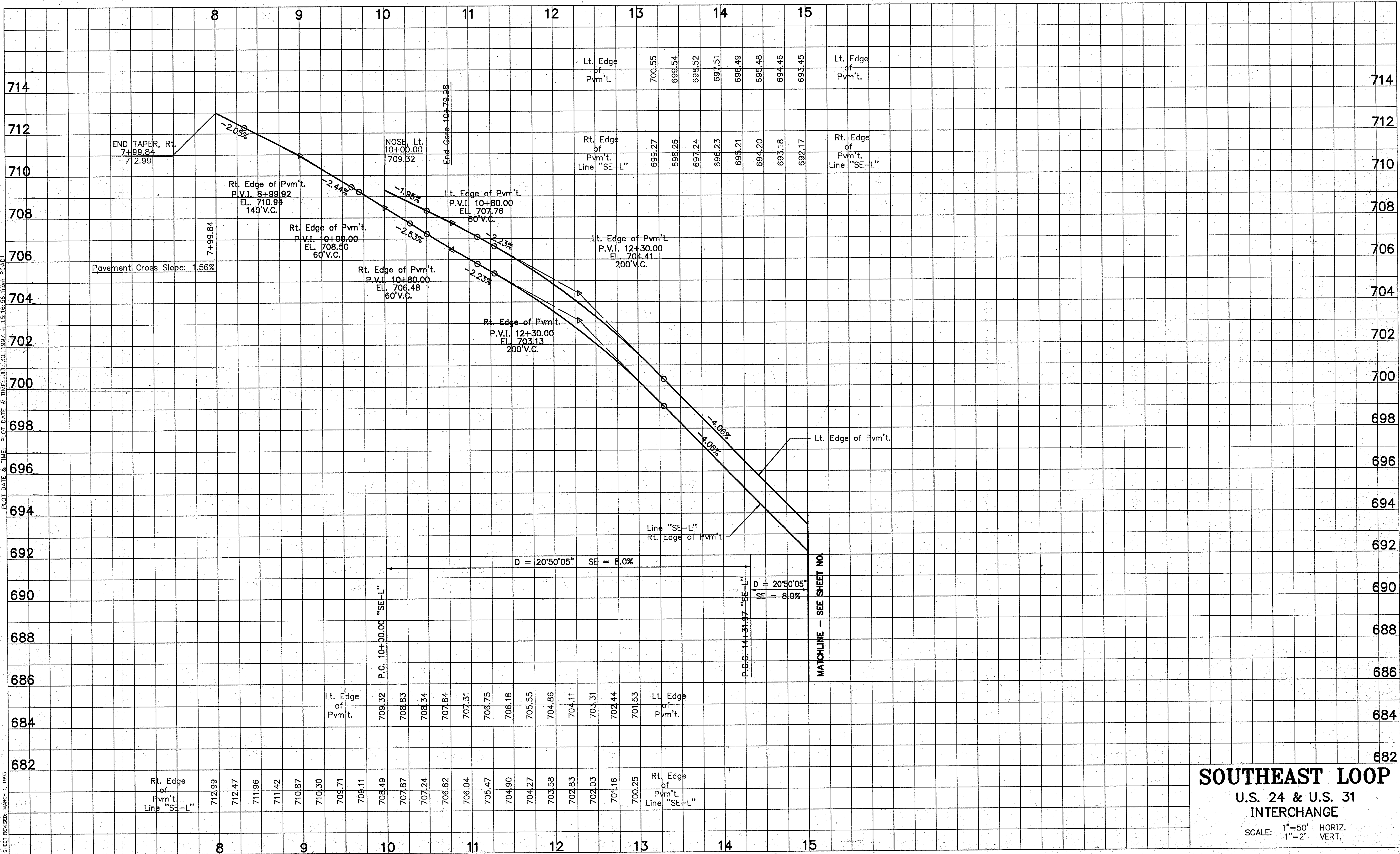


PLOT DATE & TIME: JUL 30, 1997 - 15:16:56 from ROAD1

DESIGNED BY: Boyd Childers, P.E. 6/93
 DRAWN BY: MIC 3/93 - checked by: MIC 5/93 -
 REVISION: SW 2/97 - checked by: MIC 3/97
 SHEET REVISED: MARCH 1, 1993



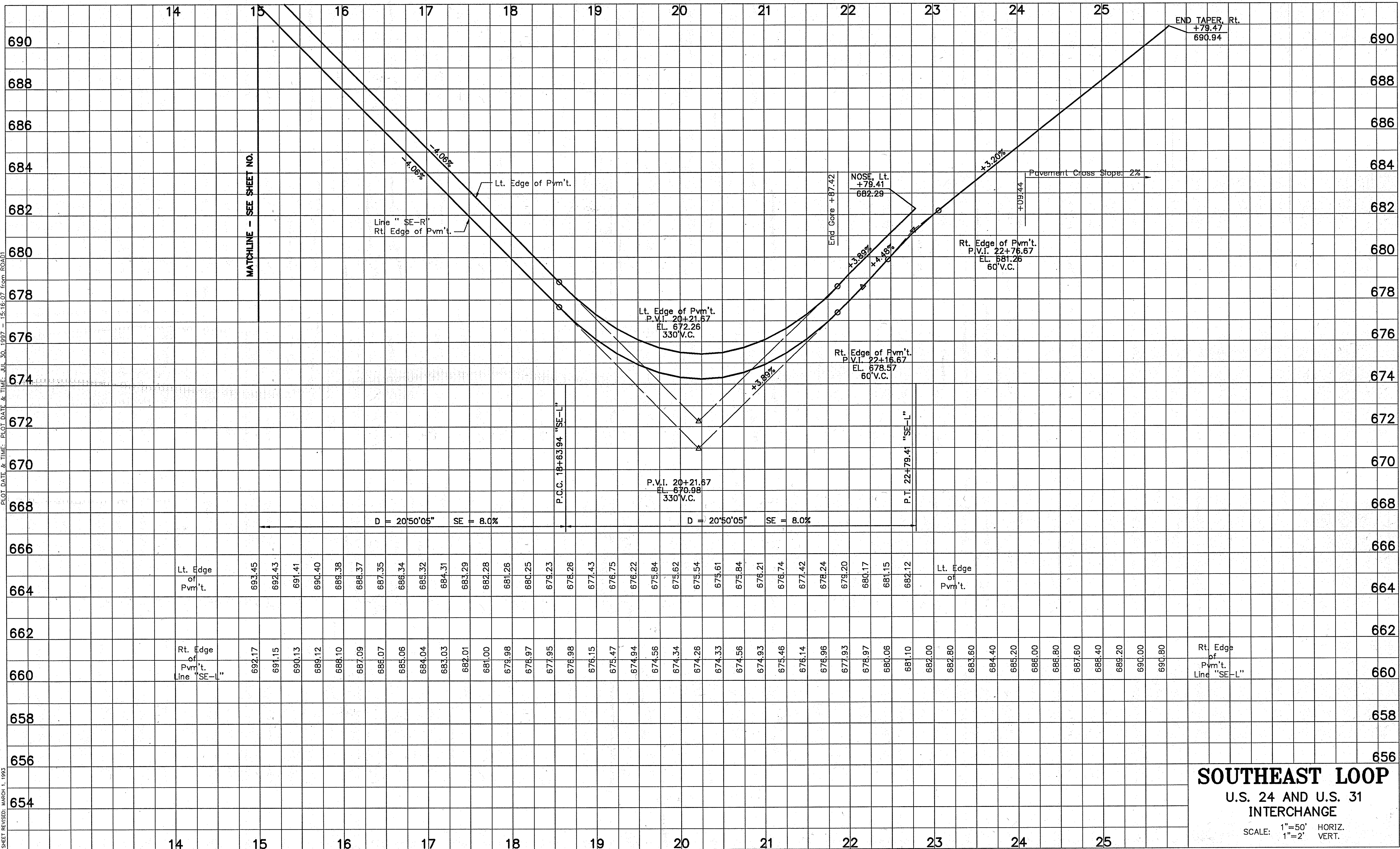
SOUTHEAST LOOP
 U.S. 24 & U.S. 31
 INTERCHANGE
 SCALE: 1"=50' HORIZ.
 1"=2' VERT.

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	42	389

U.S. 24 MIAMI CO. **LINE "SE-L"**

PLOT DATE & TIME: JUL 30, 1997 - 15:16:07 from ROAD1

DESIGNED BY: [unreadable] DATE: 8/93
 DRAWN BY: [unreadable] DATE: 10/93
 CHECKED BY: [unreadable] DATE: 4/97
 SHEET REVISION: MARCH 1, 1993



SOUTHEAST LOOP

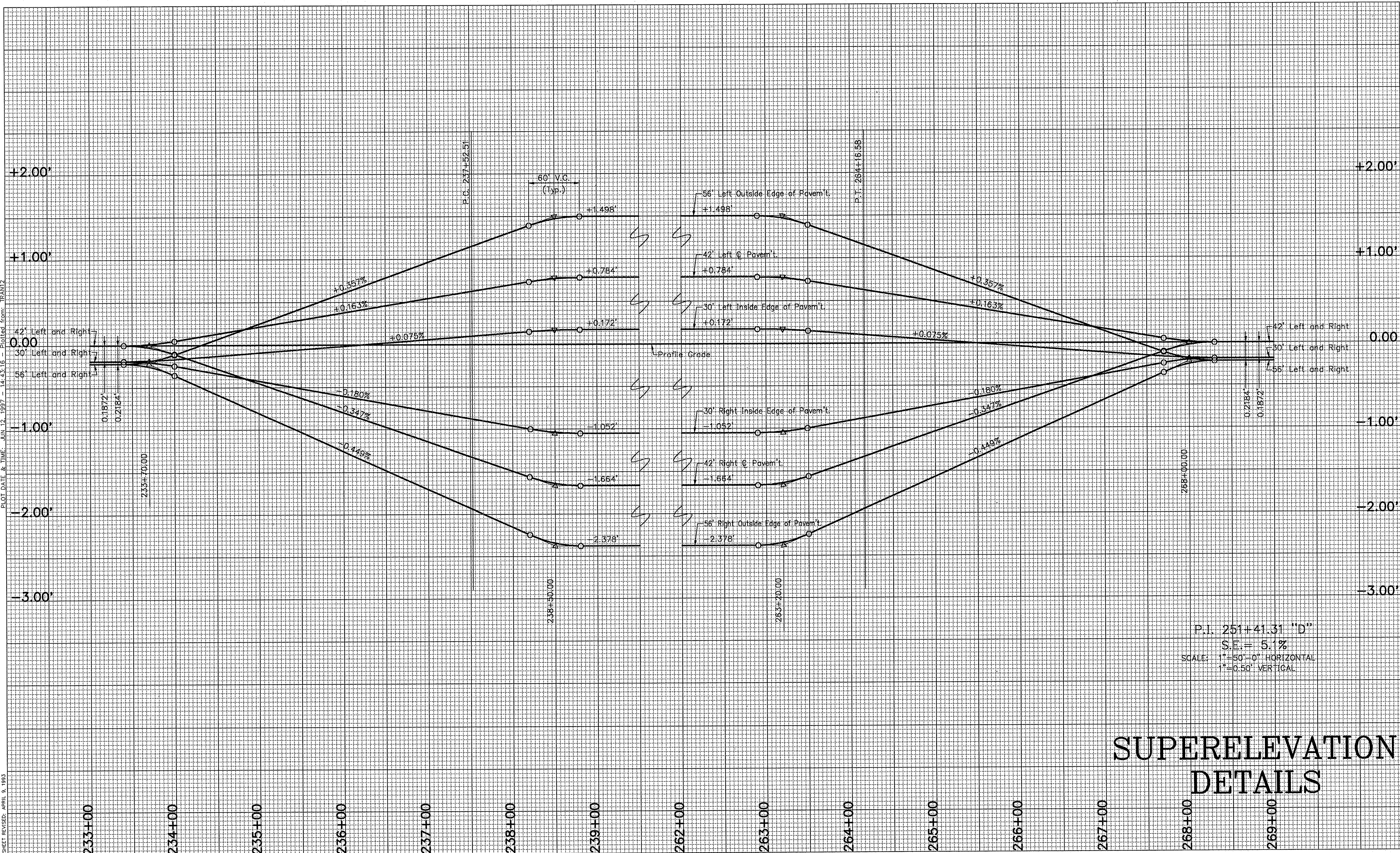
U.S. 24 AND U.S. 31 INTERCHANGE

SCALE: 1"=50' HORIZ.
 1"=2' VERT.

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	43	389
U.S. 24 MIAMI CO.					LINE "SE-L"

PLOT DATE & TIME: JUN 12 1997 14:43:16 - Plotted from: TRAN12

DESIGNER: JWG 8/93
 DRAWN: KAT 11/93
 CHECKED: JWG 12/93
 SHEET REVISED: APRIL 9, 1993

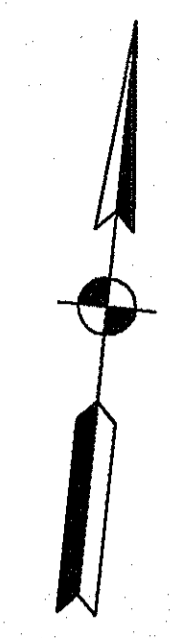


P.I. 251+41.31 "D"
 S.E. = 5.1%
 SCALE: 1" = 50'-0" HORIZONTAL
 1" = 0.50" VERTICAL

SUPERELEVATION DETAILS

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-145-5(001)	1998	44	389

U.S. 24 **LINE "D"**

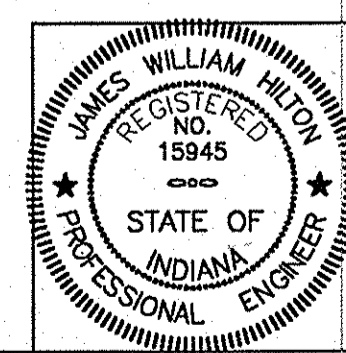


END NH-PROJECT NO. 146-5(001)
STATION 372+50.00 "D"

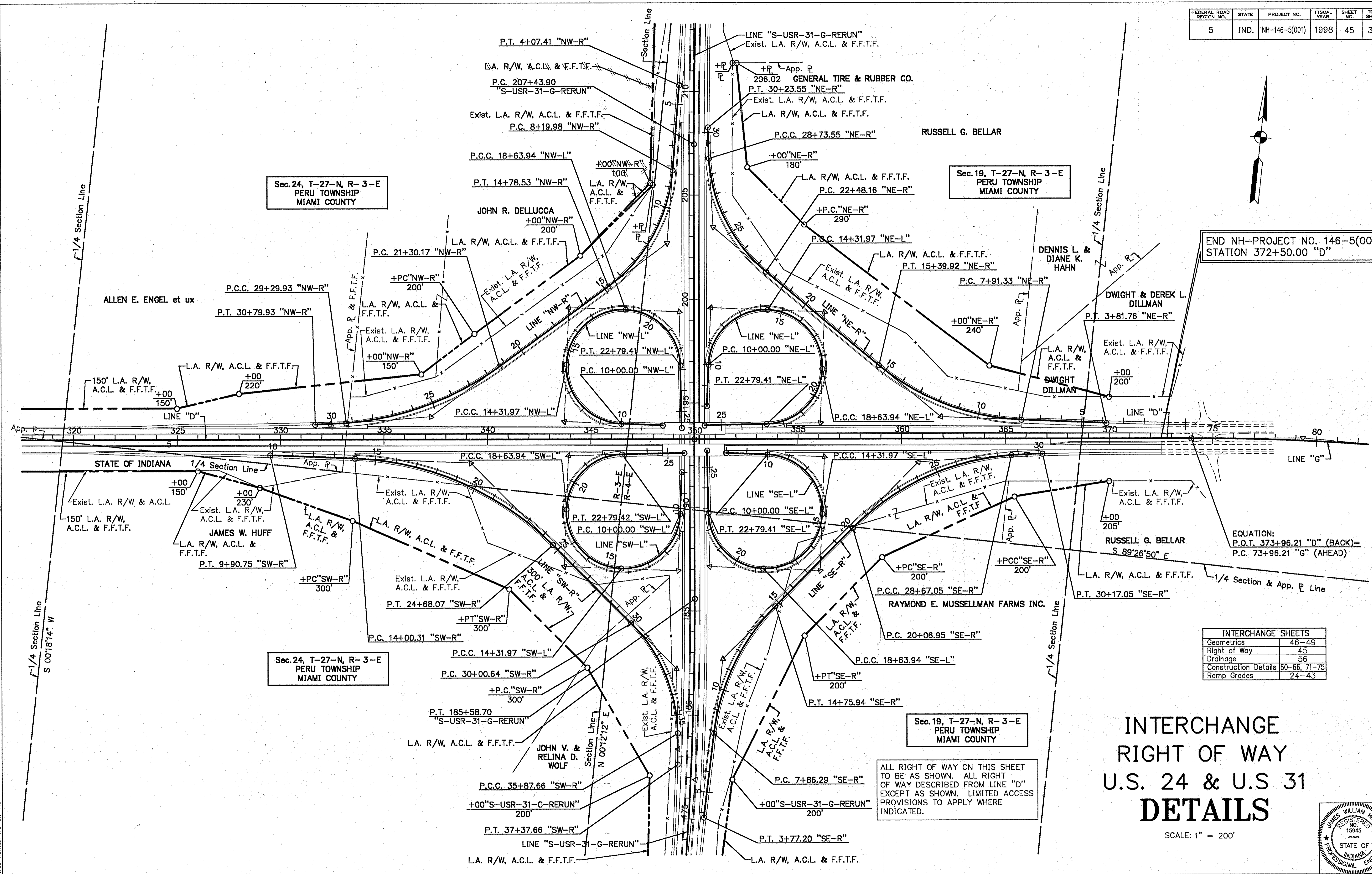
INTERCHANGE SHEETS	
Geometrics	46-49
Right of Way	45
Drainage	56
Construction Details	60-66, 71-75
Ramp Grades	24-43

INTERCHANGE RIGHT OF WAY U.S. 24 & U.S. 31 DETAILS

SCALE: 1" = 200'



ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. ALL RIGHT OF WAY DESCRIBED FROM LINE "D" EXCEPT AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.



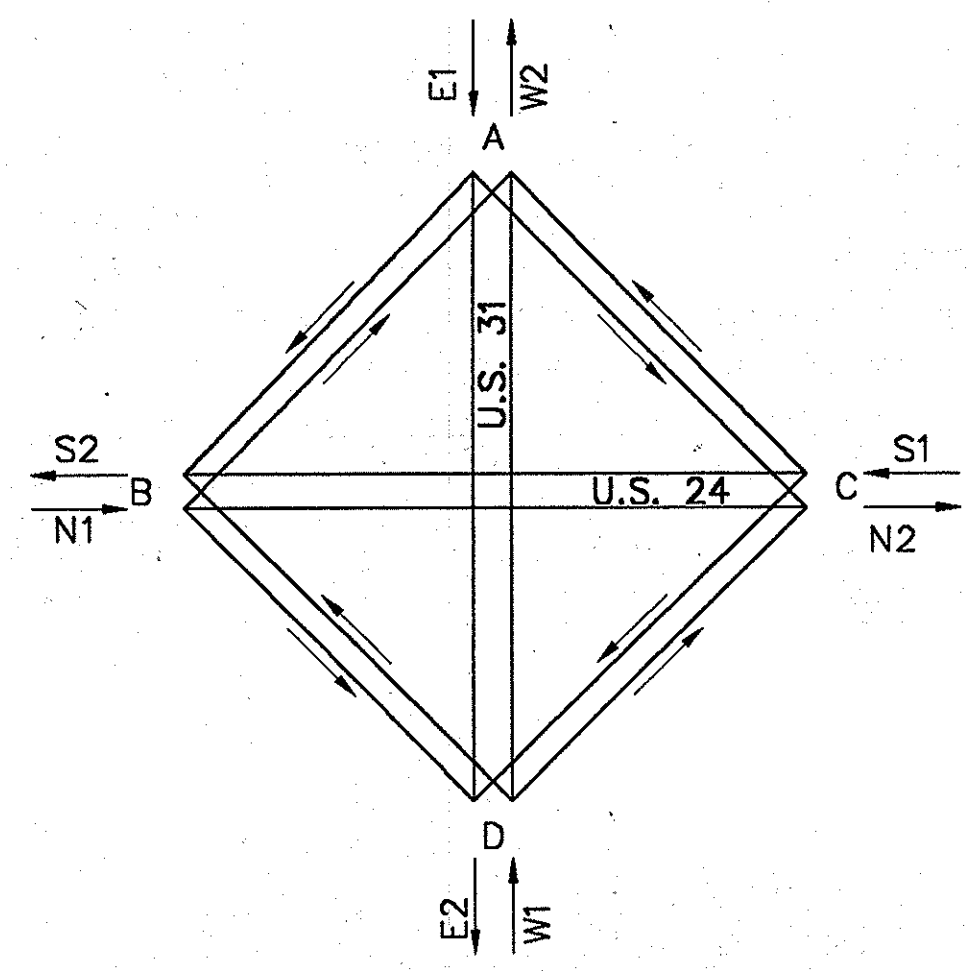
CHECKED: []
 DRAWN: KAY 4/93
 REVISION: DLS 5/93
 SHEET REVISED: JULY 20, 1992

PLOT DATE & TIME: JUL 31, 1997 - 09:00:28 from ROAD1

- ① **CURVE DATA**
P.I. 12+75.00 "NW-L"
 $\Delta = 90^{\circ}00'00"$ Rt.
D = 20'50'05"
R = 275.00'
T = 275.00'
L = 431.97'
E = 113.91'
S.E. = 8.0%
- ② **CURVE DATA**
P.I. 17+06.97 "NW-L"
 $\Delta = 90^{\circ}00'00"$ Rt.
D = 20'50'05"
R = 275.00'
T = 275.00'
L = 431.97'
E = 113.91'
S.E. = 8.0%
- ③ **CURVE DATA**
P.I. 21+22.92 "NW-L"
 $\Delta = 86^{\circ}33'49"$ Rt.
D = 20'50'05"
R = 275.00'
T = 258.98'
L = 415.47'
E = 102.75'
S.E. = 8.0%

- ④ **CURVE DATA**
P.I. 30+04.95 "NW-R"
 $\Delta = 3^{\circ}00'00"$ Rt.
D = 2'00'00"
R = 2864.79'
T = 75.02'
L = 150.00'
E = 0.98'
S.E. = Transition
- ⑤ **CURVE DATA**
P.I. 25+41.02 "NW-R"
 $\Delta = 31^{\circ}58'07"$ Rt.
D = 4'00'00"
R = 1432.39'
T = 410.31'
L = 799.22'
E = 57.61'
S.E. = 6.3%
- ⑥ **CURVE DATA**
P.I. 11+71.19 "NW-R"
 $\Delta = 49^{\circ}23'27"$ Rt.
D = 7'30'00"
R = 763.94'
T = 351.31'
L = 658.55'
E = 76.90'
S.E. = 8.0%

- ⑦ **CURVE DATA**
P.I. 216+44.72 "S-USR-31-G-RERUN"
 $\Delta = 5^{\circ}58'00"$ Rt.
D = 0'19'53"
R = 17284.76'
T = 900.81'
L = 1800.00'
E = 23.46'
S.E. = NC

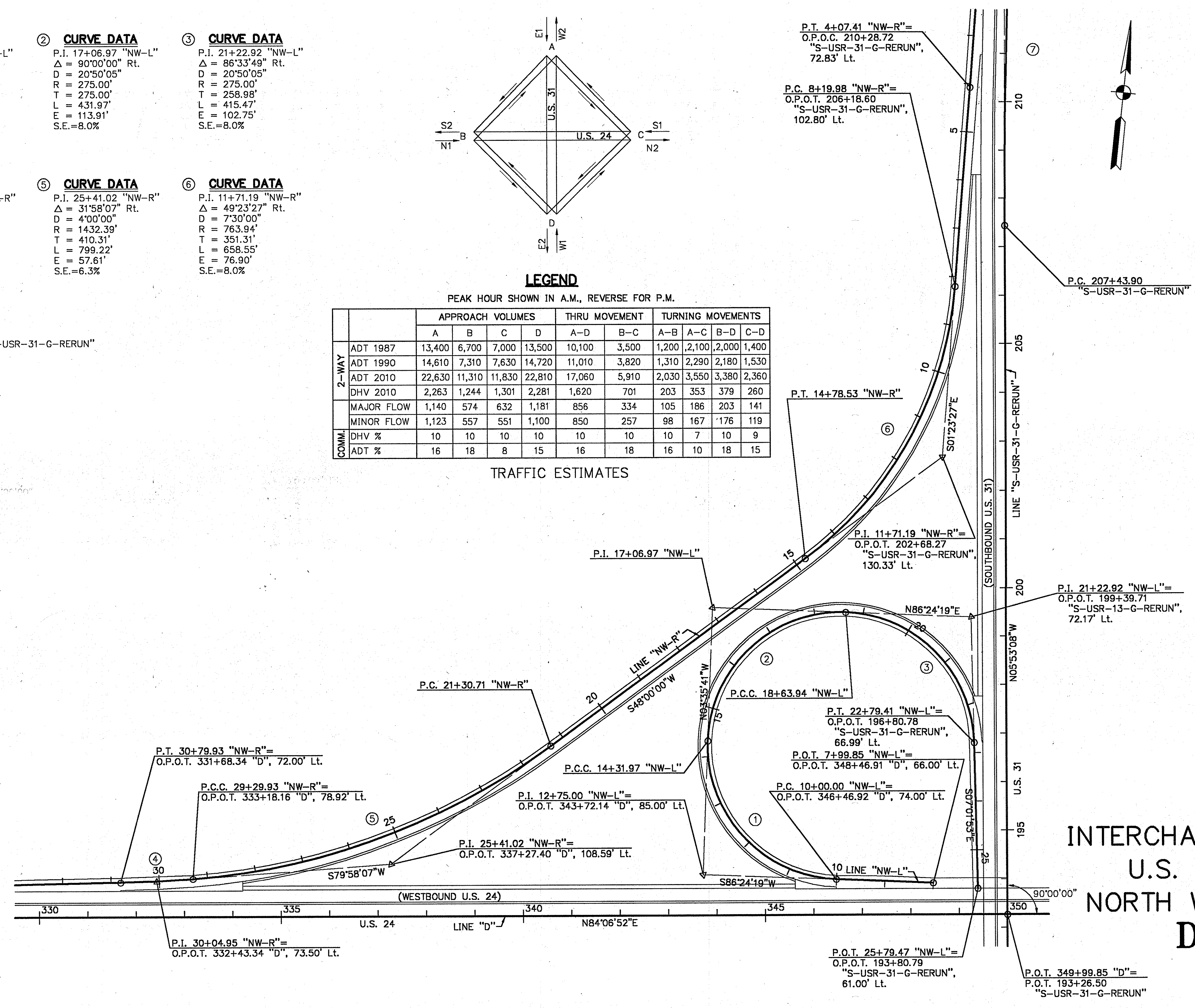


LEGEND

PEAK HOUR SHOWN IN A.M., REVERSE FOR P.M.

	APPROACH VOLUMES				THRU MOVEMENT		TURNING MOVEMENTS			
	A	B	C	D	A-D	B-C	A-B	A-C	B-D	C-D
2-WAY										
ADT 1987	13,400	6,700	7,000	13,500	10,100	3,500	1,200	2,100	2,000	1,400
ADT 1990	14,610	7,310	7,630	14,720	11,010	3,820	1,310	2,290	2,180	1,530
ADT 2010	22,630	11,310	11,830	22,810	17,060	5,910	2,030	3,550	3,380	2,360
DHV 2010	2,263	1,244	1,301	2,281	1,620	701	203	353	379	260
MAJOR FLOW	1,140	574	632	1,181	856	334	105	186	203	141
MINOR FLOW	1,123	557	551	1,100	850	257	98	167	176	119
COMM. DHV %	10	10	10	10	10	10	10	7	10	9
ADT %	16	18	8	15	16	18	16	10	18	15

TRAFFIC ESTIMATES

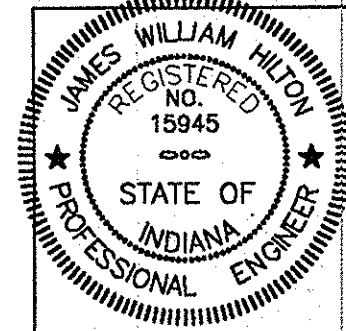


INTERCHANGE SHEETS

Geometrics	46-49
Right of Way	45
Drainage	56
Construction Details	62-64, 73-75
Ramp Grades	24-43

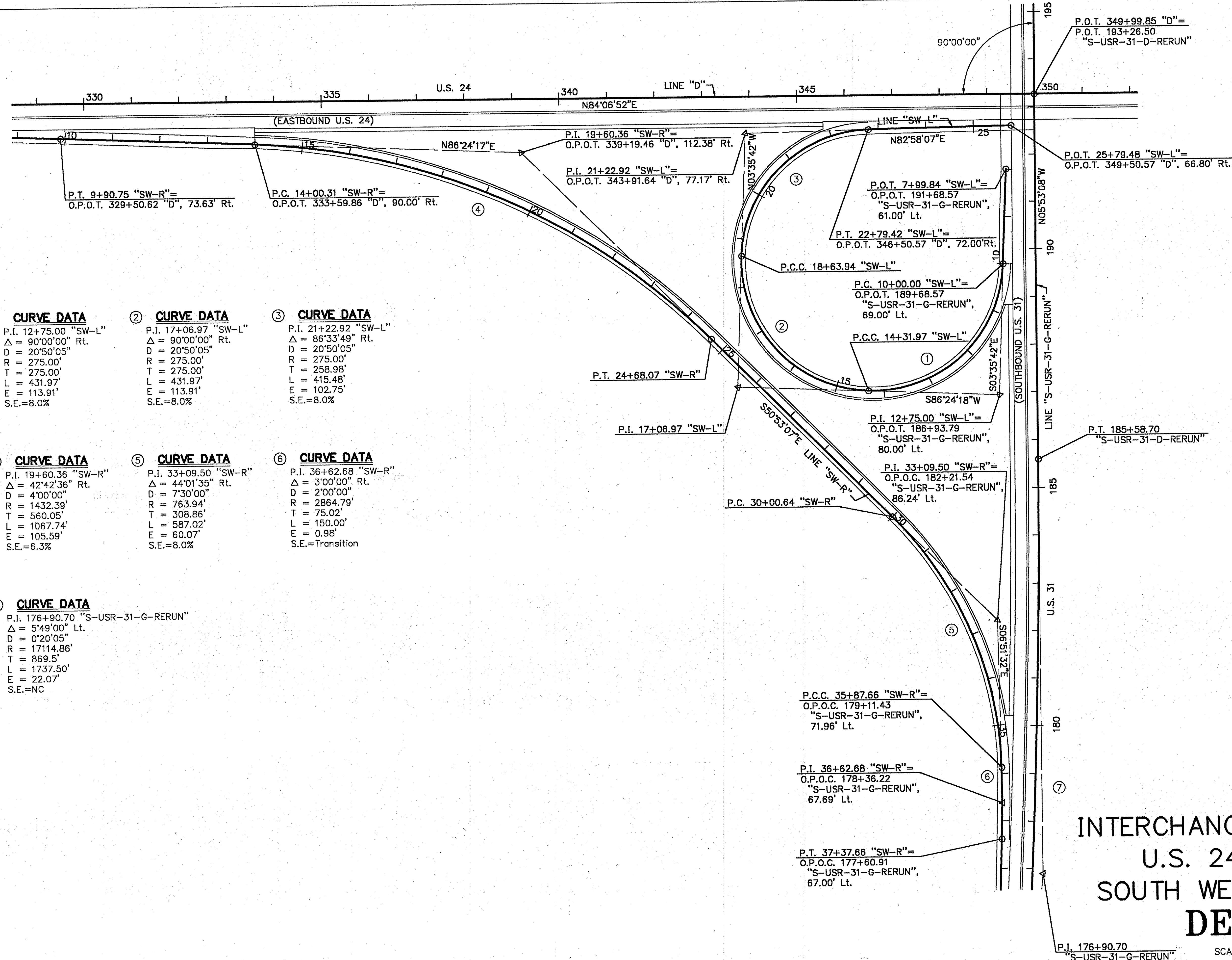
**INTERCHANGE GEOMETRICS
U.S. 24 & U.S. 31
NORTH WEST QUADRANT
DETAILS**

SCALE: 1" = 100'



PLOT DATE & TIME: JUL 31, 1997 - 08:56:19 from ROAD1
 SHEET REVISION: JUL 20, 1992
 DESIGNED: P.J.C. 3/93, CHECKED: R.S. 2/94
 DRAWN: K.A.Y. 3/93, CHECKED: R.S. 2/94
 REVISION: D.H. 5/93, CHECKED: M.K. 3/94

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	47	389



- ① CURVE DATA**
P.I. 12+75.00 "SW-L"
 $\Delta = 90^{\circ}00'00"$ Rt.
 $D = 20^{\circ}50'05"$
 $R = 275.00'$
 $T = 275.00'$
 $L = 431.97'$
 $E = 113.91'$
 $S.E. = 8.0\%$
- ② CURVE DATA**
P.I. 17+06.97 "SW-L"
 $\Delta = 90^{\circ}00'00"$ Rt.
 $D = 20^{\circ}50'05"$
 $R = 275.00'$
 $T = 275.00'$
 $L = 431.97'$
 $E = 113.91'$
 $S.E. = 8.0\%$
- ③ CURVE DATA**
P.I. 21+22.92 "SW-L"
 $\Delta = 86^{\circ}33'49"$ Rt.
 $D = 20^{\circ}50'05"$
 $R = 275.00'$
 $T = 258.98'$
 $L = 415.48'$
 $E = 102.75'$
 $S.E. = 8.0\%$
- ④ CURVE DATA**
P.I. 19+60.36 "SW-R"
 $\Delta = 42^{\circ}42'36"$ Rt.
 $D = 4^{\circ}00'00"$
 $R = 1432.39'$
 $T = 560.05'$
 $L = 1067.74'$
 $E = 105.59'$
 $S.E. = 6.3\%$
- ⑤ CURVE DATA**
P.I. 33+09.50 "SW-R"
 $\Delta = 44^{\circ}01'35"$ Rt.
 $D = 7^{\circ}30'00"$
 $R = 763.94'$
 $T = 308.86'$
 $L = 587.02'$
 $E = 60.07'$
 $S.E. = 8.0\%$
- ⑥ CURVE DATA**
P.I. 36+62.68 "SW-R"
 $\Delta = 3^{\circ}00'00"$ Rt.
 $D = 2^{\circ}00'00"$
 $R = 2864.79'$
 $T = 75.02'$
 $L = 150.00'$
 $E = 0.98'$
 $S.E. = \text{Transition}$
- ⑦ CURVE DATA**
P.I. 176+90.70 "S-USR-31-G-RERUN"
 $\Delta = 5^{\circ}49'00"$ Lt.
 $D = 0^{\circ}20'05"$
 $R = 17114.86'$
 $T = 869.5'$
 $L = 1737.50'$
 $E = 22.07'$
 $S.E. = \text{NC}$

INTERCHANGE SHEETS	
Geometrics	46-49
Right of Way	45
Drainage	56
Construction Details	62-64, 71-73
Ramp Grades	24-43

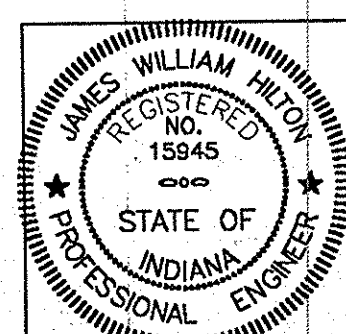
INTERCHANGE GEOMETRICS

U.S. 24 & U.S 31

SOUTH WEST QUADRANT

DETAILS

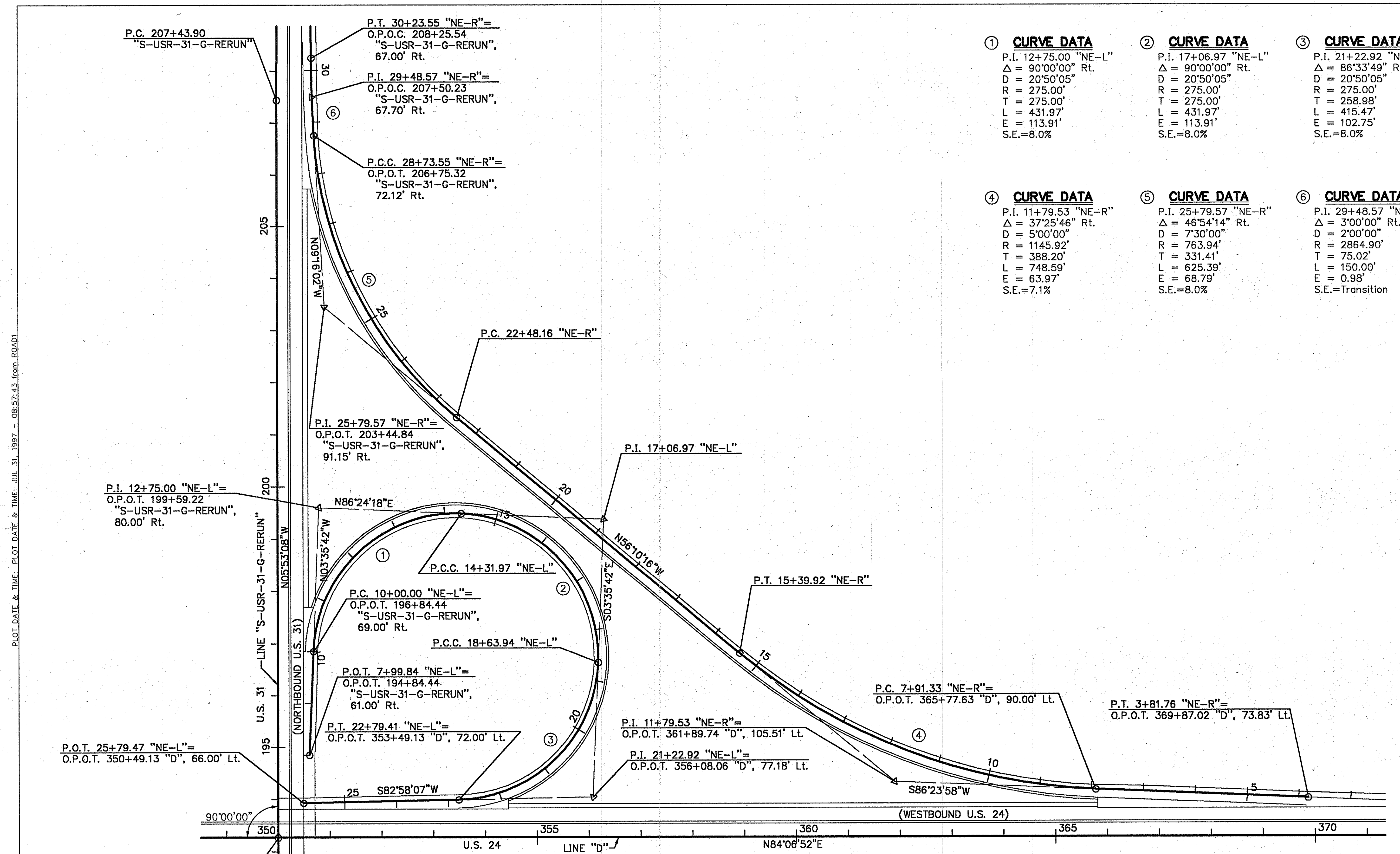
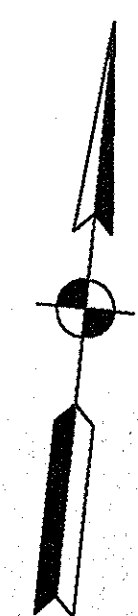
SCALE: 1" = 100'



PLOT DATE & TIME: JUL 31, 1997 - 08:53:57 FROM ROAD
 PERSONS: PJC 3/93 - CHECKED: RDS 2/94
 DRAWN: KAY 3/93 - CHECKED: RDS 2/94
 REVISION: DL 5/93 - CHECKED: MK 5/94
 SHEET REVISED: JULY 20, 1992

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	48	389

- ① **CURVE DATA**
P.I. 12+75.00 "NE-L"
 $\Delta = 90^{\circ}00'00"$ Rt.
D = 20'50'05"
R = 275.00'
T = 275.00'
L = 431.97'
E = 113.91'
S.E.=8.0%
- ② **CURVE DATA**
P.I. 17+06.97 "NE-L"
 $\Delta = 90^{\circ}00'00"$ Rt.
D = 20'50'05"
R = 275.00'
T = 275.00'
L = 431.97'
E = 113.91'
S.E.=8.0%
- ③ **CURVE DATA**
P.I. 21+22.92 "NE-L"
 $\Delta = 86^{\circ}33'49"$ Rt.
D = 20'50'05"
R = 275.00'
T = 258.98'
L = 415.47'
E = 102.75'
S.E.=8.0%
- ④ **CURVE DATA**
P.I. 11+79.53 "NE-R"
 $\Delta = 37^{\circ}25'46"$ Rt.
D = 5'00'00"
R = 1145.92'
T = 388.20'
L = 748.59'
E = 63.97'
S.E.=7.1%
- ⑤ **CURVE DATA**
P.I. 25+79.57 "NE-R"
 $\Delta = 46^{\circ}54'14"$ Rt.
D = 7'30'00"
R = 763.94'
T = 331.41'
L = 625.39'
E = 68.79'
S.E.=8.0%
- ⑥ **CURVE DATA**
P.I. 29+48.57 "NE-R"
 $\Delta = 3^{\circ}00'00"$ Rt.
D = 2'00'00"
R = 2864.90'
T = 75.02'
L = 150.00'
E = 0.98'
S.E.=Transition



INTERCHANGE SHEETS	
Geometrics	46-49
Right of Way	45
Drainage	56
Construction Details	64-66, 73-75
Ramp Grades	24-43

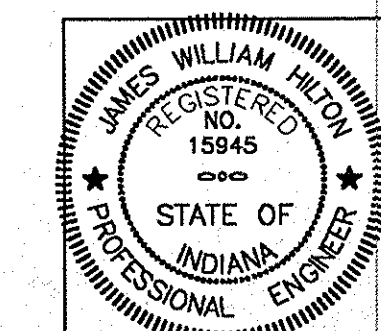
INTERCHANGE GEOMETRICS

U.S. 24 & U.S. 31

NORTH EAST QUADRANT

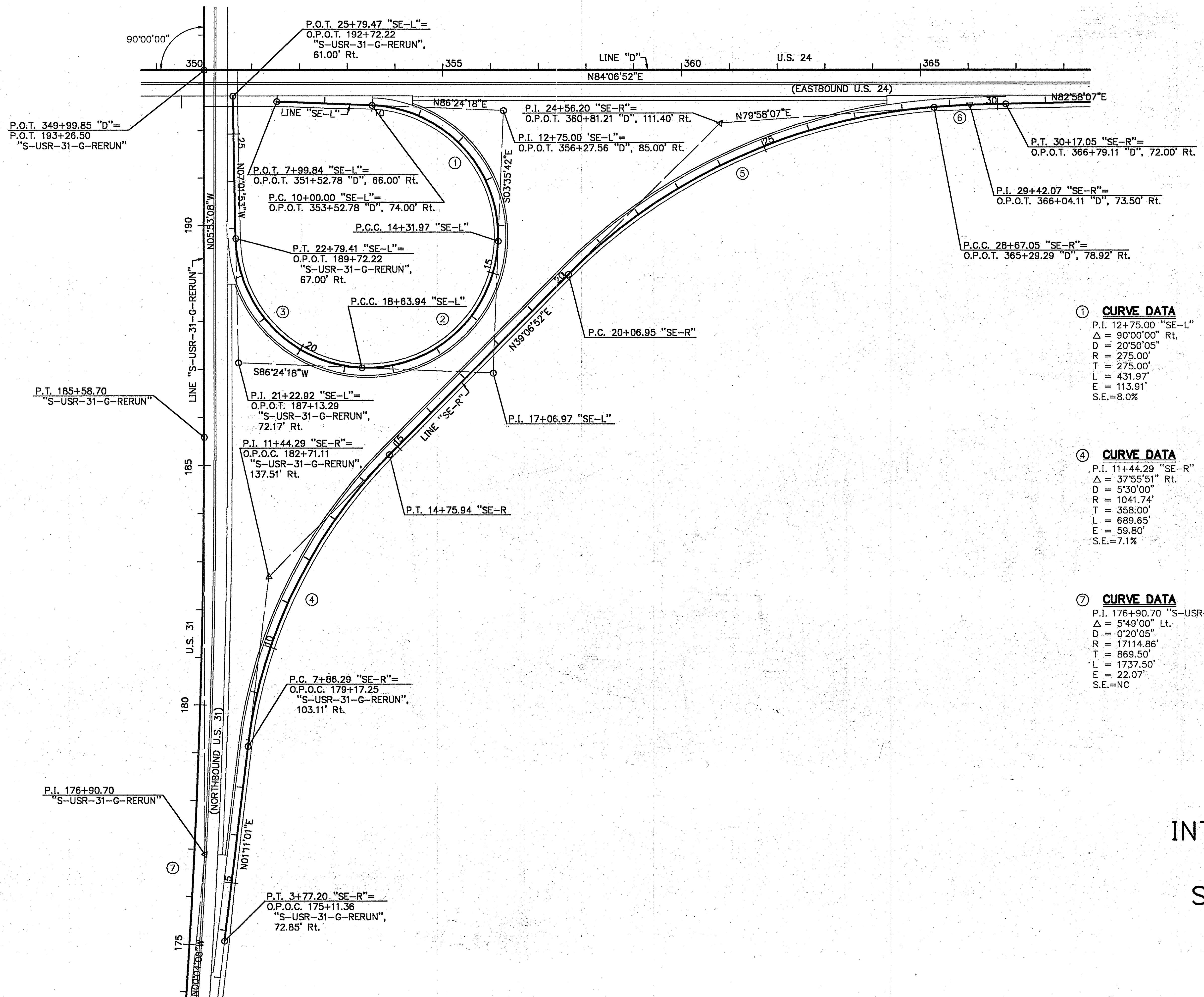
DETAILS

SCALE: 1" = 100'



REVISIONS: P.L. 3/93 CHECKED: RDS 2/94
DRAWN: KAY 3/93 CHECKED: RDS 2/94
REVISED: DH 5/93 CHECKED: MLK 3/94
SHEET REVISED: JULY 20, 1992

PLOT DATE & TIME: JUL 31 1997 - 08:55:09 from ROAD1



- ① CURVE DATA**
 P.I. 12+75.00 "SE-L"
 $\Delta = 90^{\circ}00'00''$ Rt.
 $D = 20^{\circ}50'05''$
 $R = 275.00'$
 $T = 275.00'$
 $L = 431.97'$
 $E = 113.91'$
 $S.E. = 8.0\%$
- ② CURVE DATA**
 P.I. 17+06.97 "SE-L"
 $\Delta = 90^{\circ}00'00''$ Rt.
 $D = 20^{\circ}50'05''$
 $R = 275.00'$
 $T = 275.00'$
 $L = 431.97'$
 $E = 113.91'$
 $S.E. = 8.0\%$
- ③ CURVE DATA**
 P.I. 21+22.92 "SE-L"
 $\Delta = 86^{\circ}33'49''$ Rt.
 $D = 20^{\circ}50'05''$
 $R = 275.00'$
 $T = 258.98'$
 $L = 415.47'$
 $E = 102.75'$
 $S.E. = 8.0\%$
- ④ CURVE DATA**
 P.I. 11+44.29 "SE-R"
 $\Delta = 37^{\circ}55'51''$ Rt.
 $D = 5^{\circ}30'00''$
 $R = 1041.74'$
 $T = 358.00'$
 $L = 689.65'$
 $E = 59.80'$
 $S.E. = 7.1\%$
- ⑤ CURVE DATA**
 P.I. 24+56.20 "SE-R"
 $\Delta = 40^{\circ}51'15''$ Rt.
 $D = 4^{\circ}45'00''$
 $R = 1206.25'$
 $T = 449.25'$
 $L = 860.10'$
 $E = 80.94'$
 $S.E. = 6.3\%$
- ⑥ CURVE DATA**
 P.I. 29+42.07 "SE-R"
 $\Delta = 3^{\circ}00'00''$ Rt.
 $D = 2^{\circ}00'00''$
 $R = 2864.79'$
 $T = 75.02'$
 $L = 150.00'$
 $E = 0.98'$
 $S.E. = \text{Transition}$
- ⑦ CURVE DATA**
 P.I. 176+90.70 "S-USR-31-G-RERUN"
 $\Delta = 5^{\circ}49'00''$ Lt.
 $D = 0^{\circ}20'05''$
 $R = 17114.86'$
 $T = 869.50'$
 $L = 1737.50'$
 $E = 22.07'$
 $S.E. = \text{NC}$

INTERCHANGE SHEETS	
Geometrics	46-49
Right of Way	45
Drainage	56
Construction Details	64-66, 71-73
Ramp Grades	24-43

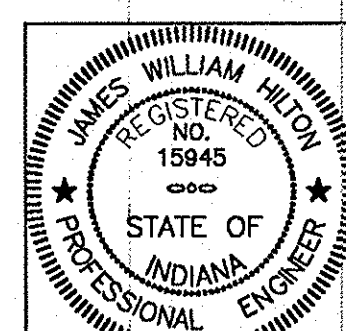
INTERCHANGE GEOMETRICS

U.S. 24 & U.S. 31

SOUTH EAST QUADRANT

DETAILS

SCALE: 1" = 100'

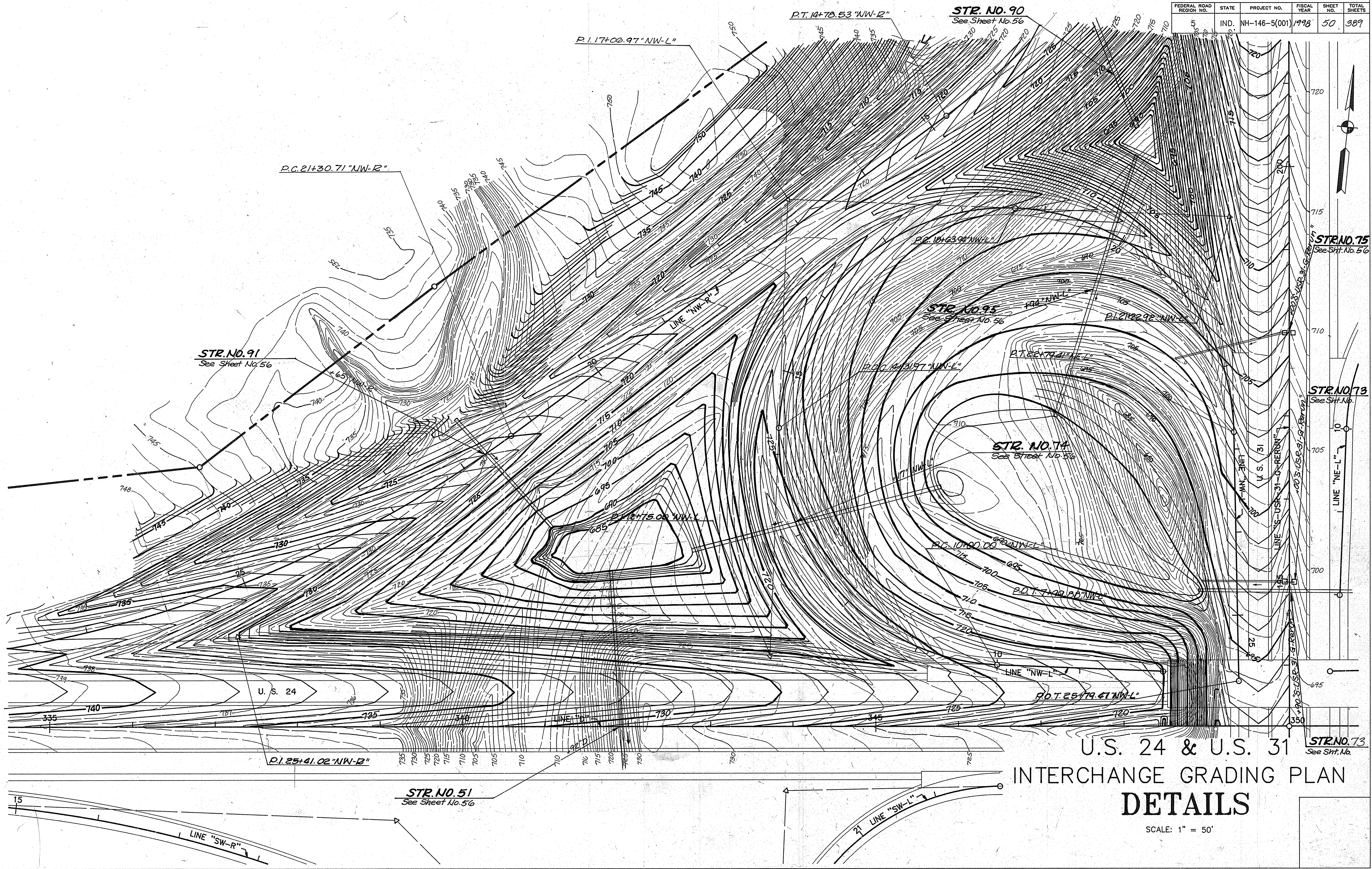


DESIGNED: RJS, 3/93. CHECKED: RJS, 2/94.
 DRAWN: KAY, 3/93. CHECKED: RJS, 2/94.
 REVISED: JHL, 5/93. CHECKED: MJK, 3/94.
 SHEET REVISED: JULY 20, 1992

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	50	389

PLOT DATE & TIME: MAY 19, 1993 - 10:54:45

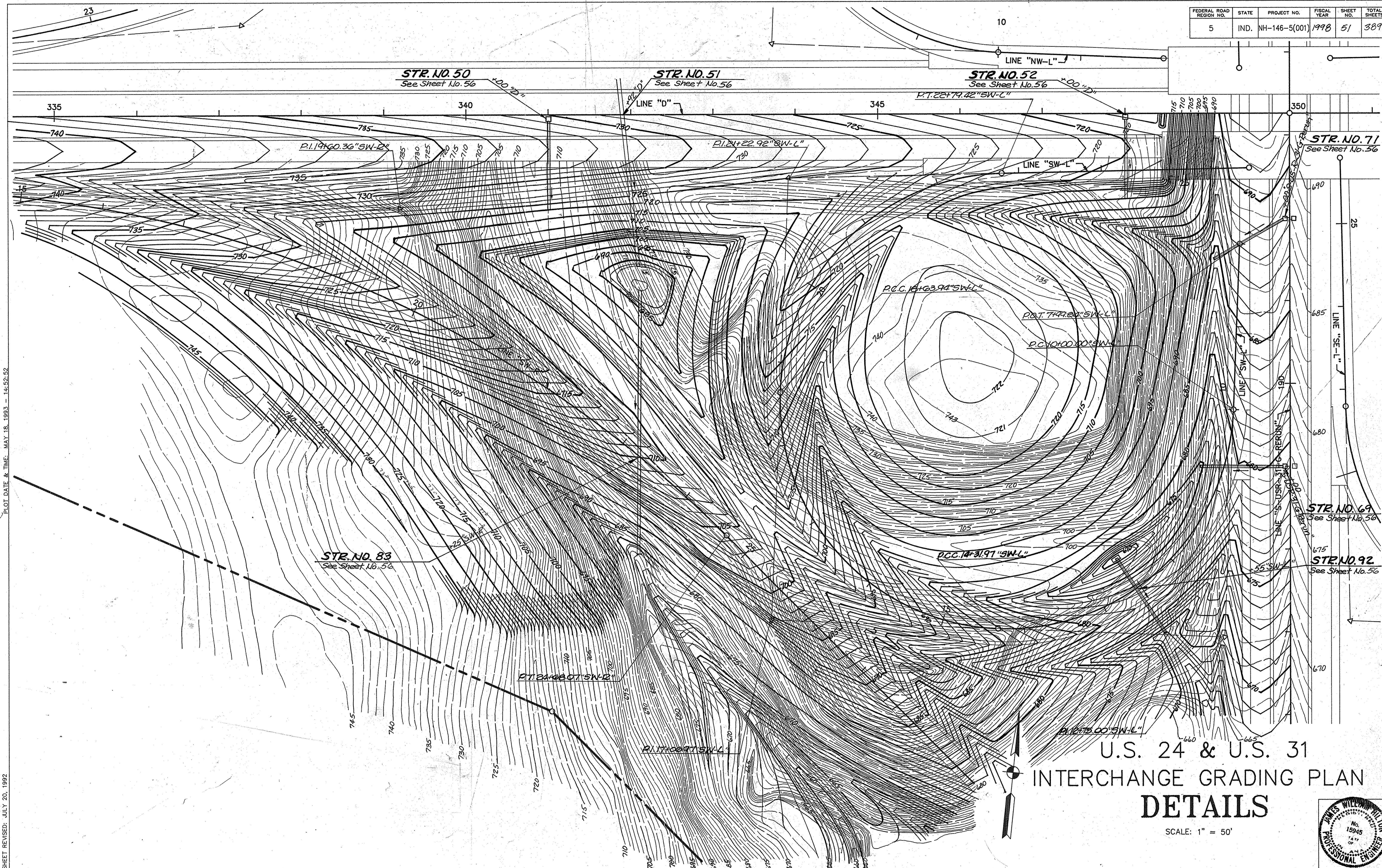
DESIGNED: B.O. 5/93
 DRAWN: KAY 5/93
 CHECKED: [blank]
 SHEET REVISED: JULY 20, 1992



U.S. 24 & U.S. 31
 INTERCHANGE GRADING PLAN
DETAILS
 SCALE: 1" = 50'
 STR. NO. 73
 See Sheet No.

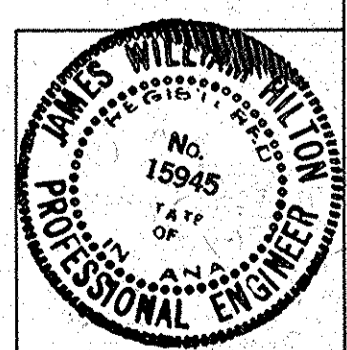
NW

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	51	389



U.S. 24 & U.S. 31
 INTERCHANGE GRADING PLAN
DETAILS

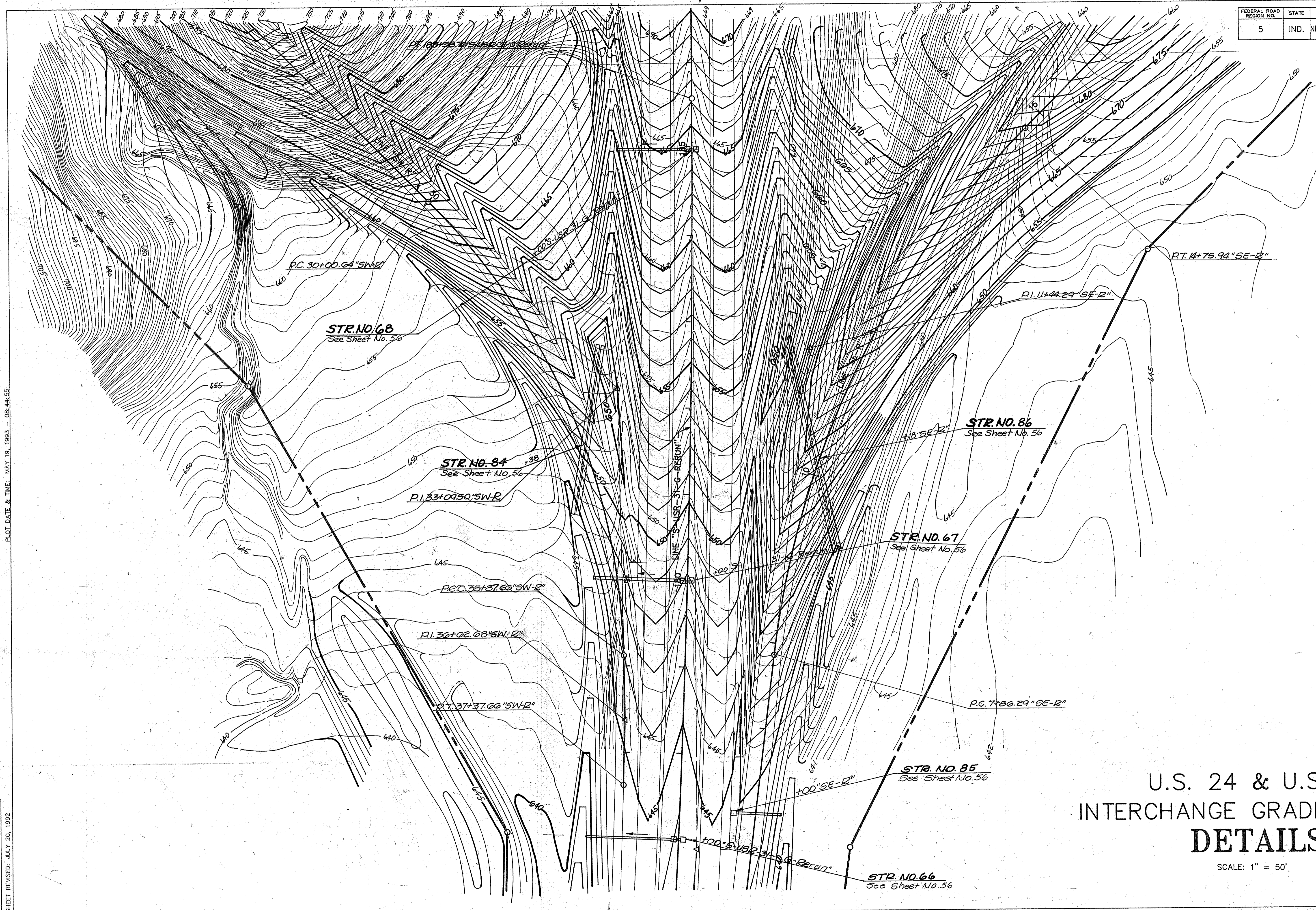
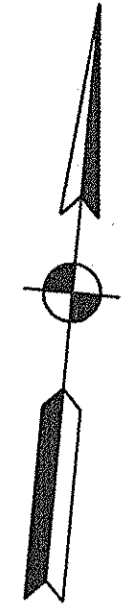
SCALE: 1" = 50'



PLOT DATE & TIME: MAY 18, 1993 - 14:52:52

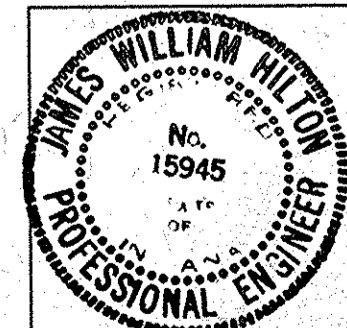
DESIGNED: P.C. 5/93
 DRAWN: K.A. 5/93
 CHECKED: [blank]
 SHEET REVISED: JULY 20, 1992

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	52	389



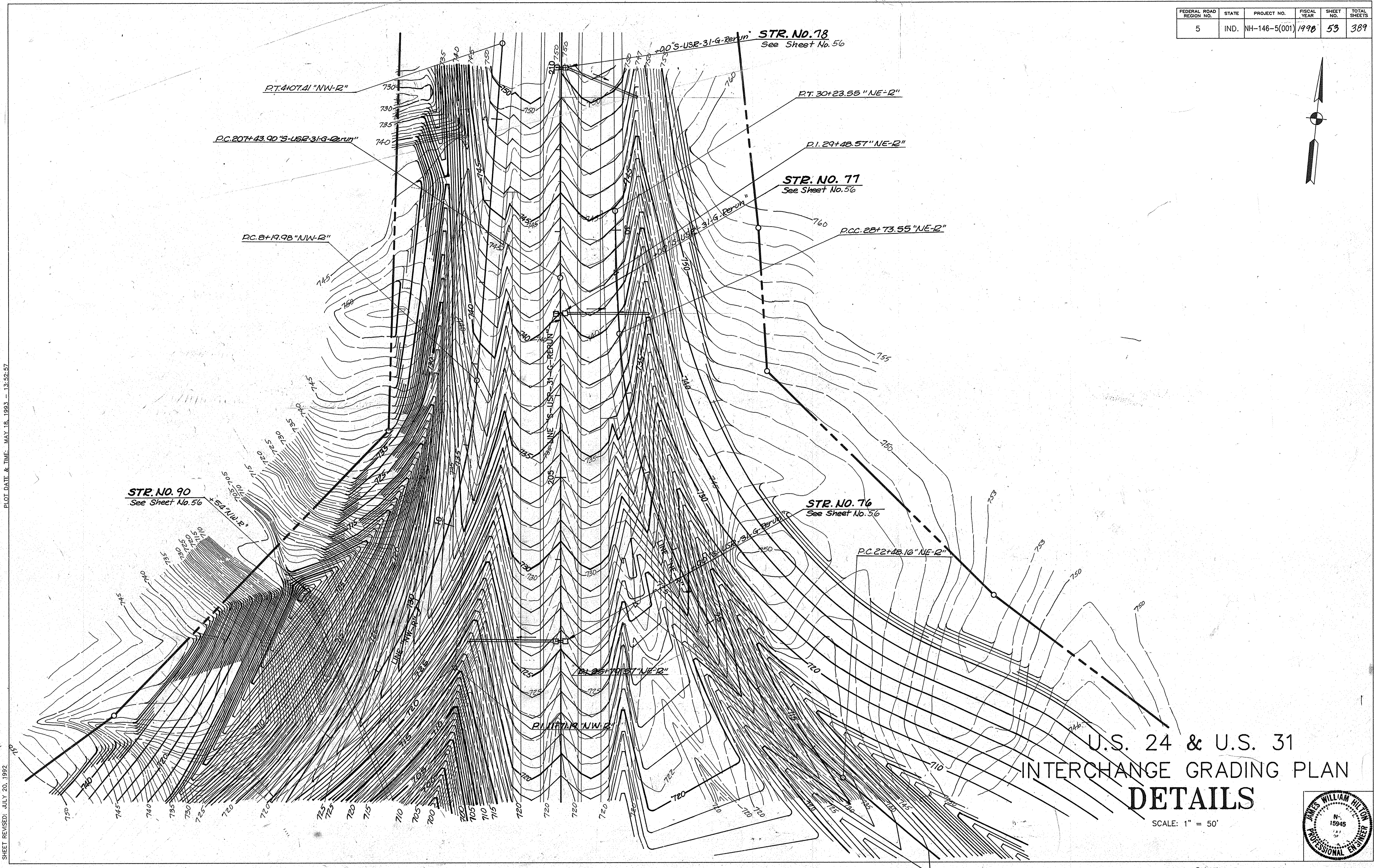
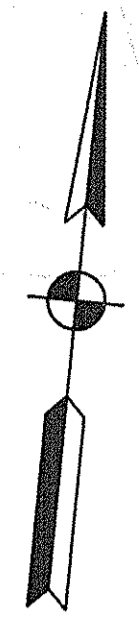
U.S. 24 & U.S. 31 INTERCHANGE GRADING PLAN DETAILS

SCALE: 1" = 50'



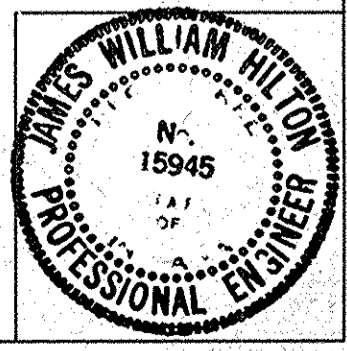
DESIGNED: E.J.G. 5/93 CHECKED: _____
 DRAWN: K.A.Y. 5/93 CHECKED: _____
 REVISED: _____
 SHEET REVISED: JULY 20, 1992

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	53	389



U.S. 24 & U.S. 31
INTERCHANGE GRADING PLAN
DETAILS

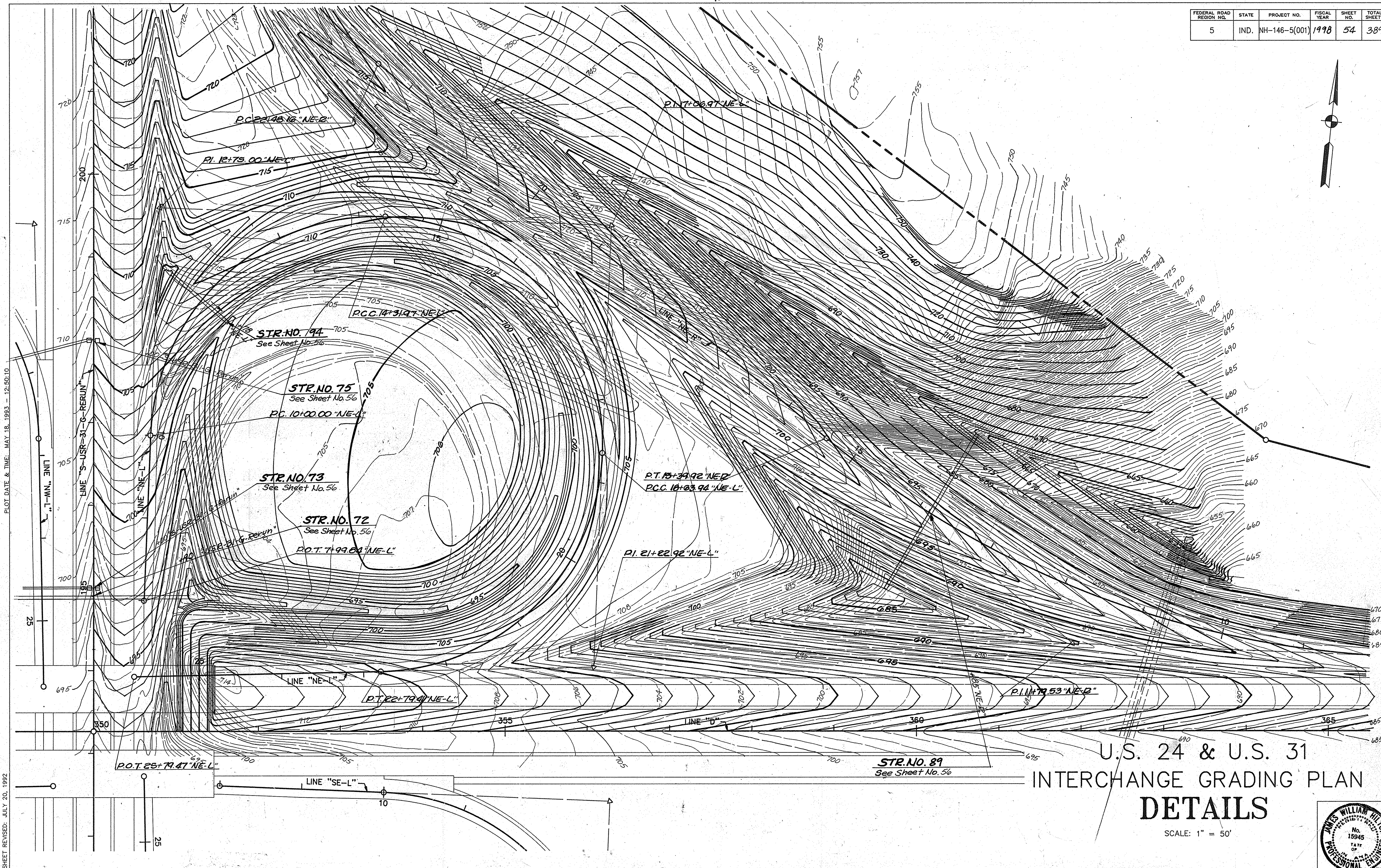
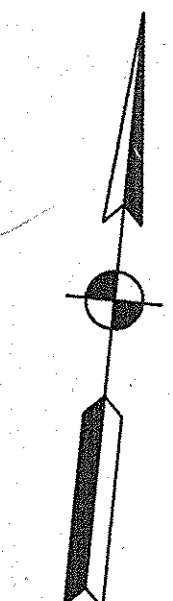
SCALE: 1" = 50'



PLOT DATE & TIME: MAY 18, 1993 - 13:52:57

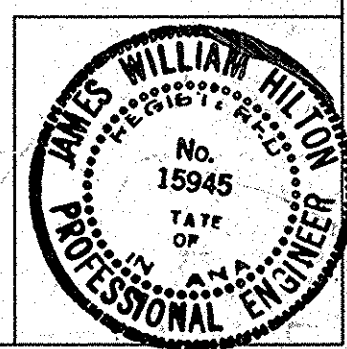
DESIGNED BY: S. J. B. CHECKED BY: K. A. S. B. DATE: JULY 20, 1992

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	54	389



U.S. 24 & U.S. 31
INTERCHANGE GRADING PLAN
DETAILS

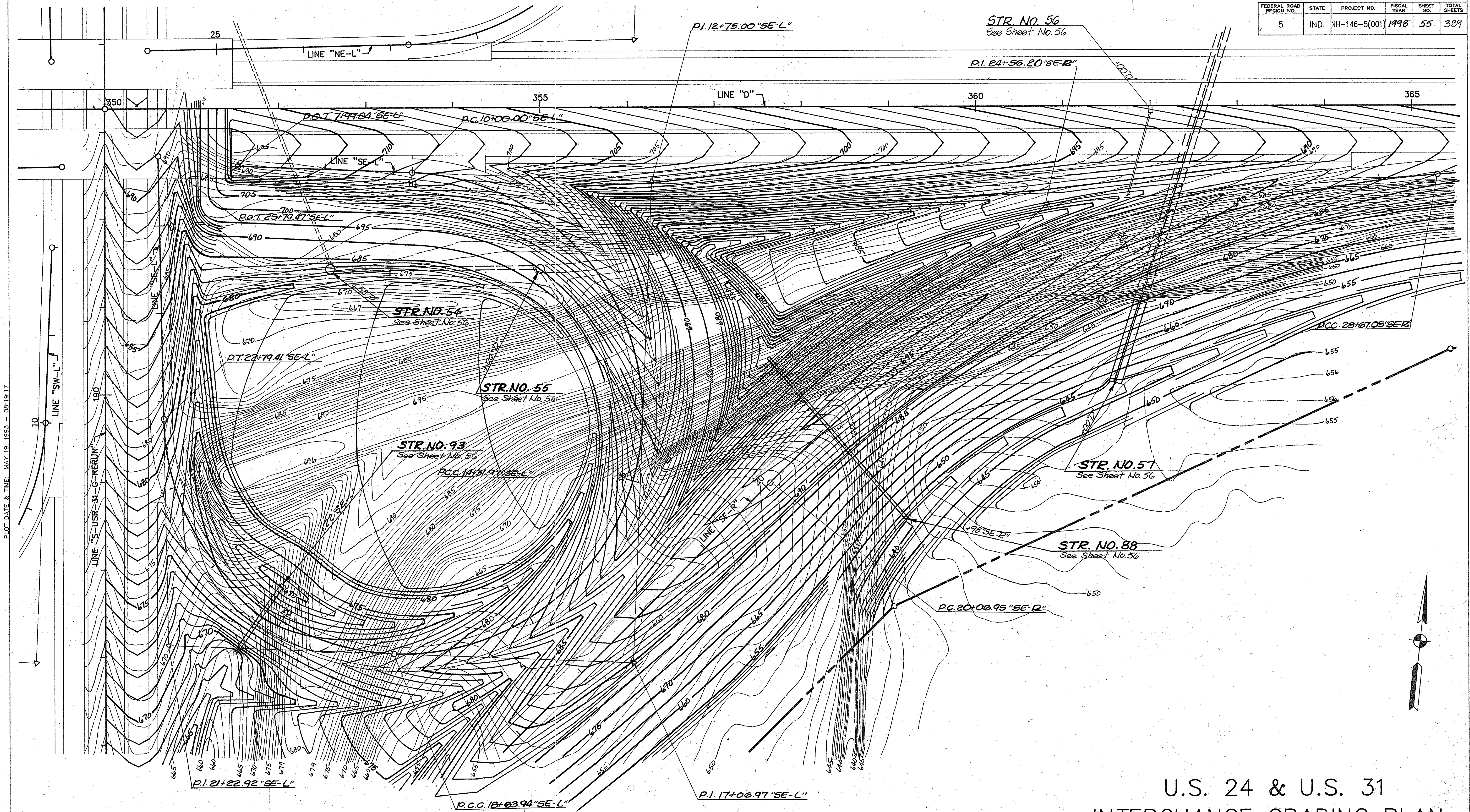
SCALE: 1" = 50'



PREPARED BY: B.C.S. CHECKED BY: K.M.L. DATE: MAY 5, 1993
 DESIGNED BY: B.C.S. CHECKED BY: K.M.L. DATE: MAY 5, 1993
 SHEET REVISED: JULY 20, 1992

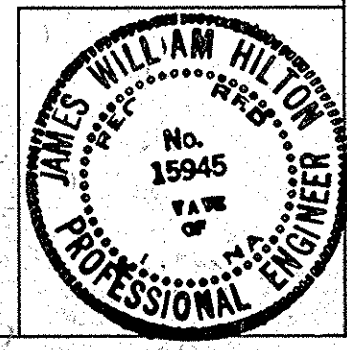
NE

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	55	389



U.S. 24 & U.S. 31 INTERCHANGE GRADING PLAN DETAILS

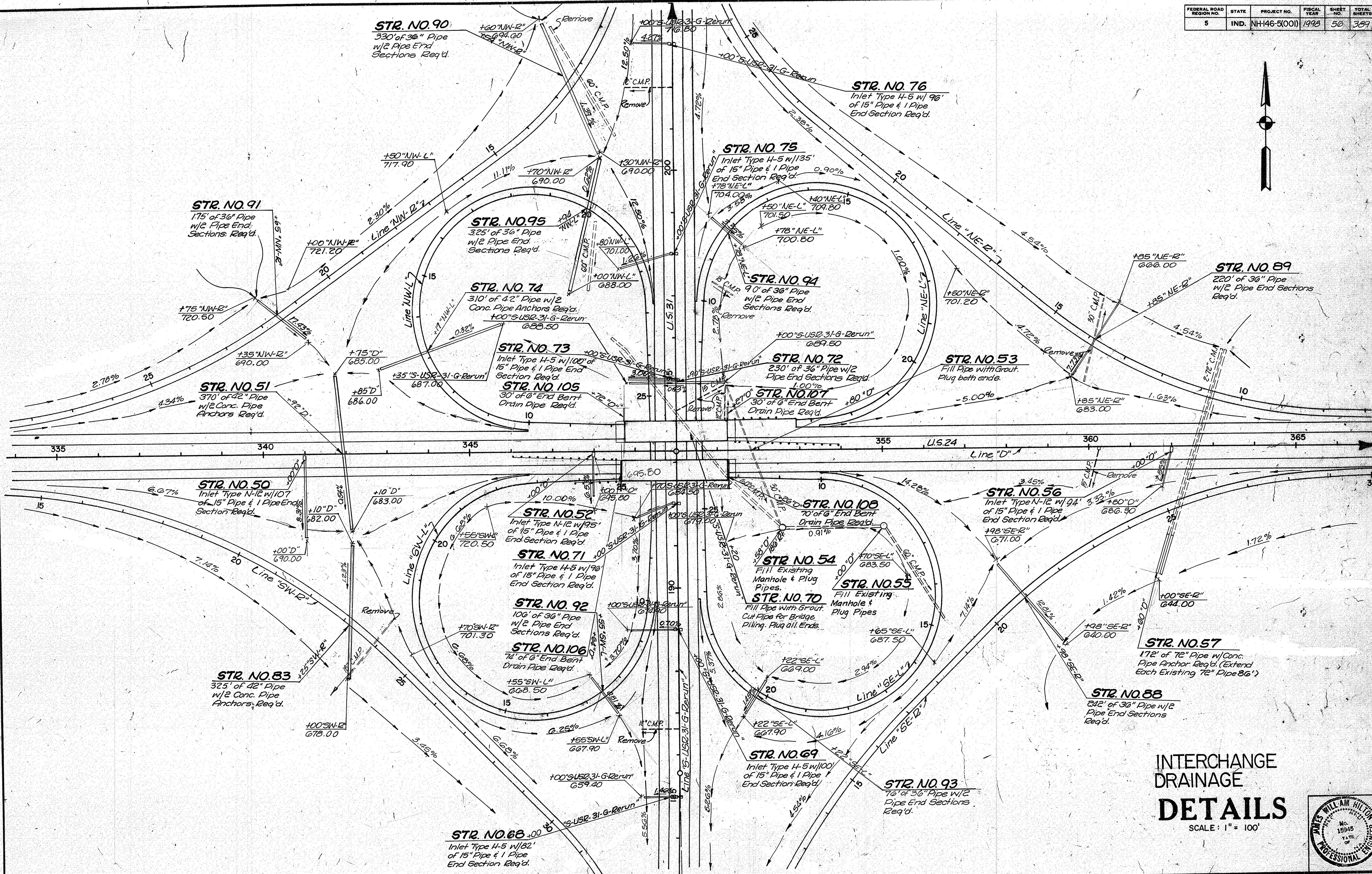
SCALE: 1" = 50'



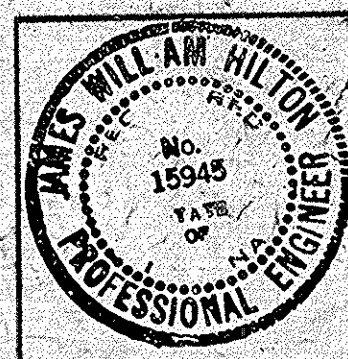
REVISIONS: P.C. 5/01, CHECKED: [blank], DATE: [blank]
 DRAWN: KAY 5/03, CHECKED: [blank], DATE: [blank]
 SHEET REVISED: JULY 20, 1992

SE

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	56	389



INTERCHANGE DRAINAGE DETAILS
SCALE: 1" = 100'

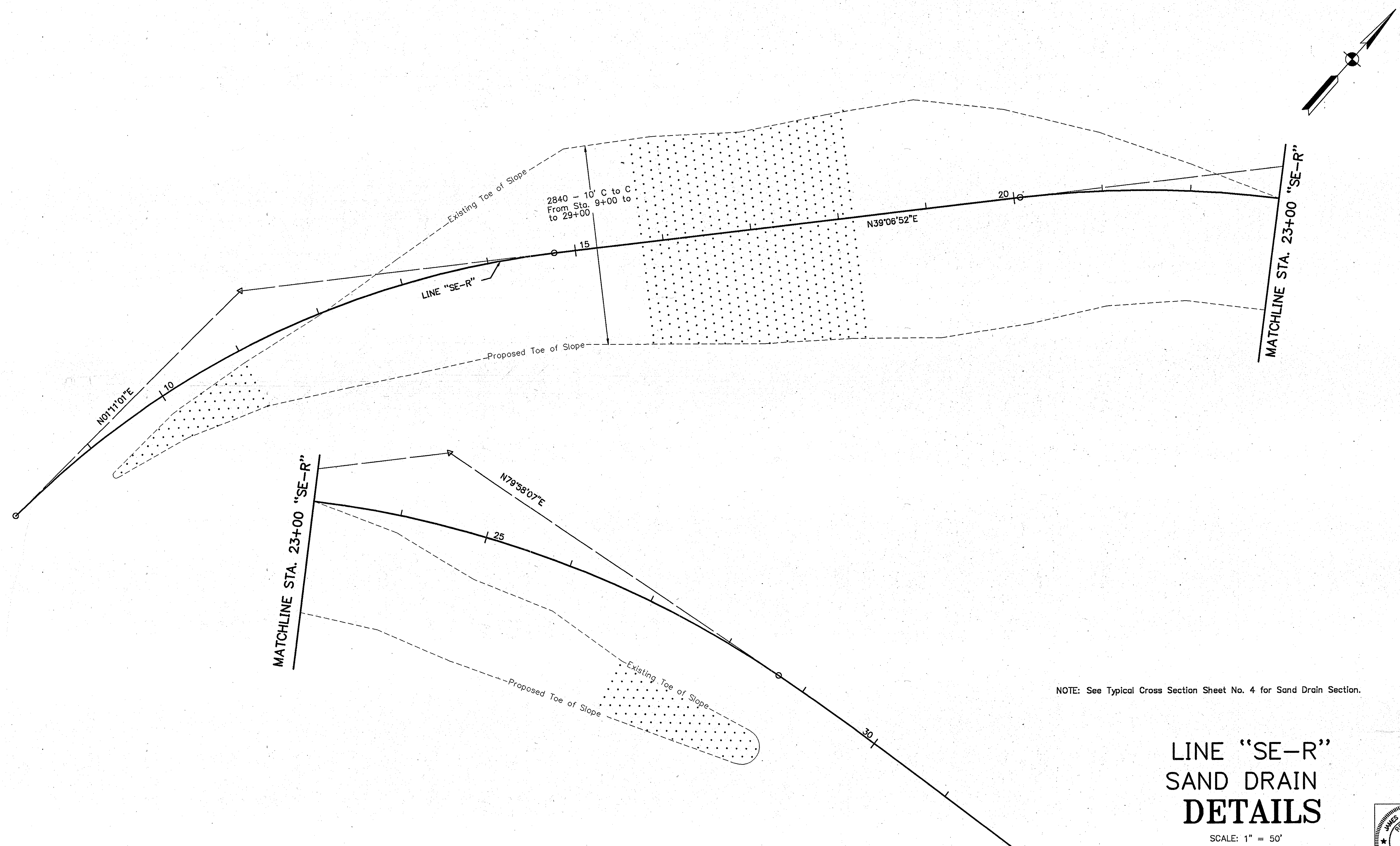


PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
NH-146-5(001)	D	56	389	

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	57	389

PLOT DATE & TIME: DEC 18, 1997 - 13:18:47

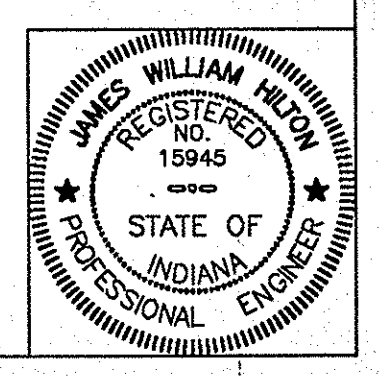
DESIGNED: BJS 7/94 checked: BJS 7/94
 DRAWN: MJK 7/94 checked: BJS 7/94
 REVISED: MJK 12/97 checked: BJS 12/97



NOTE: See Typical Cross Section Sheet No. 4 for Sand Drain Section.

LINE "SE-R" SAND DRAIN DETAILS

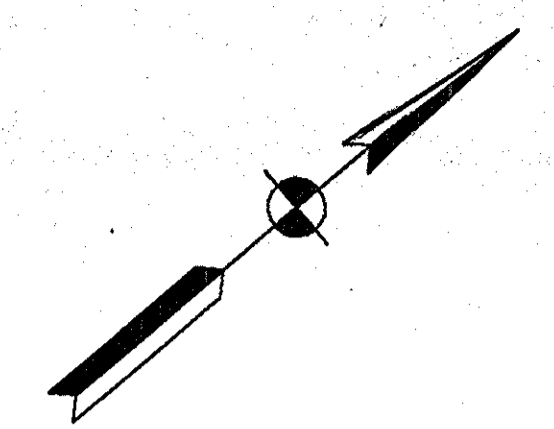
SCALE: 1" = 50'



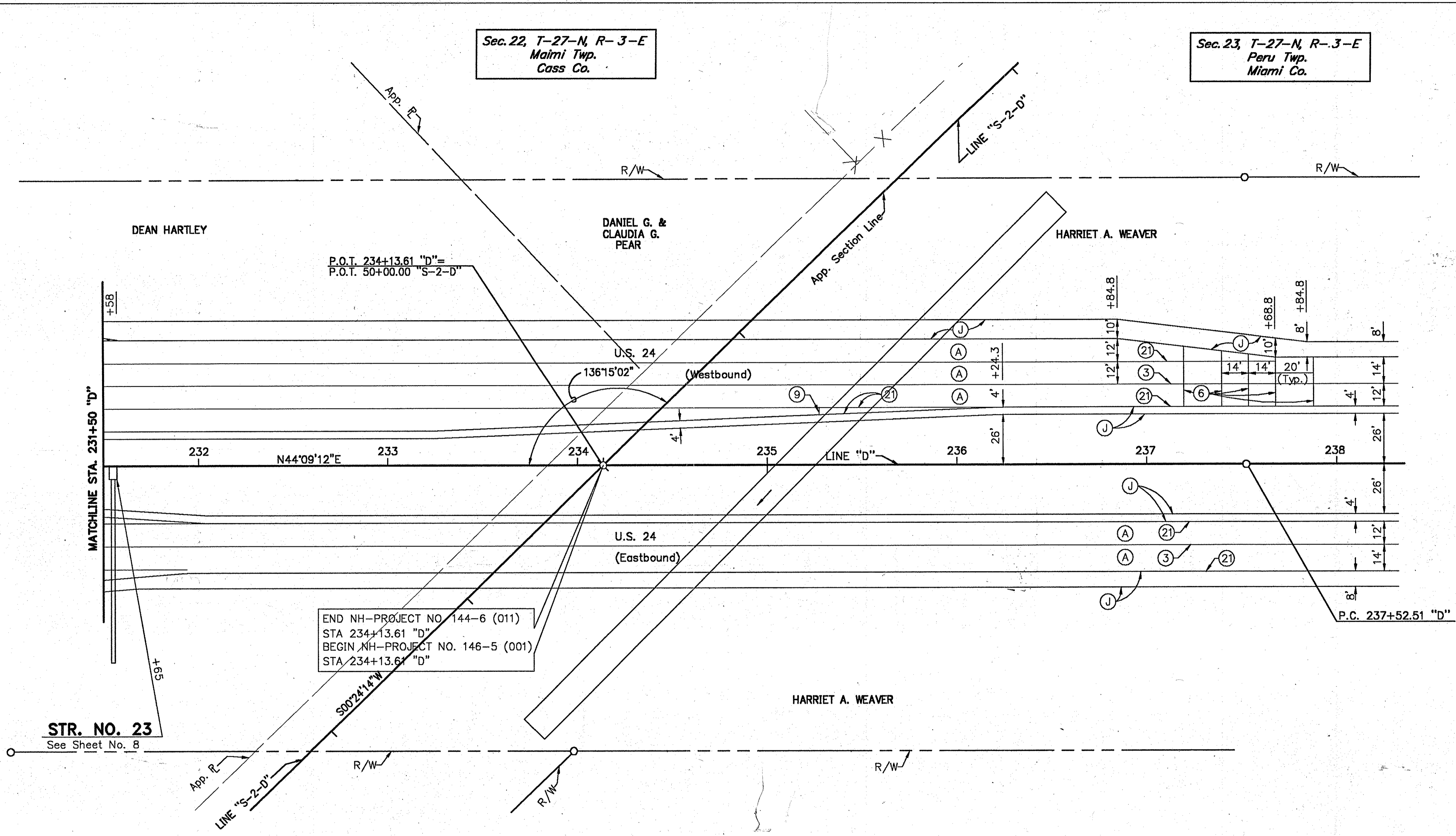
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(011)	1998	58	389

Sec. 22, T-27-N, R-3-E
Malmi Twp.
Cass Co.

Sec. 23, T-27-N, R-3-E
Peru Twp.
Miami Co.



PLOT DATE & TIME: DEC 18, 1997 - 08:42:30 - Plotted from: TRAN4

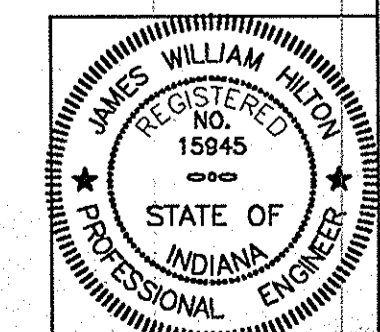


LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm Shoulder on
495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on
6" Compacted Aggregate for Base, "O", Size No. 53
- (3) Longitudinal Joint
- (6) Type D-1 Contraction Joint
- (9) 1" Preformed Joint Filler
- (21) Longitudinal Construction Joint

**US 24
CONSTRUCTION
DETAILS**

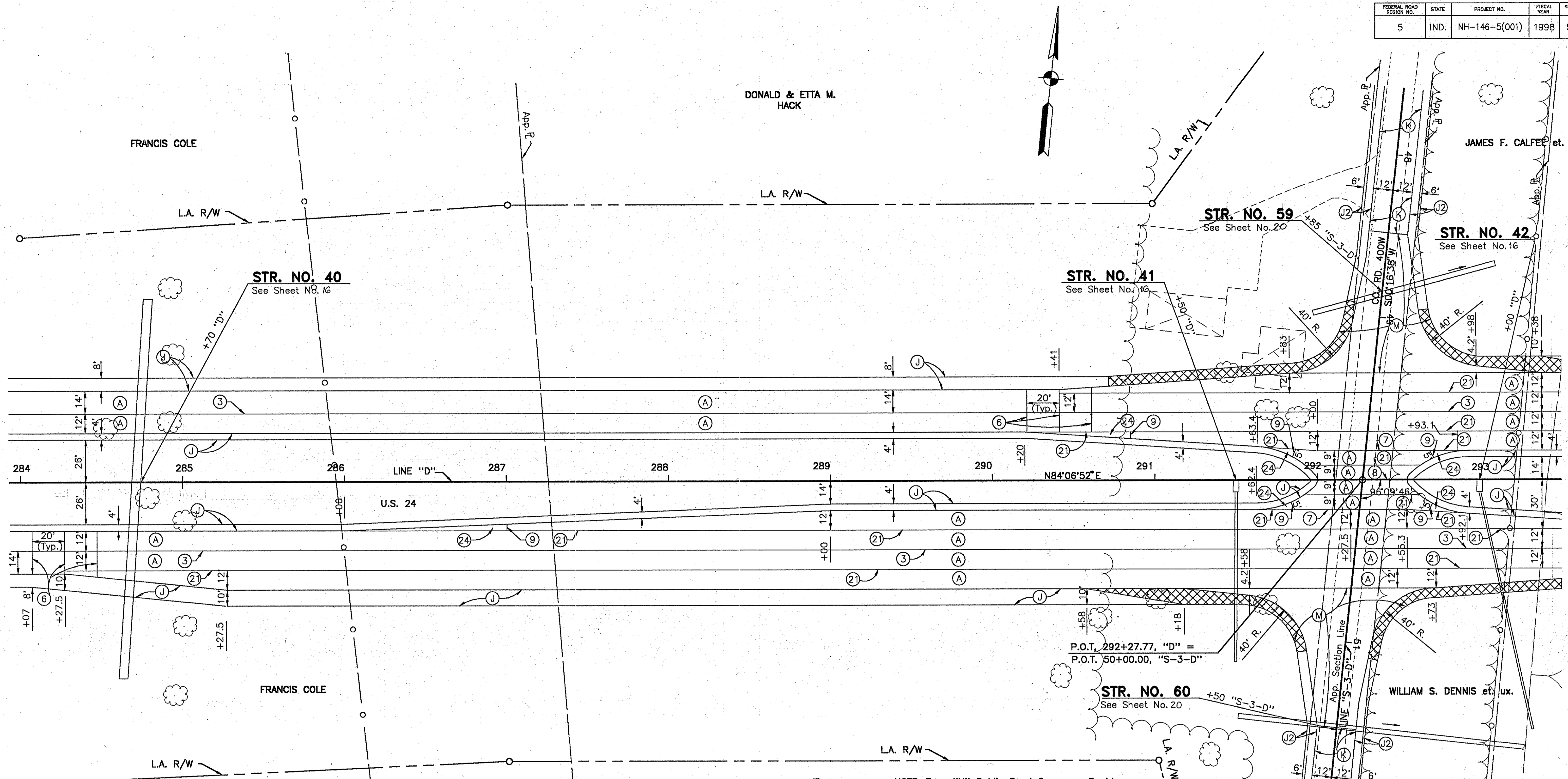
SCALE: 1"=30'



DESIGNED: _____ CHECKED: _____
DRAWN: JWG 2/93 CHECKED: _____
REVISED: SJW 10/97 CHECKED: AL 10/97

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	59	389

PLOT DATE & TIME: OCT 28, 1997 - 10:20:02 - Plotted from: TRAM12



LEGEND

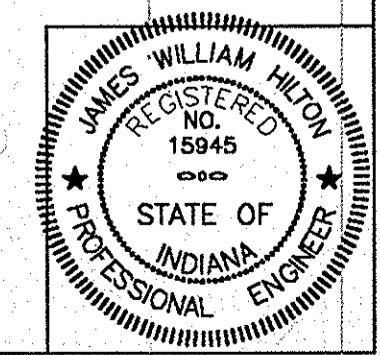
- | | |
|--|---|
| (A) Cement Concrete Pavement, Plain, 11" | (3) Longitudinal Joint |
| (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on
495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on
6" Compacted Aggregate for Base, "O", Size No. 53 | (6) Type D-1 Contraction Joint |
| (J2) Paved Shoulder
440#/Syd. QC/QA HMA Base 25.0mm, Shoulder
with Seal Coat, Type 2 on
6" Compacted Aggregate for Base, "O", Size No. 53 | (7) Keyway Joint |
| (K) Full Depth Pavement
140#/Syd. HMA Surface 9.5mm, Mainline on
300#/Syd. HMA Base 25.0mm, Mainline on
8" Compacted Aggregate for Base, "O", Size No. 53 | (8) 1" Preformed Expansion Joint with Load Transfer |
| (M) HMA For Approaches (Same Composition as (K)) on
8" Compacted Aggregate for Base, "O", Size No. 53 | (9) 1" Preformed Joint Filler |
| | (21) Longitudinal Construction Joint |
| | (24) Ear Construction, Type "A" |
| | Same as Approach Pavement with Seal Coat, Type 2 |

NOTE: Type "U" Public Road Crossover Req'd
Sta. 292+27.77 "D"
Length = 55'

Type "C" Public Road Approach Req'd
Sta. 292+27.77 "D" Lt.
Sta. 292+27.77 "D" Rt.

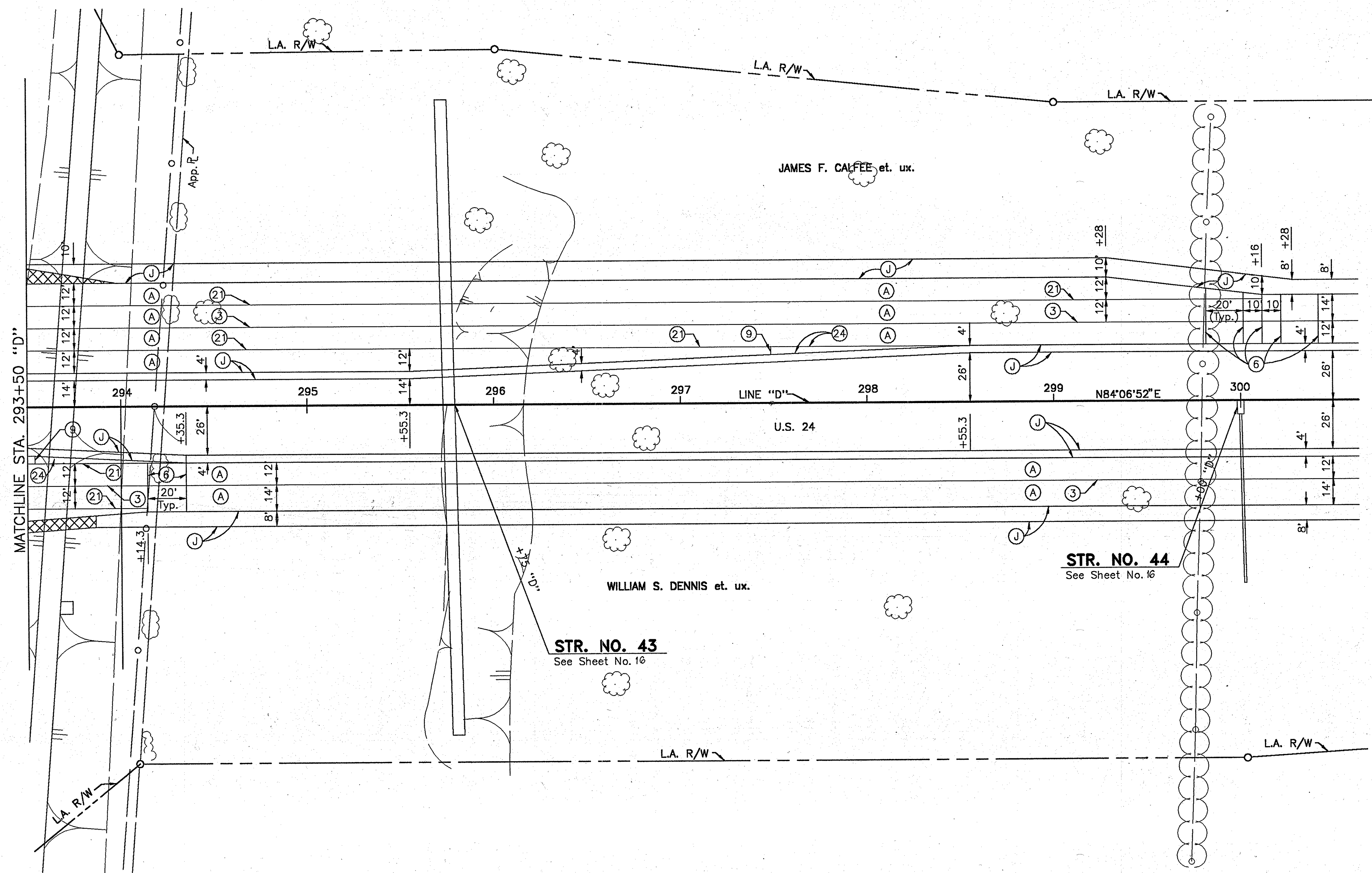
**U.S. 24 & CO. RD. 400W
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



DESIGNED: E.J.G. 2/93 CHECKED: R.S.S. 1/94
DRAWN: M.G. 2/93 CHECKED: R.S.S. 1/94
REVISION: D.M.L. 10/97 CHECKED: E.S.G. 10/97

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	60	389

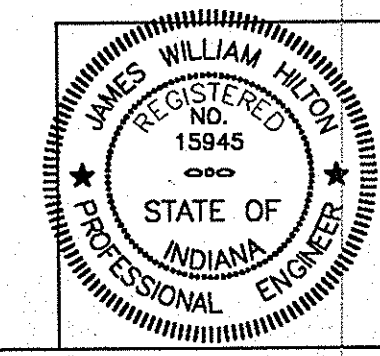


LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on 495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on 6" Compacted Aggregate for Base, "O", Size No. 53
- (3) Longitudinal Joint
- (6) Type D-1 Contraction Joint
- (9) 1" Preformed Joint Filler
- (21) Longitudinal Construction Joint
- (24) Ear Construction, Type "A"

**U.S. 24 & CO. RD. 400W
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



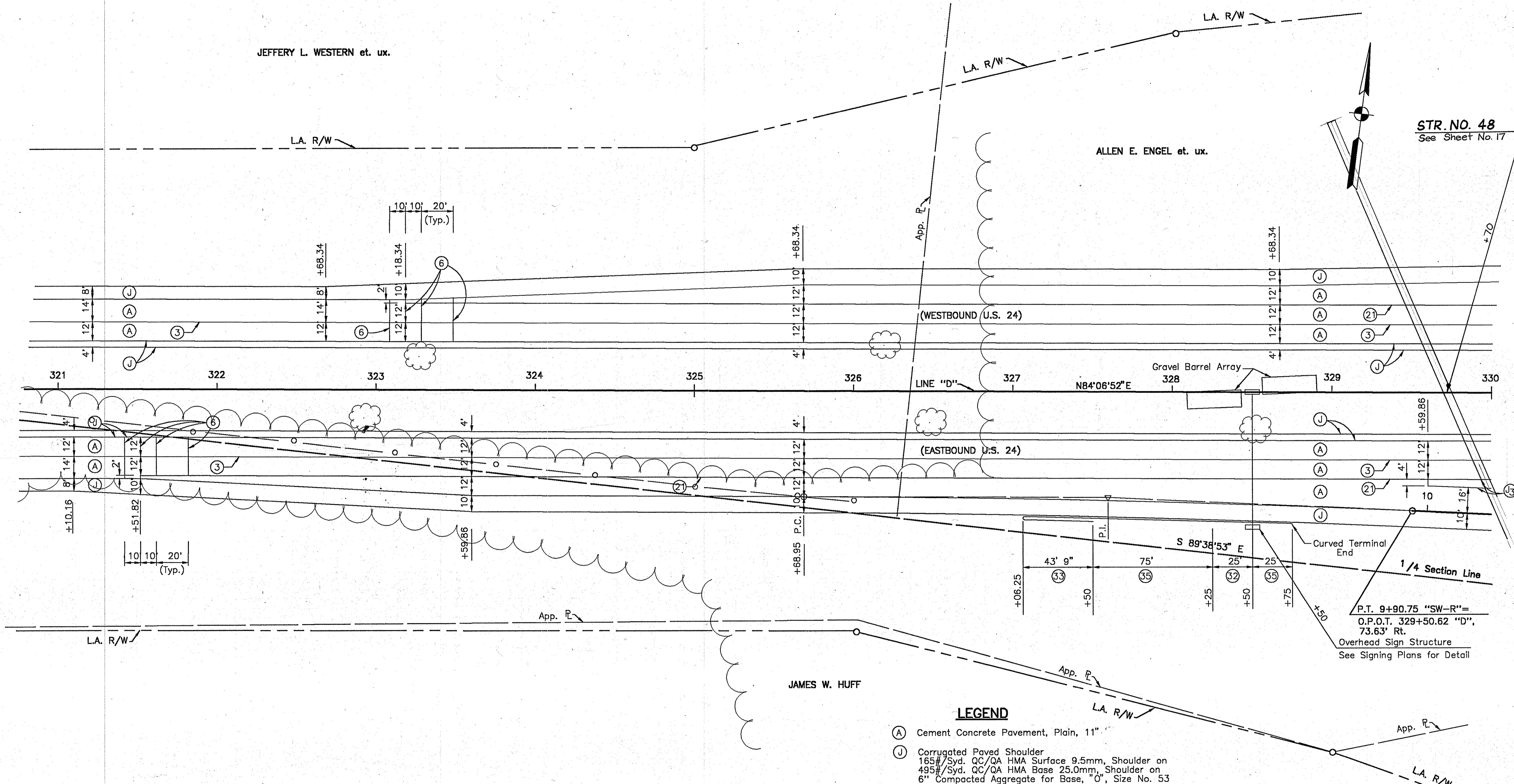
DESIGNED: P.J.G. 2/93 CHECKED: R.S. 1/94
 DRAWN: M.S. 2/93 CHECKED: R.S. 1/94
 REVISED: D.H. 10/97 CHECKED: P.G. 10/97
 PLOT DATE & TIME: OCT 28, 1997 - 10:20:32 - Plotted from: TRAM12

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	61	389

JEFFERY L. WESTERN et. ux.

ALLEN E. ENGEL et. ux.

STR. NO. 48
See Sheet No. 17



JAMES W. HUFF

LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
 - (J) Corrugated Paved Shoulder
185#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on
495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on
6" Compacted Aggregate for Base, "O", Size No. 53
 - (3) Paved Shoulder
1210#/Syd. QC/QA HMA Base 25.0mm, Shoulder
with Seal Coat Type 2
 - (3) Longitudinal Joint
 - (6) Type D-1 Contraction Joint
 - (21) Longitudinal Construction Joint
 - (32) Guard Rail, W-Beam, 3'-1 1/2" Spacing
 - (33) Guard Rail, End Treatment, Type OS
 - (35) Guard Rail, W-Beam, 6'-3" Spacing
- For Interchange Geometrics, See Sheet No.

**U.S. 24
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



PLOT DATE & TIME: DEC 17, 1997 - 09:58:00 - Plotted from: TRAM

DESIGNED: BJS, 1/94
DRAWN: JMK, 1/94
CHECKED: BJS, 1/94
REVISION: DJL, 10/97

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	62	389

ALLEN E. ENGEL et. ux.

JOHN R. DE LUCCA

CURVE DATA

P.I. 30+40.95 "NW-R"
 $\Delta = 3^{\circ}00'00''$ RT.
 $D = 2^{\circ}00'00''$
 $R = 2864.79'$
 $T = 75.02'$
 $L = 150.00'$
 $E = 0.98'$
 S.E. = Transition

P.I. 30+04.95 "NW-R"=
 O.P.O.T. 332+43.34 "D",
 73.50' Lt.

P.T. 30+79.93 "NW-R"=
 O.P.O.T. 331+68.34 "D",
 72.00' Lt.

P.C.C. 29+29.93 "NW-R"
 O.P.O.T. 333+18.16 "D",
 78.92' Lt.

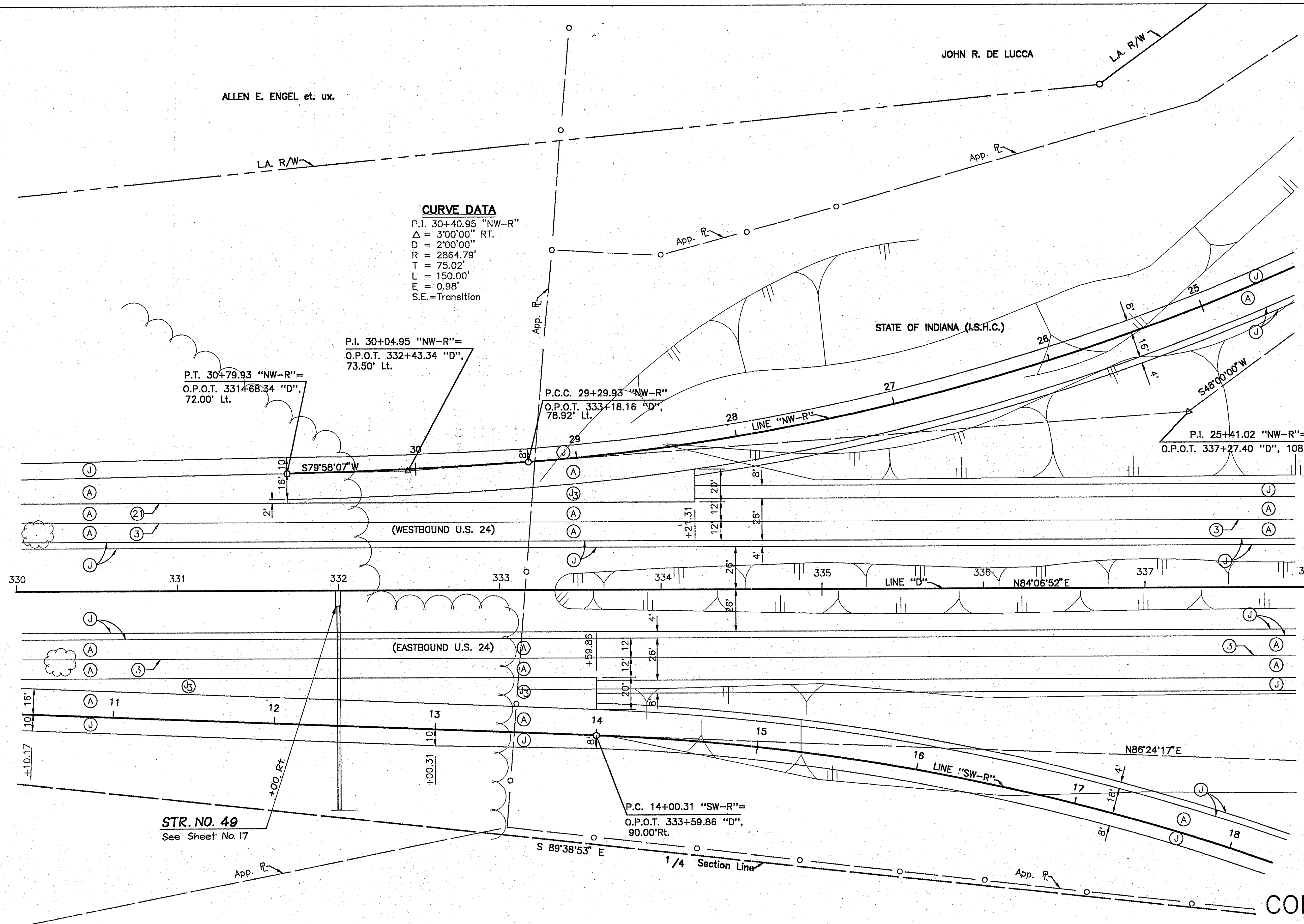
P.I. 25+41.02 "NW-R"=
 O.P.O.T. 337+27.40 "D", 108.59' Lt.

LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on
495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on
6" Compacted Aggregate for Base, "O", Size No. 53
- (3) Paved Shoulder
1210#/Syd. QC/QA HMA Base 25.0mm, Shoulder
with Seal Coat, Type 2
- (3) Longitudinal Joint
- (2) Longitudinal Construction Joint

For Interchange Geometrics, See Sheet No.

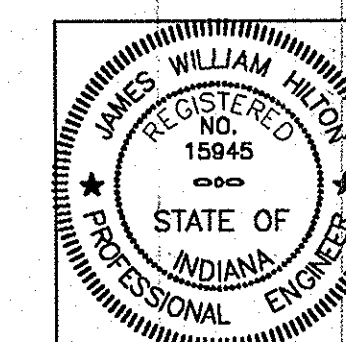
PLOT DATE & TIME: OCT 28, 1997 - 10:17:18 - Plotted from: TRAM12



**U.S. 24
CONSTRUCTION
DETAILS**

SCALE: 1"=30'

JAMES W. HUFF



DESIGNED: BJS 12/93, CHECKED: BJS 1/94
 DRAWN: MJK 12/93, CHECKED: BJS 1/94
 REVISED: DJH 10/97, CHECKED: BJS 10/97

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	63	389

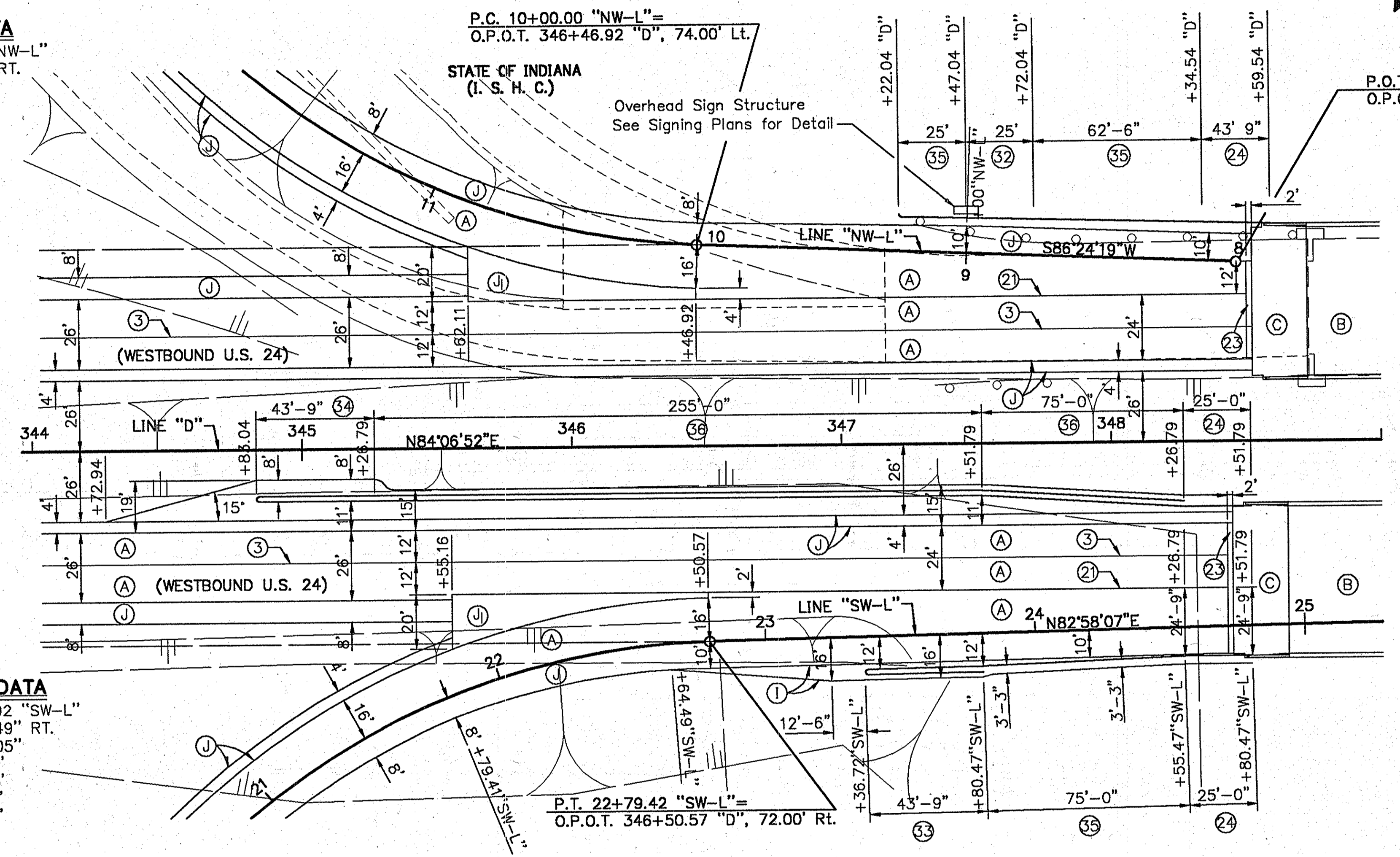
LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
 - (B) Bridge Deck
 - (C) Cement Concrete Pavement Reinforced, 11"
 - (1) 12" Compacted Aggregate Base No. 53
 - (J) Paved Shoulder
660 #/Syd. Bituminous Base 5D, LV
6" Compacted Aggregate for Base, O, Size No. 53
 - (U) Paved Shoulder
1210 #/Syd. Bituminous Base 5D, LV
 - (3) Longitudinal Joint
 - (2) Longitudinal Construction Joint
 - (23) Terminal Joint
 - (24) Guardrail Transition, Type TGB
 - (32) Guardrail, W-Beam, 3'-1 1/2" Spacing
 - (34) Guardrail, End Treatment, Type MS
 - (35) Guardrail, W-Beam, 6'-3" Spacing
 - (36) Guardrail, W-Beam, 6'-3" Spacing, Double Faced
- For Interchange Geometrics, See Sheet No.

CURVE DATA
P.I. 12+75.00 "NW-L"
 $\Delta = 90^{\circ}00'00"$ RT.
D = 20'50"05"
R = 275.00'
T = 275.00'
L = 431.97'
E = 113.91'
S.E. = 8%

P.C. 10+00.00 "NW-L"=
O.P.O.T. 346+46.92 "D", 74.00' Lt.
STATE OF INDIANA
(I.S.H.C.)

P.O.T. 7+99.85 "NW-L"=
O.P.O.T. 348+46.91 "D", 66.00' Lt.



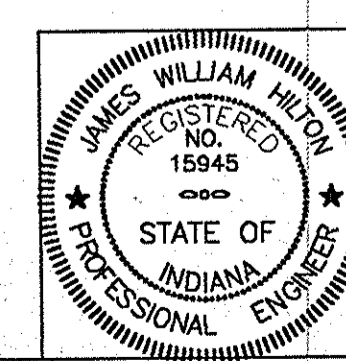
CURVE DATA
P.I. 21+22.92 "SW-L"
 $\Delta = 86^{\circ}33'49"$ RT.
D = 20'50"05"
R = 275.00'
T = 258.98'
L = 415.48'
E = 102.75'
S.E. = 8.0%

P.T. 22+79.42 "SW-L"=
O.P.O.T. 346+50.57 "D", 72.00' Rt.

STATE OF INDIANA
(I.S.H.C.)

**U.S. 24
CONSTRUCTION
DETAILS**

SCALE: 1" = 30'

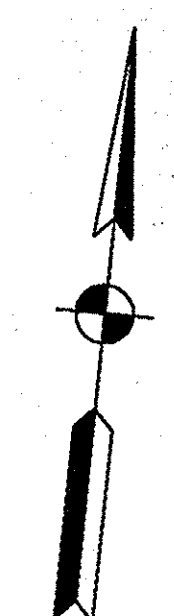


PLOT DATE & TIME: DEC 17, 1997 - 10:04:38 - Plotted from: ITRANS

DESIGNED: RDS 1/84
CHECKED: RDS 1/84
DRAWN: MK 5/87
CHECKED: RDS 5/87
SHEET REVISED: JULY 20, 1992

M24GOR9A/30

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	64	389



CURVE DATA

P.I. 21+22.92 "NE-L"
 $\Delta = 86^{\circ}33'49"$ RT.
 $D = 20^{\circ}50'05"$
 $R = 275.00'$
 $T = 258.98'$
 $L = 415.47'$
 $E = 102.75'$
 $S.E. = 8.0\%$

LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
 - (B) Bridge Deck
 - (C) Cement Concrete Pavement Reinforced, 11"
 - (I) 12" Compacted Aggregate Base No. 53
 - (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on 495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on 6" Compacted Aggregate for Base, "O", Size No. 53
 - (Ja) Paved Shoulder
1210#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
 - (3) Longitudinal Joint
 - (21) Longitudinal Construction Joint
 - (23) Terminal Joint
 - (24) Guardrail Transition, Type TGB
 - (32) Guardrail, W-Beam, 3'-1 1/2" Spacing
 - (33) Guardrail, End Treatment, Type OS
 - (34) Guardrail, End Treatment, Type MS
 - (35) Guardrail, W-Beam, 6'-3" Spacing
 - (36) Guardrail, W-Beam, 6'-3" Spacing, Double Faced
- For Interchange Geometrics, See Sheet No.

PLOT DATE & TIME: DEC 17, 1997 - 10:50:14 - Plotted from: TRAM

P.O.T. 25+79.47 "NW-L"
 O.P.O.T. 193+80.79
 "S-USR-31-G-RERUN",
 61.00' Lt.

P.O.T. 25+79.47 "NE-L"
 O.P.O.T. 350+49.13 "D", 66.00' Lt.

P.T. 22+79.41 "NE-L"
 O.P.O.T. 353+49.13 "D", 72.00' Lt.

P.O.T. 25+79.48 "SW-L"
 O.P.O.T. 349+50.57 "D", 66.80' Rt.

P.O.T. 349+99.85 "D"
 P.O.T. 193+26.50 "S-USR-31-G-RERUN"

P.O.T. 25+79.47 "SE-L"
 O.P.O.T. 192+72.22
 "S-USR-31-G-RERUN",
 61.00' Rt.

P.O.T. 7+99.84 "SE-L"
 O.P.O.T. 351+52.78 "D", 66.00' Rt.

CURVE DATA

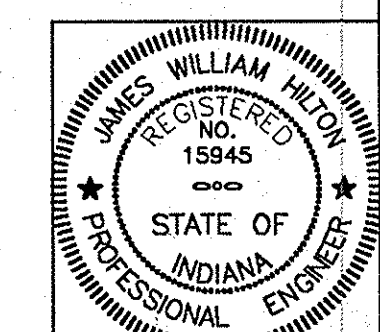
P.I. 12+75.00 "SE-L"
 $\Delta = 90^{\circ}00'00"$ RT.
 $D = 20^{\circ}50'05"$
 $R = 275.00'$
 $T = 275.00'$
 $L = 431.97'$
 $E = 113.91'$
 $S.E. = 8.0\%$

STATE OF INDIANA
 (I. S. H. C.)

Overhead Sign Structure
 See Signing Plans for Detail

**U.S. 24
 CONSTRUCTION
 DETAILS**

SCALE: 1"=30'



FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	65	389

CURVE DATA

P.I. 11+79.53 "NE-R"
 $\Delta = 3725'46"$ RT.
 $D = 5'00'00"$
 $R = 1145.92'$
 $T = 388.20'$
 $L = 748.59'$
 $E = 63.97'$
 $S.E. = 7.1\%$

CURVE DATA

P.I. 24+56.20 "SE-R"
 $\Delta = 40'51'15"$ RT.
 $D = 4'45'00"$
 $R = 1206.25'$
 $T = 449.25'$
 $L = 860.10'$
 $E = 80.94'$
 $S.E. = 6.3\%$

CURVE DATA

P.I. 29+42.07 "SE-R"
 $\Delta = 3'00'00"$ RT.
 $D = 2'00'00"$
 $R = 2864.79'$
 $T = 75.02'$
 $L = 150.00'$
 $E = 0.98'$
 $S.E. = \text{Transition}$

P.T. 30+17.05 "SE-R"
 O.P.O.T. 366+79.11 "D",
 72.00' Rt.

P.I. 29+42.07 "SE-R"
 O.P.O.T. 366+04.11 "D",
 73.50' Rt.

P.C.C. 28+67.05 "SE-R"
 O.P.O.T. 365+29.29 "D",
 78.92' Rt.

P.C. 7+91.33 "NE-R"
 O.P.O.T. 365+77.63 "D",
 90.00' Lt.

P.I. 11+79.53 "NE-R"
 O.P.O.T. 361+89.74 "D", 105.51' Lt.

LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on
495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on
6" Compacted Aggregate for Base, "O", Size No. 5
- (J3) Paved Shoulder
1210#/Syd. QC/QA HMA Base 25.0mm, Shoulder
with Seal Coat, Type 2
- (3) Longitudinal Joint
- (9) 1" Preformed Joint Filler
- (21) Longitudinal Construction Joint
- (24) Ear Construction, Type "A"
- (33) Guardrail End Treatment Type OS
- (35) Guardrail W-Beam 6'-3" Spacing

For Interchange Geometrics, See Sheet No.



STR. NO. 56
See Sheet No.

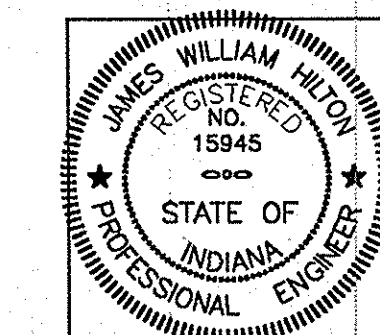
STATE OF INDIANA
(I. S. H. C.)

RAYMOND E.
MUSSELMAN
FARMS, INC.

RUSSELL BELLAR

U.S. 24
CONSTRUCTION
DETAILS

SCALE: 1"=30'



PLOT DATE & TIME: OCT 28, 1997 - 10:28:03 - Plotted from: TRAM12

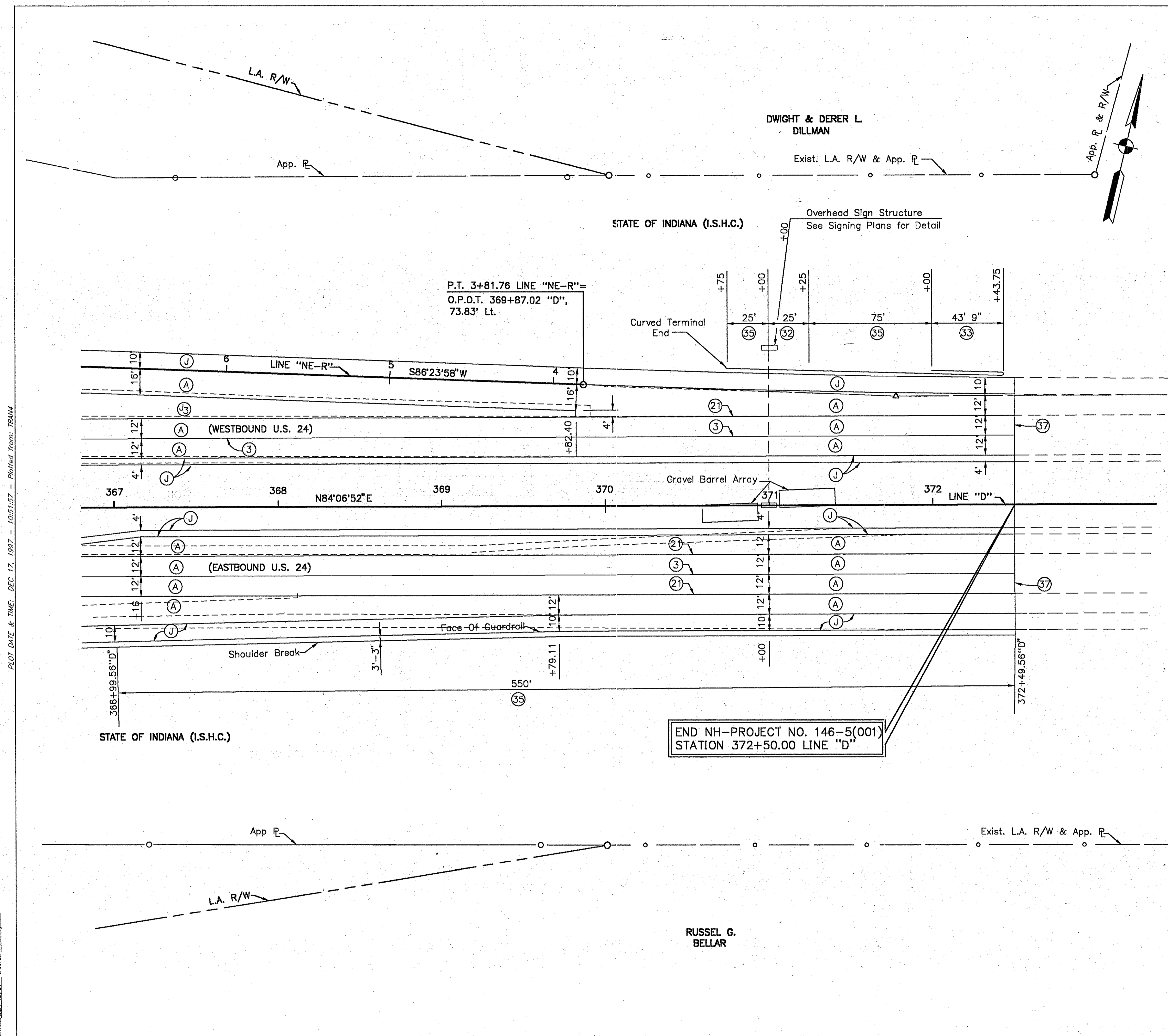
DESIGNED: RDS, 12/93, CHECKED: JBS/7/94
 DRAWN: MAG, 12/93, CHECKED: JBS/7/94
 REVISION: DML, 10/97, CHECKED: PJS/9/97

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	66	389

LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on
495#/Syd. QC/QA HMA Base 25.0mm, Shoulder
on 6" Compacted Aggregate for Base, "O", Size No. 53
- (J3) Paved Shoulder
1210#/Syd. QC/QA HMA Base 25.0mm, Shoulder
with Seal Coat, Type 2
- (3) Longitudinal Joint
- (21) Longitudinal Construction Joint
- (32) Guardrail W-Beam 3'-1 1/2" Spacing
- (33) Guardrail End Treatment, Type OS
- (35) Guardrail W-Beam 6'-3" Spacing
- (37) Sawcut

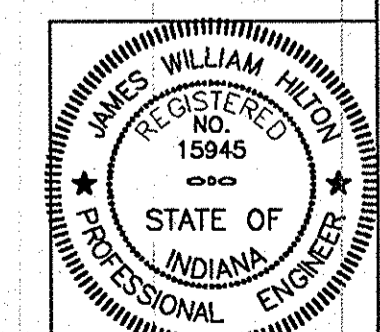
For Interchange Geometrics, See Sheet No.



END NH-PROJECT NO. 146-5(001)
STATION 372+50.00 LINE "D"

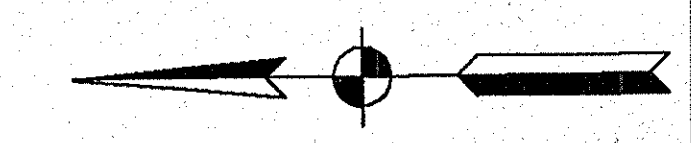
**U.S. 24
CONSTRUCTION
DETAILS**

SCALE: 1"=30'

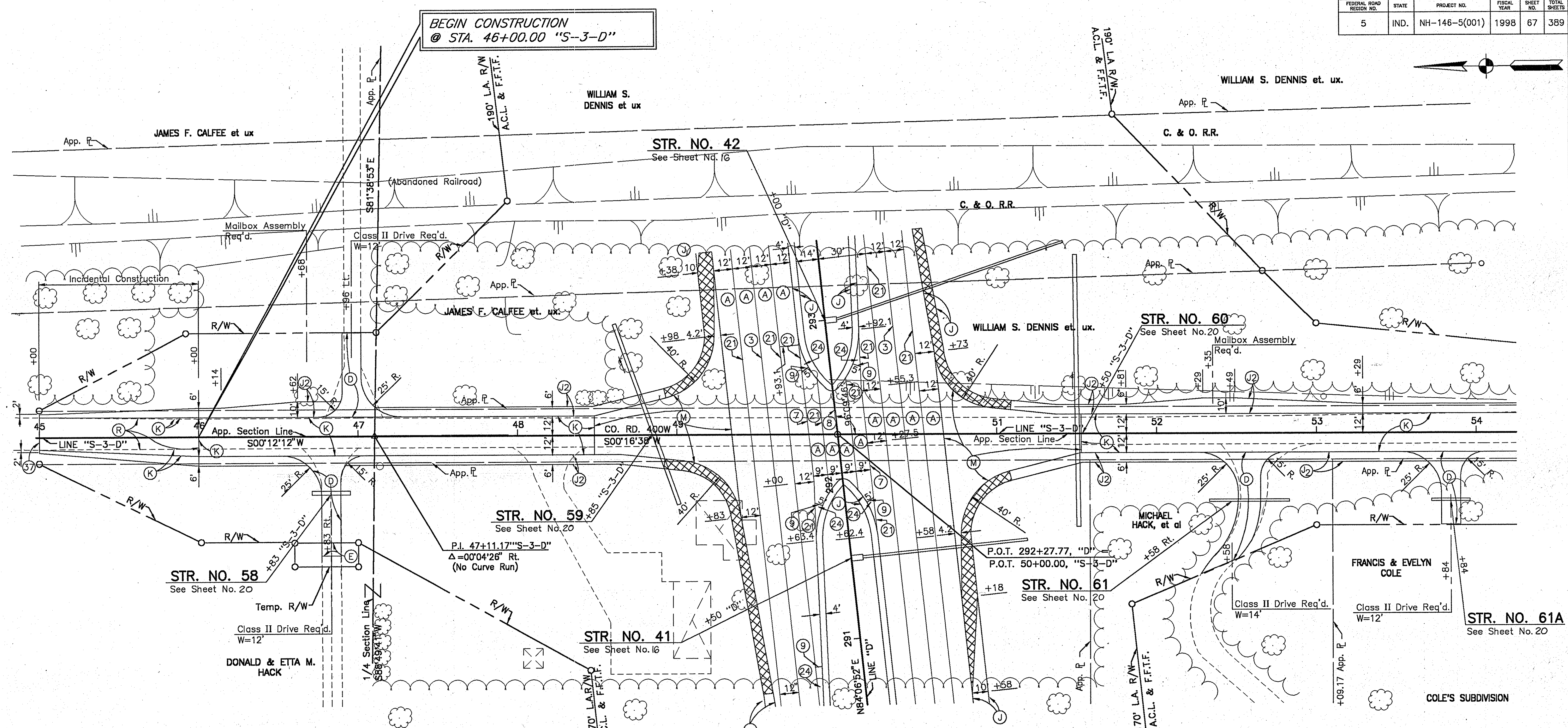


DESIGNED: BDB 1/94, CHECKED: BDB 1/94, DRAWN: MKR 1/94, CHECKED: BDB 1/94, REVISION: DDB 10/97, CHECKED: EKE 10/97
 PLOT DATE & TIME: DEC 17, 1997 - 10:51:57 - Plotted from: TRAM

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	67	389



BEGIN CONSTRUCTION
@ STA. 46+00.00 "S-3-D"



LEGEND

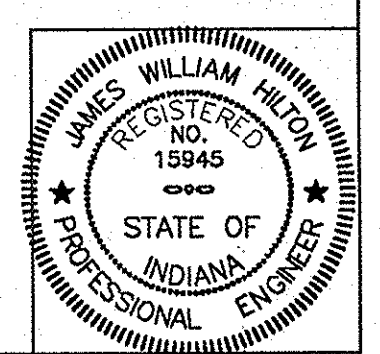
- (A) Cement Concrete Pavement, Plain, 11"
- (D) HMA for Approaches
140#/Syd. HMA Surface 9.5mm, Mainline on
300#/Syd. HMA Base 25.0mm, Mainline on
4" Compacted Aggregate Base, "O", Size No. 53
- (E) 6" Compacted Aggregate, "O", Size No. 53
- (J) Corrugated Paved Shoulder
185#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on
495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on
6" Compacted Aggregate for Base, "O", Size No. 53
- (J2) Paved Shoulder
440#/Syd. QC/QA HMA Base 25.0mm, Shoulder
with Seal Coat, Type 2 on
6" Compacted Aggregate for Base, "O", Size No. 53
- (K) Full Depth Pavement
140#/Syd. HMA Surface 9.5mm, Mainline on
300#/Syd. HMA Base 25.0mm, Mainline on
6" Compacted Aggregate for Base, "O", Size No. 53
- (M) HMA for Approaches (Same Composition as (K))
- (R) HMA Resurface
140#/Syd. HMA Surface 9.5mm, Mainline
- (3) Longitudinal Joint
- (7) Keyway Joint
- (9) 1" Preformed Joint Filler
- (21) Longitudinal Construction Joint
- (24) Ear Construction, Type "A"
- (37) Sawcut
- ☒ Same as Approach Pavement with Seal Coat, Type 2

NOTE: Type "U" Public Road Crossover Req'd
Sta. 292+27.77 "D"
Length = 55'

Type "C" Public Road Approach Req'd
Sta. 292+27.77 "D" Lt.
Sta. 292+27.77 "D" Rt.

**CO. RD. 400W
CONSTRUCTION
DETAILS**

SCALE: 1" = 30'

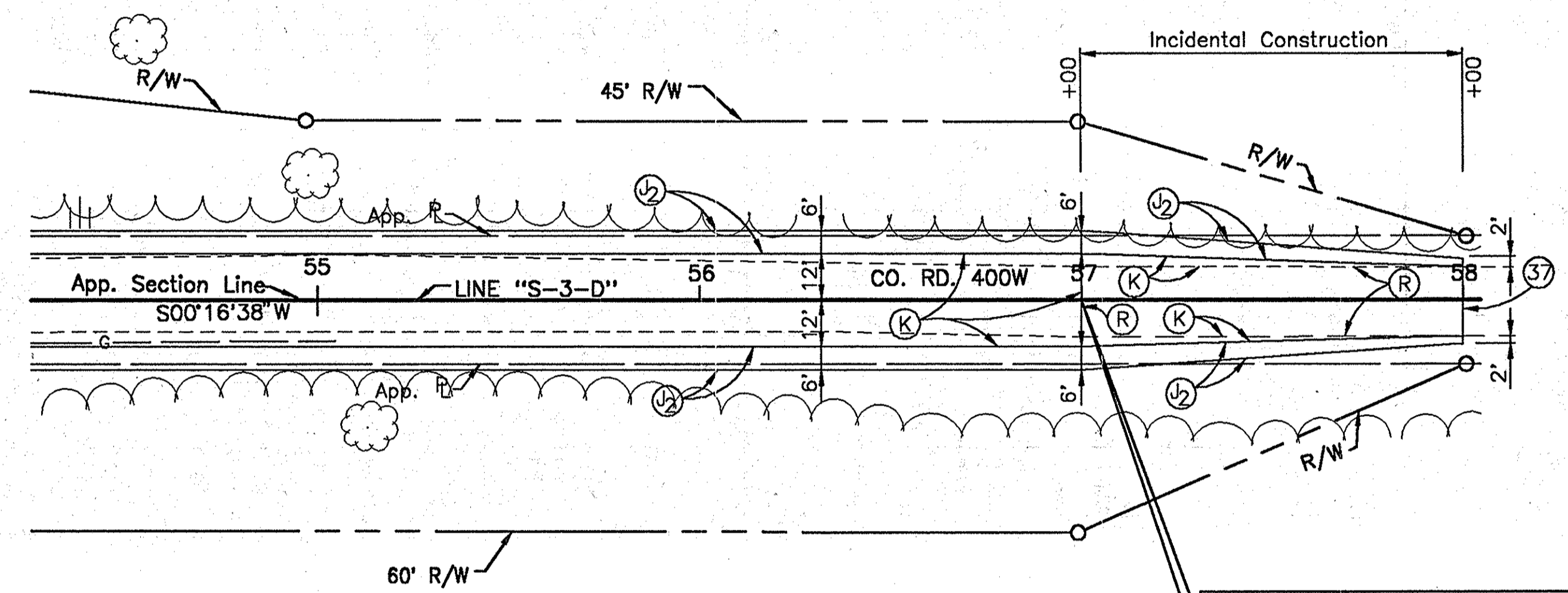
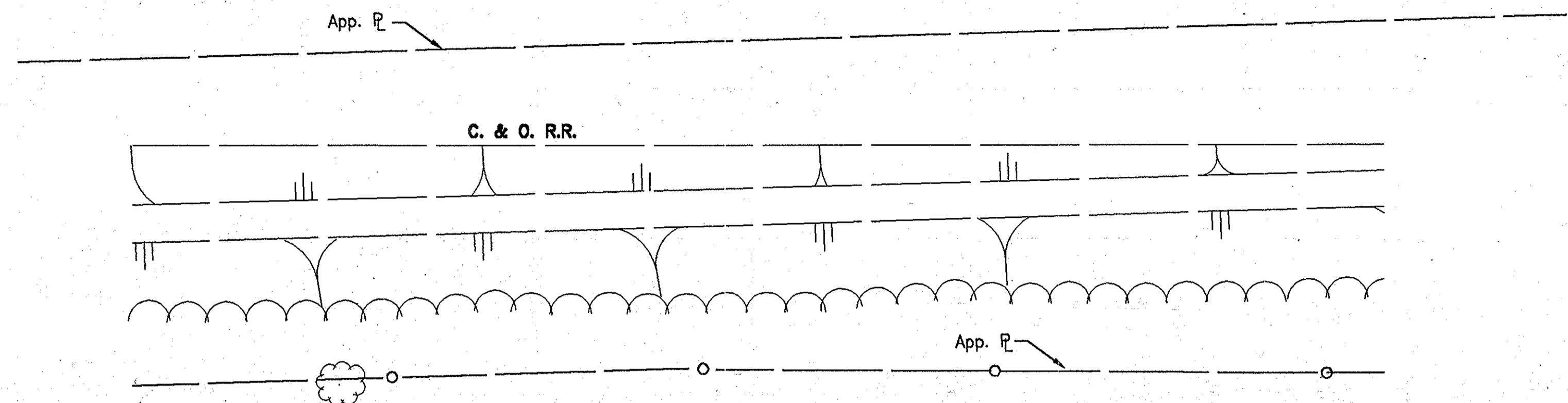


PLOT DATE & TIME: NOV. 11, 1997 - 12:55:33 - Plotted from: TRAMS

DESIGNED: BJS, 6/97 CHECKED: BJS, 6/97
DRAWN: MKL, 6/97 CHECKED: BJS, 6/97
REVISION: JML, 10/97 CHECKED: BJS, 10/97

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	68	389

WILLIAM S. DENNIS et ux



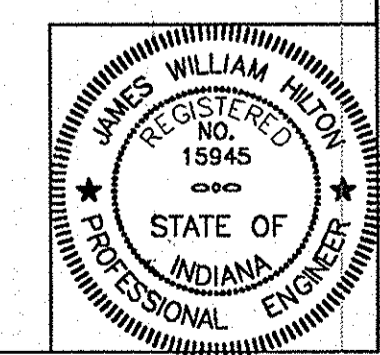
END CONSTRUCTION
@ STA. 57+00.00 "S-3-D"

FRANCIS & EVELYN COLE
COLE'S SUBDIVISION

LEGEND

- (S) Paved Shoulder
440#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, 1"0", Size No. 53
- (K) Full Depth Pavement
140#/Syd. HMA Surface 9.5mm, Mainline on 300#/Syd. HMA Base 25.0mm, Mainline on 8" Compacted Aggregate for Base, 1"0", Size No. 53
- (R) HMA Resurface
140#/Syd. HMA Surface 9.5mm, Mainline
- (S) Sawcut

CO. RD. 400W
CONSTRUCTION
DETAILS
SCALE: 1" = 30'



PLOT DATE & TIME: OCT 28, 1997 - 09:55:11 - Plotted from: TRAVI2

DESIGNED: BJS 6/97 CHECKED: BJS 6/97
DRAWN: JMK 6/97 CHECKED: BJS 6/97
REVISED: JML 10/97 CHECKED: EAG 10/97

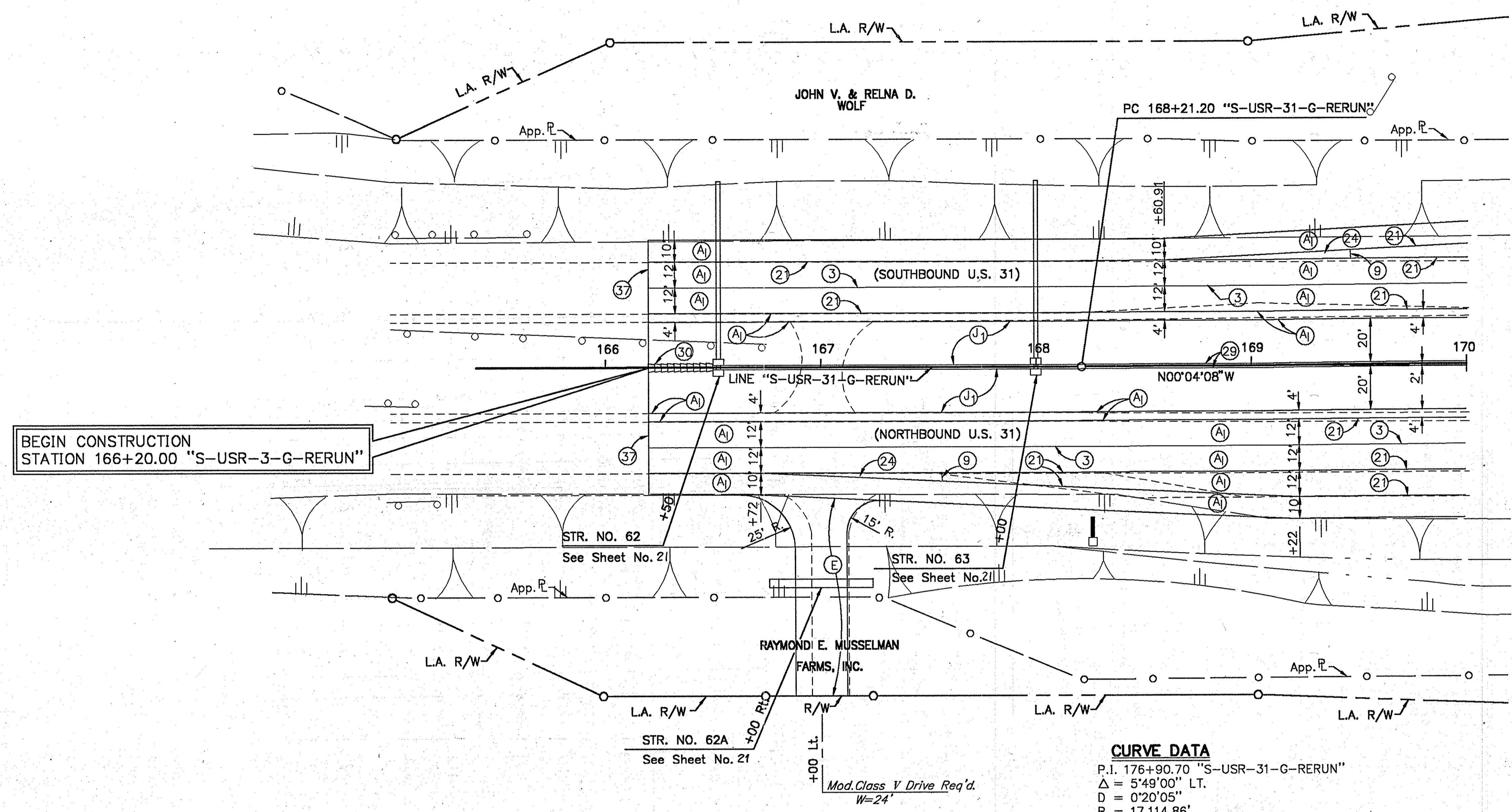
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	69	389



LEGEND

- (A) Cement Concrete Pavement, Plain, 12"
- (J) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
- (E) 6" Compacted Aggregate for Base, O, Size No. 53
- (3) Longitudinal Joint
- (9) 1" Preformed Joint Filler
- (2) Longitudinal Construction Joint
- (24) Ear Construction, Type "A"
- (29) Concrete Median Barrier
- (30) G.R.E.A.T. Unit, 9 Bay
- (37) Sawcut

For Interchange Geometrics, See Sheet No.



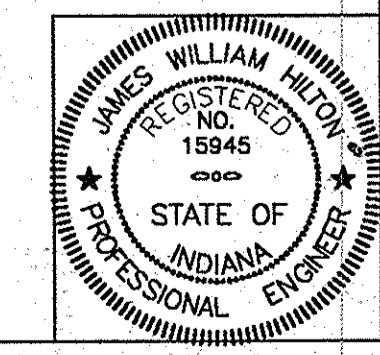
BEGIN CONSTRUCTION
STATION 166+20.00 "S-USR-3-G-RERUN"

CURVE DATA
 P.I. 176+90.70 "S-USR-31-G-RERUN"
 $\Delta = 5'49'00''$ LT.
 $D = 0'20'05''$
 $R = 17,114.86'$
 $T = 869.50'$
 $L = 1737.50'$
 $E = 22.07'$
 $S.E. = N.C.$

Mod. Class V Drive Req'd.
W=24'

**U.S. 31
CONSTRUCTION
DETAILS**

SCALE: 1"=30'

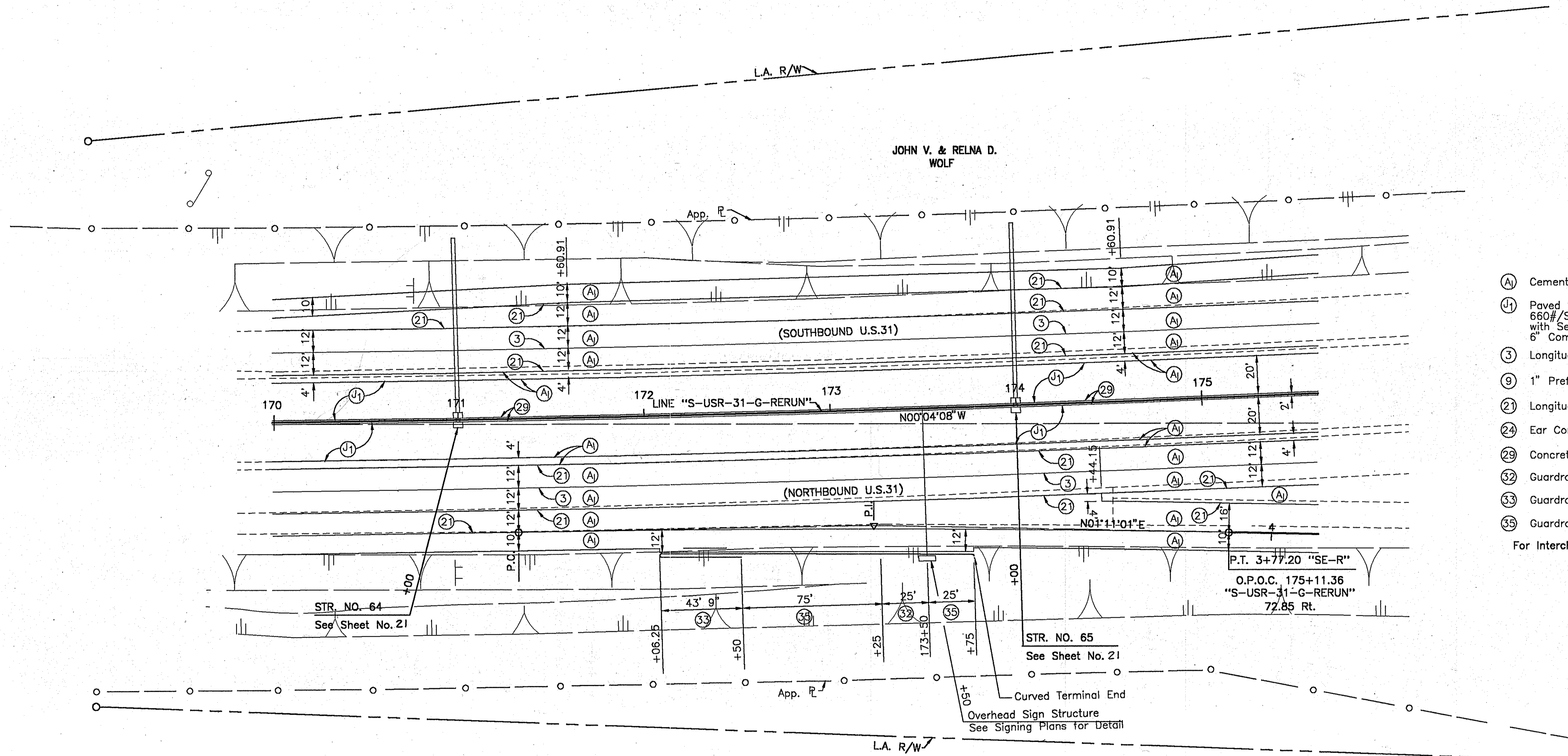


DESIGNED: RDS 1/94 CHECKED: RDS 1/94
 DRAWN: MKK 1/94 CHECKED: RDS 1/94
 REVISION: DML 10/97 CHECKED: ESE 10/97
 PLOT DATE & TIME: OCT 28 1997 - 10:26:58 - Plotted from: TRMNT2

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	70	389



JOHN V. & RELNA D. WOLF



LEGEND

- (A1) Cement Concrete Pavement, Plain, 12"
 - (J1) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
 - (3) Longitudinal Joint
 - (9) 1" Preformed Joint Filler
 - (21) Longitudinal Construction Joint
 - (24) Ear Construction, Type "A"
 - (29) Concrete Median Barrier
 - (32) Guardrail, W-Beam, 3'-1 1/2" Spacing
 - (33) Guardrail End Treatment, Type OS
 - (35) Guardrail, W-Beam, 6'-3" Spacing
- For Interchange Geometrics, See Sheet No.

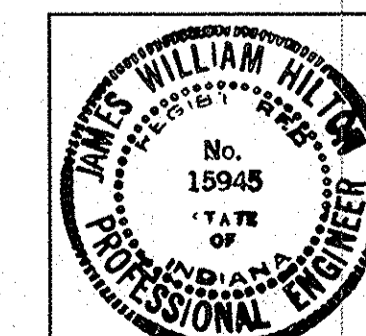
CURVE DATA

Δ = 2° 17' 26" Rt.
D = 0° 36'
R = 9549.30'
T = 190.91
L = 381.76'
E = 1.91'

RAYMOND E. MUSSELMAN
FARMS, INC.

**U.S. 31
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



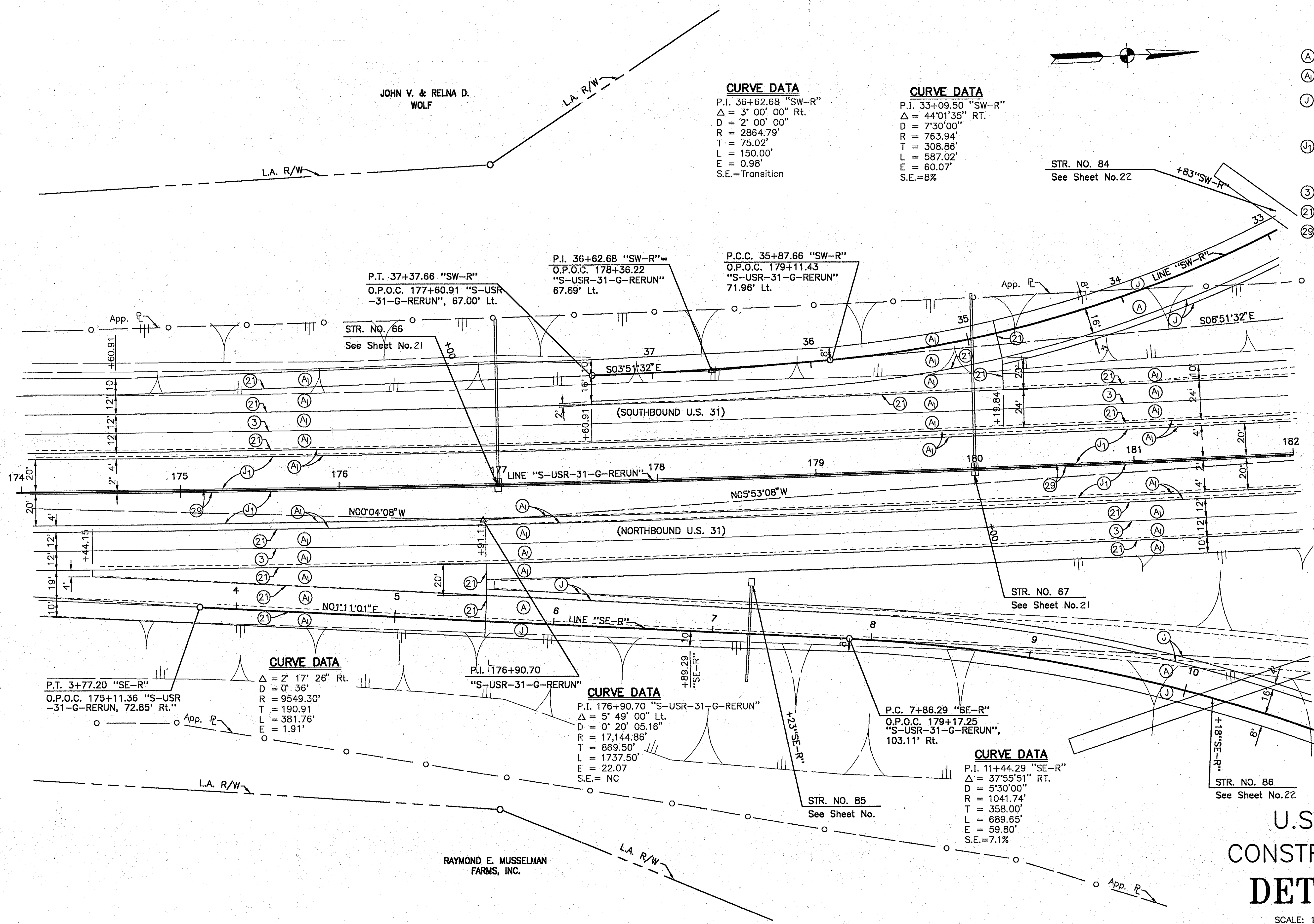
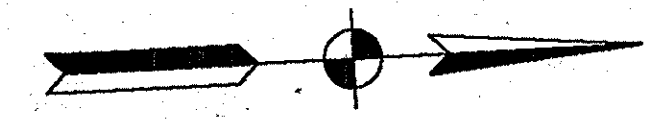
PLOT DATE & TIME: DEC 17, 1997 - 14:45:05 - Plotted from: TRAM

DESIGNED: EDS, 1/24 - CHECKED: EDS, 1/24
DRAWN: MKK, 1/24 - CHECKED: EDS, 1/24
REVISED: JML, 10/97 - CHECKED: ESK, 10/97

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	71	389

LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
 - (A₁) Cement Concrete Pavement, Plain, 12"
 - (J) Corrugated Paved Shoulder
185#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on 495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on 6" Compacted Aggregate for Base, "0", Size No. 53
 - (J₁) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "0", Size No. 53
 - (3) Longitudinal Joint
 - (21) Longitudinal Construction Joint
 - (29) Concrete Median Barrier
- For Interchange Geometrics, See Sheet No.



CURVE DATA
P.I. 36+62.68 "SW-R"
 $\Delta = 3^\circ 00' 00''$ Rt.
D = 2' 00' 00"
R = 2864.79'
T = 75.02'
L = 150.00'
E = 0.98'
S.E. = Transition

CURVE DATA
P.I. 33+09.50 "SW-R"
 $\Delta = 44^\circ 01' 35''$ RT.
D = 7' 30' 00"
R = 763.94'
T = 308.86'
L = 587.02'
E = 60.07'
S.E. = 8%

P.T. 37+37.66 "SW-R"
O.P.O.C. 177+60.91 "S-USR-31-G-RERUN", 67.00' Lt.

P.I. 36+62.68 "SW-R"
O.P.O.C. 178+36.22 "S-USR-31-G-RERUN" 67.69' Lt.

P.C.C. 35+87.66 "SW-R"
O.P.O.C. 179+11.43 "S-USR-31-G-RERUN" 71.96' Lt.

CURVE DATA
 $\Delta = 2^\circ 17' 26''$ Rt.
D = 0' 36"
R = 9549.30'
T = 190.91'
L = 381.76'
E = 1.91'

P.I. 176+90.70 "S-USR-31-G-RERUN"

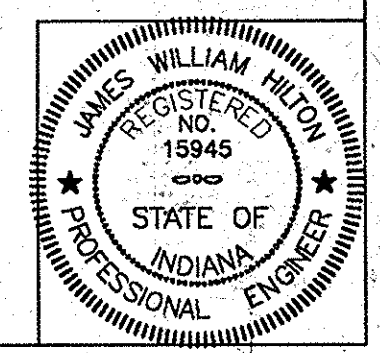
CURVE DATA
P.I. 176+90.70 "S-USR-31-G-RERUN"
 $\Delta = 5^\circ 49' 00''$ Lt.
D = 0' 20' 05.16"
R = 17,144.86'
T = 869.50'
L = 1737.50'
E = 22.07'
S.E. = NC

P.C. 7+86.29 "SE-R"
O.P.O.C. 179+17.25 "S-USR-31-G-RERUN", 103.11' Rt.

CURVE DATA
P.I. 11+44.29 "SE-R"
 $\Delta = 37^\circ 55' 51''$ RT.
D = 5' 30' 00"
R = 1041.74'
T = 358.00'
L = 689.65'
E = 59.80'
S.E. = 7.1%

**U.S. 31
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



PLOT DATE & TIME: OCT 28, 1997 - 10:23:49 - Plotted from: TRAVI2

DESIGNED: BGS, 12/13/93; CHECKED: BGS, 1/16/94; REVISION: BGS, 10/27/97; PLOT: BGS, 10/27/97

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	72	389



LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (A1) Cement Concrete Pavement, Plain, 12"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on 495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on 6" Compacted Aggregate for Base, "0", Size No. 53
- (J1) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "0", Size No. 53
- (3) Longitudinal Joint
- (21) Longitudinal Construction Joint
- (29) Concrete Median Barrier
- (32) Guardrail, W-Beam, 3'-1 1/2" Spacing
- (33) Guardrail End Treatment, Type OS
- (35) Guardrail, W-Beam, 6'-3" Spacing

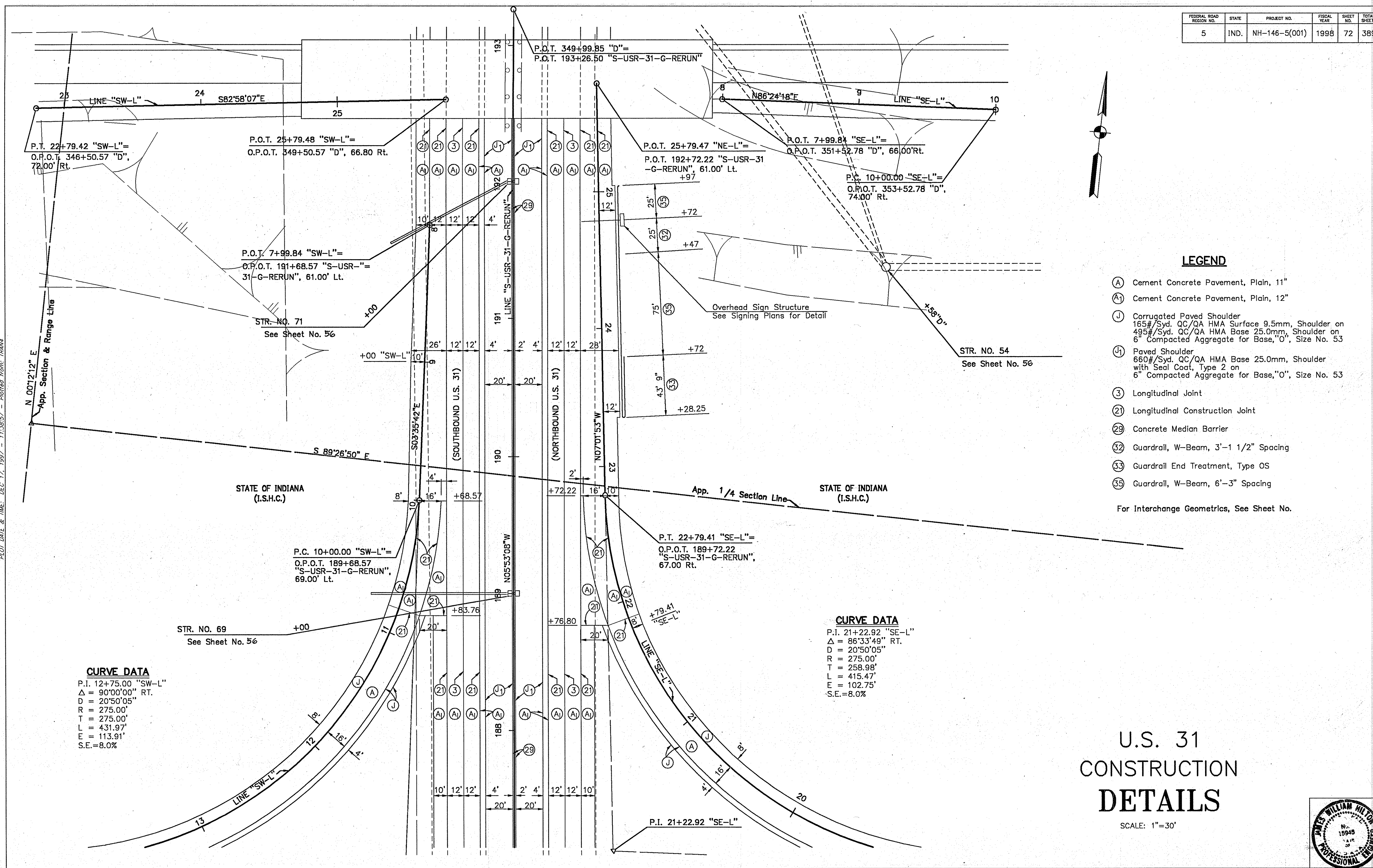
For Interchange Geometrics, See Sheet No.

CURVE DATA

P.I. 21+22.92 "SE-L"
 $\Delta = 86^{\circ}33'49''$ RT.
 $D = 20^{\circ}50'05''$
 $R = 275.00'$
 $T = 258.98'$
 $L = 415.47'$
 $E = 102.75'$
 $S.E. = 8.0\%$

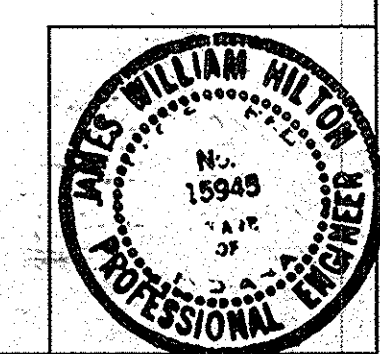
CURVE DATA

P.I. 12+75.00 "SW-L"
 $\Delta = 90^{\circ}00'00''$ RT.
 $D = 20^{\circ}50'05''$
 $R = 275.00'$
 $T = 275.00'$
 $L = 431.97'$
 $E = 113.91'$
 $S.E. = 8.0\%$



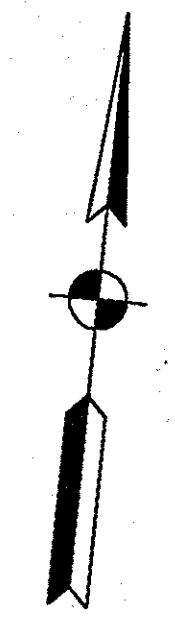
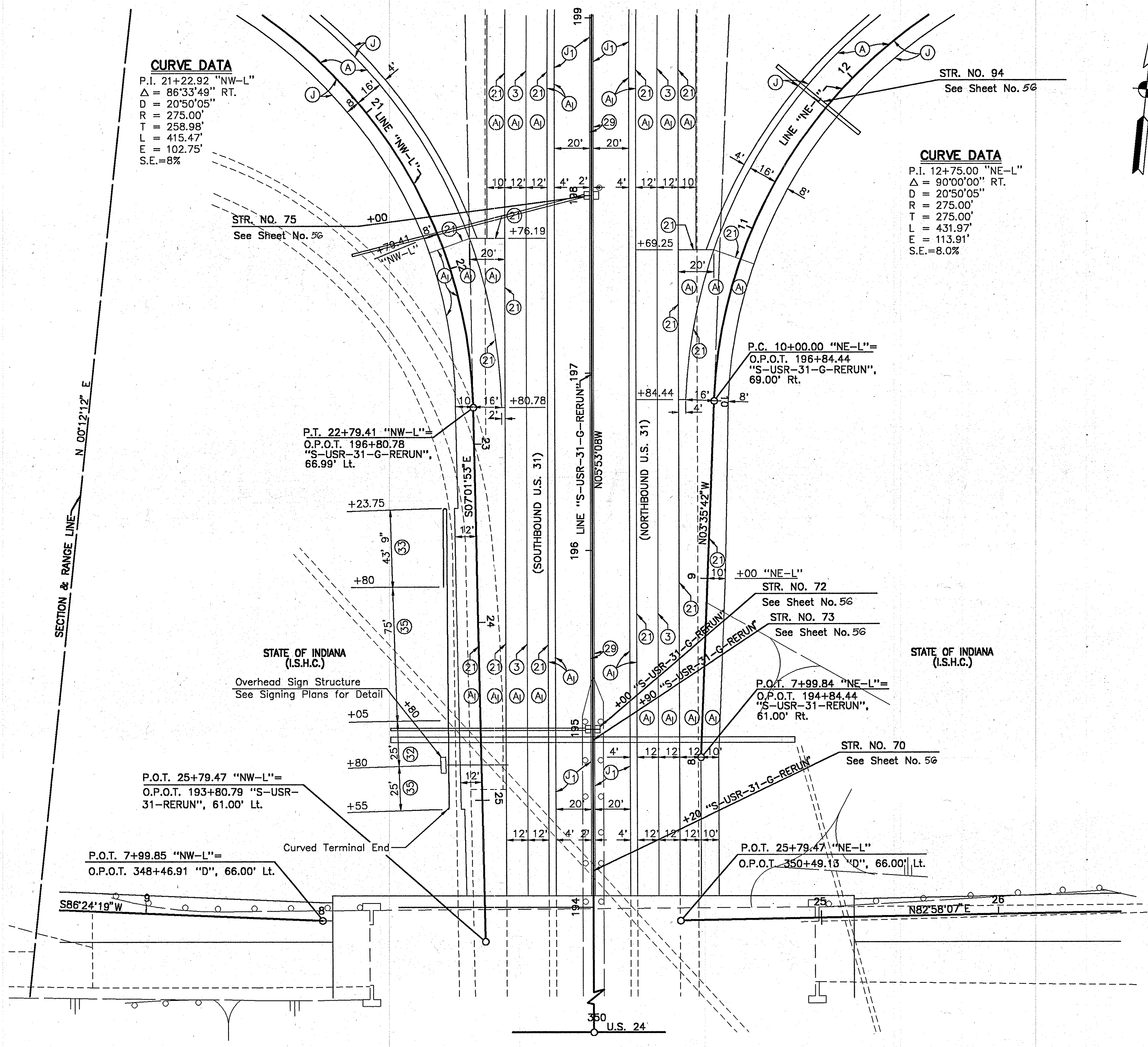
**U.S. 31
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



DESIGNED: BDE, 12/93; CHECKED: BOS, 1/94; DRAWN: MK, 12/93; CHECKED: BOS, 1/94; REVISION: JWH, 10/97; CHECKED: ESE, 10/97; PLOT DATE & TIME: DEC 17, 1997 - 11:38:57 - Plotted from: TRAM

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	73	389



LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (A1) Cement Concrete Pavement, Plain, 12"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on 495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on 6" Compacted Aggregate for Base, "O", Size No. 53
- (J1) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
- (3) Longitudinal Joint
- (21) Longitudinal Construction Joint
- (29) Concrete Median Barrier
- (32) Guardrail, W-Beam, 3'-1 1/2" Spacing
- (33) Guardrail End Treatment, Type OS
- (35) Guardrail, W-Beam, 6'-3" Spacing

For Interchange Geometrics, See Sheet No.

**U.S. 31
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



DESIGNED: RDS 12/93, CHECKED: RDS 1/94
 DRAWN: JAG 12/93, CHECKED: RDS 1/94
 REVISION: DAN 10/97, CHECKED: EGE 10/97

PLOT DATE & TIME: DEC 17, 1997 - 1:31:48 - Plotted from: TRANA

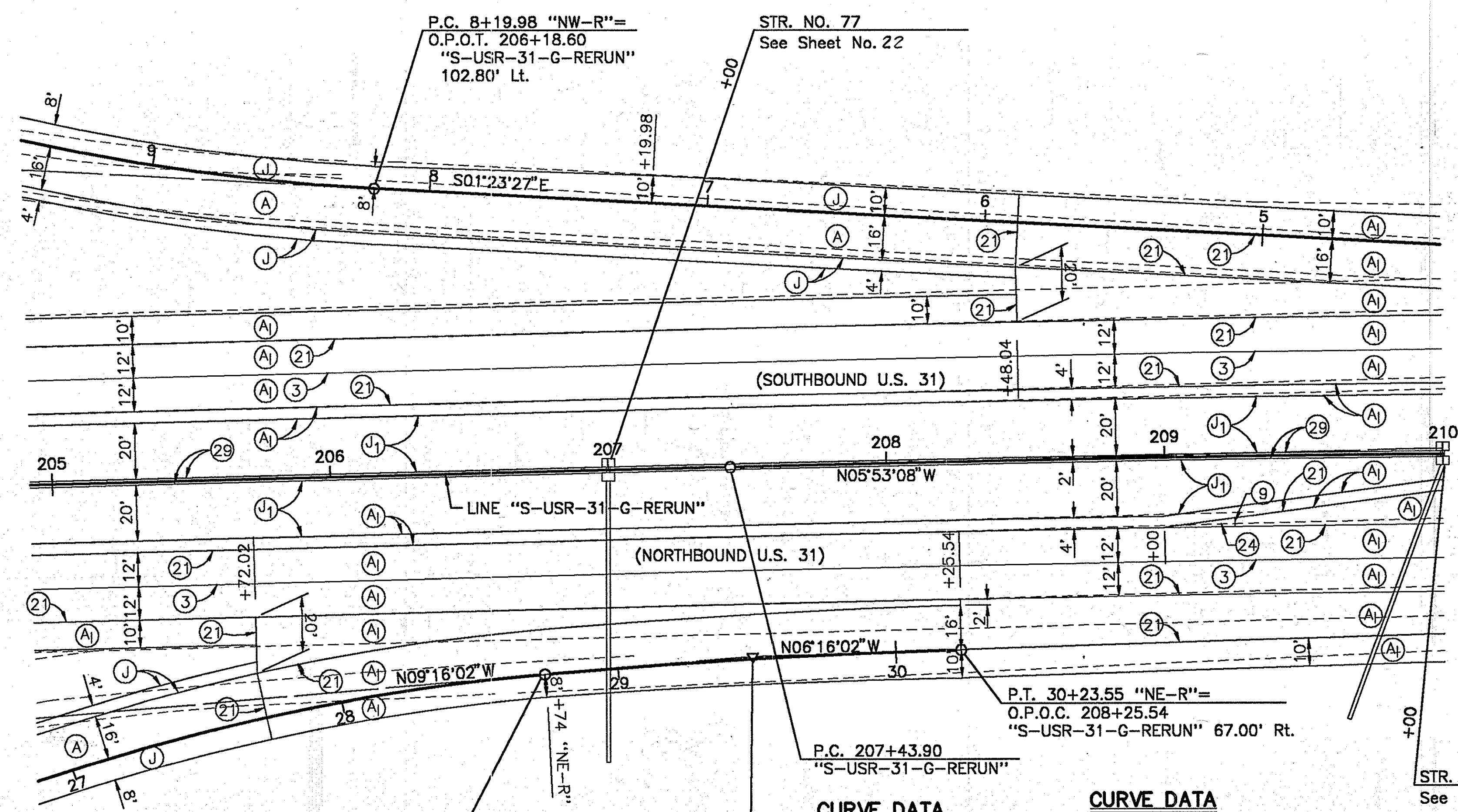
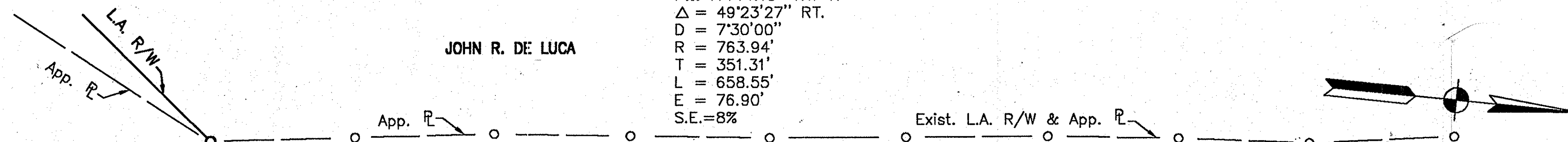
FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	74	389

CURVE DATA

P.I. 11+71.19 "NW-R"
 $\Delta = 49^{\circ}23'27''$ RT.
 $D = 7^{\circ}30'00''$
 $R = 763.94'$
 $T = 351.31'$
 $L = 658.55'$
 $E = 76.90'$
 $S.E. = 8\%$

JOHN R. DE LUCA

Exist. L.A. R/W & App. R



LEGEND

- (A) Cement Concrete Pavement, Plain, 11"
- (A1) Cement Concrete Pavement, Plain, 12"
- (J) Corrugated Paved Shoulder
165#/Syd. QC/QA HMA Surface 9.5mm, Shoulder on 495#/Syd. QC/QA HMA Base 25.0mm, Shoulder on 6" Compacted Aggregate for Base, "O", Size No. 53
- (J1) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
- (3) Longitudinal Joint
- (9) 1" Preformed Joint Filler
- (21) Longitudinal Construction Joint
- (24) Ear Construction, Type "A"
- (29) Concrete Median Barrier

For Interchange Geometrics, See Sheet No.

CURVE DATA

P.I. 29+48.57 "NE-R"
 $\Delta = 3^{\circ}00'00''$ Rt.
 $D = 2^{\circ}00'00''$
 $R = 2864.79'$
 $T = 75.02'$
 $L = 150.00'$
 $E = 0.98'$
 $S.E. = N.C.$

CURVE DATA

P.I. 216+44.72 "S-USR-31-G-RERUN"
 $\Delta = 5^{\circ}58'00''$ RT.
 $D = 00^{\circ}19'53''$
 $R = 17,284.76'$
 $T = 900.81'$
 $L = 1800.00'$
 $E = 23.46'$
 $S.E. = N.C.$

P.C.C. 28+73.55 "NE-R"
O.P.O.T. 206+75.32
"S-USR-31-G-RERUN"
72.12' Rt.

P.I. 29+48.57 "NE-R"
O.P.O.C. 207+50.23
"S-USR-31-G-RERUN",
67.70' Rt.

P.C. 207+43.90
"S-USR-31-G-RERUN"

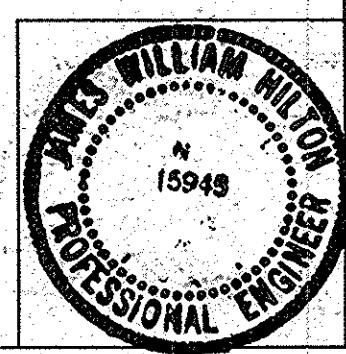
P.T. 30+23.55 "NE-R"
O.P.O.C. 208+25.54
"S-USR-31-G-RERUN" 67.00' Rt.

STATE OF INDIANA
(I.S.H.C.)

GENCORP, INC.

**U.S. 31
CONSTRUCTION
DETAILS**

SCALE: 1"=30'



PLOT DATE & TIME: OCT 28, 1997 - 10:15:01 - Plotted from: TRAVI2

DESIGNED: B.J.M. 5/93 CHECKED: B.D.S. 1/94
DRAWN: K.A.V. 5/93 CHECKED: B.D.S. 1/94
REVISED: D.H.L. 10/97 CHECKED: E.K. 10/97

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	75	389

JOHN R. DELUCCA

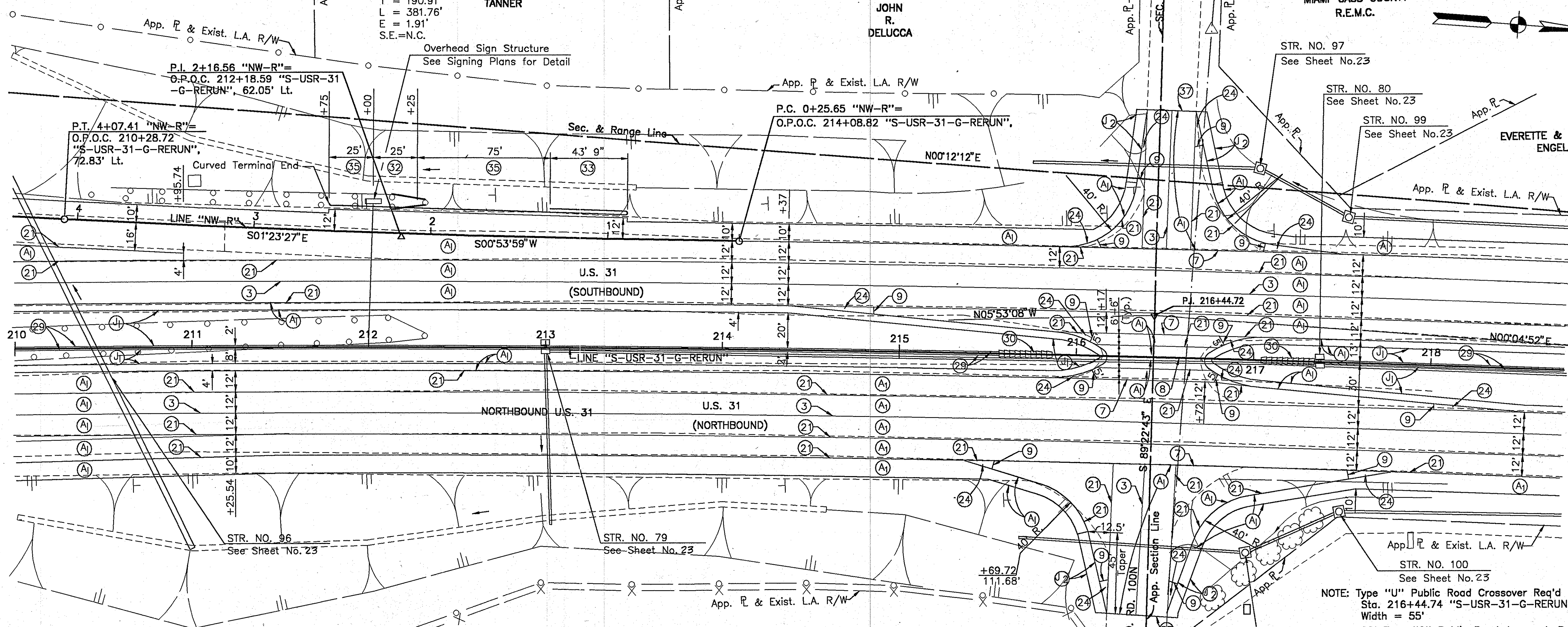
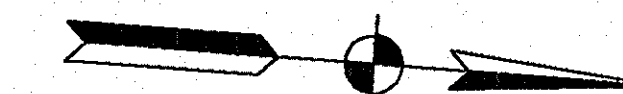
CURVE DATA

P.I. 2+16.56 "NW-R"
 $\Delta = 217'26"$ Rt.
 $D = 0'36'00"$
 $R = 9549.30'$
 $T = 190.91'$
 $L = 381.76'$
 $E = 1.91'$
 S.E.=N.C.

JEFFREY M. & JOYCE M. TANNER

JOHN R. DELUCCA

MIAMI-CASS COUNTY R.E.M.C.



GENERAL TIRE & RUBBER CO.

LEGEND

- (A) Cement Concrete Pavement, Plain, 12"
- (J) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
- (2) Paved Shoulder
440#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
- (3) Longitudinal Joint
- (7) Keyway Joint
- (8) 1" Preformed Expansion Joint with Load Transfer
- (9) 1" Preformed Joint Filler
- (21) Longitudinal Construction Joint
- (24) Ear Construction, Type "A"
- (29) Concrete Median Barrier
- (30) G.R.E.A.T. Unit, 9 Bays
- (32) Guardrail, W-Beam, 3'-1 1/2" Spacing
- (33) Guardrail End Treatment, Type OS
- (35) Guardrail, W-Beam, 6'-3" Spacing
- (37) Sawcut

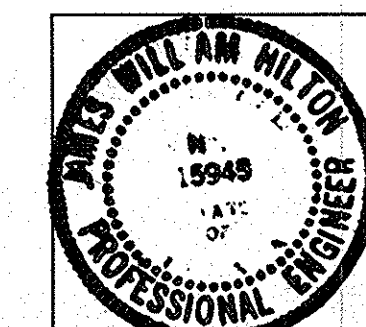
NOTE: Type "U" Public Road Crossover Req'd Sta. 216+44.74 "S-USR-31-G-RERUN" Width = 55'
 28' Type "C" Public Road Approach Req'd at Sta. 216+45.00 Rt.
 33' Mod. Type "D" Public Road Approach Req'd at Sta. 216+45.00 Rt.

MARY E. GALLAHAN

STR. NO. 98
See Sheet No.23

**U.S. 31 & CO. RD. 100N
CONSTRUCTION
DETAILS**

SCALE: 1"=30'

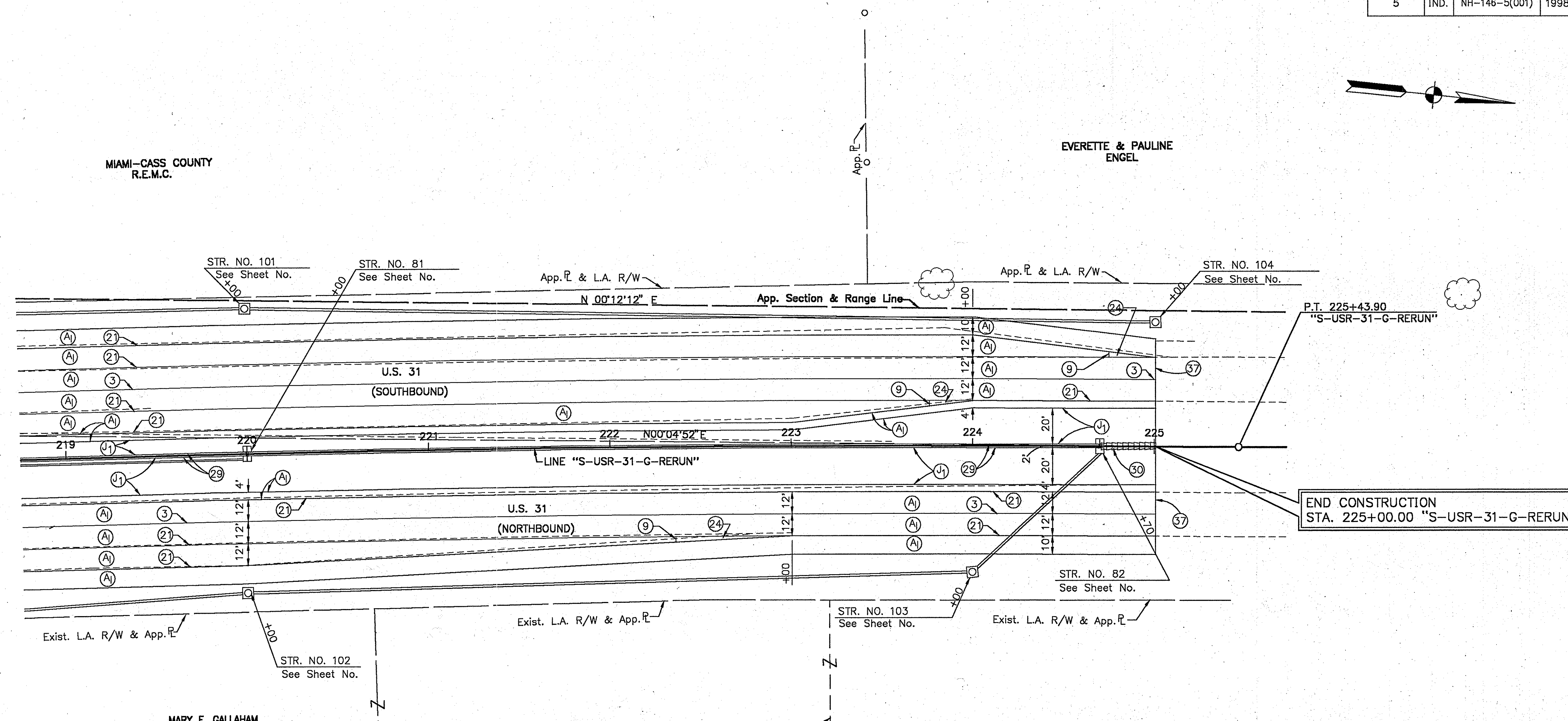
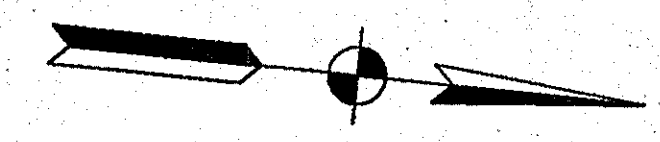


For Interchange Geometrics, See Sheet No.

PLOT DATE & TIME: DEC 17, 1997 - 1:57:54 - Plotted from: TRAVN

DESIGNED: P.J.R. 7/93 CHECKED: R.S.S. 1/94
 DRAWN: M.G. 2/93 CHECKED: R.S.S. 1/94
 REVISION: D.M.L. 10/97 CHECKED: P.B. 10/97

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	76	389



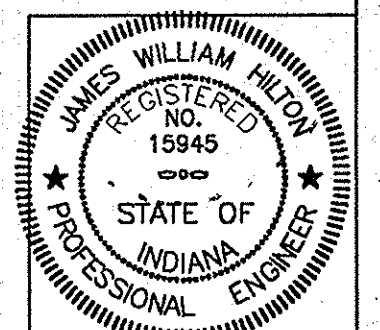
END CONSTRUCTION
STA. 225+00.00 "S-USR-31-G-RERUN"

LEGEND

- (A) Cement Concrete Pavement, Plain, 12"
- (J1) Paved Shoulder
660#/Syd. QC/QA HMA Base 25.0mm, Shoulder with Seal Coat, Type 2 on 6" Compacted Aggregate for Base, "O", Size No. 53
- (3) Longitudinal Joint
- (7) Keyway Joint
- (9) 1" Preformed Joint Filler
- (21) Longitudinal Construction Joint
- (24) Ear Construction, Type "A"
- (29) Concrete Median Barrier
- (30) G.R.E.A.T. Unit, 9 Bays
- (37) Sawcut

**U.S. 31 & CO.RD. 100N
CONSTRUCTION
DETAILS**

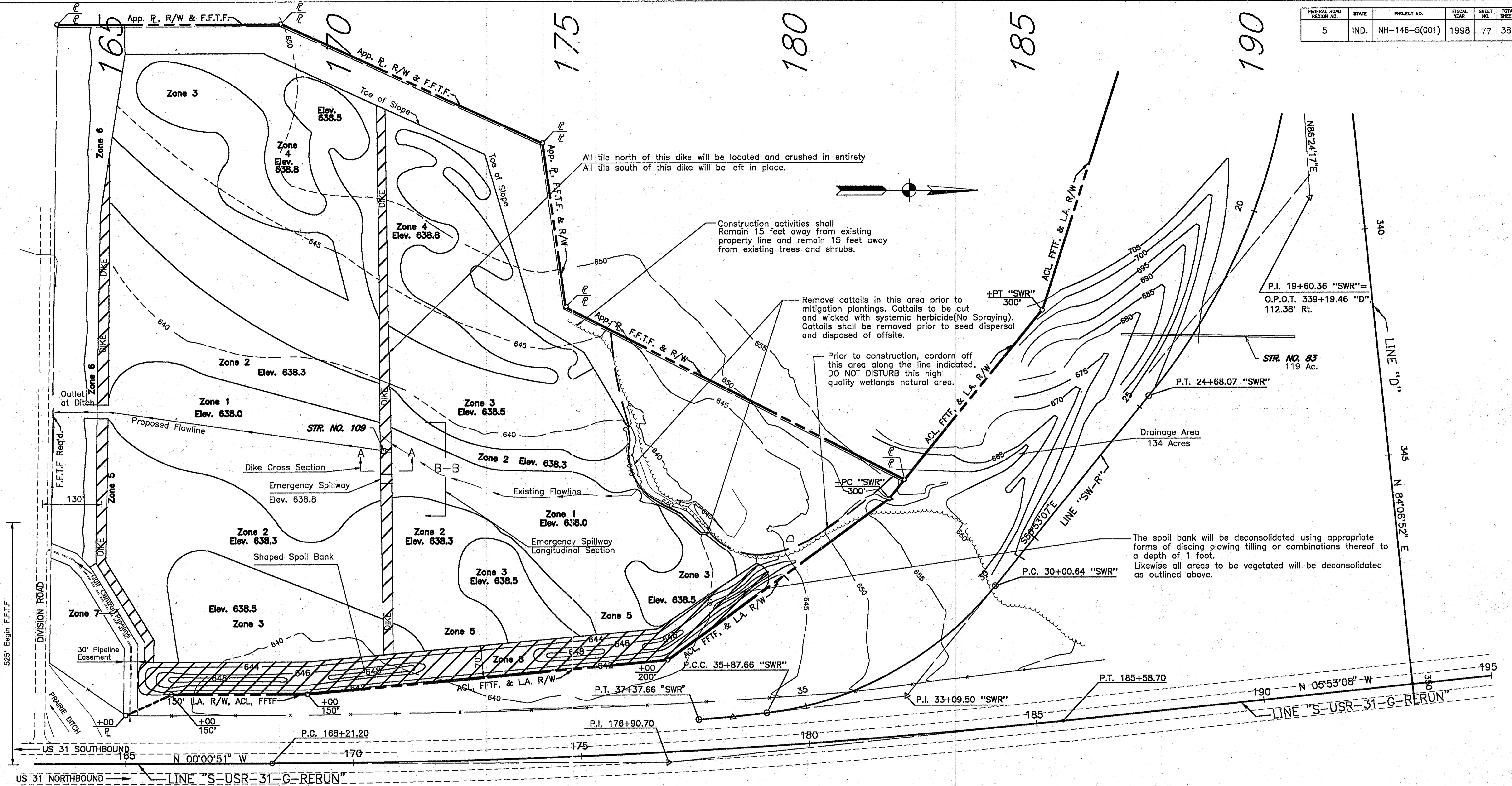
SCALE: 1"=30'



PLOT DATE & TIME: DEC 19, 1997 - 11:26:11

DESIGNED: P.J.G. 7/93 CHECKED: B.D.S. 1/94
DRAWN: M.S. 7/93 CHECKED: B.D.S. 1/94
REVISION: D.H. 10/97 CHECKED: E.M. 10/97

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	77	389



Notes:

- 1.) Development of the wetland area to be initiated at the beginning of construction for the road project.
- 2.) No grading below elevation 638.0 shall occur for any portion of the wetland site except where specifically called for in design plans or at the discretion of the project engineer.
- 3.) The contractor shall remain at least 15' away from the Gulf Central ammonia line found in the southeast corner of the wetland site (30 foot gas line easement).
- 4.) The contractor is to field verify datum prior to initiation of construction of the wetland site. Any adjustment to conform to site conditions shall be at the discretion of the project engineer.
- 5.) All final finish grades will be within 0.1 feet of the design specified elevation. This shall be carried out in accordance with section 209.03 of the INDOT Standard Specifications.
- 6.) Perimeter of wetland site to be posted with "Do Not Mow or Spray" Signs.

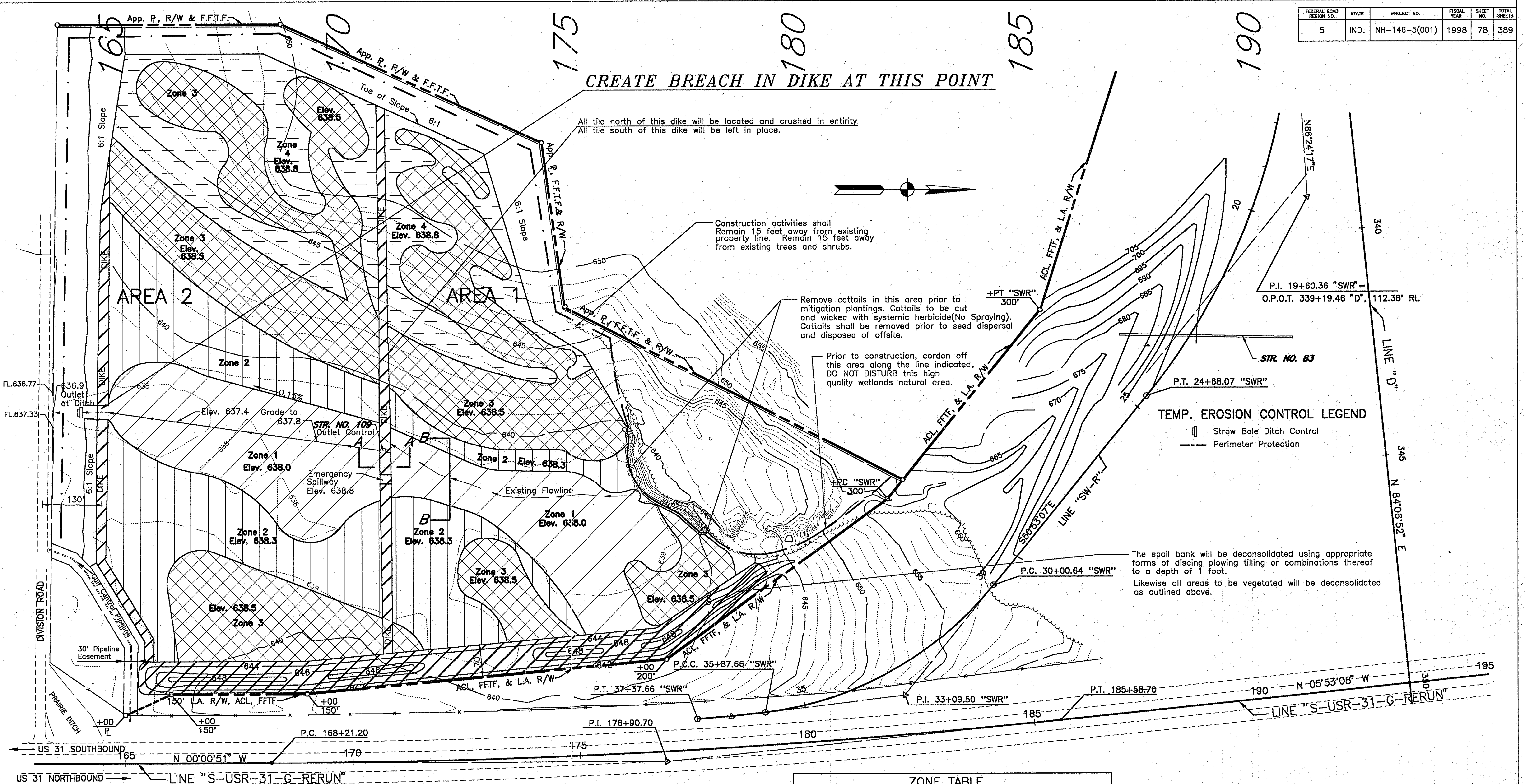
US 24 Wetland Site Plan

SCALE: 1=100

DESIGNED: SCS 12/87 CHECKED: _____
 DRAWN: _____ CHECKED: _____
 REVISED: _____ CHECKED: _____

PLOT DATE & TIME: DEC 16, 1997 - 11:20:55 - Plotted from: TRANS
 525' Begin F.F.T.F.

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	78	389



PLOT DATE & TIME: DEC 16, 1997 - 14:20:55 - Plotted from: TRANS

ZONE TABLE		
ZONES AREA 1	ACREAGE	HYDROREGIME
1	2.54	Regularly Flooded
2	2.17	Regularly Flooded
3	4.99	Seasonally Flooded
4	1.70	Temporarily Flooded
ZONES AREA 2		
1	3.14	Regularly Flooded
2	4.87	Regularly Flooded
3	6.32	Seasonally Flooded
4	2.77	Temporarily Flooded

US 24 Wetland Grading Plan

DETAIL

SCALE:1=100

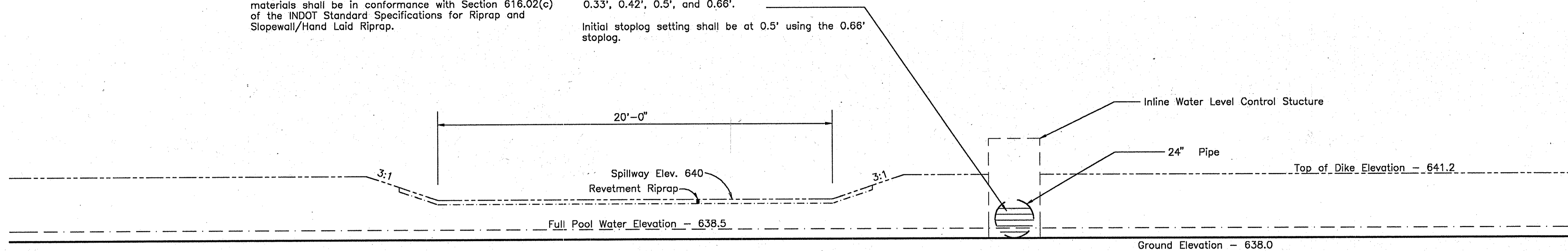
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	79	389

Notes:

The emergency spillway shall be lined with hand laid riprap to the grade and specifications indicated on design plans. The materials and handling of these materials shall be in conformance with Section 616.02(c) of the INDOT Standard Specifications for Riprap and Slopewall/Hand Laid Riprap.

Structure stoplogs shall consist of a base log 0.33' in height. Other log sizes to be acquired in addition to the base log are of the following heights: 0.33', 0.42', 0.5', and 0.66'.

Initial stoplog setting shall be at 0.5' using the 0.66' stoplog.

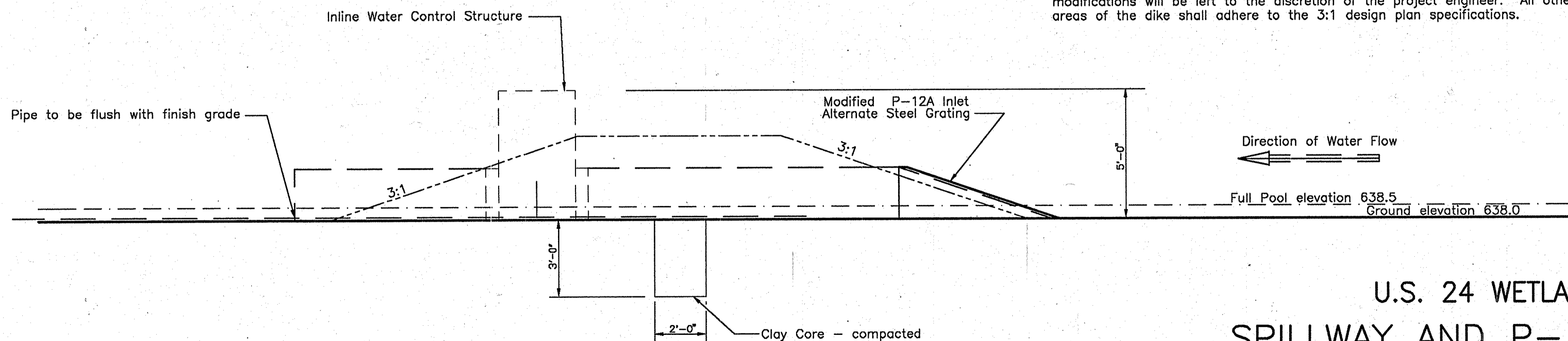


SECTION "B-B"
LONGITUDINAL SECTION OF DIKE

NOTES:

The Modified P-12A inlet with Alternate Grating shall be installed on the upstream end of the 24" Pipe. Modifications to the Standard design may be necessary in order to customize the pipe to site conditions. The specifics of the customization to be implemented will be left to the discretion of the project engineer.

Modifications to the specified dike 3:1 sideslopes shall be permitted in order to accommodate inlet construction and installation. The specifics of the modifications will be left to the discretion of the project engineer. All other areas of the dike shall adhere to the 3:1 design plan specifications.



SECTION "A-A"
MODIFIED P-12A INLET (ALTERNATE GRATING)

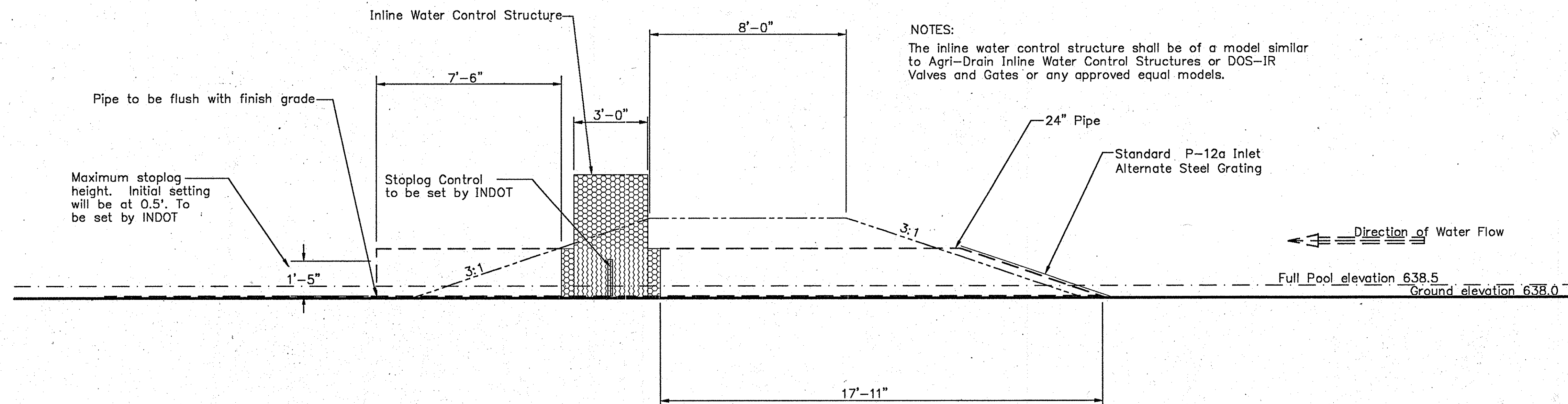
**U.S. 24 WETLAND
SPILLWAY AND P-12A INLET
DETAIL**

SCALE: 3/8" = 1'-0"

PLOT DATE & TIME: DEC 19, 1997 - 11:31:30

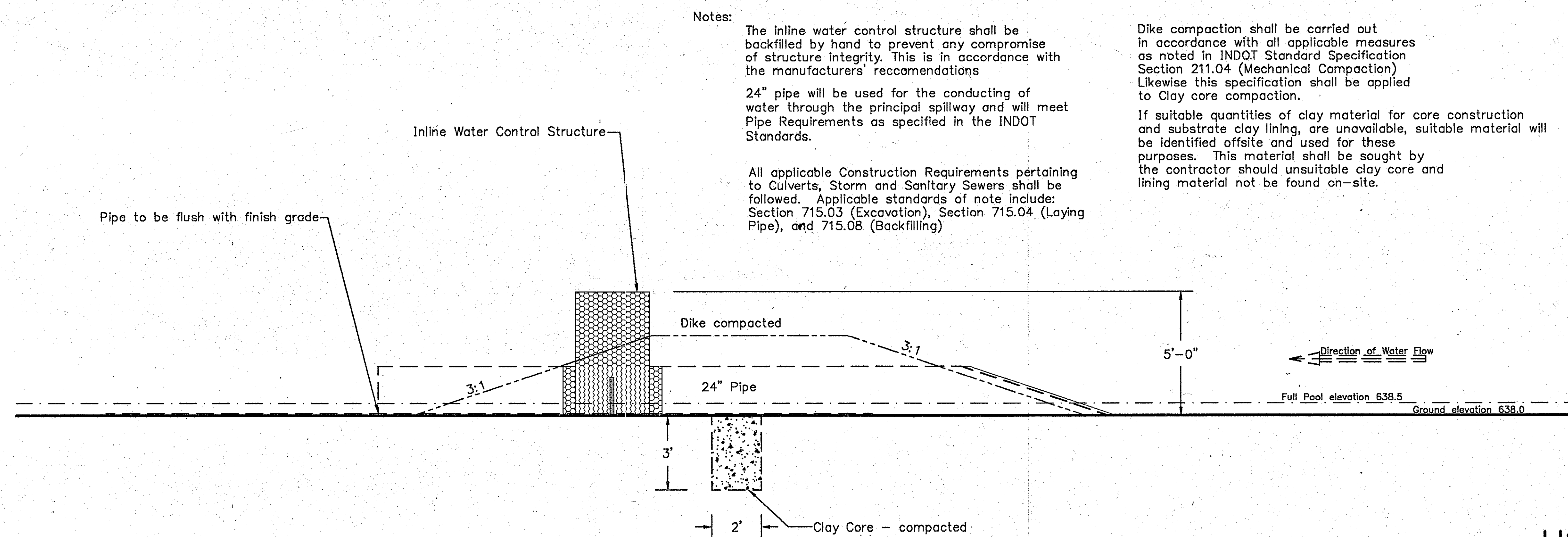
DESIGNED: [unreadable] CHECKED: ENG 12/97
DRAWN: DMH 12/97 CHECKED: ENG 12/97
REVISION: [unreadable]

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	79A	389



NOTES:
The inline water control structure shall be of a model similar to Agri-Drain Inline Water Control Structures or DOS-IR Valves and Gates or any approved equal models.

SECTION "A-A"
Dike and Inline Water Control Structure Specifications



Notes:
The inline water control structure shall be backfilled by hand to prevent any compromise of structure integrity. This is in accordance with the manufacturers' recommendations.
24" pipe will be used for the conducting of water through the principal spillway and will meet Pipe Requirements as specified in the INDOT Standards.
All applicable Construction Requirements pertaining to Culverts, Storm and Sanitary Sewers shall be followed. Applicable standards of note include: Section 715.03 (Excavation), Section 715.04 (Laying Pipe), and 715.08 (Backfilling).

Dike compaction shall be carried out in accordance with all applicable measures as noted in INDOT Standard Specification Section 211.04 (Mechanical Compaction). Likewise this specification shall be applied to Clay core compaction.
If suitable quantities of clay material for core construction and substrate clay lining, are unavailable, suitable material will be identified offsite and used for these purposes. This material shall be sought by the contractor should unsuitable clay core and lining material not be found on-site.

SECTION "A-A"
Structure Backfill and Clay Core Specifications

US 24 Wetland
Dike and Water Control
DETAIL

SCALE: 3/8" = 1'-0"

PLOT DATE & TIME: JAN 0, 0000 - 00:00:00 - Plotted from: TRAM00

DESIGNED: _____
DRAWN: _____
CHECKED: _____
REVISION: _____

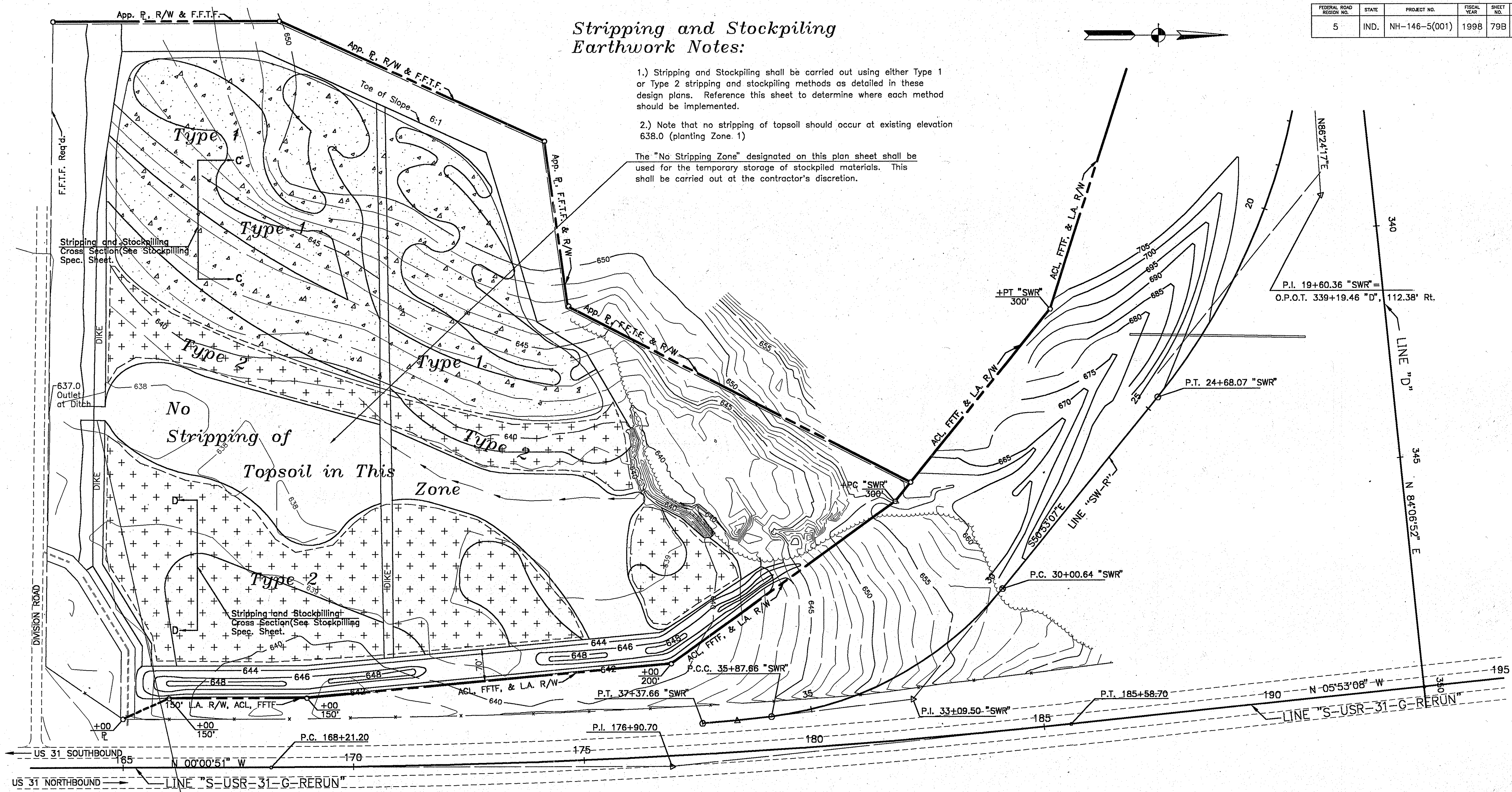
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	79B	389

Stripping and Stockpiling Earthwork Notes:

1.) Stripping and Stockpiling shall be carried out using either Type 1 or Type 2 stripping and stockpiling methods as detailed in these design plans. Reference this sheet to determine where each method should be implemented.

2.) Note that no stripping of topsoil should occur at existing elevation 638.0 (planting Zone. 1)

The "No Stripping Zone" designated on this plan sheet shall be used for the temporary storage of stockpiled materials. This shall be carried out at the contractor's discretion.



No Stripping of Topsoil in This Zone

CREATE BREACH IN DIKE AT THIS POINT

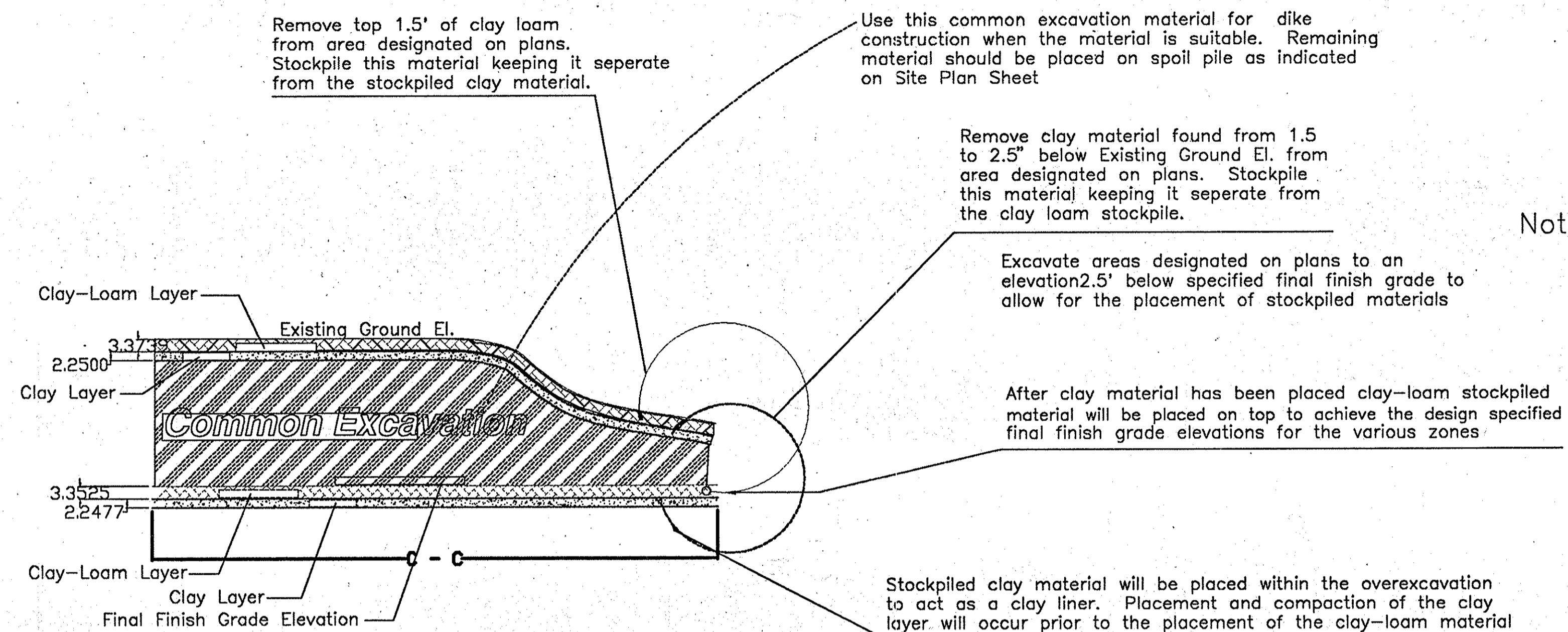
US 24 Wetland Earthwork DETAIL

SCALE: 1" = 100'

DESIGN: 3/31/97 BY: JLB/STP CHECKED: JLB/STP
 PLOT DATE & TIME: NOV 26, 1997 - 14:20:35 - Plotted from: TRANS
 REVISIONS: 01/06/98 BY: JLB/STP CHECKED: JLB/STP

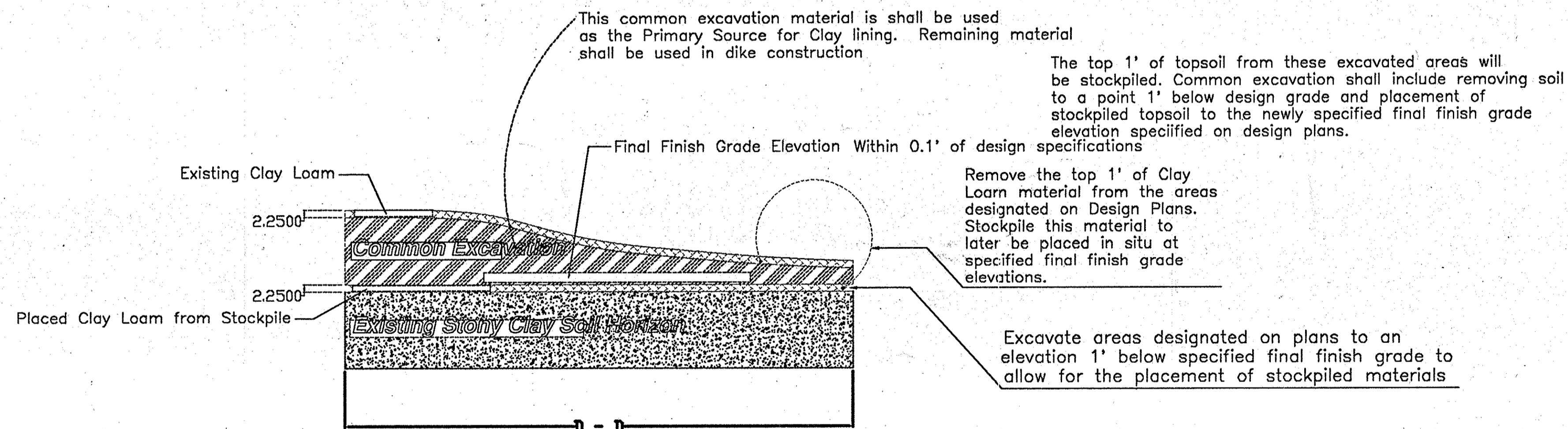
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	79C	389

Cross Section Earthwork Provisions



Type 1 Stripping and Stockpiling Provision

See Earthwork Plan Detail Sheet for Areas of Applicability



Type 2 Stripping and Stockpiling Provision

See Earthwork Plan Detail Sheet for Areas of Applicability

Notes:

All final finish grades shall be within 0.1' of the specified design elevations shown in plans. This shall be carried out in accordance with section 209.03 of the INDOT Standard Specifications.

Following the completion of final finish grading and prior to the undertaking of planting activities, all planting zones designated for wetland species will be deconsolidated to a depth of 1 foot below the as built final finish grades. Deconsolidation of soils shall take the form of ripping, discing, plowing, tilling or any combination thereof.

Notes:

Type 1 Stripping and stockpiling consists of the removal of the top 2.5 feet of earth. Clay loam topsoil and clay substrate will be removed and stored in separate stockpiles. Type 2 Stripping and stockpiling consists of the removal of the top 1 foot of earth. This clay loam topsoil will be removed and stockpiled for later in situ placement following completion of common excavation.

Excavation shall include removing soils to an elevation contingent on the Stripping and Stockpiling technique specified (Type 1 or Type 2). Excavation shall remove soil to a depth from 1 (Type 2) to 2.5 (Type 1) feet below the specified design grade. Placement of stockpiled material shall be carried out in accordance with the Stripping and Stockpiling Type specified. Stockpiled material shall be placed in situ to the design specified final finish grade.

If suitable quantities of material for use in the clay liner are unavailable on the project site, suitable material shall be sought by the contractor in offsite locations. The clay material used in the liner must be of a heavy consistency with a very slow percolation rate and a permeability rate within the range of 0.6-2.0 inches/hour.

US 24 WETLAND STRIPPING AND STOCKPILING DETAIL

SCALE: 1"=1'

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	79D	389

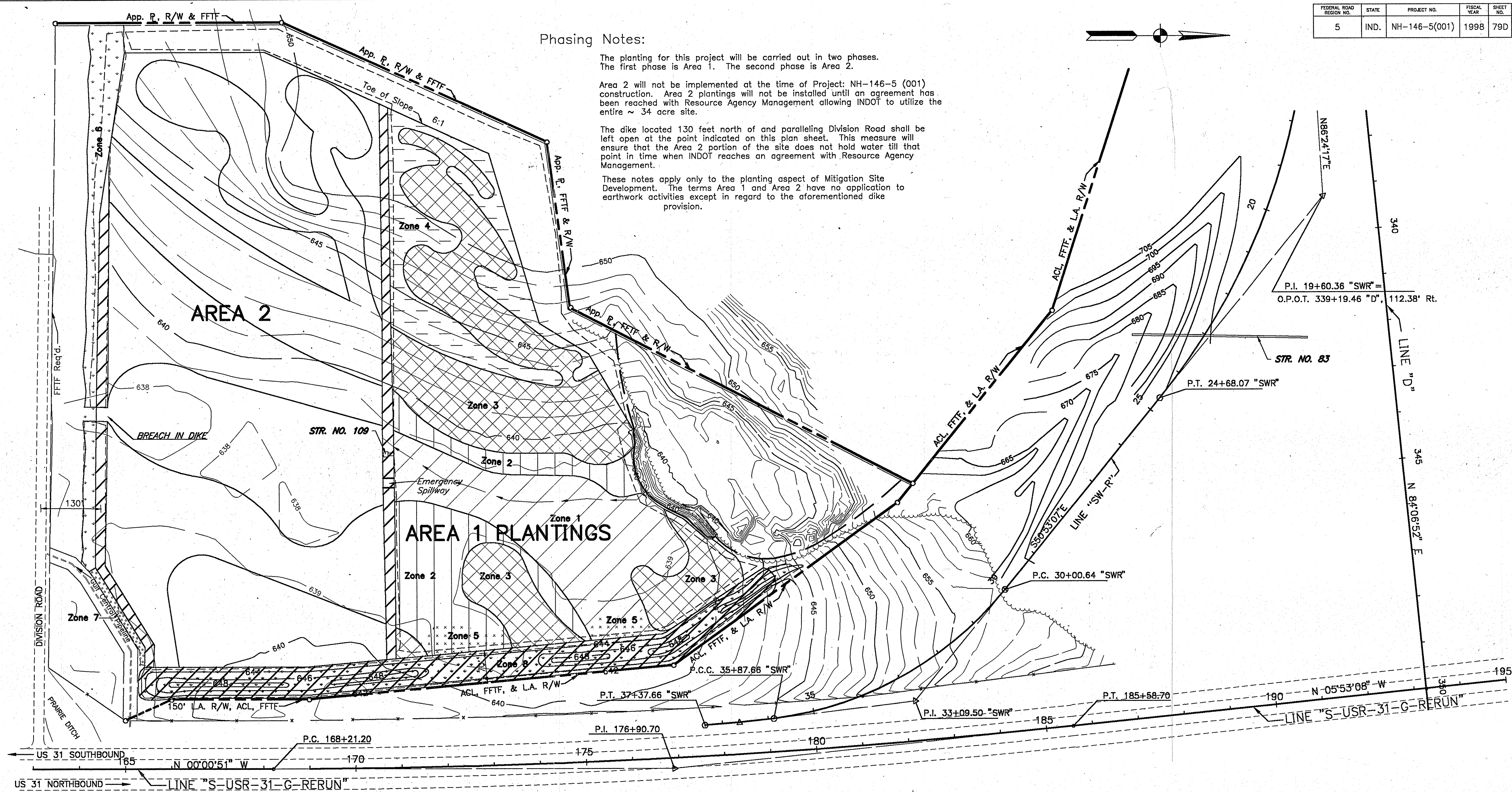
Phasing Notes:

The planting for this project will be carried out in two phases. The first phase is Area 1. The second phase is Area 2.

Area 2 will not be implemented at the time of Project: NH-146-5 (001) construction. Area 2 plantings will not be installed until an agreement has been reached with Resource Agency Management allowing INDOT to utilize the entire ~ 34 acre site.

The dike located 130 feet north of and paralleling Division Road shall be left open at the point indicated on this plan sheet. This measure will ensure that the Area 2 portion of the site does not hold water till that point in time when INDOT reaches an agreement with Resource Agency Management.

These notes apply only to the planting aspect of Mitigation Site Development. The terms Area 1 and Area 2 have no application to earthwork activities except in regard to the aforementioned dike provision.



GENERAL NOTES:

All work shall conform to State and Federal regulations.

The excavating contractor must take particular care when excavating in and around existing utility lines and existing trees indicated to remain. Verify cover requirements by utility contractor's and or utility line owner so as not to cause damage.

The contractor shall notify all utility companies/owner 72 hours before construction is to start to verify if any utilities are present onsite. The contractor must notify the utility company so a representative of that utility company can be present to instruct and observe during construction.

US 24 Wetland PLANTING DETAIL

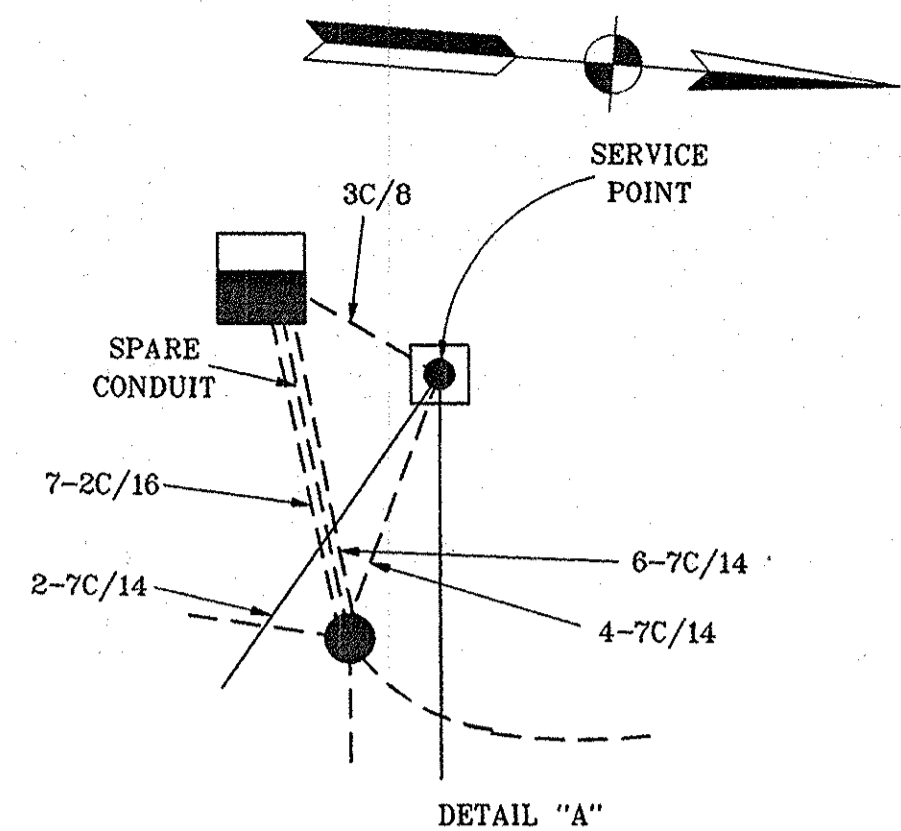
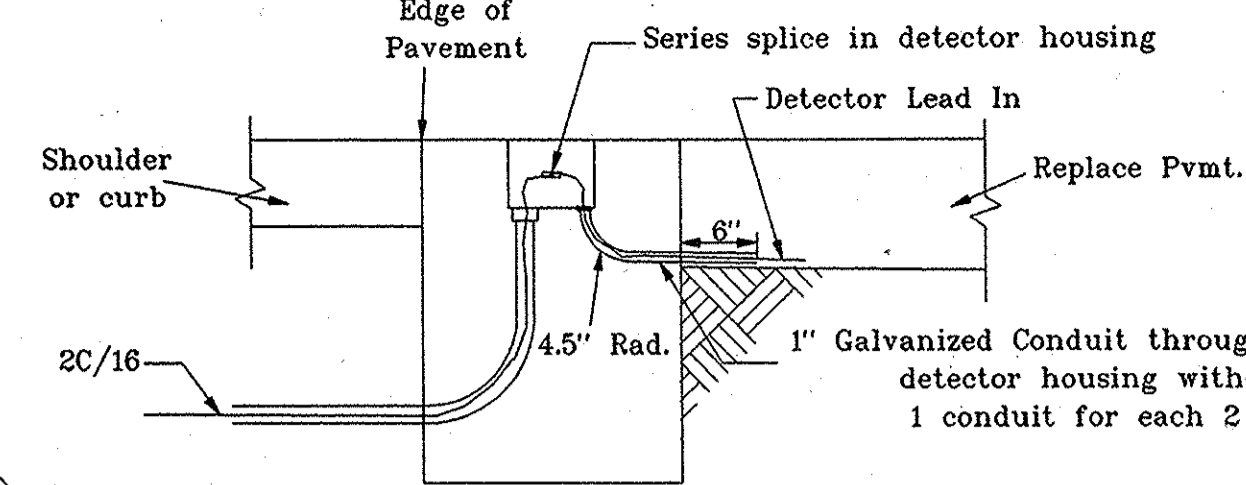
SCALE: 1" = 100'

DESIGNER: SCS12/16/97 CHECKED: J2-15-97 PLOT DATE & TIME: NOV 26, 1997 - 14:20:55 - Plotted from: TRANS

LOOP TAGGING TABLE	
LANE	TAG - NUMBER
NL	NL1-1,2,3,4
NA,NB	NA,NB6-1,1
SL	SL5-1,2,3,4
SA,SB	SA,SB2-1,1
WA	WA8-1,2,3,4
WR	WR8-1,2,3,4
EA	EA4-1,2,3,4,5

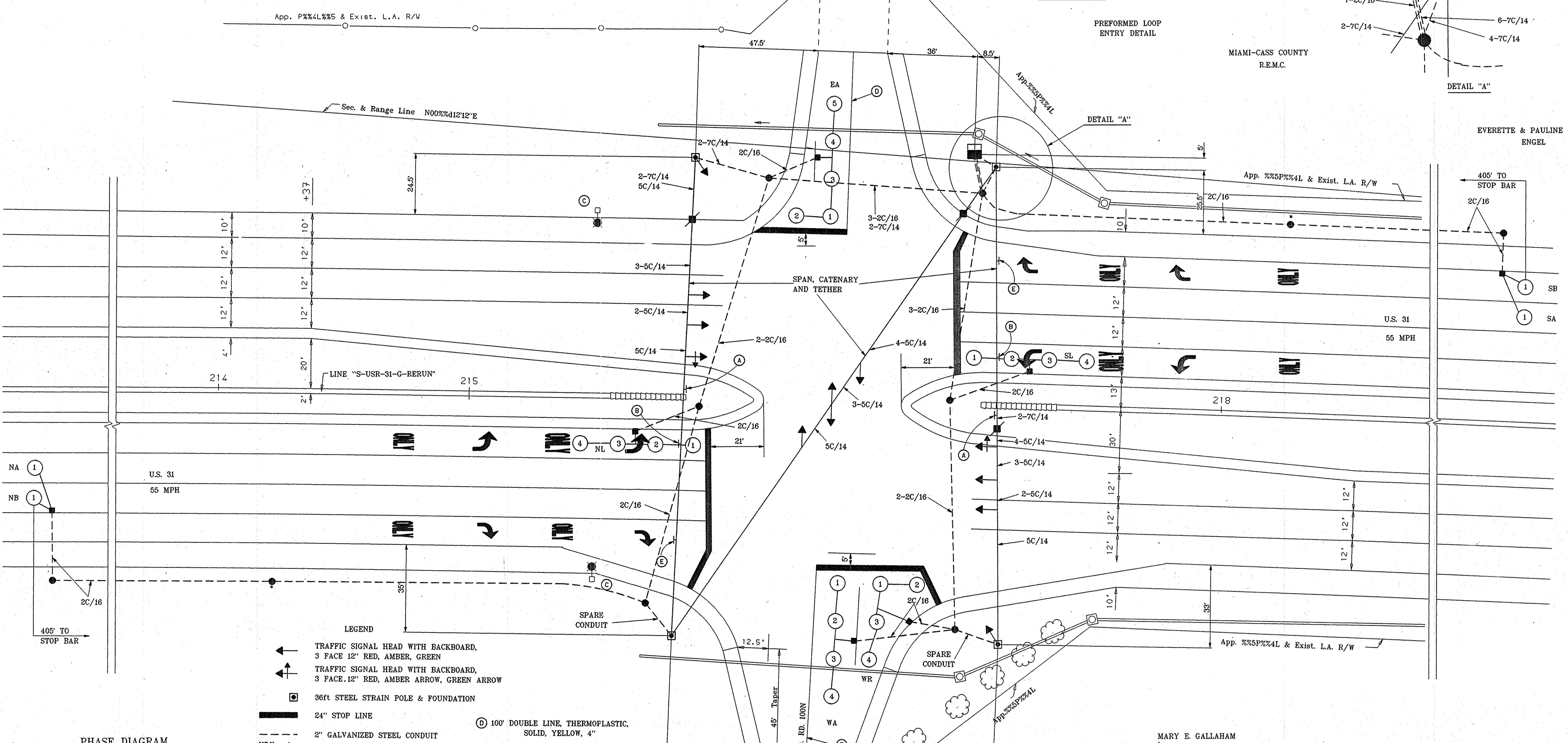
JOHN R. DELUCCA

NOTES:
 * HANDHOLE SHALL BE AT HALF DISTANCE BETWEEN THE TWO ADJACENT HANDHOLES.
 DRAIN HANDHOLES WHEREVER POSSIBLE.

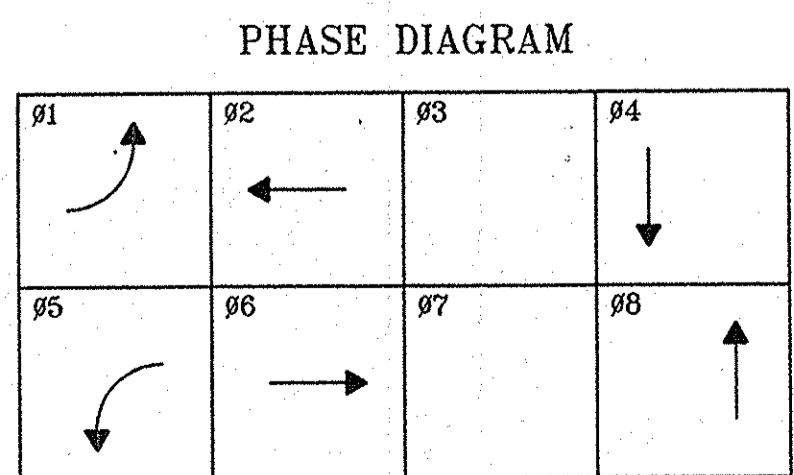


MIAMI-CASS COUNTY
R.E.M.C.

EVERETTE & PAULINE
ENGEL



- LEGEND
- ↑ TRAFFIC SIGNAL HEAD WITH BACKBOARD, 3 FACE 12" RED, AMBER, GREEN
 - ↑ TRAFFIC SIGNAL HEAD WITH BACKBOARD, 3 FACE, 12" RED, AMBER ARROW, GREEN ARROW
 - 36ft STEEL STRAIN POLE & FOUNDATION
 - 24" STOP LINE
 - 2" GALVANIZED STEEL CONDUIT
 - PAVEMENT MESSAGE MARKINGS
 - CONTROLLER AND "P-1" CABINET, MENU DRIVEN, 8 PHASE ON "P-1" FOUNDATION
 - DISCONNECT HANGER
 - SIGNAL DETECTOR HOUSING
 - SIGNAL HANDHOLE
 - 2" 6" PREFORMED LOOP
 - R10-5-B
 - R3-5(L)
 - LIGHT POLE FOR REFERENCE ONLY
 - 100' DOUBLE LINE, THERMOPLASTIC, SOLID, YELLOW, 4"
 - R3-5(R)



U.S. 31 IS PREFERENTIAL
 U.S. 31 FLASHES AMBER
 C.R. 100N FLASHES RED

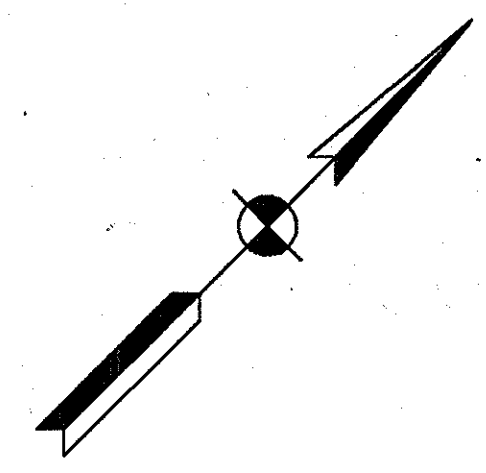
GENERAL TIRE & RUBBER CO.

MARY E. GALLAHAM

INDIANA DEPARTMENT OF TRANSPORTATION			
SIGNAL MODERNIZATION AT US 31 & C.R. 100N MIAMI COUNTY, FORT WAYNE DISTRICT			
RECOMMENDED FOR APPROVAL	<i>Prakash Patel</i> 1/23/99	DESIGN ENGINEER	DATE
CONTRACT NO. R-23637	STRUCTURE NO. SCALE: 1"=20'		
DES. NO. 9831410	PROJECT NO. NH-146-5(001)	YEAR 1998	SHEET TOTAL 80 389

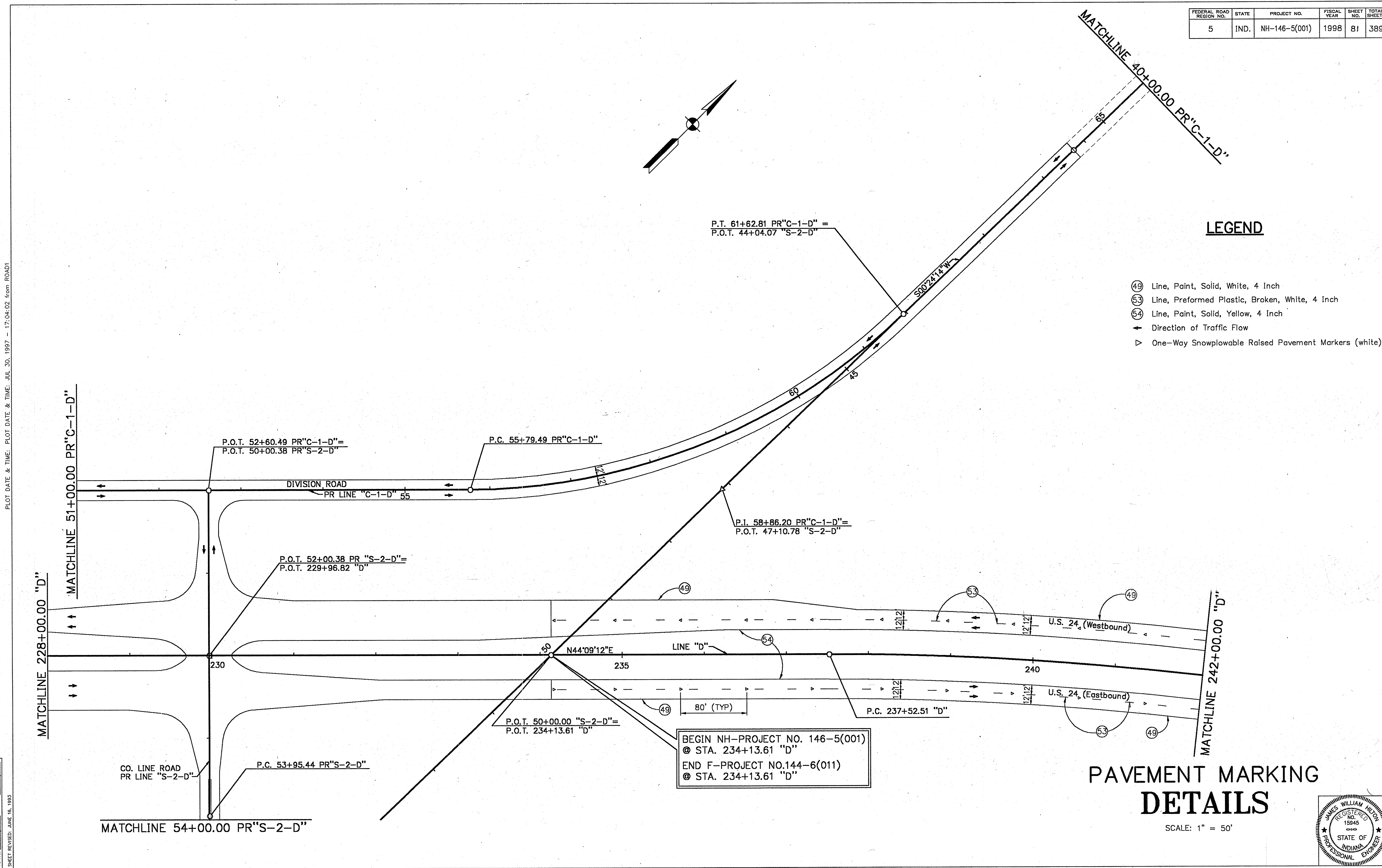
COMM. NO. 01-052-019

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	81	389



LEGEND

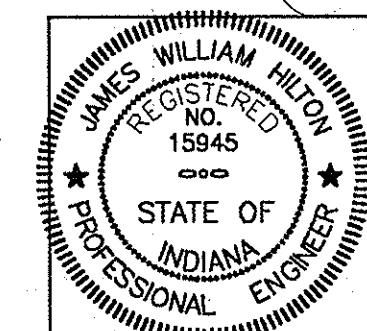
- ④ Line, Paint, Solid, White, 4 Inch
- ⑤ Line, Preformed Plastic, Broken, White, 4 Inch
- ⑥ Line, Paint, Solid, Yellow, 4 Inch
- Direction of Traffic Flow
- ▷ One-Way Snowplowable Raised Pavement Markers (white)



BEGIN NH-PROJECT NO. 146-5(001)
 @ STA. 234+13.61 "D"
 END F-PROJECT NO.144-6(011)
 @ STA. 234+13.61 "D"

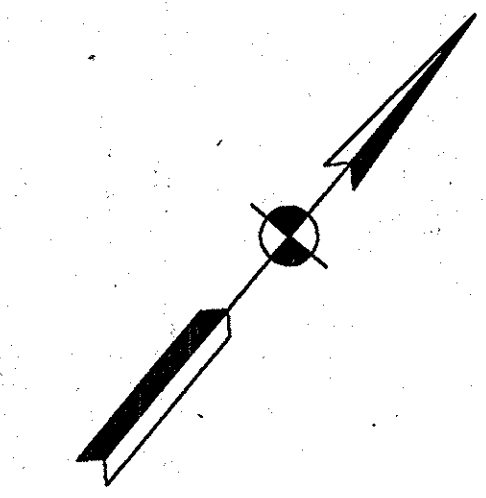
**PAVEMENT MARKING
 DETAILS**

SCALE: 1" = 50'



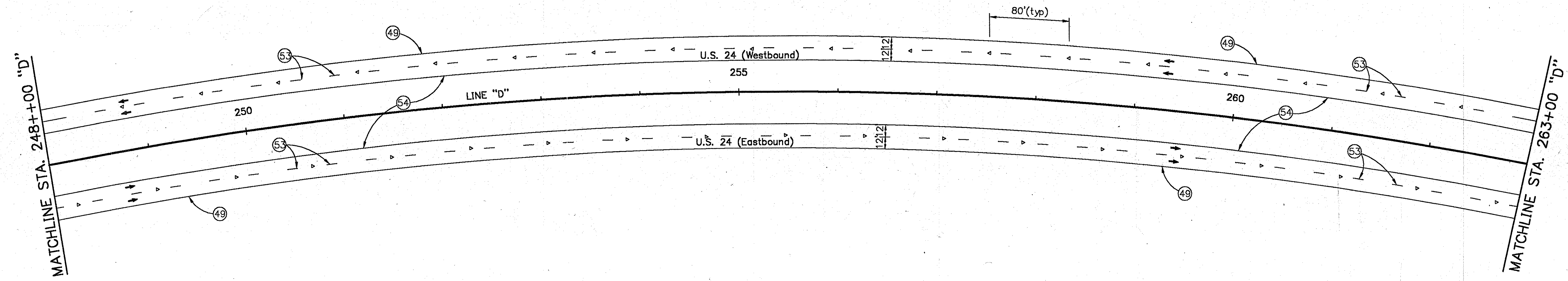
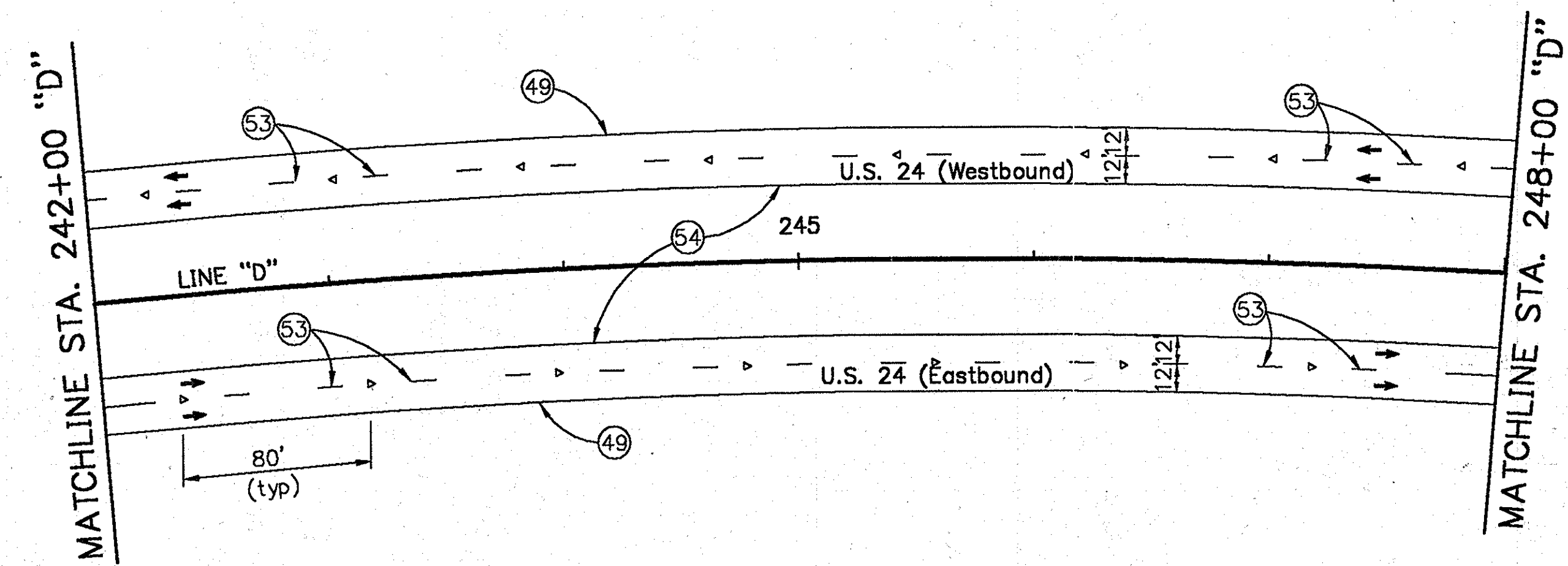
DESIGNED: BDS, 4/94. CHECKED: BDS, 4/94.
 DRAWN: DJH, 4/94. CHECKED: BDS, 5/94.
 REVISED: MKR, 5/97. CHECKED: BDS, 5/97.
 SHEET REVISED: JUNE 16, 1993
 PLOT DATE & TIME: JUL 30, 1997 - 17:04:02 from ROAD1

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	NH-146-5(001)	1998	82	389



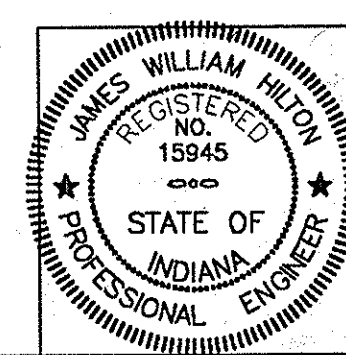
LEGEND

- ④ Line, Paint, Solid, White, 4 Inch
- ⑤ Line, Preformed Plastic, Broken, White, 4 Inch
- ⑥ Line, Paint, Solid, Yellow, 4 Inch
- Direction of Traffic Flow
- ▷ One-Way Snowplowable Raised Pavement Markers (white)



**PAVEMENT MARKING
DETAILS**

SCALE: 1" = 50'



DESIGNED: RDS 4/94
 DRAWN: RDS 4/94
 CHECKED: MK 5/97
 SHEET REVISED: JUNE 16, 1993

PLOT DATE & TIME: PLOT DATE & TIME: JUL 30, 1997 - 17:03:45 from ROAD1