 5.0' THRU 10.0'	LIN. FT. B: 10.0' AND ABOVE	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B')	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G		D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH GRATE STD. 840.22	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.21 OR 840.32	CONV. DIST. D.I. TO J.B.	T.B.J.B. STD. 840.54	M.H. FRAME & COVER STD. 840.54				CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.77	PIPE REMOVAL LIN.FT.	REMARKS
100+89.25	CL	1		2623.54	2620.40											.064	.064	.064	.064	.079		.079	.109		.109																																				
100+89.25	CL	1	2		2620.19	2620.40																																																							
100+95.85	RT		2	2623.12	2619.52	2620.19																																																							
103+89.25	CL	3		2606.39	2602.73																																																								
103+89.25	CL	3	4		2602.97	2602.73																																																							
104+08.66	RT		4	2606.60	2602.47	2602.97																																																							

15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE
14.5		
17		

J.B. TO HAVE CONCRETE SLAB TOP

J.B. CONVERSION NOW IN TRAVEL LANE W/M.H.

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 54" & OVER)

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT, RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 54"	60"	66"	72"	78"	84"	BITUMINOUS COATED C.S. PIPE TYPE B 54" .109	.138	.168	SHOP BLOW-GATED .138	.168	60" .138	.168	66" .138	.168	72" .138	.168	STRUCTURAL PLATE PIPE 60" 12	10	66" 12	10	72" 12	10	REINFORCED ENDWALLS WITH R.C. – C.Y.	WITH C.S. – C.Y.	MASONARY DRAINAGE STRUCTURES CUBIC YARDS	REINF. CONC. FLARED END SECTIONS NO. & SIZE	CORR. STEEL FLARED END SECTIONS NO. & SIZE	REINF. CONC. ELBOWS NO. & SIZE	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	PIPE REMOVAL LIN.FT.	REMARKS

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

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PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONCRETE ISLAND STATION & OFFSET TABLE			
LOCATION I.D.	-L- STATION	-L- OFFSET	SIDE
A	104+06.03	44.38	RT
B	104+10.76	56.83	RT
C	104+10.03	69.67	RT
D	104+20.25	54.02	RT
E	104+21.95	46.28	RT
F	104+51.20	24.43	RT
G	104+52.98	18.59	RT
H	104+46.66	18.64	RT
I	104+33.29	21.06	RT
J	101+98.42	23.88	RT

Curve Data

Curve L-1

P.I. Station 103+46.18
N 670,615.67E 831,077.93

Delta = 3° 54' 35.6" (LT)

Degree = 0° 33' 53.8"

Tangent = 346.18

Length = 692.10

Radius = 10,142.00

External = 5.91

Long Chord = 691.96

Mid. Ord. = 5.90

P.C. Station 100+00.00
N 670,599.18E 831,423.71

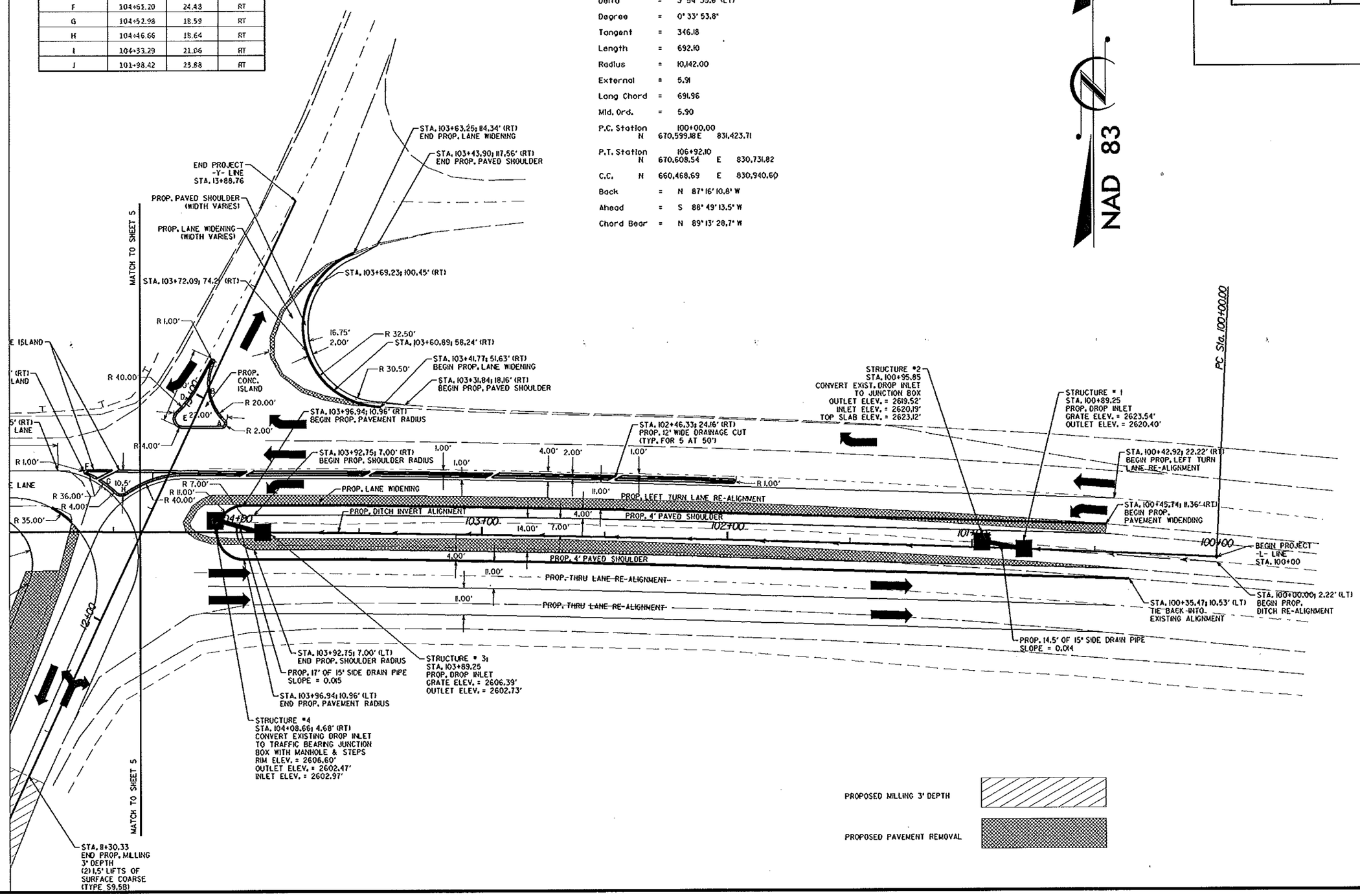
P.T. Station 106+92.10
N 670,608.54 E 830,731.82

C.C. N 660,468.69 E 830,940.60

Back = N 87° 16' 10.8" W

Ahead = S 88° 49' 13.5" W

Chord Bear = N 89° 13' 28.7" W



REVISIONS

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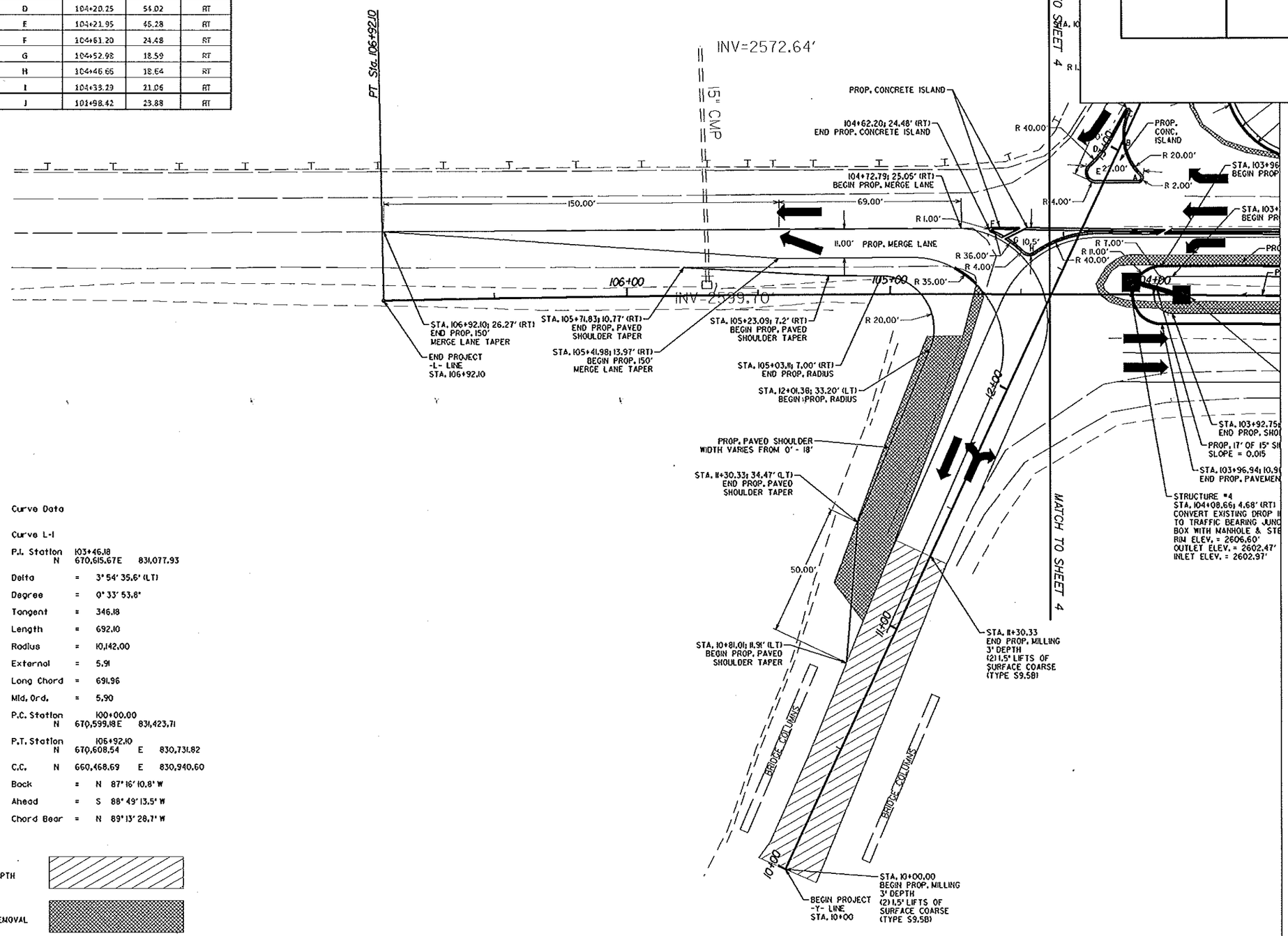
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONCRETE ISLAND STATION & OFFSET TABLE			
LOCATION I.D.	-L- STATION	-L- OFFSET	SIDE
A	104+06.08	44.38	RT
B	104+10.76	55.81	RT
C	104+10.03	69.67	RT
D	104+20.25	54.02	RT
E	104+21.95	45.28	RT
F	104+61.20	24.48	RT
G	104+52.98	18.59	RT
H	104+46.65	18.64	RT
I	104+33.29	21.06	RT
J	101+98.42	23.88	RT

NAD 83



Curve Data

Curve L-1

P.I. Station	103+46.18		
N	670,615.67	E	831,077.93
Delta	=	3° 54' 35.6" (LT)	
Degree	=	0° 33' 53.8"	
Tangent	=	346.18	
Length	=	692.10	
Radius	=	10,142.00	
External	=	5.91	
Long Chord	=	691.96	
Mid. Ord.	=	5.90	
P.C. Station		100+00.00	
N	670,599.18	E	831,423.71
P.T. Station		106+92.10	
N	670,608.54	E	830,731.82
C.C. N	660,468.69	E	830,940.60
Back	=	N 87° 16' 10.8" W	
Ahead	=	S 88° 49' 13.5" W	
Chord Bear	=	N 89° 13' 28.7" W	

PROPOSED MILLING 3" DEPTH

PROPOSED PAVEMENT REMOVAL

REVISIONS

8/17/18

27-AUG-2012 07:20
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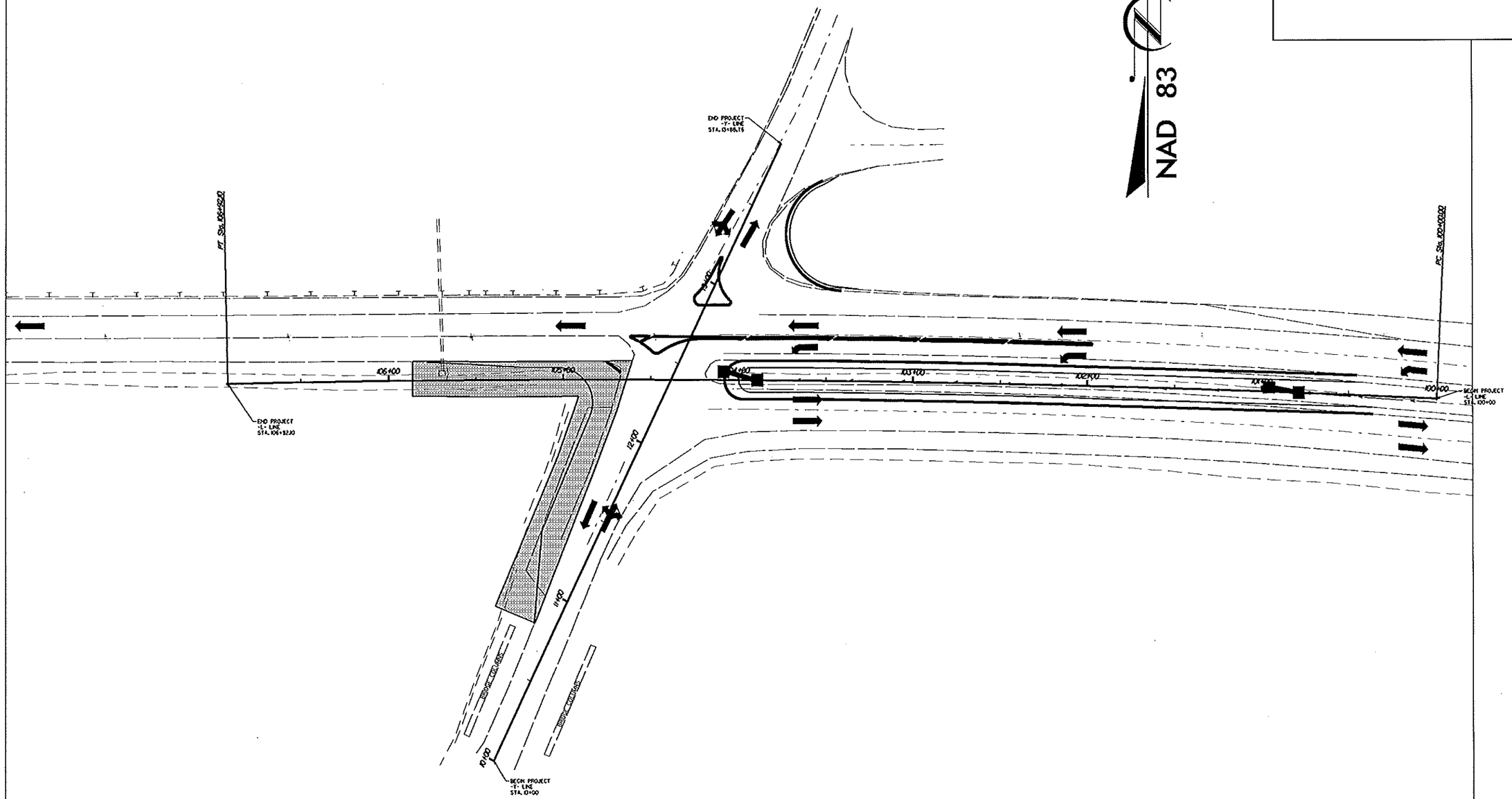
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	TCP - 1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I TRAFFIC CONTROL

PROPOSED OPERATIONS:

- TEMPORARY PERIODIC LANE CLOSURES
- PAVEMENT REMOVAL
- GRADING
- PAVING OF BASE
- TEMPORARY AND PERMANENT EROSION CONTROL MEASURES



REVISIONS

8/17/99

27-AUG-2012 07:22
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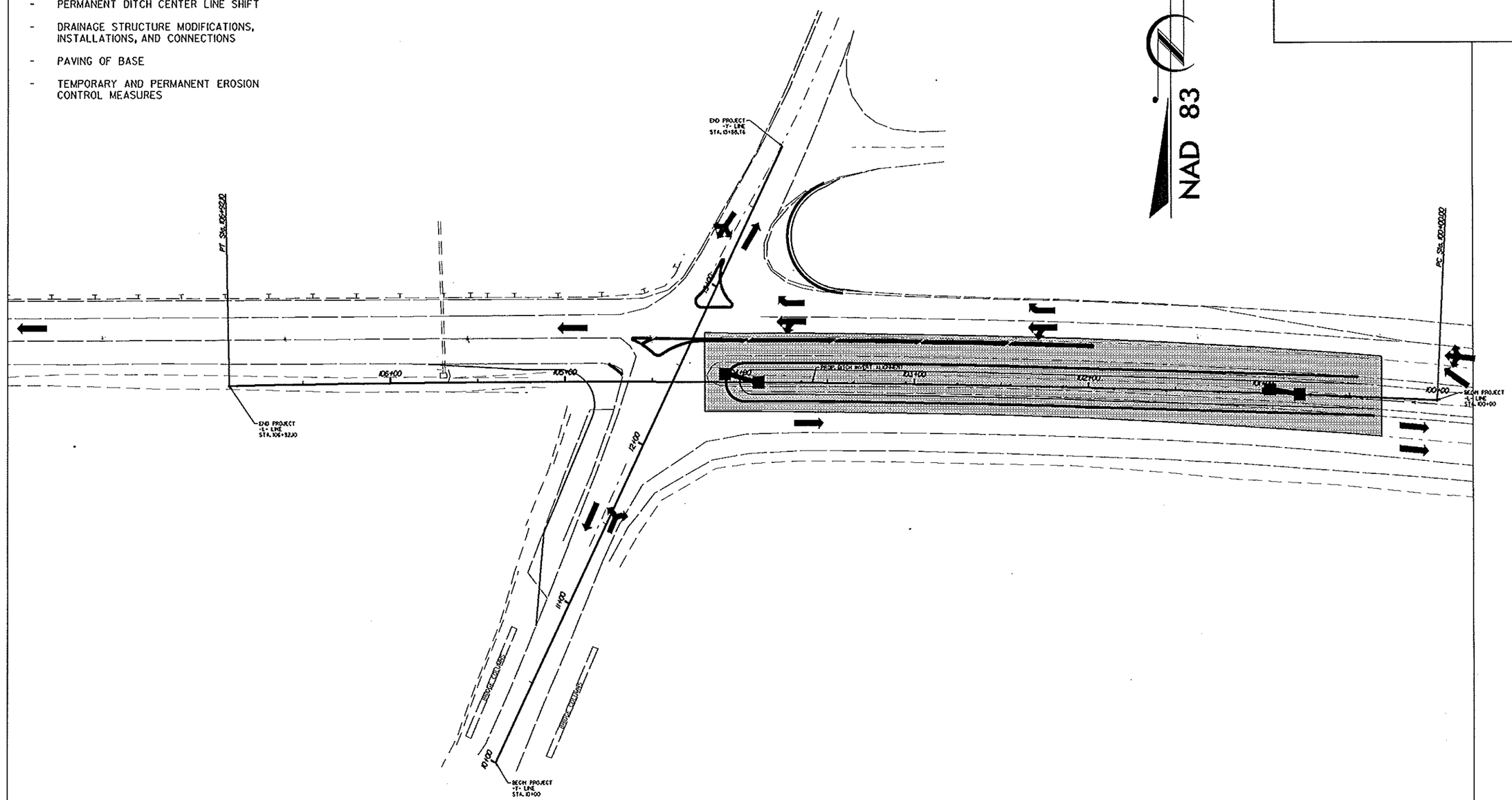
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	TCP - 2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE 2 TRAFFIC CONTROL

PROPOSED OPERATIONS:

- TEMPORARY PERIODIC LANE CLOSURES
- PAVEMENT REMOVAL
- PERMANENT LANE SHIFT
- PARTIAL CONSTRUCTION OF CONCRETE ISLAND
- PERMANENT DITCH CENTER LINE SHIFT
- DRAINAGE STRUCTURE MODIFICATIONS, INSTALLATIONS, AND CONNECTIONS
- PAVING OF BASE
- TEMPORARY AND PERMANENT EROSION CONTROL MEASURES



REVISIONS

8/17/99

27-AUG-2012 07:23
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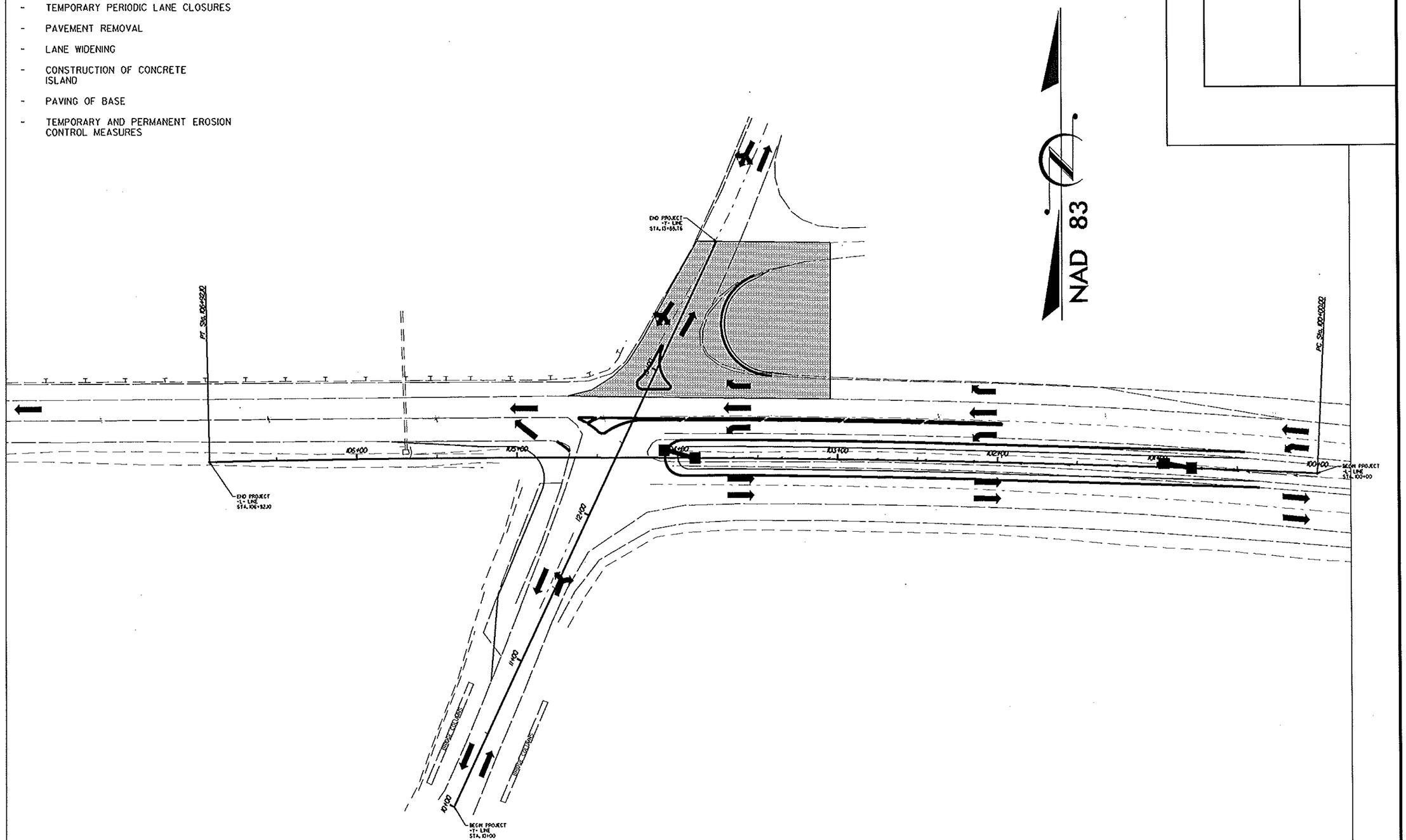
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	TCP - 3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE 3 TRAFFIC CONTROL

PROPOSED OPERATIONS:

- TEMPORARY PERIODIC LANE CLOSURES
- PAVEMENT REMOVAL
- LANE WIDENING
- CONSTRUCTION OF CONCRETE ISLAND
- PAVING OF BASE
- TEMPORARY AND PERMANENT EROSION CONTROL MEASURES



REVISIONS

8/17/99

27-AUG-2012 07:25
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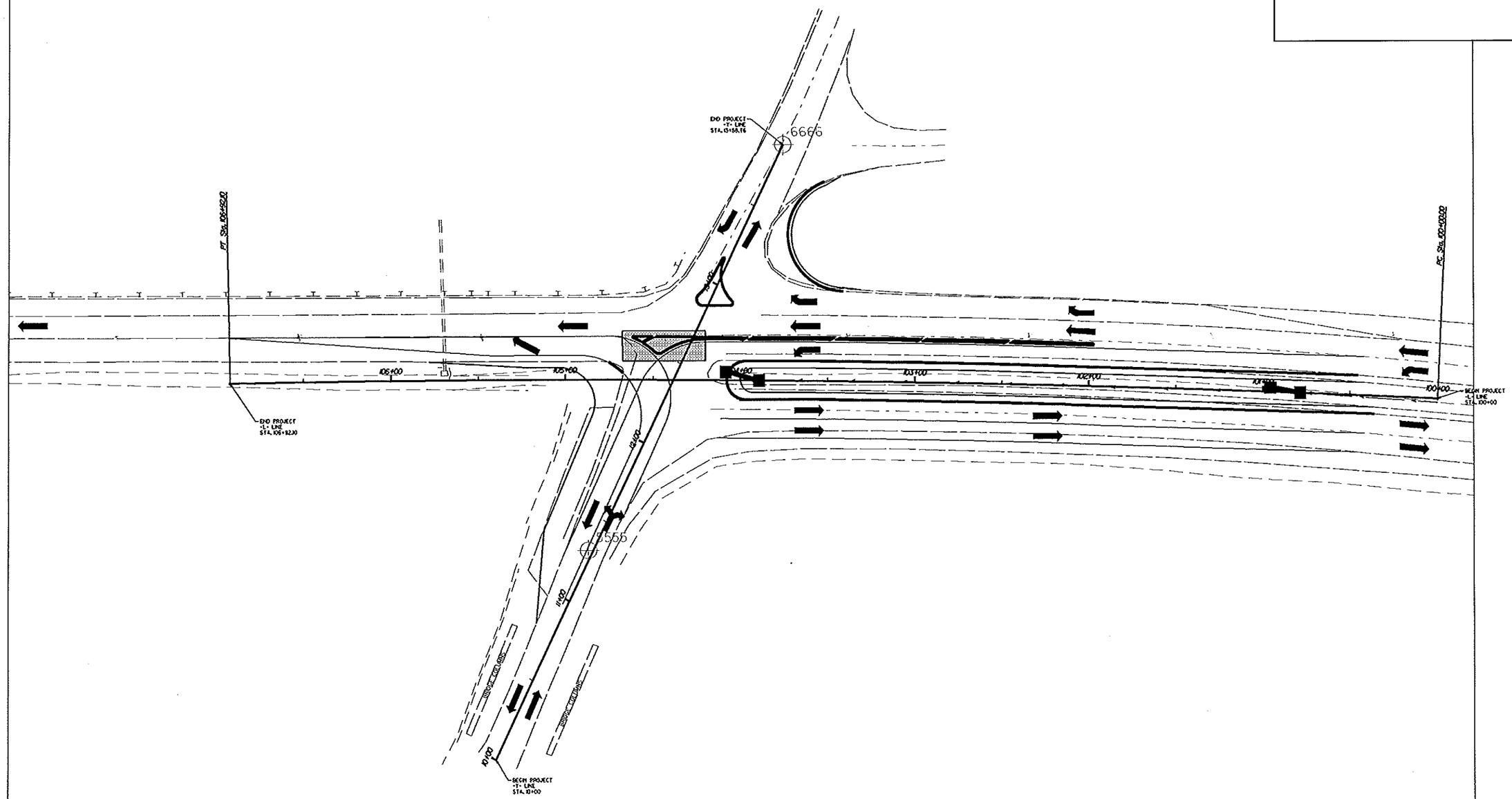
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	TCP - 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE 4 TRAFFIC CONTROL

PROPOSED OPERATIONS:

- TEMPORARY PERIODIC LANE CLOSURES
- CONSTRUCT REMAINDER OF CONCRETE ISLAND



REVISIONS

8/17/99

27-AUG-2012 07:26
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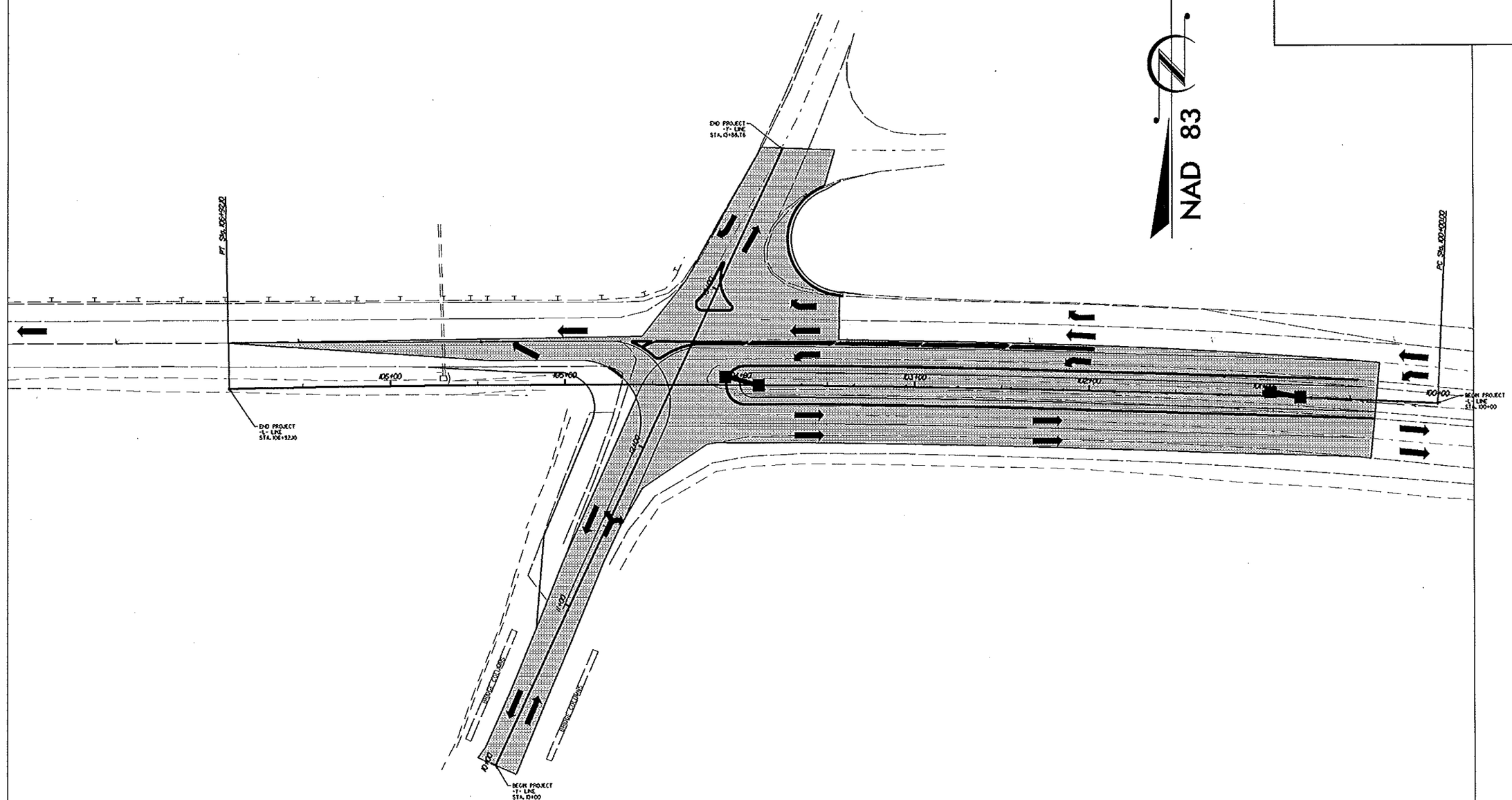
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	TCP - 5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE 5 TRAFFIC CONTROL

PROPOSED OPERATIONS:

- TEMPORARY PERIODIC LANE CLOSURES
- MILLING
- FINAL PAVING
- STRIPING & MARKING
- SIGNS



REVISIONS

8/17/99

27-AUG-2012 07:27
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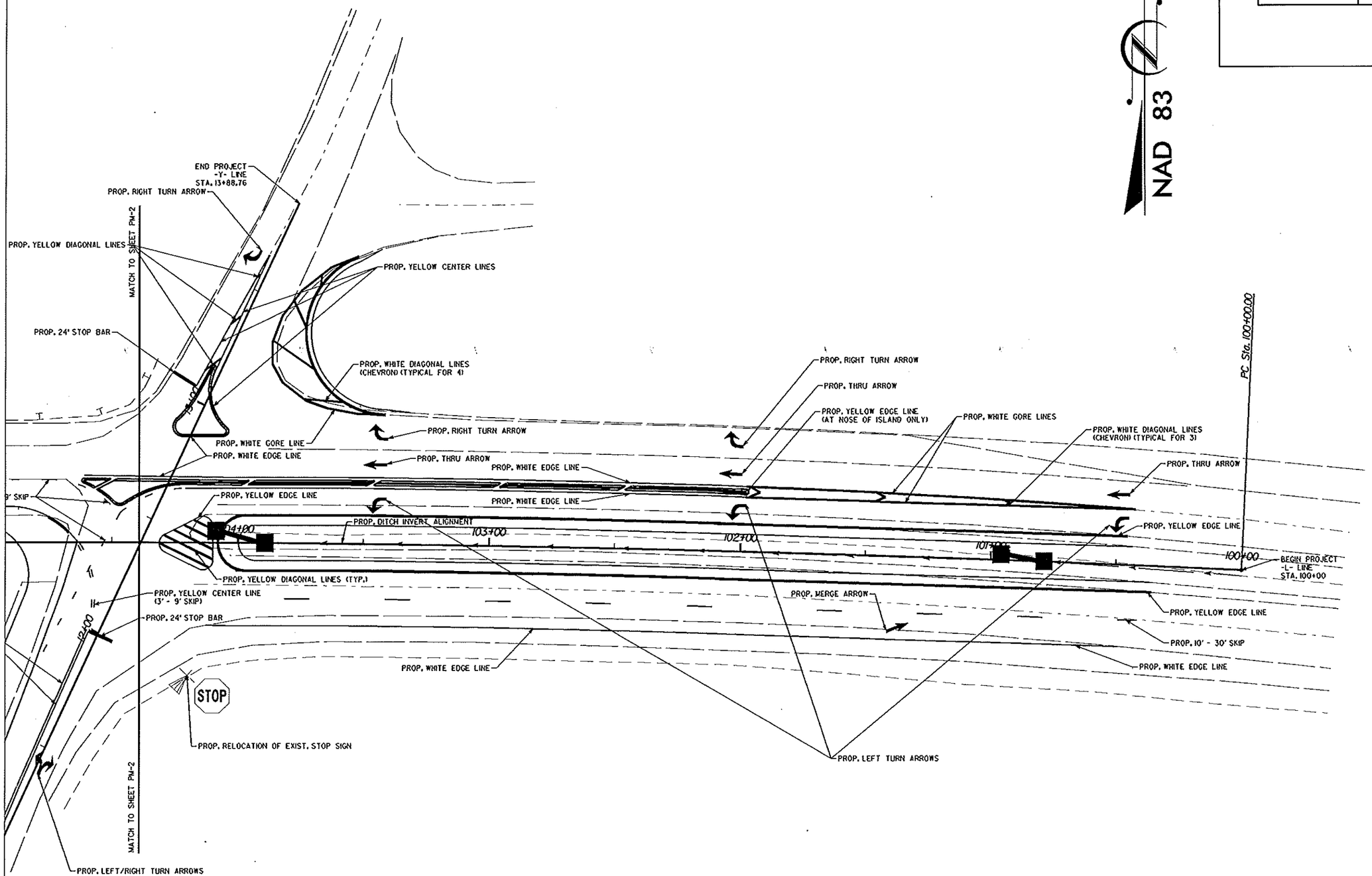
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	PM-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

8/17/99

27-AUG-2012 07:28
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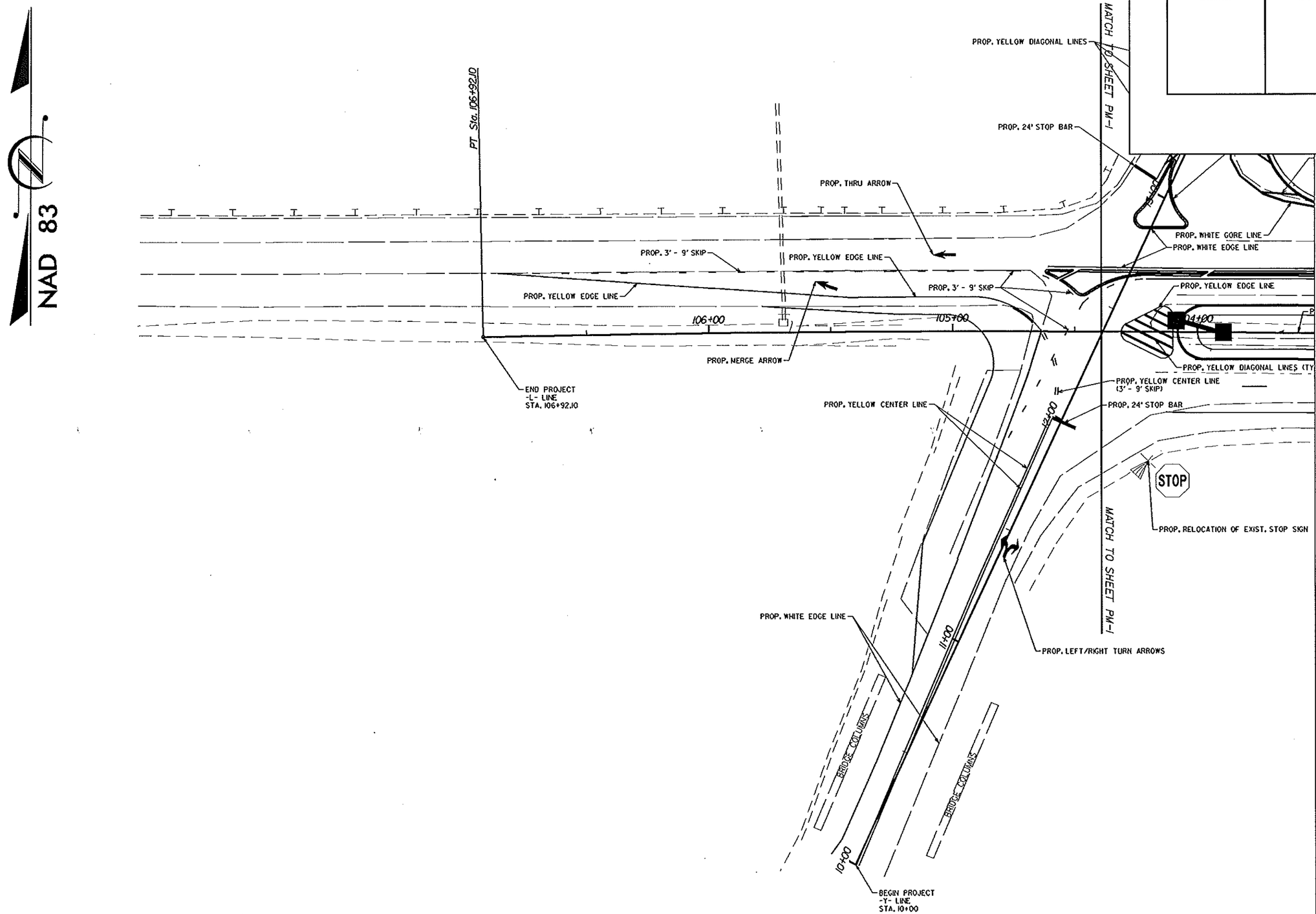
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	PM-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

8/17/99

27-AUG-2012 07:30
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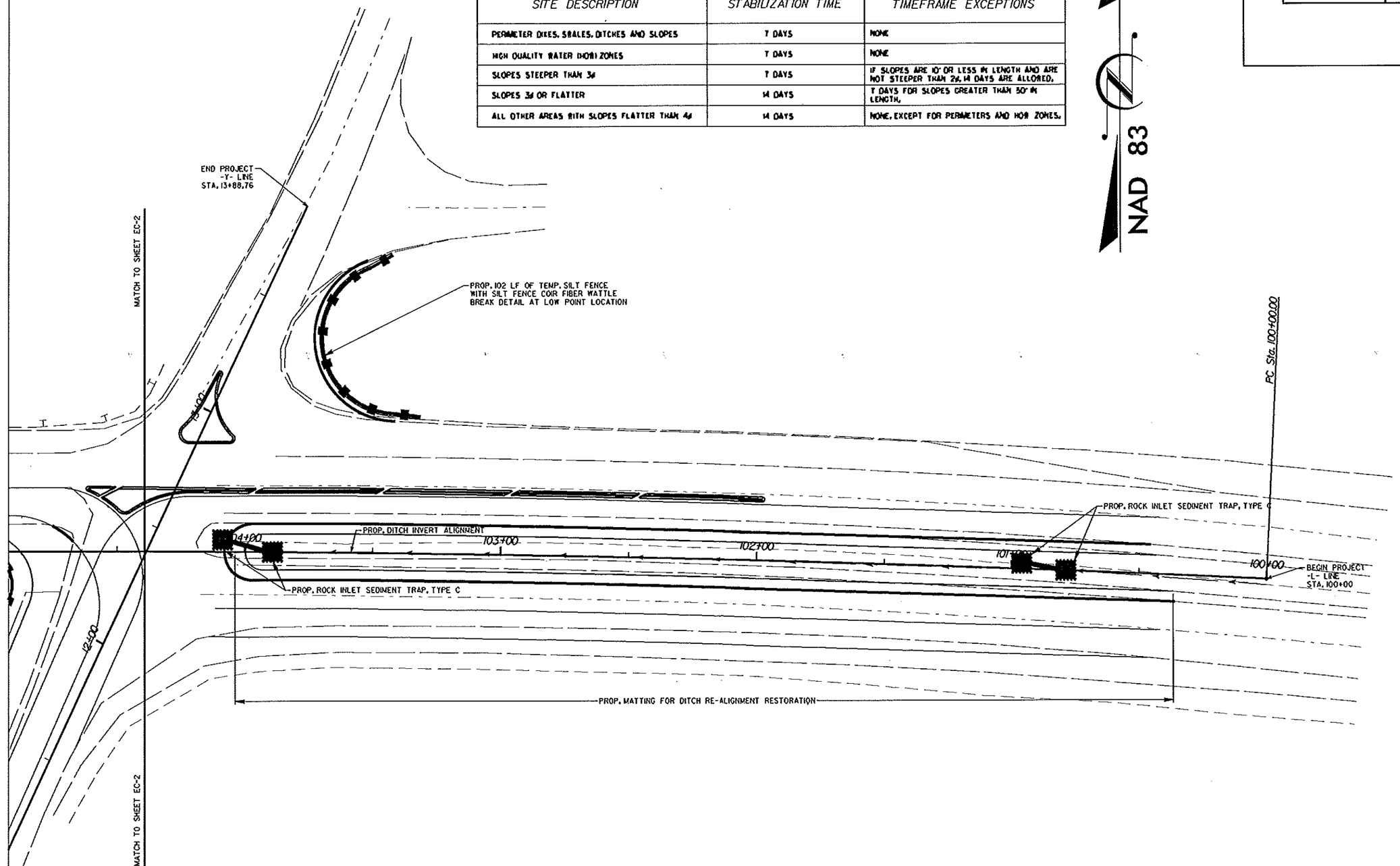
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	EC-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.



REVISIONS

8/17/99

27-AUG-2012 07:31
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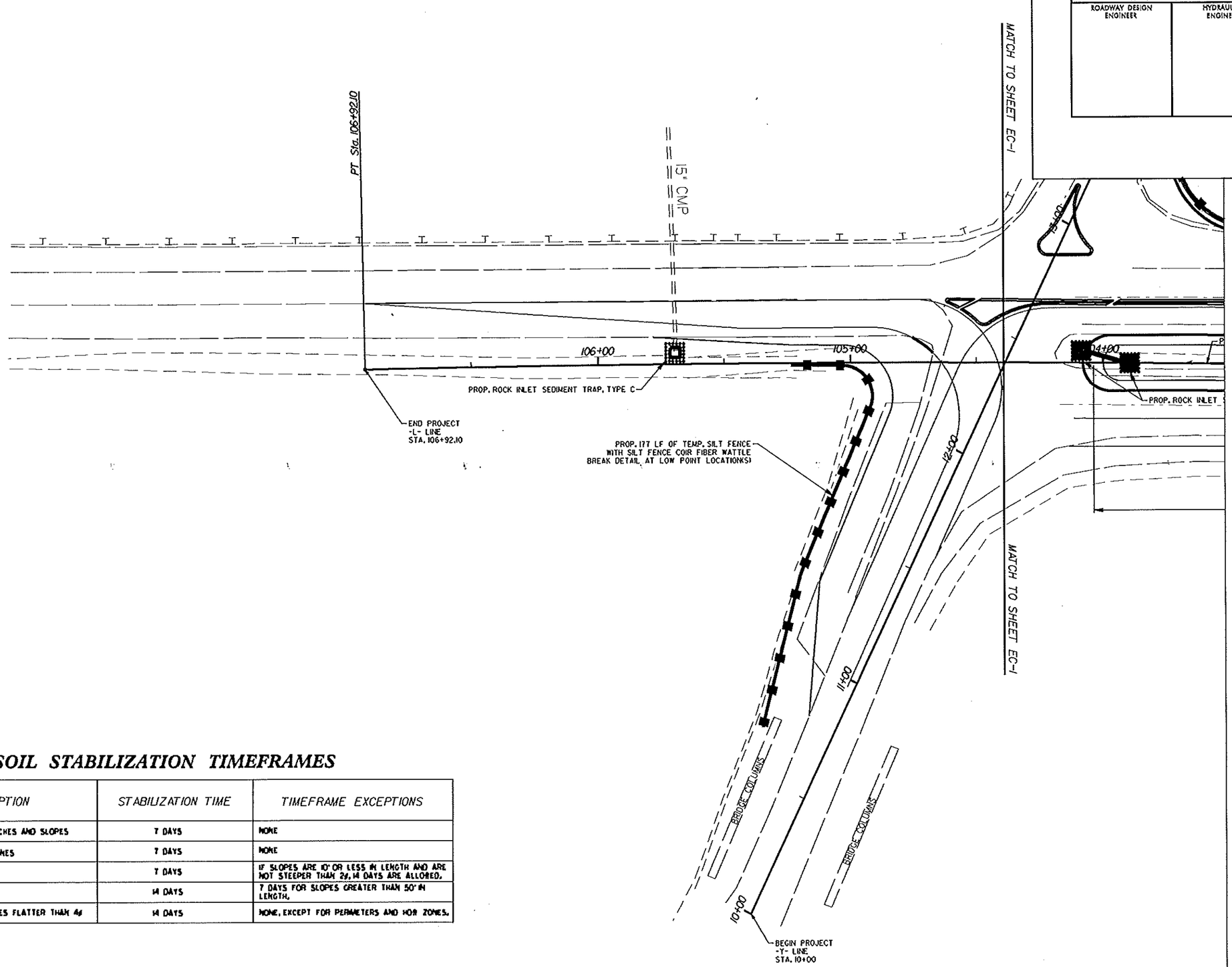
PROJECT REFERENCE NO.	SHEET NO.
SS-4914BA	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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.

REVISIONS

8/17/99

27-AUG-2012 07:33
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$$$$$$$$PANAWEEPEE

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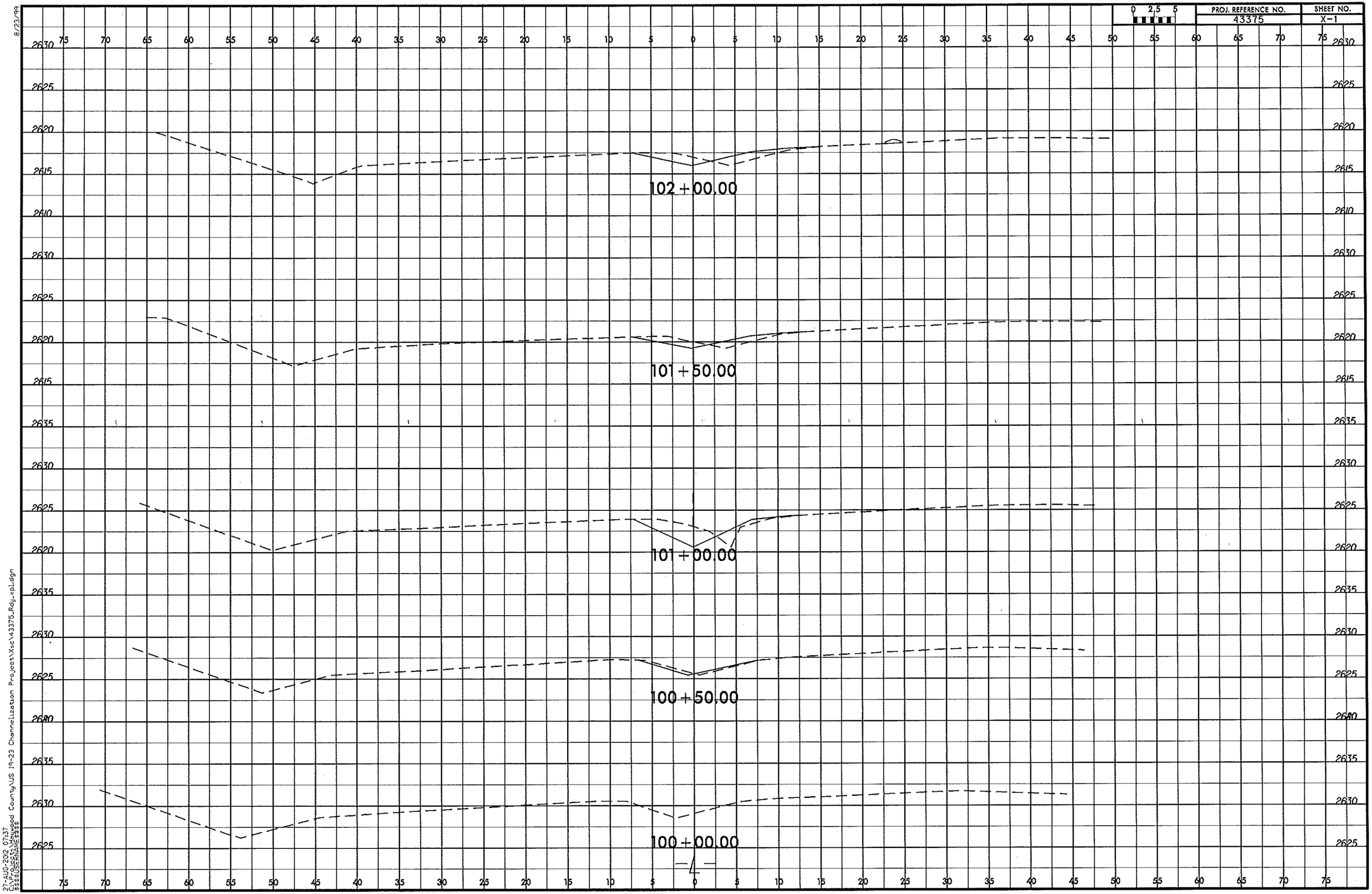
0 2.5 5

PROJ. REFERENCE NO.	SHEET NO.
43375	X-1



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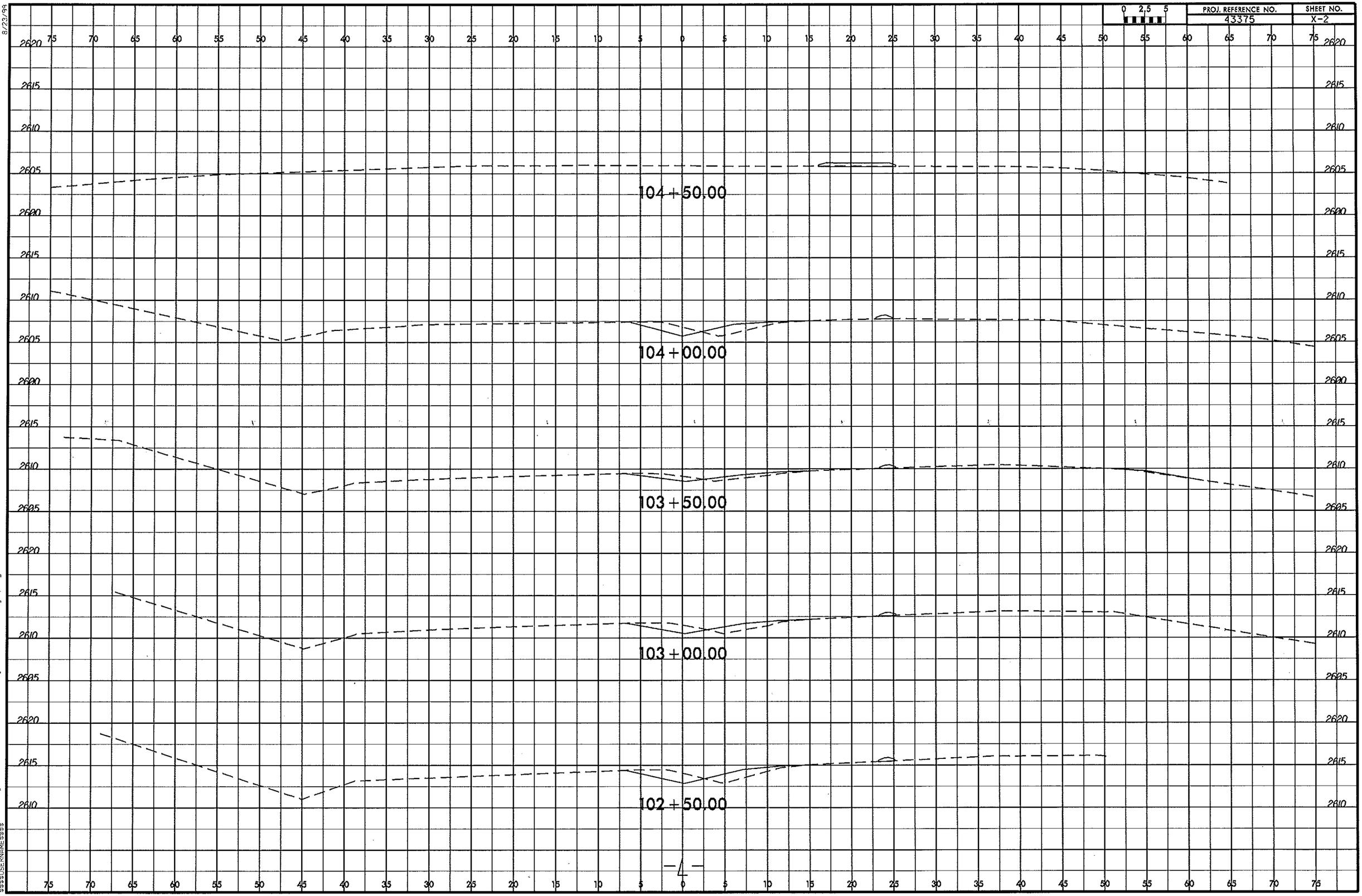
8/23/99

PROJ. REFERENCE NO.	SHEET NO.
43375	X-2



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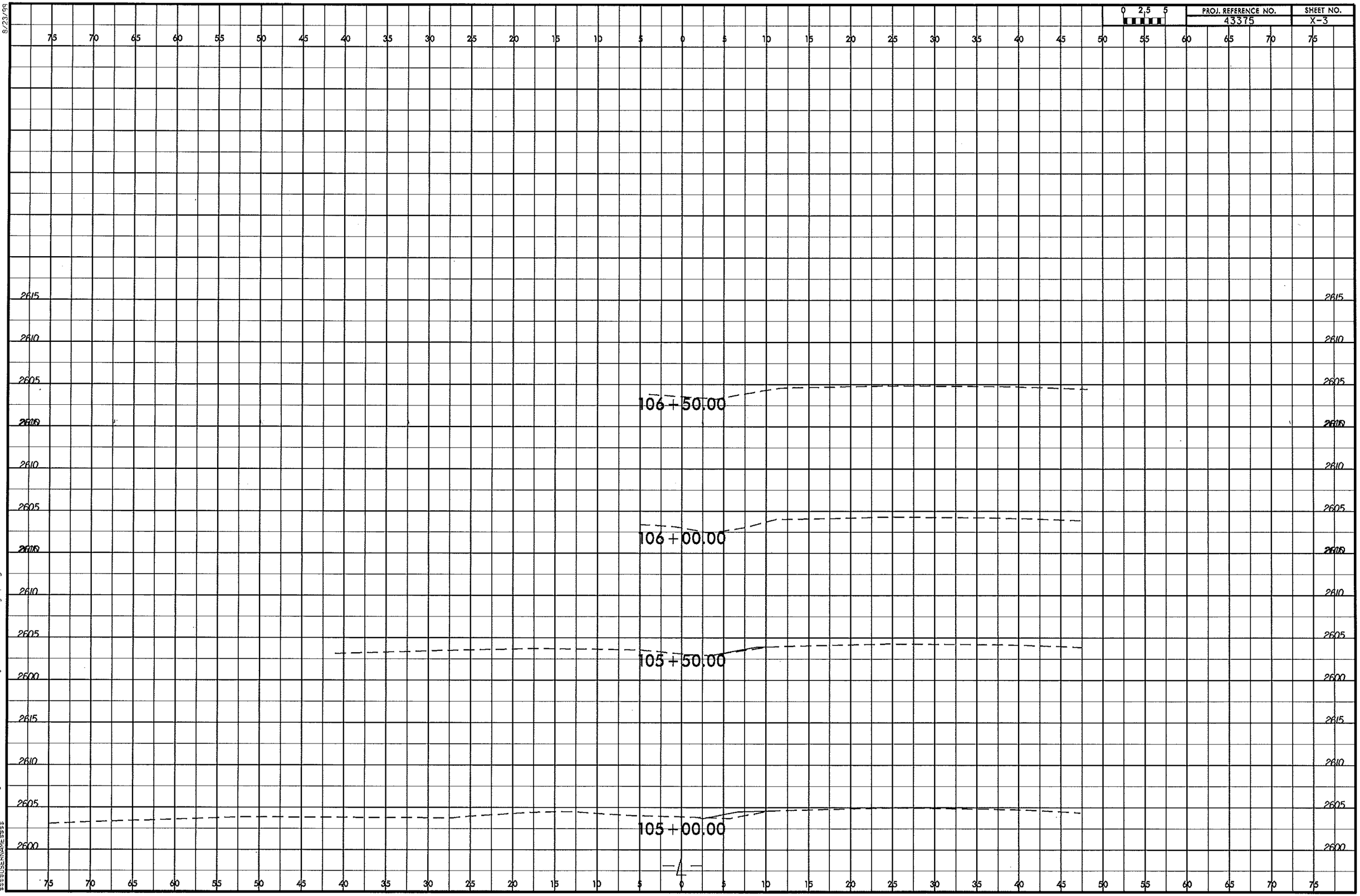
$$$$USERNAME$$$$

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
43375	X-3

0 2.5 5



27-AUG-2012 07:39
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Rockingham County\US 19-23 Channelization Project\Xsec\43375_Rdy_xpl.dgn