64.1 - 4.1 - 13.21

Sheet Number	Total Sheets
1	41

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

GENOA CITY - ELKHORN ROAD

(S.T.H. 50 – S.TH 67 SECTION)

U.S.H. 12

WALWORTH COUNTY

PROJECT IDENTIFICATION NUMBER	FEDERAL PROJECT DESIGNATION
1081-2-81,82	F 04-1(21)

CONTRACTOR –
JOS. D. BONNESS, INC.
SUB-CONTRACTORS –
B.R. AMON AND SONS – BIT. CONC.
SWEENEY BROS INC. – FINISHING
ED KRAEMER & SONS – GRAVEL SHOULDERS
WINGRA STONE CO. – " "
WM. E. BRINKMAN JR. – PAVT TERMINAL ANCHORS
YAHARA MATERIALS INC. – WASHED AGG.
JAMES CAPE & SONS INC. – CONC. PAVING

CONSTRUCTION STARTED 5-19-69
CONSTRUCTION COMPLETED 10-17-69

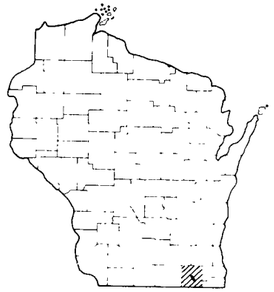
PROJECT ENGINEER –
C.J. BENZ & R.H. SCHEEL

PROJECT DIARY – #1861

NOTE – SEE SHEET 2.44 FOR LIST OF EXISTING BENCH MARKS

Index of Sheets

Sheet No.	1	Title
Sheet No.	2-2.43	Typical Cross Sections
Sheet No.	3	Estimate of Quantities
Sheet No.	3A-3C	Miscellaneous Quantities
Sheet No.	4-4.1	Right of Way Plat
Sheet No.	5-27	Plan and Profile Sta. 563+00 to Sta. 1104+00
Sheet No.	28-28.11	Standard Details
Sheet No.	–	Drainage Structures
Sheet No.	29-41	Cross Sections



Design Designation

CONTROL OF ACCESS = FULL
A D T (1970) = 6,250
A D T (1990) = 15,100
D.H.V = 3,020
D = 70-30
T. = 11.7 % (1970); 11.0 % (1990)
V = 70 M.P.H.

Scales { Plan 1 in. = 100 ft; Profile Hor 1 in = 100 ft Vert 1 in = 10 ft; Cross Sections Hor 1 in Vert 1 in.

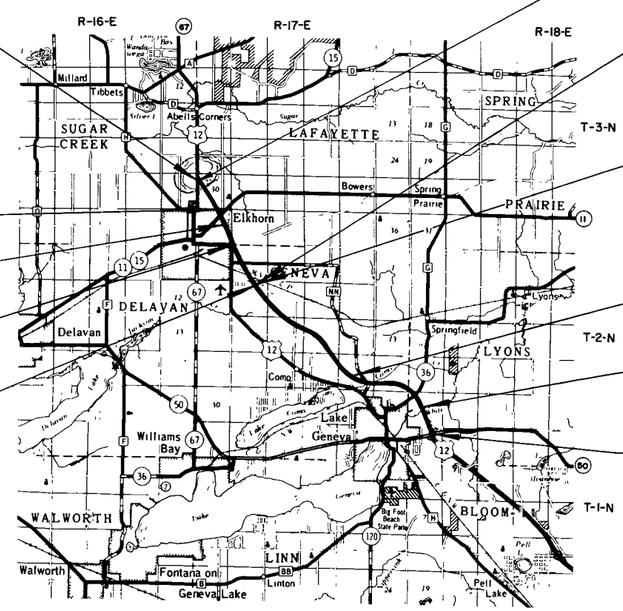
END OF PROJECT F 04-1(21) CONTRACT 2 / 1081-2-82
STA. 1109+00 ℞
450'S & 55'E (GRID DIST) OF THE
SE CORNER OF SECTION 24 T 3 N, R 16 E
= STA. 1109+00 ℞ PROJECT F04-1(17)
WISCONSIN PLANE COORDINATES N 257,635.26
(SOUTH ZONE) E. 2,392,061.05

STA. 1042+54.67 PROJECT F 04-1(21) =
STA. 1042+54.67 PROJECT F 04-1(19)

STA. 1007+80 PROJECT F04-1(21) =
STA. 1007+80 PROJECT F04-1(18)

STA 1000+00 PROJECT F 04-1(21) =
STA 1000+00 PROJECT F 04-1(16) END &
STA 1000+00 PROJECT F 04-1(17) BEGIN

STA 917+76 79 PROJECT F 04-1(21) =
STA 917+76.79 PROJECT F 04-1(15) END &
STA 917+76 79 PROJECT F 04-1(16) BEGIN



STA. 1105.00 R/L = STA. 1105.00 R/L
END OF PROJ. F 04-1(20)

BEGINNING OF PROJECT F04-1(21) CONTRACT 2 / 1081-2-82
= STA. 919+16.69 ℞
1045'S & 1335'E (GRID DIST) OF THE N 1/4 CORNER
OF SECTION 8 T 2 N, R 17 E.
WISCONSIN PLANE COORDINATES N 241,450.01
(SOUTH ZONE) E 2,401,669.62

END OF PROJECT F 04-1(21) CONTRACT 1 / 1081-2-81
= STA. 917+76.79 ℞
1180'S & 1330' W. (GRAD DIST) OF THE N.E CORNER OF
SECTION 8 T 2 N, R. 17 E
WISCONSIN PLANE COORDINATES N 241,323.00
(SOUTH ZONE) E. 2,401,728.27

STA 731+00 PROJECT F 04-1(21) =
STA 731+00 PROJECT F 04-1(15) BEGIN

STA 597+00 PROJECT F 04-1(21) =
STA 597+00 PROJECT F 04-1(11) END

BEGINNING OF PROJECT F 04-1(21) CONTRACT 1 / 1081-2-81
STA 563+00 ℞
280'S & 1025'E (GRID DIST) OF THE N 1/4 CORNER
SECTION 31 T 2 N, R 18 E
= STA 563+00 PROJECT F 04-1(11)
WISCONSIN PLANE COORDINATES N 220,943 54
(SOUTH ZONE) E 2,428,333 40
= STA. 563+00, END PROJECTS F 04-1(12) & (13)
= STA 563+00 PROJECT F 04-1(20) BEGIN

CONTROL OF ACCESS

WITHIN LIMITS OF THE PROJECT WHERE CONTROL OF ACCESS LINE IS SHOWN THUS ——— NO ACCESS IS PERMITTED TO THE HIGHWAY TRAFFIC LANES EXCEPT BY RAMPS AT INTERCHANGES.

Conventional Signs

State Line
County Line
Township or Range Line
Section Line
New Right of Way Line
Present Right of Way Line
Wire Fence { Woven, Barbed
Lot Line
Corporate or City Limits
Property Line
Traveled Way or P.E.
Railroads
Base or Survey Line

Culverts in Place
Culverts Required
Drop Inlet
Power Pole
Telephone or Telegraph Pole
Right of Way Markers
Reference Stake for Hubs Only
Marsh
Hedge
Trees
Ground Elevation — Datum Line 730
Grade Elevation — Datum Line 760.16

STEEL PLATE BEAM GUARD
⊗ CONC. MONUMENT WITH BRASS PLUG, 30' LT. AND 90° TO ℞

Layout

Scale 0 1 2 MI.

Total Net Length of Centerline = 9.441 Mi. RURAL
" " " = 0.717 Mi. MCPL.
TOTAL = 10.158 Mi.

EXCEPTIONS TO NET LENGTH OF ℞

Sta. 598+02.74	TO	Sta. 598+37.25	(B-64-30)
621+44.25	"	" 623+33.75	(B-64-32 & 33)
693+01.30	"	" 693+56.70	(B-64-34)
701+40.10	"	" 702+83.30	(B-64-35 & 36)
731+44.12	"	" 731+90.00	(B-64-37 & 38)
867+50.53	"	" 867+87.83	(B-64-61)
917+76.79	"	" 919+16.69	(B-64-41 & 42)
933+55.53	"	" 935+46.58	(B-64-44 & 43)
1042+54.67	"	" 1043+85.85	(B-64-46 & 47)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Surveyor D.C. & CO. C. Note Book
District Computer T.L. & K.G. M.O. Checker R.L.C.
District Checker F.W.N. & C.B. Correct

Correct

Date 2/26/69 District Engineer

Recommended for Approval

Date 3/3/69 Chief Design Engineer

Approved

Date 3/11/69 State Highway Engineer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
REGION 4 WISCONSIN DIVISION

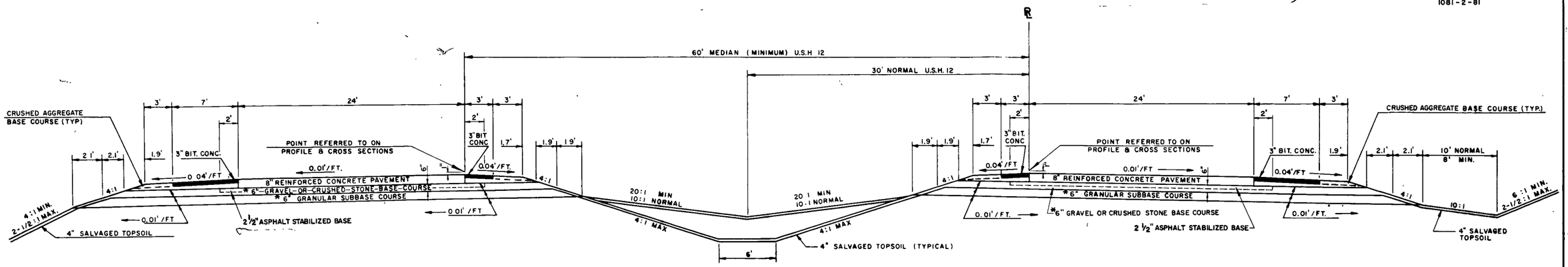
Approved

Date Division Engineer

F04-1(21)

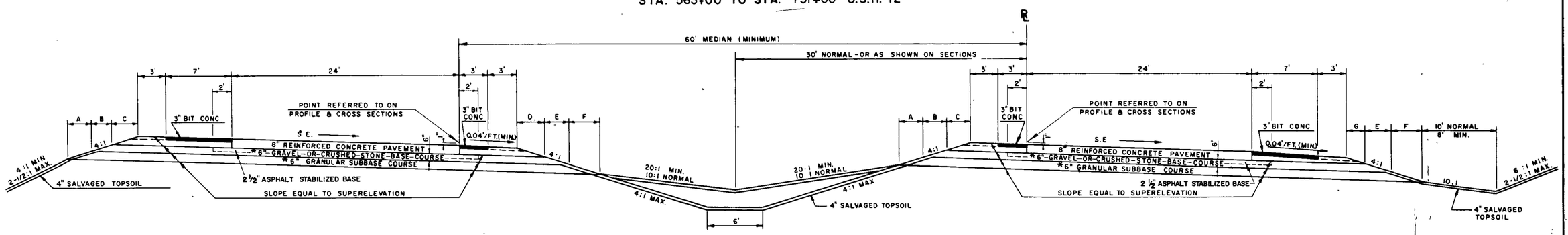
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	2.0	41

1081-2-81



NOTE:
* IN PLACE

TYPICAL NORMAL DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN
STA. 563+00 TO STA. 731+00 U.S.H. 12 **



TYPICAL SUPERELEVATED DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN
STA 563+00 — STA. 731+00 **

** FOR LOCATIONS OF 9" PAVEMENT SEE SHEET 2.3

CONVENTIONAL SIGNS

- EXISTING CULVERTS
- PROPOSED CULVERTS
- EXISTING MANHOLE
- PROPOSED MANHOLE
- DRAINAGE COURSE
- DITCH DIKE
- EXISTING WATER PIPE — 6"
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING SANITARY SEWER PIPE — 12"
- UNDERGROUND CABLE
- STORM SEWER — 36" S.S.
- HIGH TENSION LINE AND TOWERS
- QUARTER LINE
- SIXTEENTH LINE
- EXISTING GUARD RAIL
- PROPOSED PAVEMENT
- EXISTING CATCH BASIN
- EXISTING WELL — WELL
- SIGN
- EXISTING UNDERGROUND CABLE WARNING SIGN OR POLE
- BALANCE POINT (SHOWN ON PROFILE)
- HOUSE — H
- GARAGE — G
- BARN — B
- SHED — S
- SILO — S
- RESTAURANT — R
- CHURCH — +
- FOUNDATION — F
- SIDEWALK
- LIGHT POLE
- TRAFFIC SIGNAL
- IRON PIPE — I.P.
- CULVERT PIPE — C.P.
- CORRUGATED METAL CULVERT PIPE — C.M.C.P.
- REINFORCED CONCRETE CULVERT PIPE — R.C.C.P.
- RIGHT HAND FORWARD — R.H.F.
- LEFT HAND FORWARD — L.H.F.
- LIMITED HIGHWAY EASEMENT — L.H.E.
- REMOVE ADVERSE CROWN, SUPERELEVATED AT NORMAL CROWN SLOPE — R.C.
- NORMAL CROWN — N.C.
- TRANSITION LENGTH FOR SUPERELEVATION — T.L.
- TANGENT RUNOUT — T.R.
- REMOVE PAVEMENT
- NO ACCESS LINE

SUPERELEVATION TABLE

Dc	S E	A	B	C	D	E	F	G
0°-15' 0°-45'	0.02'/FT	1.9	1.8	2.8	2.7	2.2	2.2	2.4
1°-00'	0.03'/FT.	1.8	1.8	2.7	3.1	2.2	2.3	3.0
1°-15'	0.035'/FT	1.8	1.8	2.6	3.4	2.3	3.5	3.3
1°-30'	0.042'/FT	1.7	1.7	2.6	3.6	2.4	3.6	3.6
1°-45'	0.05'/FT	1.7	1.7	2.5	3.8	2.5	3.8	3.8
2°-00'	0.056'/FT	1.6	1.6	2.5	3.9	2.6	3.9	3.9

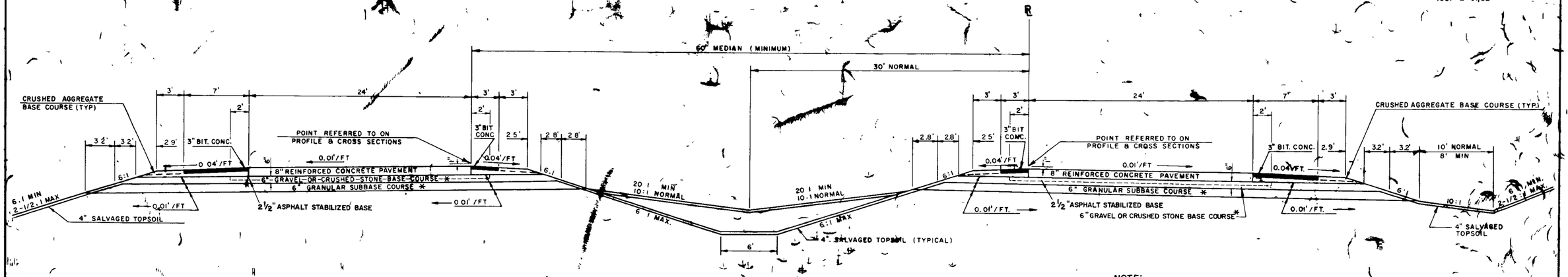
ROTATION ABOUT MEDIAN EDGE OF PAVEMENTS

TYPICAL CROSS SECTION FOR GENOA CITY-ELKHORN ROAD

U.S.H. 12 — WALWORTH COUNTY

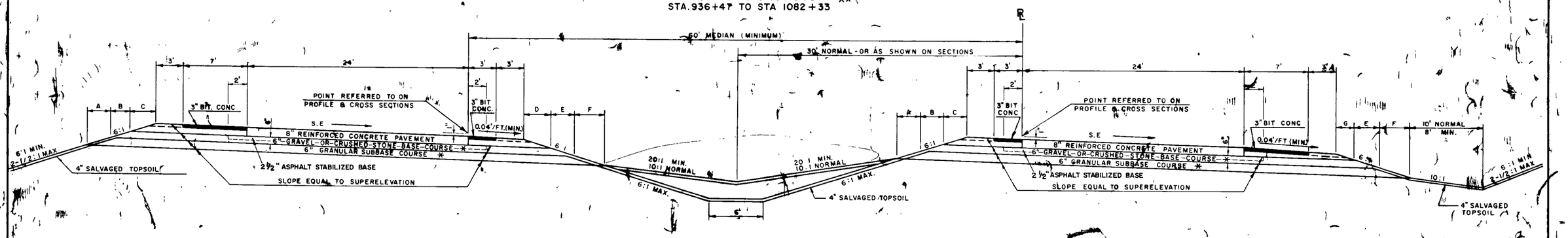
B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F 04-1(21)	2.1	41

1081-2-81,82



TYPICAL NORMAL DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN
STA 731+00 TO STA. 916+54 **
STA. 936+47 TO STA 1082+33

NOTE:
* IN PLACE



TYPICAL SUPERELEVATED DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN
STA 731+00 - STA. 916+54 **
STA. 936+47 - STA. 1082+33

SUPERELEVATION TABLE

Dc	S.E	A	B	C	D	E	F	G
0°-15' 0°-45'	0.02'/FT.	2.7	2.7	4.0	4.3	3.4	3.4	3.8
1°-00'	0.03'/FT.	2.5	2.5	3.8	5.1	3.7	3.7	4.8
1°-15'	0.035'/FT.	2.5	2.5	3.7	5.5	3.8	3.8	5.3
1°-30'	0.042'/FT	2.4	2.4	3.6	6.0	4.0	4.0	6.0
1°-45'	0.05'/FT	2.3	2.3	3.5	6.4	4.3	4.3	6.4
2°-00'	0.056'/FT.	2.3	2.3	3.4	6.7	4.5	4.5	6.7

ROTATION ABOUT MEDIAN EDGE OF PAVEMENTS

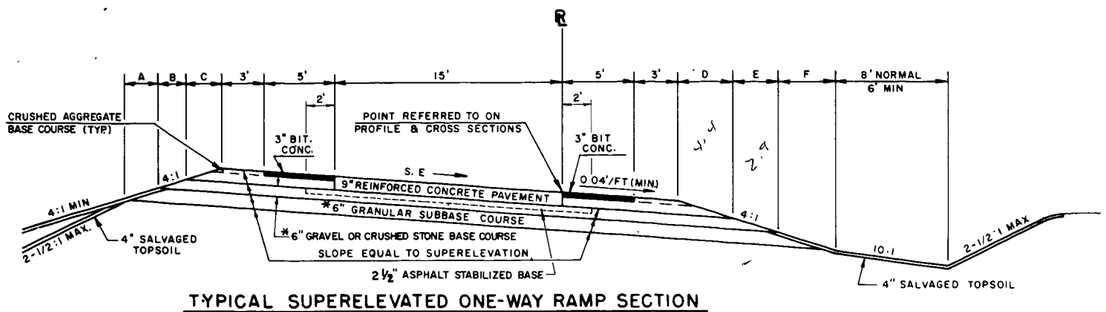
** FOR LOCATION OF 9" PAVEMENT
SEE SHEET 2.3

TYPICAL CROSS SECTION
FOR
GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNT

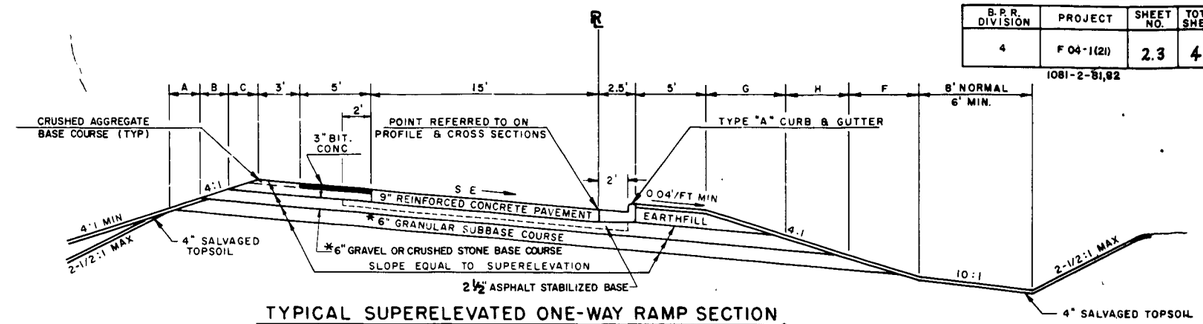
B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	2.3	41

1081-2-81,82



TYPICAL SUPERELEVATED ONE-WAY RAMP SECTION

(WITHOUT BARRIER CURB)



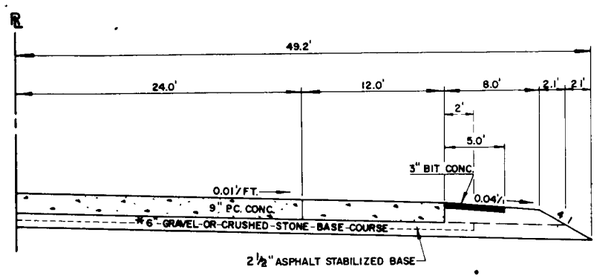
TYPICAL SUPERELEVATED ONE-WAY RAMP SECTION

(WITH BARRIER CURB)

SUPERELEVATION TABLE-RAMPS								
S E	A	B	C	D	E	F	G	H
0.01'/FT	1.9	1.9	2.9	2.1	2.1	2.1	3.9	2.1
0.02'/FT	1.9	1.9	2.8	2.6	2.2	2.2	4.3	2.2
0.03'/FT	1.8	1.8	2.7	3.1	2.3	2.3	4.7	2.3
0.04/FT	1.7	1.7	2.6	3.6	2.4	2.4	5.2	2.4
0.05/FT	1.7	1.7	2.5	3.8	2.5	2.5	5.4	2.5
0.06/FT	1.6	1.6	2.4	4.0	2.6	2.6	5.7	2.6
0.07/FT	1.6	1.6	2.3	4.2	2.8	2.8	6.0	2.8
0.08/FT	1.5	1.5	2.3	4.4	2.9	2.9	6.4	2.9

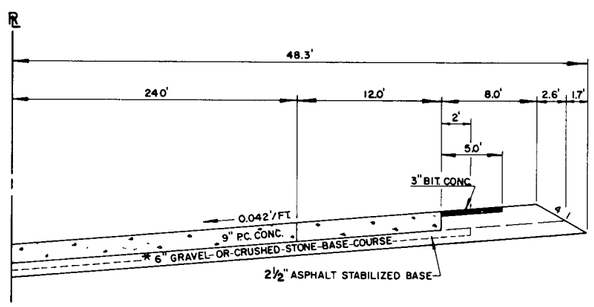
ROTATION ABOUT ℄

NOTE
* IN PLACE



TYPICAL SECTION AUXILIARY LANE U.S.H. 12

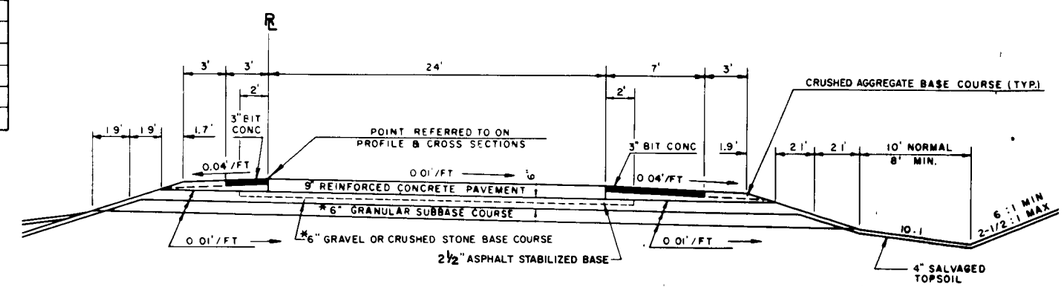
STA. 625+75 TO STA 628±73



TYPICAL SUPERELEVATED

SECTION AUXILIARY LANE U.S.H. 12

STA. 628±73 TO STA 641+00



TYPICAL MAINLINE ONE-WAY ROADWAY SECTION (9" PC. CONC.)

CONTRACT 1 50 to mid pt.

STA. 549+00 TO STA 558+28 S.B.
STA 561+02 TO STA 561+82 S.B.
STA. 620+44 TO STA 621+24 S.B.
STA 620+44 TO STA 621+24 N.B.
STA 699+71 TO STA 700+51 S.B.
STA 700+40 TO STA. 701+20 N.B.
STA 702+54 TO STA. 703+34 S.B.
STA. 703+24 TO STA. 704+04 N.B.
STA 917+31 TO STA 918+11 S.B.
STA 916+55 TO STA. 917+35 N.B.

CONTRACT 2 mid pt. to 57

STA 919+37 TO STA. 933+11 N.B.
STA. 920+13 TO STA. 933+95 S.B.
STA. 935+67 TO STA 936+47 N.B.
STA. 936+61 TO STA. 937+41 N.B.
STA. 1041+54 TO STA. 1042+34 N.B.
STA 1041+25 TO STA. 1042+05 S.B.
STA. 1044+14 TO STA. 1044+94 N.B.
STA. 1043+85 TO STA. 1044+65 S.B.

APPROVED DETAIL DRAWINGS

2-1.1.12 Concrete Pavement Reinforcement

2-3.1.5 Structure Approach and Concrete Pavement Approach Slab

3-1.1.7 Concrete Curb, Gutter, Combination Curb & Gutter, Surface Drain

4-4.4.8 Longitudinal Joints - Concrete Pavement

4-4.5.11 Transverse Joints - Concrete Pavement

6-2.4.3 Mortar Rubble Masonry or Riprap For Culvert and Cattle Pass Endwalls

5-3.4.8 Inlet Covers

5-3.5.2 Inlets

7-2.4.13 Steel Plate Beam Guard & Steel Beam Median Guard

7-4.1.5 Construction Barricade

8-1.3.1 Ditch Checks, Mortar Rubble Masonry & Sod

13-1.1.1 Maintenance Crossover for Freeways

GENERAL NOTES

1. The Reference Line (℄) Is The Median Edge of the Northbound Pavement.
2. When The Quantity of The Items of Base Or Surface Course Is Measured For Payment By The Ton Or Cubic Yard, The Depth Or Thickness Of The Course Shown On The Plans Is Approximate And The Actual Thickness Will Depend On The Distribution Of The Material Directed By The Engineer.
3. Items Shown On The Plans But Not included In The Estimate Of Quantities Or Miscellaneous Quantities Are Not Part Of This Contract.
4. The Exact Location Of Private Entrances Is To Be Determined In The Field By The Engineer
5. 3" Bituminous Concrete, Where Indicated On The Plans, Shall Consist Of 1-3/4" Binder Course And 1-1/4" Surface Course.
6. Shrinkage Is Variable And Estimated At 15% For Embankment And 25% For Marsh Backfill.
7. All The Right Of Way, Exclusive Of The Roadbed And Areas Already Covered With Suitable Grasses, Shall Be Fertilized And Seeded.
8. The Shoulder Gravel Adjacent to Bituminous Concrete Shoulders Shall Not Be Placed Until After The Bituminous Concrete Pavement Has Been Laid.
9. Salvaged Topsoil To Be Placed As Directed By Plans To An Approximate Depth of 4" At Time Of Placing.
10. Where 5" Bituminous Concrete Is Indicated On The Plans, It Shall Be Constructed As Follows: 3-3/4" Binder (2-Courses) And 1-1/4" Surface Course.

TYPICAL CROSS SECTIONS

FOR

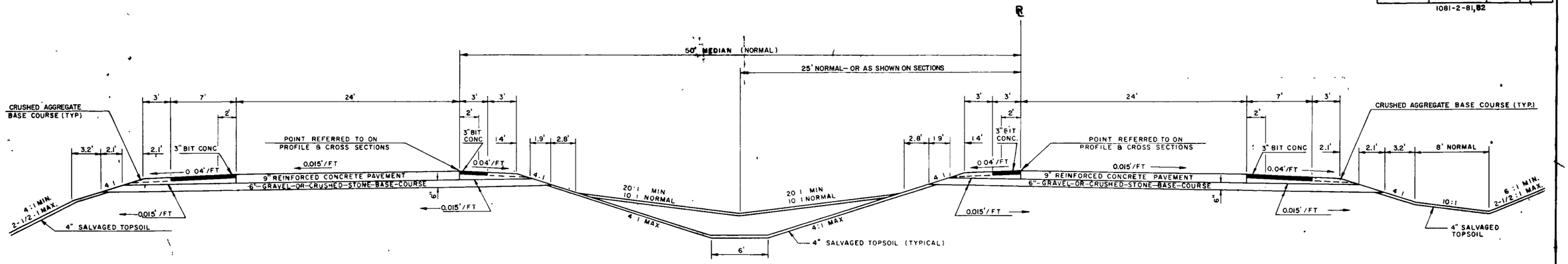
RAMPS AND WIDENED MEDIAN

GENOA CITY-ELKHORN ROAD

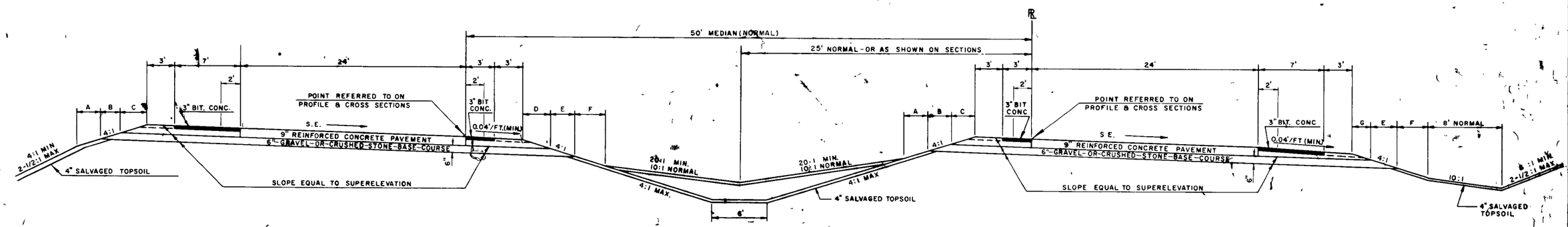
U. S. H 12 WALWORTH COUNTY

B P R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F 04-1(21)	2.4	41

1081-2-81,82



TYPICAL NORMAL DUAL HIGHWAY SECTION - 4 LANE DIVIDED, ~~60~~ 50' MEDIAN
S.T.H. 36



TYPICAL SUPERELEVATED DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 50' MEDIAN
S.T.H. 36

SUPERELEVATION TABLE							
S E	A	B	C	D	E	F	G
0.02'/FT	2.8'	1.9	2.8	2.7	2.2	3.3	2.4
-0.04'/FT							

ROTATION ABOUT OUTSIDE EDGE OF PAVEMENT

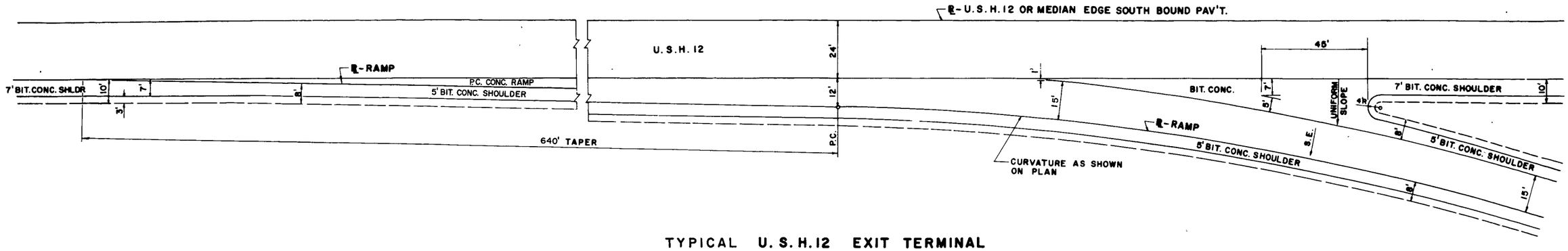
TYPICAL CROSS SECTION
FOR
S.T.H. 36

GENOA CITY-ELKHORN ROAD

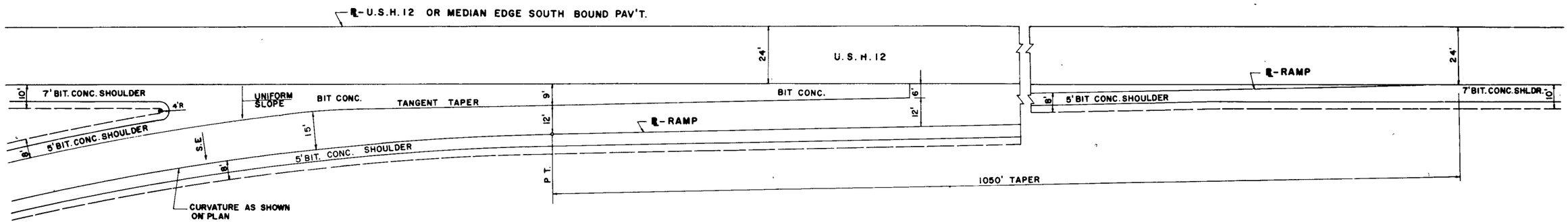
U.S.H. 12 WALWORTH COUNTY

B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.5	41

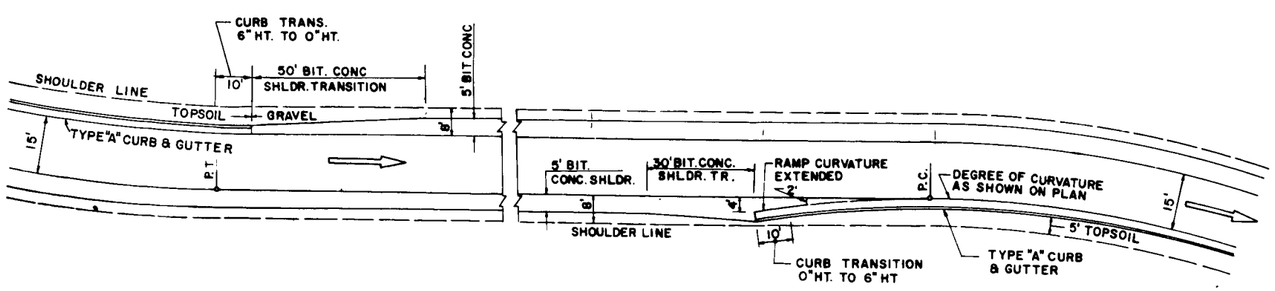
1081-2-61,62



TYPICAL U.S.H.12 EXIT TERMINAL



TYPICAL U.S.H.12 ENTRANCE TERMINAL



TYPICAL EXIT & APPROACH DETAIL FOR CURBED RAMP SECTION

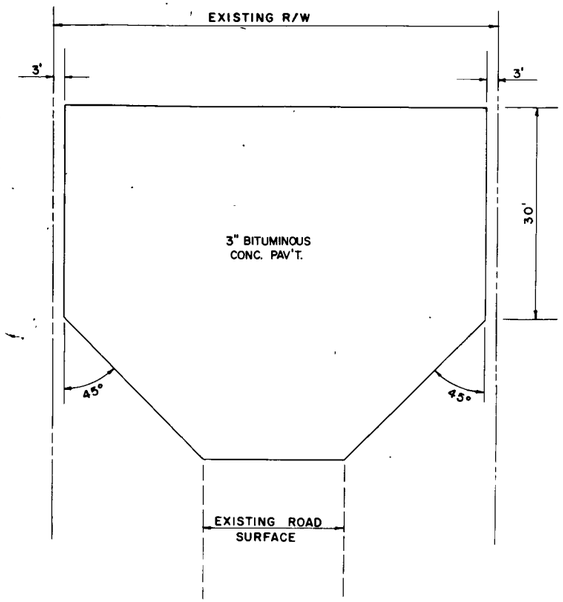
CONSTRUCTION DETAILS
FOR
INTERCHANGE RAMPS

GENOA CITY-ELKHORN ROAD

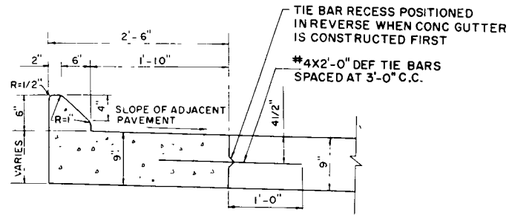
U.S. H. 12 WALWORTH COUNTY

B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.6	41

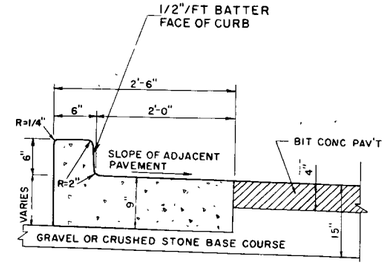
1081-2-81,82



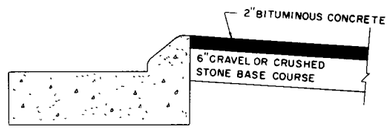
TYPICAL CUL-DE-SAC DETAILS FOR KRUEGER ROAD



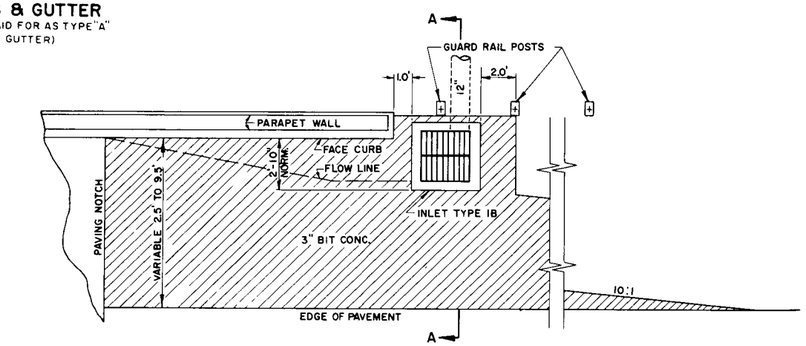
TYPE "G" (MODIFIED)
CONCRETE CURB & GUTTER
(TO BE MEASURED AND PAID FOR AS TYPE "G" CONCRETE CURB & GUTTER)



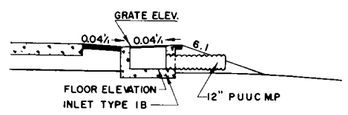
TYPE "A" (MODIFIED)
CONCRETE CURB & GUTTER
(TO BE MEASURED AND PAID FOR AS TYPE "A" CONCRETE CURB & GUTTER)



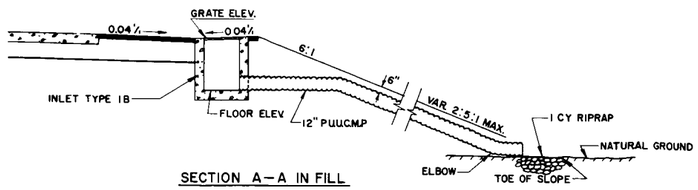
ISLAND DETAILS



PLAN VIEW

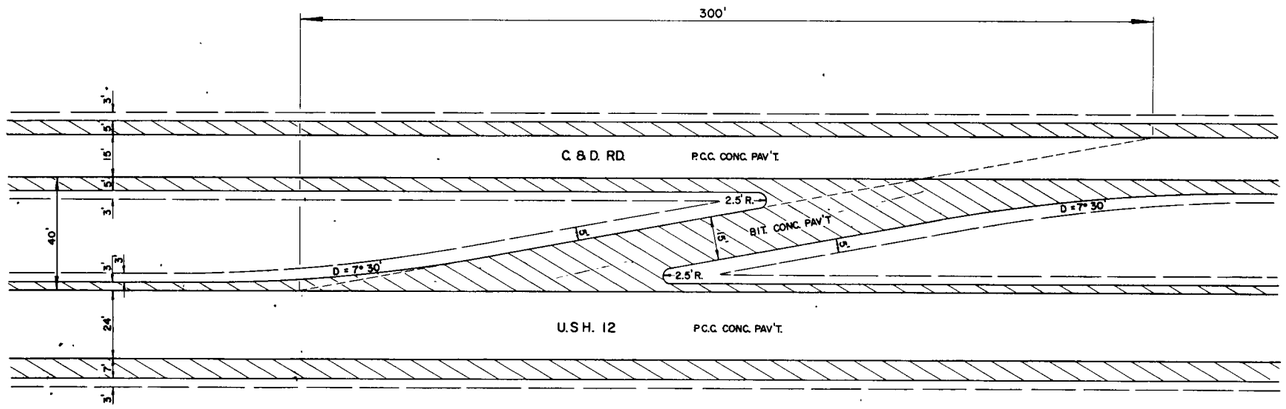


SECTION A-A IN CUT



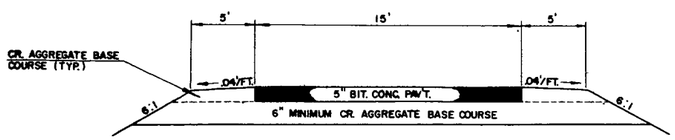
SECTION A-A IN FILL

DETAIL OF BRIDGE APPROACH INLET



TEMPORARY CROSS-OVER PLAN DETAIL
NOT TO SCALE

BIT. CONC. PAV'T.



TYPICAL TEMPORARY CROSS-OVER SECTION

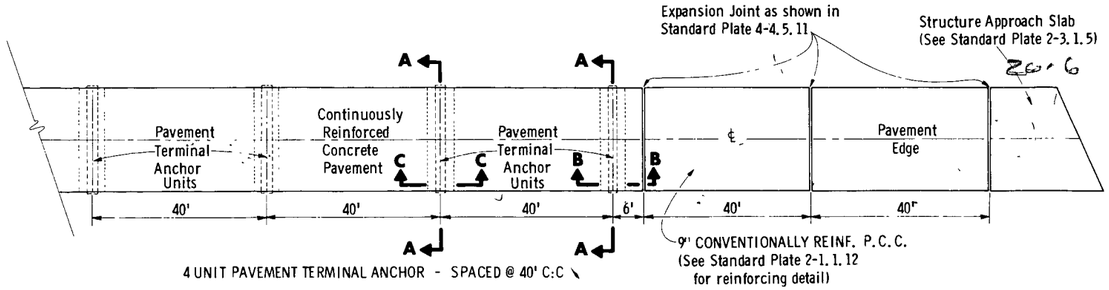
CONSTRUCTION DETAILS
FOR

GENOA CITY-ELKHORN ROAD

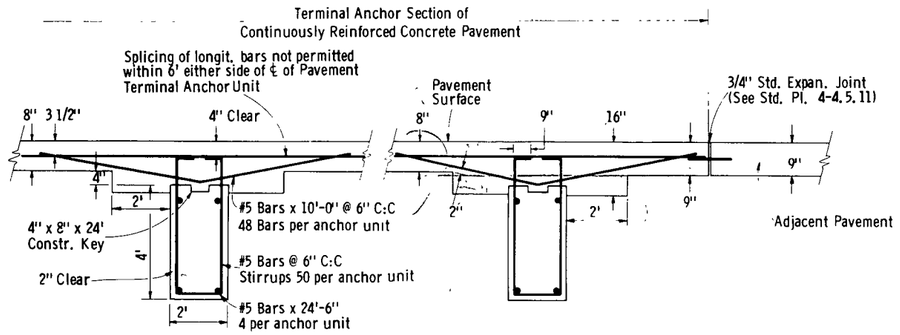
U. S. H. 12 WALWORTH COUNTY

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
1081-2-81,82		
FEDERAL PROJECT DESIGNATION F04-1(21)	2.7	41

DETAILS FOR CONTINUOUSLY REINFORCED CONCRETE PAVEMENT



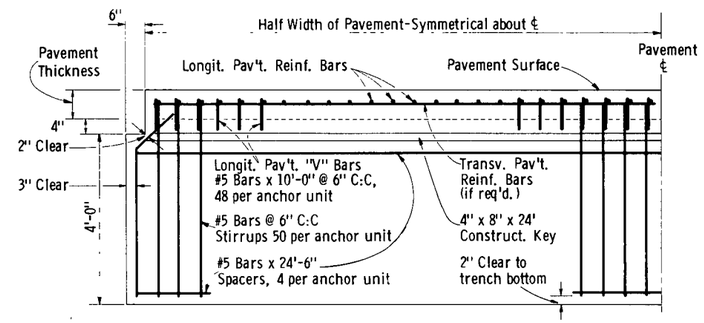
PAVEMENT TERMINAL ANCHOR



SECTION C-C

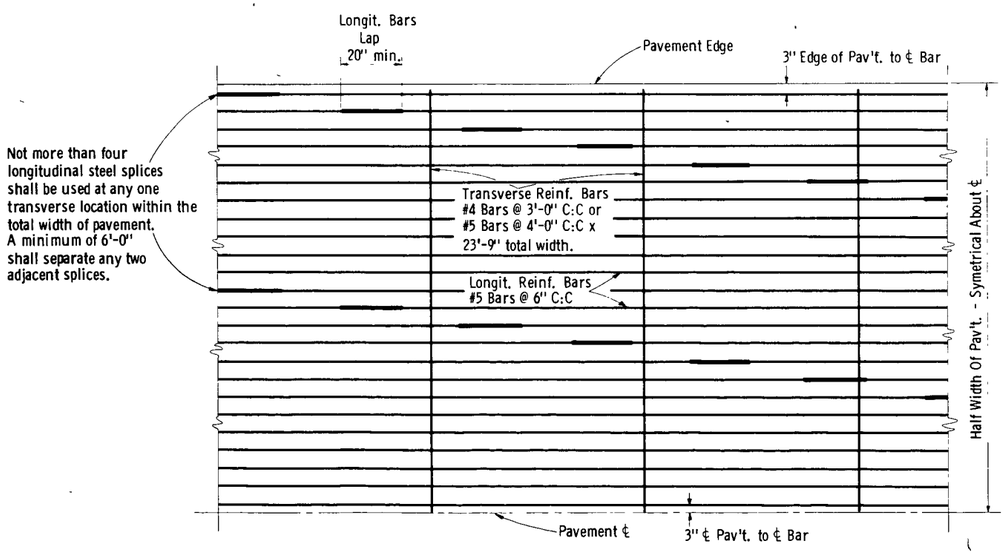
SECTION B-B

SIDE ELEVATION

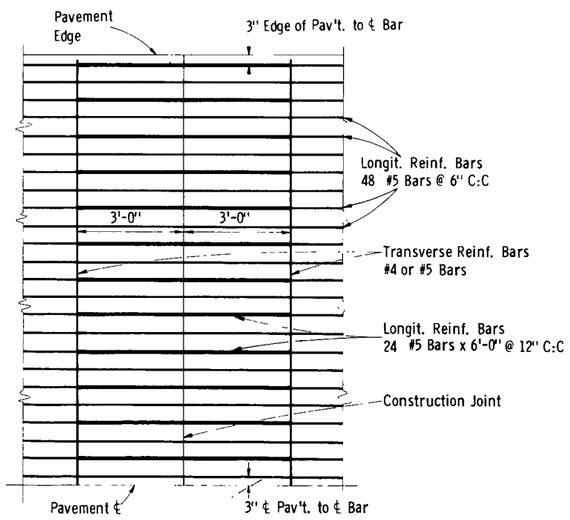


SECTION A-A

PAVEMENT TERMINAL ANCHOR UNIT DETAILS



REINFORCEMENT STEEL PLACEMENT TOTAL WIDTH CONSTRUCTION



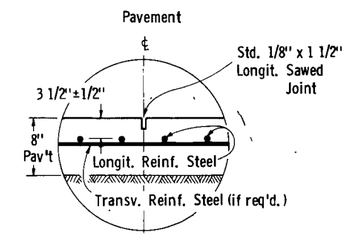
CONSTRUCTION JOINT PLAN VIEW

(Half Width of Pavement)

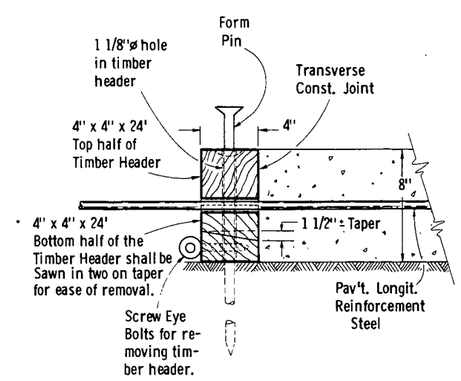
GENERAL NOTES

The Bid Item "Pavement Terminal Anchor" shall include the total quantities of concrete and reinforcing steel, including the "V" shaped bent bars, extending below the normal 8" concrete pavement used in the four terminal anchor units necessary to terminate continuously reinforced concrete pavements.

Transverse reinforcing bars may be omitted if the longitudinal reinforcing bars can be accurately placed and held there during the placing and setting of the concrete by devices or methods approved by the Engineer. In the case that transverse reinforcing bars are eliminated, longitudinal ℄ joint tie bars shall be accurately installed according to Standard Plate 4-4.4.8, except that tie bars may be placed either above or below the longitudinal reinforcing bars.

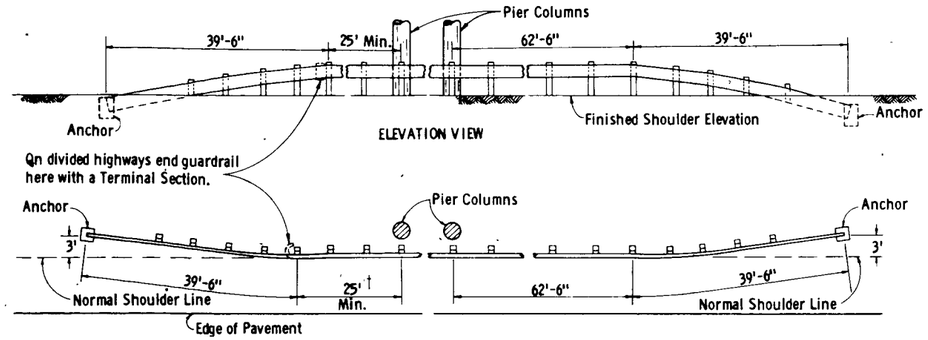


LONGITUDINAL ℄ JOINT DETAILS TOTAL WIDTH CONSTRUCTION

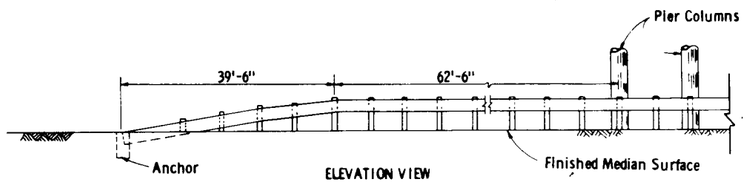


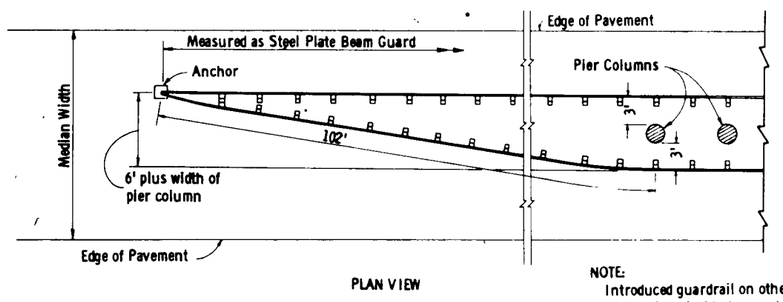
DETAILS OF SPLIT TIMBER TYPE HEADER TO BE USED AT CONSTRUCTION JOINTS

Note: Alternate Type Header installations may be used upon written approval of the Engineer.



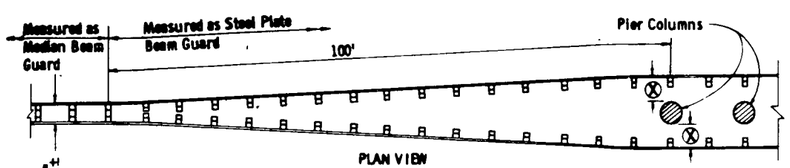
RIGHT SHOULDER GUARDRAIL



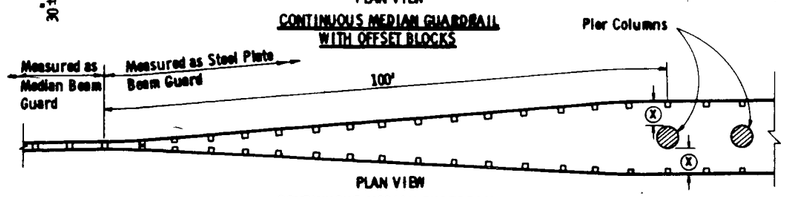


NOTE:
Introduced guardrail on other side of structure identical but curved in reverse direction.

INTRODUCED MEDIAN GUARDRAIL



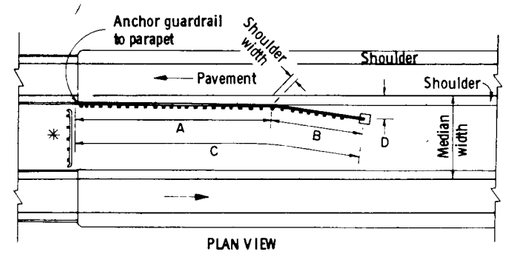
CONTINUOUS MEDIAN GUARDRAIL WITH OFFSET BLOCKS



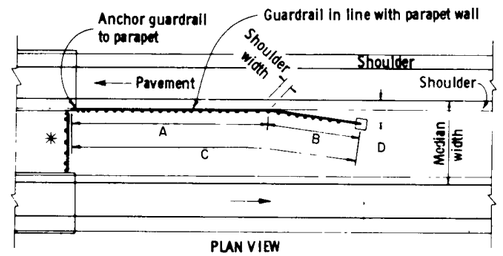
CONTINUOUS MEDIAN GUARDRAIL WITHOUT OFFSET BLOCKS

ⓧ Min. distance necessary to clear pier column.

TYPICAL INSTALLATION AT UNDERPASS STRUCTURES



ROADWAY WIDTH GREATER THAN STRUCTURE WIDTH

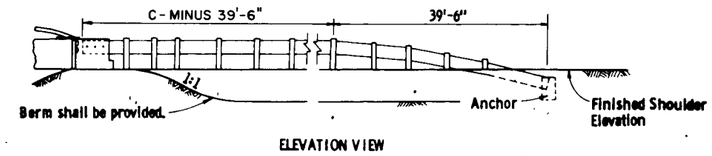


ROADWAY WIDTH EQUAL TO STRUCTURE WIDTH

STRUCTURE	A	B	C	D
B-64-41	201	177	378	20
B-64-42	201	102	303	14
B-64-43	201	102	303	14
B-64-44	201	102	303	14
B-64-46	201	102	303	14
B-64-47	201	177	378	20
B-64-32	201	102	303	14
B-64-33	201	102	303	14
B-64-35	138	65	203	14
B-64-36	225	65	290	14

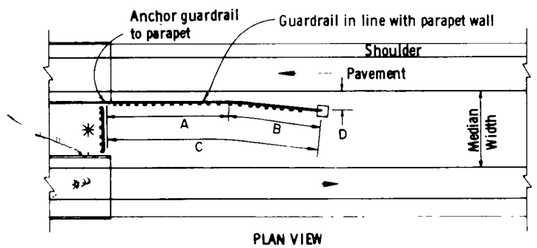
BPR REGION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.8	41

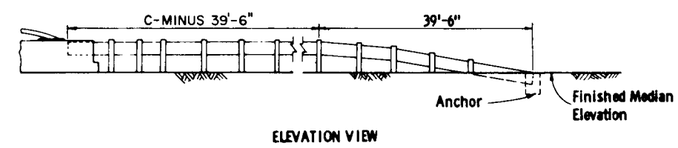
1081-2-81,82



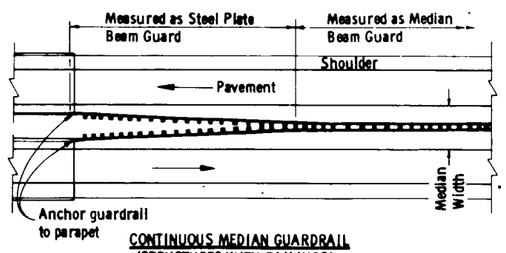
* Place fence behind guardrail if fencing is required. Top of fence and guardrail shall be at the same elevation. Guardrail between the structures shall have 6'-3" post spacing with Terminal End Sections.

DEPRESSED MEDIAN

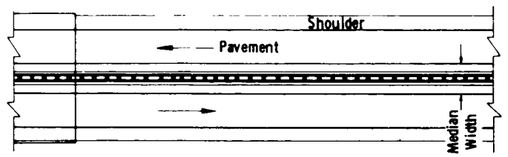




RAISED MEDIAN



CONTINUOUS MEDIAN GUARDRAIL (STRUCTURES WITH RAILINGS)



CONTINUOUS MEDIAN GUARDRAIL (MEDIAN CARRIED ACROSS STRUCTURE)

TYPICAL INSTALLATION AT OVERPASS STRUCTURES

GENERAL NOTES

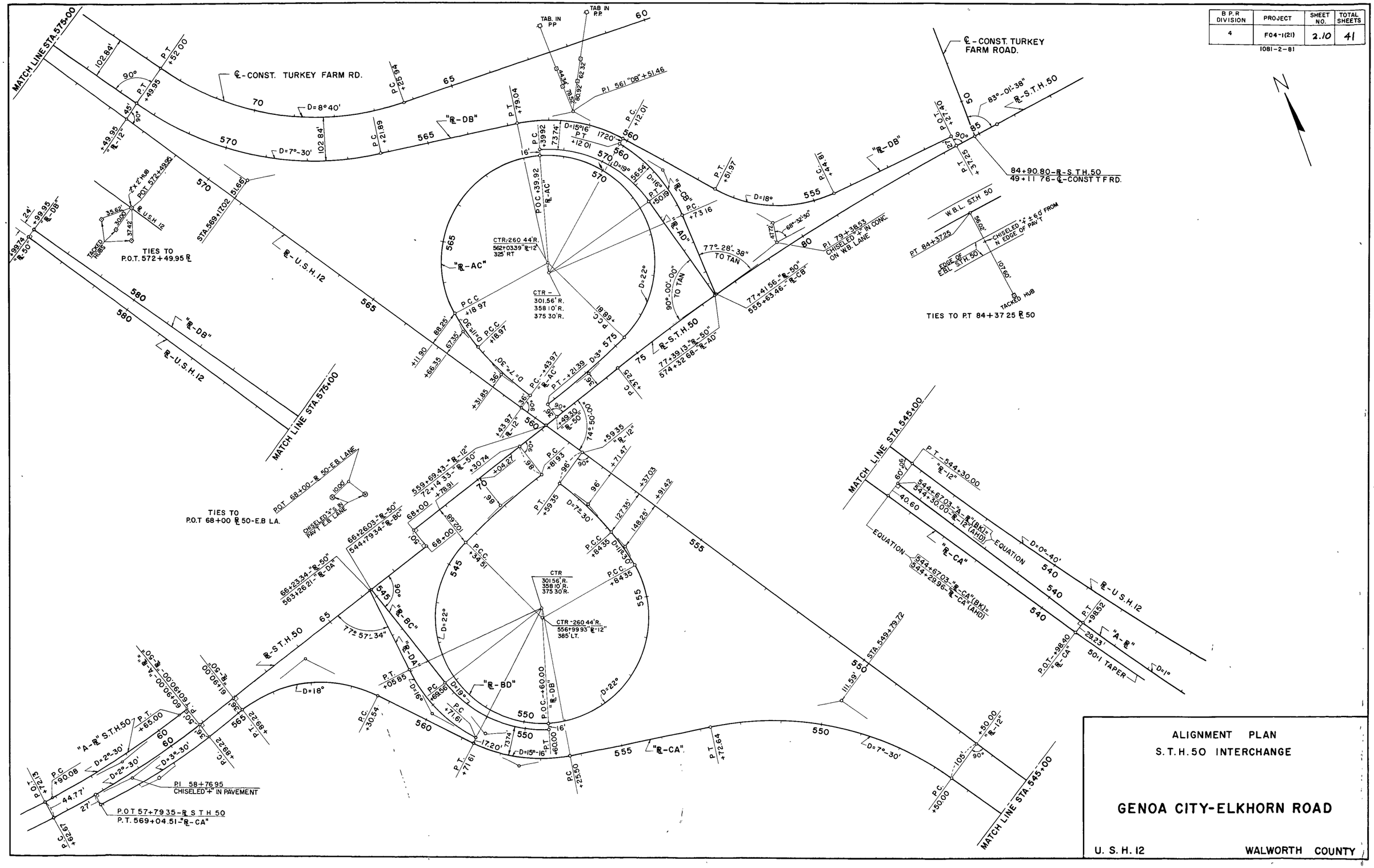
Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, Applicable Special Provisions, and the Standard Detail Drawing for Steel Plate Beam Guard and Steel Plate Beam (Median) Guard.

Post-Footing Detail at Piers shall be used when guardrail posts are over structure footings and less than 3'-6" of earth is provided over the top of the footing.

DETAILS FOR STEEL PLATE BEAM GUARD AND STEEL PLATE BEAM (MEDIAN) GUARD

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	2.10	41

1081-2-81



ALIGNMENT PLAN

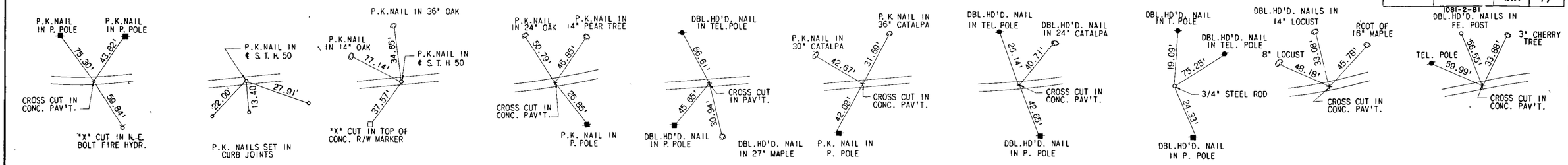
S.T.H. 50 INTERCHANGE

GENOA CITY-ELKHORN ROAD

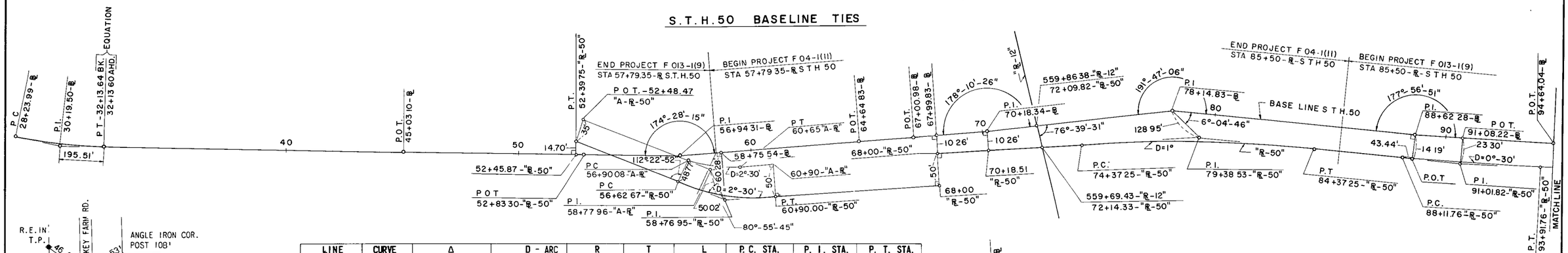
U.S.H. 12 WALWORTH COUNTY

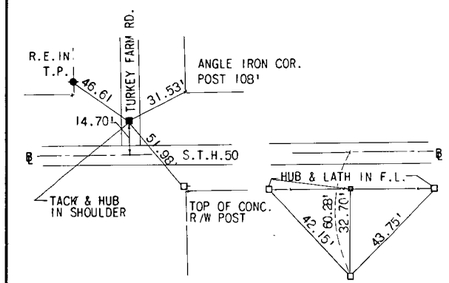
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	2.11	41

1081-2-81

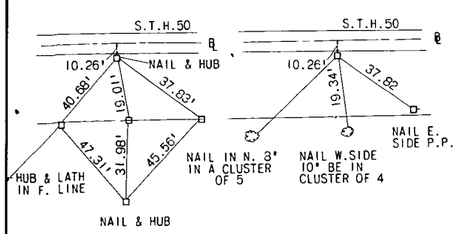


S.T.H.50 BASELINE TIES





P.T. STA. 52+39.75 P.I. STA. 58+76.95

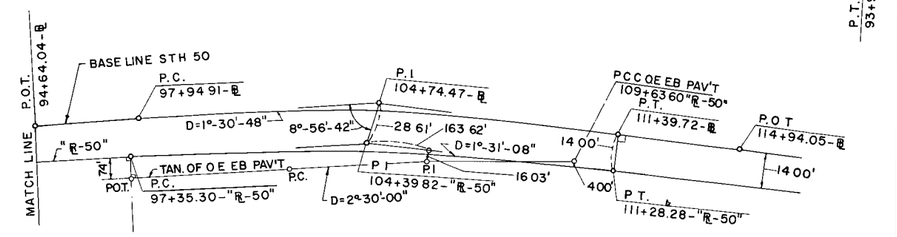


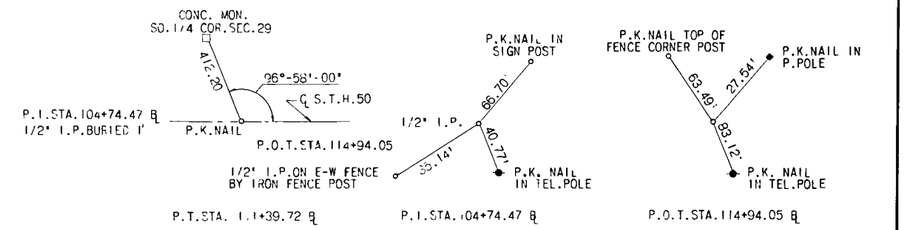
P.O.T.STA. 68+00.00 P.O.T.STA.70+18.51

S.T.H. 50 ℄ TIES

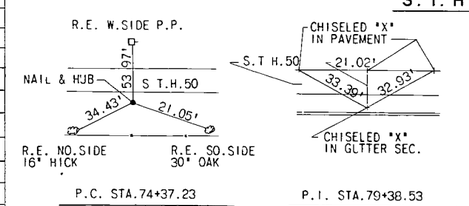
LINE	CURVE	Δ	D - ARC	R	T	L	P. C. STA.	P. I. STA.	P. T. STA.
℄ - CA	1	46°-41'-54"	7°-30'-00"	763.94	329.78	622.64	546+50.00	549+79.78	552+72.64
℄ - CA	2	37°-34'-22"	15°-16'-00"	375.30	127.66	246.11	556+25.50	557+53.16	558+71.61
℄ - CA	3	64°-33'-43"	18°-00'-00"	318.31	201.08	358.68	561+30.54	563+31.62	564+89.22
℄ - CA	4	10°-56'-50"	3°-30'-00"	1637.02	156.87	312.78	565+89.22	567+46.09	569+02.00
℄ - DA		37°-28'-43"	16°-00'-00"	358.10	121.48	234.24	558+71.61	559+93.09	561+05.85
℄ - BD	1	7°-34'-38"	3°-00'-00"	1909.86	126.47	252.58	541+81.93	543+08.41	544+34.51
℄ - BD	2	252°-57'-52"	22°-00'-00"	260.44	-	1149.84	544+34.51	-	555+84.35
℄ - BD	3	11°-30'-00"	11°-30'-00"	498.22	50.17	100.00	555+84.35	556+34.52	556+84.35
℄ - BD	4	13°-07'-30"	7°-30'-00"	763.94	87.88	175.00	556+84.35	557+72.23	558+59.35
℄ - BC		55°-11'-00"	19°-00'-00"	301.56	157.59	290.44	547+69.56	549+27.15	550+60.00
℄ - AC	1	13°-07'-30"	7°-30'-00"	763.94	87.88	175.00	560+43.97	561+31.85	562+18.97
℄ - AC	2	11°-30'-00"	11°-30'-00"	498.22	50.17	100.00	562+18.97	562+69.14	563+18.97
℄ - AC	3	252°-57'-52"	22°-00'-00"	260.44	-	1149.84	563+18.97	-	574+68.81
℄ - AC	4	7°-34'-38"	3°-00'-00"	1909.86	126.47	252.58	574+68.81	575+95.28	577+21.39
℄ - AD		58°-57'-08"	19°-00'-00"	301.56	170.44	310.27	568+39.92	570+10.36	571+50.19
℄ - DB	1	55°-17'-18"	18°-00'-00"	318.31	166.72	307.16	554+44.81	556+11.53	557+51.97
℄ - DB	2	40°-46'-00"	15°-16'-00"	375.30	139.45	267.03	560+12.01	561+51.46	562+79.04
℄ - DB	3	47°-06'-14"	7°-30'-00"	763.94	333.00	628.06	566+21.89	569+54.89	572+49.95
℄ - CB		38°-12'-57"	16°-00'-00"	358.10	124.06	238.85	557+73.16	558+97.22	560+12.01
S.T.H. 50									
℄ - E.B.	1	8°-45'-00"	2°-30'-00"	2291.83	175.34	350.00	49+89.75	50+65.09	52+39.75
℄ - E.B.	2	10°-41'-00"	2°-30'-00"	2291.83	214.29	427.33	56+62.67	58+76.95	60+90.00
A-℄ W.B.	3	9°-22'-23"	2°-30'-00"	2291.83	187.88	374.92	56+90.08	58+77.96	60+65.00
℄ - W.B.	4	10°-00'-00"	1°-00'-00"	5729.58	501.27	1000.00	74+37.25	79+38.53	84+37.25
℄ - W.B.	5	2°-54'-00"	0°-30'-00"	11459.16	290.06	580.00	88+11.76	91+01.82	93+91.76
℄ - W.B.	6	21°-09'-26"	1°-31'-08"	3772.33	704.52	1392.98	97+35.30	104+39.82	111+28.28
O.E. EAST END E.B.	7	18°-39'-21"	2°-30'-00"	2291.83	376.45	746.23			

NOTE: FOR SUPERELEVATIONS SEE PROFILES





S. T. H. 50 BASELINE TIES



S.T.H. 50 ℄ TIES

ALIGNMENT PLAN

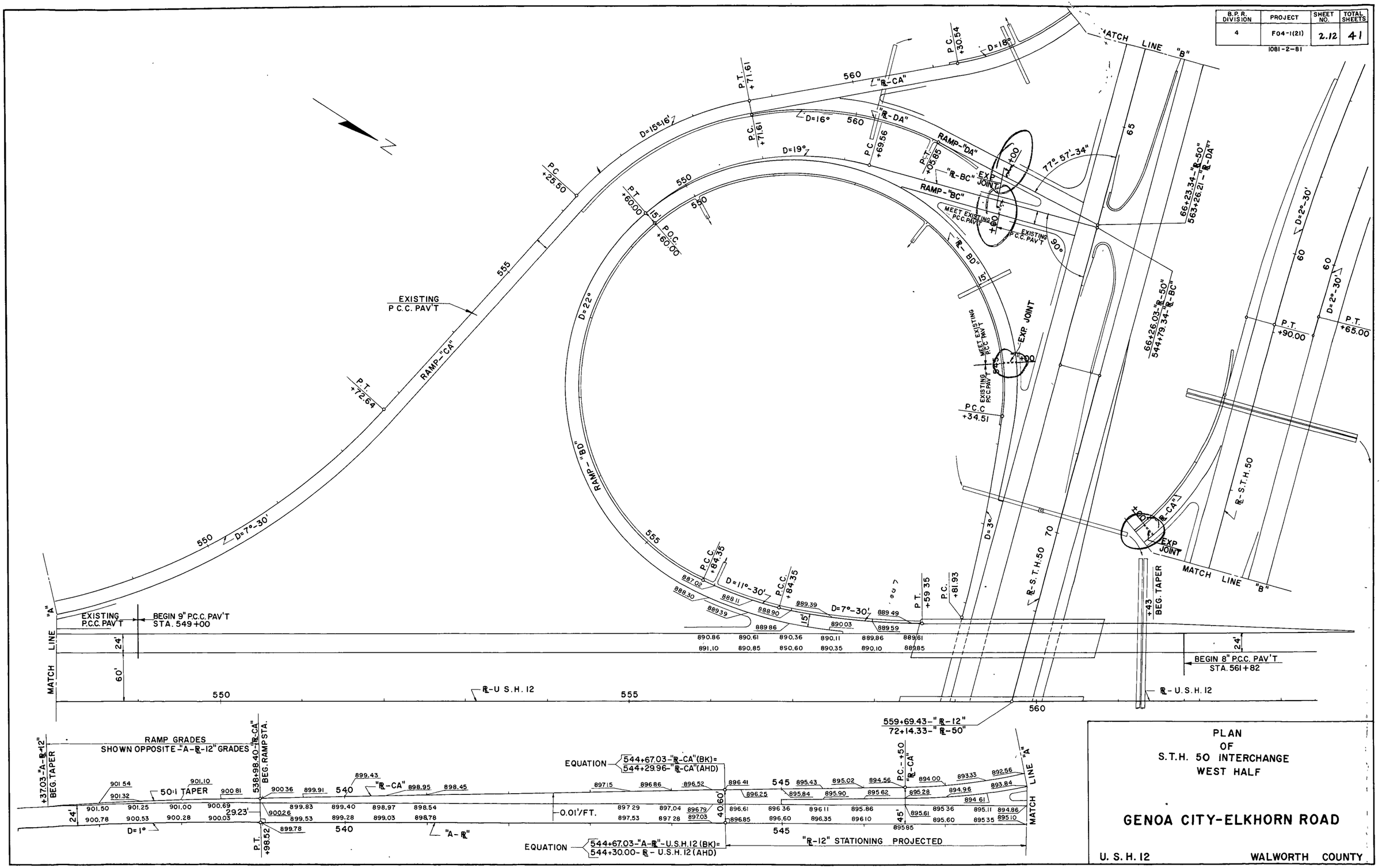
S.T.H. 50 INTERCHANGE

GENOA CITY-ELKHORN ROAD

U. S. H. 12 WALWORTH COUNTY

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	2.12	41

1081-2-81

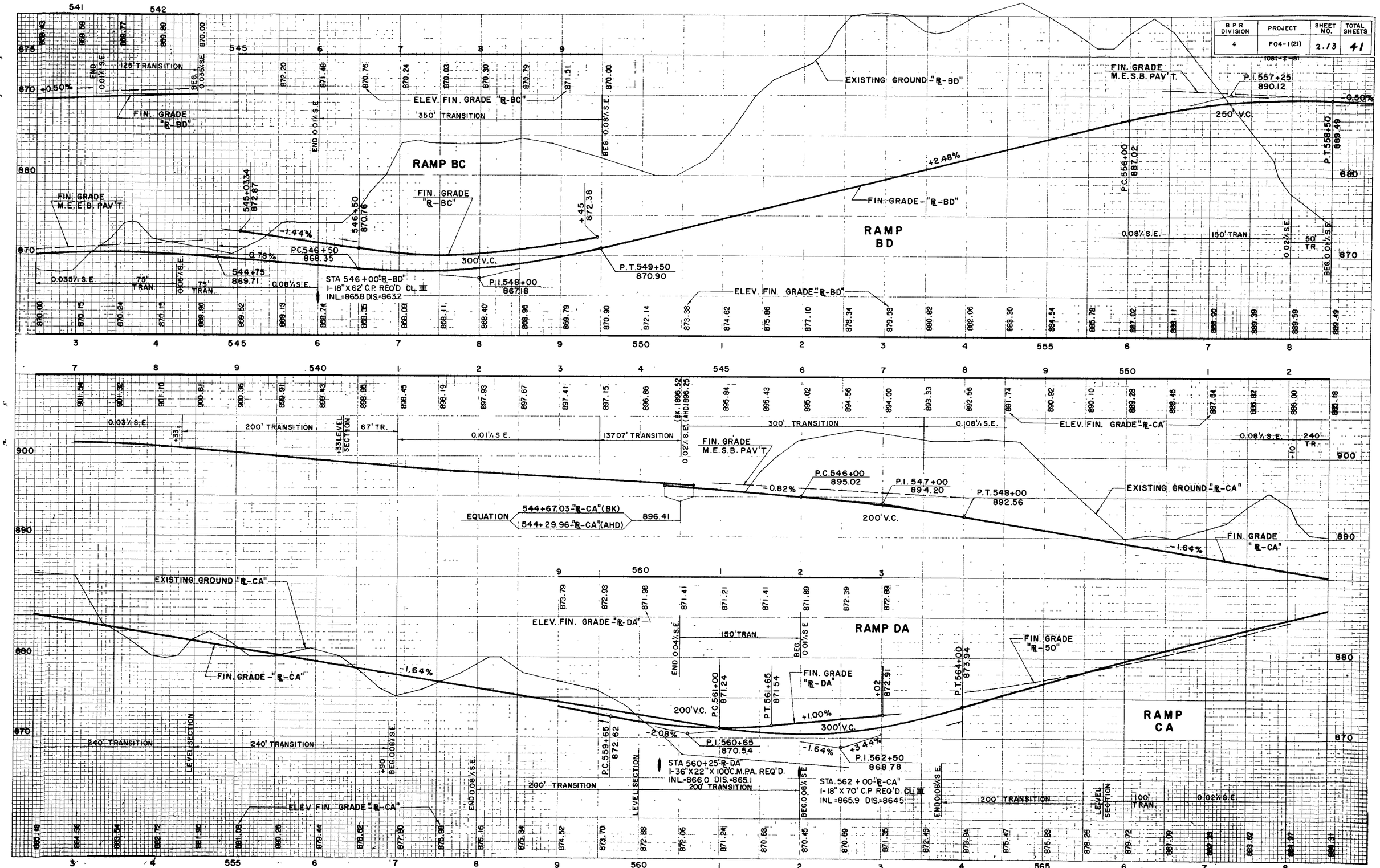


PLAN
OF
S.T.H. 50 INTERCHANGE
WEST HALF

GENOA CITY-ELKHORN ROAD

U. S. H. 12 WALWORTH COUNTY

B P R DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21) 1081-2-81	2.13	41

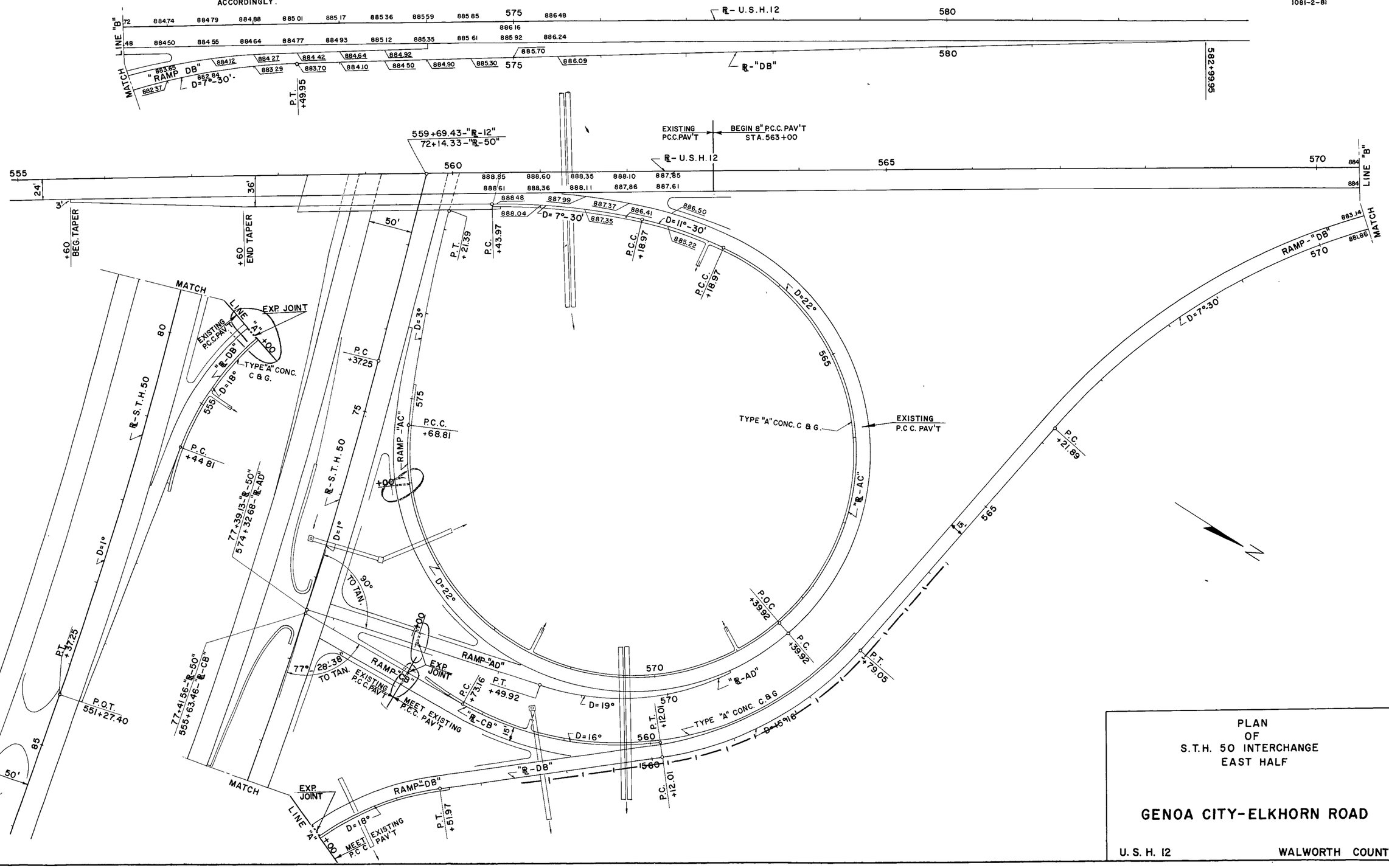


RAMP PROFILES S.T.H. 50 INTERCHANGE WEST HALF

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	2.14	41

1081-2-81

NOTE: MAINLINE PAVING GRADES SHOWN FROM STA. 570+50 TO 575+50 N.B. ARE 1" ABOVE FINISHED GRADE-ADJUST RAMP "DB" GRADES FROM STA. 570+00 TO 583 ACCORDINGLY.



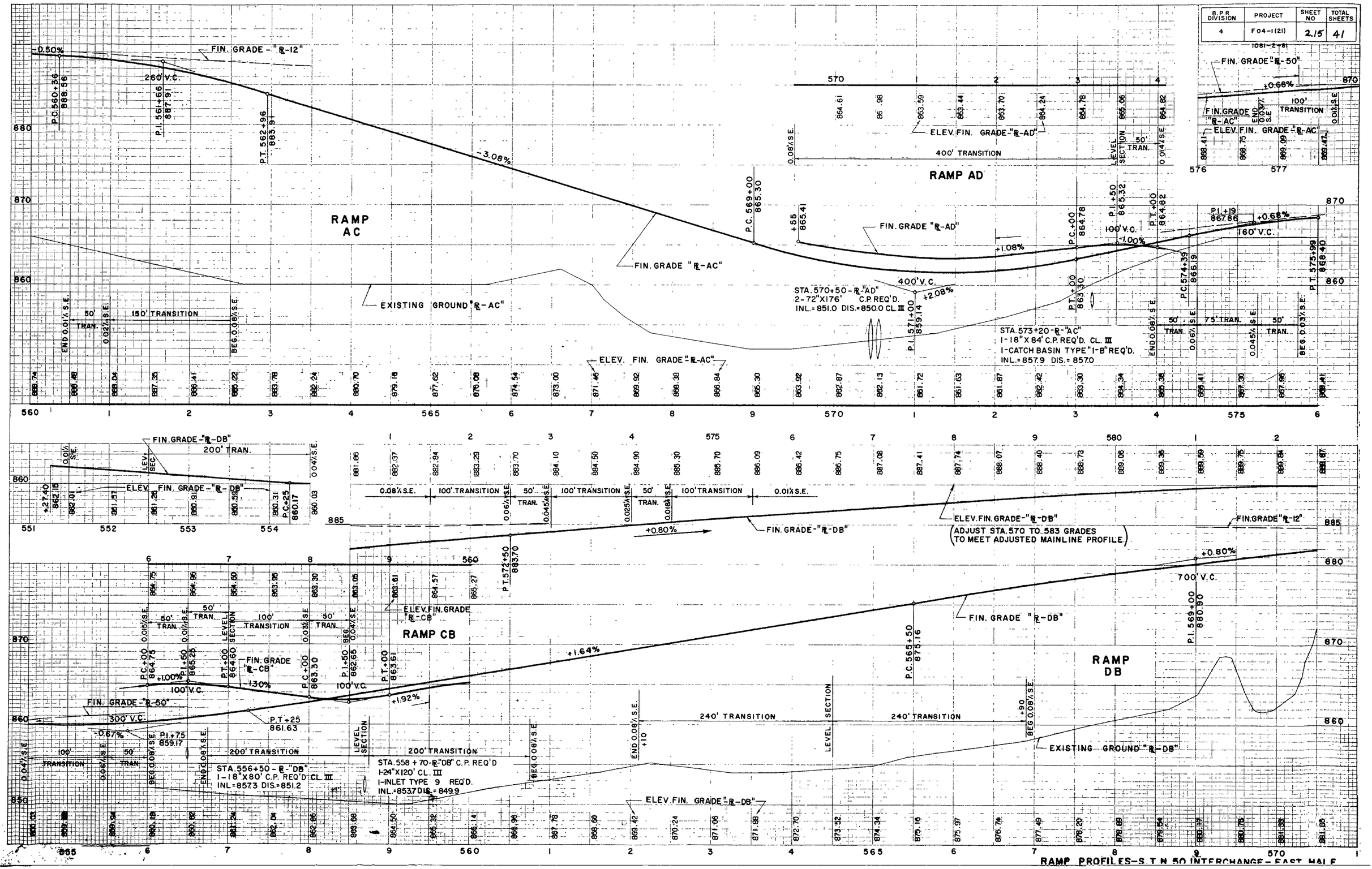
PLAN
OF
S.T.H. 50 INTERCHANGE
EAST HALF

GENOA CITY-ELKHORN ROAD

U. S. H. 12 WALWORTH COUNTY

B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.15	41

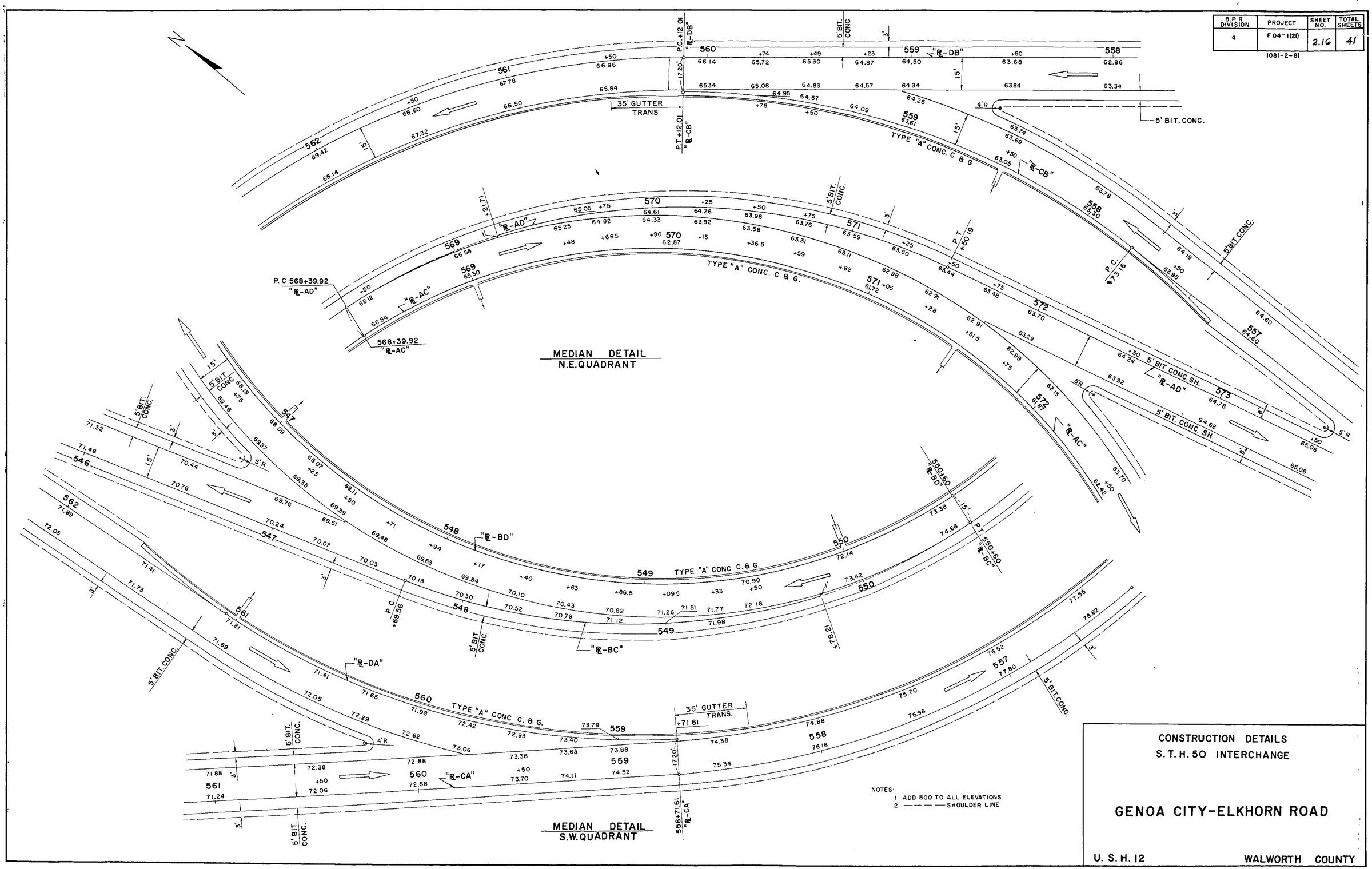
1081-2-81



RAMP PROFILES-S.T.H. 50 INTERCHANGE-EAST HALF

B.P.R DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	2.16	41

1081-2-81



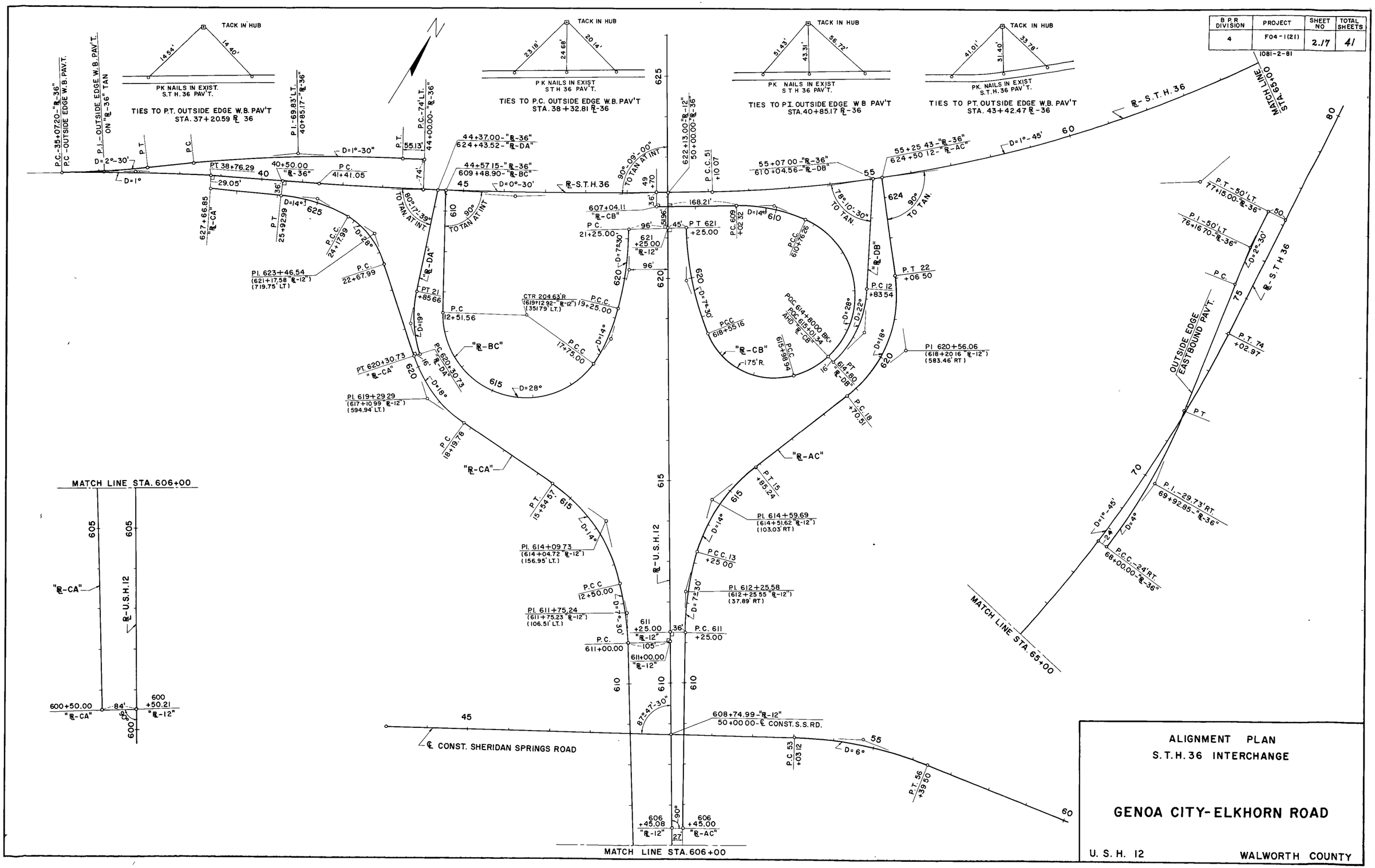
CONSTRUCTION DETAILS
S.T.H. 50 INTERCHANGE

GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

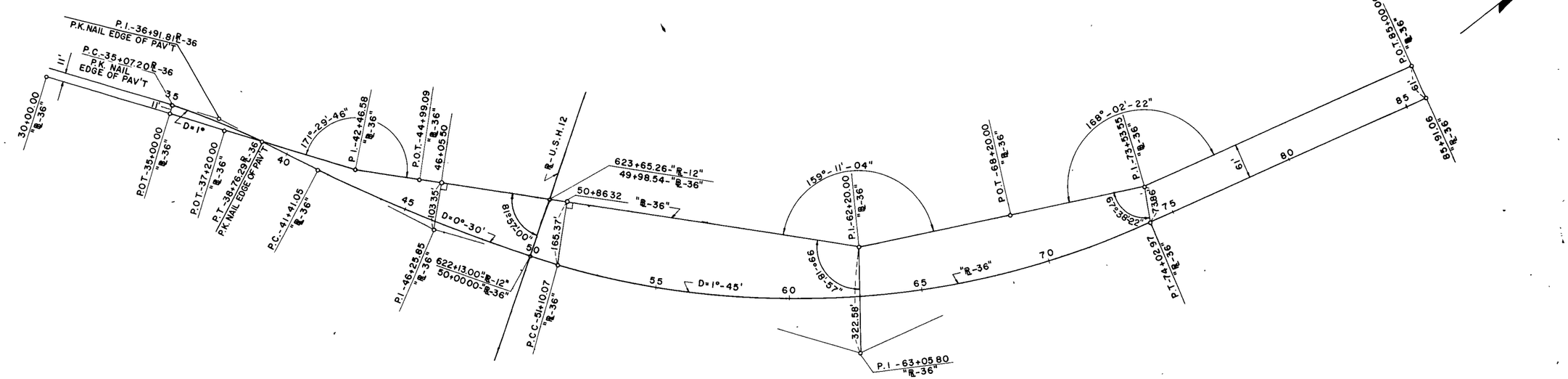
B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.17	41

1081-2-81



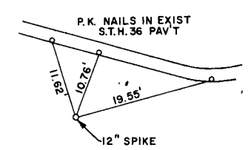
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)		

1081-2-81

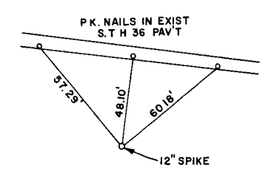


LINE	CURVE	Δ	D*	R	T	L	P.C STA.	P.I. STA	P.T. STA.
℄ - S.T.H. 36	1	3°-41'-27"	1°-00'-00"	5,729.58	184.61	369.09	35+07.20	36+91.81	38+76.29
℄ - S.T.H. 36	2	4°-50'-42"	0°-30'-00"	11,459.16	484.80	969.02	41+41.05	46+25.85	51+10.07
℄ - S.T.H. 36	3	40°-07'-33"	1°-45'-00"	3,274.04	1,195.73	2,292.90	51+10.07	63+05.80	74+02.97
O.E.W.B. PAV'T.	4	5°-20'-05"	2°-30'-00"	2,291.83	106.77	213.39	-	-	-
O.E.W.B. PAV'T.	5	7°-43'-51"	1°-30'-00"	3,819.72	258.09	515.39	-	-	-
O.E.E.B. PAV'T.	6	15°-27'-50"	4°-00'-00"	1,432.39	194.48	386.60	-	-	-
O.E.E.B. PAV'T.	7	4°-54'-43"	2°-30'-00"	2,291.83	98.30	196.48	-	-	-
℄-C A	1	11°-15'-00"	7°-30'-00"	763.94	75.24	150.00	611+00.00	611+75.24	612+50.00
℄-C A	2	42°-38'-24"	14°-00'-00"	409.26	159.73	304.57	612+50.00	614+69.73	615+54.57
℄-C A	3	37°-58'-14"	18°-00'-00"	318.31	109.51	210.95	618+19.78	619+29.29	620+30.73
℄-C A	4	41°-59'-57"	28°-00'-00"	204.63	78.55	150.00	622+67.99	623+46.54	624+17.99
℄-C A	5	24°-30'-00"	14°-00'-00"	409.26	88.86	175.00	624+17.99	625+06.85	625+92.99
℄-D A		29°-26'-10"	19°-00'-00"	301.56	79.21	154.93	620+30.73	621+09.94	621+85.66
℄-B C	1	146°-33'-51"	28°-00'-00"	204.63	681.29	523.44	612+51.56	619+32.85	617+75.00
℄-B C	2	21°-00'-00"	14°-00'-00"	409.26	75.85	150.00	617+75.00	618+50.85	619+25.00
℄-B C	3	15°-00'-00"	7°-30'-00"	763.94	100.58	200.00	619+25.00	620+25.58	621+25.00
℄-C B	3	83°-53'-20"	——	175.00	——	256.22	615+98.94	——	618+55.16
℄-C B	1	24°-21'-05"	14°-00'-00"	409.26	88.30	173.94	609+02.32	609+90.62	610+76.26
℄-C B	2	140°-22'-33"	28°-00'-00"	204.63	-	501.34	610+76.26	-	615+98.94
℄-C B	4	20°-14'-17"	7°-30'-00"	763.94	136 34	269.84	618+55.16	619+91.00	621+25.00
℄-D B		43°-13'-18"	22°-00'-00"	260.44	103.17	196.46	612+83.54	613+86.71	614+80.00
℄-A C	1	15°-00'-00"	7°-30'-00"	763.94	100.58	200.00	611+25.00	612+25.58	613+25.00
℄-A C	2	36°-26'-01"	14°-00'-00"	409.26	134.69	260.24	613+25.00	614+59.69	615+85.24
℄-A C	3	60°-28'-38"	18°-00'-00"	318.31	185.55	335.99	618+70.51	620+56.06	622+06.50

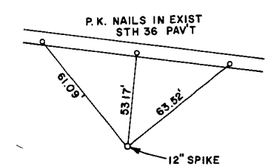
*ARC DEFINITION



P.C. STA. 41+41.05



P.I. S.T.H. 46+25.85



P.C.C. STA. 51+10.07

S.T.H. 36 ℄ TIES

Δ = 20° 48' 56"

11° 57' 38"

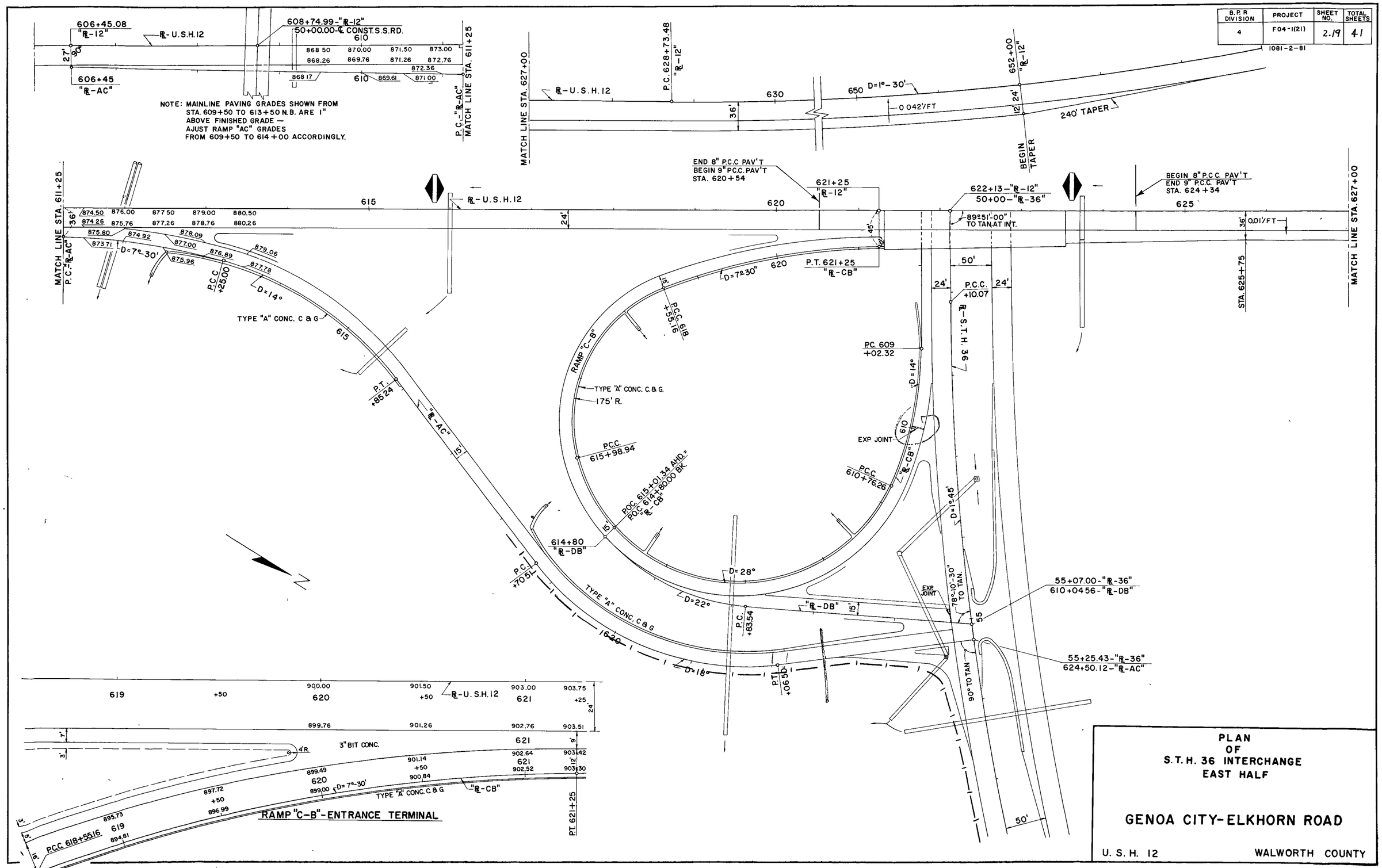
ALIGNMENT PLAN
S.T.H 36 INTERCHANGE

GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	2.19	41

1081-2-81



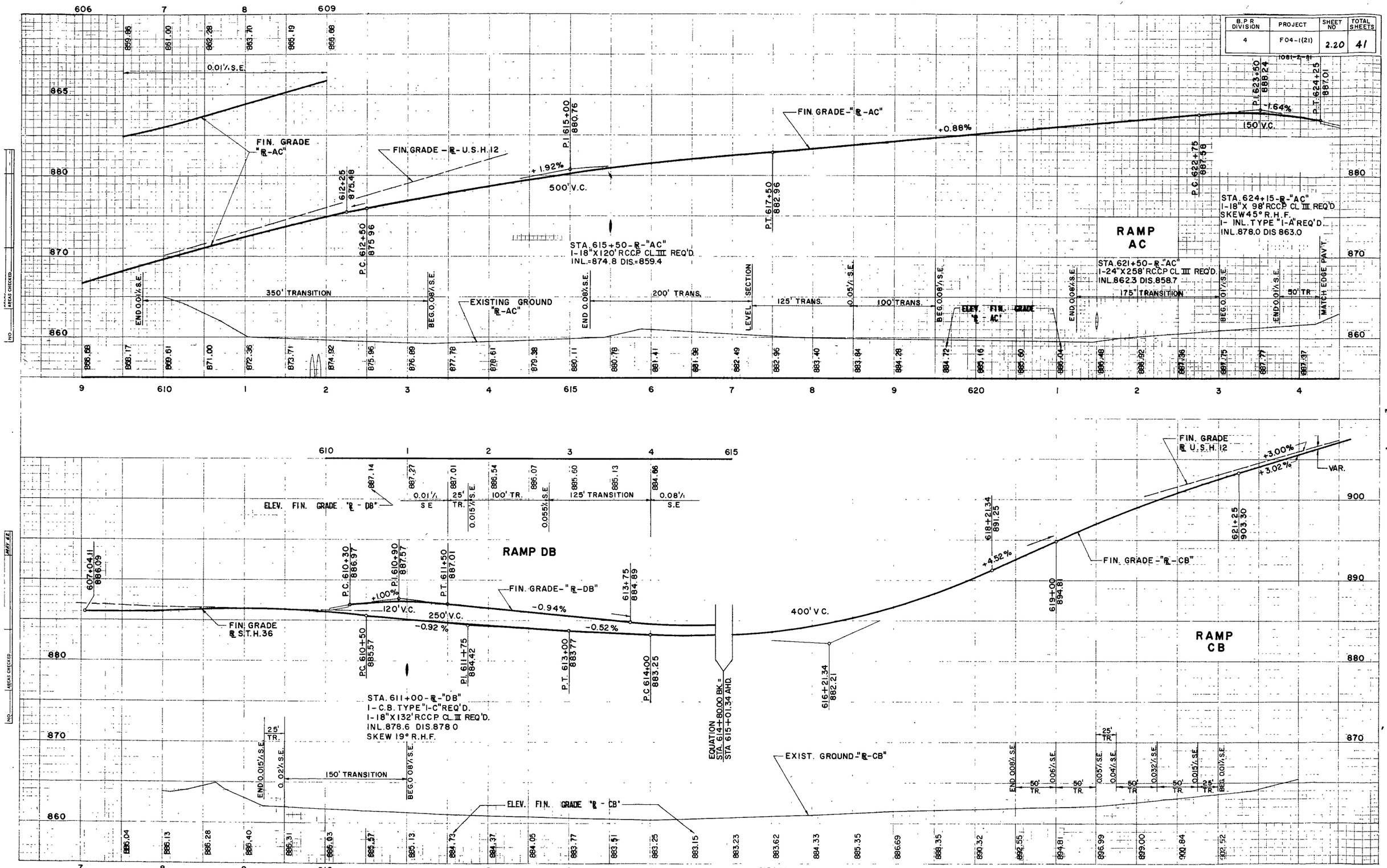
PLAN
OF
S.T.H. 36 INTERCHANGE
EAST HALF

GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.20	41

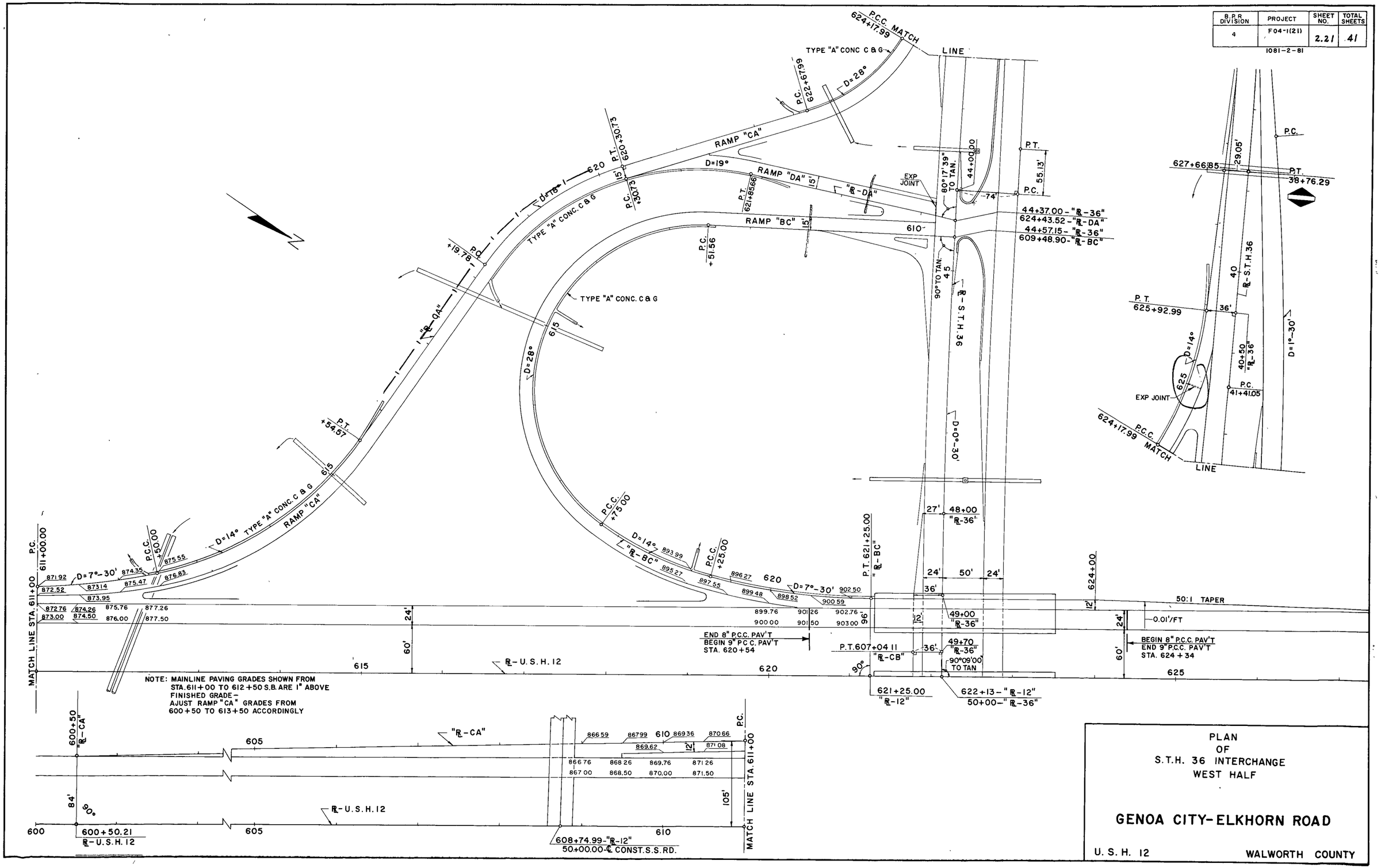
1081-2-81



RAMP PROFILES - S.T.H. 36 INTERCHANGE - EAST HALF

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	2.21	41

1081-2-81

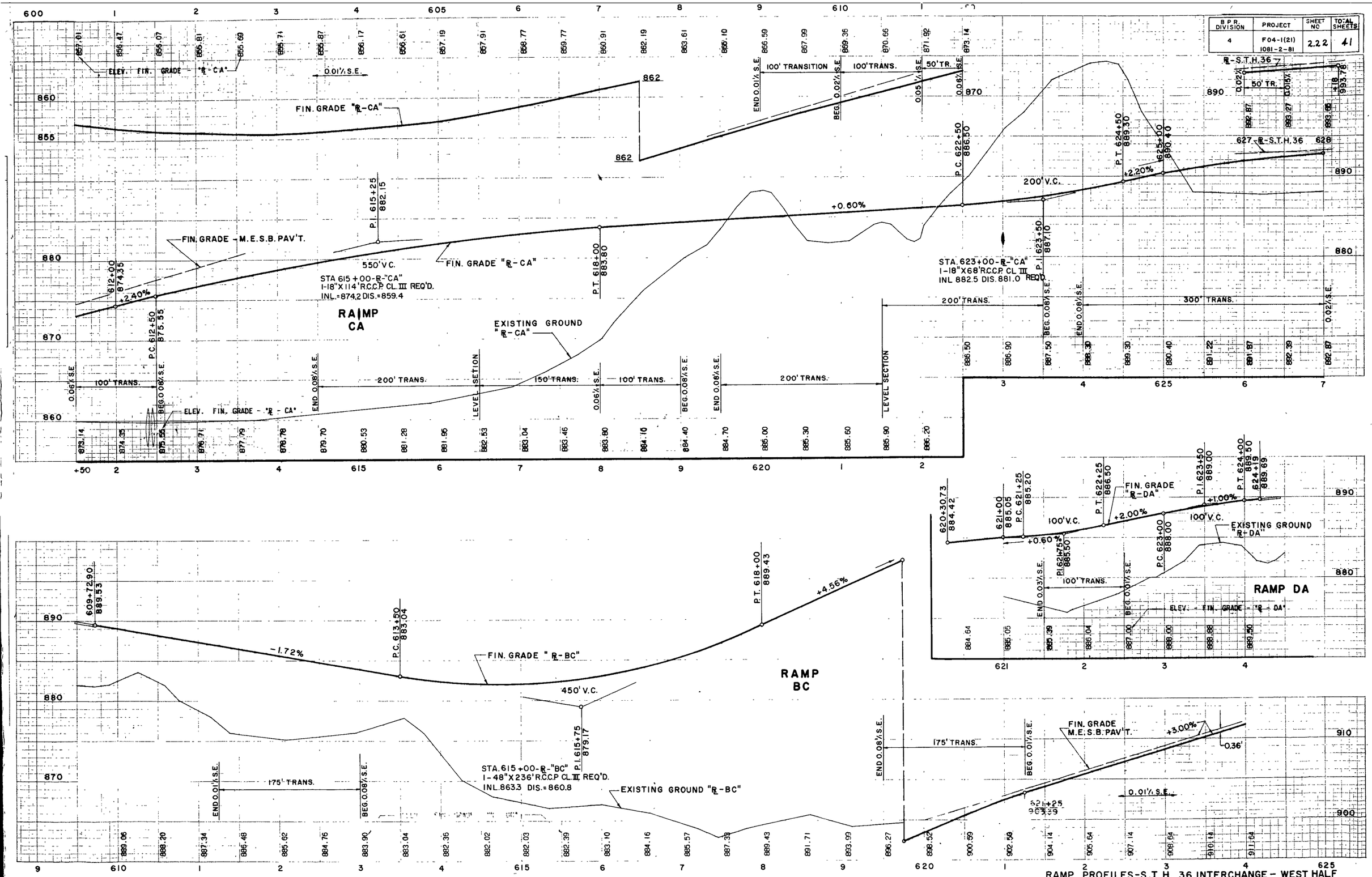


PLAN
OF
S.T.H. 36 INTERCHANGE
WEST HALF

GENOA CITY-ELKHORN ROAD

U. S. H. 12 WALWORTH COUNTY

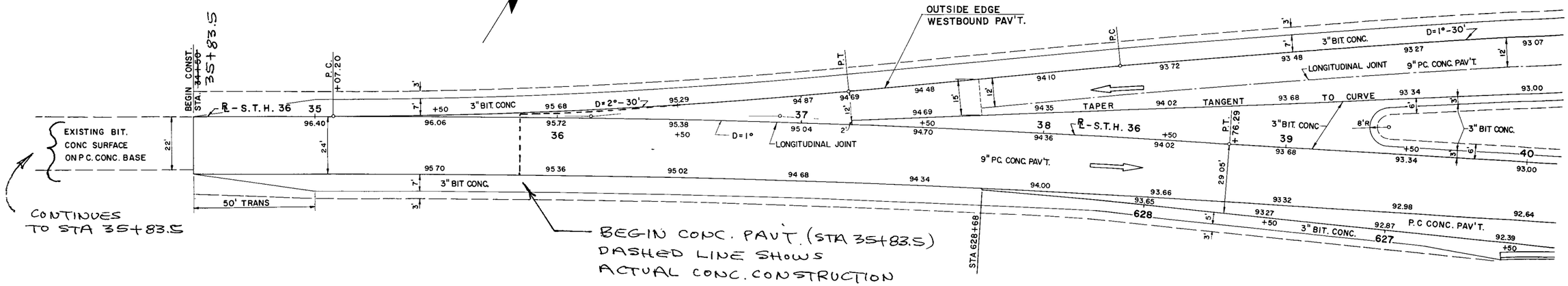
B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21) 1081-2-81	222	41

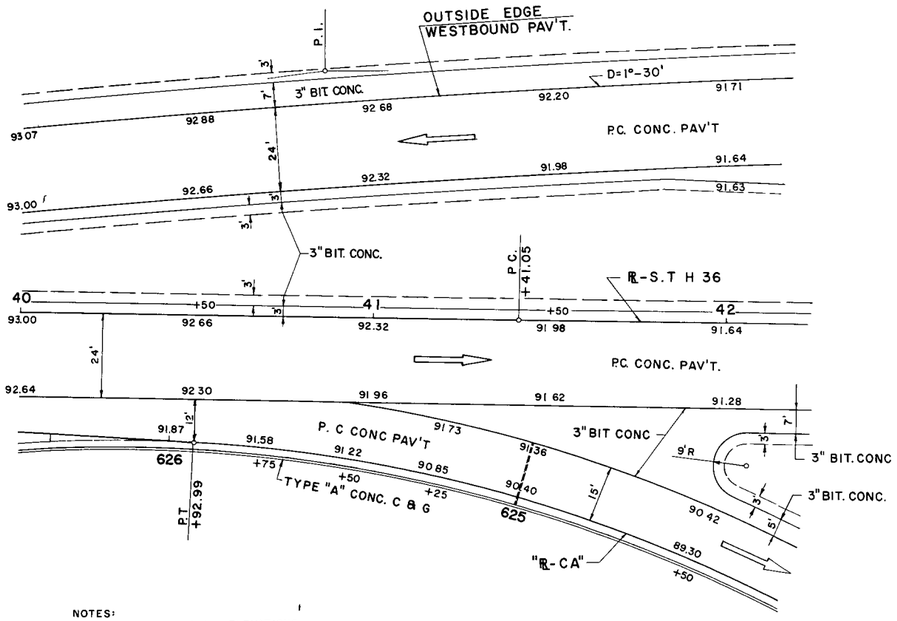


RAMP PROFILES-S.T.H. 36 INTERCHANGE - WEST HALF

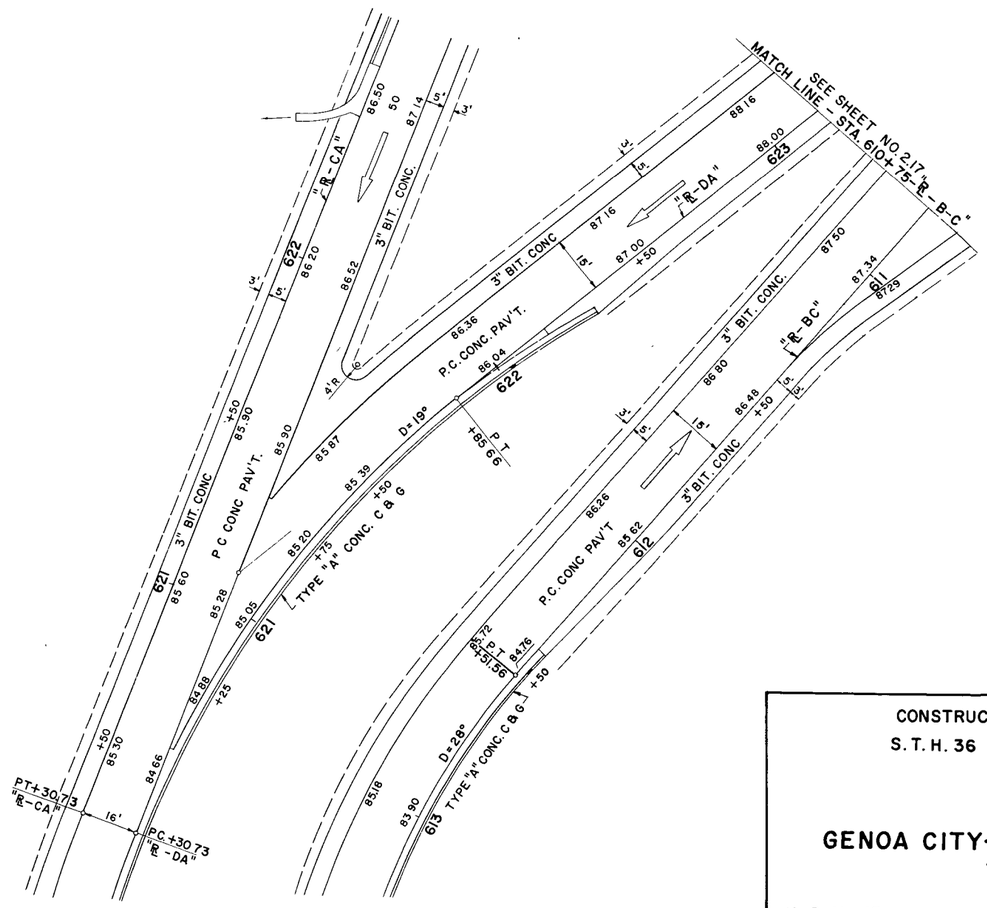
B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.23	41

1081-2-81





NOTES:
1 ADD 800 TO ALL ELEVATIONS
2 ——— SHOULDER LINE
3 - - - - - - EXPANSION JOINT



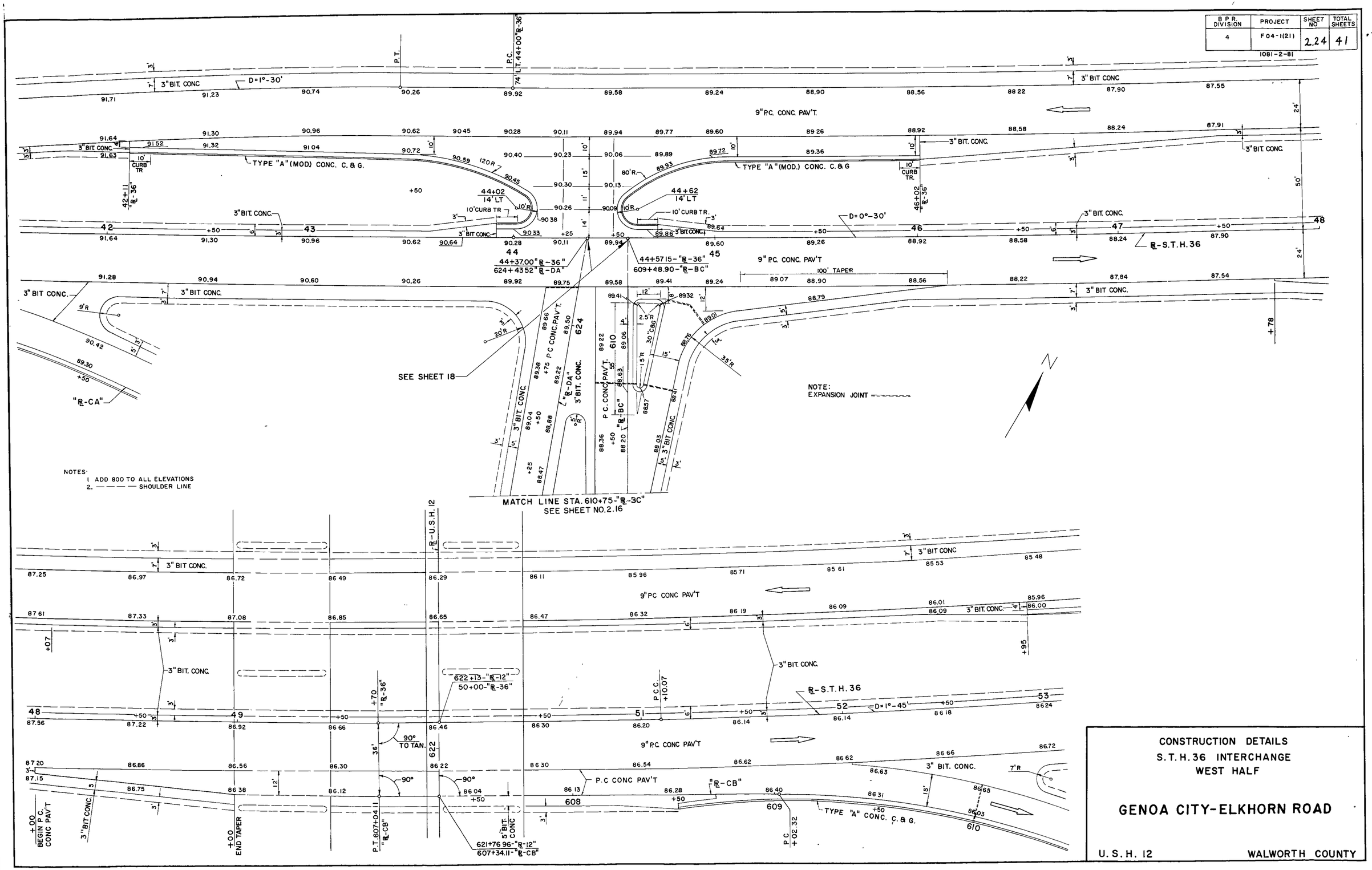
CONSTRUCTION DETAILS
S.T.H. 36 INTERCHANGE

GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.24	41

1081-2-81



NOTES:
1. ADD 800 TO ALL ELEVATIONS
2. — — — — SHOULDER LINE

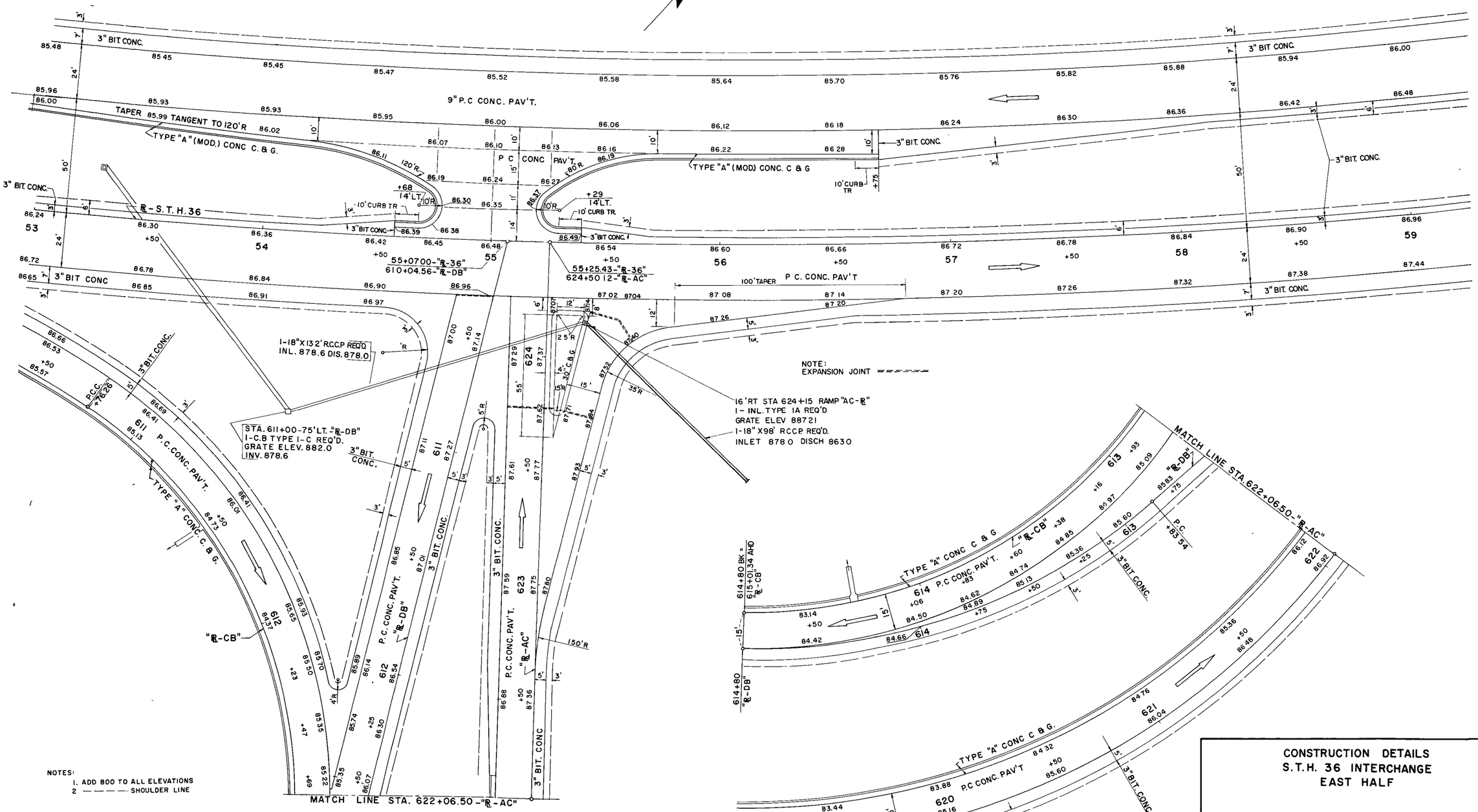
CONSTRUCTION DETAILS
S.T.H. 36 INTERCHANGE
WEST HALF

GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.25	41

1081-2-81



NOTES:
1. ADD 800 TO ALL ELEVATIONS
2 — — — — — SHOULDER LINE

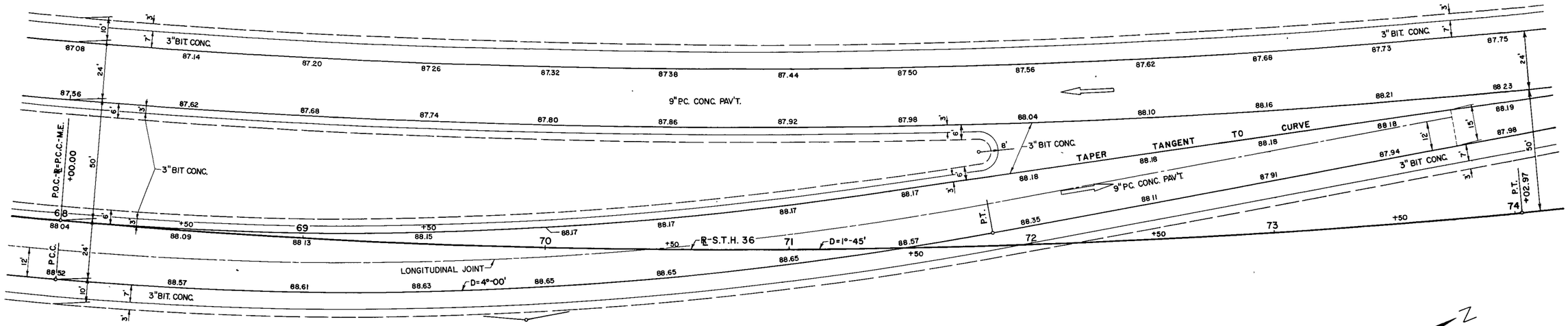
CONSTRUCTION DETAILS
S.T.H. 36 INTERCHANGE
EAST HALF

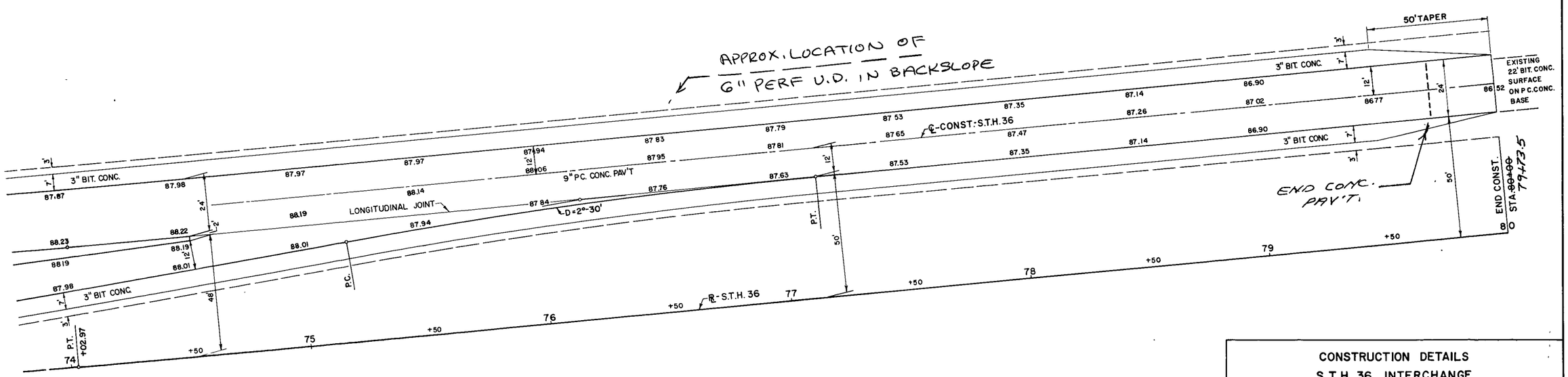
GENOA CITY-ELKHORN ROAD

U. S. H. 12 WALWORTH COUNTY

B.P.R DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	226	41

1081-2-81





NOTES:
1. ADD 800.00' TO ALL ELEVATIONS
2 — — — — SHOULDER LINE.

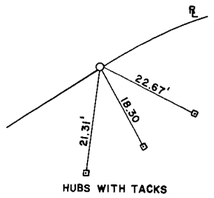
CONSTRUCTION DETAILS
S.T.H. 36 INTERCHANGE

GENOA CITY-ELKHORN ROAD

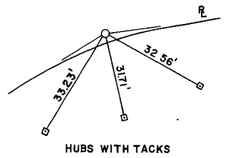
U. S. H. 12 WALWORTH COUNTY

PROJECT I D	SHEET NUMBER	TOTAL SHEETS
1081-2-81	2.42	41
FEDERAL PROJECT DESIGNATION F04-1(21)		

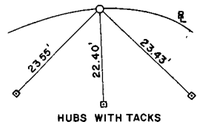
S.T.H. 36 INTERCHANGE RAMP TIES



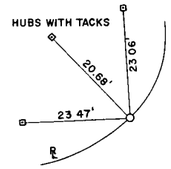
P.C. STA. 609+02.32
℄-CB



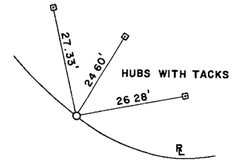
P.I. STA. 609+90.62
℄-CB



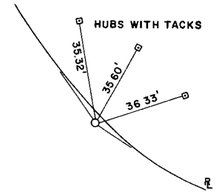
P.C.C. STA. 610+76.26
℄-CB



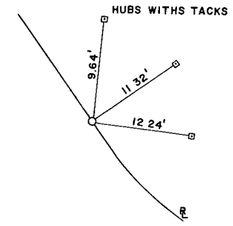
P.C.C. STA. 615+98.94
℄-CB



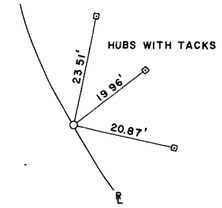
P.C.C STA. 618+55.16
℄-CB



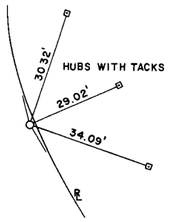
P.I. STA. 619+91.00
℄-CB



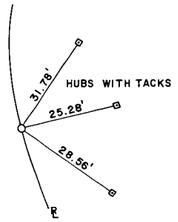
P.T. STA. 621+25.00
℄-CB



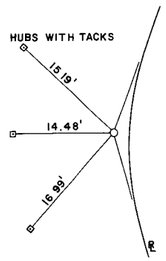
P.C. STA. 611+25.00
℄-AC



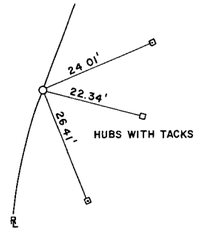
P.I. STA. 612+25.58
℄-AC



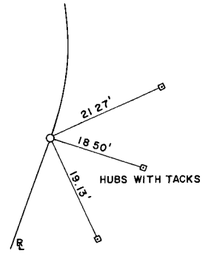
P.C.C. STA. 613+25.00
℄-AC



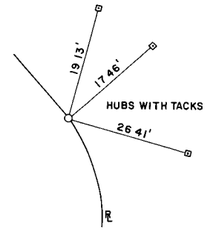
P.I. STA. 614+59.69
℄-AC



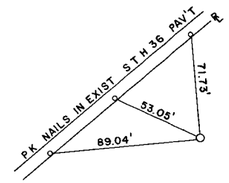
P.I. STA. 615+85.24
℄-AC



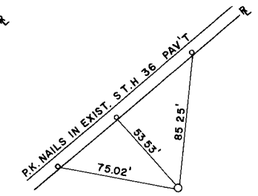
P.C. STA 618+70.51
℄-AC



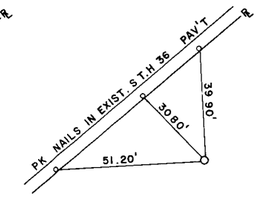
P.T. STA. 622+06.50
℄-AC



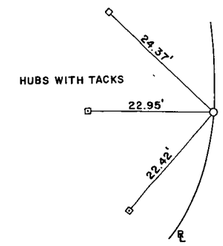
STA. 624+50.12 ℄-AC=
STA 55+25.43 ℄-36



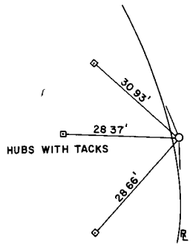
STA. 610+04.56 ℄-DB=
STA. 55+07.00 ℄-36



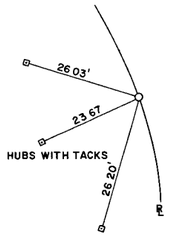
STA. 609+48.90 ℄-BC=
STA. 44+57.15 ℄-36



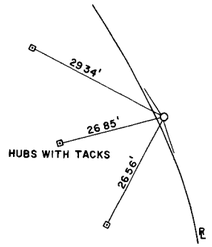
P.C.C. STA. 617+75.00
℄-BC



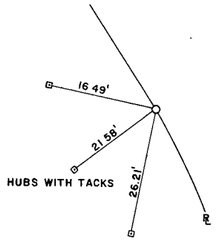
P.I. STA. 618+50.00
℄-BC



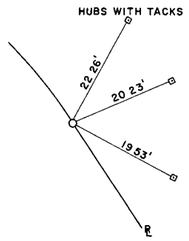
P.C.C. STA. 619+25.00
℄-BC



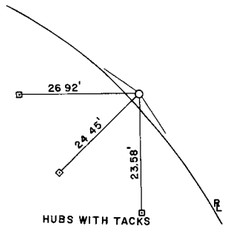
P.I STA. 620+25.00
℄-BC



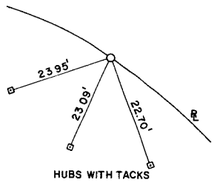
P.C. STA. 621+25.00
℄-BC



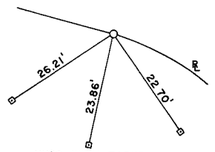
P.C. STA. 611+00.00
℄-CA



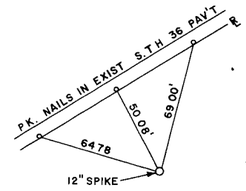
P.I. STA. 611+75.24
℄-CA



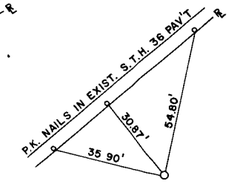
P.C.C. STA. 612+50.00
℄-CA



P.T. STA. 615+54.57
℄-CA

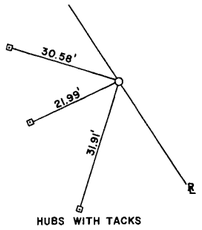


P. I. STA. 625+06.85
℄-CA

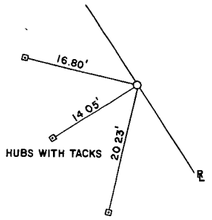


STA. 624+43.52 ℄-DA =
STA. 44+37.00 ℄-36

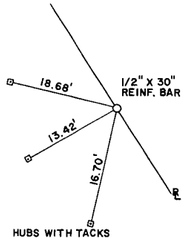
U.S.H. 12 ℄ TIES



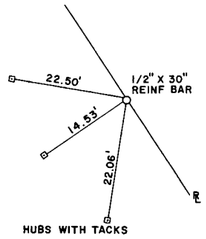
P.O.T. STA. 584+59.35



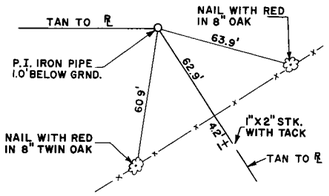
P.O.T. STA. 594+95.87



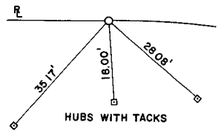
P.O.T. STA. 611+00.00



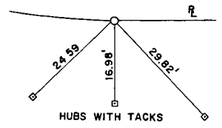
P.O.T. STA. 620+56.37



P.I. STA. 649+47.48



P.T. STA. 666+73.48



P.C. STA. 706+10.29

NOTE:

TIES TO S.T.H. 36 ℄ SEE SHEET NO.

TIES TO S.T.H. 36 W.B. SEE SHEET NO.

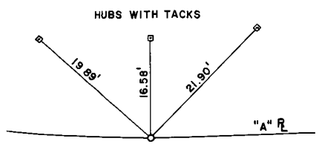
CONSTRUCTION TIES

GENOA CITY – ELKHORN ROAD

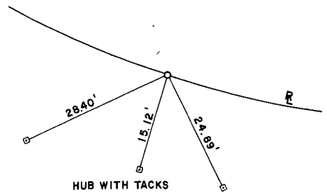
U.S.H. 12

WALWORTH COUNTY

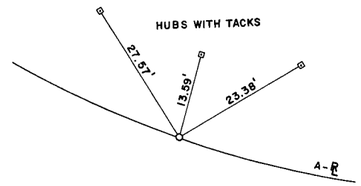
PROJECT I D	SHEET NUMBER	TOTAL SHEETS
1081-2-81	2.43	41
FEDERAL PROJECT DESIGNATION F04-1(21)		



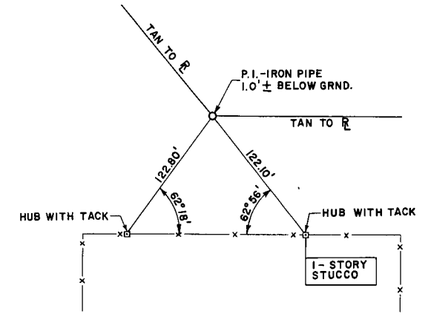
P.C. STA. 708+89.05 A-℄



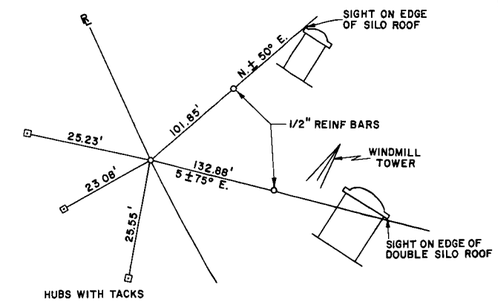
P.O.C. STA. 719+00.00 ℄



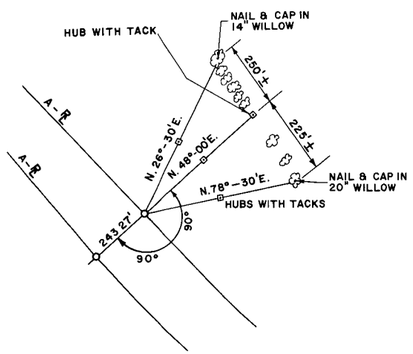
P.O.C. STA. 720+00.00 A-℄



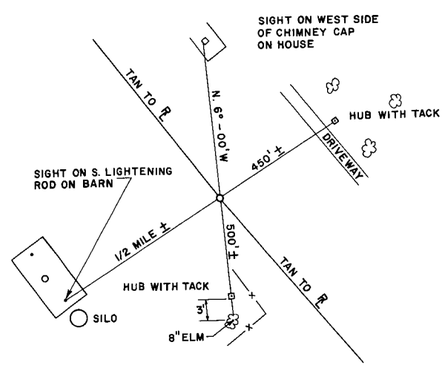
P.I STA. 723+10.99 ℄



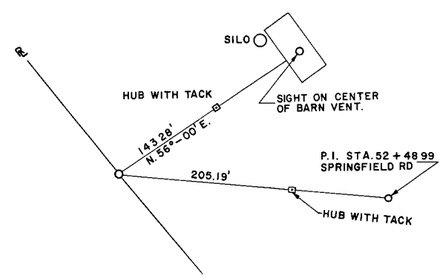
P.T. STA. 910+42.16 ℄



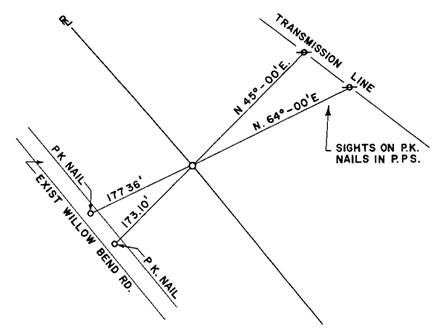
P.T. STA 742+64.60 A-℄ BK.=P.T.STA.741+20.57 A-℄ AHD.
& P.O.T. STA. 741+27.82 ℄



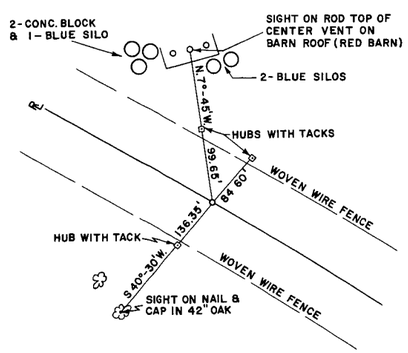
P.I.STA.781+11.14 ℄



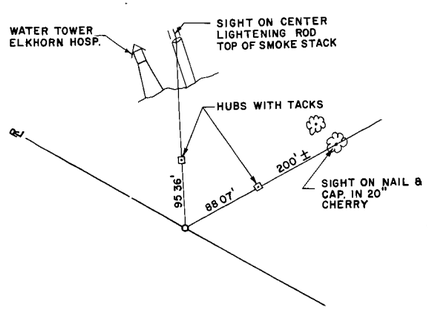
P.T. STA. 789+01.00 ℄



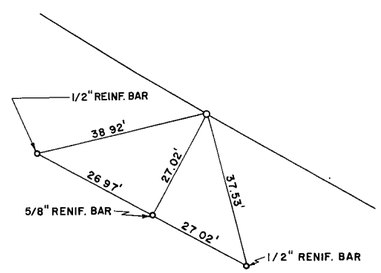
P.C. STA. 803+18.25 ℄



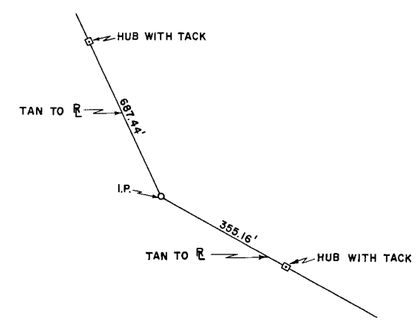
P.T. STA. 817+43.81 ℄



P.O.T. STA. 824+29.57 ℄



P.C. STA.874+42.16 ℄



P.I.STA. 893+03.81 ℄

CONSTRUCTION TIES

GENOA CITY – ELKHORN ROAD

U.S.H 12

WALWORTH COUNTY

BENCH MARKS - EXISTING

NO.	DESCRIPTION	ELEVATION
	BRASS PLUG S.E. COR. STRUCT. B-64-28	890.40
	STA 574+00 TOP OF CULV. PIPE IN MEDIAN	881.55
	STA 590+50 TOP OF CULV. PIPE IN MEDIAN	878.95
	STA 597+00 TOP OF CULV. PIPE IN MEDIAN	862.29
	STA 602+00 TOP OF CULV. PIPE IN MEDIAN	853.26
	STA 609+30 TOP OF CULV. PIPE IN MEDIAN	866.08
	STA 616+00 TOP OF CULV. PIPE IN MEDIAN	885.15
	BRASS PLUG S.E. COR. STRUCT. B-64-32	904.12
27A	STA 623+40 R.R. SPIKE IN P.P. 495' LT.	888.89
	STA 631+00 TOP OF CULV. PIPE IN MEDIAN	930.68
28	STA 636+15 R.R. SPIKE IN 14" CHERRY 310' LT	998.56
	STA 637+00 TOP OF CULV. PIPE IN MEDIAN	948.66
28B	STA 637+50 SPIKE IN P.P. 280' RT.	1020.77
	STA 645+00 BENT SPIKE IN 12" OAK 360' RT	994.09
	STA 655+00 SPIKE IN 7" OAK 320' LT.	1010.20
	STA 656+95 BENT SPIKE IN 5" OAK 230' LT.	991.07
	STA 657+00 TOP OF CULV. IN MEDIAN	948.09
	STA 664+80 SPIKE IN 10" OAK 100' LT.	938.26
	STA 677+00 TOP OF CULV. PIPE IN MEDIAN	889.12
	STA 684+00 TOP OF CULV. PIPE IN MEDIAN	879.96
	STA 688+00 TOP OF CULV. PIPE IN MEDIAN	866.23
	BRASS PLUG S. WING STRUCT. B-64-34	850.00
	STA 695+00 TOP OF CULV. PIPE IN MEDIAN	872.29
	STA 702+20 TOP OF CULV. PIPE IN MEDIAN	876.18
	STA 707+00 TOP OF CULV. PIPE IN MEDIAN	877.15
	STA 712+00 TOP OF CULV. PIPE IN MEDIAN	874.03
34AAA	STA 732+80 SPIKE IN 12" BOX ELDER 130' RT.	851.33
35A	STA 755+00 R.R. SPIKE IN 42" OAK 150' RT	874.25
49B	STA 758+20 NAIL IN 12" OAK IN MEDIAN	892.44
49A	STA 768±50 SPIKE IN OAK ±100' LT. OF A-R	938.50
36AA	STA 772±50 P.K. NAIL IN 48" OAK ± 600' RT.	1010.18

BENCH MARKS - EXISTING SHEET 2.44

NO.	DESCRIPTION	ELEVATION
36X	STA 778+00 R.R. SPIKE IN 42" OAK 340' LT.	968.13
	STA 794+00 TOP OF 2" TEL. CONDUIT BOX 220' LT	1018.53
38BB	54+10 SPRINGFIELD RD. R.R. SPIKE IN 24" OAK 60' RT.	1006.66
38B	42+00 SPRINGFIELD RD. SPIKE IN 30" OAK 25' RT.	1028.55
38AA	47+95 SPRINGFIELD RD. R.R. SPIKE IN P.P. POLE 50' RT	1022.31
69	803+00 SPIKE IN 14" POPLAR LT. AT WILLOW BEND RD	1012.07
69B	824+00 NAIL IN 24" ASH 350' RT.	1003.85
69C	826+75 R.R. SPIKE IN 20" CHERRY 250' RT.	1005.13
69F	863+00 R.R. SPIKE IN 24" POPLAR 250' LT.	975.58
69A-1	807+70 R.R. SPIKE IN 20" MAPLE 190' LT.	1005.92
	45+35 COMO RD. SPIKE IN P.P. 100' LT.	995.86
	815+70 TOP OF INLET IN MEDIAN	1006.56
	822+00 TOP OF INLET IN MEDIAN	1005.05
	851+00 TOP OF INLET IN MEDIAN	986.86
	865+00 TOP OF INLET IN MEDIAN	979.43
	877+00 TOP OF INLET IN MEDIAN	981.16
	882+50 TOP OF INLET IN MEDIAN	980.38
	887+50 TOP OF INLET IN MEDIAN	981.53
	891+00 BRASS PLUG IN WING C-64-9	978.37
	896+50 BRASS PLUG IN WING C-64-10	982.45

ESTIMATE OF QUANTITIES

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE WISCONSIN DIVISION OF HIGHWAYS — EDITION OF 1969
SUBMITTED FOR APPROVAL OCT. 23, 1968, FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED OCT. 15, 1963, AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO. 1 & 2
SURFACING (P.C.CONC.)

B.P.R. REGION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	3	41

1081-2-81 & 82

CONT NO	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING		GRUBBING		REMOVING OLD CULVERT		REMOVING OLD BRIDGE		REMOVING PAVEMENT			EXCAVATION UNCL	EXCAVATION ROCK	EXCAVATION MARSH	EXCAVATION BORROW	GRANULAR BACKFILL	TEST ROLLING	FIELD LABORATORY	FIELD LABORATORY	FINISHING ROADWAY	FINISHING ROADWAY	MAINTENANCE AND REPAIR OF HAUL ROADS	MAINTENANCE AND REPAIR OF HAUL ROADS	FIELD OFFICE TYPE A	FIELD OFFICE TYPE A	CRUSHED AGGREGATE BASE COURSE		ASPHALT STABILIZED BASE COURSE TYPE I 2-½ INCH	ASPHALT STABILIZED BASE COURSE ASPHALT FOR TREATING AGG	CONCRETE SURFACE DRAINS	BITUMINOUS CONCRETE PAVEMENT	BITUM MAT FOR SURFACE COURSE	CONCRETE PAVEMENT 8-INCH	CONCRETE PAVEMENT 9-INCH	CONCRETE PAVEMENT APPROACH SLAB	CONCRETE PAVEMENT CONTINUOUS REINF.	CONCRETE PAVEMENT CONCRETE PAVE REINF.	PAVEMENT TERMINAL ANCHORS
	ITEM NO		20101	20102	20104	20105	20301		20351		20401			20503	20502	20505	20801	20901	21001	64210	64210	21301	21301	61801	61801	64201	64201	30404	30	90003	30341	40934	40701	40702	40908	40909	40935	90001	40950	90002
	UNIT	LIN FT	STA	IN DIA.	STA	IN DIA.	L.S.		L.S.		S.Y.			C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	T.O.N.		S.Y.	T.O.N.	C.Y.	T.O.N.	T.O.N.	S.Y.	S.Y.	S.Y.	S.Y.	S.Y.	EACH
1	563+00 - 917+76.79	34,971.00									5500			22,500						1		1		1		1		66,200		250,920	1218	75	16,000	880	177,100	61,000	1050	177,100	61,000	12
2R	919+16.69 - 1010+22.34 & 1049+38.45 - 1109+00	14,876.15																			0.8		0.8		0.8		0.8	25,054		123,850	603	32	7224	400	69,929	35,048	513	69,929	35,048	2
2M	1010+22.34 - 1049+38.45	3784.93																			0.2		0.2		0.2		0.2	6046		23,550	114		1626	90	19,071	852	291	19,071	852	4
	TOTAL CONTRACT 2																				1		1		1		1	31,100		147,400	717	32	8,850	490	89,000	35,900	804	89,000	35,900	6
	TOTALS	53,632.08									5500			22,500						1	1	1	1	1*	1*	1	1	97,300		398,320	1935	107	24,850	1370	266,100	96,900	1854	266,100	96,900	18

* NO FEDERAL PARTICIPATION

BRIDGES (STRUCTURES OVER 20 FT. SPAN)

CONT NO	REMOVE OLD BRIDGE STA.	EXCAVATION FOR STRUCTURES	GRANULAR BACKFILL	CONCRETE MASONRY	PRESTRESSED GIRDER		BAR STEEL REINF	STRUCTURAL CARBON STEEL	LUBRICATED BRONZE PLATES	SHEET ZINC	BEARING PADS	TR'T'D LUMBER AND TIMBER	UNTR'D. TIMBER TEST PILING	UNTREATED TIMBER PILING DELIVERED	UNTREATED TIMBER PILING DRIVEN	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	CAST IN PLACE CONC TEST PILING	CAST-IN-PLACE CONCRETE PILING DELIVERED	CAST-IN-PLACE CONCRETE PILING DRIVEN	RAILING	FLOOR DRAINS TYPE	FLOOR DRAINS TYPE	DOWNSPOUT 6"	SLOPE PAVING CONCRETE	RIP-RAP
	20351	20601	20901	50201	503	503	50501	50601	50614	50616	5062	50702	50801	50810	50813	50816	50820	51001	51010	51015	513	5140	5140	51426	60404	6060
	L.S.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	LB	LB	LB	LB	S.F.	M.B.M.	L.S.	L.F.	L.F.	L.F.	L.F.	L.S.	L.F.	L.F.	L.F.	EACH	EACH	L.F.	S.F.	C.Y.

CULVERTS (STRUCTURES 20 FT. SPAN & UNDER)

CONT NO	REMOVE OLD CULV'T STA	EXCAVATION FOR STRUCTURES	GRANULAR BACKFILL	CONCRETE MASONRY	BAR STEEL REINF	STRUCTURAL CARBON STEEL	TR'T'D LUMBER AND TIMBER	UNTR'D. TIMBER TEST PILING	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	FLOOR DRAINS TYPE	RIP-RAP
	20301	20602	20901	50401	50502	50601	50702	50801	50816	50820	5140	6060
	L.S.	C.Y.	C.Y.	C.Y.	LB	LB	M.B.M.	L.S.	L.F.	L.F.	EACH	C.Y.

ESTQUAN

CONT NO	RUBBLE MASONRY MORTAR	RUBBLE MASONRY DRY						REINFORCED CONC. CULVERT PIPE CL III 42-INCH					APRON ENDWALLS FOR						CONCRETE CURB AND GUTTER 30-INCH TYPE G	CONCRETE CURB AND GUTTER 30-INCH TYPE A	SLOPE PAVING	DITCH CHECKS	RIP-RAP	HEAVY RIP-RAP	STORM SEWER				
	51801	51810	52	52	52	52	52	52	52210	52	52	52	52	52210	52	52	52	52	60141	60123	6040	6050	60601	60602	60	60	60	60	60
	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	S.F.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.
1								68											200	6875			2.5						
2R																				3200									
2M																													
T								68											200	10,075			2.5						

CONT NO	ADJUSTING CATCH BASIN COVERS TYPE I	ADJUSTING CATCH BASIN COVERS TYPE	MANHOLES TYPE	MANHOLES TYPE	INLETS TYPE I	INLETS TYPE	CATCH BASINS COVERS TYPE	CATCH BASINS COVERS TYPE	MANHOLES COVERS TYPE	MANHOLES COVERS TYPE	INLET COVERS TYPE B	INLET COVERS TYPE	PIPE UNDERDRAIN 6-INCH	PIPE UNDERDRAIN UNPERFORATED 12-INCH	STEEL PLATE BEAM GUARD CLASS A	STEEL PLATE BEAM MEDIAN GUARD	MULCHING ~~TOP SOIL~~	TOP-SOIL	SALVAGED TOP-SOIL	FERTILIZER	SEEDING	SODDING	ANCHORAGES FOR STEEL PLATE BEAM GUARD
	61181	6110	6111	6111	61121	61121	6113	6113	6115	6115	61162	6116	61201	61214	61408	61411	62702	62501	62505	62901	63001	63101	61406
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	LIN FT	LIN FT	S.Y.	S.Y.	S.Y.	CWT.	S.Y.	S.Y.	EACH
1	1				1						1		370	12	22,525		37,928	10,800	19,000	31	37,300	1000	39
2R															11,012	4000				6	7400	500	19
2M																							
T															2553								4
															13,565	4,000				6	7,400	500	23
	1				1						1		370	12	36,090	4000		10,800	19,000	37	44,700	1500	62

DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

CONTRACT 1

B.P.R. REGION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	3A	41

1081-2-81

REMOVING PAVEMENT

CONTR. NO.	STATION	S.Y.
1	34+50 - 43+07 S.T.H. 36	1900
1	63+68 - 80+00 S.T.H. 36	3600

ASPHALT STABILIZED BASE COURSE

CONTR. NO.	STATION - STATION	S.Y.	ASPHALT MAT'L. TONS
	U.S.H. 12 N.B.		
1	563+00 - 597+00	10,578	51
1	597+00 - 641+00	15,275	74
1	641+00 - 666+74	9,501	46
1	666+74 - 701+20	10,721	52
1	703+24 - 801+00	30,418	149
1	801+00 - 832+00	9,659	47
1	832+00 - 917+77	26,629	130
	U.S.H. 12 S.B.		
1	549+00 - 597+00	14,075	68
1	597+00 - 641+00	13,174	63
1	641+00 - 666+67	7,986	38
1	666+67 - 700+50	10,369	51
1	702+54 - 801+00	30,633	150
1	801+00 - 832+00	9,561	46
1	832+00 - 918+42	27,031	132
	S.T.H. 50 I.C.		
1	Ramp BC	481	2.5
1	Ramp BD	2,817	13
1	Ramp CB	552	2.5
1	Ramp DB	4,489	22
1	MEDIAN X-OVERS	2,085	10
	S.T.H. 36 I.C.		
1	Ramp AC	3,460	17
1	Ramp DB	737	3
1	Ramp CB	2,989	14
1	Ramp CA	4,332	21
1	Ramp DA	687	3
1	Ramp BC	2,681	13
	TOTALS	250,920	1,218

CRUSHED AGGREGATE BASE COURSE

CONTR. NO.	STATION--------STATION	BASE TONS
	S.T.H. 36	
1	34+50 - 35+00 E.B.	80
1	35+00 - 68+00 E.B.	4767
1	68+00 - 71+43 E.B.	606
1	71+43 - 74+46 E.B.	464
1	35+67 - 37+20 W.B.	91
1	37+20 - 40+40 W.B.	183
1	40+40 - 80+00 W.B.	6010
1	S.T.H. 36 9 P.E.'s @ 63 T	567
	Temp. Conn. S.T.H. 36	
1	32+00 - 44+50 E.B.	1330
1	71+00 - 83+00 E.B.	1236
	Maintenance X-Overs	
1	582+50	78
1	827+00	78

CRUSHED AGGREGATE BASE COURSE

CONTR. NO.	STATION--------STATION	SHLDR. TONS
	U.S.H. 12 N.B.	
1	563+00 - 597+00	1,567
1	597+00 - 641+00	2,445
1	641+00 - 731+00	4,956
1	731+00 - 832+00	7,057
1	832+00 - 917+77	5,988
	U.S.H. 12 S.B.	
1	549+00 - 597+00	2,439
1	597+00 - 641+00	2,302
1	641+00 - 731+00	2,360
1	731+00 - 832+00	7,064
1	832+00 - 918+31	6,026
	S.T.H. 50 RAMPS	
	Ramp BC	
1	546+25 - 550+60	221
	RAMP BD	
1	545+25 - 563+43	480
	RAMP CB	
1	557+25 - 560+12	88
	RAMP DB	
1	556+25 - 583+00	1,587
	S.T.H. 36 RAMPS	
	RAMP AC	
1	606+45 - 624+25	900
	RAMP DB	
1	610+30 - 614+80	262
	RAMP CB	
1	607+04 - 621+15	414
	RAMP CA	
1	600+50 - 628+18	1,291
	RAMP DA	
1	620+30 - 624+18	178
	RAMP BC	
1	609+74 - 621+36	554
	S.T.H. 36	
	EASTBOUND	
1	34+50 - 80+00	1,235
	WESTBOUND	
1	34+50 - 80+00	1,296

BITUMINOUS MATERIALS

CONTR. NO.	LOCATION STATION--STATION	TONS Bit. Mat'l. For Surf. Crse.	TONS Bit. Conc. Pav't.
	U.S.H. 12 N.B.		
1	563+00 - 597+00	26	471
1	597+00 - 641+00	33	608
1	641+00 - 700+70.6	60	1,091
1	700+70.6 - 731+00	29	528
1	731+00 - 832+00	104	1,880
1	832+00 - 917+76.79	87	1,582
	U.S.H. 12 S.B.		
1	549+00 - 597+00	43	780
1	597+00 - 641+00	32	569
1	641+00 - 700+70.6	60	1,091
1	700+70.6 - 730+00	28	512
1	730+00 - 832+00	104	1,890
1	832+00 - 918+31.14	87	1,582
	S.T.H. 50 RAMPS		
	Ramp BC		
1	546+00 - 550+60	3	60
	Ramp BD		
1	545+00 - 563+43	7	127
	Ramp CB		
1	557+00 - 560+12	1	27
	Ramp DB		
1	556+00 - 583+00	21	385
	S.T.H. 36 RAMPS		
	Ramp AC		
1	606+45 - 624+36	12	214
	Ramp DB		
1	610+31 - 614+80	4	68
	Ramp CB		
1	607+04 - 621+44	6	115
	Ramp CA		
1	600+50 - 628+18	19	347
	Ramp DA		
1	622+17 - 624+16	3	50
	Ramp BC		
1	609+73 - 621+44	7	134
	S.T.H. 36		
	Westbound		
1	34+50 - 80+00	46	832
	Eastbound		
1	34+50 - 80+00	18	339
	Temp. X-Overs		
1	32+00 - 44+00 EB	18	336
1	71+00 - 83+00 E.B.	18	322
1	Krueger Rd. Cul-De-Sacs	4	60

CONCRETE SURFACE DRAINS

CONTR. NO.	STATION	SIDE	C.Y.
	S.T.H. 36 RAMPS		
	Ramp BC		
1	614+80	Lt.	7.4
1	619+00	Lt.	11.3
	Ramp CA		
1	612+35	Lt.	5.1
1	618+05	Rt.	3.4
1	622+55	Lt.	3.6
	Ramp CB		
1	611+55	Rt.	7.7
1	614+30	Rt.	7.7
1	618+00	Rt.	10.1
	Ramp AC		
1	612+50	Rt.	5.5
1	618+30	Lt.	3.5
	S.T.H. 50 Ramps		
	Ramp CB		
1	558+55	Lt.	2.5
	Ramp BD		
1	547+00	Lt.	2.4
1	550+00	Lt.	2.4
1	556+00	Lt.	2.4

CONCRETE CURB & GUTTER

CONTR. NO.	STATION - STATION	TYPE	LIN. FT.
	S.T.H. 50 I.C.		
	Ramp BD		
1	544+90 - 558+57 Lt.	A	1337
	Ramp DB		
1	555+90 - 557+62 Rt.	A	172
1	560+12 - 562+89 Lt.	A	277
	Ramp CB		
1	557+20 - 560+12 Lt.	A	292
	S.T.H. 36 I.C.		
	Ramp AC		
1	612+55 - 615+94 Rt.	A	339
1	618+35 - 622+17 Lt.	A	362
1	624+10 Rt. (Island)	G	45
1	624+10 Rt. (Island)	"G" Mod.	55
	Ramp CB		
1	608+50 - 621+36 Rt.	A	1235
	Ramp CA		
1	612+40 - 616+10 Lt.	A	370
1	618+10 - 620+31 Rt.	A	210
1	622+58 - 626+52 Lt.	A	394
	Ramp DA		
1	620+31 - 622+32 Rt.	A	201
	Ramp BC		
1	609+90 Lt. (Island)	G	55
1	609+90 Lt. (Island)	"G" Mod:	45
1	612+42 - 621+36 Lt.	A	874
	S.T.H. 36		
1	42+11 - 44+10	"A" Mod.	228
1	44+54 - 46+02	"A" Mod.	178
1	52+95 - 54+76	"A" Mod.	228
1	55+21 - 56+75	"A" Mod.	178

CONCRETE PAVEMENT APPROACH SLAB

CONTR. NO.	STATION - STATION	LOCATION	S.Y.
1	558+27.22 - 558+57.48	S. Appr. B-64-29	101.5
1	560+71.86 - 561+02.12	N. Appr. B-64-29	101.5
1	621+23.75 - 621+44.25	S. Appr. B-64-32	111.0
1	623+33.75 - 623+54.25	N. Appr. B-64-32	82.0
1	621+23.75 - 621+44.25	S. Appr. B-64-33	82.0
1	623+33.75 - 623+54.25	N. Appr. B-64-33	82.0
1	700+50.08 - 700+90.45	S. Appr. B-64-35	81.0
1	702+13.78 - 702+54.15	N. Appr. B-64-35	81.0
1	701+19.60 - 701+60.00	S. Appr. B-64-36	81.0
1	702+83.30 - 703+23.70	N. Appr. B-64-36	81.0
1	917+34.55 - 917+76.79	S. Appr. B-64-42	83.0
1	918+10.64 - 928+31.14	S. Appr. B-64-43	83.0

MISCQUAN

DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

CONTRACT 1

B.P.R. REGION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	3B	41

1081-2-81

CATCH BASINS & INLETS

CONTR. NO.	STATION	INL. OR C.B.	TYPE	GRATE
1	561+00 USH 12 SB Lt.	Inl.	1	B
	S.T.H. 36 Ramp			
1	"AC" 624+15 Rt.	C.B.	Adjust	

STEEL PLATE BEAM GUARD

CONTR. NO.	LOCATION	ANCHORS	LIN. FT.
	U. S. H. 12		
1	560+80 - 576+50 S. B. Lt.	1	1578
1	597+25 - 601+50 S. B. Lt.	1	430
1	597+25 - 601+50 N. B. Rt.	1	430
1	662+50 - 701+70 N. B. Rt.	1	3928
1	668+50 - 676+50 S. B. Lt.	2	805
1	690+50 - 700+70 S. B. Lt.	1	1028
1	702+05 - 704+00 S. B. Lt.	1	203
1	703+15 - 706+00 N. B. Lt.	1	290
1	745+50 - 761+50 N. B. Rt.	2	1605
1	746+50 - 762+50 N. B. Lt.	2	1605
1	909+00 - 914+37.5 N. B. Rt.	1	537
	S.T.H. 50 I. C.		
1	Ramp DB 558+50 - 576+50 Rt.	2	1805
1	B-64-28 to B-64-29 North End	-	42
1	B-69-28 to B-64-29 South End	-	41
1	Median, Approach B-64-29	1	303
1	Median, Approach B-64-28	1	303
	S.T.H. 36 I.C.		
1	611+50 AC Ramp - 66+00 STH 36 Rt.	2	2305
1	Ramp CA 611+50 - 618+50 Lt.	2	705
1	Ramp BC 620+32 - 621+35 Lt.	1	103
1	Ramp CB 620+32 - 62+35 Rt.	1	103
	STRUCTURES		
1	Center Pier Protection B-64-31	2	485
1	Center Pier Protection B-64-32 & 33	2	710
1	Center Pier Protection B-64-39	2	485
1	Median Approach B-64-35	1	303
1	Median Approach B-64-36	1	303
1	B-64-35 to B-64-36 North End	-	53
1	B-64-35 to B-64-36 South End	-	53
1	Median Approach B-64-32	1	303
1	Median Approach B-64-33	1	303
1	Exit B-64-32 N. B. 623+50 - 624+53 Rt.	1	103
1	Approach B-64-33 S. B. 623+50 - 624+53 Lt.	1	103
1	B-64-32 TO B-64-33 North End	-	41
1	B-64-32 to B-64-33 South End	-	40
1	Center Pier Protection B-64-40	2	485
1	Approach B-64-42 Rt.	-	303
1	Approach B-64-42 Lt.	1	303

PAVEMENT TERMINAL ANCHORS

CONTR. NO.	STATION - STATION	LOCATION	NO.
1	561+88.12 - 563+08.12	S. B.	1
1	563+06 - 564+26	N. B.	1
1	619+17.75 - 620+37.75	S. B.	1
1	619+27.75 - 620+47.75	N. B.	1
1	624+40.25 - 625+60.25	S. B.	1
1	654+46.00 - 655+66.00	N. B.	1
1	698+44.80 - 699+64.80	S. B.	1
1	699+13.60 - 700+33.60	N. B.	1
1	701+28.15 - 702+48.15	S. B.	1
1	701+97.70 - 703+17.70	N. B.	1
1	916+04.64 - 917+24.64	S. B.	1
1	915+28.55 - 916+48.55	N. B.	1

PIPE CULVERTS

CONTR. NO.	STATION	DIAMETER INCHES	LENGTH LIN. FT.	TYPE	RIP RAP
	U.S.H. 12				
1	561+00 S.B. Lt.	12"	12	PUUCMP	
1	607+55 - 609+45 SB Lt.	6"	190	PUCMP	
1	607+50 - 609+30 NB Rt.	6"	180	PUCMP	
	S.T.H. 36				
1	69+70 WB Lt. (2 @ 34' Ea.)	42"	68	RCCP	2.5

SALVAGED TOPSOIL

CONTR. NO.	LOCATION	S.Y.
1	S.T.H. 36 59+00 - 79+00	18,500
1	Maintenance X-Overs	500

TOPSOIL

CONTR. NO.	LOCATION	S.Y.
1	S.T.H. 50 Ramps	4,100
1	S.T.H. 36 Ramps	6,700

SODDING

CONTR. NO.	LOCATION	S.Y.
1	S.T.H. 36 I.C.	1,000

CONCRETE PAVEMENT & REINFORCEMENT

CONTR. NO.	STATION - STATION	LOCATION	8" CONC. PAV'T.	9" CONC. PAV'T.	CONTINUOUS REINF.	CONC. PAV'T. REINF.
	S.T.H. 50 RAMPS					
1	Ramp BC			458		458
1	Ramp BD			2416		2416
1	Ramp CB			462		462
1	Ramp DB			3696		3696
1	549+00 - 558+27.82	S.B.		2473		2473
1	561+02.12 - 561+82.12	S.B.		213		213
1	561+82.12 - 620+43.75	S.B.	15,631		15,631	
1	563+00 - 620+53 75	N.B.	15,343		15,343	
	S.T.H 36					
1	34+50 - 76+19	E.B.		10,630		10,630
1	36+00 - 80+00	W.B.		11,309		11,309
	MEDIAN X-OVERS					
1	44+37			709		709
1	55+07			692		692
1	61+00			282		282
1	67+33			282		282
	S.T.H. 36 RAMPS					
1	Ramp AC			2,929		2,929
1	Ramp DB			595		595
1	Ramp CB			2,424		2,424
1	Ramp CA			3,729		3,729
1	Ramp DA			563		563
1	Ramp BC			2,202		2,202
1	620+43.75 - 621+23.75	S.B.		213		213
1	620+43.75 - 621+23.75	N.B.		213		213
1	623+54.25 - 654+40.00	N.B.		13,019		13,019
1	623+54.25 - 624+34.25	S.B.		213		213
1	624+34.25 - 699+70.80	S.B.	20,096		20,096	
1	654+40.08 - 700+39.60	N.B.	12,266		12,266	
1	699+70.80 - 700+50.80	S.B.		213		213
1	700+39.60 - 701+19.60	N.B.		213		213
1	702+54.15 - 703+34.15	S.B.		213		213
1	703+23.70 - 704+03.70	N.B.		213		213
1	703+34.15 - 917+30.64	S.B.	57,080		57,080	
1	704+03.70 - 916+54.55	N.B.	56,684		56,684	
1	917+30.64 - 918+10.64	S.B.		213		213
1	916+54.55 - 917+34.55	N.B.		213		213

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	5	41

1081-2-81

PLAN PROFILE

544+67.03 (A-℞) BACK
544+30.00 (℞) AHEAD
EQUATION

BRASS MON.

RAMP "CA"
RAMP "BD"
B-64-29
B-64-28
S.T.H. 50
74° 50' 00"
FOR S.T.H. 50 IC SEE SHEETS
℞-U.S.H. 12
559+69.43-℞ U.S.H. 12
72+14.33-℞ S.T.H. 50
BEGIN PROJECT F04-1(21)
CONTRACT-1
STA. 563+00
RAMP "DB"
RAMP "AC"
RELOCATED TURKEY FARM ROAD

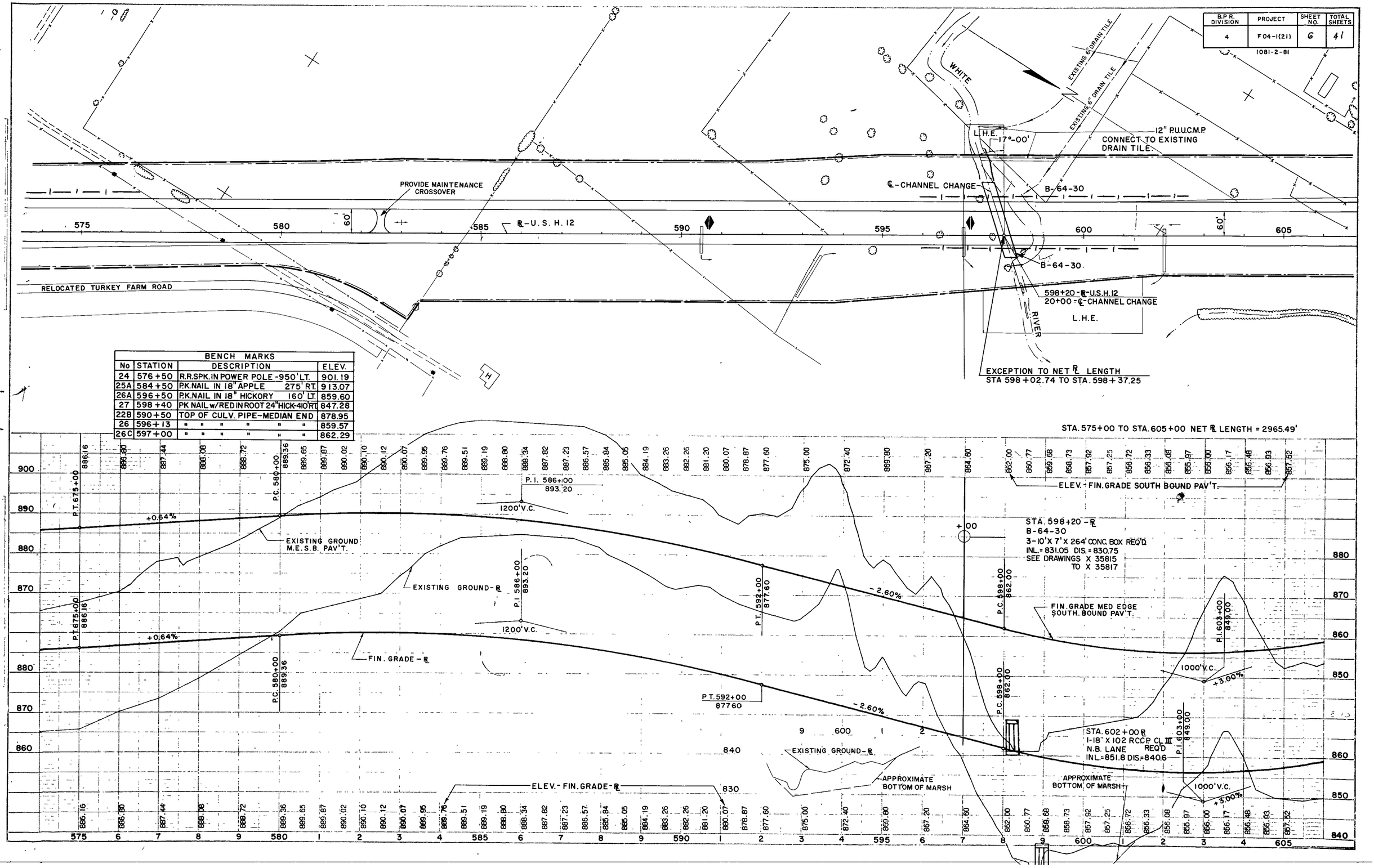
STA. 563+00 TO STA. 575+00 NET ℞ LENGTH = 1200.00

BENCH MARKS			
No	STATION	DESCRIPTION	ELEV.
82	82+00	S.T.H. 50, B.M. ON INLET	856.36
22B	571+30	PK. NAIL IN PP ±200' LT.	867.34
22C	574+00	PK. NAIL IN PP ±250' RT.	865.71
22D	558+60±	BRASS PLUG IN S.E. CURB, B-64-28-65	890.40
22A	574+00	TOP OF CULV. PIPE-MEDIAN END	881.55

FIN. GRADE MED. EDGE SOUTH BOUND PAV'T.
ELEV.-FIN. GRADE SOUTH BOUND PAV'T.
EQUATION
-0.50%
+0.64%
800' V.C.
STA. 559+85.69-℞
B-64-29 REQ.
4 SPAN STEEL WF BEAM 42' RDWY.
SEE DRWG. NO. X-24049 TO X-24059A
EXISTING GROUND M.E.S.B PAV'T.
STA. 561+00-℞
1-12"X60' C.P. REQ'D. CL. III
LT. OF S.B. LANE
STA. 567+00 ℞
1-18"X120' C.P. REQ'D. CL. III
S.B LANE
INL.=880.2 DIS.=860.1
P.C. 567+00 885.60
P.I. 571+00 883.60
P.T. 575+00 886.16
P.T. 544+00 897.10
STA. 550+00 ℞
1-18"X62' C.P REQ'D. CL. III
N.B LANE
INL.=890.4 DIS.=889.7
STA. 557+60 ℞
1-18"X78' C.P REQ'D CL. III
N.B LANE
INL.=886.5 DIS=884.7
STA. 557+64 ℞
1-30"X80' C.P. REQ'D. CL. III
RT. OF N.B. LANE
INL.=884.7 DIS.=864.7
FIN. GRADE-℞
EXISTING GROUND-℞
STA. 574+00 ℞
1-18"X126' C.P. REQ'D. CL. III
N.B. LANE
INL.=880.2 DIS.=864.7
STA. 559+69.43-℞
B-64-28 REQ.
4 SPAN STEEL WF BEAM 42' RDWY.
SEE DRWG. NO. X-24038 TO X-24048A
STA. 561+32 ℞
2-72"X334' R.C. CLASS V OR 8GA ELONG. C.M.
INL.=857.0 DIS.=855.4
ELEV.-FIN. GRADE-℞

545 6 7 8 9 550 1 2 3 4 555 6 7 8 9 560 1 2 3 4 565 6 7 8 9 570 1 2 3 4 575

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	6	41
	1081-2-81		

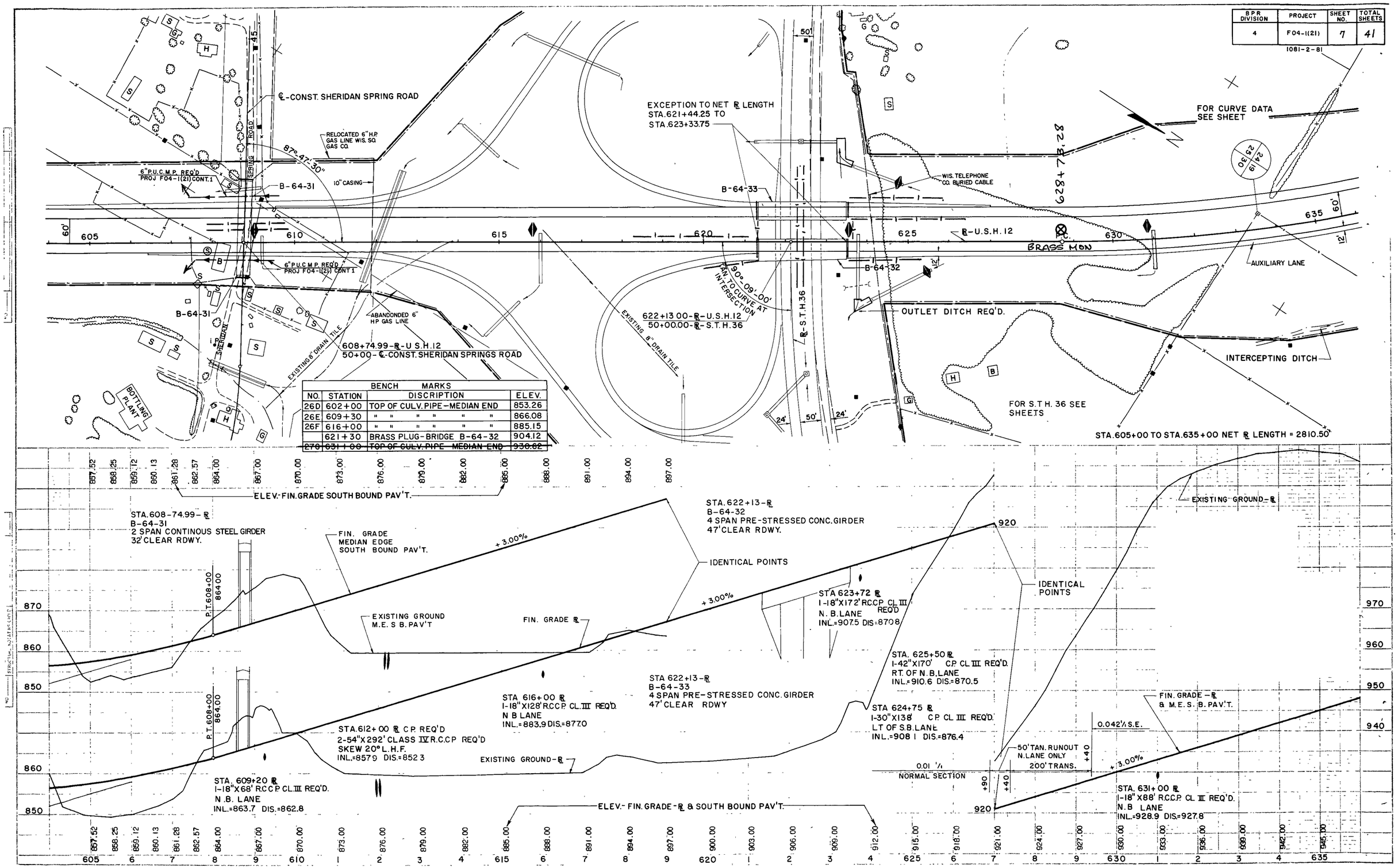


BENCH MARKS

No	STATION	DESCRIPTION	ELEV.
24	576+50	R.R.SPK. IN POWER POLE -950' LT.	901.19
25A	584+50	P.K. NAIL IN 18" APPLE 275' RT.	913.07
26A	596+50	P.K. NAIL IN 18" HICKORY 160' LT.	859.60
27	598+40	PK NAIL w/RED IN ROOT 24" HICK-410' RT.	847.28
22B	590+50	TOP OF CULV. PIPE-MEDIAN END	878.95
26	596+13	" " " " " "	859.57
26C	597+00	" " " " " "	862.29

BPR DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	7	41

1081-2-81



BENCH MARKS

NO.	STATION	DISCRIPTION	ELEV.
26D	602+00	TOP OF CULV. PIPE-MEDIAN END	853.26
26E	609+30	" " " " "	866.08
26F	616+00	" " " " "	885.15
	621+30	BRASS PLUG-BRIDGE B-64-32	904.12
~~27G~~	~~631+00~~	~~TOP OF CULV. PIPE MEDIAN END~~	~~930.62~~

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	8	41

1081-2-81

CURVE DATA - ℄
P.I = 649+47.48
Δ = 57°-00'
D = 1°-30' (CHORD)
R = 3819.83'
T = 2074.00'
L = 3800.00'
E = 526.72'
S.E. = 0.042'/FT.
P.C. = 628+73.48
P.T. = 666+73.48

WISCONSIN TELEPHONE CO. UNDER GROUND CABLE

INTERCEPTING DITCH

635 640 645 650 655 660 665

60' 12' 12' 60'

℄ - U.S.H. 12

AUXILIARY LANE

240' TAPER

INTERCEPTING DITCH

OUTLET DITCH REQ'D.

END PROJECT T04-1(33)
STA. 641+00 - ℄ - U.S.H. 12

BENCH MARKS			
No.	STATION	DESCRIPTION	ELEV.
28	636+15	R.R.SPK.IN 14" CHERRY -310' LT.	998.56
29	663+85	TOP OF T-BAR "A-31" -770' LT.	1007.82
30	664+00	R.R.SPK.IN 8" OAK -765' LT.	1008.45
~~27H~~	~~657+00~~	~~TOP OF CULV. PIPE-MEDIAN END~~	~~948.05~~

STA. 635+00 TO STA. 665+00 NET ℄ LENGTH = 3000.00'

1000
990
980
970
950
940
930

EXISTING GROUND - ℄

P.I.
P.I. 647+00
981.00
1500' V.C

FIN. GRADE - ℄ & M.E.S.B. PAV'T.

+00

+3.00%

P.C. 639+50
@ 958.50

P.T. 654+50
@ 958.50

-3.00%

EXISTING GROUND - ℄

285

STA. 637+00 - ℄
1-18" X 86' R C.C.P. CL. III REQ'D
N.B LANE
INL. 946.9 DIS. 945.8

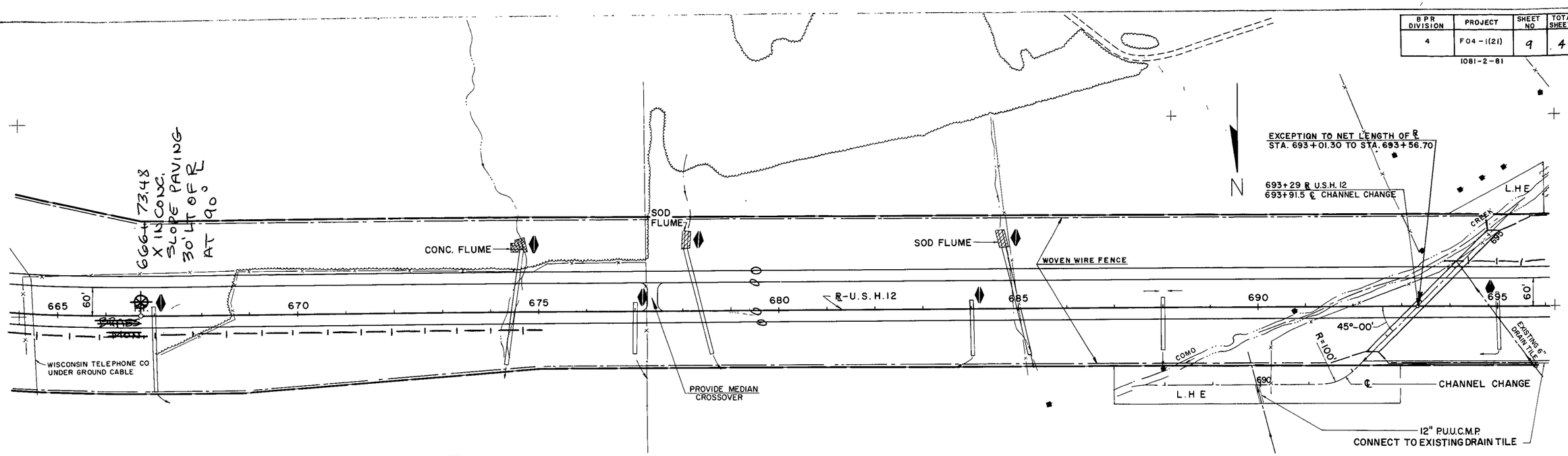
ELEV. FIN. GRADE - ℄ & SOUTH BOUND PAV'T.

945.00 948.00 951.00 954.00 957.00 958.50 959.95 961.30 962.55 963.70 964.75 965.70 966.55 967.30 967.95 968.50 968.95 969.30 969.55 969.70 969.75 969.70 969.55 969.30 968.95 968.50 967.95 967.30 966.55 965.70 964.75 963.70 962.55 961.30 959.95 958.50 957.00 954.00 951.00 948.00 945.00 942.00 939.00 936.00 933.00 930.00 927.00

635 6 7 8 9 640 1 2 3 4 645 6 7 8 9 650 1 2 3 4 655 6 7 8 9 660 1 2 3 4 665

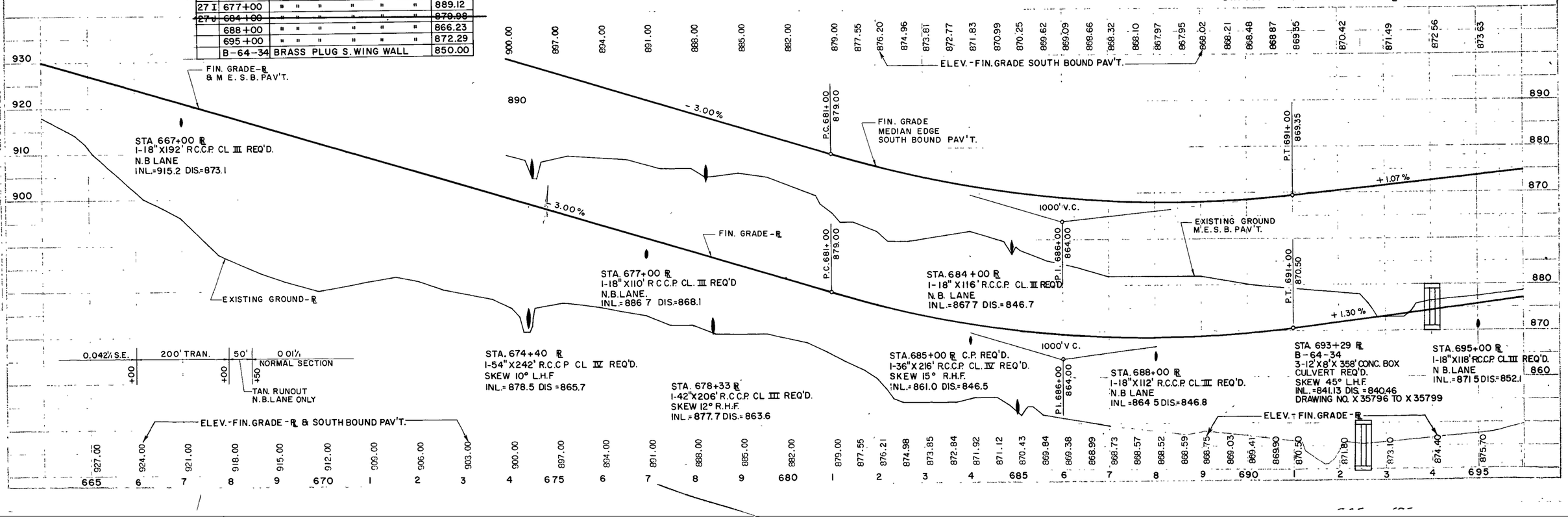
BPR DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	9	41

1081-2-81



STA 665+00 TO STA.695+00 NET ℞ LENGTH = 2944.60'

BENCH MARKS			
No.	STATION	DESCRIPTION	ELEV.
31	668+97	R.R. SPK. IN 32" OAK -35' LT.	885.23
32	677+25	R.R. SPK. IN 10" CHERRY -38' RT.	872.73
	667+00	TOP OF CULV. PIPE-MEDIAN END	917.39
27 I	677+00	" " " " " "	889.12
~~27 J~~	~~684+00~~	~~" " " " " "~~	~~870.98~~
	688+00	" " " " " "	866.23
	695+00	" " " " " "	872.29
	B-64-34	BRASS PLUG S. WING WALL	850.00



5B.

B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	10	41

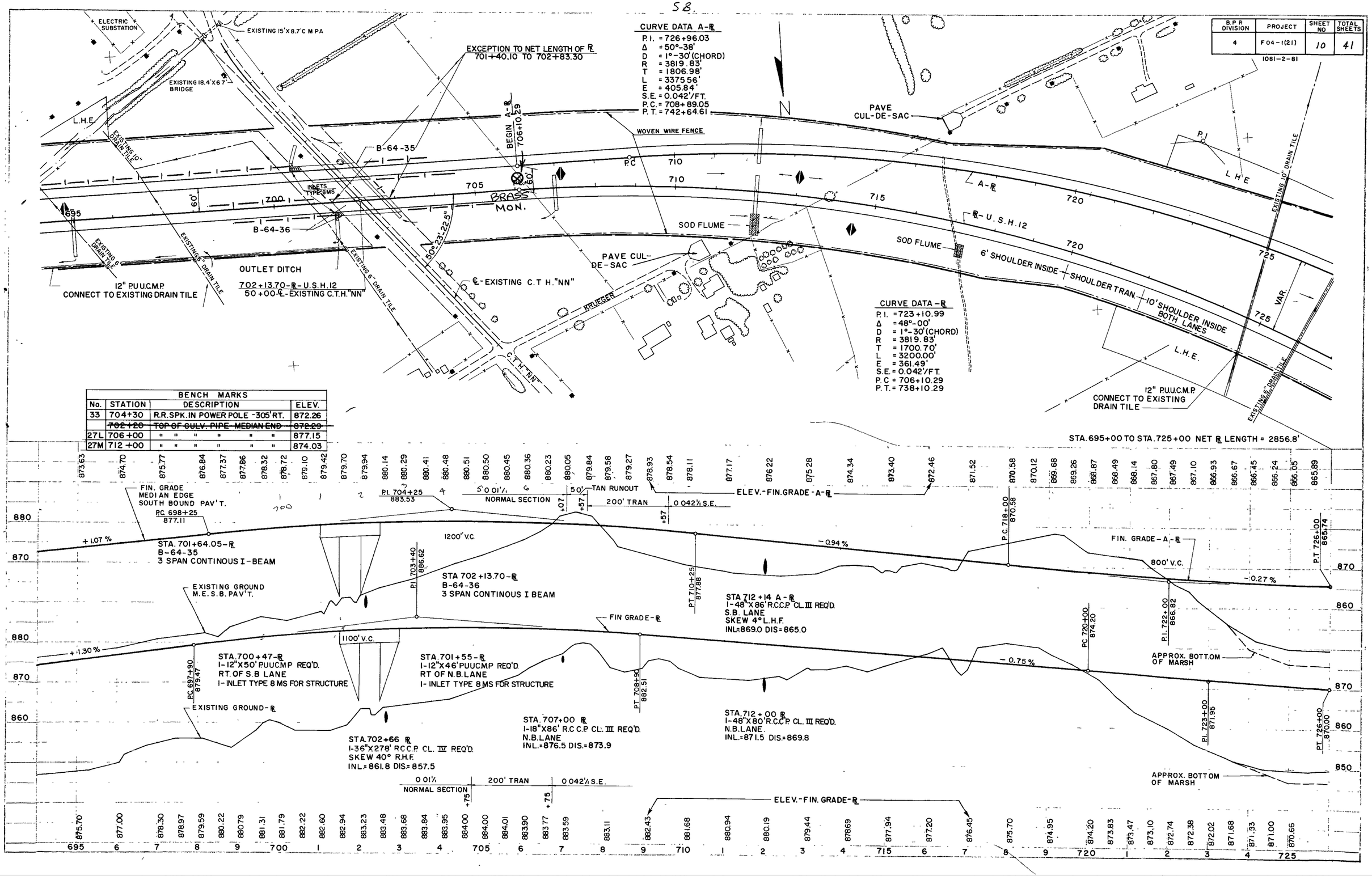
1081-2-81

CURVE DATA A-℞

P.I. = 726+96.03
Δ = 50°-38'
D = 1°-30' (CHORD)
R = 3819.83'
T = 1806.98'
L = 3375.56'
E = 405.84'
S.E. = 0.042'/FT.
P.C. = 708+89.05
P.T. = 742+64.61

CURVE DATA -℞

P.I. = 723+10.99
Δ = 48°-00'
D = 1°-30' (CHORD)
R = 3819.83'
T = 1700.70'
L = 3200.00'
E = 361.49'
S.E. = 0.042'/FT.
P.C = 706+10.29
P.T. = 738+10.29

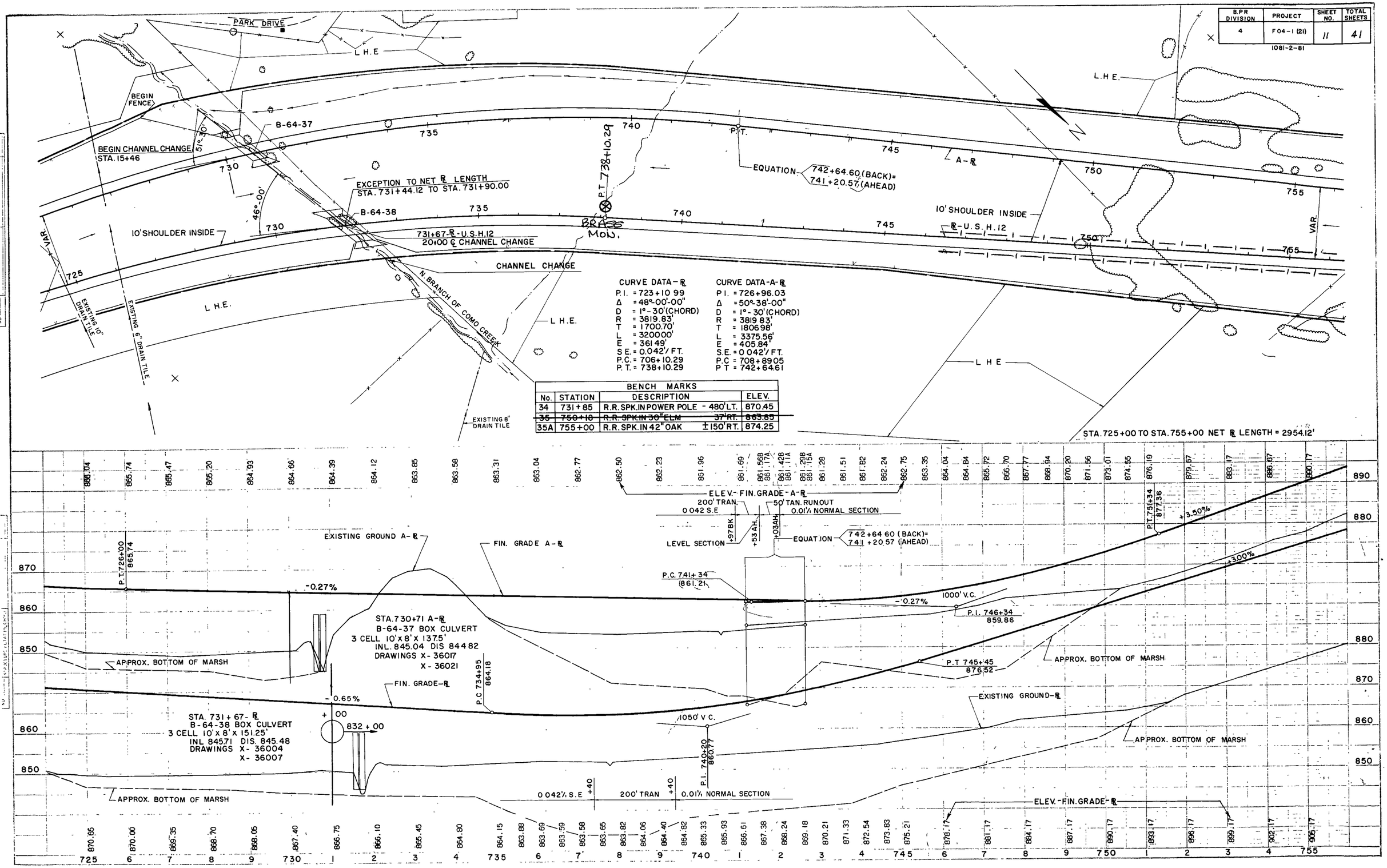


BENCH MARKS

No.	STATION	DESCRIPTION	ELEV.
33	704+30	R.R. SPK. IN POWER POLE -305' RT.	872.26
	~~702+20~~	~~TOP OF CULV. PIPE MEDIAN END~~	~~872.29~~
27L	706+00	" " " " " "	877.15
27M	712+00	" " " " " "	874.03

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1 (21)	11	41

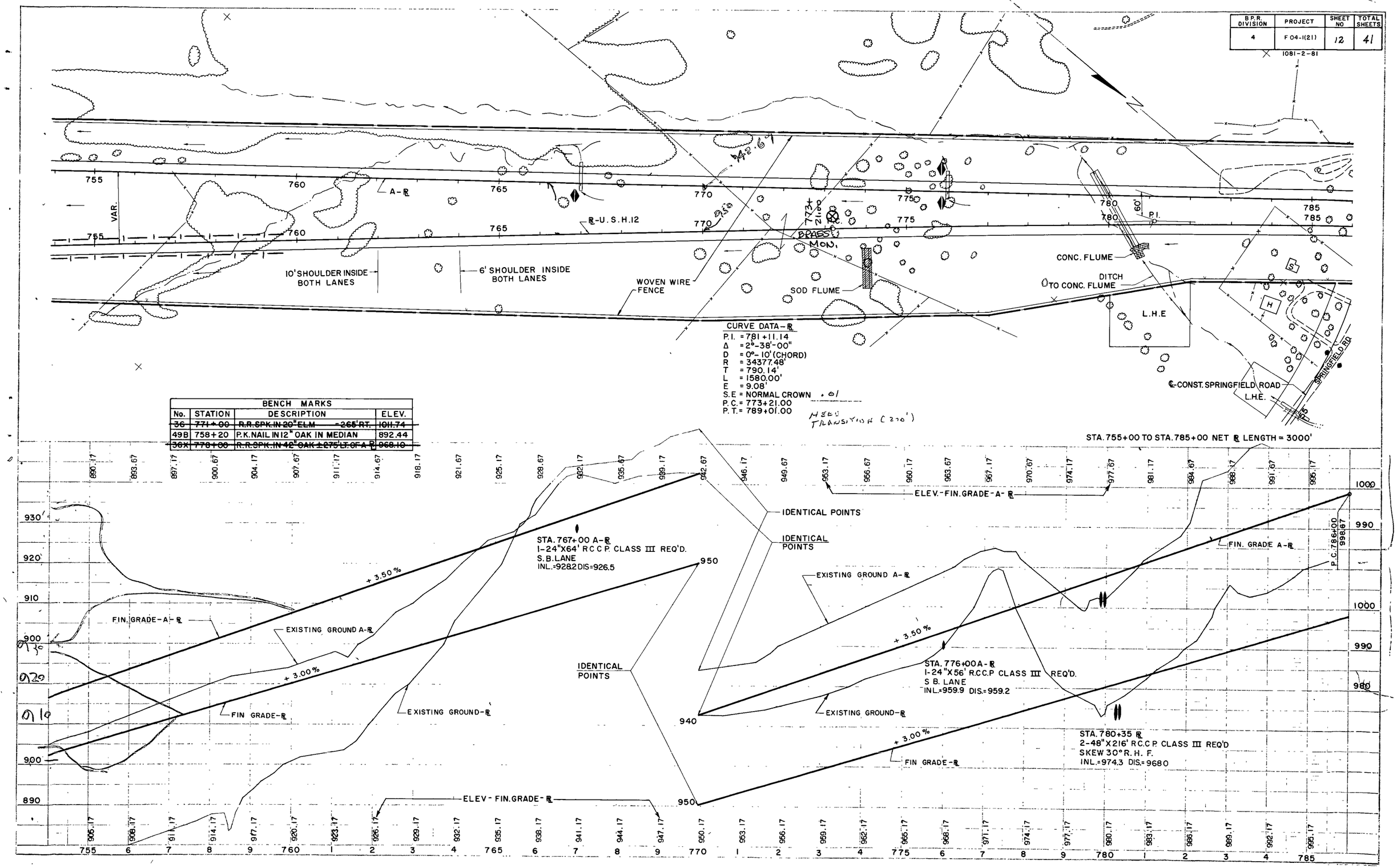
1081-2-81



BENCH MARKS			
No.	STATION	DESCRIPTION	ELEV.
34	731+85	R.R. SPK. IN POWER POLE - 480' LT.	870.45
~~35~~	~~750+10~~	~~R.R. SPK. IN 30" ELM 37' RT.~~	~~863.85~~
35A	755+00	R.R. SPK. IN 42" OAK ±150' RT.	874.25

B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F 04-1(21)	12	41

1081-2-81



BENCH MARKS			
No.	STATION	DESCRIPTION	ELEV.
~~36~~	~~771+00~~	~~R.R.SPK.IN 20" ELM - 265' RT.~~	~~1011.74~~
49B	758+20	P.K.NAIL IN 12" OAK IN MEDIAN	892.44
~~36X~~	~~778+00~~	~~R.R.SPK.IN 42" OAK ±275' LT. OF A-℞~~	~~968.10~~

CURVE DATA-℞

P.I. = 781+11.14
Δ = 2°-38'-00"
D = 0°-10' (CHORD)
R = 34377.48'
T = 790.14'
L = 1580.00'
E = 9.08'
S.E = NORMAL CROWN .01
P.C. = 773+21.00
P.T. = 789+01.00

NEED TRANSITION (270')

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	13	41

1081-2-81

CURVE DATA – ℞
P.I. = 810+39.44
Δ = 21°-23'-00"
D = 1°-30' (CHORD)
R = 3819.83'
T = 721.19'
L = 1425.56'
E = 67.49'
S.E. = 0.042'/FT
P.C. = 803+18.25
P.T. = 817+43.81

46+60.00-℄-CONST SPRINGFIELD ROAD
6+51.19-℄-RELOCATION WILLOW BEND ROAD
℄-RELOCATED WILLOW BEND RD.
WIS. TEL. CO.
P.C.10
73°-58'-23"
79°-10'-04.7"
END A-1 789+01.00
WILLOW BEND ROAD
P.I.
P.T.
EXISTING 12" C M P
EXISTING 12" C M P
60'
785
790
795
800
805
810
815
℞-U.S. H.12
BRASS MON.
803+18.25
BRASS MON.
P.I.
B-64-39
6" X 90' PUCMP REQ'D
SOD FLUME
786+48.90-℞ U S H 12
50+00-℄ CONST SPRINGFIELD RD
℄-CONST SPRINGFIELD ROAD
SPRINGFIELD ROAD
P.I.
WISC. TEL. CO. BURIED CONDUIT, 1-ABANDONED & RELOCATED IN SAME LOCATION BELOW HIGHWAY CONSTRUCTION.
WOVEN WIRE FENCE
650'
L.H.E.
L.H.E.

BENCH MARKS			
No.	STATION	DESCRIPTION	ELEV.
~~37~~	~~786+70~~	~~R.R. SPK. IN POWER POLE 160' RT.~~	~~1019.52~~
~~38~~	~~814+60~~	~~R.R. SPK. IN 20" HICKORY 540' LT.~~	~~1007.72~~
69	803+00	SPIKE IN 14" POPLAR – LT. AT WILLOW BEND RD.	1012.07
		PLUG S.W. CURB B-64-39	1020.85

STA. 785+00 TO STA. 815+00 NET ℞ LENGTH = 3000'

995.17 998.67 1000.38 1002.00 1003.54 1005.00 1006.38 1007.67 1008.88 1010.00 1011.04 1012.00 1012.88 1013.67 1014.38 1015.00 1015.54 1016.00 1016.38 1016.67 1016.88 1018.00 1017.04 1017.00 1016.88 1016.67 1016.17 1015.67 1015.17 1014.67 1014.17 1013.67 1013.17 1012.67 1012.17 1011.67 1011.17 1010.67 1010.17 1009.93 1009.71 1009.50 1009.32 1009.15 1009.01 1008.88 1008.77

ELEV. - FIN. GRADE SOUTH BOUND PAV'T.

STA. 786+48.90-℞
B-64-39
2 SPAN CONTINOUS STEEL BEAM
27' CLEAR ROADWAY
SEE DRAWINGS NO. X-36549 TO X-36561

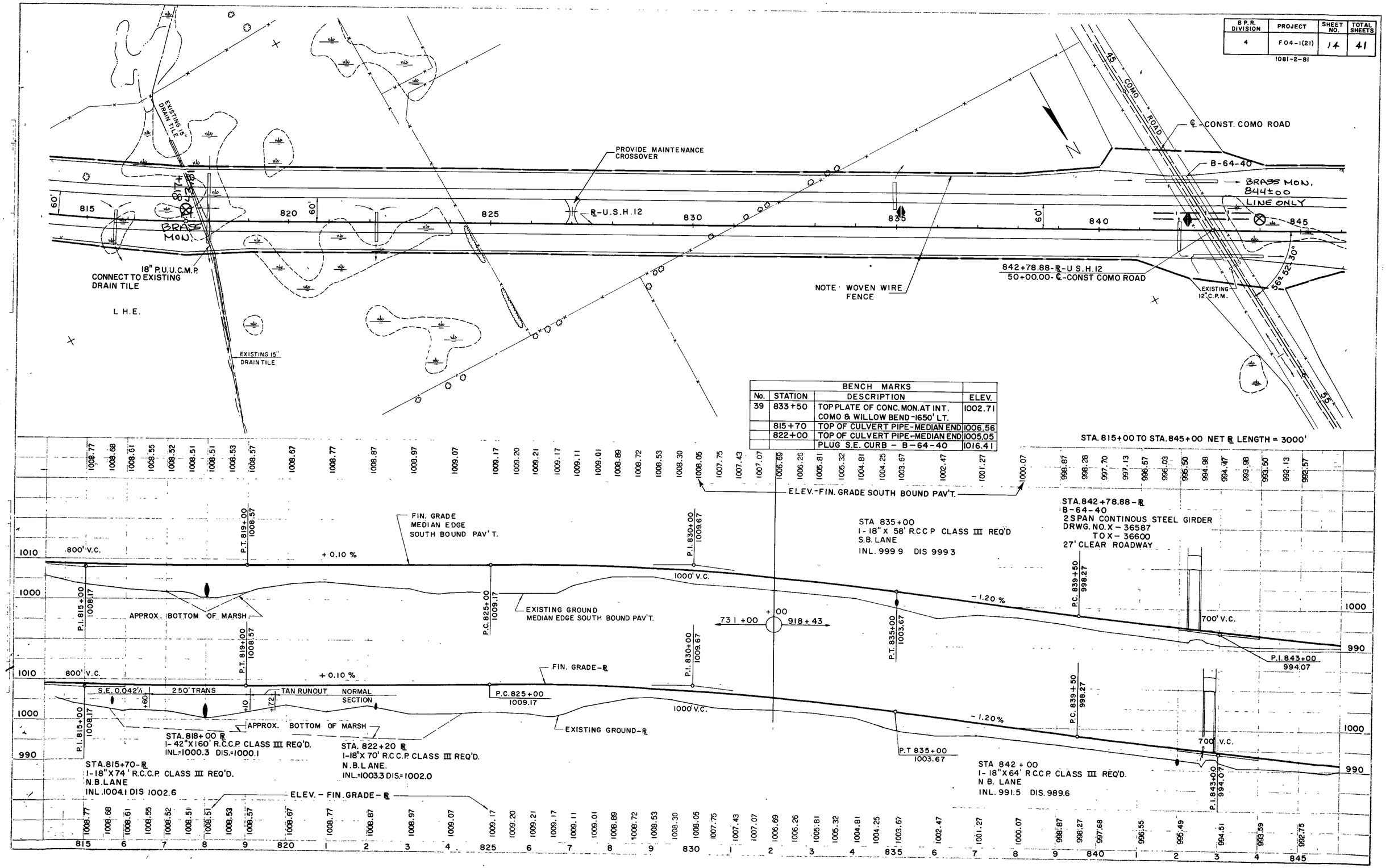
P.I. 792+00 1019.67
FIN. GRADE MEDIAN EDGE SOUTH BOUND PAV'T.
P.C. 811+00 1010.17
1020
1010
1000
EXISTING GROUND A-℞
1200' V.C.
– 0.50%
800' V.C.
FIN. GRADE A-℞
EXISTING GROUND MEDIAN EDGE SOUTH BOND PAV'T.
P.T. 798+00 1016.67
APPROX. BOTTOM OF MARSH
APPROX. BOTTOM OF MARSH
+ 3.50%
STA. 787+45 ℞
1-18" X 64' R.C.C.P. CLASS III REQ'D.
S.B. LANE
INL.=998.9 DIS.=998.6
P.C. 786+00 998.67
P.I. 793+00 1019.17
FIN. GRADE-℞
P.C. 811+00 1010.17
P.I. 815+00 1008.17
– 0.50%
800' V.C.
1000' V.C.
+ 3.00%
P.C. 788+00 1004.17
P.T. 798+00 1016.67
APPROX. BOTTOM OF MARSH
EXISTING GROUND-℞
STA. 806+60 ℞
1-18" X 78' R.C.C.P. CLASS III REQ'D.
N.B. LANE
INL. 1007.2 DIS. 1006.1
APPROX. BOTTOM OF MARSH
NORMAL SECTION
+88
+50
TAN. RUNOUT
250' TRANS
+00
S.E. 0.042'/'
STA. 808+20 ℞
1-36" X 152' R.C.C.P. CLASS III REQ'D.
INL.=1005.0 DIS.=1004.3
ELEV. - FIN. GRADE - ℞

995.17 998.17 1001.17 1004.17 1005.63 1007.00 1008.28 1009.47 1010.58 1011.60 1012.53 1013.37 1014.13 1014.80 1015.38 1015.87 1016.28 1016.60 1016.83 1016.97 1017.03 1017.00 1016.88 1016.67 1016.17 1015.67 1015.17 1014.67 1014.17 1013.67 1013.17 1012.67 1012.17 1011.67 1011.17 1010.67 1010.17 1009.93 1009.71 1009.50 1009.32 1009.15 1009.01 1008.88 1008.77

785 6 7 8 9 790 1 2 3 4 795 6 7 8 9 800 1 2 3 4 805 6 7 8 9 810 1 2 3 4 815

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	14	41

1081-2-81

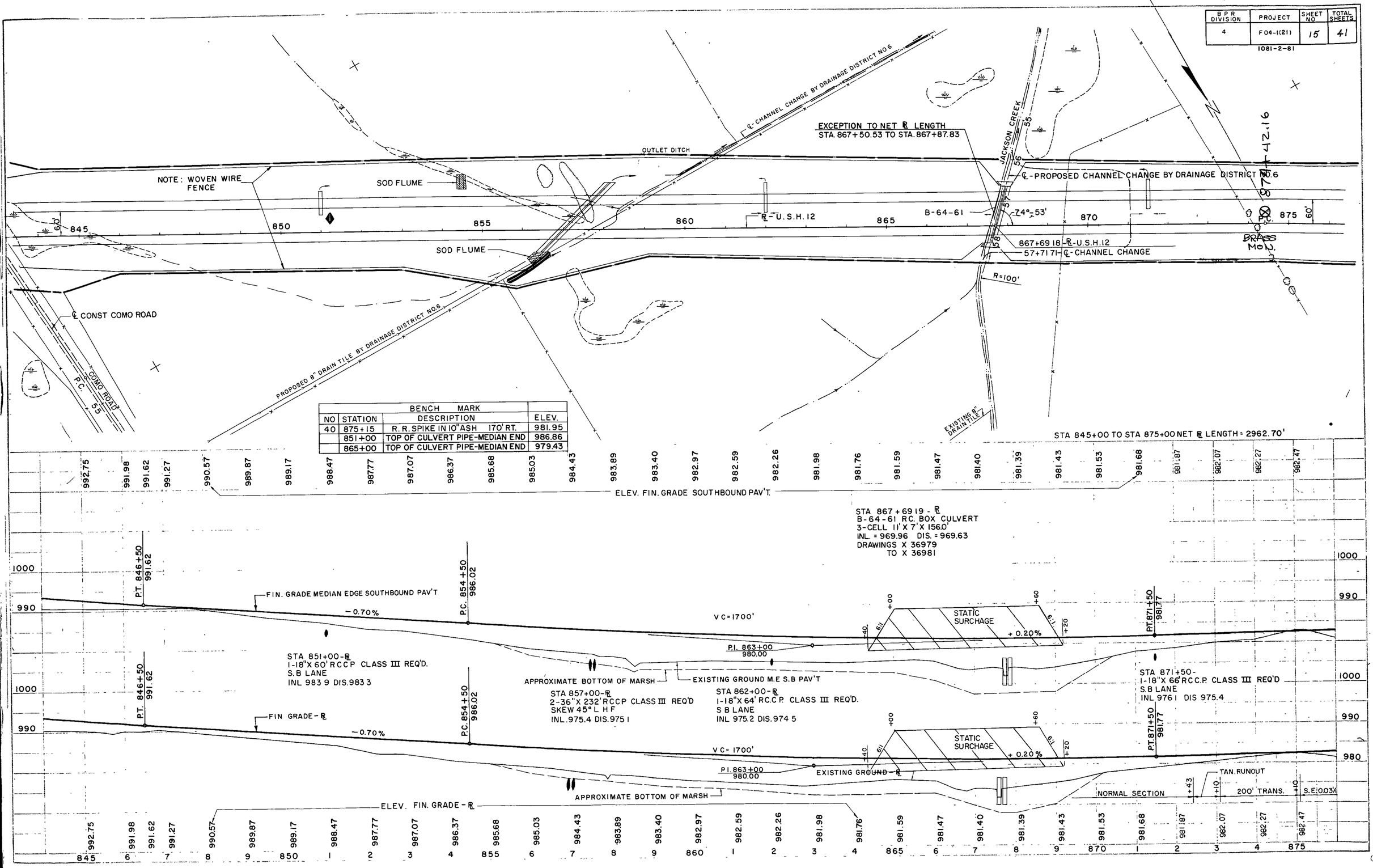


BENCH MARKS			
No.	STATION	DESCRIPTION	ELEV.
39	833+50	TOP PLATE OF CONC. MON. AT INT. COMO & WILLOW BEND-1650' LT.	1002.71
	815+70	TOP OF CULVERT PIPE-MEDIAN END	1006.56
	822+00	TOP OF CULVERT PIPE-MEDIAN END	1005.05
		PLUG S.E. CURB - B-64-40	1016.41

815 - 845

B P R DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	15	41

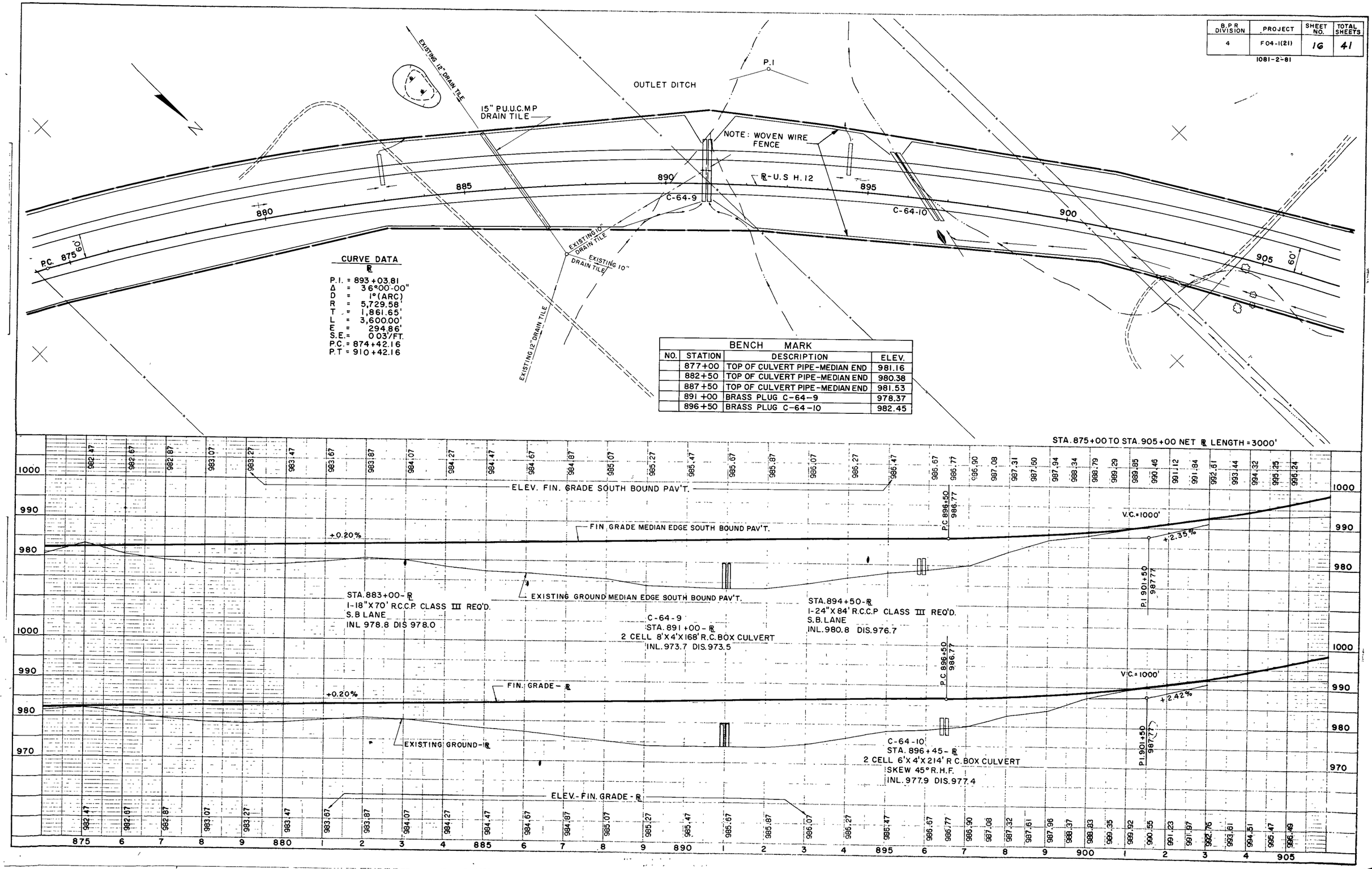
1081-2-81



BENCH MARK			
NO	STATION	DESCRIPTION	ELEV.
40	875+15	R.R. SPIKE IN 10" ASH 170' RT.	981.95
	851+00	TOP OF CULVERT PIPE-MEDIAN END	986.86
	865+00	TOP OF CULVERT PIPE-MEDIAN END	979.43

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	16	41

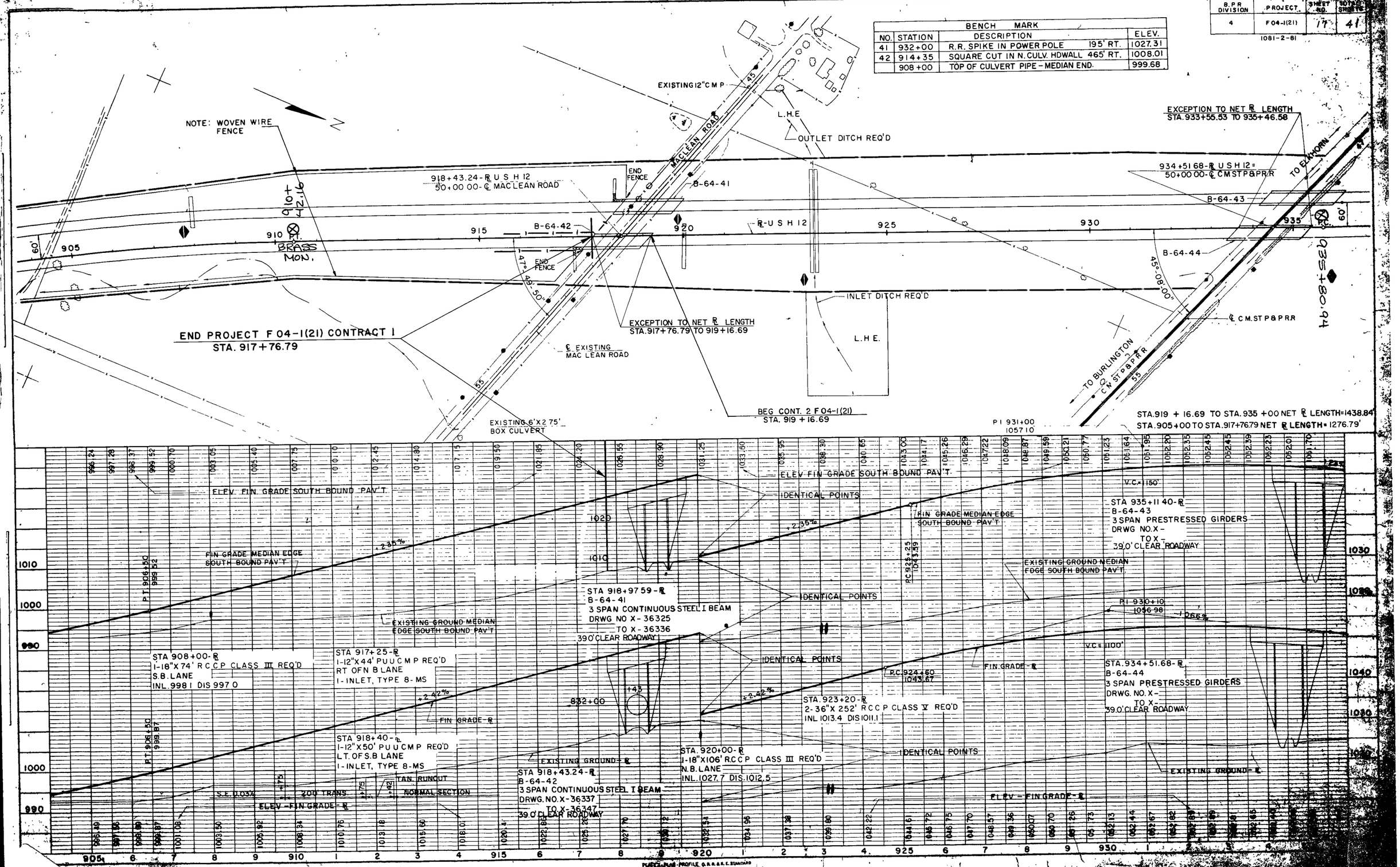
1081-2-81



B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	17	41

1081-2-81

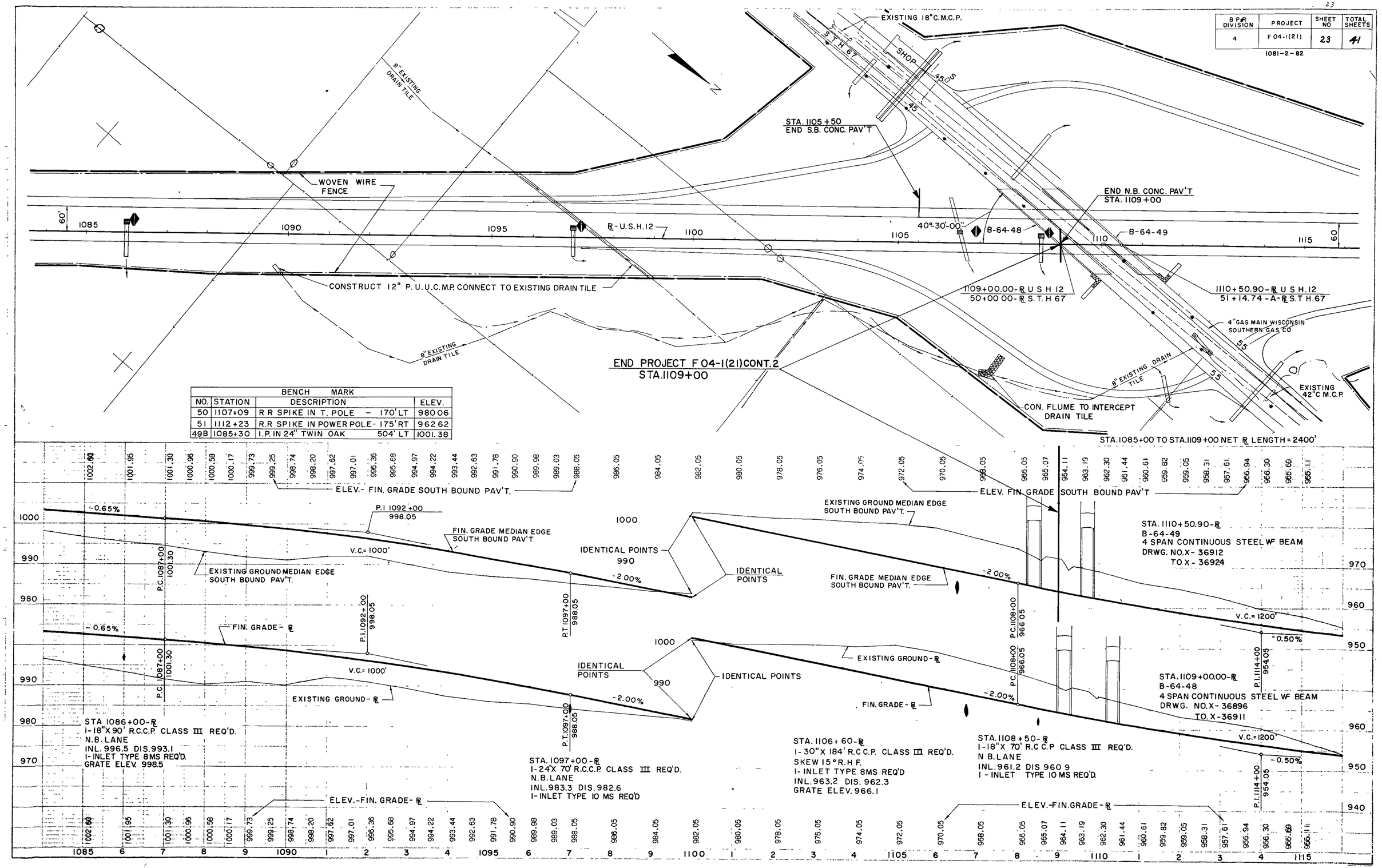
BENCH MARK			
NO.	STATION	DESCRIPTION	ELEV.
41	932+00	R.R. SPIKE IN POWER POLE 195' RT.	1027.31
42	914+35	SQUARE CUT IN N. CULV. HDWALL 465' RT.	1008.01
	908+00	TOP OF CULVERT PIPE - MEDIAN END.	999.68



PLAN & PLAN-PROFILE, G.R.&R.E. STANDARD

BPR DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F 04-1(21)	23	41

1081-2-82



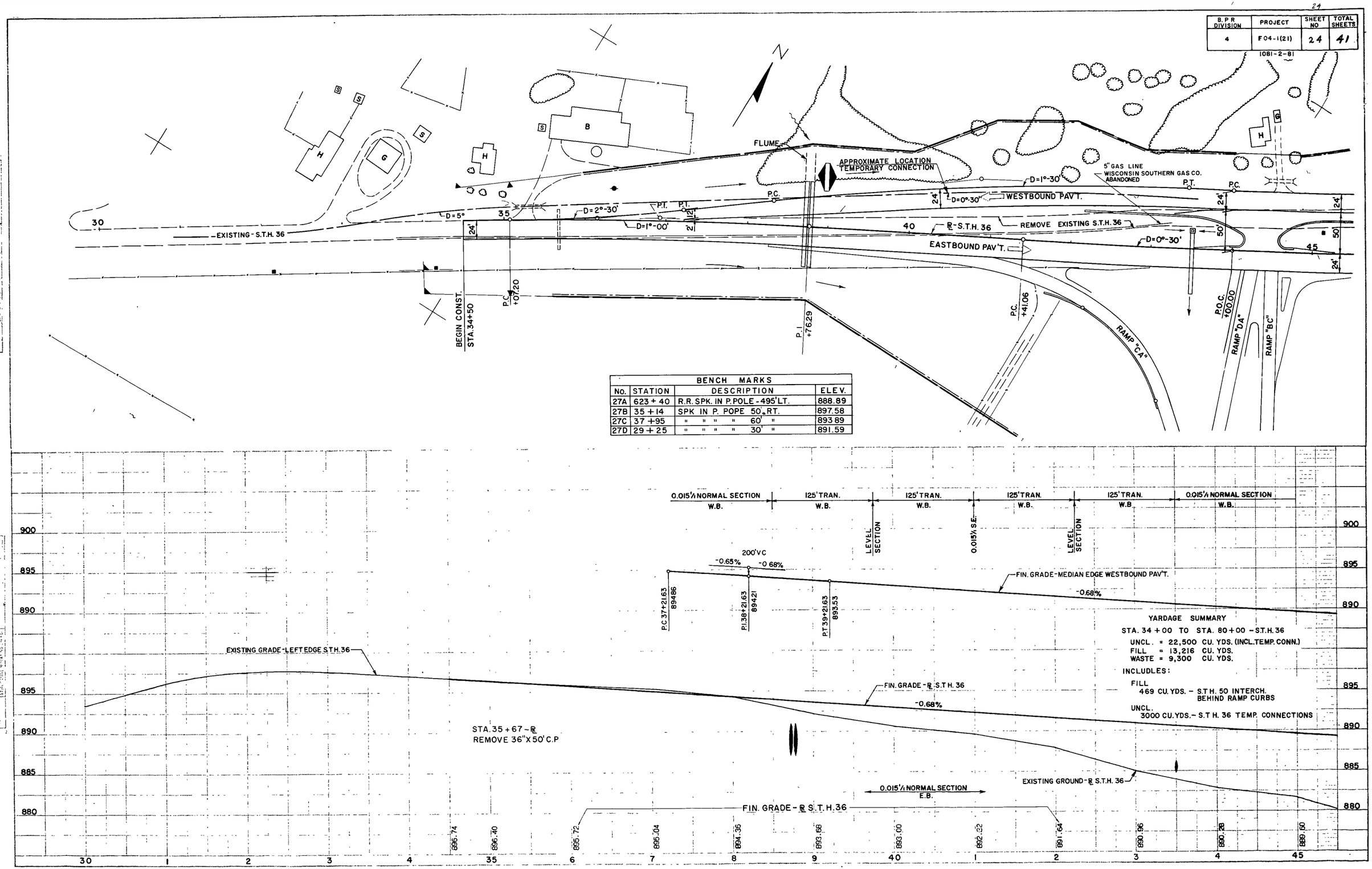
BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
50	1107+09	R R SPIKE IN T. POLE - 170' LT	980.06
51	1112+23	R.R SPIKE IN POWER POLE - 175' RT	962.62
498	1085+30	I.P. IN 24" TWIN OAK 504' LT	1001.38

1085-1115

B. P. R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	24	41

1081-2-81



BENCH MARKS			
No.	STATION	DESCRIPTION	ELEV.
27A	623 + 40	R.R. SPK. IN P. POLE - 495' LT.	888.89
27B	35 + 14	SPK IN P. POPE 50' RT.	897.58
27C	37 + 95	" " " " 60' "	893.89
27D	29 + 25	" " " " 30' "	891.59

YARDAGE SUMMARY

STA. 34 + 00 TO STA. 80 + 00 - S.T.H. 36

UNCL. = 22,500 CU. YDS. (INCL. TEMP. CONN.)
FILL = 13,216 CU. YDS.
WASTE = 9,300 CU. YDS.

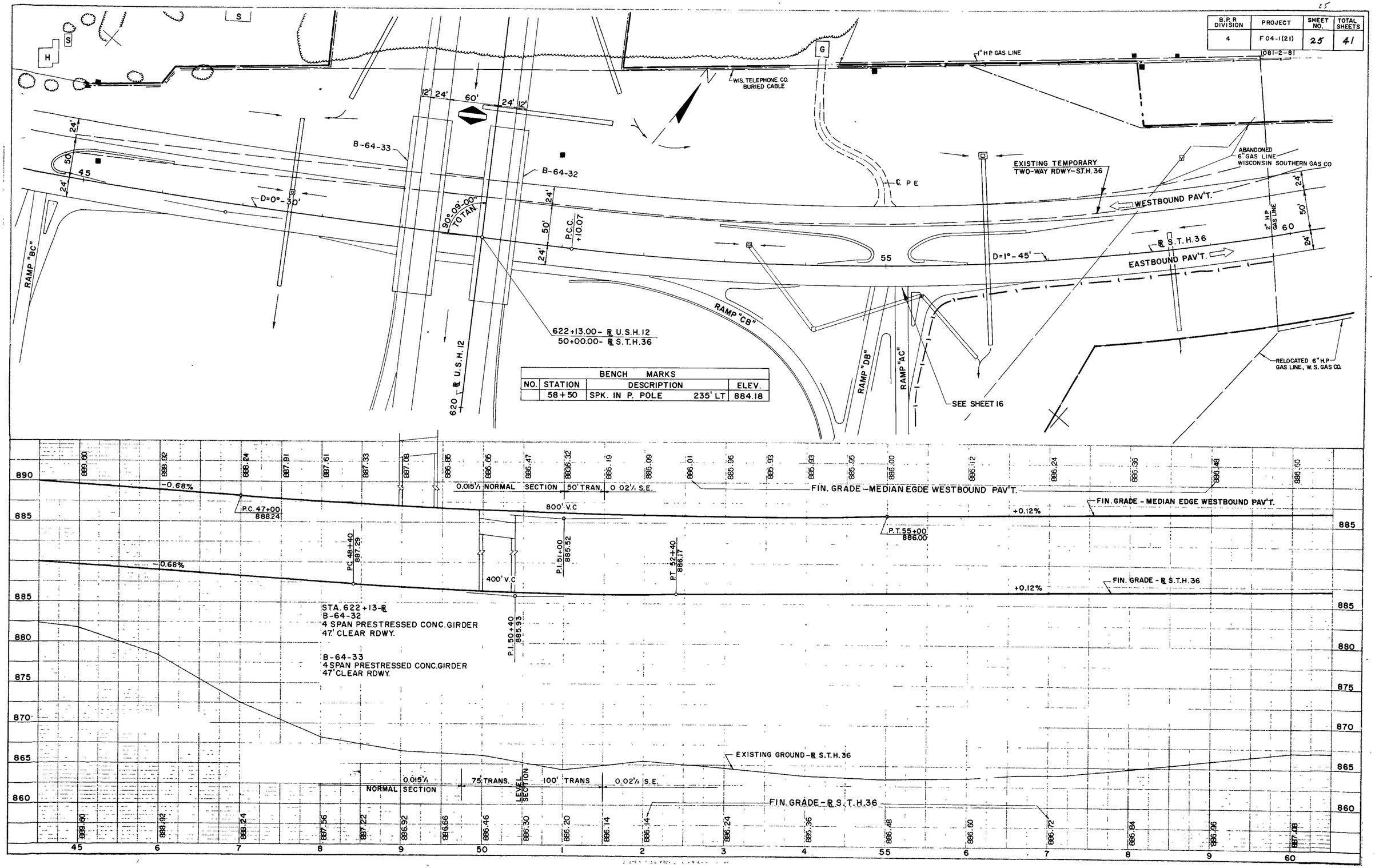
INCLUDLES:

FILL
469 CU. YDS. - S.T.H. 50 INTERCH. BEHIND RAMP CURBS

UNCL.
3000 CU. YDS. - S.T.H. 36 TEMP. CONNECTIONS

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	25	41

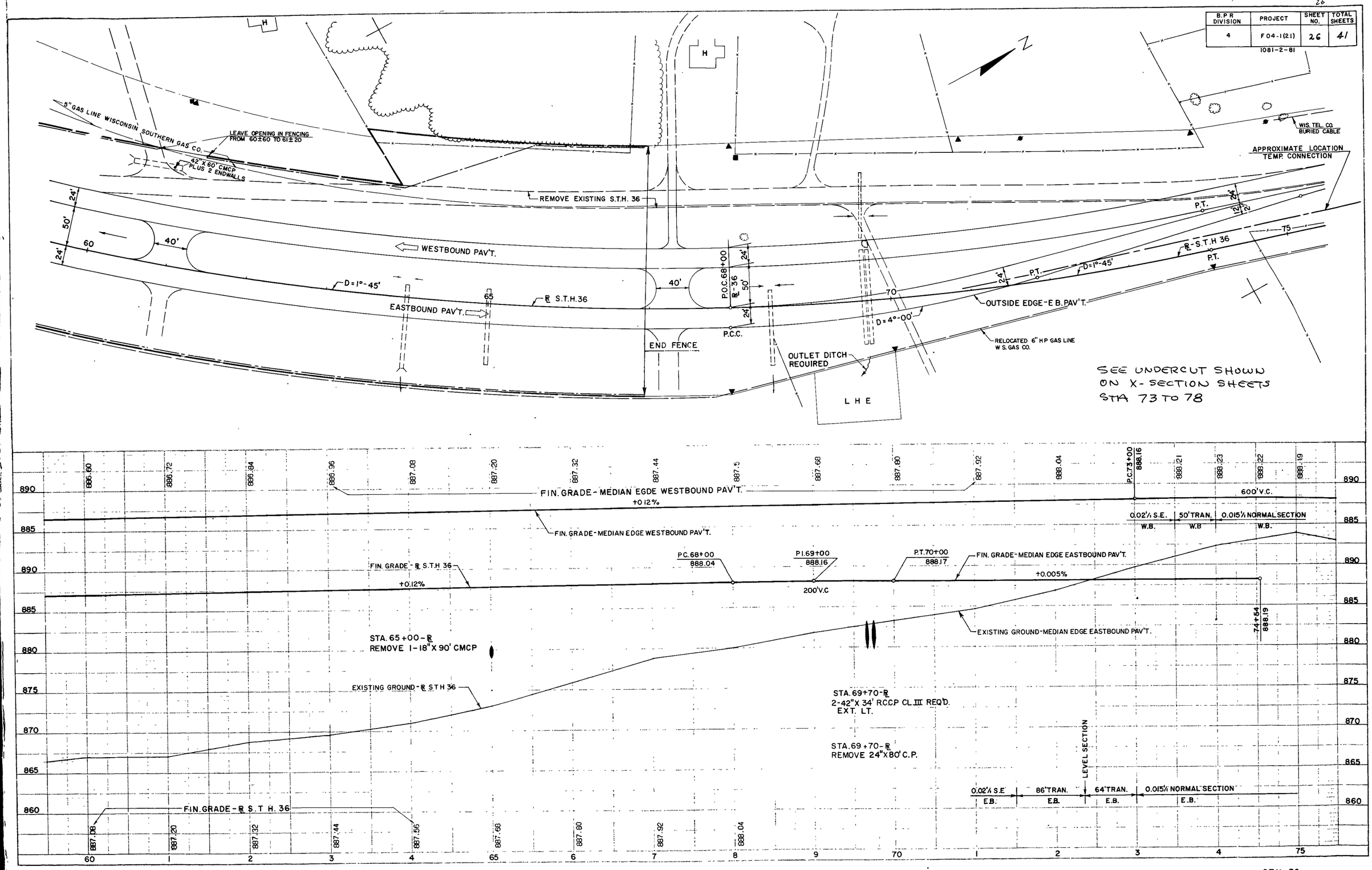
1081-2-81



S.T.H. 36

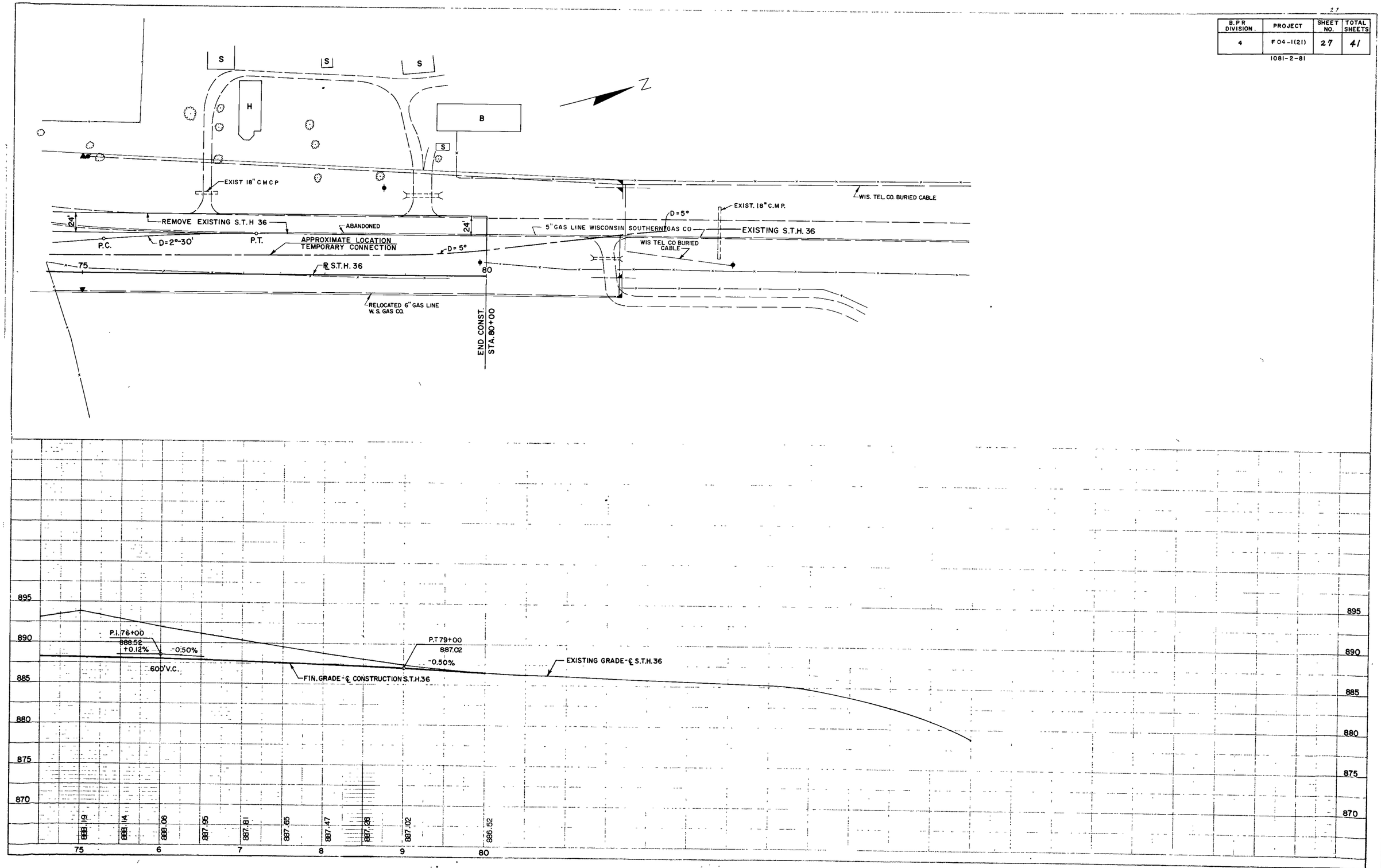
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F.04-1(21)	26	41

1081-2-81

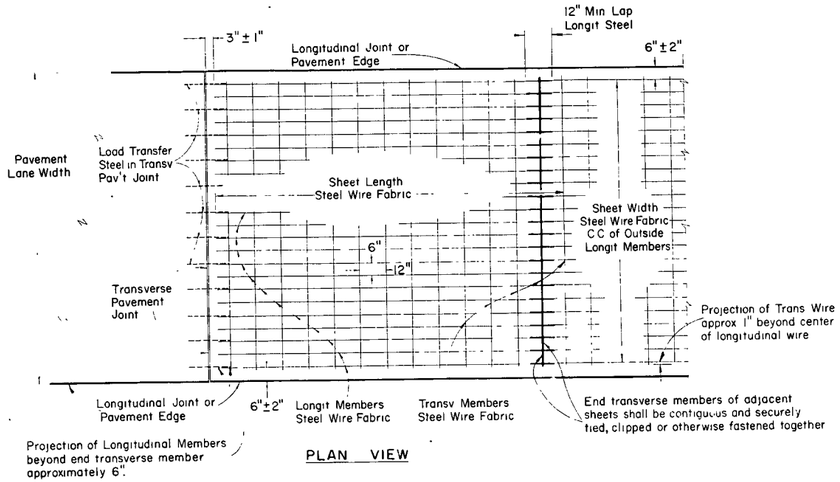


B.P.R. DIVISION.	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	27	41

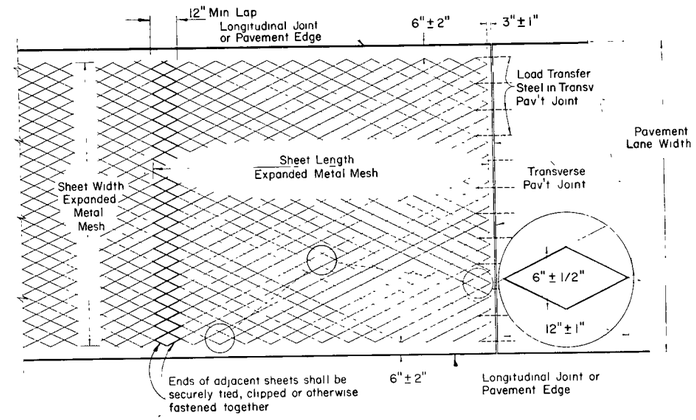
1081-2-81



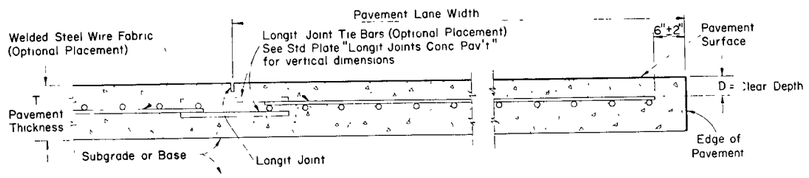
28-41



PLAN VIEW

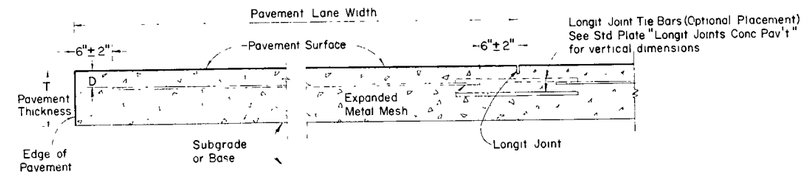


PLAN VIEW



CROSS SECTION

WELDED STEEL WIRE FABRIC



CROSS SECTION

EXPANDED METAL MESH

Pavement Thickness	"D"
8"	2"-4"
9"	2"-4 1/2"
10"	2"-5"

GENERAL NOTES-

Details of Construction and Materials not shown hereon shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

WELDED STEEL WIRE FABRIC

Manufacturer's No 612-04
Approx Weight per 100 Sq Ft = 69.0 lbs
Longitudinal Steel - Gage No 0 = 0.3065" D at 6" C C
Transverse Steel - Gage No 4 = 0 2253" D at 12" C C

Welded Steel Wire Fabric shall conform to the requirements of the Standard Specifications for Welded Steel Wire Fabric for Concrete Reinforcement A A S H O Designation M55
Side lap of adjacent sheets approximate 6"

EXPANDED METAL MESH

Weight per 100 Sq Ft = 76.0 lbs min
Expanded Metal Mesh shall be manufactured from open hearth steel, having a phosphorus content of not more than 0 05 percent, and a yield point of not less than 55,000 p s i The steel shall be sufficiently ductile to permit any strand to be bent through an angle of 180 degrees over one diam without fracture
The diamond shaped mesh shall be fabricated by a cold drawn process which will cut and draw the steel forming uniform dimensioned strands conforming to shape and weight as shown elsewhere hereon
Side lap of adjacent sheets approximate 6"

SHIPPING REQUIREMENTS

Welded Steel Wire Fabric or Expanded Metal Mesh Concrete Pavement Reinforcement shall be shipped to the job site in flat sheets

S T D D E T A I L

CONCRETE PAVEMENT REINFORCEMENT

STATE HIGHWAY COMMISSION OF WISCONSIN

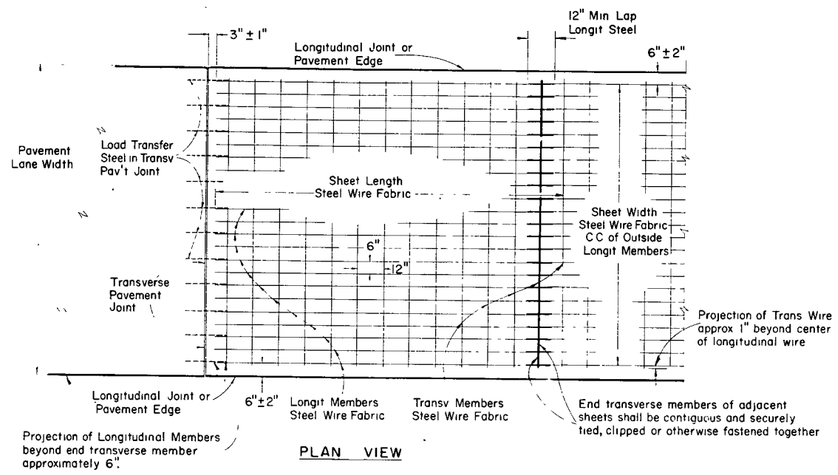
RECOMMENDED FOR APPROVAL

DATE — CHIEF DESIGN ENGINEER

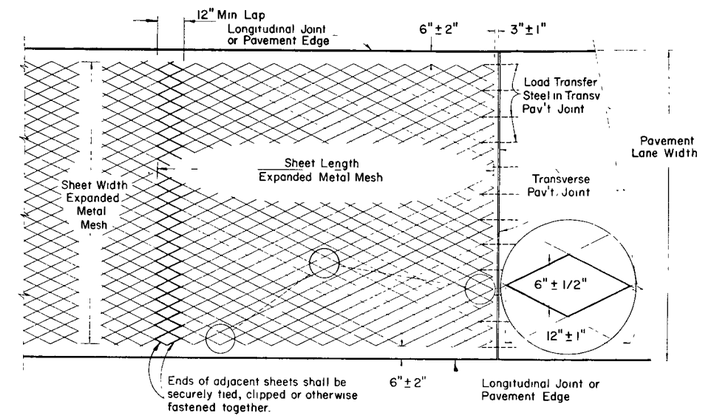
APPROVED 2/2/66 DATE — STATE HIGHWAY ENGINEER

PLATE NO 2 1 2

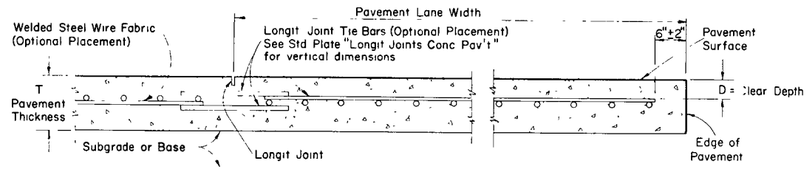
2841



PLAN VIEW

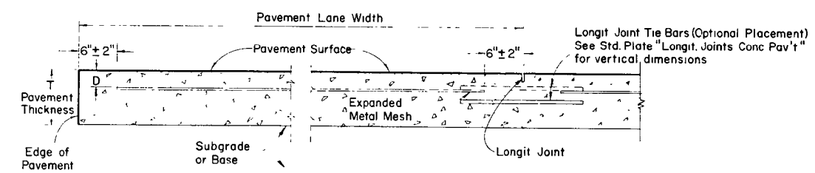


PLAN VIEW



CROSS SECTION

WELDED STEEL WIRE FABRIC



CROSS SECTION

EXPANDED METAL MESH

Pavement Thickness	"D"
8"	2"-4"
9"	2"-4 1/2"
10"	2"-5"

GENERAL NOTES-

Details of Construction and Materials not shown hereon shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

WELDED STEEL WIRE FABRIC

Manufacturer's No 612-04
Approx Weight per 100 Sq Ft = 69.0 lbs.
Longitudinal Steel - Gage No. 0 = 0.3065" D at 6" C C
Transverse Steel - Gage No 4 = 0 2253" D. at 12" C'C

Welded Steel Wire Fabric shall conform to the requirements of the Standard Specifications for Welded Steel Wire Fabric for Concrete Reinforcement A A S H.O Designation M55
Side lap of adjacent sheets approximate 6"

EXPANDED METAL MESH

Weight per 100 Sq Ft = 76.0 lbs min
Expanded Metal Mesh shall be manufactured from open hearth steel, having a phosphorus content of not more than 0.05 percent, and a yield point of not less than 55,000 p s i The steel shall be sufficiently ductile to permit any strand to be bent through an angle of 180 degrees over one diam without fracture
The diamond shaped mesh shall be fabricated by a cold drawn process which will cut and draw the steel forming uniform dimensioned strands conforming to shape and weight as shown elsewhere hereon
Side lap of adjacent sheets approximate 6"

SHIPPING REQUIREMENTS

Welded Steel Wire Fabric or Expanded Metal Mesh Concrete Pavement Reinforcement shall be shipped to the job site in flat sheets

CONCRETE PAVEMENT REINFORCEMENT

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

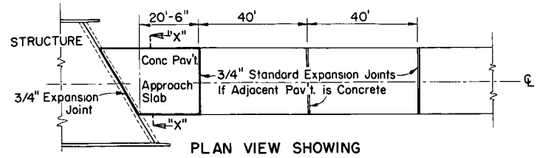
DATE 2-2-66 — CHIEF DESIGN ENGINEER

APPROVED

DATE 2/2/66 — STATE HIGHWAY ENGINEER

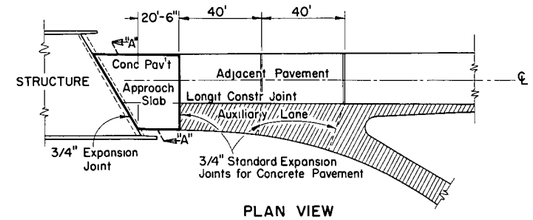
PLATE NO 2 1 1 2

28.1-41



PLAN VIEW SHOWING

CONCRETE PAVEMENT APPROACH SLAB & ADJACENT PAVEMENT



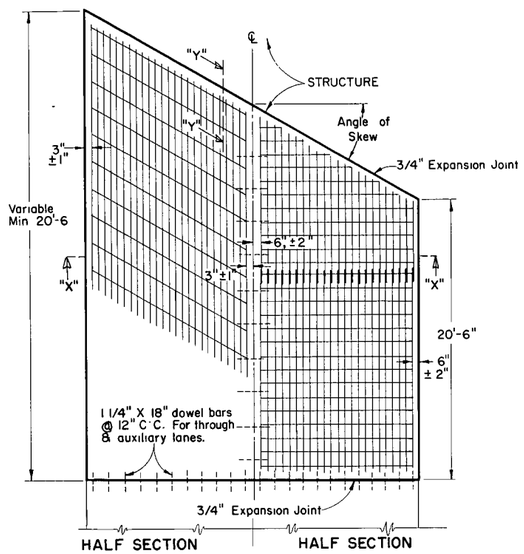
PLAN VIEW

CONCRETE PAVEMENT APPROACH SLAB WITH AUXILIARY LANE & ADJACENT PAVEMENT

INFORMATION FOR BIDDING PURPOSES

ESTIMATE QUANTITIES FOR VARIOUS SKEWED STRUCTURE APPROACHES (ONE END ONLY) 24 FOOT WIDTH PAVEMENT

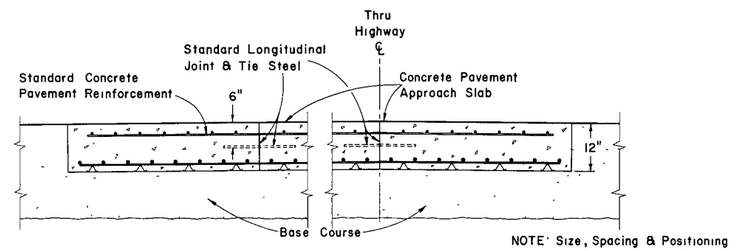
Angle of Skew	Concrete Pavement Sq. Yards	Concrete Pavement Cu. Yards	Concrete Pavement Reinforc't. Sq. Yards	Bar Steel 48 Pcs. No 8 x 20'-0" Pounds	Bar Steel Spacer Bars No. 4 Pounds
0°	54.7	18.2	54.7	2,701	156
15°	63.2	21.1	63.2	"	162
30°	73.2	24.4	73.2	"	180
45°	86.7	28.9	86.7	"	220
60°	110.1	36.7	110.1	"	313



HALF SECTION SHOWING REINF. STEEL IN BOTTOM OF SLAB

HALF SECTION SHOWING REINF. STEEL IN TOP OF SLAB

CONCRETE PAVEMENT APPROACH SLAB



NOTE: Size, Spacing & Positioning of steel in pavement same as shown for section "X"-"X".

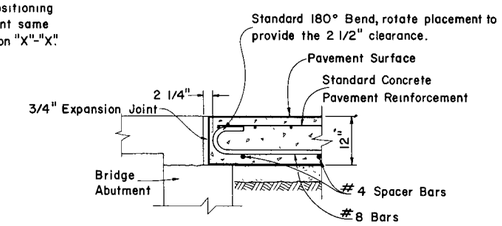
SECTION "A"-"A" SHOWING REINFORCEMENT STEEL

APPROACH SLAB

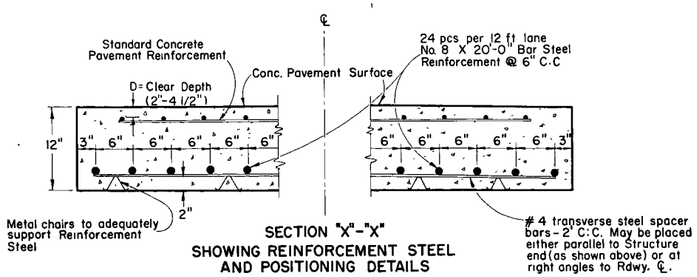
GENERAL NOTES-

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Details for Standard Concrete Pavement Reinforcement shall conform to the pertinent requirements of the Standard Detail Drawing for such reinforcement.

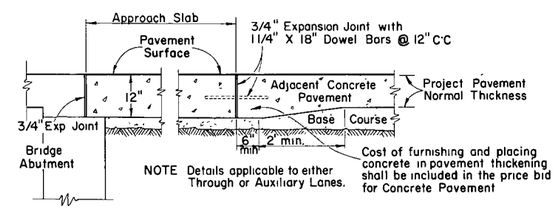


SECTION "Y"-"Y" BEND DETAIL FOR REINF. STEEL IN BOTTOM OF SLAB



SECTION "X"-"X" SHOWING REINFORCEMENT STEEL AND POSITIONING DETAILS

APPROACH SLAB



ELEVATION SHOWING

APPROACH SLAB & ADJACENT PAVEMENT TRANSITION DETAILS

STRUCTURE APPROACH AND CONCRETE PAVEMENT APPROACH SLAB

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL

1/25/68 DATE — E. J. Burkit CHIEF DESIGN ENGINEER

APPROVED

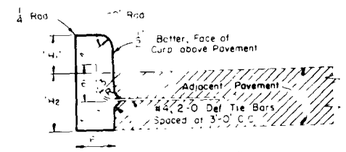
2/8/68 DATE — H. Bennewitz STATE HIGHWAY ENGINEER

Plate No. 2-3.1.5

Plate No. 2-3.1.5

6

28.2-41



Tie Bar recess positioned in reverse when Concrete Curb is constructed first

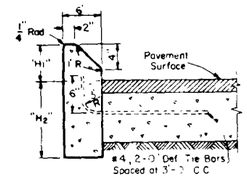
"H1" = 9" max and 3 1/2" min and shall be 6" unless otherwise shown on the plans

"H2" = Same as adjacent pavement thickness for rigid pavement

"H2" = 12" for other than rigid pavement (Tie Bars Omitted)

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE CURB

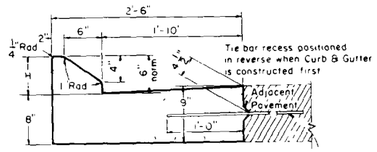


"H1" = 9" Max and 4" min and shall be 6" unless otherwise shown on plans

"H2" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted)

TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

CONCRETE CURB
(Mountable Type)



"H" = 9" max and 4" min & shall be 6" unless otherwise shown on the plans

#4, 2'-0" Def Tie Bars or alternate Bolt Type install may be used, spaced at 3'-0" C.C.

TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

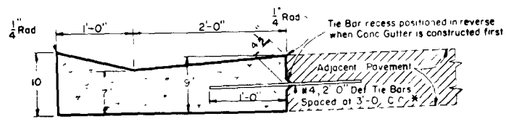
CONCRETE CURB AND GUTTER
(Mountable Type)

GENERAL NOTES

Details of construction and materials not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

JOINTS -

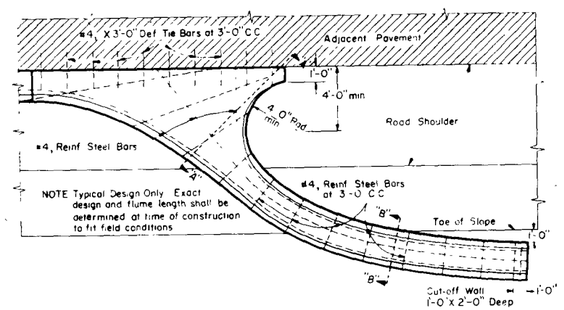
Joints shall not be sealed in concrete curb, concrete gutter, concrete curb and gutter, or concrete surface drains



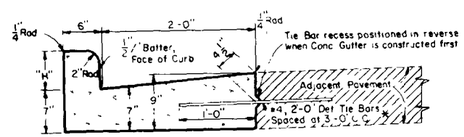
* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE GUTTER



NOTE Typical Design Only. Exact design and flume length shall be determined at time of construction to fit field conditions

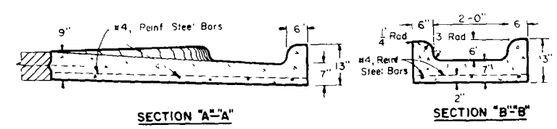


"H" = 9" Max, 3 1/2" Min, and shall be 6" unless otherwise shown on the plans

* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE CURB AND GUTTER
(Barrier Type)



SECTION "A"-"A" SECTION "B"-"B"

CONCRETE INLET OR DISCHARGE FOR CURB AND GUTTER SURFACE DRAIN

CONCRETE CURB, CONCRETE GUTTER CONCRETE CURB AND GUTTER AND CONCRETE SURFACE DRAINS

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

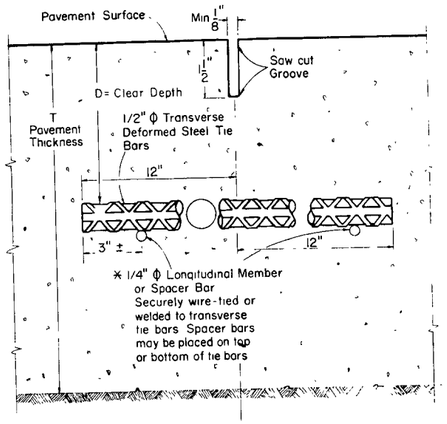
2-5-63 DATE — J. S. Pelf ENGINEER OF DESIGN

APPROVED

2/6/63 DATE — E. C. Rettiger STATE HIGHWAY ENGINEER

PLATE NO. 3-1.1.7

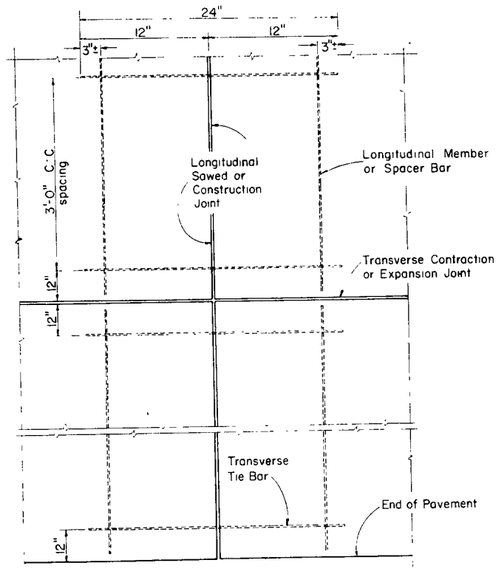
28.3-41



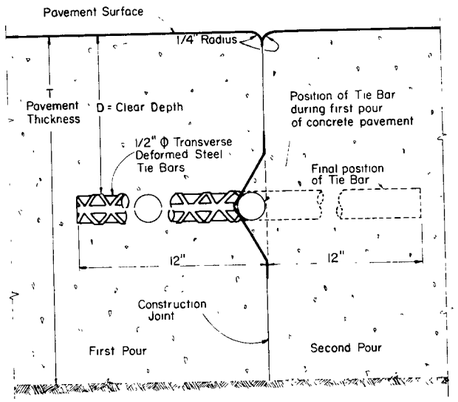
SAWED JOINT

ELEVATION, Showing Tie Bars and Positioning Details

Pavement Thickness	"D"
8"	2"-4 3/4"
9"	2"-5 1/2"
10"	2"-5 3/4"



PLAN VIEW, Showing Tie Bars and Location Details



CONSTRUCTION JOINT

ELEVATION, Showing Tie Bars and Positioning Details

GENERAL NOTES

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

ALTERNATE DESIGNS-

Alternate designs of Bolt Type joint installations may be used upon written approval of the engineer.

SEALING JOINTS -

Longitudinal Joints shall not be sealed

* TIE BARS

Tie bars shall be installed as shown (assembled ladder type pattern), or the longitudinal member spacer bar may be omitted if the transverse tie bars can be accurately placed and firmly held during the placing and setting of concrete by devices or methods approved by the engineer, or if mechanical means of placing the tie bars in the plastic concrete are approved by the engineer

Devices may be omitted on the longitudinal construction joint type when in the opinion of the engineer the tie bars will be retained in their proper designated position

LONGITUDINAL JOINTS
CONCRETE PAVEMENT

STATE HIGHWAY COMMISSION OF WISCONSIN

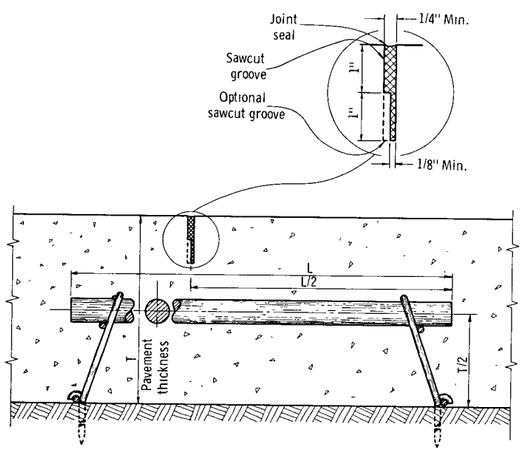
RECOMMENDED FOR APPROVAL:

2/3/66 DATE — E.J. Bykit CHIEF DESIGN ENGINEER

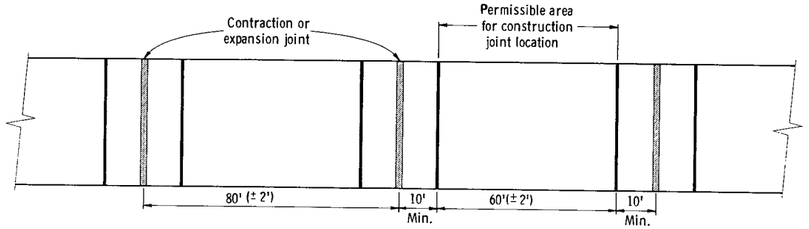
APPROVED

2/3/66 DATE — STATE HIGHWAY ENGINEER

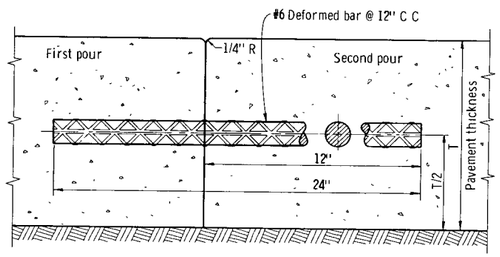
PLATE NO. 4-4.4.8



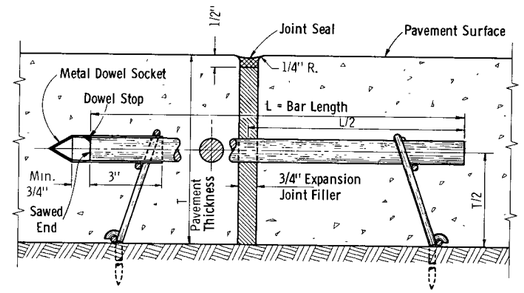
CONTRACTION JOINT



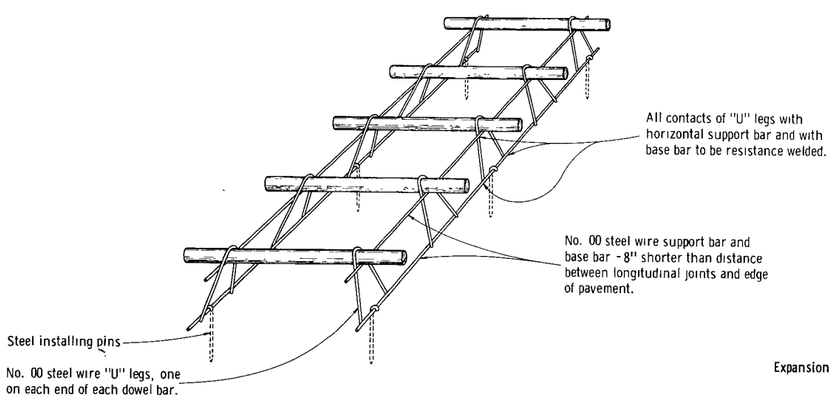
SCHEMATIC SHOWING JOINT LOCATIONS



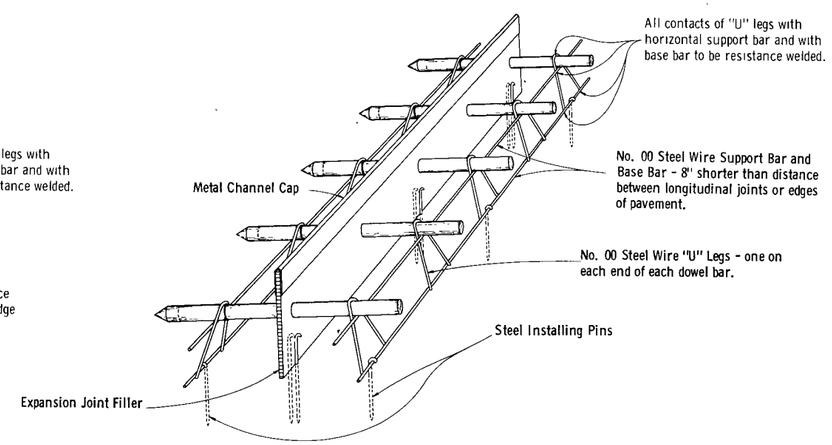
CONSTRUCTION JOINT



EXPANSION JOINT



INSTALLING DEVICE FOR LOAD TRANSFER DOWELS FOR CONTRACTION JOINTS



INSTALLING DEVICE FOR LOAD TRANSFER DOWELS AND EXPANSION JOINT ASSEMBLY

GENERAL NOTES 28.4-41

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Steel installing pins of sufficient number, length, and rigidity shall be placed so as to prevent movement of the joint assembly during construction operations.

Details shown hereon make provision for a minimum of structural adequacy and stability to satisfy Standard Specifications requirements.

ALTERNATE DESIGNS

Alternate designs for load transfer dowels for contraction and expansion joints and appurtenances other than shown hereon may be used upon written approval of the Engineer.

CONTRACTION JOINTS

Contraction joints shall be installed at 80' (±2') spacing from adjacent contraction or expansion joints, except that lesser spacings ranging to a minimum of 40' shall be used:

1. At locations or spacing indicated on the plans.
2. As extensions of transverse joints or cracks in abutting pavement lanes.
3. At locations designated by the Engineer where there are manholes or other fixtures in the pavement.

CONSTRUCTION JOINTS

Deformed bars shall be spaced at 12" C:C and 6" from each edge of pavement.

Deformed bars may be inserted after the concrete has been poured.

Construction joints shall be installed as necessary, except that a construction joint shall be not less than 10 feet from the nearest contraction or expansion joint.

EXPANSION JOINTS

Expansion joints are required only at structure approaches and/or where shown on the plans. The locations may be shifted to avoid stationary fixtures in the pavement.

Expansion joint filler shall be secured with sufficient number of steel pins to preclude any horizontal movement during the placing of concrete.

Metal dowel socket (CAP), 1 1/16" or 1 5/16" Dia., 24 gauge, closed on one end, shall be placed on the sawed end of each dowel bar as required for proper pavement expansion.

SEALING JOINTS

Joints shall be sealed as shown.

DOWEL BARS

Dowel bars shall be spaced at 12" C:C and 6" from each edge of pavement.

One end of each dowel bar shall be sawed and free of all burrs or protruding edges.

Dowel bars shall be painted with a rust inhibitive paint and coated for at least 2/3 their length with liquid asphalt MC 70 or MC 250, or other approved lubricant, to prevent bonding with concrete. The asphalt coating shall be applied to the sawed and capped end of the dowel bar and shall be sufficiently dry so that it will not be removed by the handling and placing of the dowel assembly.

Dowel bar dimensions:

For 7" P.C. Pavement = 1" Ø x 18"
For 8" P.C. Pavement = 1" Ø x 18"
For 9" P.C. Pavement = 1 1/4" Ø x 18"
For 10" P.C. Pavement = 1 1/4" Ø x 18"

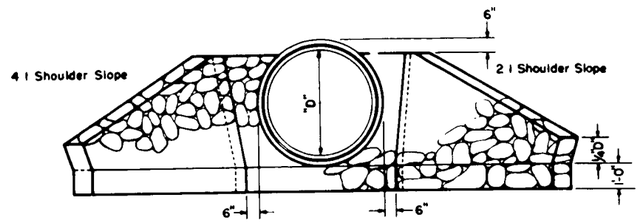
TRANSVERSE JOINTS FOR CONCRETE PAVEMENT

State of Wisconsin
Department of Transportation
Division of Highways

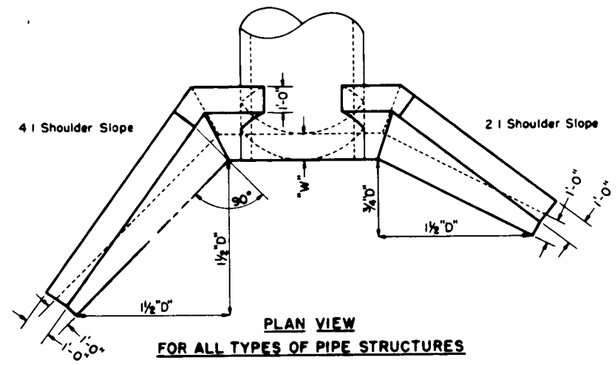
RECOMMENDED FOR APPROVAL
5/24/68 DATE — E. J. Ostrit CHIEF DESIGN ENGINEER
APPROVED
5/27/68 DATE — H. Dammann STATE HIGHWAY ENGINEER

Plate No. 4-4.5.11

28.5-41



END ELEVATION
SHOWING CONCRETE CIRCULAR PIPE INCL. CATTLE PASS



PLAN VIEW
FOR ALL TYPES OF PIPE STRUCTURES

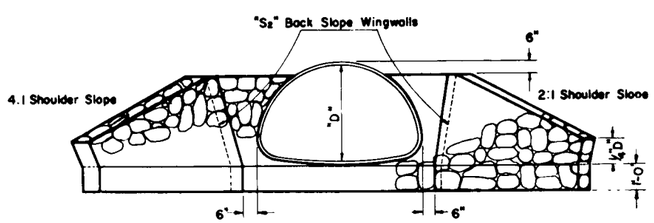
CIRCULAR PIPE		Cu Yds Mortar Rubble Masonry or Riprap per Endwall		"A" (Feet)	"B" (Feet)	Front Slope "S1"	Back Slope "S2"	Width of Footing at "W" (Feet)
Size of Pipe	Type of Pipe	4:1 Slope	2:1 Slope	4:1 Slope	2:1 Slope			
24"	RCCP	1.2	1.0	3.4	0.8	½:1	½:1	1.0
	CMCP	1.0	0.8	2.8	0.6	"	"	"
30"	RCCP	1.5	1.3	5.1	1.5	"	"	"
	CMCP	1.3	1.0	4.6	1.3	"	"	"
36"	RCCP	2.0	1.6	6.9	2.3	"	"	"
	CMCP	1.7	1.3	6.3	2.1	"	"	"
42"	RCCP	2.6	2.1	8.9	3.1	"	"	"
	CMCP	2.2	1.7	8.1	2.9	"	"	"
48"	RCCP	3.2	2.6	10.7	3.9	"	"	"
	CMCP	2.8	2.2	9.8	3.6	"	"	"
60"	RCCP	8.4	6.9	14.5	5.5	"	¼:1	2.38
	CMCP	6.9	5.9	13.3	5.2	"	"	2.20
72"	RCCP	12.4	9.9	18.3	7.1	"	"	2.68
	CMCP	10.0	8.0	16.8	6.2	"	"	2.40

PIPE ARCH

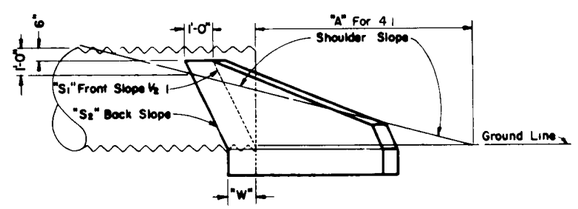
29"x18"	CMCP	1.0	0.8	1.1	0.3	½:1	½:1	1.0
36"x22"	"	1.3	1.0	2.2	0.5	"	"	"
43"x27"	"	1.7	1.2	3.7	1.0	"	"	"
50"x31"	"	1.9	1.4	4.9	1.5	"	"	"
58"x36"	"	2.1	1.7	6.3	2.1	"	"	"
65"x40"	"	2.5	2.0	7.5	2.6	"	"	"
72"x44"	"	2.9	2.4	8.6	3.1	"	"	"

CATTLE PASS

72"	ALTERNATE	12.4	9.9	18.3	7.1	"	"	2.68



END ELEVATION
SHOWING CORRUGATED METAL PIPE ARCH



SIDE ELEVATION

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, and the applicable Special Provisions.

CONCRETE MASONRY SUBSTITUTE

All items shown hereon may be constructed of Class "A" Concrete in which case all sizes and dimensions shown shall obtain. Concrete masonry substitute work shall conform to the pertinent requirements of the Standard Specifications.

MORTAR RUBBLE MASONRY OR RIPRAP FOR CULVERT & CATTLE PASS ENDWALLS

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

DATE 2-5-63 — J. S. Pelt, ENGINEER OF DESIGN

APPROVED

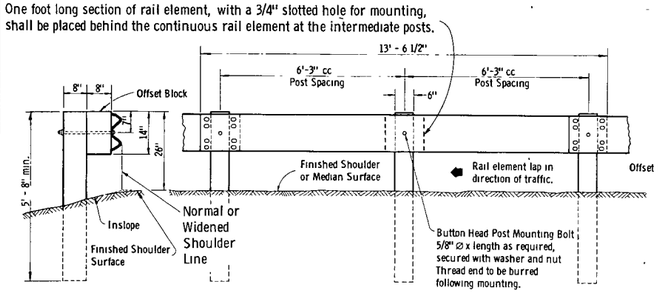
DATE 2/6/63 — E. L. Roettger, STATE HIGHWAY ENGINEER

PLATE NO. 6-2.4.3

New

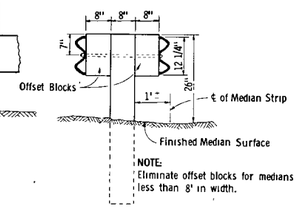
28.6-41

One foot long section of rail element, with a 3/4" slotted hole for mounting, shall be placed behind the continuous rail element at the intermediate posts.



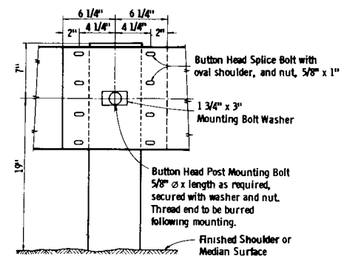
STEEL PLATE BEAM GUARD

Sawed treated timber posts 6" x 8" x 6'-0" and sawed treated timber offset blocks 6" x 8" x 14" shall be furnished and placed in accordance with Standard Specifications.

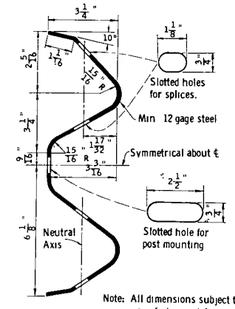


STEEL PLATE BEAM MEDIAN GUARD

STEEL PLATE BEAM GUARD OR STEEL PLATE BEAM MEDIAN GUARD



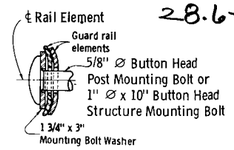
RAIL ELEMENT SPLICING AND POST MOUNTING DETAILS



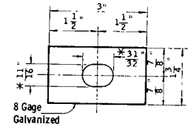
Note: All dimensions subject to manufacturing tolerance.

SECTION THRU RAIL ELEMENT

Holes for Structure Mounting shall be 1 1/16" dia.



MOUNTING BOLT DETAIL



MOUNTING BOLT WASHER

* Hole in Structure Mounting Bolt Washer to be 1 1/16" dia.

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

The exact location of the beginning and end of each Guardrail installation shall be as shown on the plans or as directed by the engineer.

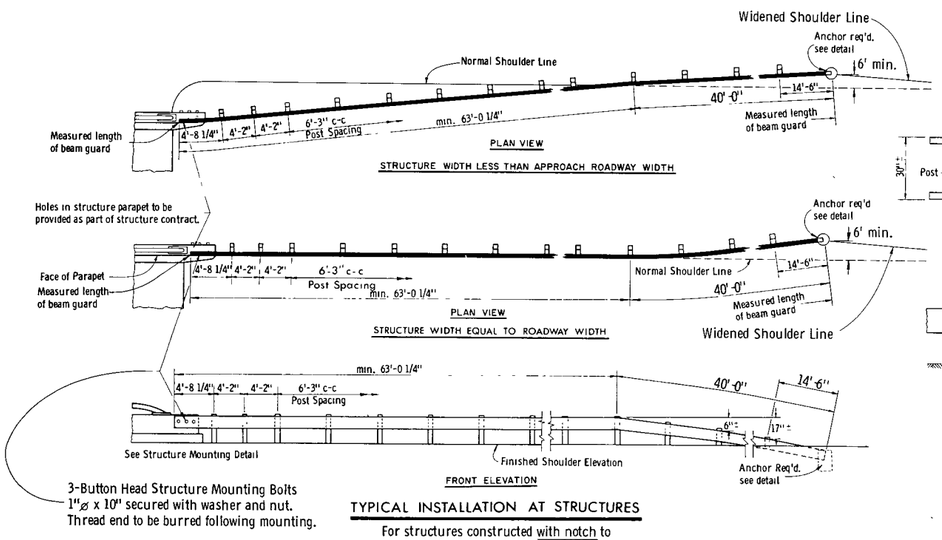
TERMINATION AT STRUCTURES NOT PROVIDED WITH A NOTCH
For those structures where a notch is not provided, the Guardrail will be terminated as directed by the engineer

POST FOOTING DETAIL AT PIERS
The Post-Footing Details shall be used when guard-rail posts are over structure footings and less than 3'-6" of earth is provided over the top of the footing

STEEL PLATE BEAM MEDIAN GUARD
Eliminate offset blocks for medians less than 8 foot in width

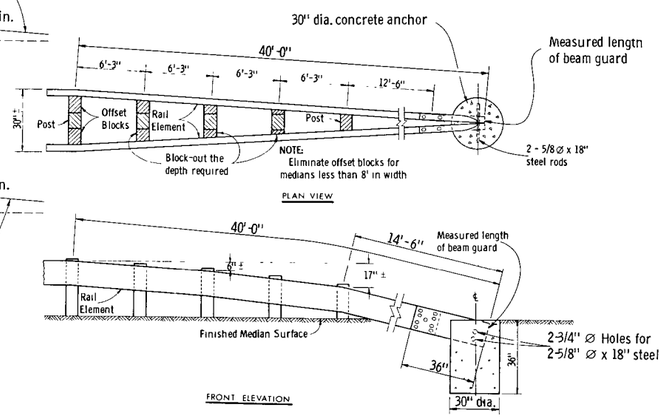
ALTERNATE ANCHORS
Square anchors will be permitted Square anchors shall be a minimum of 24 inches x 24 inches.

SHOULDER WIDENING
The shoulder widening to accommodate the anchored end of the Guardrail shall be accomplished at a rate of widening not to exceed 50 to 1.

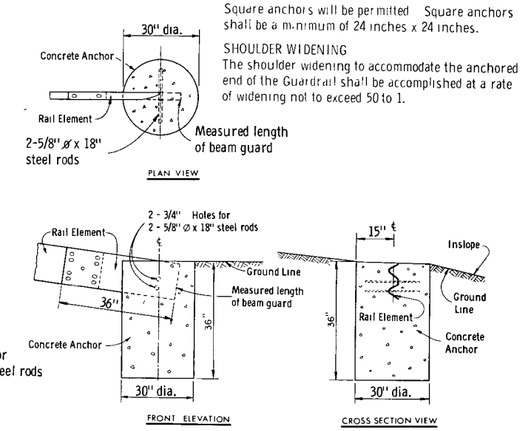


TYPICAL INSTALLATION AT STRUCTURES

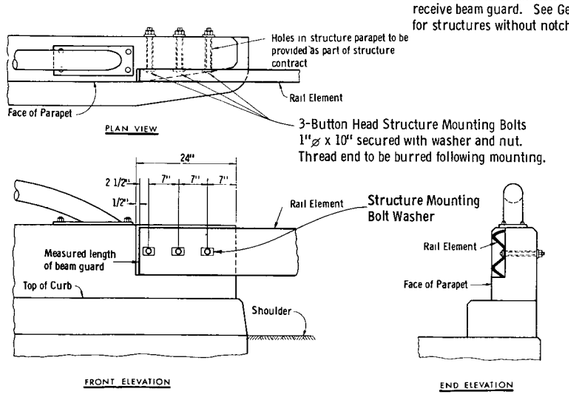
For structures constructed with notch to receive beam guard. See General Notes for structures without notch.



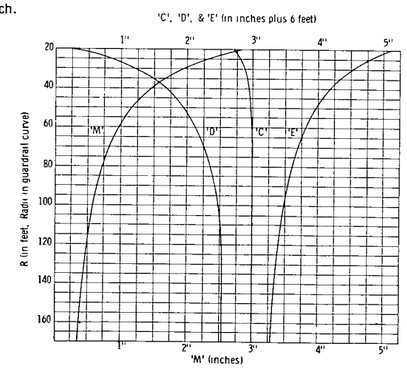
ANCHOR DETAIL FOR DOUBLE RAIL ELEMENT INSTALLATION



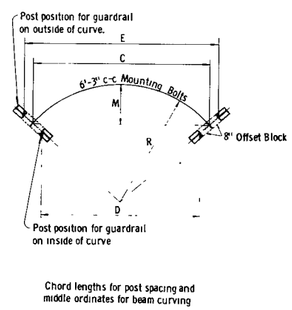
ANCHOR DETAIL FOR SINGLE RAIL ELEMENT INSTALLATION

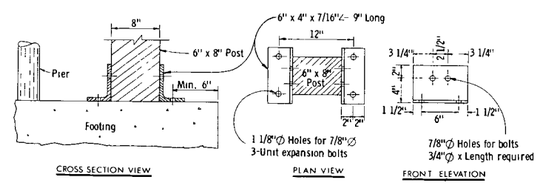


STRUCTURE MOUNTING DETAIL

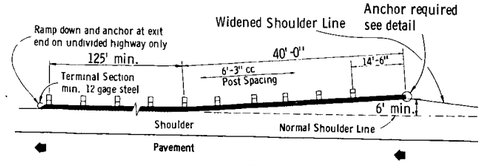


CURVE DATA FOR POST SPACING AND BEAM CURVING





POST - FOOTING DETAIL AT PIERS



TYPICAL INSTALLATION AT LOCATIONS OTHER THAN STRUCTURES

STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD

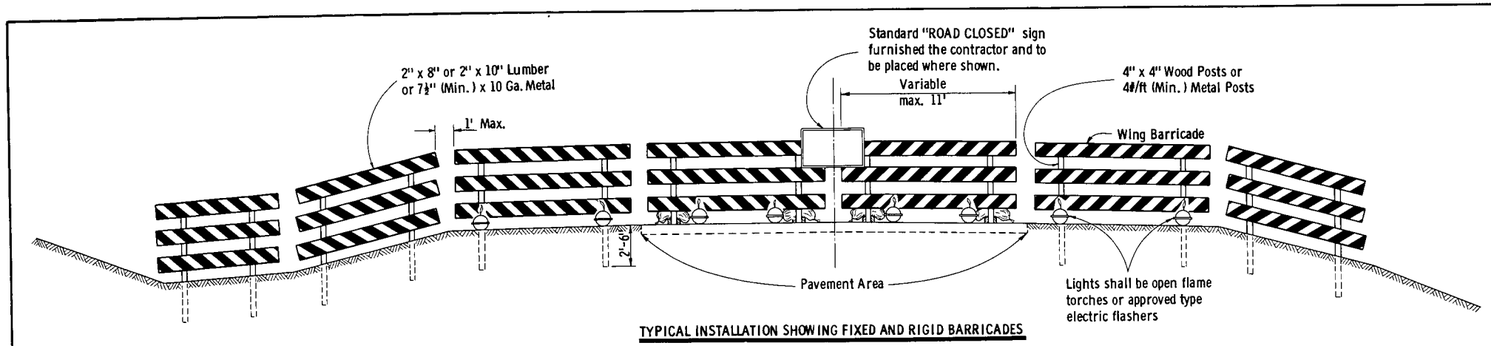
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL
1/25/68 DATE — E. J. Bykit CHIEF DESIGN ENGINEER
APPROVED 2/8/68 DATE — K. F. Sumnicht STATE HIGHWAY ENGINEER

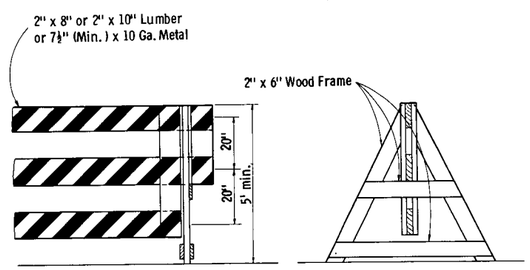
Plate No. 7-2.4.13

Plate No. 7-2.4.13

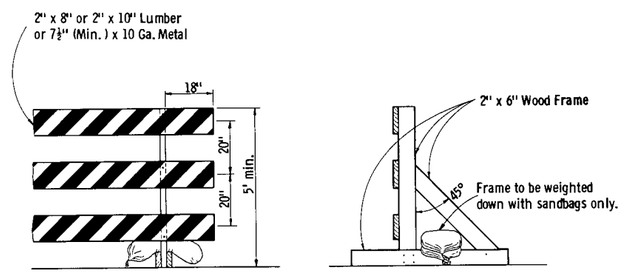
28-7-41



TYPICAL INSTALLATION SHOWING FIXED AND RIGID BARRICADES

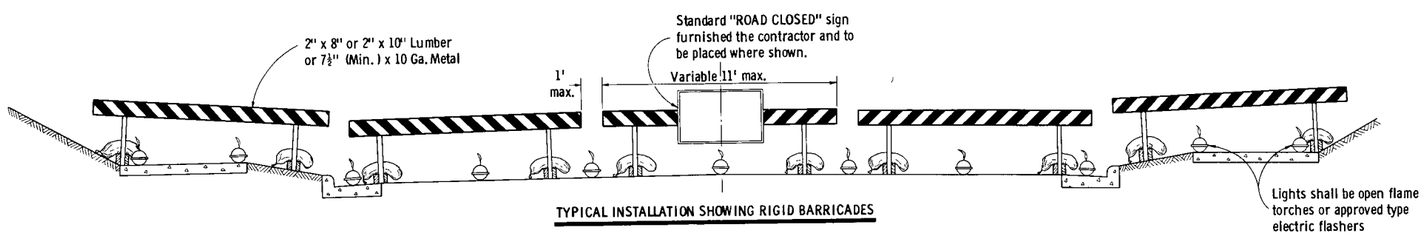


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

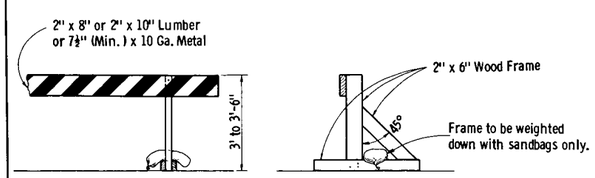


ALTERNATE TYPE INSTALLATION (RIGID)

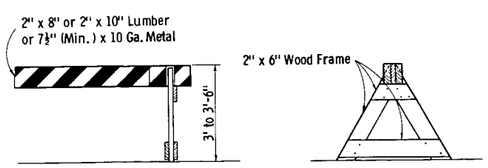
CLASS I BARRICADES



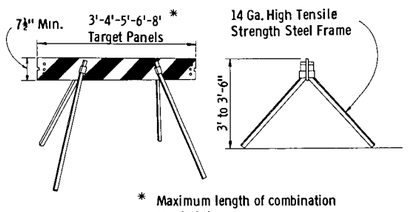
TYPICAL INSTALLATION SHOWING RIGID BARRICADES



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)



* Maximum length of combination panels 16'

ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADES

GENERAL NOTES

The contractor shall construct, place and maintain barricades as shown on the drawing and as required by the Standard Specifications or applicable Special Provisions.

CLASS 1 BARRICADE:

Class 1 Barricades shall be of variable length as indicated, and long barricades shall be assembled from these units. The Class 1 Barricade is the type normally required for major operations, where the barricade will remain in place for extended periods. Class 1 Barricades shall be used at points where the road is closed to traffic. Gates or movable sections of a barricade shall be provided when necessary, for access of equipment or other authorized vehicles.
Wing Barricades are Class 1 Barricades erected on the shoulder on one or both sides of the pavement to give Traffic the perceptive effect of a narrowing or restricted roadway. The ends closest to traffic of all three members of a wing barricade shall be in a vertical line. If used in a series, they should start at the outer edge of the shoulder and be brought progressively closer to the pavement. Wing Barricades may be used as a mounting for the advance warning or guide signs or for flashers. When used on two-way roadways, the back of the wing barricade shall be painted reflectorized white.

CLASS 11 BARRICADE:

Class 11 Barricades may be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

MATERIAL & FABRICATION:

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
Metal shall be sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
The fabrication of the barricade shall be in accord with good pertinent woodworking and metalworking practices.
All lumber or timber dimensions stated are nominal.

PAINTING:

All barricades shall be painted in alternate 4" or 6" black and white stripes at a 45° angle. The width of stripe shall be consistent for each complete barricade installation.
Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be primed, followed by two coats of white reflectorized paint or reflective wide angle sheeting.

DIRECTION OF DIAGONAL STRIPES:

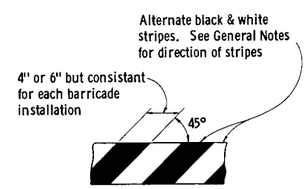
Where a barricade extends entirely across the roadway with no vehicle access provision, the stripes shall slope downward toward the highway centerline.
Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.
Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.
The stripes on wing barricades shall point downward toward the roadway.

LIGHTING:

Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

MEASUREMENT & PAYMENT:

All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.



TYPICAL DIAGONAL STRIPES

Applies to all Classes & Types of Barricades

CONSTRUCTION BARRICADE

State Highway Commission of Wisconsin

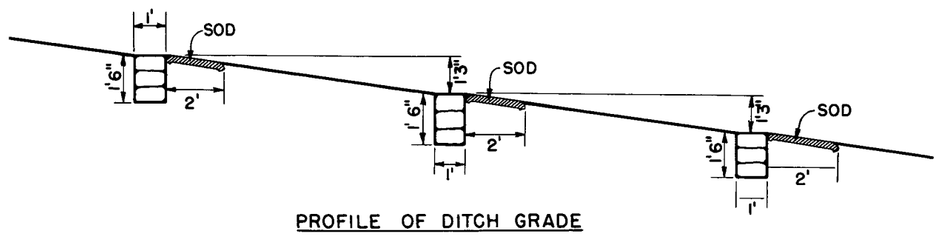
RECOMMENDED FOR APPROVAL
1/11/67 DATE — E. J. Ryckit, CHIEF DESIGN ENGINEER
APPROVED
1/13/67 DATE — W. J. Burmester, STATE HIGHWAY ENGINEER

Plate No. 7-4.1.5

Plate No. 7-4.1.5

6

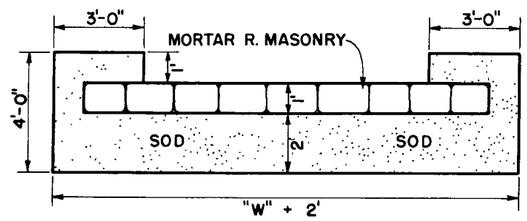
28.841



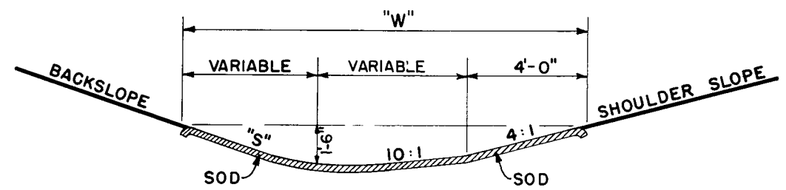
PROFILE OF DITCH GRADE

PROFILE OF DITCH GRADE

NOTE: NUMBER REQUIRED WILL BE DETERMINED BY VERTICAL SPACING.



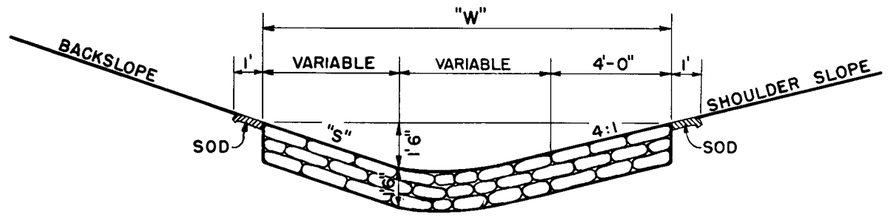
PLAN VIEW SHOWING SOD



SECTION

SOD DITCH CHECKS

QUANTITIES		
"S"	"W"	EACH SQ. YD.
2:1	12'	8
3:1	13.5'	9
4:1	15'	10



SECTION

MORTAR RUBBLE MASONRY

QUANTITIES			
"S"	"W"	SOD SQ. YD.	EACH CU. YD.
2:1	12'	4.0	0.67
3:1	13.5'	4.33	0.75
4:1	15'	4.67	0.83

CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DITCH CHECKS
MORTAR RUBBLE MASONRY & SOD

STATE HIGHWAY COMMISSION OF WISC.

RECOMMENDED FOR APPROVAL:

Frank Crane
DESIGN ENGINEER

DATE:

CONSTRUCTION ENGINEER

APPROVED:

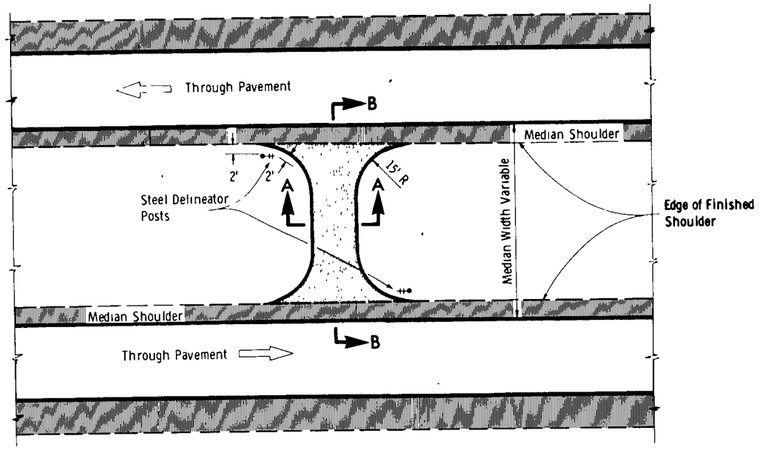
DRAWN DIV. 9
CHECKED N.F.

E. L. Roettger
STATE HIGHWAY ENGINEER

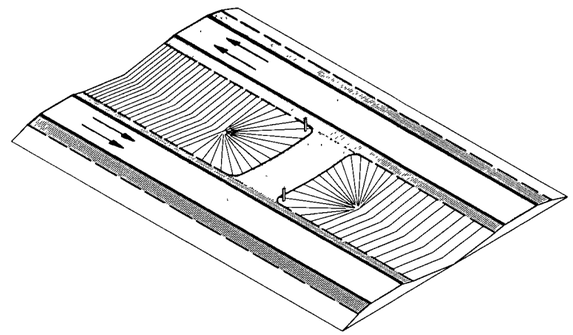
8-1.3.1

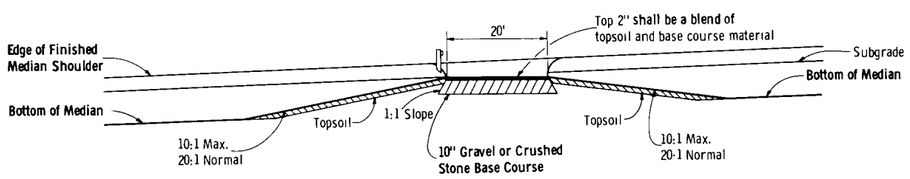
8-1.3.1

28.9-41

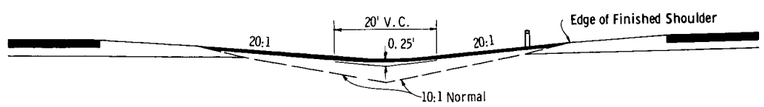


PLAN VIEW





SECTION A-A



SECTION B-B

GENERAL NOTES

Blend sufficient topsoil with the top 2 inches of the base course material to provide a seed bed and to subdue the stone color. The entire surface shall be fertilized and seeded.

Details of construction shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

MAINTENANCE CROSSOVER FOR FREEWAYS

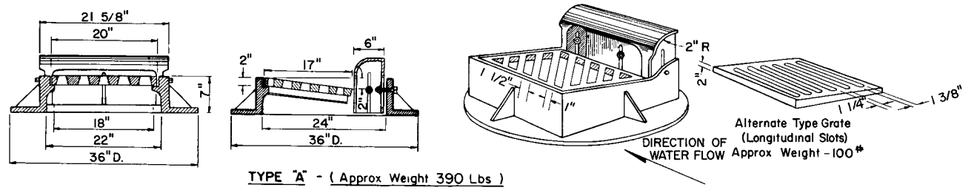
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL
1/25/68 DATE — E. J. Burkit CHIEF DESIGN ENGINEER

APPROVED
2/9/68 DATE — A. D. Zimmerman STATE HIGHWAY ENGINEER

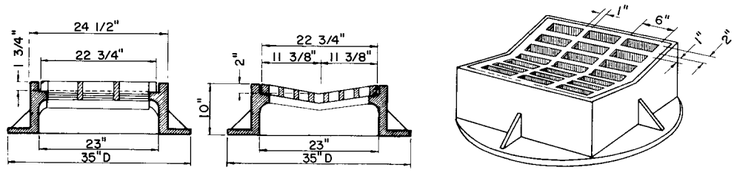
Plate No. 13-1.1.1

Plate No. 13-1.1.1



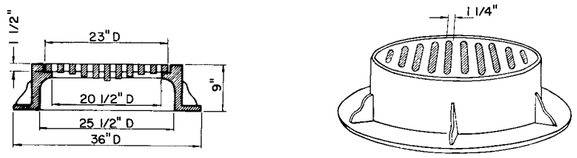
TYPE "A" - (Approx Weight 390 Lbs)

Frame Weight - 250#
Grate " - 90#
Box " - 50#



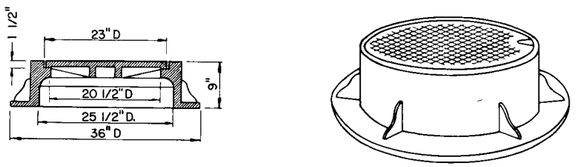
TYPE "B" - (Approx Weight 414 Lbs)

Frame Weight - 275 #
Grate " - 139#

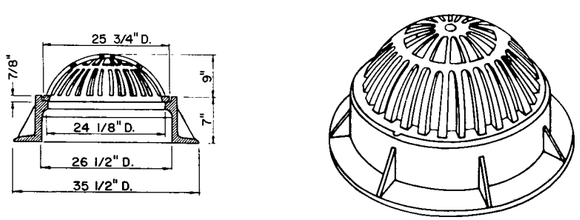


TYPE "C" - (Approx Weight 370 Lbs)

Frame Weight Type "C" & Type "D" - 255#
Slotted Grate Weight - 115 #
Solid Cover Weight - 150 #
(Note Frame for Type "C" same as for Type "D")



TYPE "D" - (Approx Weight 405 Lbs)
(Note: Frame for Type "D" same as for Type "C")

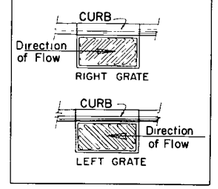


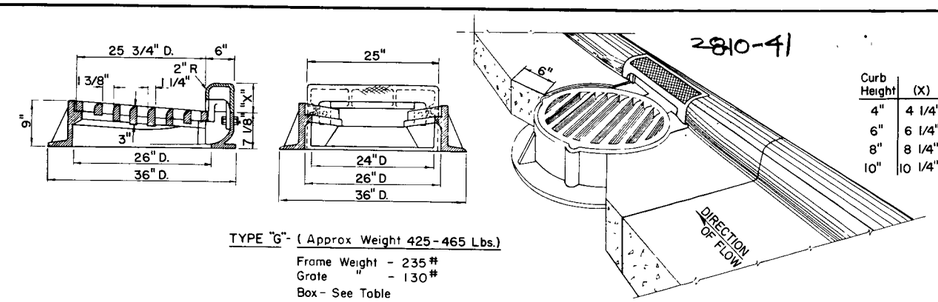
TYPE "E" - (Approx Weight 325 Lbs)

SPECIAL NOTE

Diagonal Slots shall be oriented to the direction of flow as shown hereon Hence RIGHT and LEFT Grates shall be furnished depending on direction of flow (See Sketch Below)

Longitudinal slot type grates may be used ONLY where bicycles are prohibited



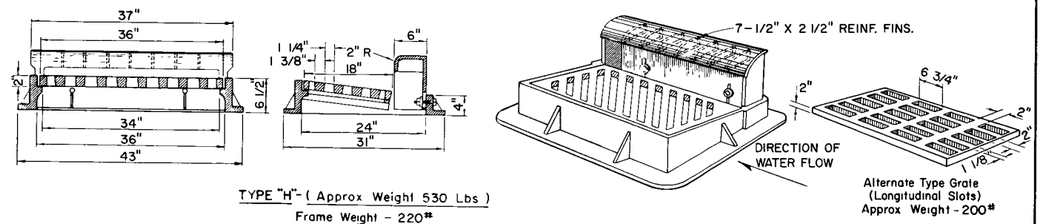


2810-41

Curb Height	(X)	Weight
4"	4 1/4"	60#
6"	6 1/4"	70#
8"	8 1/4"	90#
10"	10 1/4"	100#

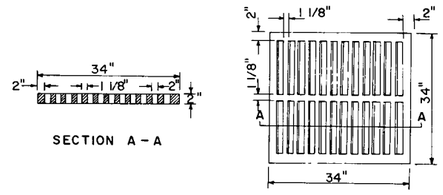
TYPE "G" - (Approx Weight 425-465 Lbs.)

Frame Weight - 235#
Grate " - 130#
Box - See Table



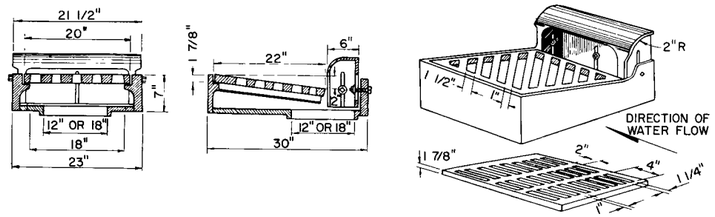
TYPE "H" - (Approx Weight 530 Lbs)

Frame Weight - 220#
Grate " - 200#
Box " - 110#

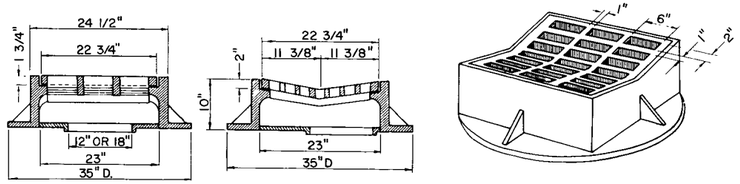


INLET COVER TYPE MS

GRATE WEIGHT 270#



TYPE "R" - (Approx Weight 450 Lbs)



TYPE "S" - (Approx Weight 450 Lbs)

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

BEARING SURFACES

All Catch Basin and inlet frames and grates which are placed in vehicular traffic areas shall be "Non-Rocking" type, so as to prevent any or all cover noise under traffic.

NOMENCLATURE

All Catch Basin and inlet units are designated on the Plans as "Catch Basins 1-A", 2-B, etc., or "Inlets 1-A", 3-H, etc. This designation is interpreted to mean that the number, or first digit designates the masonry portion of the structure, and the following letter or second digit designates the type of cover or iron casting (shown hereon) to be used therewith to comprise the complete unit "Catch Basin" or "Inlet" in place.

ADJUSTMENTS

Curb box height to be adjustable 4"-9" unless otherwise noted. Curb box height to be adjusted after curb form is in place.

ALTERNATE DESIGNS

Detailed drawings for proposed alternate designs for "Catch Basin" or "Inlet" covers may be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

CATCH BASIN & INLET COVERS

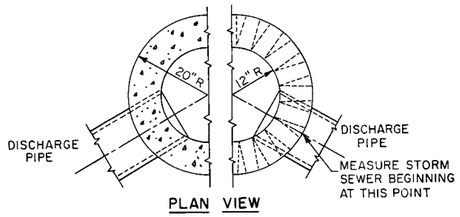
State Highway Commission of Wisconsin

RECOMMENDED FOR APPROVAL
DATE — CHIEF DESIGN ENGINEER
APPROVED 11/17/67
DATE — STATE HIGHWAY ENGINEER

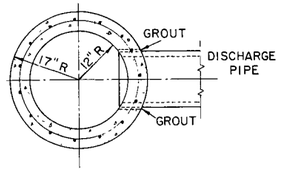
Plate No. 5-3.4.8

Plate No. 5-3.4.8

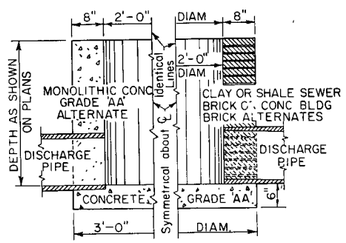
28-11-91



PLAN VIEW



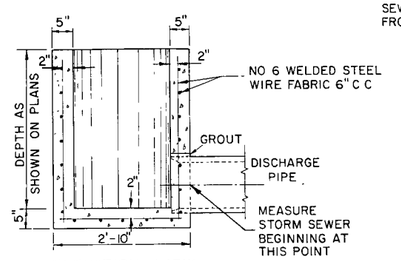
PLAN VIEW



ELEVATION VIEW

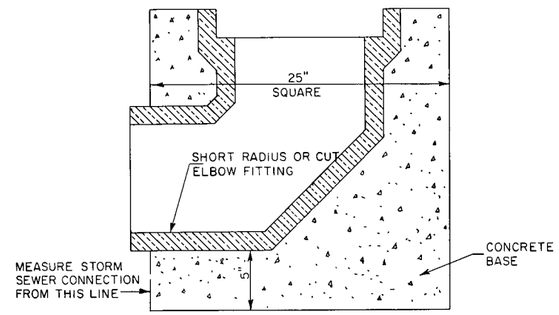
SHOWING DETAILS FOR MONOLITHIC CONCRETE, CLAY OR SHALE SEWER BRICK, OR CONCRETE BUILDING BRICK ALTERNATES FOR

INLET TYPE 1

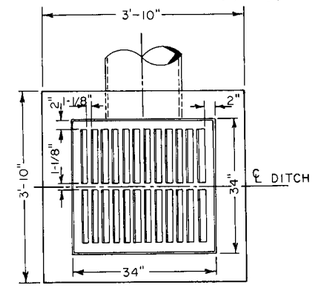


ELEVATION VIEW

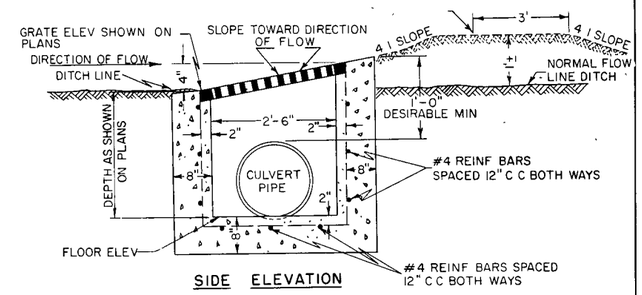
SHOWING DETAILS FOR PRE-CAST CONCRETE ALTERNATES FOR



INLET TYPE 2

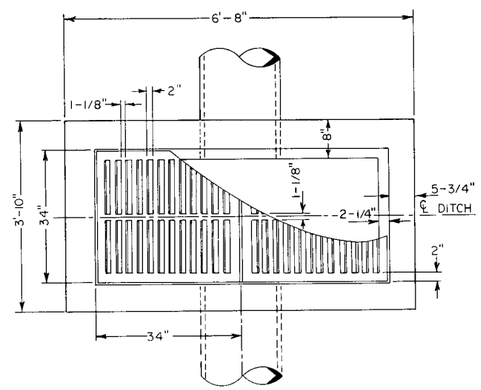


PLAN VIEW

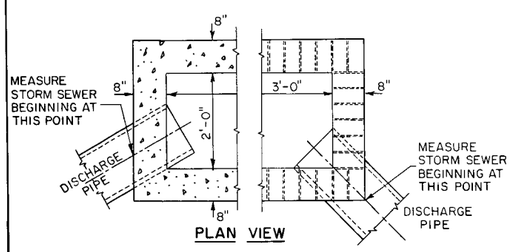


SIDE ELEVATION

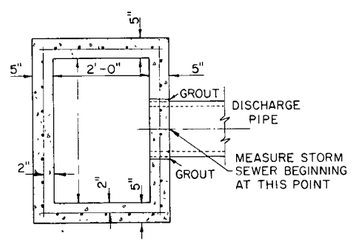
INLET TYPE 8



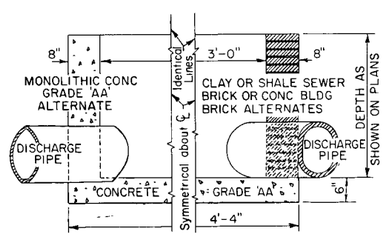
PLAN VIEW



PLAN VIEW



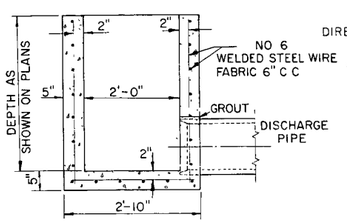
PLAN VIEW



ELEVATION VIEW

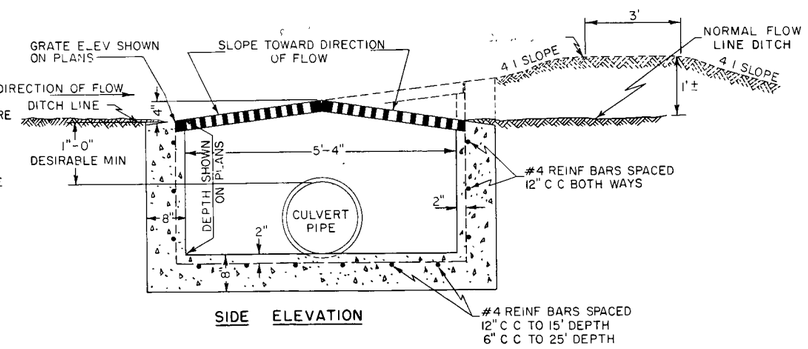
SHOWING DETAILS FOR MONOLITHIC CONCRETE, CLAY OR SHALE SEWER BRICK, OR CONCRETE BUILDING BRICK ALTERNATES FOR

INLET TYPE 3



ELEVATION VIEW

SHOWING DETAILS FOR PRE-CAST CONCRETE ALTERNATE FOR



SIDE ELEVATION

INLET TYPE 9

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ARRANGEMENT, SIZE AND NUMBER OF INLET AND DISCHARGE PIPES SHALL CONFORM TO THE NEEDS OF THE PERTINENT LOCATION.

INLETS ARE CALLED FOR ON THE PLANS AS "INLETS 1-A", "INLETS 2-R", ETC., THE NUMBER DESIGNATES THE MASONRY PORTION OF THE STRUCTURE AND THE LETTER DESIGNATES THE COVER TO BE USED THEREON.

INLETS

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

11-21-63
DATE

J. S. Pitt
ENGINEER OF DESIGN

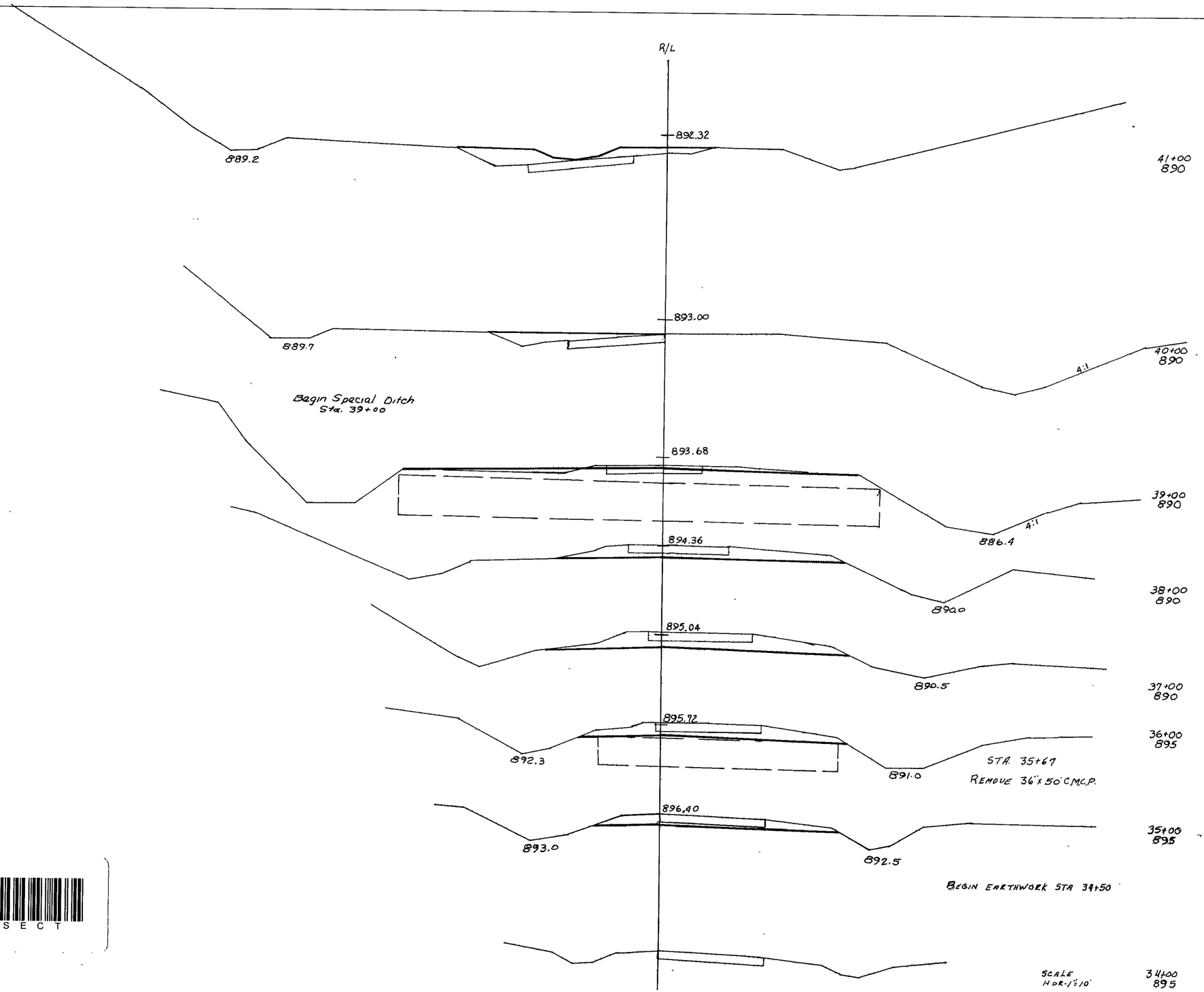
APPROVED

12/3/63
DATE

STATE HIGHWAY ENGINEER

PLATE NO 5-352

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	29	41



STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
34+00						
	100	50				0
35+00						
		120				0
36+00						
		165				0
37+00						
		163				0
38+00						
		82				41
39+00						
		11				126
40+00						
		0				196
41+00						
SHEET TOTAL		591				363

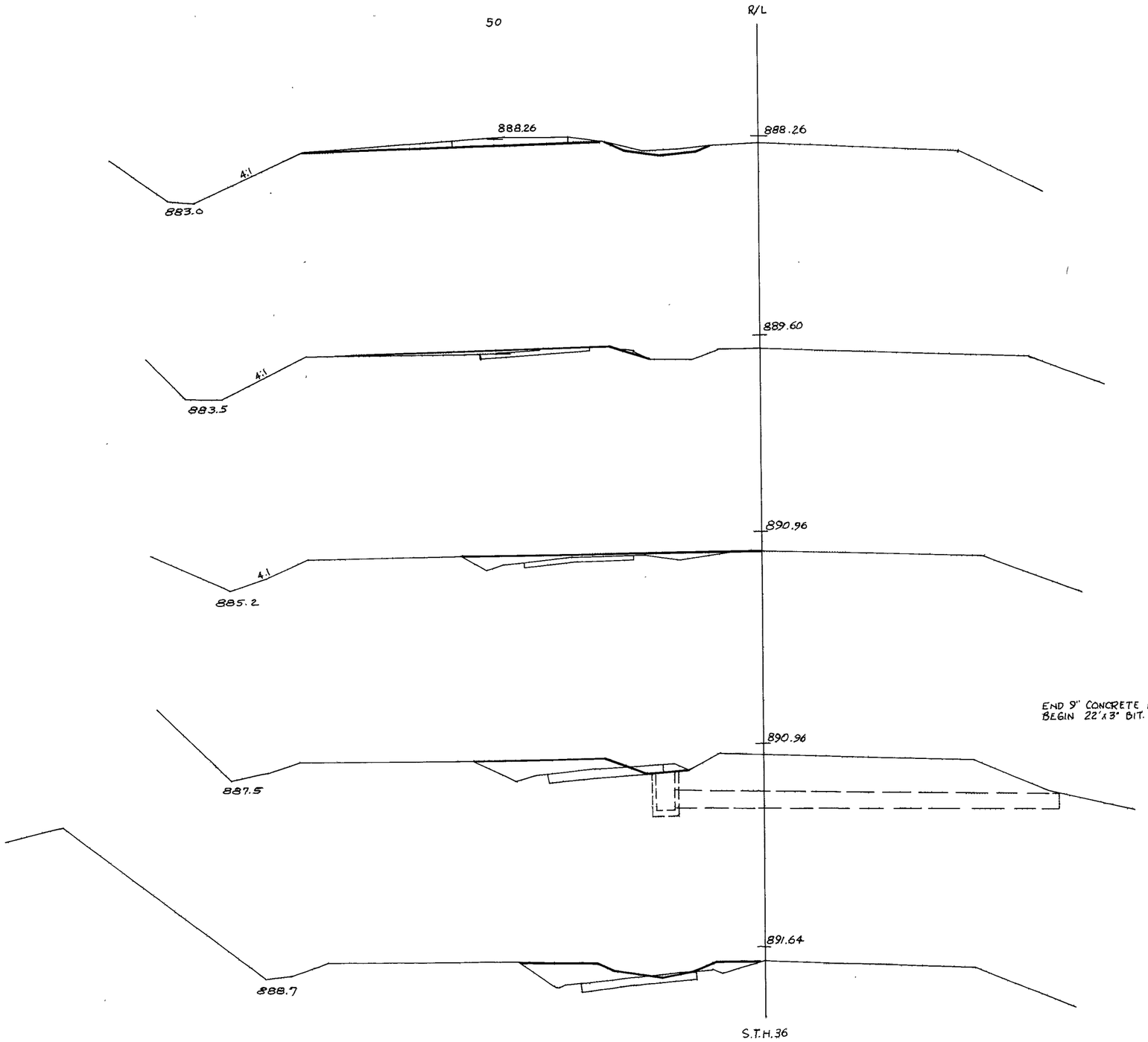
AREAS
AREAS CHECKED
NO

AREAS
AREAS CHECKED
NO

CROSSSECT

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY INC

B P R REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F 04-1 (21) 1081-2-81	30	41



46+00
890

45+00
890

44+00
890

END 9" CONCRETE PAVEMENT 43+07 (REMOVAL)
BEGIN 22'x3" BIT. CONC TEMP RDWY (EXISTING)

43+00
890

42+00
890

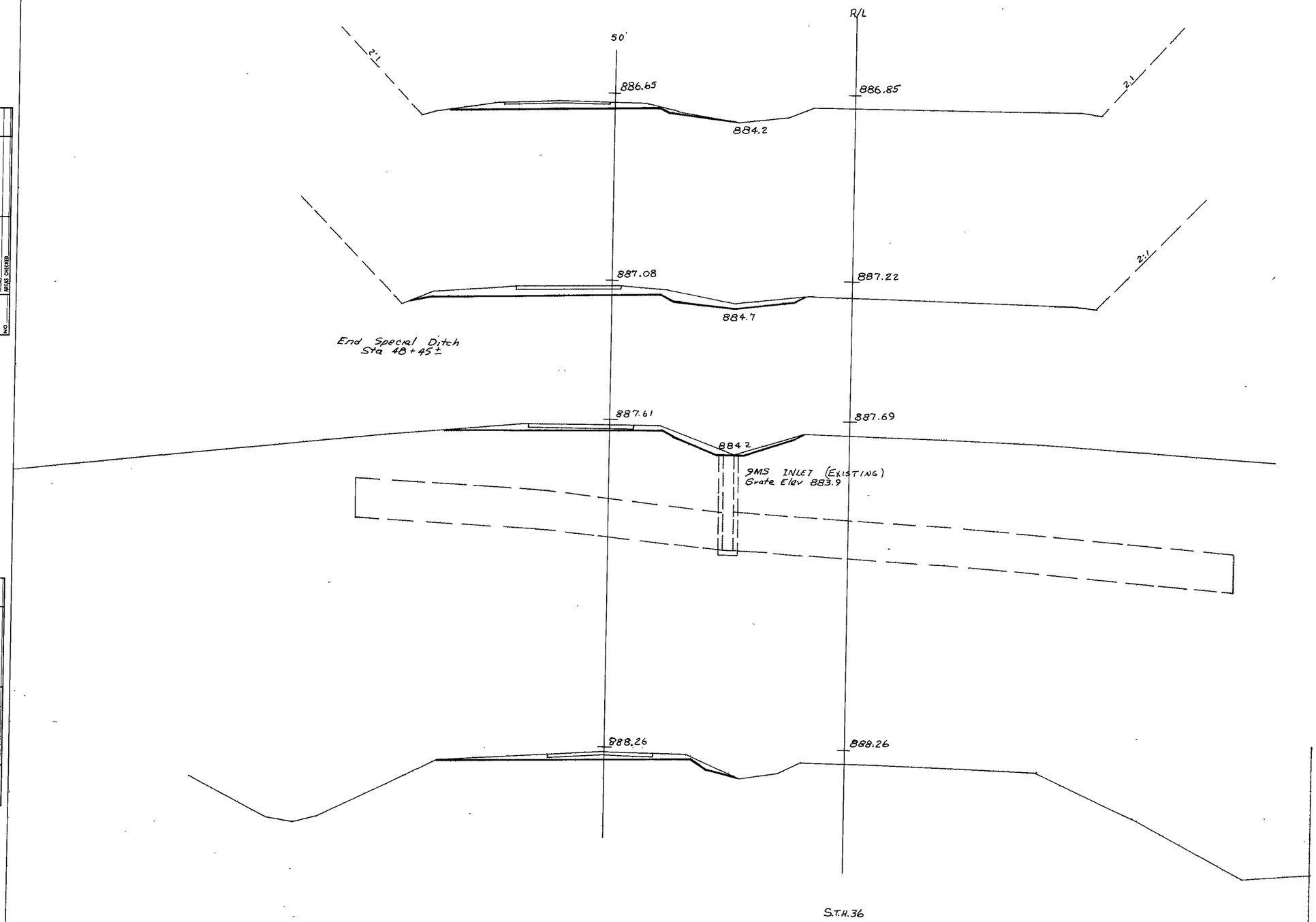
Scale
HOR 1"=10
VERT 1"=5

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.				FILL
41+00						
	100	0				204
42+00						
		0				170
43+00						
		0				137
44+00						
		0				87
45+00						
		9				28
46+00						
SHEET TOTAL		9				626

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC

S.T.H. 36 42+00 - 46+00

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	31	41



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.				FILL
46+00						
	100	9				0
47+00						
		24				0
48+00						
		70				0
49+00						
		46				0
50+00						
SHEET TOTAL		149				0

SCALE
HOR-1"=10'
VERT 1"=5

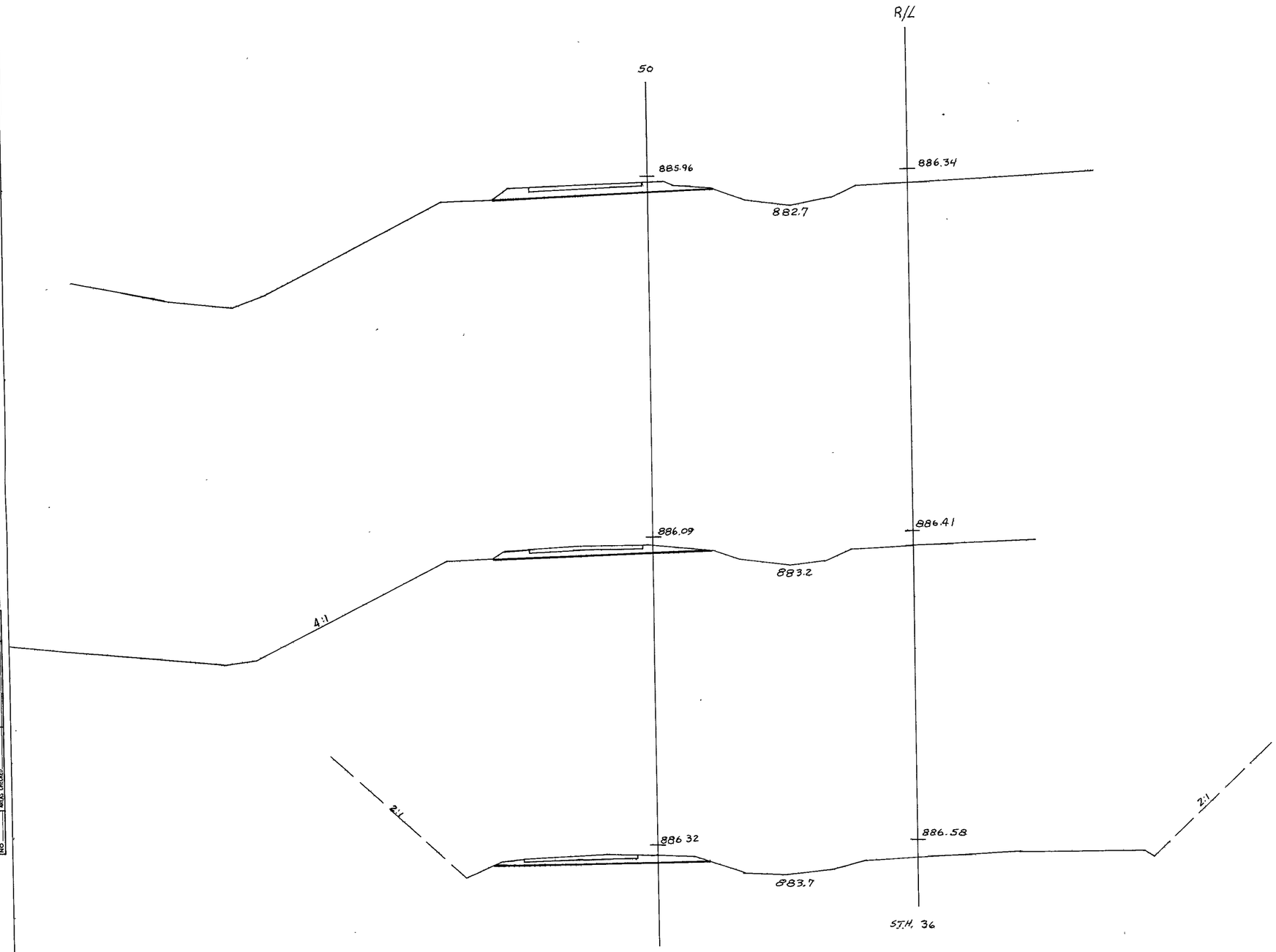
NOTE BOOK
LENGTH
WIDTH
AREAS CHECKED
NO

NOTE BOOK
LENGTH
WIDTH
AREAS CHECKED
NO

FUNCTIONAL CROSS SECTION OPEN DOTTED
CHARLES BRUNING COMPANY, INC

STH 36 HA100 50+00

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	32	41



STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
50+00						
	100	0				0
51+00		0				0
52+00		0				0
53+00						
SHEET TOTAL		0				0

53+00
885

52+00
885

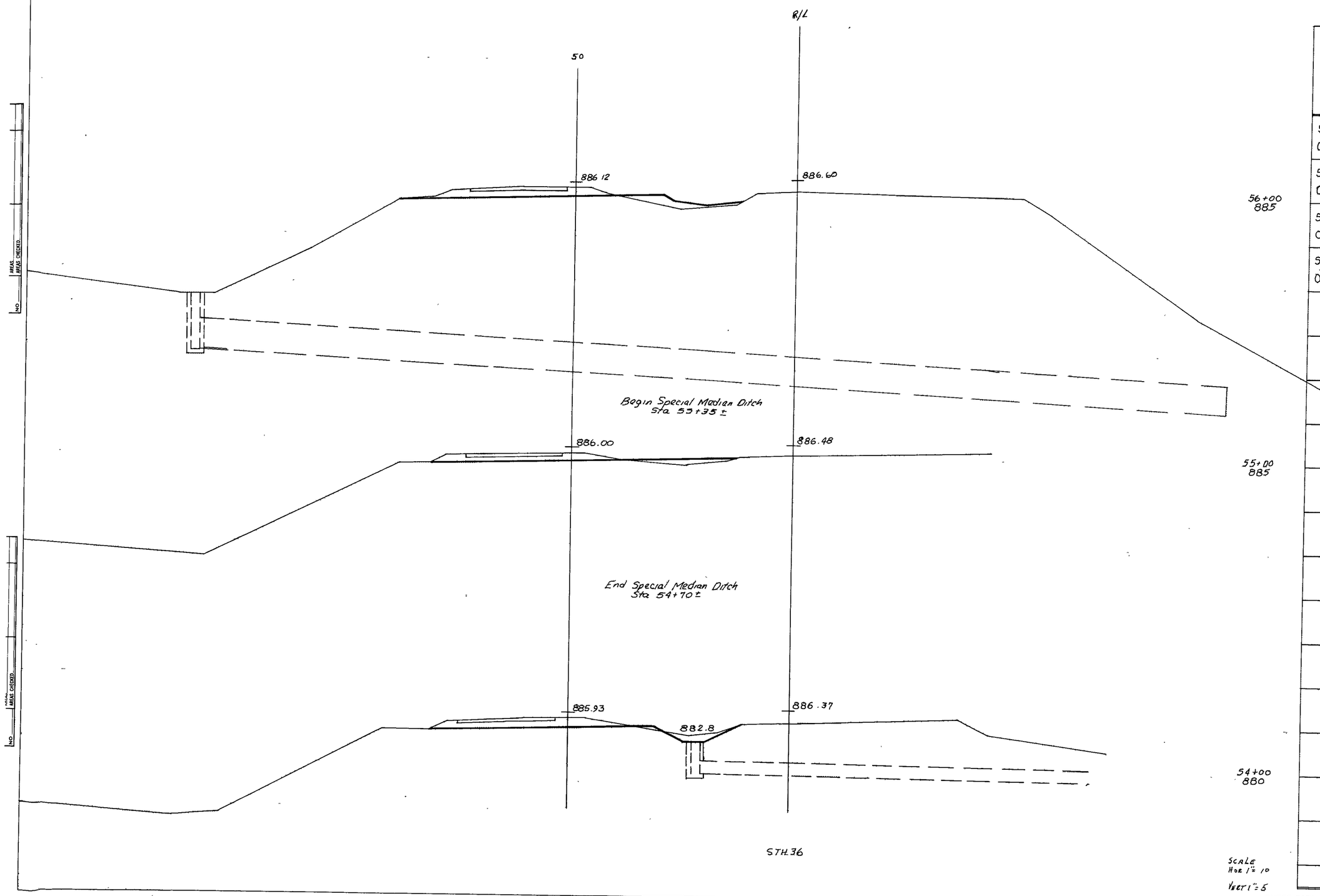
51+00
885

SCALE
HOR-1"=10'
VERT 1"=5

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY INC

S.T.H. 36 51+00 - 53+00

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F 04-1(21) 1081-2-81	33	41

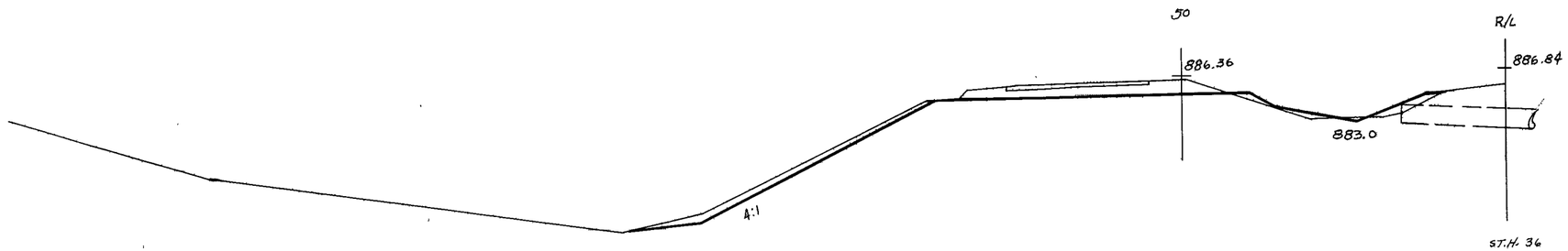


STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
53 0+00						
	100	0				0
54 0+00		0				20
55 0+00		0				52
56 0+00						
SHEET TOTAL		0				72

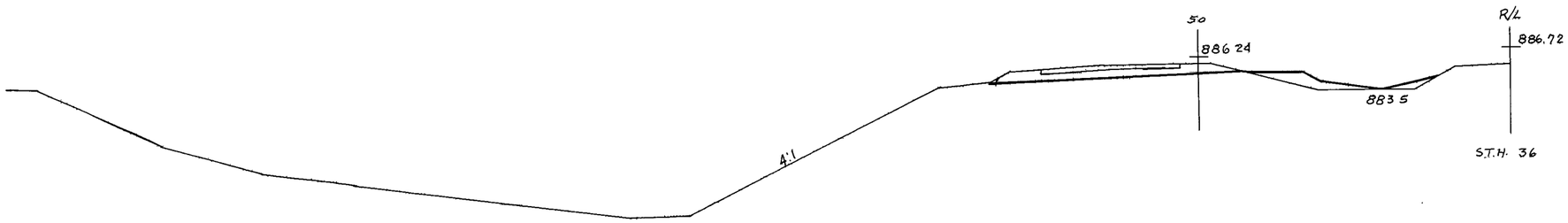
SCALE
HOR. 1" = 10'
VERT. 1" = 5'

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	34	41



58+00
885



57+00
885

STATION	DISTANCE	YARDAGE EXCAVATION UNCL				YARDAGE FILL
56+00						
	100	0				59
57+00		0				48
58+00						
SHEET TOTAL		0				107

SCALE
HOR 1" = 10
VERT 1" = 5

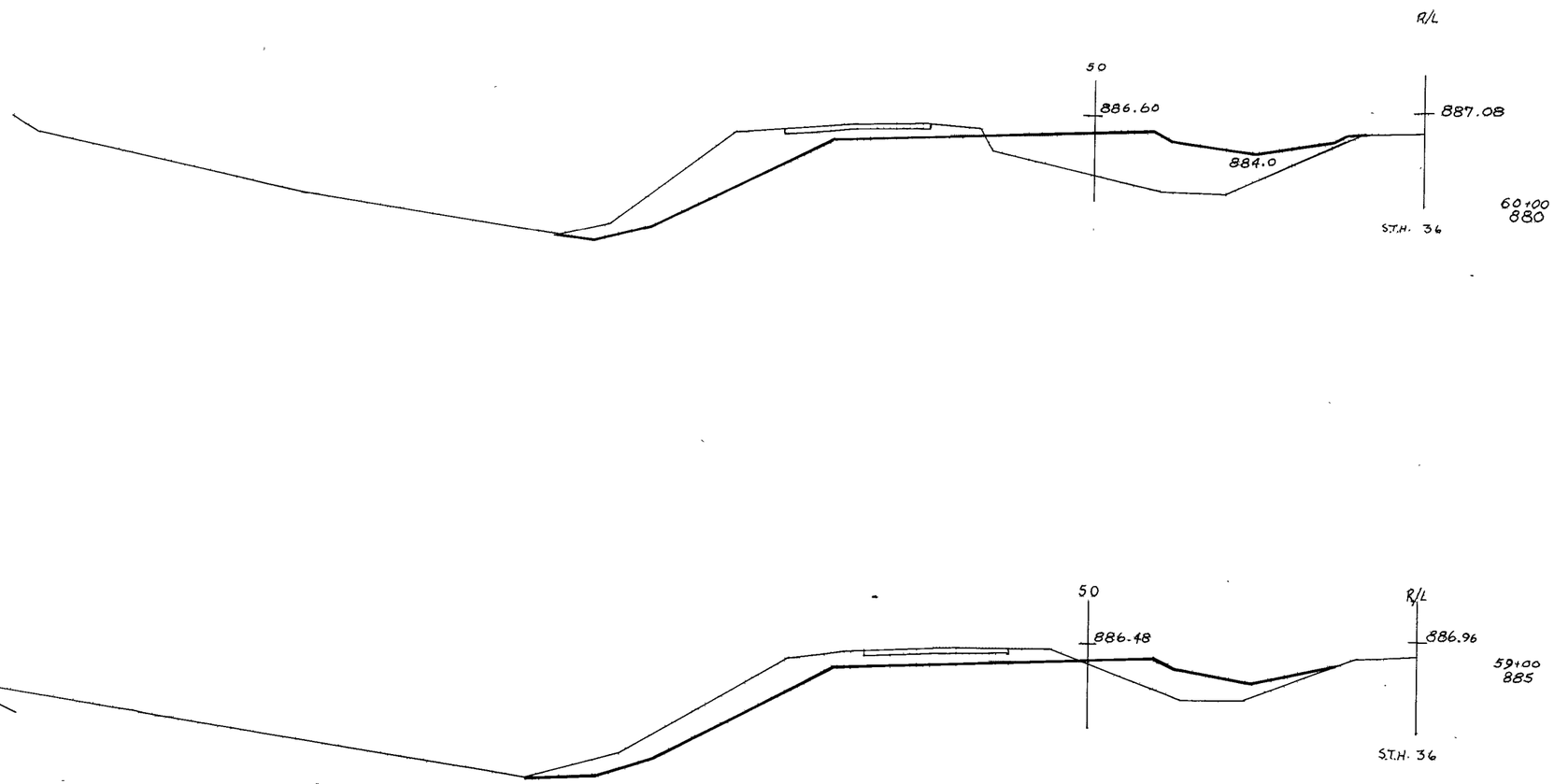
FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY INC

ST.H. 36 57+00 - 58+00

NO. MEAS CHECKED

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	35	41

End Special Median Ditch
Sta 60±00



STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
58+00						
	100	148				106
59+00		321				339
60+00						
SHEET TOTAL		469				445

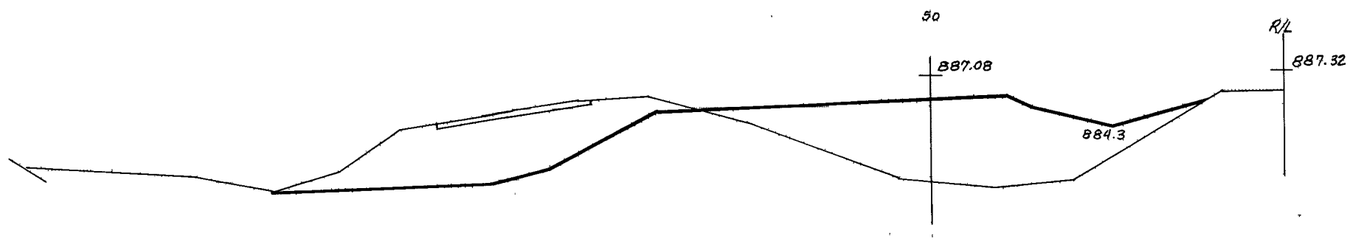
SCALE
HOR 1" = 10'
VERT 1" = 5'

AREAS
AREAS CHECKED
NO

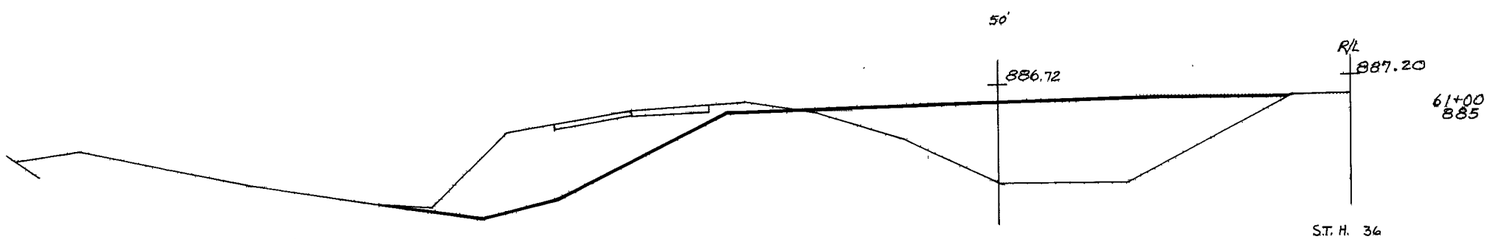
AREAS
AREAS CHECKED
NO

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	36	41



Begin Special Median Ditch
Sta 61 ± 75



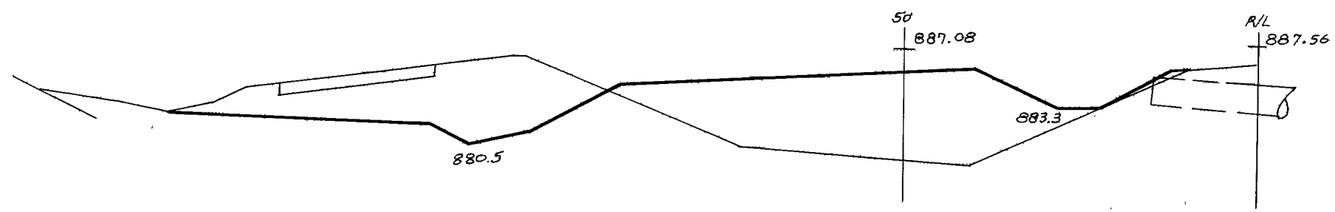
STATION	DISTANCE	YARDAGE EXCAVATION UNCL				YARDAGE FILL
60+00						
	100	482				717
61+00		639				917
62+00						
SHEET TOTAL		1121				1634

SCALE
HOR-1" = 10
VERT 1" = 5

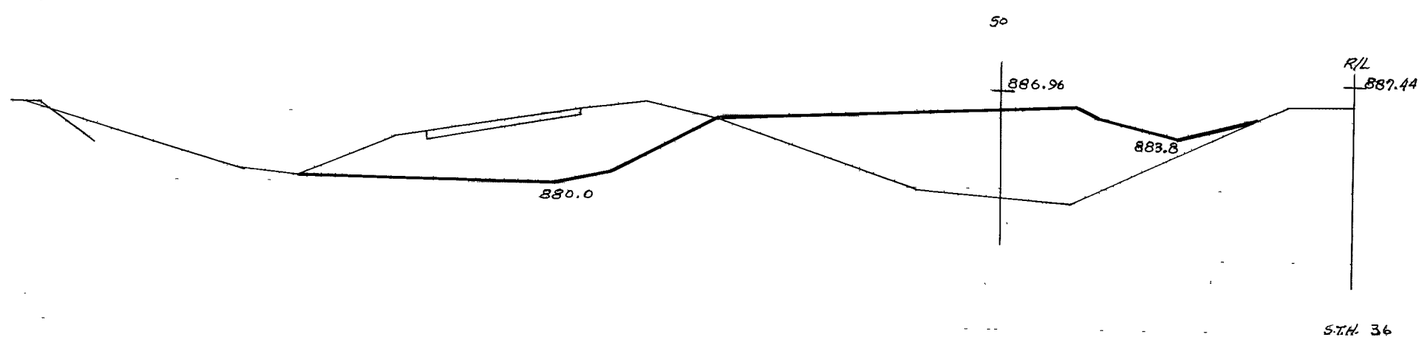
FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC

STH. 36 - 61+00 - 62+00

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	37	41



64+00
886



63+00
885

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.				FILL
62+00						
	100	685				950
63+00						
		672				1043
64+00						
SHEET TOTAL		1357				1993

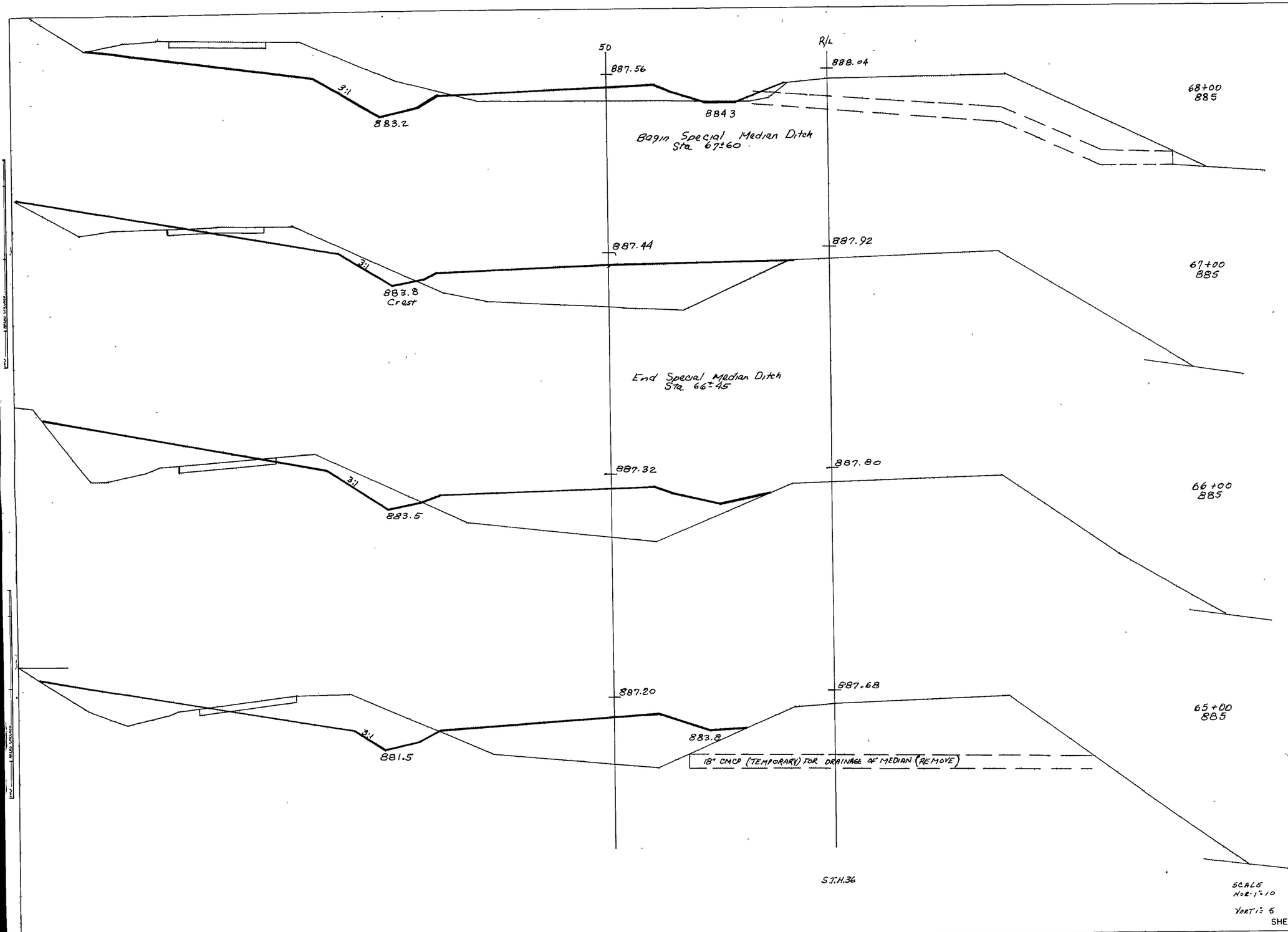
SCALE
HOR-1" = 10
VERT 1" = 5

AREAS
AREAS CHECKED
NO

AREAS
AREAS CHECKED
NO

FUNCTIONAL CROSS SECTION OPEN DOTTED
CHARLES BRUNING COMPANY INC

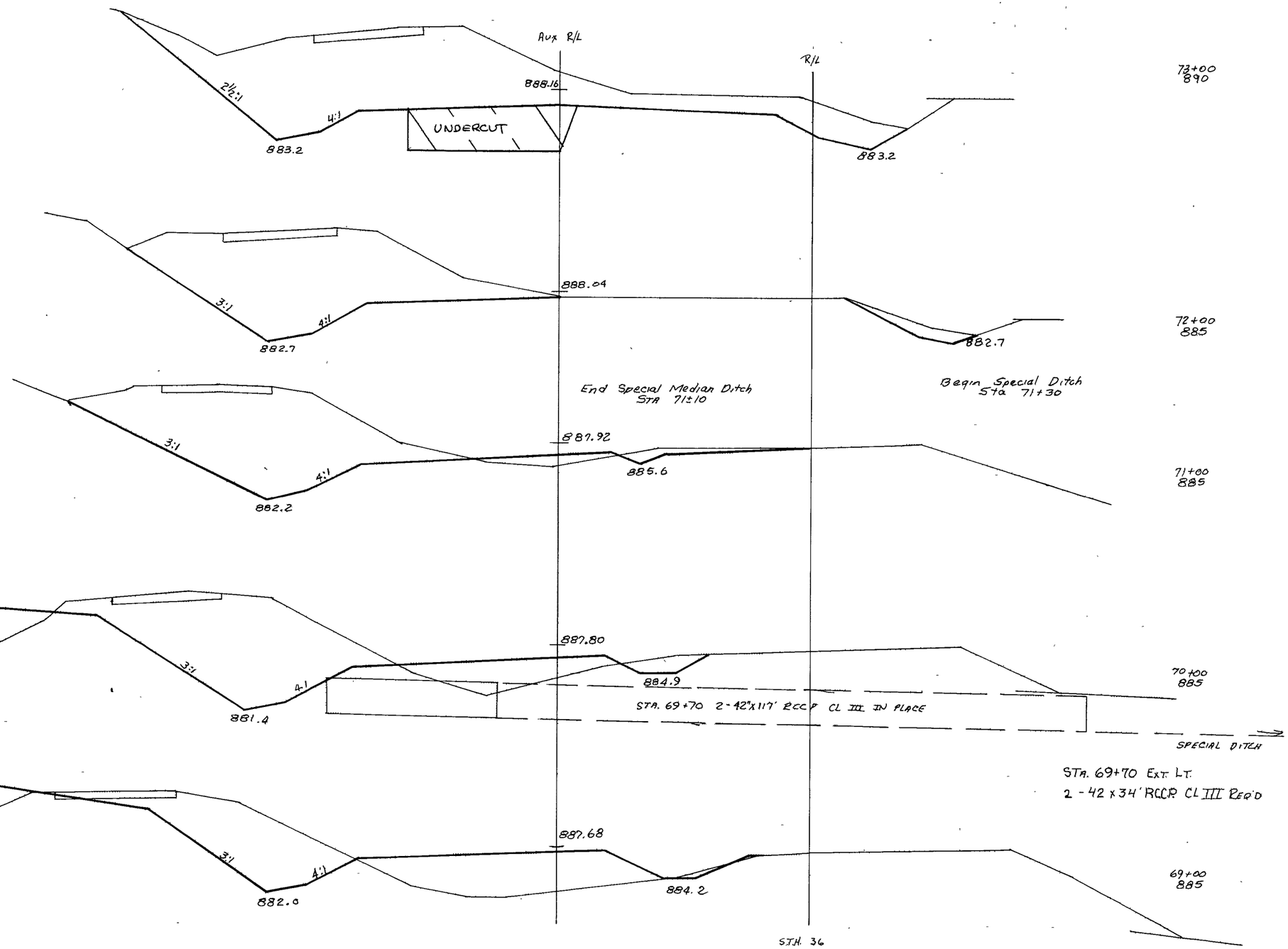
BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	38	41



STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
64+00						
	100	550				1120
65+00						
		317				1380
66+00						
		182				1463
67+00						
		465				796
68+00						
SHEET TOTAL		1514				4759

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY INC

S.T.H. 36 65+00 - 68+00



BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F04-1(21) 1081-2-81	39	41

STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
68+00						
	100	737				537
69+00						
		1080				658
70+00						
		1546				370
71+00						
		1667				111
72+00						
		2065				0
73+00						
SHEET TOTAL		7095				1676

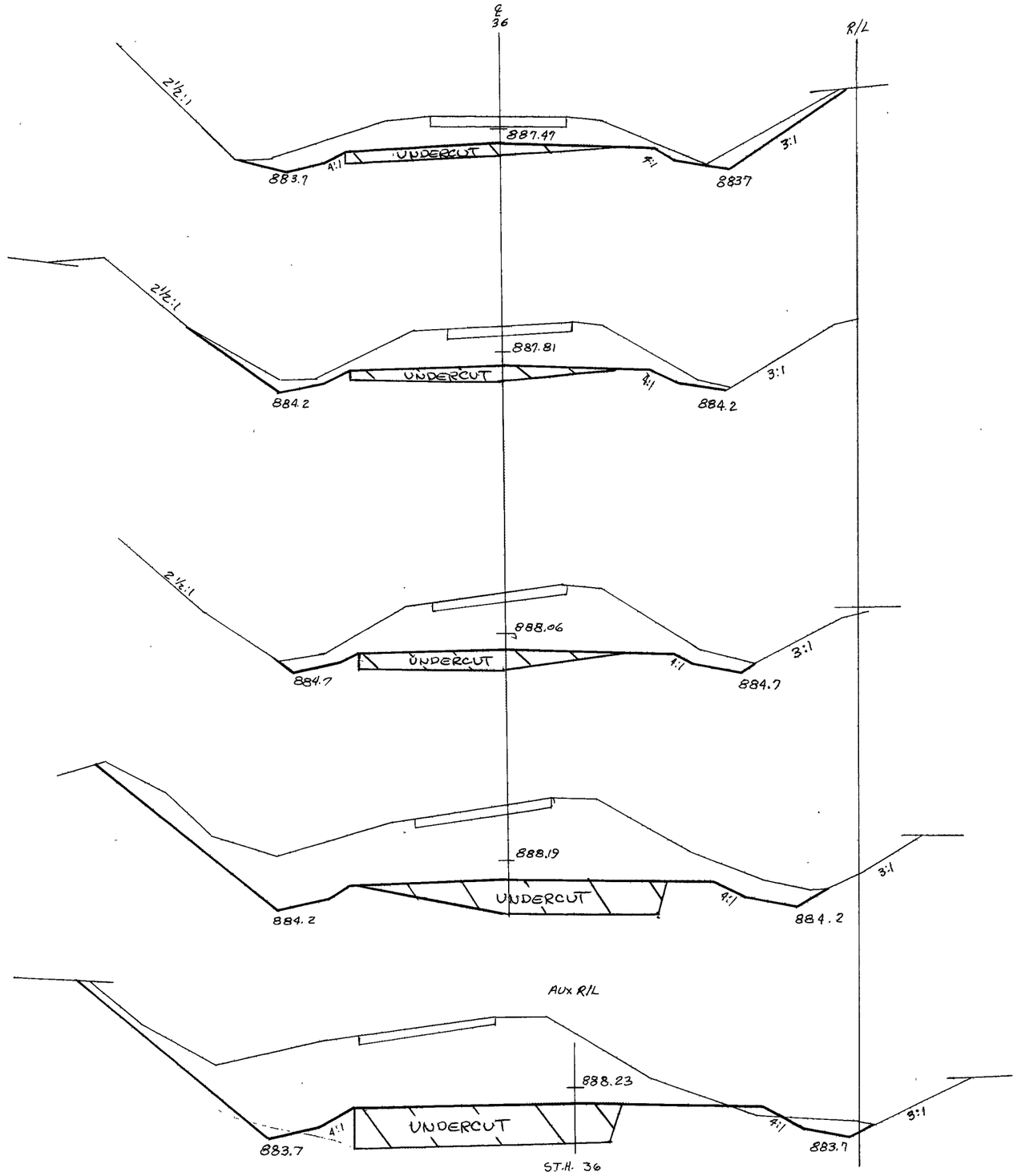
SCALE
HOR. 1" = 10
VERT. 1" = 5

NO. _____ AREAS CHECKED

NO. _____ AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC

STH 31 10100-73+00



BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	F 04-1 (21) 1081-2-81	40	41

STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
73+00						
	100	2185				0
74+00						
		1861				0
75+00						
		1370				0
76+00						
		778				0
77+00						
		593				0
78+00						
SHEET TOTAL		6787				0

78+00 890

77+00 890

76+00 890

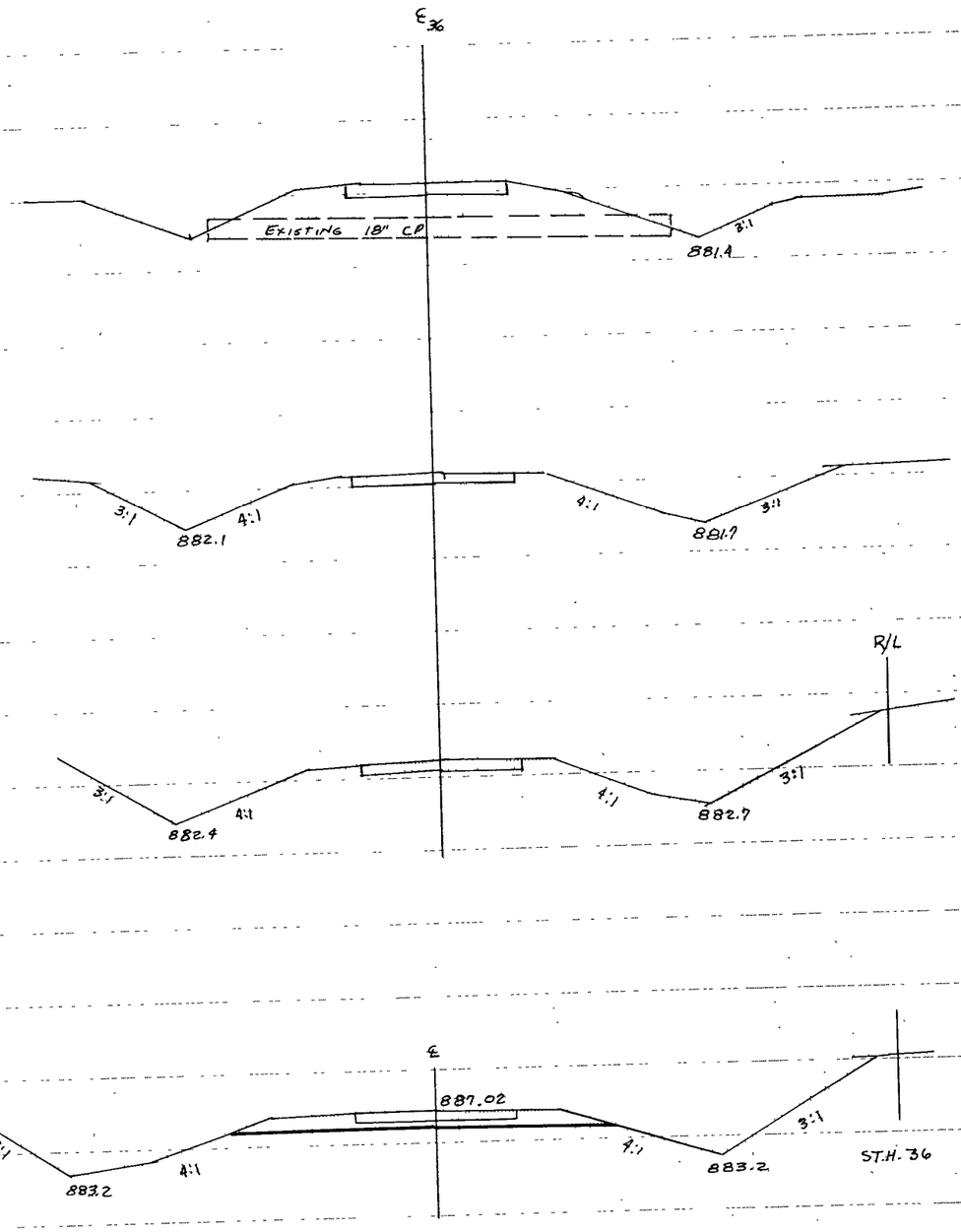
75+00 890

74+00 885

SCALE
HOR. 1" = 10
VERT. 1" = 5

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC

S.T.H. 36 74+00 - 78+00



SCALE
HOR. 1"=10
VERT 1"=5

DPR REGION DIVISION	PROJECT	SHT.	
4 WIS.	F04-1 (21) 1081-2-81	41	41

STATION	DISTANCE	YARDAGE EXCAVATION UNCL				FILL
78+00						
	100	343				0
79+00		65				0
80+00						
SHEET TOTAL		408				0

1/35

64.1 - 4.1 - 13.21

Sheet Number	Total Sheets
1	41

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

GENOA CITY - ELKHORN ROAD

(S.T.H. 50 – S.T.H. 67 SECTION)

U.S.H. 12

WALWORTH COUNTY

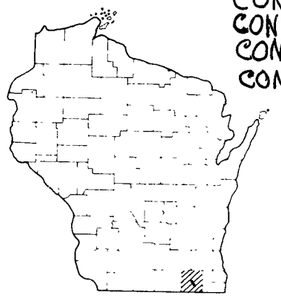
PROJECT IDENTIFICATION NUMBER	FEDERAL PROJECT DESIGNATION
1081-2-81,82	F 04-1(21)

PRIME CONTR. - JAMES CAPE & SONS
SUBCONTR. — E. KRAEMER & SONS - BASE COURSE
B.R. AMON & SONS - BITUMINOUS
MANN BROS. - TOPSOIL
SWEENEY BROS. - SEEDING, SODDING, BEAM GUARD, ANCHORAGES
WM E. BRINKMAN - PAV'T. TERMINAL ANCHORS

PROJECT ENGR. - ROBERT MURPHY
PROJECT DIARY - NO. 1864
PROJECT PERSONNEL: D. BRANDT, J. ROGERS, J. KING, J. FITZGERALD, C. McFADDEN, A. LENZ, E. LINDE, T. SMITH, R. SCHOPP, C. WOHL, R. BARRY, D. ARNOLD, A. SCHOPP, DON DANA

Index of Sheets

Sheet No.	1	Title
Sheet No.	2-2.43	Typical Cross Sections
Sheet No.	3	Estimate of Quantities
Sheet No.	3A-3C	Miscellaneous Quantities
Sheet No.	4-41	Right of Way Plat
Sheet No.	5-27	Plan and Profile Sta. 563+00 to Sta. 1104+00
Sheet No.	28-28.11	Standard Details
Sheet No.	—	Drainage Structures
Sheet No.	29-41	Cross Sections



CONSTRUCTION STARTED - 7/21/69
CONSTRUCTION SUSPENDED - 11/6/69
CONSTRUCTION RESUMED - 5/25/70
CONSTRUCTION COMPLETED - 6/19/70

DIARY NUMBER - 1864
"M" BOOKS - NO NUMBERS

Design Designation

CONTROL OF ACCESS = FULL
A.D.T. (1970) = 6,250
A.D.T. (1990) = 15,100
D.H.V. = 3,020
D = 70-30
T = 11.7 % (1970); 11.0 % (1990)
V = 70 M.P.H.

Scales { Plan 1 in = 100 ft; Profile Hor 1 in = 100 ft Vert 1 in = 10 ft; Cross Sections Hor 1 in = Vert 1 in = }

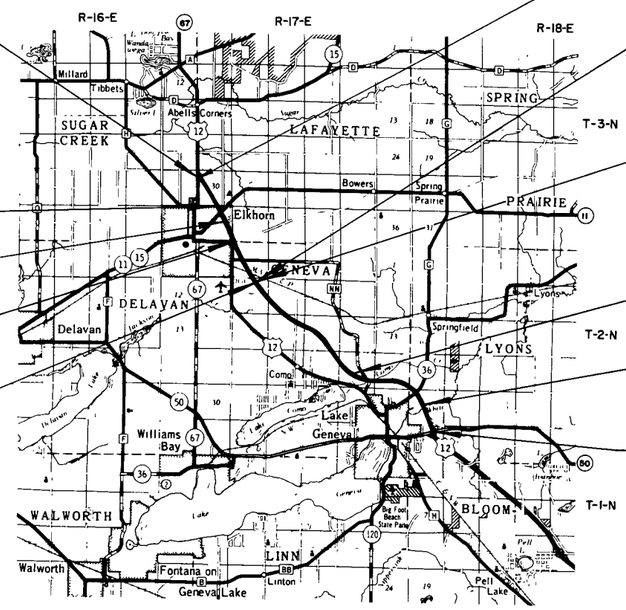
END OF PROJECT F 04-1(21) CONTRACT 2 / 1081-2-82
STA. 1109+00 ℞
450' S & 55' E. (GRID DIST) OF THE SE CORNER OF SECTION 24 T 3 N, R 16 E
= STA 1109+00 ℞ PROJECT F04-1(17)
WISCONSIN PLANE COORDINATES N. 257,635.26
(SOUTH ZONE) E. 2,392,061.05

STA. 1042+54.67 PROJECT F 04-1(21) =
STA. 1042+54.67 PROJECT F 04-1(19)

STA. 1007+80 PROJECT F04-1(21) =
STA. 1007+80 PROJECT F 04-1(18)

STA 1000+00 PROJECT F 04-1(21) =
STA 1000+00 PROJECT F 04-1(16) END &
STA 1000+00 PROJECT F 04-1(17) BEGIN

STA 917+76.79 PROJECT F 04-1(21) =
STA 917+76.79 PROJECT F 04-1(15) END &
STA 917+76.79 PROJECT F 04-1(16) BEGIN



STA. 1105.00 ℞ = STA. 1105.00 ℞.
END OF PROJ. F 04-1(20)

BEGINNING OF PROJECT F04-1(21) CONTRACT 2 / 1081-2-82
= STA. 919+16.69 ℞
1045' S. & 1335' E (GRID DIST.) OF THE N. 1/4 CORNER OF SECTION 8 T 2 N., R. 17 E.
WISCONSIN PLANE COORDINATES N 241,450.01
(SOUTH ZONE) E 2,401,669.62

END OF PROJECT F 04-1(21) CONTRACT 1 / 1081-2-81
= STA. 917+76.79 ℞
1180' S & 1330' W. (GRAD DIST.) OF THE N.E. CORNER OF SECTION 8 T 2 N., R. 17 E.
WISCONSIN PLANE COORDINATES N. 241,323.00
(SOUTH ZONE) E. 2,401,728.27

STA 731+00 PROJECT F 04-1(21) =
STA 731+00 PROJECT F 04-1(15) BEGIN

STA 597+00 PROJECT F 04-1(21) =
STA 597+00 PROJECT F 04-1(11) END

BEGINNING OF PROJECT F 04-1(21) CONTRACT 1 / 1081-2-81
STA. 563+00 ℞
280' S. & 1025' E. (GRID DIST) OF THE N. 1/4 CORNER SECTION 31 T 2 N, R 18 E
= STA 563+00 PROJECT F 04-1(11)
WISCONSIN PLANE COORDINATES N. 220,943 54
(SOUTH ZONE) E 2,428,333 40
= STA 563+00, END PROJECTS F 04-1(12) & (13)
= STA. 563+00 PROJECT F 04-1(20) BEGIN

CONTROL OF ACCESS

WITHIN LIMITS OF THE PROJECT WHERE CONTROL OF ACCESS LINE IS SHOWN THUS ——— ——— NO ACCESS IS PERMITTED TO THE HIGHWAY TRAFFIC LANES EXCEPT BY RAMPS AT INTERCHANGES.

Conventional Signs

State Line
County Line
Township or Range Line
Section Line
New Right of Way Line
Present Right of Way Line
Wire Fence { Woven, Barbed }
Lot Line
Corporate or City Limits
Property Line
Traveled Way or P.E.
Railroads
Base or Survey Line
Culverts in Place
Culverts Required
Drop Inlet
Power Pole
Telepnone or Telegraph Pole
Right of Way Markers
Reference Stake for Hubs Only
Marsh
Hedge
Trees
Ground Elevation — Datum Line 73.9
Grade Elevation — Datum Line 76.16

Layout

Scale 0 1 2 MI.

Total Net Length of Centerline = 9.441 Mi. RURAL
" " " = 0.717 Mi. MCPL.
TOTAL = 10.158 Mi.

EXCEPTIONS TO NET LENGTH OF ℞

Sta. 598+02.74	TO	Sta. 598+37.25	(B-64-30)
621+44.25	"	" 623+33.75	(B-64-32 & 33)
693+01.30	"	" 693+56.70	(B-64-34)
701+40.10	"	" 702+83.30	(B-64-35 & 36)
731+44.12	"	" 731+90.00	(B-64-37 & 38)
867+50.53	"	" 867+87.83	(B-64-61)
917+76.79	"	" 919+16.69	(B-64-41 & 42)
933+55.53	"	" 935+46.58	(B-64-44 & 43)
1042+54.67	"	" 1043+85.85	(B-64-46 & 47)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Surveyor D.C. & CO. Note Book
District Computer T.L. & K.G. M.O. Checker R.L.C.
District Checker F.W.N. & C.B. Correct

Correct

Date 2/24/69 B.T. Benasyah
Recommended for Approval District Engineer

Date 3/3/69 E.J. Bythit
Approved Chief Design Engineer

Date 3/4/69 M.J. Beaumier
State Highway Engineer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
REGION 4 WISCONSIN DIVISION

Approved

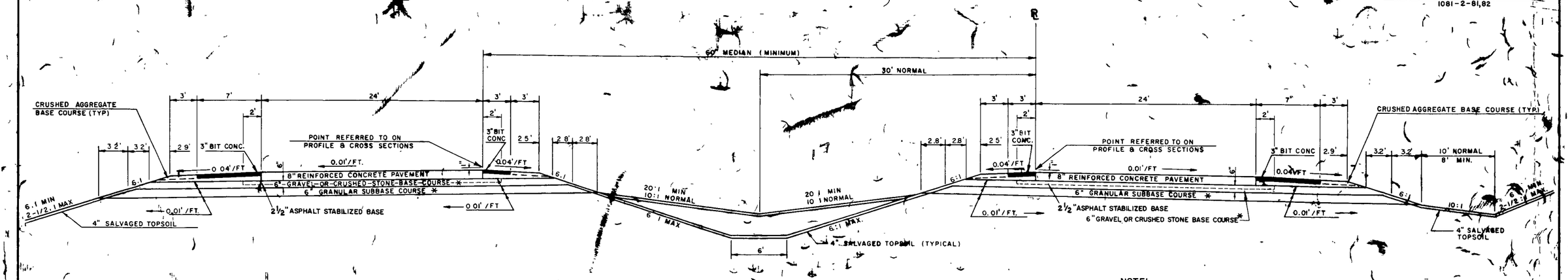
Date

Division Engineer

F04-1(21)

B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F 04-1(21)	2	41

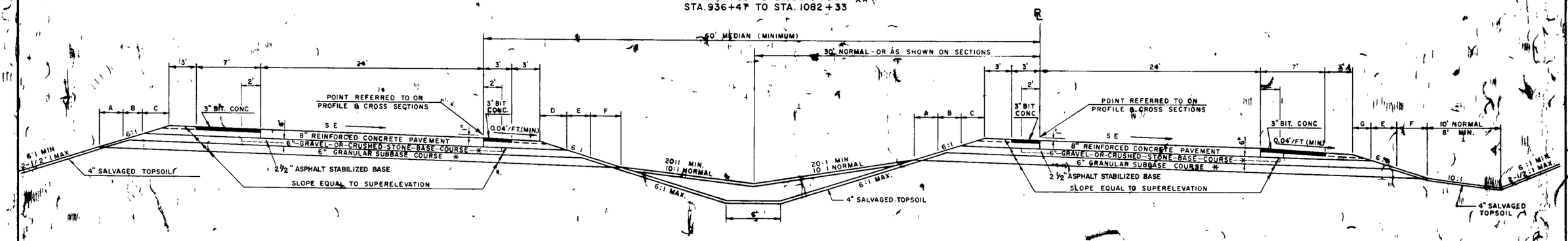
1081-2-81,82



TYPICAL NORMAL DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN

STA. 731+00 TO STA. 916+54 **
STA. 936+47 TO STA. 1082+33

NOTE:
* IN PLACE



TYPICAL SUPERELEVATED DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN

STA. 731+00 - STA. 916+54
STA. 936+47 - STA. 1082+33 **

SUPERELEVATION TABLE								
Dc	S E	A	B	C	D	E	F	G
0°-15' 0°-45'	0.02'/FT.	2.7	2.7	4.0	4.3	3.4	3.4	3.8
1°-00'	0.03'/FT.	2.5	2.5	3.8	5.1	3.7	3.7	4.8
1°-15'	0.035'/FT.	2.5	2.5	3.7	5.5	3.8	3.8	5.3
1°-30'	0.042'/FT	2.4	2.4	3.6	6.0	4.0	4.0	6.0
1°-45'	0.05'/FT	2.3	2.3	3.5	6.4	4.3	4.3	6.5
2°-00'	0.056'/FT	2.3	2.3	3.4	6.7	4.5	4.5	6.7

ROTATION ABOUT MEDIAN EDGE OF PAVEMENTS

** FOR LOCATION OF 9" PAVEMENT
SEE SHEET 2.3

TYPICAL CROSS SECTION
FOR

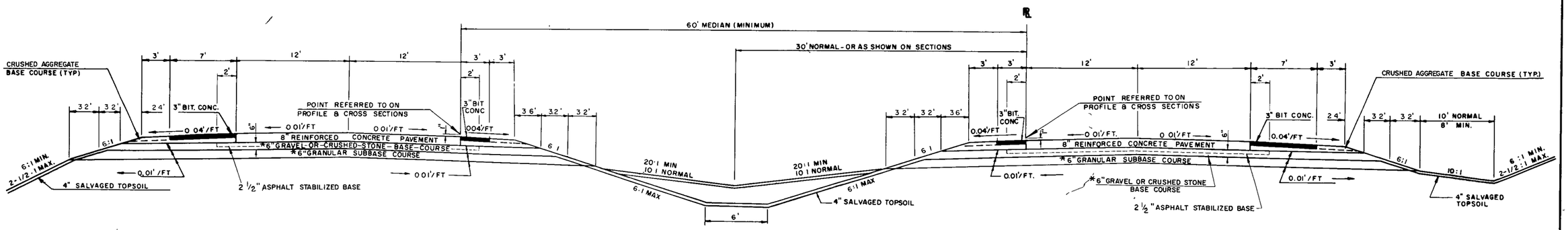
GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

REVISED 6-12-67 PRL

B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F 04-1(21)	2.2	41

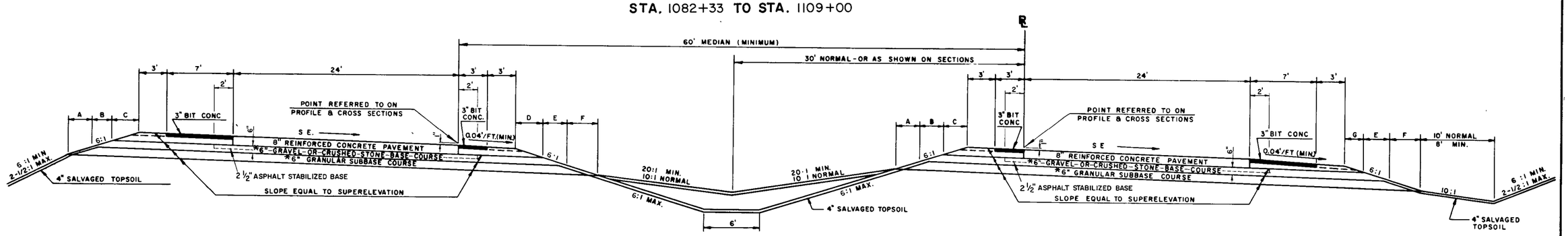
1081-2-82



TYPICAL NORMAL DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN

STA. 1082+33 TO STA. 1109+00

NOTE:
* IN PLACE



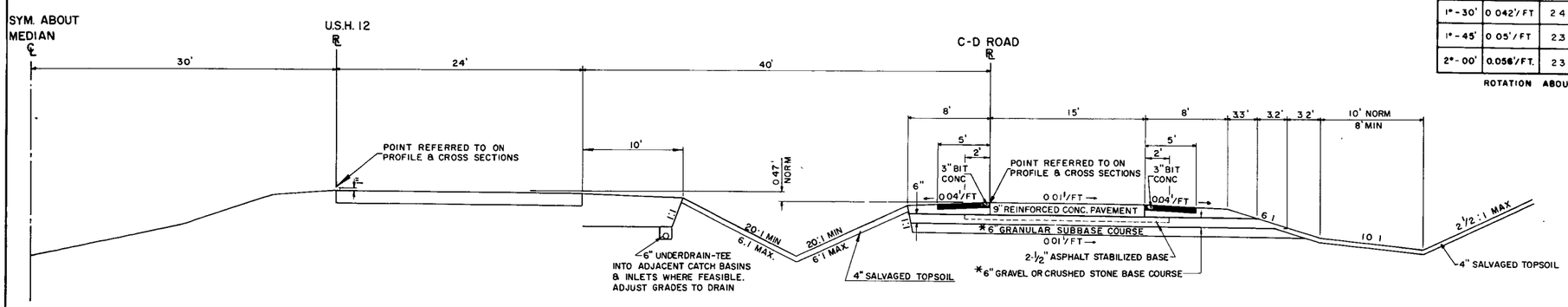
TYPICAL SUPERELEVATED DUAL HIGHWAY SECTION - 4 LANE DIVIDED, 60' MEDIAN

STA 1082+33-STA. 1109+00

SUPERELEVATION TABLE

Dc	S E	A	B	C	D	E	F	G
0°-15' 0°-45'	0.02'/FT.	2.7	2.7	4.0	4.3	3.4	3.4	3.8
1°-00'	0.03'/FT.	2.5	2.5	3.8	5.1	3.7	3.7	4.8
1°-15'	0.035'/FT	2.5	2.5	3.7	5.5	3.8	3.8	5.3
1°-30'	0.042'/FT	2.4	2.4	3.6	6.0	4.0	4.0	6.0
1°-45'	0.05'/FT	2.3	2.3	3.5	6.4	4.3	4.3	6.4
2°-00'	0.056'/FT.	2.3	2.3	3.4	6.7	4.5	4.5	6.7

ROTATION ABOUT MEDIAN EDGE OF PAVEMENTS



TYPICAL HIGHWAY SECTION U.S.H. 12 - S.T.H. 15 INTERCHANGE AREA WITH COLLECTOR DISTRIBUTOR RDS

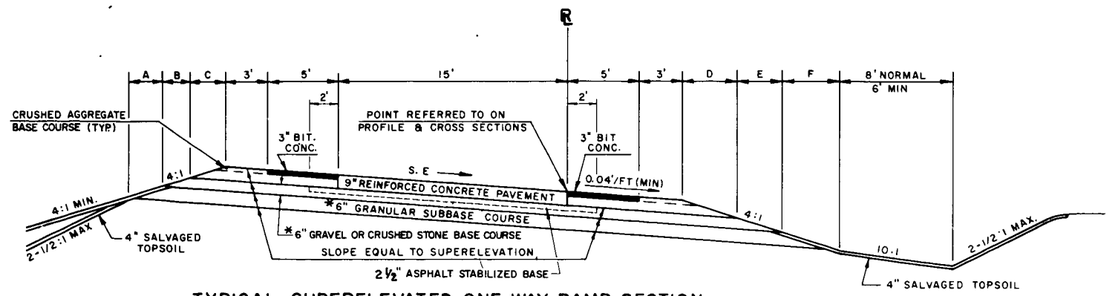
TYPICAL CROSS SECTION FOR

GENOA CITY-ELKHORN ROAD

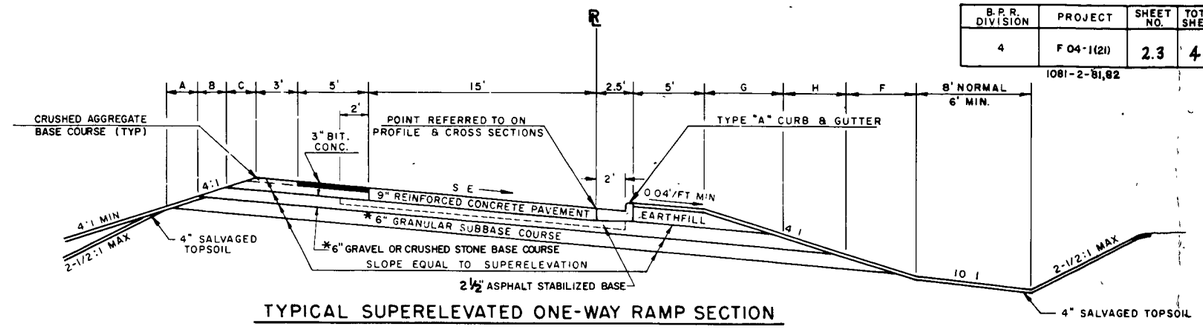
U.S.H. 12 WALWORTH COUNTY

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	2.3	41

1081-2-81,82



TYPICAL SUPERELEVATED ONE-WAY RAMP SECTION
(WITHOUT BARRIER CURB)

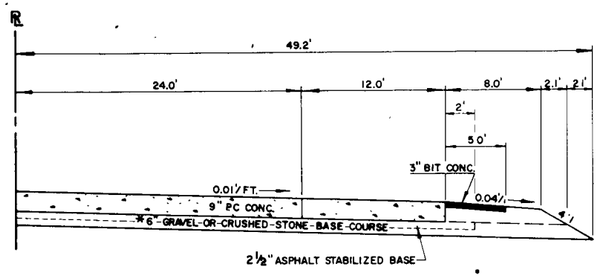


TYPICAL SUPERELEVATED ONE-WAY RAMP SECTION
(WITH BARRIER CURB)

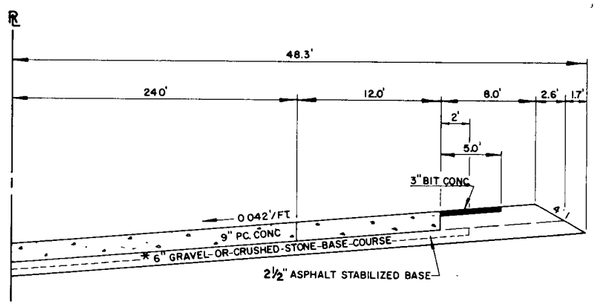
SUPERELEVATION TABLE-RAMPS								
S E	A	B	C	D	E	F	G	H
0.01'/FT	1.9	1.9	2.9	2.1	2.1	2.1	3.9	2.1
0.02'/FT	1.9	1.9	2.8	2.6	2.2	2.2	4.3	2.2
0.03'/FT	1.8	1.8	2.7	3.1	2.3	2.3	4.7	2.3
0.04/FT	1.7	1.7	2.6	3.6	2.4	2.4	5.2	2.4
0.05/FT	1.7	1.7	2.5	3.8	2.5	2.5	5.4	2.5
0.06/FT	1.6	1.6	2.4	4.0	2.6	2.6	5.7	2.6
0.07/FT	1.6	1.6	2.3	4.2	2.8	2.8	6.0	2.8
0.08/FT	1.5	1.5	2.3	4.4	2.9	2.9	6.4	2.9

ROTATION ABOUT ℄

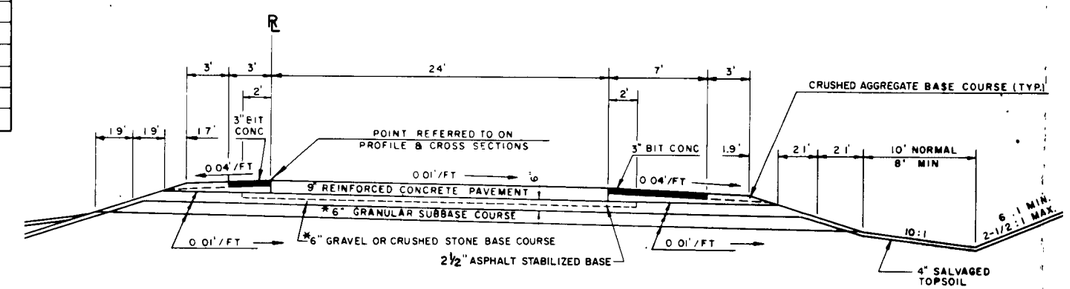
NOTE.
* IN PLACE



TYPICAL SECTION AUXILIARY LANE U.S.H. 12
STA 625+75 TO STA 628±73



TYPICAL SUPERELEVATED
SECTION AUXILIARY LANE U.S.H. 12
STA 628±73 TO STA 641+00



TYPICAL MAINLINE ONE-WAY ROADWAY SECTION (9" P.C. CONC.)

CONTRACT 1

STA 549+00 TO STA 558+28 S.B	STA. 700+40 TO STA. 701+20 N.B.
STA 561+02 TO STA 561+82 S.B	STA 702+54 TO STA 703+34 S.B.
STA. 620+44 TO STA 621+24 S.B.	STA 703+24 TO STA. 704+04 N.B.
STA 620+44 TO STA 621+24 N.B.	STA 917+31 TO STA 918+11 S.B.
STA 699+71 TO STA 700+51 S.B.	STA 916+55 TO STA. 917+35 N.B.

CONTRACT 2

STA 919+37 TO STA. 933+11 N.B.	STA. 1041+54 TO STA. 1042+34 N.B.
STA 920+13 TO STA. 933+95 S.B.	STA 1041+25 TO STA 1042+05 S.B.
STA 935+67 TO STA 936+47 N.B	STA. 1044+14 TO STA. 1044+94 N.B.
STA. 936+61 TO STA 937+41 N.B	STA 1043+85 TO STA 1044+65 S.B.

APPROVED DETAIL DRAWINGS

2-1.1.12 Concrete Pavement Reinforcement
2-3.1.5 Structure Approach and Concrete Pavement Approach Slab
3-1.1.7 Concrete Curb, Gutter, Combination Curb & Gutter, Surface Drain
4-4.4.8 Longitudinal Joints - Concrete Pavement
4-4.5.11 Transverse Joints - Concrete Pavement
6-2.4.3 Mortar Rubble Masonry or Riprap For Culvert and Cattle Pass Endwalls
5-3.4.8 Inlet Covers
5-3.5.2 Inlets
7-2.4.13 Steel Plate Beam Guard & Steel Beam Median Guard
7-4.1.5 Construction Barricade
8-1.3.1 Ditch Checks, Mortar Rubble Masonry & Sod
13-1.1.1 Maintenance Crossover for Freeways

GENERAL NOTES

1. The Reference Line (℄) Is The Median Edge of the Northbound Pavement.
2. When The Quantity of The Items of Base Or Surface Course Is Measured For Payment By The Ton Or Cubic Yard, The Depth Or Thickness Of The Course Shown On The Plans Is Approximate And The Actual Thickness Will Depend On The Distribution Of The Material Directed By The Engineer.
3. Items Shown On The Plans But Not included In The Estimate Of Quantities Or Miscellaneous Quantities Are Not Part Of This Contract.
4. The Exact Location Of Private Entrances Is To Be Determined In The Field By The Engineer
5. 3" Bituminous Concrete, Where Indicated On The Plans, Shall Consist Of 1-3/4" Binder Course And 1-1/4" Surface Course.
6. Shrinkage Is Variable And Estimated At 15% For Embankment And 25% For Marsh Backfill.
7. All The Right Of Way, Exclusive Of The Roadbed And Areas Already Covered With Suitable Grasses, Shall Be Fertilized And Seeded.
8. The Shoulder Gravel Adjacent to Bituminous Concrete Shoulders Shall Not Be Placed Until After The Bituminous Concrete Pavement Has Been Laid.
9. Salvaged Topsoil To Be Placed As Directed By Plans To An Approximate Depth of 4" At Time Of Placing.
10. Where 5" Bituminous Concrete Is Indicated On The Plans, It Shall Be Constructed As Follows: 3-3/4" Binder (2-Courses) And 1-1/4" Surface Course.

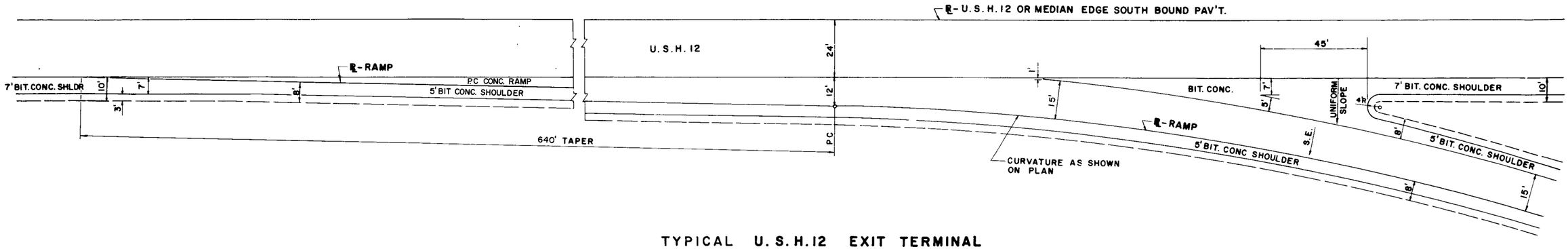
TYPICAL CROSS SECTIONS
FOR
RAMPS AND WIDENED MEDIAN

GENOA CITY-ELKHORN ROAD

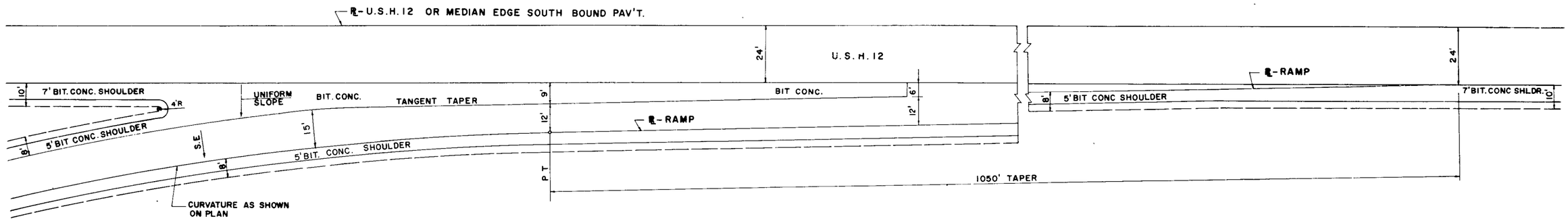
U. S. H 12 WALWORTH COUNTY

B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.5	41

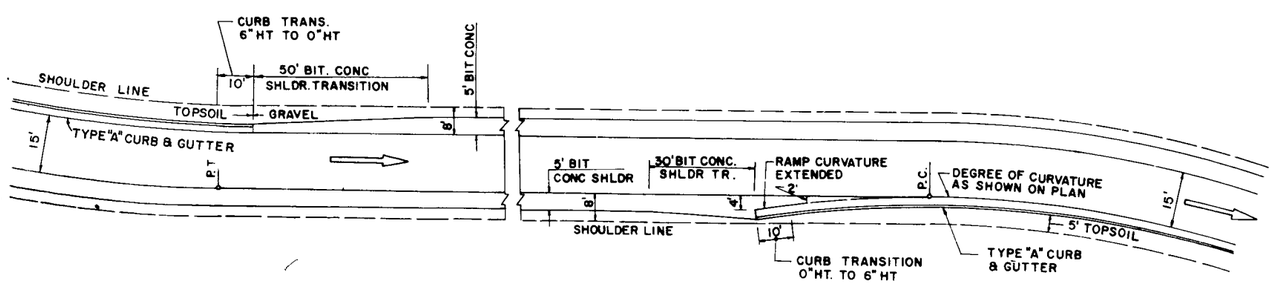
1081-2-81,82



TYPICAL U.S.H.12 EXIT TERMINAL



TYPICAL U.S.H.12 ENTRANCE TERMINAL



TYPICAL EXIT & APPROACH DETAIL FOR CURBED RAMP SECTION

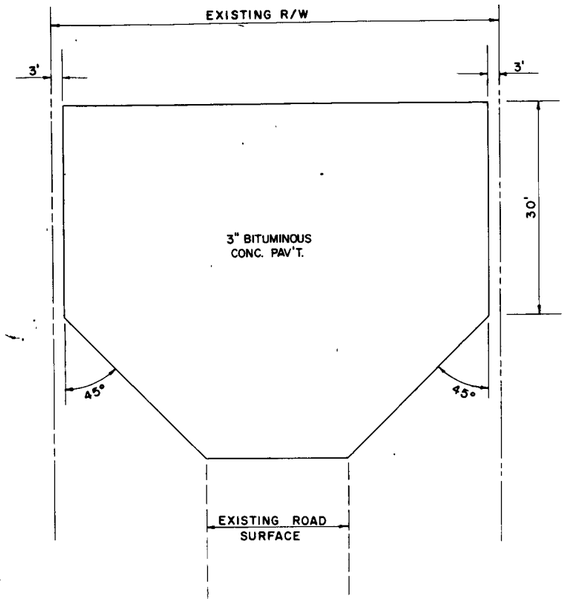
CONSTRUCTION DETAILS
FOR
INTERCHANGE RAMPS

GENOA CITY-ELKHORN ROAD

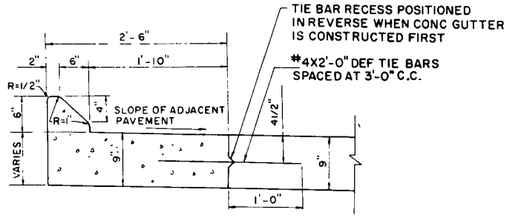
U.S. H. 12 WALWORTH COUNTY

B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.6	41

1081-2-81,82



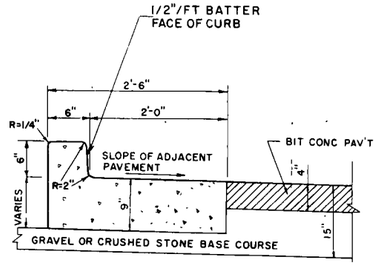
TYPICAL CUL-DE-SAC DETAILS FOR KRUEGER ROAD



TYPE "G" (MODIFIED)

CONCRETE CURB & GUTTER

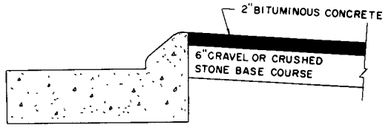
(TO BE MEASURED AND PAID FOR AS TYPE "G" CONCRETE CURB & GUTTER)



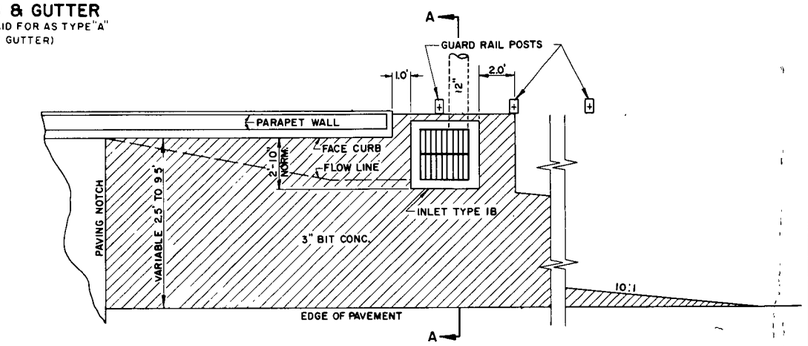
TYPE "A" (MODIFIED)

CONCRETE CURB & GUTTER

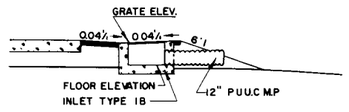
(TO BE MEASURED AND PAID FOR AS TYPE "A" CONCRETE CURB & GUTTER)



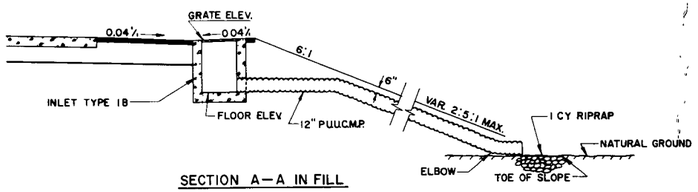
ISLAND DETAILS



PLAN VIEW

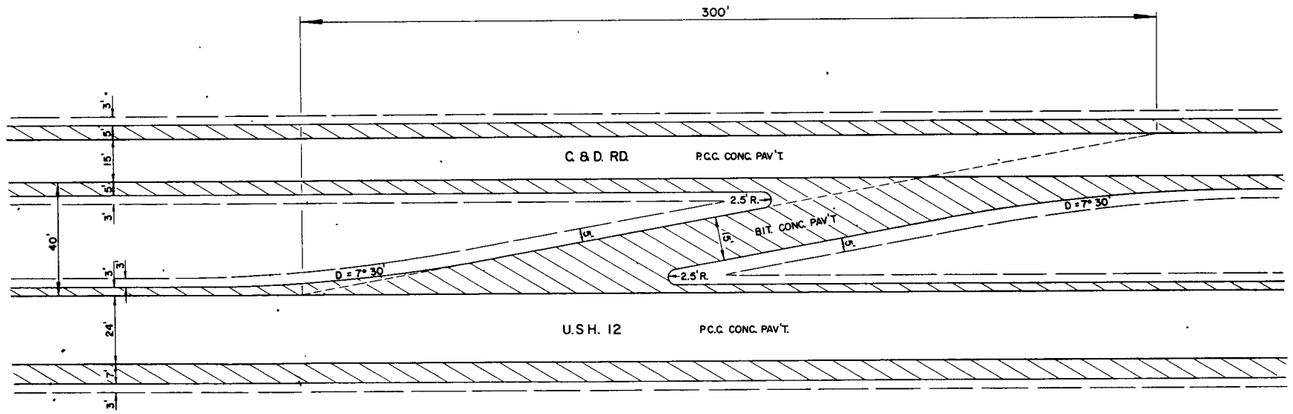


SECTION A—A IN CUT



SECTION A—A IN FILL

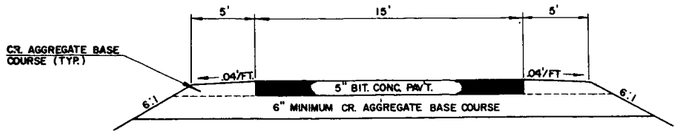
DETAIL OF BRIDGE APPROACH INLET



TEMPORARY CROSS-OVER PLAN DETAIL

NOT TO SCALE

BIT. CONC. PAV'T.



TYPICAL TEMPORARY CROSS-OVER SECTION (TO BE REMOVED)

OBLITERATED

CONSTRUCTION DETAILS

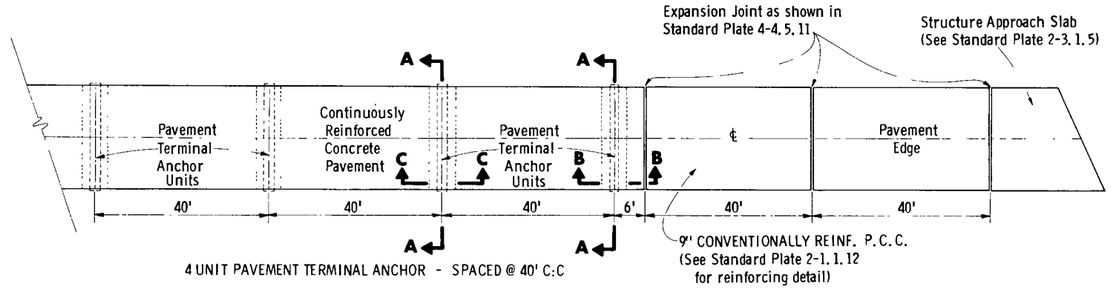
FOR

GENOA CITY-ELKHORN ROAD

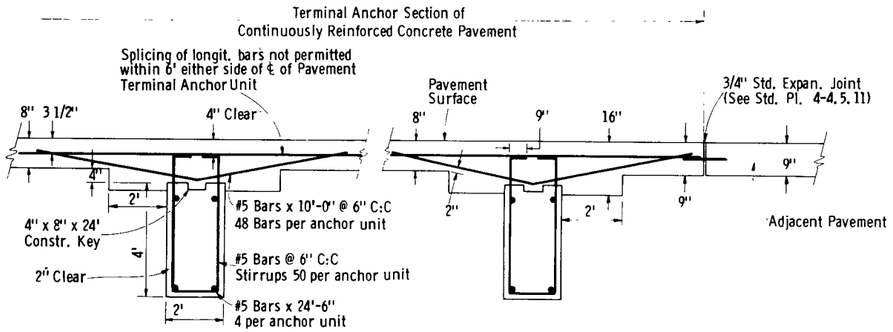
U. S. H. 12 WALWORTH COUNTY

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
1081-2-81,82		
FEDERAL PROJECT DESIGNATION F04-1(21)	2.7	41

DETAILS FOR CONTINUOUSLY REINFORCED CONCRETE PAVEMENT



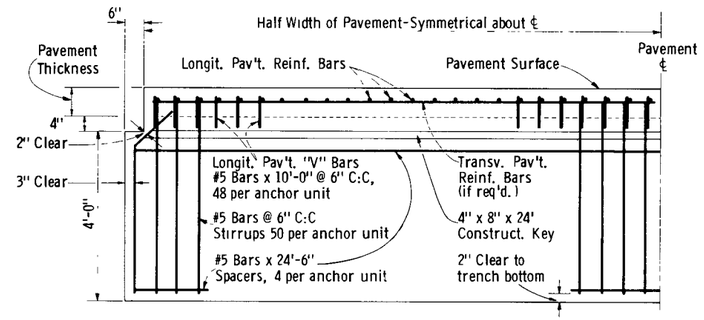
PAVEMENT TERMINAL ANCHOR



SECTION C-C

SECTION B-B

SIDE ELEVATION



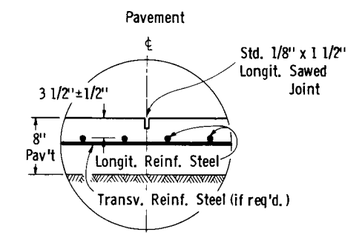
SECTION A-A

PAVEMENT TERMINAL ANCHOR UNIT DETAILS

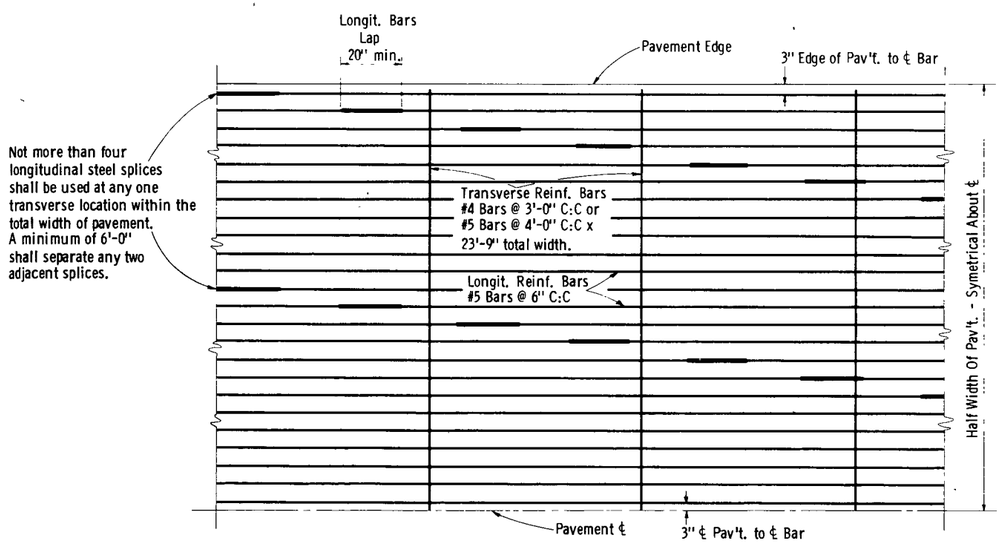
GENERAL NOTES

The Bid Item "Pavement Terminal Anchor" shall include the total quantities of concrete and reinforcing steel, including the "V" shaped bent bars, extending below the normal 8" concrete pavement used in the four terminal anchor units necessary to terminate continuously reinforced concrete pavements.

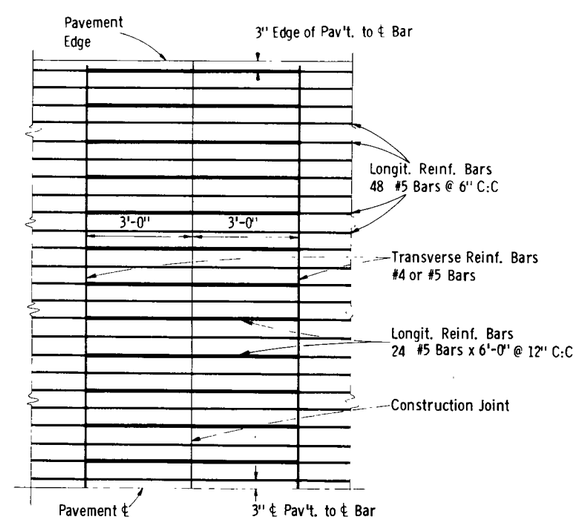
Transverse reinforcing bars may be omitted if the longitudinal reinforcing bars can be accurately placed and held there during the placing and setting of the concrete by devices or methods approved by the Engineer. In the case that transverse reinforcing bars are eliminated, longitudinal ℄ joint tie bars shall be accurately installed according to Standard Plate 4-4.4.8, except that tie bars may be placed either above or below the longitudinal reinforcing bars.



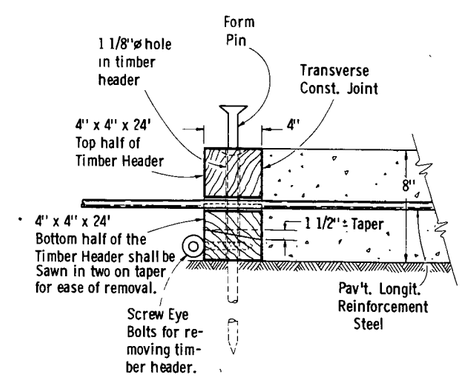
LONGITUDINAL ℄ JOINT DETAILS
TOTAL WIDTH CONSTRUCTION



REINFORCEMENT STEEL PLACEMENT
TOTAL WIDTH CONSTRUCTION



CONSTRUCTION JOINT
PLAN VIEW
(Half Width of Pavement)

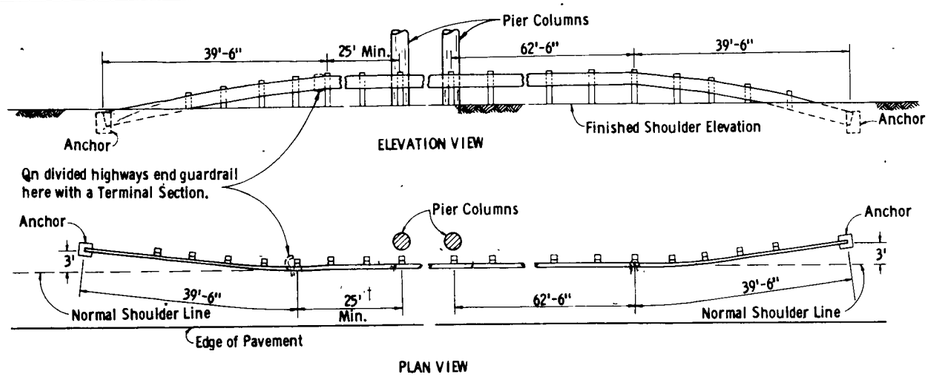


DETAILS OF SPLIT TIMBER TYPE HEADER
TO BE USED AT CONSTRUCTION JOINTS

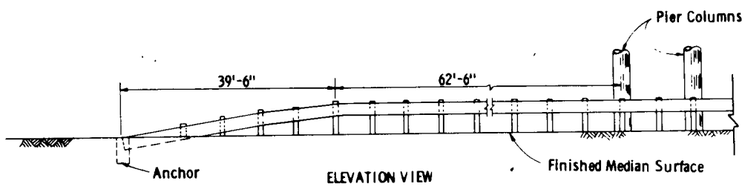
Note: Alternate Type Header installations may be used upon written approval of the Engineer.

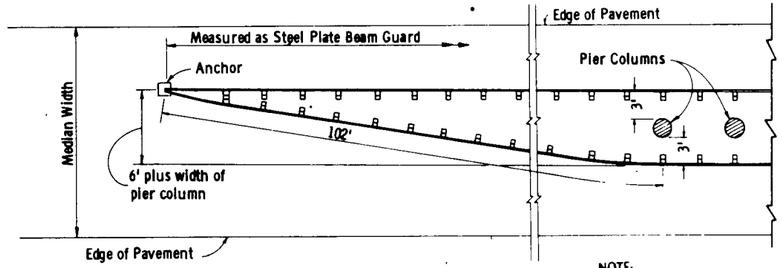
BPR REGION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.8	41

1081-2-81,82



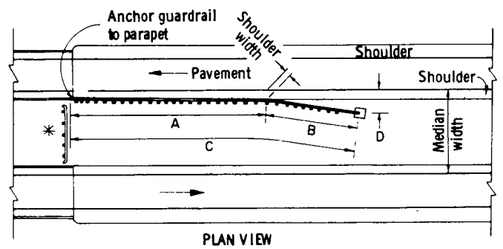
RIGHT SHOULDER GUARDRAIL



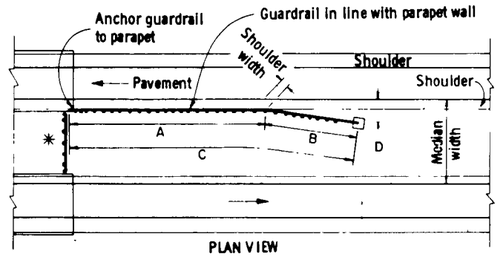


NOTE:
Introduced guardrail on other side of structure identical but curved in reverse direction.

INTRODUCED MEDIAN GUARDRAIL



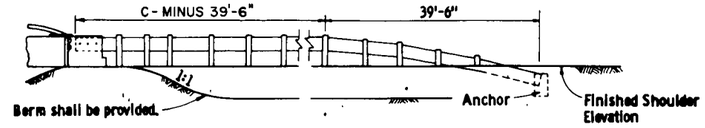
ROADWAY WIDTH GREATER THAN STRUCTURE WIDTH



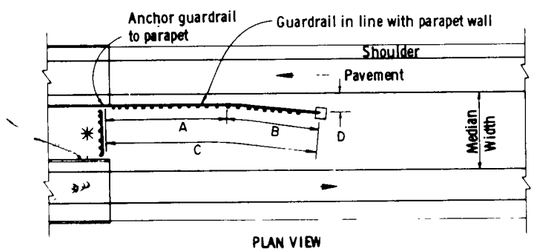
ROADWAY WIDTH EQUAL TO STRUCTURE WIDTH

DEPRESSED MEDIAN

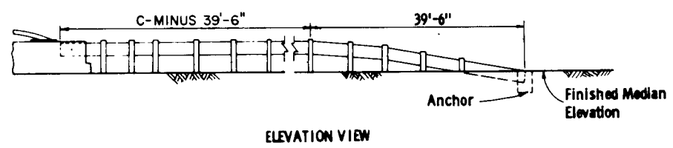
STRUCTURE	A	B	C	D
B-64-41	201	177	378	20
B-64-42	201	102	303	14
B-64-43	201	102	303	14
B-64-44	201	102	303	14
B-64-46	201	102	303	14
B-64-47	201	177	378	20
B-64-32	201	102	303	14
B-64-33	201	102	303	14
B-64-35	138	65	203	14
B-64-36	225	65	290	14

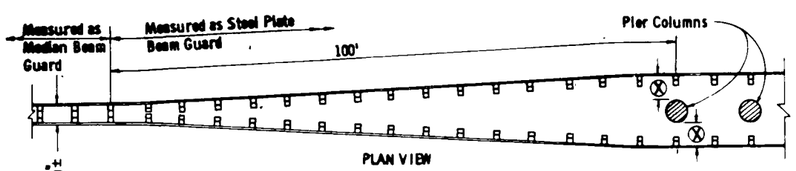


* Place fence behind guardrail if fencing is required. Top of fence and guardrail shall be at the same elevation. Guardrail between the structures shall have 6'-3" post spacing with Terminal End Sections.

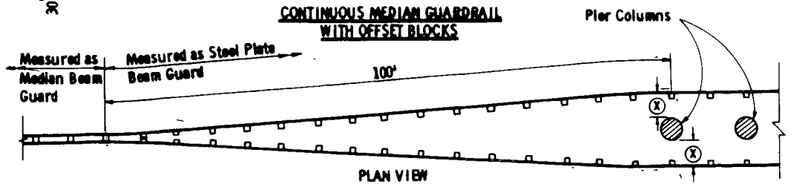


RAISED MEDIAN





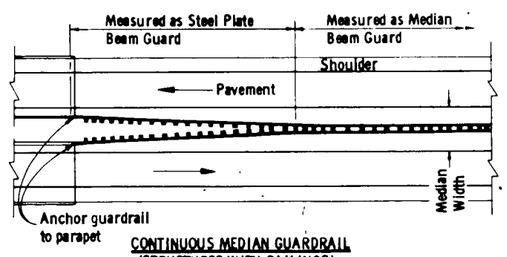
CONTINUOUS MEDIAN GUARDRAIL WITH OFFSET BLOCKS



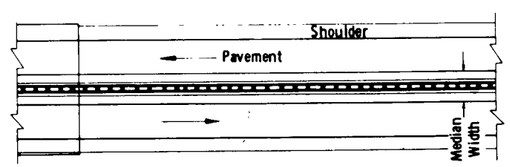
CONTINUOUS MEDIAN GUARDRAIL WITHOUT OFFSET BLOCKS

Ⓧ Min. distance necessary to clear pier column.

TYPICAL INSTALLATION AT UNDERPASS STRUCTURES



CONTINUOUS MEDIAN GUARDRAIL (STRUCTURES WITH RAILINGS)



CONTINUOUS MEDIAN GUARDRAIL (MEDIAN CARRIED ACROSS STRUCTURE)

TYPICAL INSTALLATION AT OVERPASS STRUCTURES

GENERAL NOTES

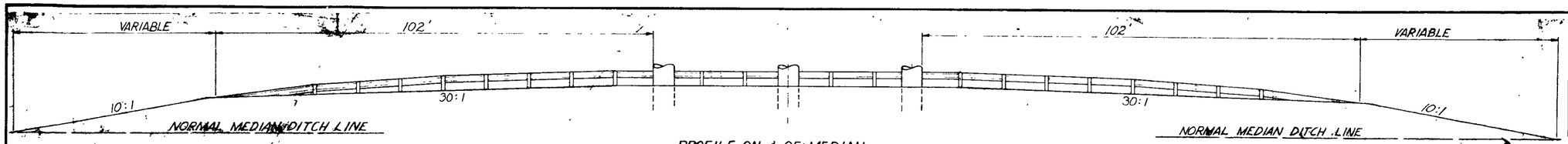
Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, Applicable Special Provisions, and the Standard Detail Drawing for Steel Plate Beam Guard and Steel Plate Beam (Median) Guard.

Post-Footing Detail at Piers shall be used when guardrail posts are over structure footings and less than 3'-6" of earth is provided over the top of the footing.

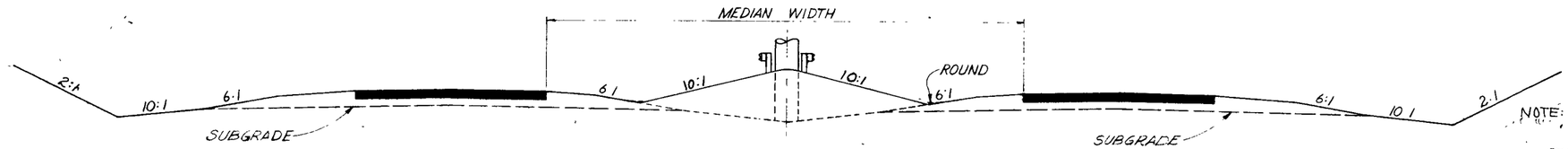
DETAILS FOR STEEL PLATE BEAM GUARD AND STEEL PLATE BEAM (MEDIAN) GUARD

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
1081-2-82	2.9	41
FEDERAL PROJECT DESIGNATION F 04-1(21)		

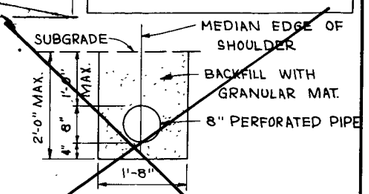
RAISED MEDIAN AT UNDERPASSES



PROFILE ON ℄ OF MEDIAN

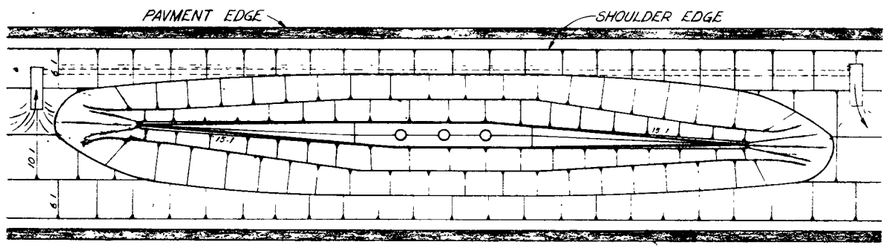


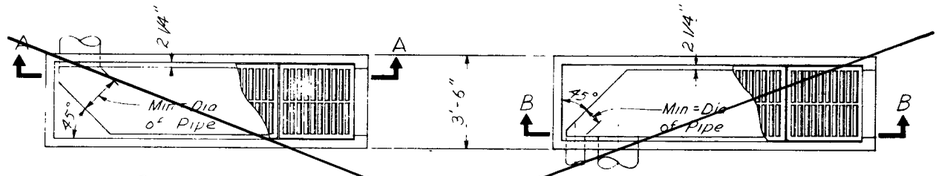
CROSS SECTION AT ℄ OF PIER



DETAIL OF PIPE UNDERDRAIN

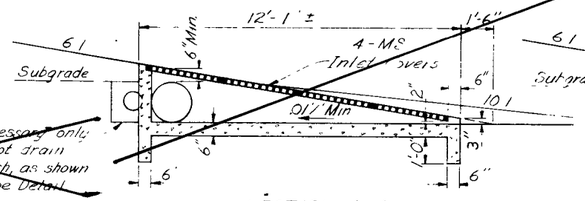
NOTE: Base drainage detail when Raised Median prevents the Base from draining freely as in the case of the 60 ft. Median.



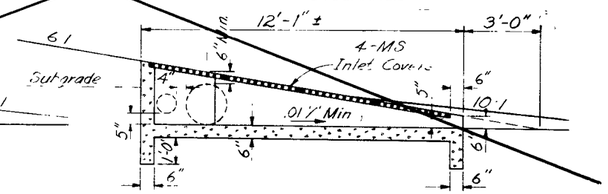


PLAN VIEW
INLET

PLAN VIEW
DISCHARGE

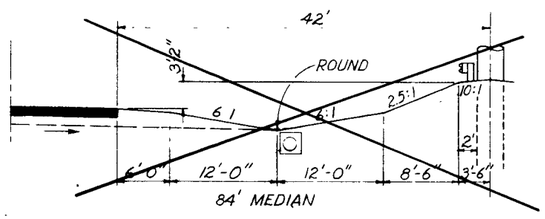


SECTION A-A

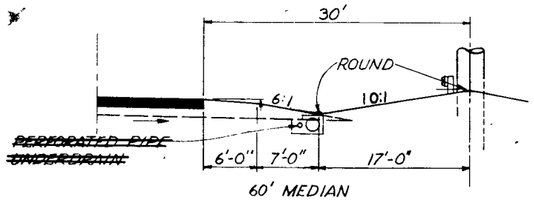


SECTION B-B

~~The 8" RPU is necessary only when the pipe cannot drain freely into the median ditch, as shown in the 60' Median Slope Detail.~~



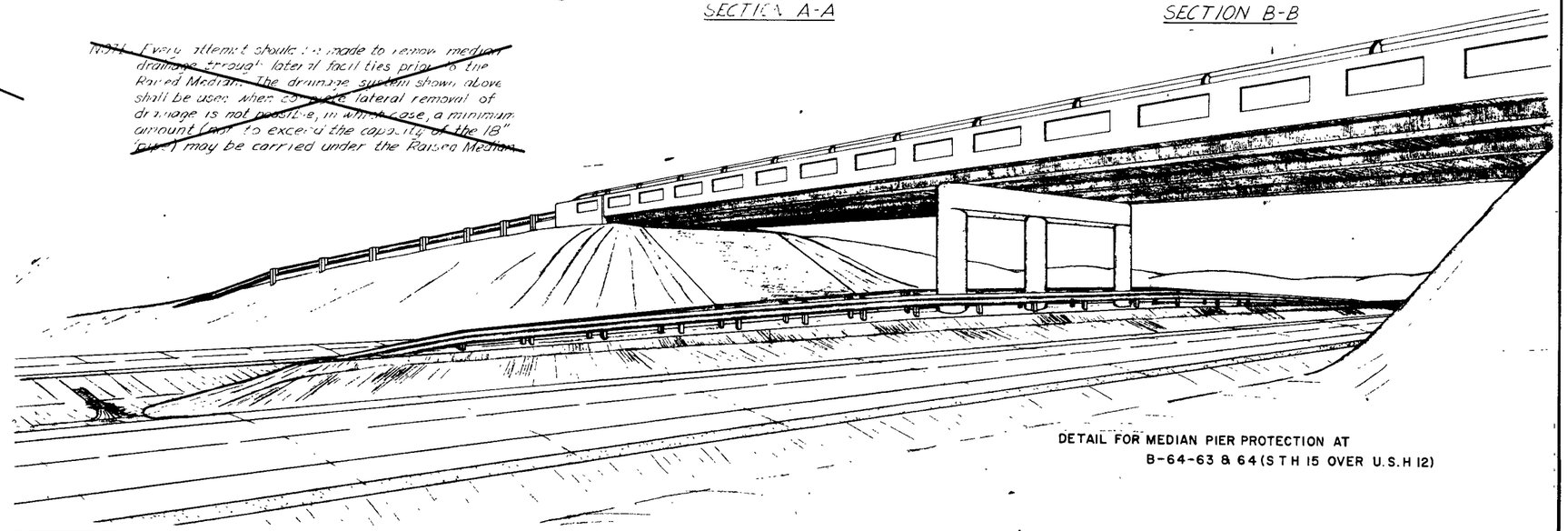
84' MEDIAN



60' MEDIAN

DETAIL OF MEDIAN SLOPES

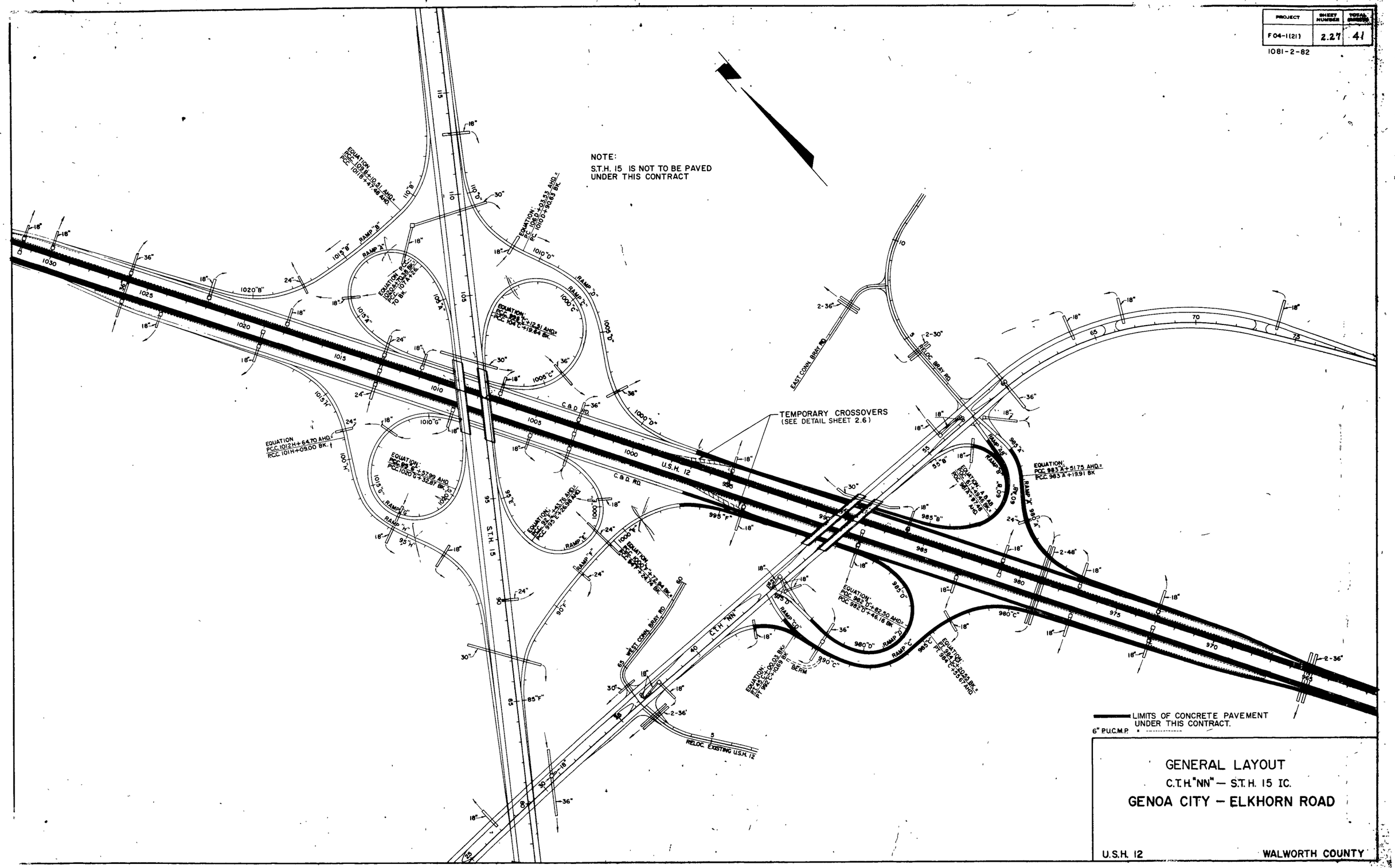
~~NOTE: Every attempt should be made to remove median drainage through lateral facilities prior to the Raised Median. The drainage system shown above shall be used when complete lateral removal of drainage is not possible, in which case, a minimum amount (not to exceed the capacity of the 18" Pipe) may be carried under the Raised Median.~~



DETAIL FOR MEDIAN PIER PROTECTION AT
B-64-63 & 64 (S T H 15 OVER U.S.H 12)

PROJECT	SHEET NUMBER	TOTAL SHEETS
F04-1(21)	2.27	41

1081-2-82



GENERAL LAYOUT

C.T.H. "NN" — S.T.H. 15 I.C.

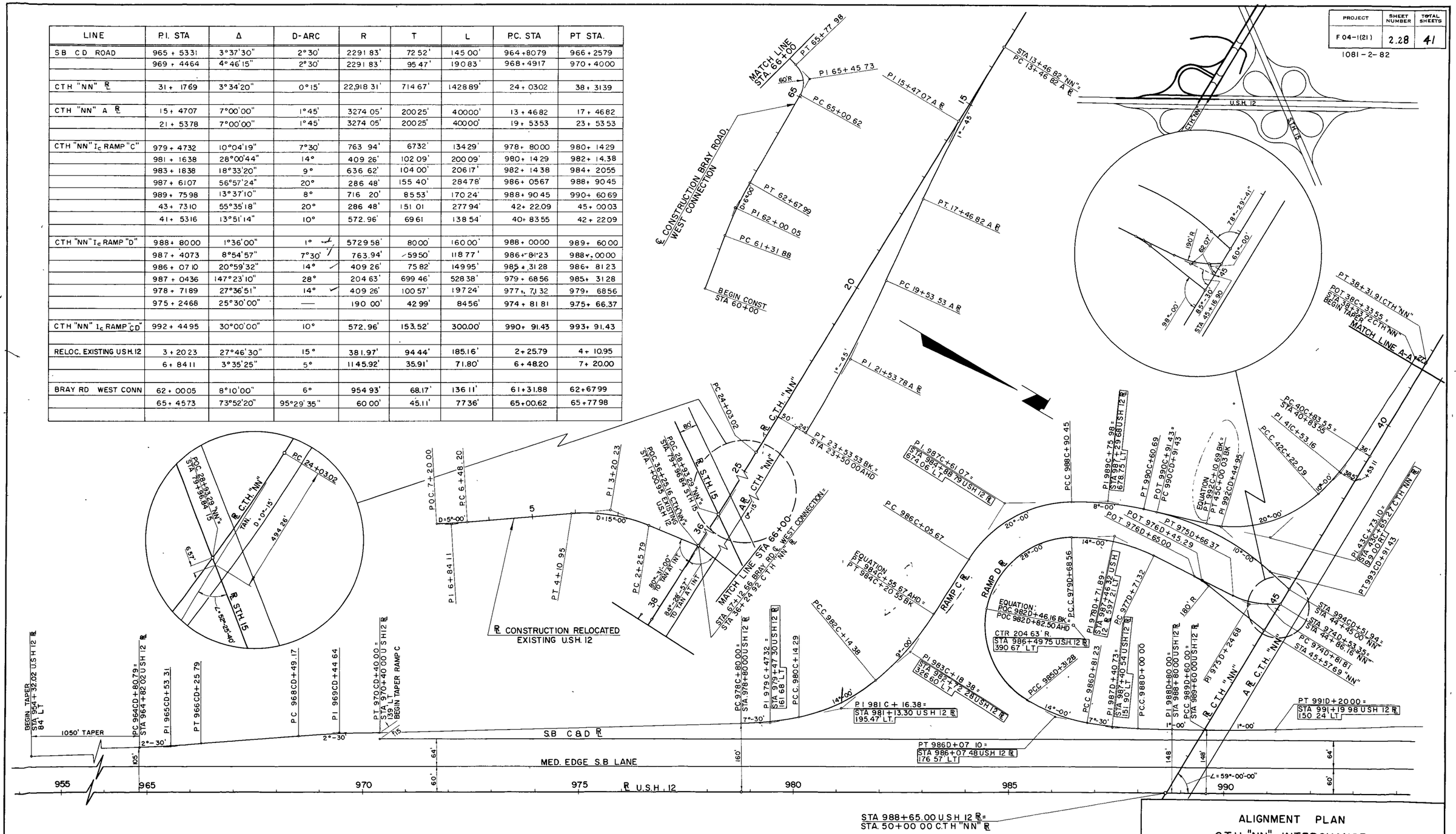
GENOA CITY — ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	2.28	41

1081-2-82

LINE	P.I. STA	Δ	D-ARC	R	T	L	P.C. STA	PT STA.
SB C D ROAD	965 + 5331	3°37'30"	2°30'	2291 83'	72 52'	145 00'	964+8079	966+2579
	969 + 4464	4°46'15"	2°30'	2291 83'	95 47'	190 83'	968+4917	970+4000
CTH "NN" ℞	31 + 1769	3°34'20"	0°15'	22,918 31'	714 67'	1428 89'	24+0302	38+3139
CTH "NN" A ℞	15+4707	7°00'00"	1°45'	3274 05'	200 25'	400 00'	13+4682	17+4682
	21+5378	7°00'00"	1°45'	3274 05'	200 25'	400 00'	19+5353	23+5353
CTH "NN" I_c RAMP "C"	979+4732	10°04'19"	7°30'	763 94'	67 32'	134 29'	978+8000	980+1429
	981+1638	28°00'44"	14°	409 26'	102 09'	200 09'	980+1429	982+1438
	983+1838	18°33'20"	9°	636 62'	104 00'	206 17'	982+1438	984+2055
	987+6107	56°57'24"	20°	286 48'	155 40'	284 78'	986+0567	988+9045
	989+7598	13°37'10"	8°	716 20'	85 53'	170 24'	988+9045	990+6069
	43+7310	55°35'18"	20°	286 48'	151 01	277 94'	42+22.09	45+0003
	41+5316	13°51'14"	10°	572.96'	69 61	138 54'	40+8355	42+2209
CTH "NN" I_c RAMP "D"	988+8000	1°36'00"	1°	5729 58'	80 00'	160 00'	988+0000	989+6000
	987+4073	8°54'57"	7°30'	763.94'	59 50'	118 77'	986+8123	988+0000
	986+0710	20°59'32"	14°	409 26'	75 82'	149 95'	985+3128	986+8123
	987+0436	147°23'10"	28°	204 63'	699 46'	528 38'	979+6856	985+3128
	978+7189	27°36'51"	14°	409 26'	100 57'	197 24'	977+7132	979+6856
	975+2468	25°30'00"	—	190 00'	42 99'	84 56'	974+8181	975+66.37
CTH "NN" I_c RAMP "CD"	992+4495	30°00'00"	10°	572.96'	153.52'	300.00'	990+91.43	993+91.43
RELOC. EXISTING U.S.H. 12	3+2023	27°46'30"	15°	381.97'	94 44'	185.16'	2+25.79	4+10.95
	6+8411	3°35'25"	5°	1145.92'	35.91'	71.80'	6+48.20	7+20.00
BRAY RD WEST CONN	62+0005	8°10'00"	6°	954 93'	68.17'	136 11'	61+31.88	62+6799
	65+4573	73°52'20"	95°29'35"	60 00'	45.11'	77 36'	65+00.62	65+7798



ALIGNMENT PLAN

C.T.H. "NN" INTERCHANGE

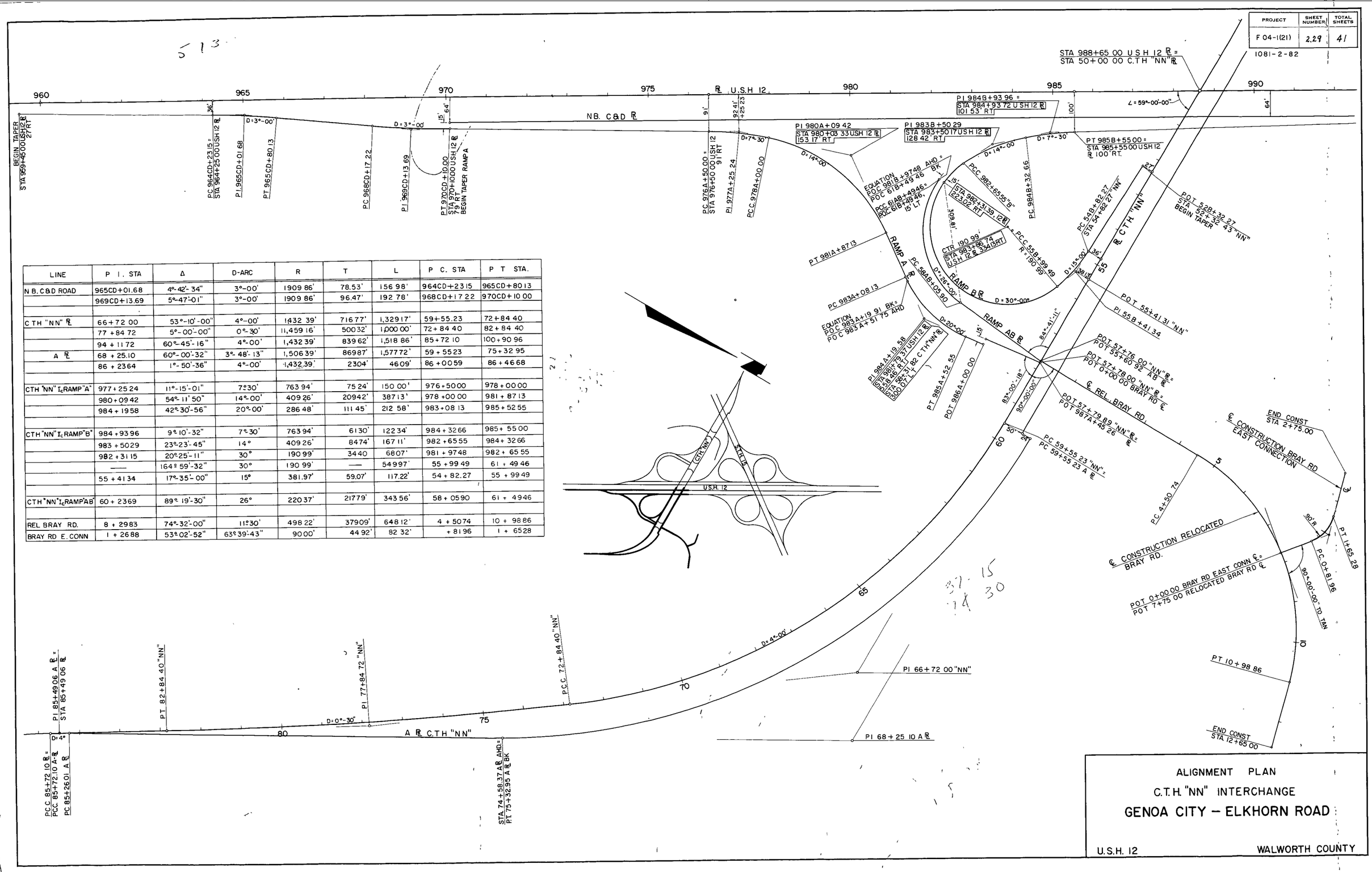
GENOA CITY – ELKHORN ROAD

U.S.H. 12

WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	229	41

1081-2-82



LINE	P I. STA	Δ	D-ARC	R	T	L	P C. STA	P T STA.
N B. C&D ROAD	965CD+01.68	4°-42'-34"	3°-00'	1909 86'	78.53'	156 98'	964CD+23 15	965CD+80 13
	969CD+13.69	5°-47'-01"	3°-00'	1909 86'	96.47'	192 78'	968CD+17 22	970CD+10 00
C TH "NN" ℞	66+72 00	53°-10'-00"	4°-00'	1432 39'	716 77'	1,329 17'	59+55.23	72+84 40
	77 +84 72	5°-00'-00"	0°-30'	11,459 16'	500 32'	1,000 00'	72+84 40	82+84 40
	94 + 11 72	60°-45'-16"	4°-00'	1,432 39'	839 62'	1,518 86'	85+72 10	100+90 96
A ℞	68 + 25.10	60°-00'-32"	3°-48'-13"	1,506 39'	869 87'	1,577 72'	59 + 55 23	75+32 95
	86 + 2364	1°-50'-36"	4°-00'	1,432.39'	2304'	46 09'	86 +00 59	86 + 46 68
CTH "NN" I. RAMP "A"	977+25 24	11°-15'-01"	7°30'	763 94'	75 24'	150 00'	976+50 00	978 + 00 00
	980+09 42	54°-11'50"	14°-00'	409 26'	209 42'	387 13'	978 +00 00	981 + 87 13
	984 + 19 58	42°-30'-56"	20°-00'	286 48'	111 45'	212 58'	983+08 13	985+52 55
CTH "NN" I. RAMP "B"	984 + 93 96	9°-10'-32"	7°-30'	763 94'	61 30'	122 34'	984 + 32 66	985+ 55 00
	983 + 50 29	23°-23'-45"	14°	409 26'	84 74'	167 11'	982 + 65 55	984+ 32 66
	982 + 31 15	20°-25'-11"	30°	190 99'	34 40	68 07'	981 + 97 48	982 + 65 55
	——	164° 59'-32"	30°	190 99'	——	549 97'	55 + 99 49	61 + 49 46
	55 + 41 34	17°-35'-00"	15°	381.97'	59.07'	117.22'	54 + 82.27	55 + 99 49
CTH "NN" I. RAMP "AB"	60 + 23 69	89° 19'-30"	26°	220 37'	217 79'	343 56'	58 + 05 90	61 + 49 46
REL BRAY RD.	8 + 29 83	74°-32'-00"	11°30'	498 22'	379 09'	648 12'	4 + 50 74	10 + 98 86
BRAY RD E. CONN	1 + 26 88	53° 02'-52"	63° 39'-43"	90 00'	49 92'	82 32'	+ 81 96	1 + 65 28

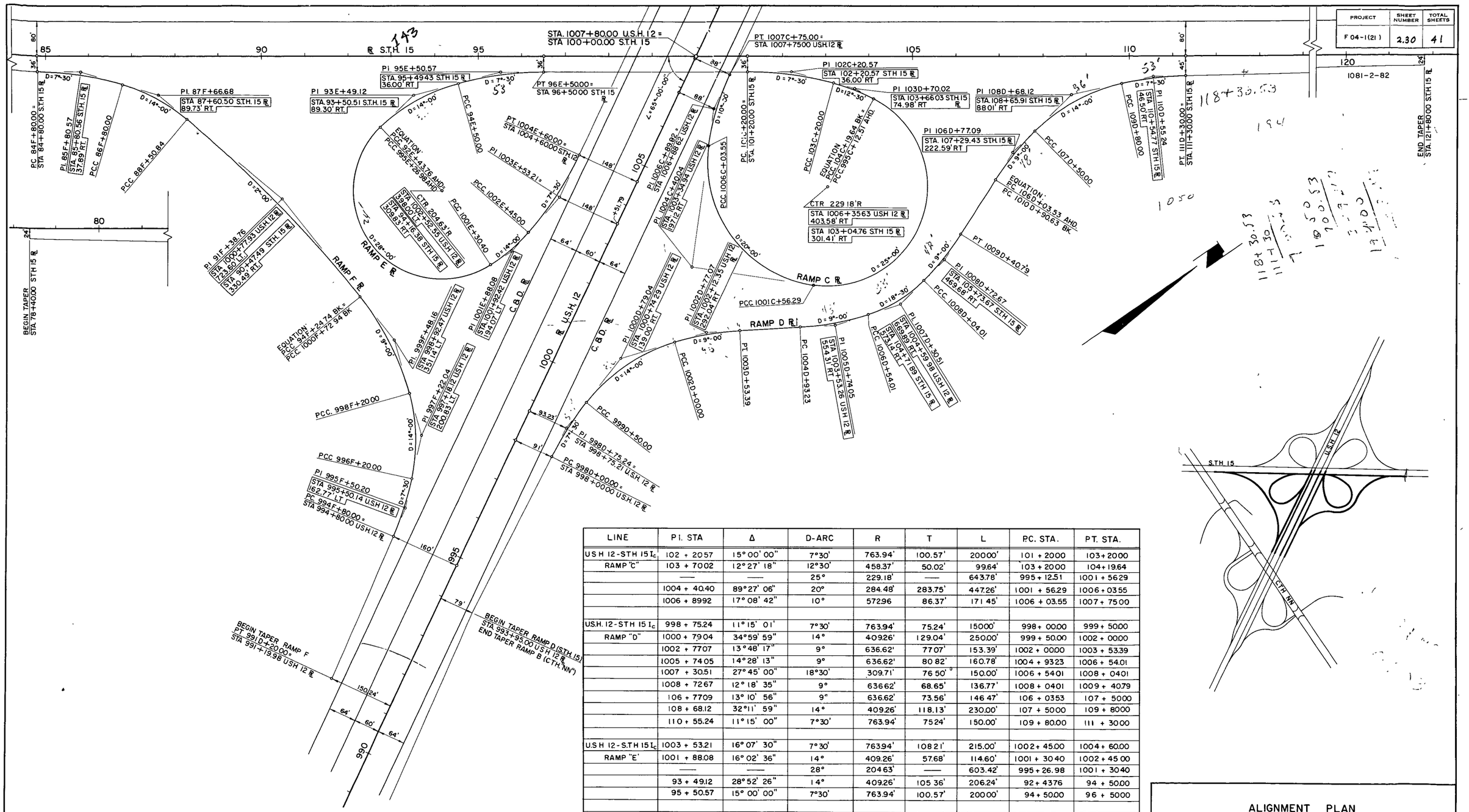
ALIGNMENT PLAN

C.T.H. "NN" INTERCHANGE

GENOA CITY – ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	2.30	41



LINE	PI. STA	Δ	D-ARC	R	T	L	PC. STA.	PT. STA.
U.S.H 12-STH 15 I_c	102 + 20.57	15° 00' 00"	7°30'	763.94'	100.57'	200.00'	101 + 20.00	103+20.00
RAMP "C"	103 + 70.02	12° 27' 18"	12°30'	458.37'	50.02'	99.64'	103 + 20.00	104+19.64
	—	—	25°	229.18'	—	643.78'	995 + 12.51	1001 + 56.29
	1004 + 40.40	89° 27' 06"	20°	284.48'	283.75'	447.26'	1001 + 56.29	1006 + 03.55
	1006 + 89.92	17° 08' 42"	10°	572.96	86.37'	171.45'	1006 + 03.55	1007 + 75.00
U.S.H. 12-STH 15 I_c	998 + 75.24	11° 15' 01"	7°30'	763.94'	75.24'	150.00'	998 + 00.00	999 + 50.00
RAMP "D"	1000 + 79.04	34° 59' 59"	14°	409.26'	129.04'	250.00'	999 + 50.00	1002 + 00.00
	1002 + 77.07	13° 48' 17"	9°	636.62'	77.07'	153.39'	1002 + 00.00	1003 + 53.39
	1005 + 74.05	14° 28' 13"	9°	636.62'	80.82'	160.78'	1004 + 93.23	1006 + 54.01
	1007 + 30.51	27° 45' 00"	18°30'	309.71'	76.50'	150.00'	1006 + 54.01	1008 + 04.01
	1008 + 72.67	12° 18' 35"	9°	636.62'	68.65'	136.77'	1008 + 04.01	1009 + 40.79
	106 + 77.09	13° 10' 56"	9°	636.62'	73.56'	146.47'	106 + 03.53	107 + 50.00
	108 + 68.12	32° 11' 59"	14°	409.26'	118.13'	230.00'	107 + 50.00	109 + 80.00
	110 + 55.24	11° 15' 00"	7°30'	763.94'	75.24'	150.00'	109 + 80.00	111 + 30.00
U.S.H 12-S.TH 15 I_c	1003 + 53.21	16° 07' 30"	7°30'	763.94'	108.21'	215.00'	1002 + 45.00	1004 + 60.00
RAMP "E"	1001 + 88.08	16° 02' 36"	14°	409.26'	57.68'	114.60'	1001 + 30.40	1002 + 45.00
	—	—	28°	204.63'	—	603.42'	995 + 26.98	1001 + 30.40
	93 + 49.12	28° 52' 26"	14°	409.26'	105.36'	206.24'	92 + 43.76	94 + 50.00
	95 + 50.57	15° 00' 00"	7°30'	763.94'	100.57'	200.00'	94 + 50.00	96 + 50.00
U.S.H 12-STH 15 I_c	995 + 50.20	10° 30' 00"	7°30'	763.94'	70.20'	140.00'	994 + 80.00	996 + 20.00
RAMP "F"	997 + 22.04	28° 00' 00"	14°	409.26'	102.04'	200.00'	996 + 20.00	998 + 20.00
	998 + 48.16	22° 45' 52"	9°	636.62'	128.16'	252.94'	998 + 20.00	1000 + 72.94
	91 + 38.76	11° 28' 41"	2°	2864.79'	287.92'	573.90'	88 + 50.34	94 + 24.74
	87 + 66.68	23° 55' 05"	14°	409.26'	86.68'	170.84'	86 + 80.00	88 + 50.84
	85 + 80.57	15° 00' 00"	7°30'	763.94'	100.57'	200.00'	84 + 80.00	86 + 80.00

ALIGNMENT PLAN

S.T.H. 15 INTERCHANGE

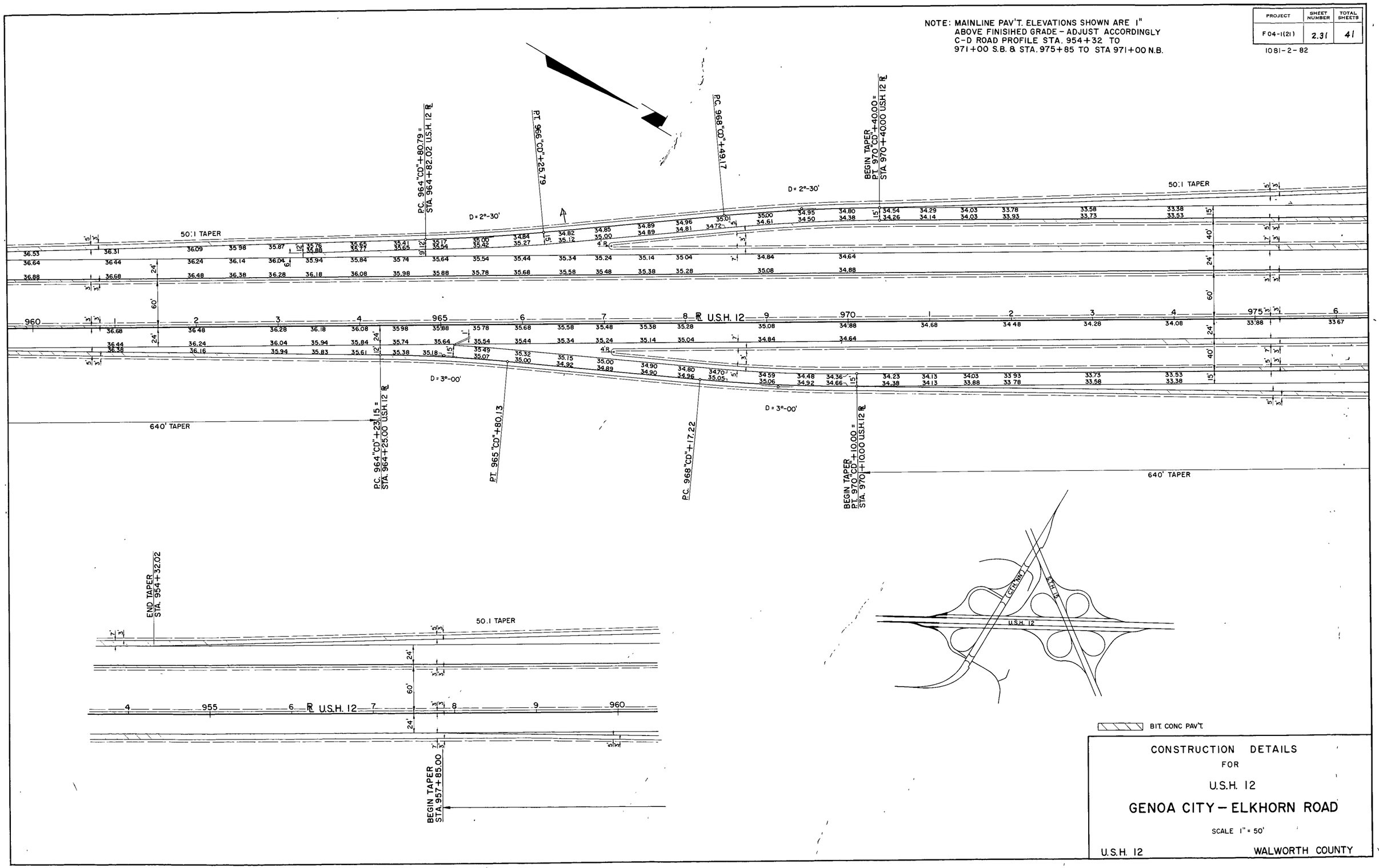
GENOA CITY – ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F04-1(21)	2.31	41

1081-2-82

NOTE: MAINLINE PAV'T. ELEVATIONS SHOWN ARE 1" ABOVE FINISHED GRADE - ADJUST ACCORDINGLY C-D ROAD PROFILE STA. 954+32 TO 971+00 S.B. & STA. 975+85 TO STA 971+00 N.B.



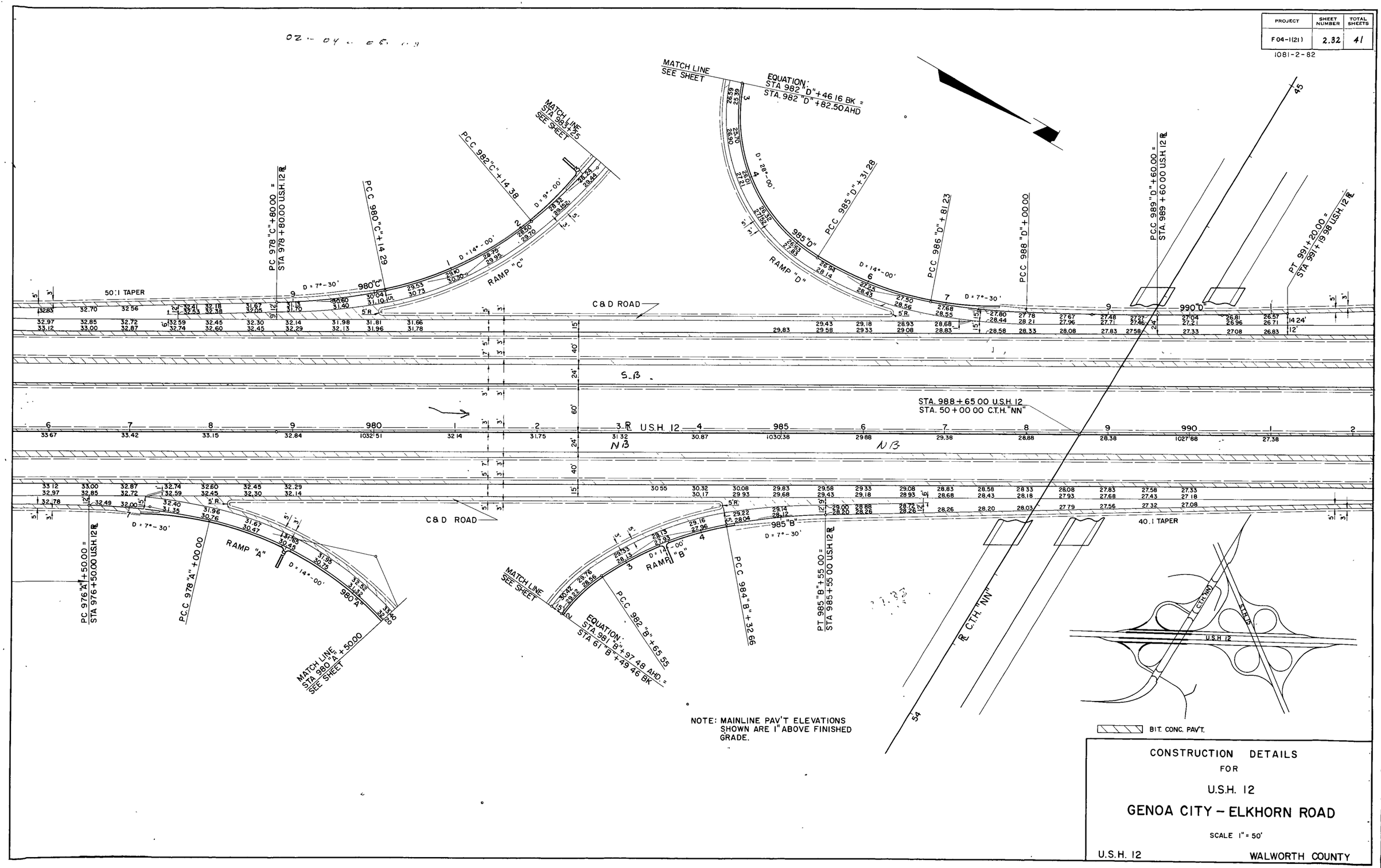
CONSTRUCTION DETAILS
FOR
U.S.H. 12
GENOA CITY - ELKHORN ROAD

SCALE 1" = 50'

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F04-1(21)	2.32	41

1081-2-82



NOTE: MAINLINE PAV'T ELEVATIONS SHOWN ARE 1" ABOVE FINISHED GRADE.

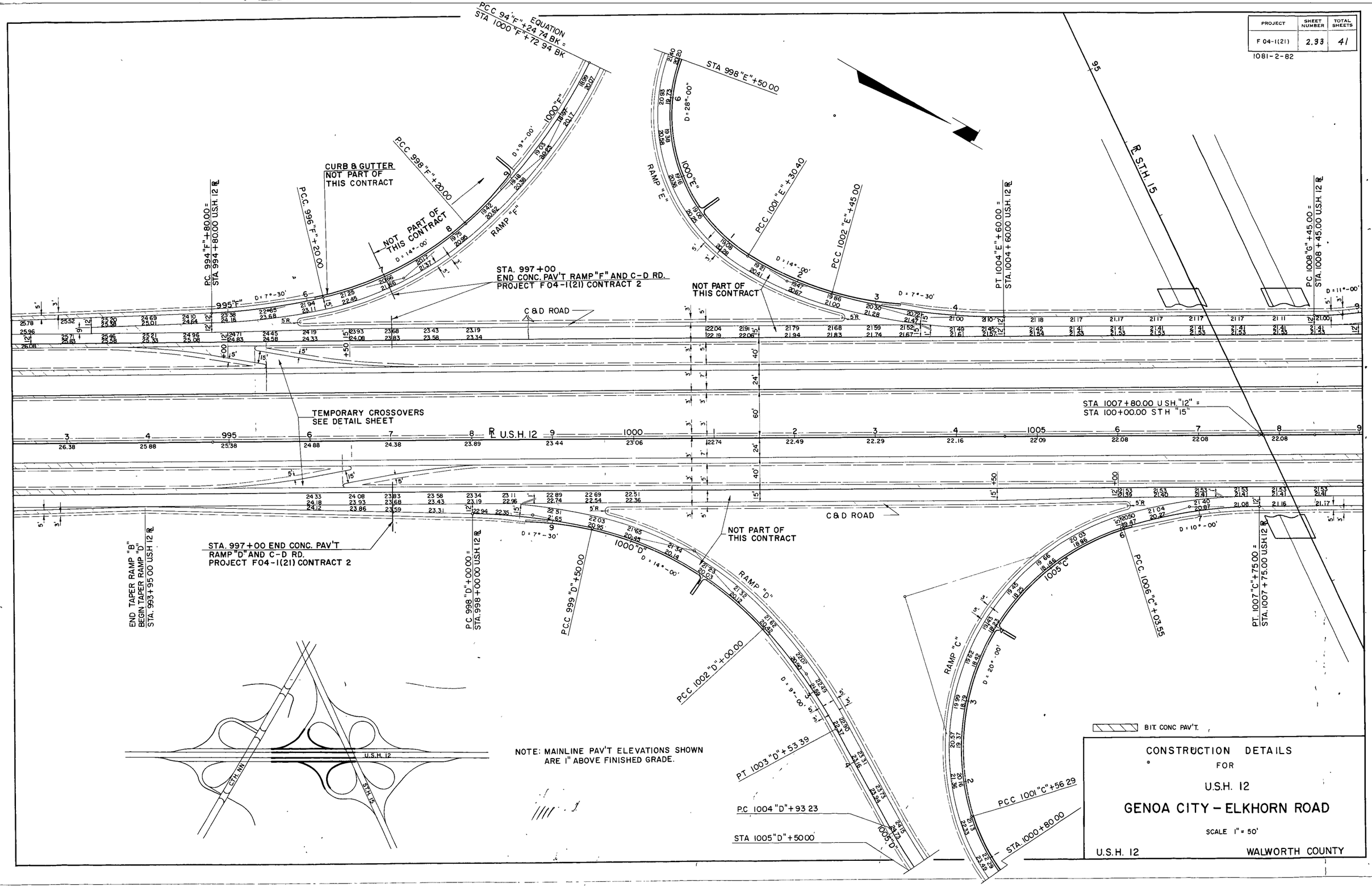
CONSTRUCTION DETAILS
FOR
U.S.H. 12
GENOA CITY – ELKHORN ROAD

SCALE 1" = 50'

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	2.33	41

1081-2-82



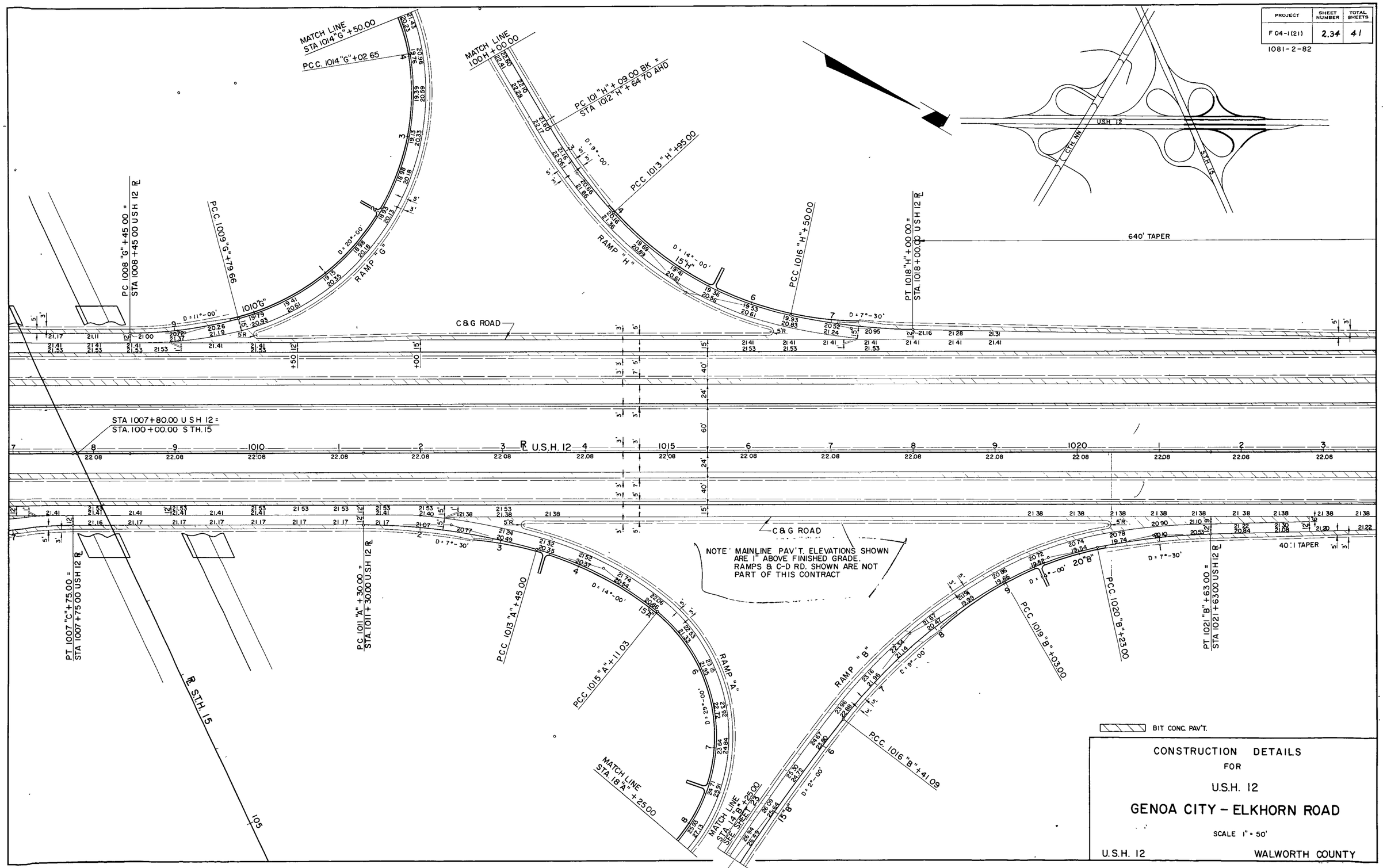
CONSTRUCTION DETAILS
FOR
U.S.H. 12
GENOA CITY – ELKHORN ROAD

SCALE 1" = 50'

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	2.34	41

1081-2-82



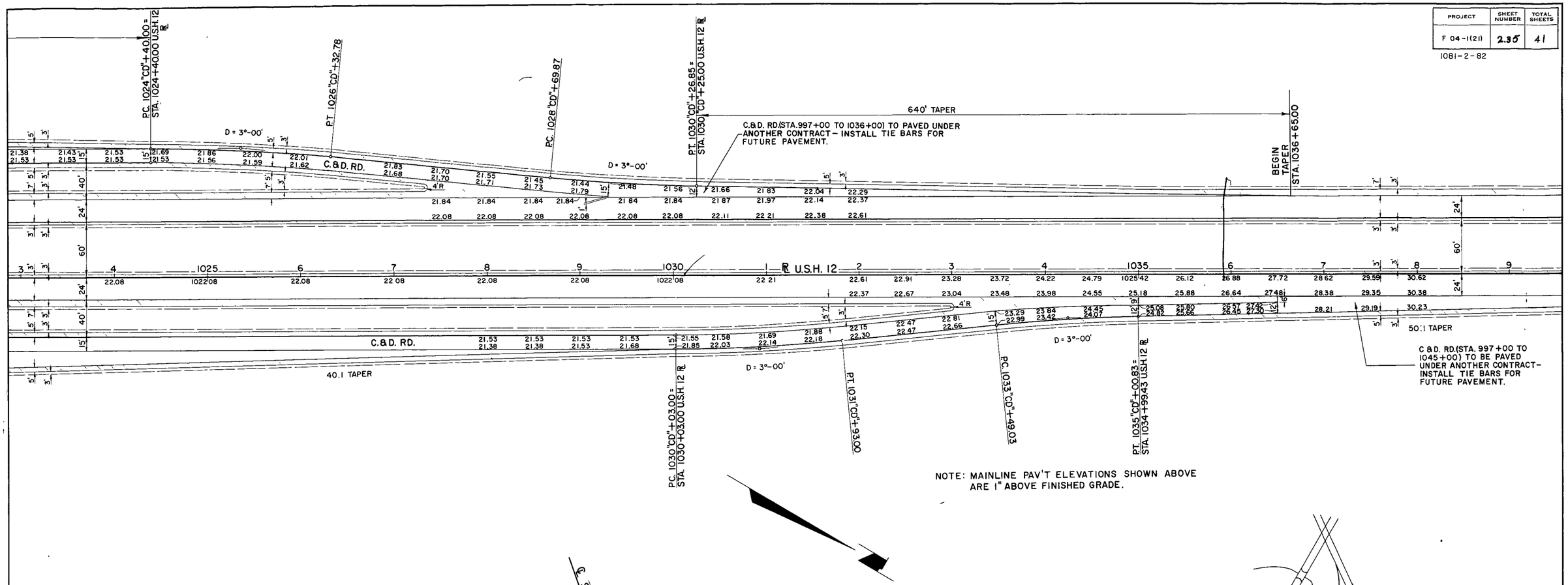
CONSTRUCTION DETAILS
FOR
U.S.H. 12
GENOA CITY - ELKHORN ROAD

SCALE 1" = 50'

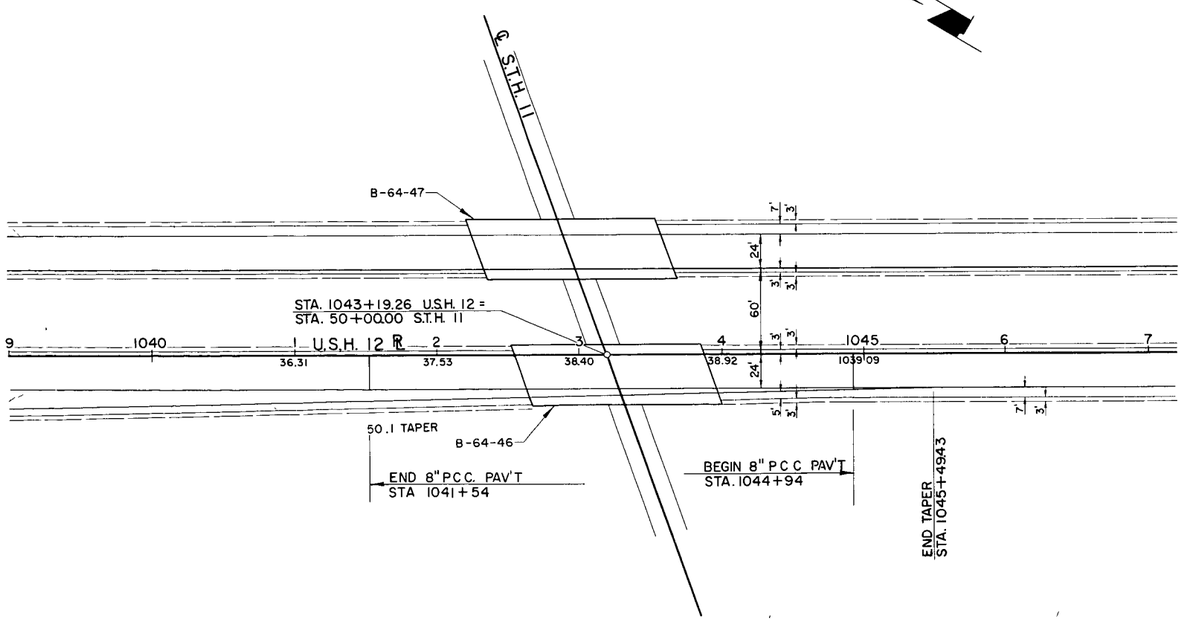
U.S.H. 12 WALWORTH COUNTY

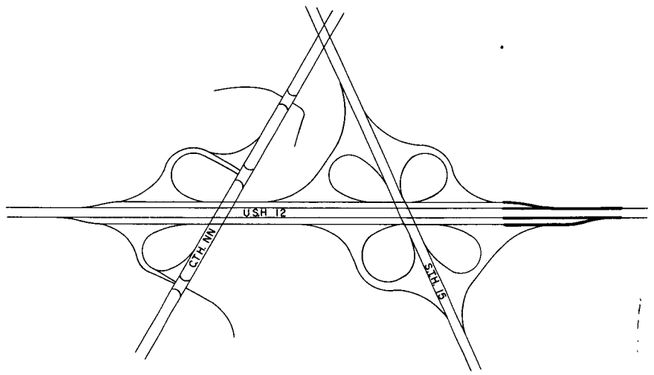
PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	235	41

1081-2-82



NOTE: MAINLINE PAV'T ELEVATIONS SHOWN ABOVE ARE 1" ABOVE FINISHED GRADE.





BIT. CONC. PAV'T.

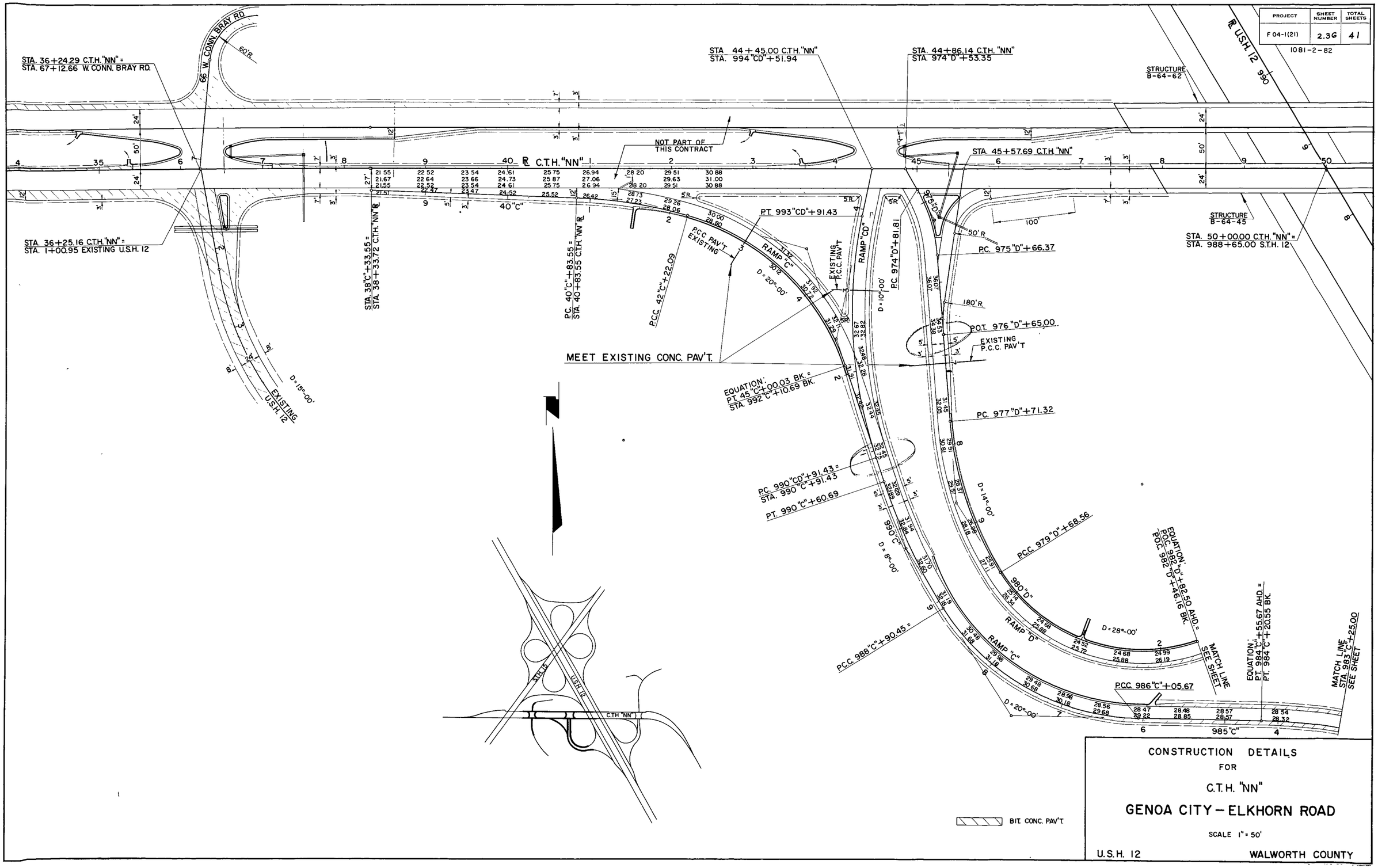
CONSTRUCTION DETAILS
FOR
U.S.H. 12
GENOA CITY – ELKHORN ROAD

SCALE 1" = 50'

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	2.36	41

1081-2-82



CONSTRUCTION DETAILS

FOR

C.T.H. "NN"

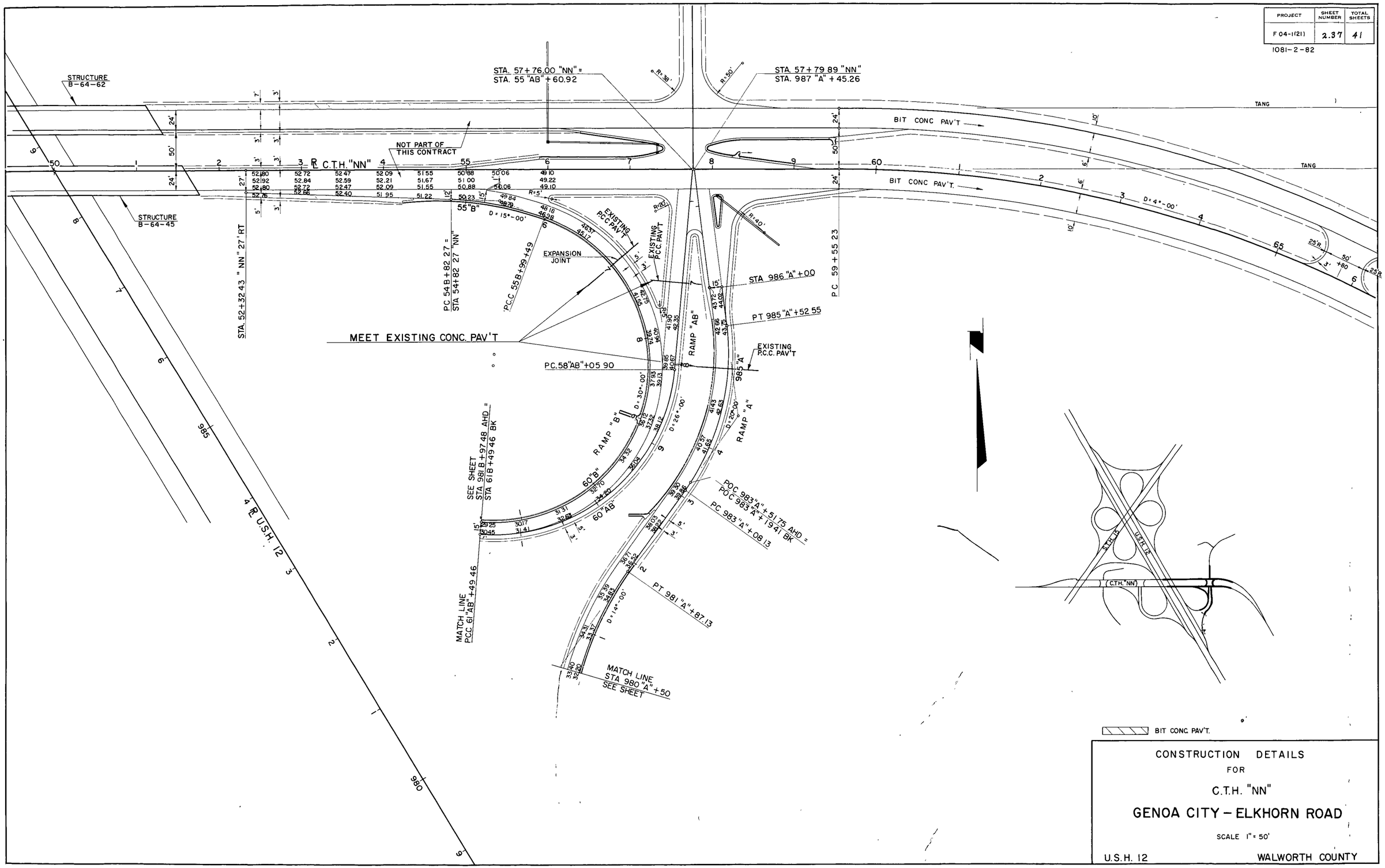
GENOA CITY – ELKHORN ROAD

SCALE 1" = 50'

U.S.H. 12 WALWORTH COUNTY

PROJECT	SHEET NUMBER	TOTAL SHEETS
F 04-1(21)	2.37	41

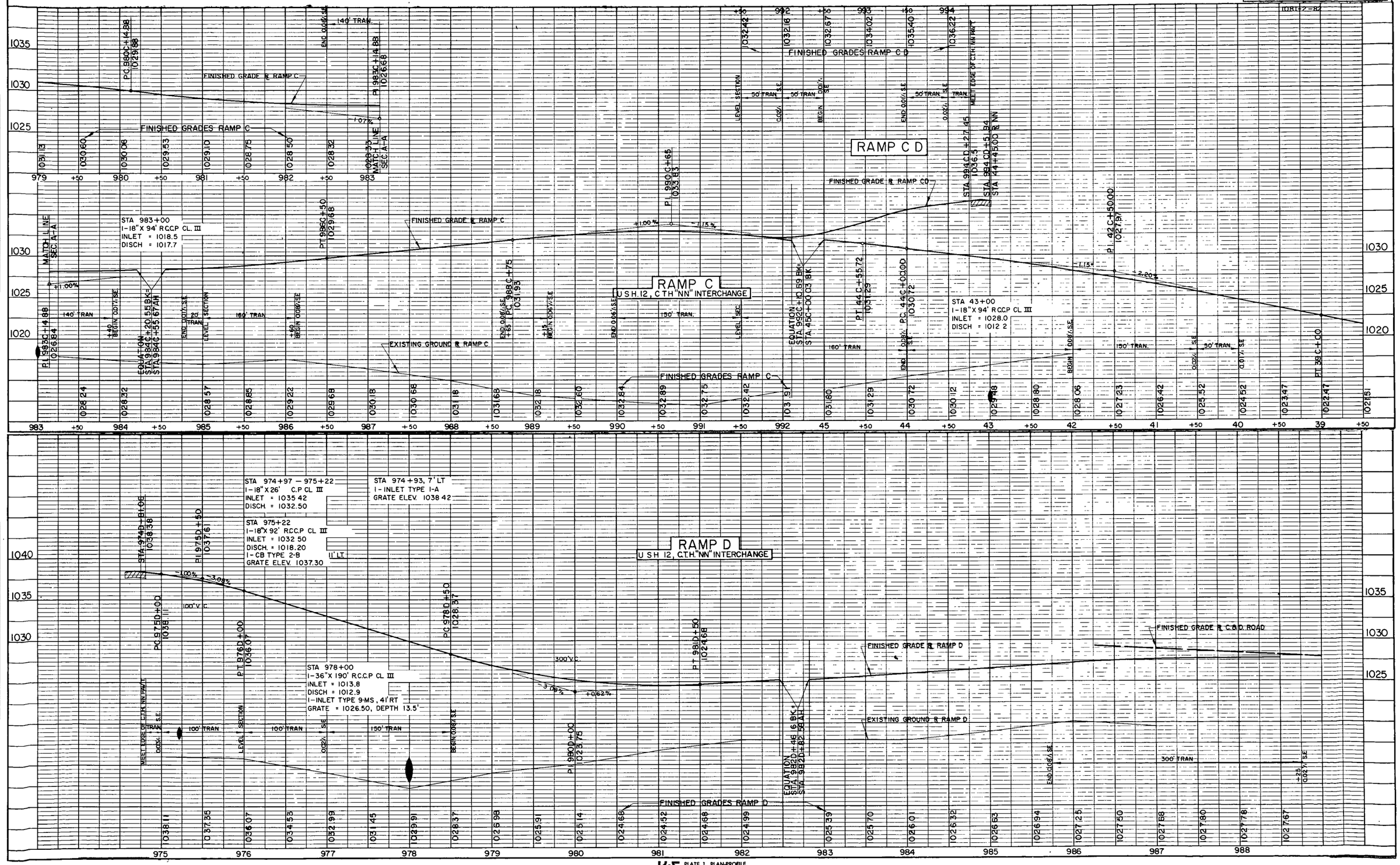
1081-2-82



CONSTRUCTION DETAILS
FOR
C.T.H. "NN"
GENOA CITY – ELKHORN ROAD
SCALE 1" = 50'

U.S.H. 12 WALWORTH COUNTY

B P R DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	F 04-1(21)	2.38	41

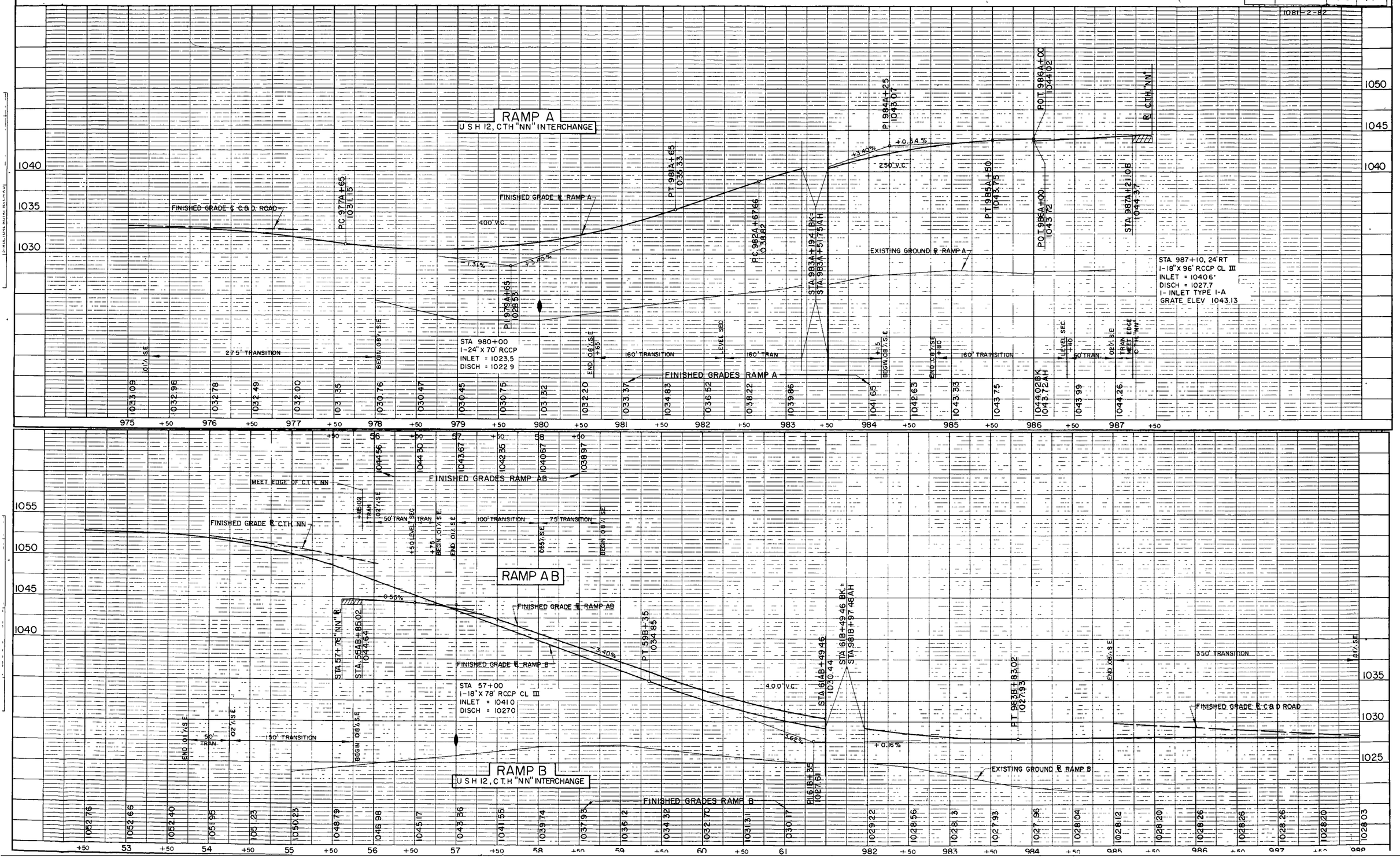


K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO

RAMP PROFILES - C.T.H. "NN" INTERCHANGE

R P R DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	F 04-1(21)	2.39	41

1081-2-82

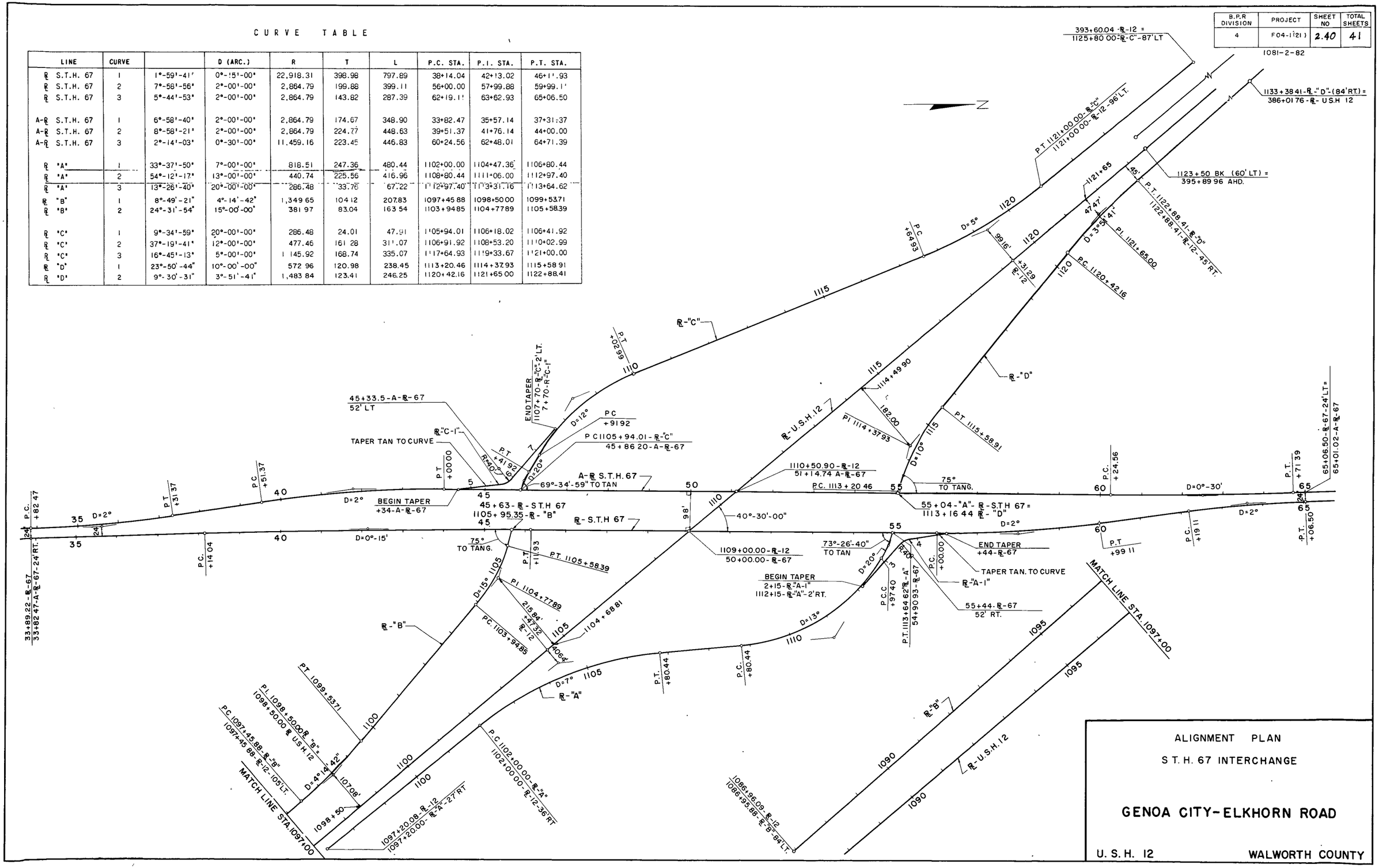


B.P.R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	2.40	41

1081-2-82

CURVE TABLE

LINE	CURVE		D (ARC.)	R	T	L	P.C. STA.	P.I. STA.	P.T. STA.
℄ S.T.H. 67	1	1°-59'-41"	0°-15'-00"	22,918.31	398.98	797.89	38+14.04	42+13.02	46+11.93
℄ S.T.H. 67	2	7°-58'-56"	2°-00'-00"	2,864.79	199.88	399.11	56+00.00	57+99.88	59+99.11
℄ S.T.H. 67	3	5°-44'-53"	2°-00'-00"	2,864.79	143.82	287.39	62+19.11	63+62.93	65+06.50
A-℄ S.T.H. 67	1	6°-58'-40"	2°-00'-00"	2,864.79	174.67	348.90	33+82.47	35+57.14	37+31.37
A-℄ S.T.H. 67	2	8°-58'-21"	2°-00'-00"	2,864.79	224.77	448.63	39+51.37	41+76.14	44+00.00
A-℄ S.T.H. 67	3	2°-14'-03"	0°-30'-00"	11,459.16	223.45	446.83	60+24.56	62+48.01	64+71.39
℄ "A"	1	33°-37'-50"	7°-00'-00"	818.51	247.36	480.44	1102+00.00	1104+47.36	1106+80.44
℄ "A"	2	54°-12'-17"	13°-00'-00"	440.74	225.56	416.96	1108+80.44	1111+06.00	1112+97.40
℄ "A"	3	13°-26'-40"	20°-00'-00"	286.48	33.76	67.22	1112+97.40	1113+31.16	1113+64.62
℄ "B"	1	8°-49'-21"	4°-14'-42"	1,349.65	104.12	207.83	1097+45.88	1098+50.00	1099+53.71
℄ "B"	2	24°-31'-54"	15°-00'-00"	381.97	83.04	163.54	1103+94.85	1104+77.89	1105+58.39
℄ "C"	1	9°-34'-59"	20°-00'-00"	286.48	24.01	47.91	1105+94.01	1106+18.02	1106+41.92
℄ "C"	2	37°-19'-41"	12°-00'-00"	477.46	161.28	311.07	1106+91.92	1108+53.20	1110+02.99
℄ "C"	3	16°-45'-13"	5°-00'-00"	1,145.92	168.74	335.07	1117+64.93	1119+33.67	1121+00.00
℄ "D"	1	23°-50'-44"	10°-00'-00"	572.96	120.98	238.45	1113+20.46	1114+37.93	1115+58.91
℄ "D"	2	9°-30'-31"	3°-51'-41"	1,483.84	123.41	246.25	1120+42.16	1121+65.00	1122+88.41



ALIGNMENT PLAN

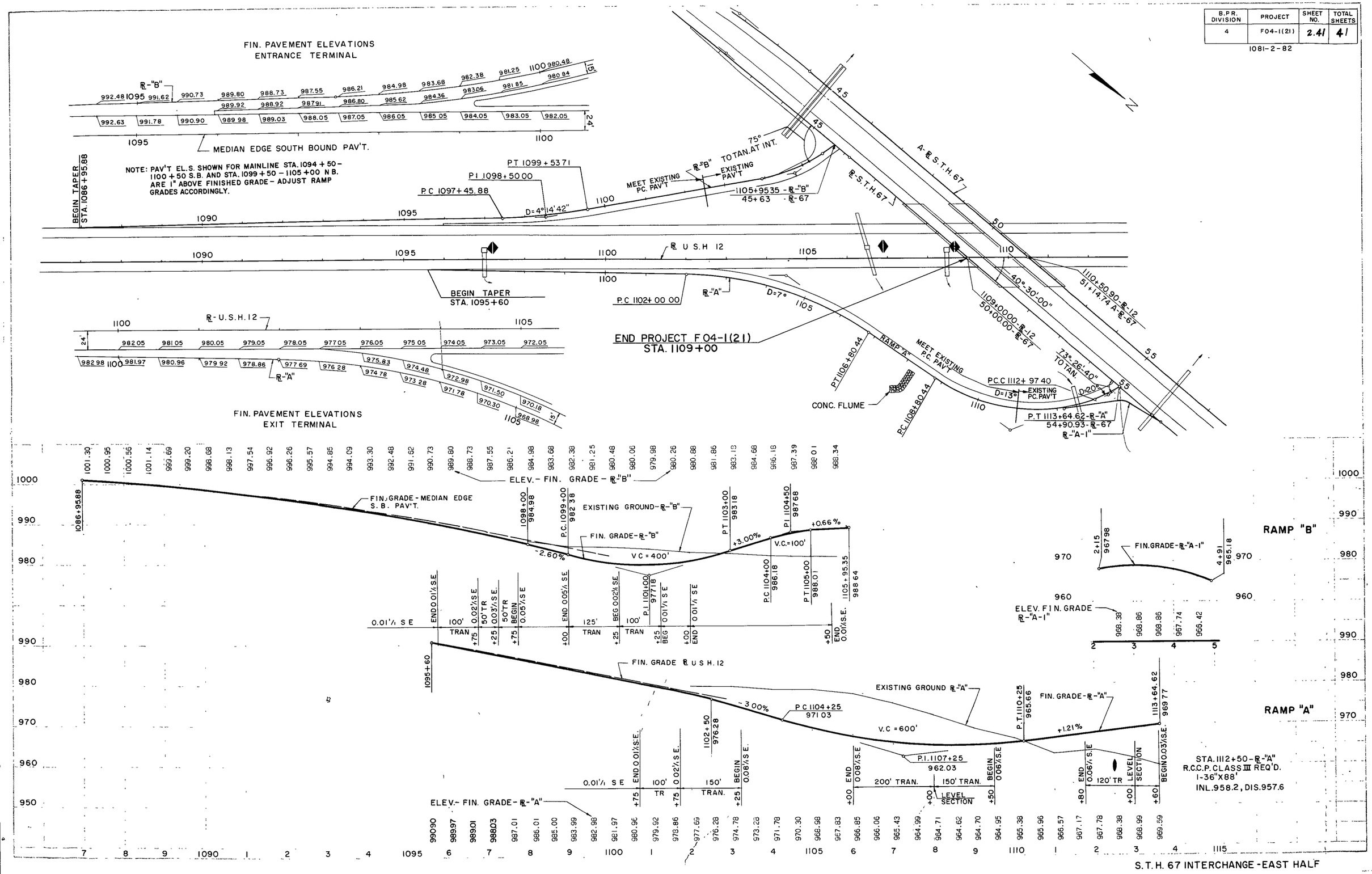
S.T.H. 67 INTERCHANGE

GENOA CITY-ELKHORN ROAD

U.S.H. 12 WALWORTH COUNTY

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	2.41	41

1081-2-82



S.T.H. 67 INTERCHANGE - EAST HALF

ESTIMATE OF QUANTITIES

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE WISCONSIN DIVISION OF HIGHWAYS — EDITION OF 1969
SUBMITTED FOR APPROVAL OCT. 23, 1968, FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED OCT. 15, 1963, AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO. 1 & 2
SURFACING (P.C.CONC.)

BPR REGION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	3	41

1081-2-81 & 82

CONT NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING		GRUBBING		REMOVING OLD CULVERT		REMOVING OLD BRIDGE		REMOVING PAVEMENT			EXCAVATION UNCL	EXCAVATION ROCK	EXCAVATION MARSH	EXCAVATION BORROW	GRANULAR BACK-FILL	TEST ROLLING	FIELD LABORATORY	FIELD LABORATORY	FINISHING ROADWAY	FINISHING ROADWAY	MAINTENANCE AND REPAIR OF HAUL ROADS	MAINTENANCE AND REPAIR OF HAUL ROADS	FIELD OFFICE TYPE A	FIELD OFFICE TYPE A	CRUSHED AGGREGATE BASE COURSE		ASPHALT STABILIZED BASE COURSE TYPE I 2-½ INCH	ASPHALT FOR TREATING AGG	CONCRETE SURFACE DRAINS	BITUMINOUS CONCRETE PAVEMENT	BITUM MAT FOR SURFACE COURSE	CONCRETE PAVEMENT 8-INCH	CONCRETE PAVEMENT 9-INCH	CONCRETE PAVEMENT APPROACH SLAB	CONCRETE PAVEMENT CONTINUOUS REINF	CONCRETE PAVEMENT CONCRETE PAVE REINF.	PAVEMENT TERMINAL ANCHORS
	ITEM NO		20101	20102	20104	20105	20301		20351		20401			20503	20502	20505	20801	20901	21001	64210	64210	21301	21301	61801	61801	64201	64201	30404	30	90003	30341	40934	40701	40702	40908	40909	40935	90001	40950	90002
	UNIT	LIN FT	STA	IN DIA	STA	IN DIA	L S		L S		S Y			C Y	C Y	C Y	C Y	C Y	L S	L S	L S	L S	L S	L S	L S	L S	L S	TON		S.Y	TON	C Y	TON	TON	S.Y	S.Y	S Y	S Y	S Y	EACH
1	563+00 - 917+76.79	34,971.00									5500			22,500						1		1		1		1		66,200		250,920	1218	75	16,000	880	177,100	61,000	1050	177,100	61,000	12
2R	919+16.69 - 1010+22.34 &	14,876.15																			0.8		0.8		0.8		0.8	25,054		123,850	603	32	7224	400	69,929	35,048	513	69,929	35,048	2
	1049+38.45 - 1109+00																																							
2M	1010+22.34 - 1049+38.45	3784.93																			0.2		0.2		0.2		0.2	6046		23,550	114		1626	90	19,071	852	291	19,071	852	4
	TOTAL CONTRACT 2																				1		1		1		1	31,100		147,400	717	32	8,850	490	89,000	35,900	804	89,000	35,900	6
	TOTALS	53,632.08									5500			22,500						1	1	1	1	1*	1*	1	1	97,300		398,320	1935	107	24,850	1370	266,100	96,900	1854	266,100	96,900	18

* NO FEDERAL PARTICIPATION

BRIDGES (STRUCTURES OVER 20 FT. SPAN)

CONT NO.	REMOVE OLD BRIDGE STA.	EXCAVATION FOR STRUCTURES	GRANULAR BACK-FILL	CONCRETE MASONRY	PRESTRESSED GIRDER		BAR STEEL REINF	STRUCTURAL CARBON STEEL	LUBRICATED BRONZE PLATES	SHEET ZINC	BEARING PADS	TR'T'D LUMBER AND TIMBER	UNTR'D TIMBER TEST PILING	UNTREATED TIMBER PILING DELIVERED	UNTREATED TIMBER PILING DRIVEN	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	CAST IN PLACE CONC TEST PILING	CAST-IN-PLACE CONCRETE PILING DELIVERED	CAST-IN-PLACE CONCRETE PILING DRIVEN	RAILING	FLOOR DRAINS TYPE	FLOOR DRAINS TYPE	DOWNSPOUT 6"	SLOPE PAVING CONCRETE	RIP-RAP	BITUMINOUS CONC. CURB	MULCHING
	20351	20601	20901	50201	503	503	50501	50601	50614	50616	5062	50702	50801	50810	50813	50816	50820	51001	51010	51015	513	5140	5140	51426	60404	6060	62201	62202
	L S	C Y	C Y	C Y	L F	L F	L B	L B	L B	L B	S F	M B M	L S	L F	L F	L F	L F	L S	L F	L F	L F	EACH	EACH	L F	S F	C Y	L F	S Y.

CULVERTS (STRUCTURES 20 FT. SPAN & UNDER)

CONT NO.	REMOVE OLD CULV'T STA	EXCAVATION FOR STRUCTURES	GRANULAR BACK-FILL	CONCRETE MASONRY	BAR STEEL REINF	STRUCTURAL CARBON STEEL	TR'T'D LUMBER AND TIMBER	UNTR'D TIMBER TEST PILING	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	FLOOR DRAINS TYPE	RIP-RAP	MISCELLANEOUS CONSTRUCTION (FORCE ACCOUNT)
	20301	20602	20901	50401	50502	50601	50702	50801	50816	50820	5140	6060	90004
	L S	C Y	C Y	C Y	L B	L B	M B M.	L S	L F	L F	EACH	C Y	L. S.

CONT NO.	RUBBLE MASONRY MORTAR	RUBBLE MASONRY DRY						REINFORCED CONC CULVERT PIPE CL III 42-INCH					APRON ENDWALLS FOR						CONCRETE CURB AND GUTTER 30-INCH TYPE G	CONCRETE CURB AND GUTTER 30-INCH TYPE A	SLOPE PAVING	DITCH CHECKS	RIP-RAP	HEAVY RIP-RAP	STORM SEWER				
	51801	51810	52	52	52	52	52	52	52210	52	52	52	52	52210	52	52	52	52	60141	60123	6040	6050	60601	60602	60	60	60	60	60
	C Y	C Y	L F	L F	L F	L F	L F	L F	L F	L F	L F	L F	L F	E A C H	E A C H	E A C H	E A C H	E A C H	L F	L F	S F	C Y	C Y	C Y	L F	L F	L F	L F	L F
1									68										200	6875			2.5						
2R																				3200									
2M																													
T									68										200	10,075			2.5						

CONT NO.	ADJUSTING CATCH BASIN COVERS TYPE I	ADJUSTING CATCH BASIN COVERS TYPE	MAN-HOLES TYPE	MAN-HOLES TYPE	INLETS TYPE I	INLETS TYPE	CATCH BASINS COVERS TYPE	CATCH BASINS COVERS TYPE	MANHOLES COVERS TYPE	MANHOLES COVERS TYPE	INLET COVERS TYPE B	INLET COVERS TYPE	PIPE UNDERDRAIN 6-INCH	PIPE UNDERDRAIN UNPERFORATED 12-INCH	STEEL PLATE BEAM GUARD CLASS A	STEEL PLATE BEAM MEDIAN GUARD	TOPSOIL	TOPSOIL	SALVAGED TOPSOIL	FERTILIZER	SEEDING	SODDING	ANCHORAGES FOR STEEL PLATE BEAM GUARD
	61181	6110	6111	6111	61121	6112	6113	6113	6115	6115	61162	6116	61201	61214	61408	61411	62502	62501	62505	62901	63001	63101	61406
	E A C H	E A C H	E A C H	E A C H	E A C H	E A C H	E A C H	E A C H	E A C H	E A C H	E A C H	E A C H	L F	L F	L I N F T.	L I N F T	C Y.	S Y	S Y	C W T	S Y	S Y	E A C H
1	1				1						1		370	12	22,525			10,800	19,000	31	37,300	1000	39
2R															11,012	4000	1350			6	7400	500	19
2M															2553								4
T															13,565	4,000	1,350			6	7,400	500	23
	1				1						1		370	12	36,090	4000	1350	10,800	19,000	37	44,700	1500	62

2,147 | 10,825 | 1

ESTQUAN

DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

CONTRACT 2

B.P.R. REGION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	3C	41

1081-2-82

CRUSHED AGGREGATE BASE COURSE

CONTR. NO.	STATION - STATION	TONS SHLDR.	TONS BASE
	U.S.H. 12 N.B.		
2R	919+17 - 933+55	900	
2R	935+80.94 - 1010+22	4398	
2M	1010+22 - 1049+38	3374	
2R	1049+38 - 1109+00	3664	
	U.S.H. 12 S.B.		
2R	919+71 - 934+15	900	
2R	936+17.16 - 1010+22	4325	
2M	1010+22 - 1049+38	2672	
2R	1049+38 - 1105+50	3031	
	C.T.H. "NN" I.C.		
2R	Ramp A	601	
2R	Ramp B	584	
2R	Ramp AB	234	
2R	Ramp C	1074	
2R	Ramp CD	119	
2R	Ramp D	561	
	S.T.H. 15 I.C.		
2R	Ramp D	353	
2R	Ramp F	100	
	C & D Roads		
2R	959+45 - 997+00 N.B.	1386	
2R	954+32 - 997+00 S.B.	2004	
	TEMPORARY X-OVERS		
2R	996+00 Rt.	115	235
2R	996+00 Lt.	115	235
	MAINTENANCE X-OVERS		
2R	1000+00		60
2R	1064+00		60

ASPHALT STABILIZED BASE COURSE

CONTR. NO.	STATION - STATION	S.Y.	ASPHALT MAT'L. TONS
	U.S.H. 12 N.B.		
2R	919+05 - 933+44	4473	22
2R	935+34 - 1010+22	23,147	113
2M	1010+22 - 1049+38	11,775	57
2R	1049+38 - 1109+00	18,430	89
	U.S.H. 12 S.B.		
2R	919+82 - 934+34	4496	22
2R	936+17 - 1010+22	22,806	111
2M	1010+22 - 1049+38	11,775	57
2R	1049+38 - 1105+50	17,212	83
	N.B. C & D Road		
2R	959+45 - 997+25	7056	34
	S.B. C & D Road		
2R	954+32 - 997+25	7571	37
	C.T.H. "NN" I.C.		
2R	Ramp A	2280	11
2R	Ramp B	2674	13
2R	Ramp AB	454	3
2R	Ramp C	4113	20
2R	Ramp D	2759	13
2R	Ramp CD	207	1
	S.T.H. 15 I.C.		
2R	Ramp D	254	2
2R	Ramp F	1224	6
	S.T.H. 67 I.C.		
2R	Ramp A	2332	11
2R	Ramp B	2362	12

BITUMINOUS MATERIAL

CONTR. NO.	STATION - STATION	TONS BIT. MAT'L. FOR SURF. CRSE.	TONS BIT. CONC. PAVEMENT
	U.S.H. 12 N.B.		
2R	919+17 - 933+55	15	250
2R	935+21.61 - 1010+22	68	1269
2M	1010+22 - 1049+38	46	832
2R	1049+38 - 1109+00	49	881
	U.S.H. 12 S.B.		
2R	919+71 - 934+15	15	250
2R	936+05.22 - 1010+22	65	1203
2M	1010+22 - 1049+38	44	794
2R	1049+38 - 1105+50	44	794
	C. & D. ROADS		
2R	959+45 - 997+00 N.B.	26	469
2R	954+32 - 997+00 S.B.	29	529
	C.T.H. "NN" I.C.		
2R	RAMPS A, B, AB, C, CD, & D	44	792
	S.T.H. 67 I.C.		
2R	RAMPS A & B	25	448
	S.T.H. 15 I.C.		
2R	RAMPS D & F	8	139
	TEMPORARY X-OVERS		
2R	996+00 Rt.	6	100
2R	996+00 Lt.	6	100

CONCRETE SURFACE DRAINS

CONTR. NO.	STATION	SIDE	C.Y.
	C.T.H. "NN" I.C.		
	Ramp A		
2R	979+00	Rt.	4.5
2R	982+50	Lt.	4.5
2R	983+50	Rt.	4.5
	Ramp B		
2R	59+00	Rt.	4.5
2R	983+00	Lt.	4.5
	Ramp C		
2R	986+10	Rt.	4.5
	Ramp D		
2R	981+00	Lt.	5.0

CONCRETE CURB & GUTTER

CONTR. NO.	STATION - STATION	TYPE	LIN. FT.
	C.T.H. "NN" I.C.		
	Ramp A		
2R	977+15 - 981+87.13 Rt.	A	472
2R	982+55 - 985+00 Lt.	A	232
	Ramp B		
2R	984+32.66 - 981+71.48 Rt.	A	235
2R	61+49.46 - 57+00 Rt.	A	449
	Ramp C		
2R	980+14.29 - 983+00 Lt.	A	285
2R	985+95 - 989+53 Rt.	A	339
2R	43+00 - 45+20 Rt.	A	220
	Ramp D		
2R	987+67 - 982+82.50 Rt.	A	484
2R	982+46.16 - 977+62 Lt.	A	484

STEEL PLATE BEAM GUARD CLASS "A"

CONTR. NO.	STATION - STATION	ANCHORS	LIN. FT.
	U.S.H. 12 N.B.		
2R	918+92 - 933+14 Rt.	--	1422
2R	930+52 - 933+54 Lt.	1	303
2R	935+20 - 949+98 Rt.	1	1478
2R	987+00 - 990+25 Rt.	-	650
	(N.B. & C.D. Rd. Pier Protection)	-	-
2R	987+47 - 990+76 Lt.	2	660
	(Center Pier Protection)	-	-
2R	1006+60 - 1010+03 Rt.	2	343
	(N.B. & C.& D. Rd. Pier Protection)	-	-
2R	1006+20 - 1010+00 Lt.	2	760
	(Center Pier Protection)	-	-
2M	1039+94 - 1042+59 Rt.	1	265
2M	1039+42 - 1042+45 Lt.	1	303
2M	1044+06 - 1049+38 Rt.	-	532
2R	1049+38 - 1054+09 Rt.	1	471
	U.S.H. 12 S.B.		
2R	919+72 - 923+10 Rt.	1	378
2R	920+08 - 934+41 Lt.	-	1434
2R	936+08 - 939+10 Rt.	1	303
2R	936+48 - 950+01 Lt.	1	1353
2R	987+98 - 991+23 Lt.	-	650
	(S.B. & C.D. Rd. Pier Protection)	-	-
2R	1006+17 - 1009+60 Lt.	2	343
	(S.B. & C.D. Rd. Pier Protection)	-	-
2M	1037+99 - 1042+14 Lt.	1	416
2M	1043+74 - 1047+52 Rt.	1	378
2M	1043+60 - 1049+38 Lt.	-	578
2R	1049+38 - 1054+00 Lt.	1	462
2M	Between B-64-46 & 47 No. & So.	-	81

STEEL PLATE BEAM MEDIAN GUARD

CONTR. NO.	LOCATION	ANCHORS	LIN. FT.
	U.S.H. 12 N.B.		
2R	970+10 - 987+00 Rt.	1	1690
2R	990+25 - 994+02 Rt.	1	378
	U.S.H. 12 S.B.		
2R	970+46 - 987+98 Lt.	1	1754
2R	991+23 - 993+00 Lt.	1	178

PAVEMENT TERMINAL ANCHORS

CONTR. NO.	STATION - STATION	LOCATION	NO.
2R	937+46.75 - 938+66.75	S.B.	1
2R	936+53.08 - 937+73.08	N.B.	1
2M	1040+28.17 - 1041+48.17	N.B.	1
2M	1039+98.87 - 1041+18.87	S.B.	1
2M	1045+00.38 - 1046+20.38	N.B.	1
2M	1044+72.08 - 1045+92.08	S.B.	1

CONCRETE PAVEMENT APPROACH SLAB

CONTR. NO.	STATION - STATION	LOCATION	S.Y.
2R	917+84.95 - 919+17.19	N. Appr. B-64-42	83.5
2R	919+71.04 - 920+13.28	N. Appr. B-64-41	83.5
2R	933+11.14 - 933+55.53	S. Appr. B-64-44	86.5
2R	935+46.54 - 935+67.04	N. Appr. B-64-44	86.5
2R	933+94.75 - 934+15.25	S. Appr. B-64-43	86.5
2R	936+06.30 - 936+50.69	N. Appr. B-64-43	86.5
2M	1042+34.17 - 1042+54.67	S. Appr. B-64-46	87.0
2M	1043+85.85 - 1044+14.86	N. Appr. B-64-46	72.0
2M	1042+04.39 - 1042+33.40	S. Appr. B-64-47	66.0
2M	1043+64.58 - 1043+85.08	N. Appr. B-64-47	66.0

TOPSOIL

CONTR. NO.	LOCATION	C.Y.
	C.T.H. "NN" I.C.	
2R	Ramps A, B, C. & D	1245
2R	Median X-Overs	55
2R	Temporary Connections	50

SODDING

CONTR. NO.	LOCATION	S.Y.
2R	C.T.H. "NN" I.C.	500

CONCRETE PAVEMENT & REINFORCEMENT

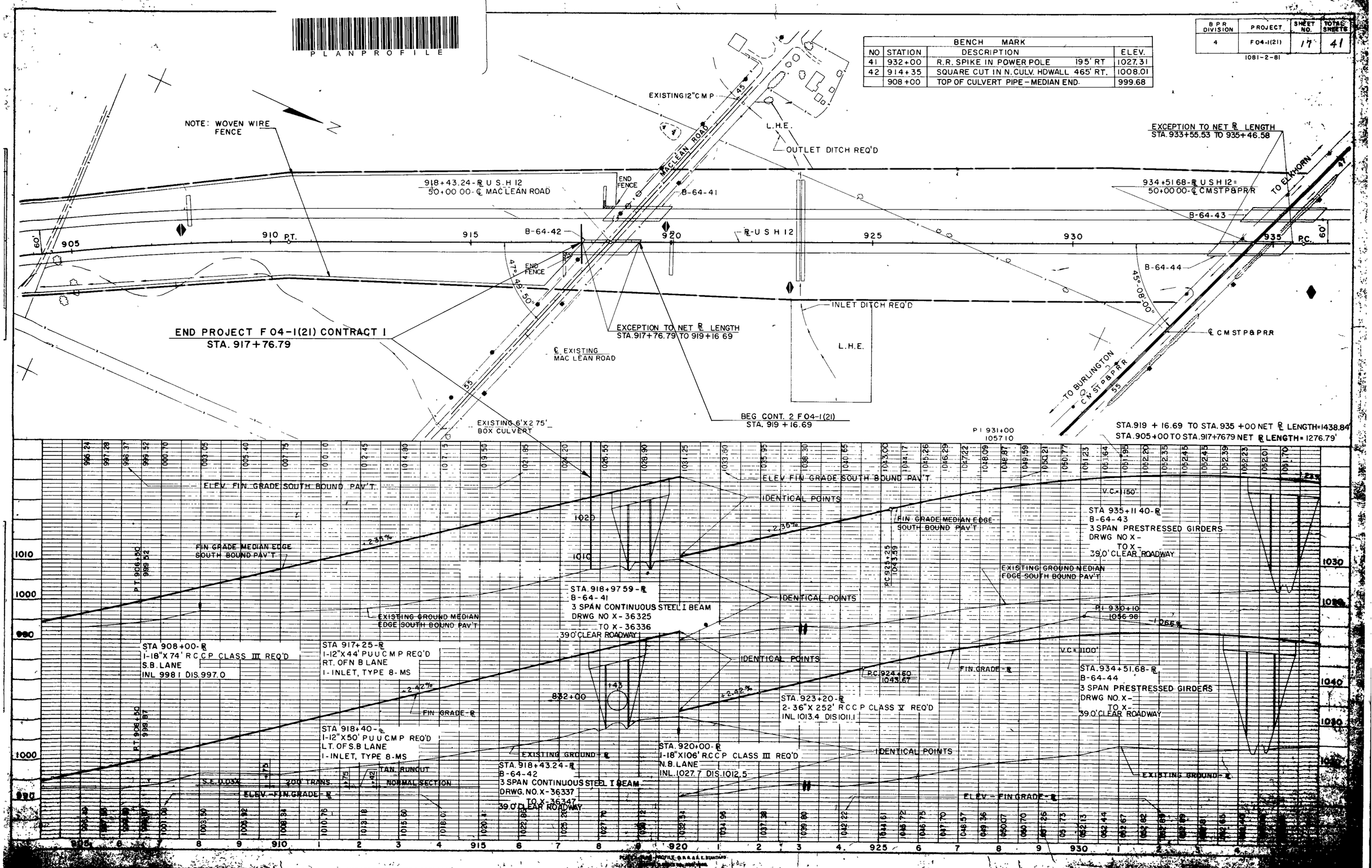
CONTR. NO.	STATION - STATION	LOCATION	8" CONC. PAV'T.	9" CONC. PAV'T.	CONTIN. REINF.	CONC. PAVE. REINF.
2R	919+37.19 - 933+11.14	N.B.		3,667		3,667
2R	920+13.28 - 933+94.75	S.B.		3,687		3,687
2R	935+67.08 - 936+47.08	N.B.		213		213
2R	936+60.75 - 937+40.75	S.B.		213		213
2R	936+47.08 - 1010+22.34	N.B.	19,660		19,660	
2R	937+40.75 - 1010+22.34	S.B.	19,411		19,411	
2M	1010+22.34 - 1041+54.17	N.B.	8,352		8,352	
2M	1010+22.34 - 1041+24.87	S.B.	8,273		8,273	
2M	1041+54.17 - 1042+34.17	S.B.		213		213
2M	1041+24.87 - 1042+04.87	S.B.		213		213
2M	1044+14.38 - 1044+94.38	N.B.		213		213
2M	1043+85.03 - 1044+65.08	S.B.		213		213
2M	1044+94.38 - 1049+38.45	N.B.	1,184		1,184	
2M	1044+75.08 - 1049+38.45	N.B.	1,262		1,262	
	C.T.H. "NN" Ramps					
2R	Ramp A			1,842		1,842
2R	Ramp B			2,249		2,249
2R	Ramp AB			385		385
2R	Ramp C			3,353		3,353
2R	Ramp D			2,282		2,282
2R	Ramp CD			194		194
	C. & D. Road					
2R	959+45 - ~~997+00~~	N.B.		5,860		5,860
2R	954+32.02 - 991+20.00	S.B.		5,360		5,360
2R	991+20.00 - 997+00.	S.B.		815		815
	S.T.H. 15 Ramps					
2R	Ramp D			153		153
2R	Ramp F			960		960
2R	1049+38.45 - 1109+00	N.B.	15,898		15,898	
2R	1049+38.45 - 1105+50	S.B.	14,960		14,960	
	S.T.H. 67 Ramps					
2R	Ramp A			1,890		1,890
2R	Ramp B			1,925		1,925

MISCQUAN

BPR DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	17	41

1081-2-81

BENCH MARK			
NO	STATION	DESCRIPTION	ELEV.
41	932+00	R.R. SPIKE IN POWER POLE 195' RT	1027.31
42	914+35	SQUARE CUT IN N. CULV. HDWALL 465' RT.	1008.01
	908+00	TOP OF CULVERT PIPE – MEDIAN END.	999.68

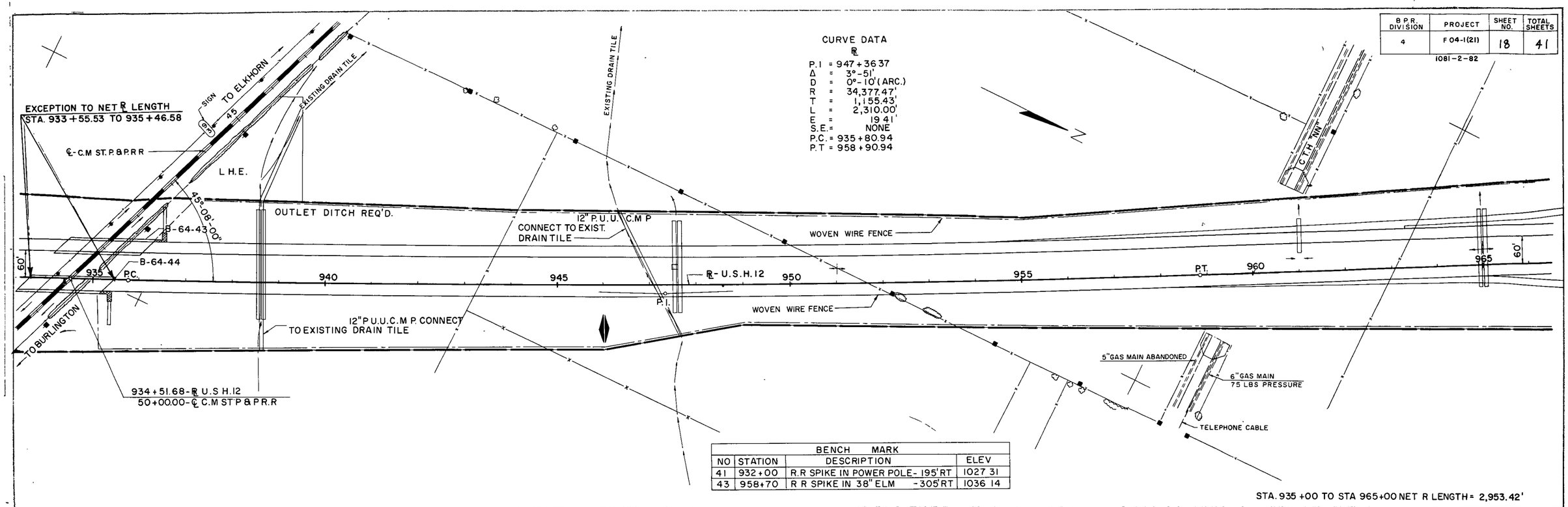


B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	18	41

1081-2-82

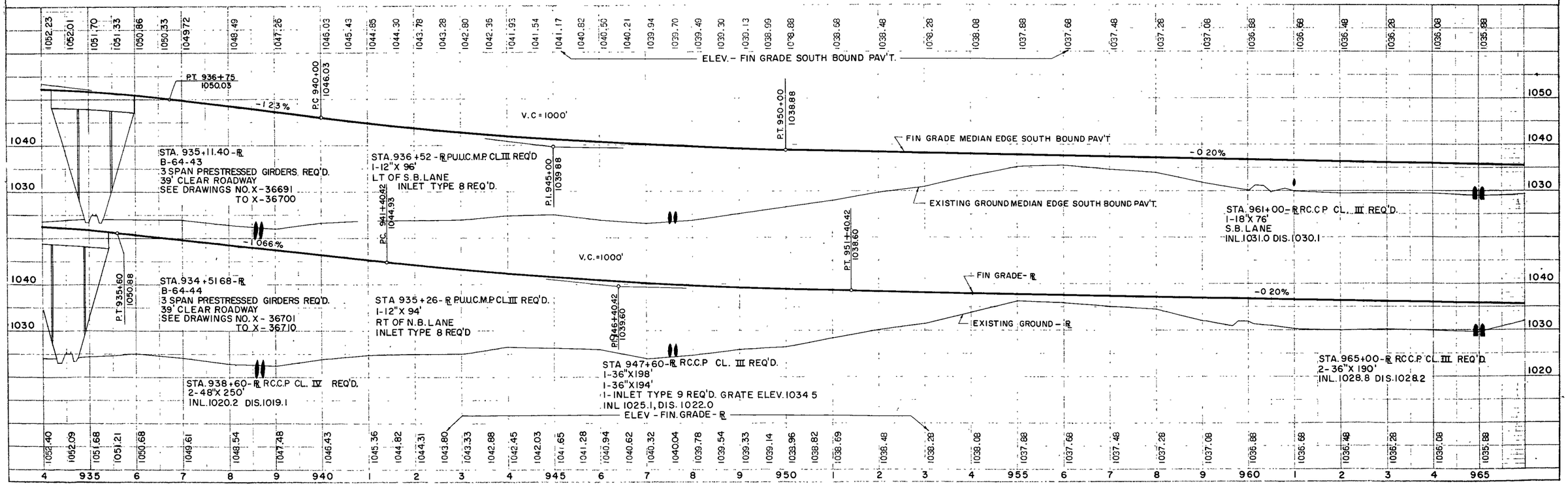
EXCEPTION TO NET ℞ LENGTH
STA. 933+55.53 TO 935+46.58

CURVE DATA
℞
P.I = 947+36.37
Δ = 3°-51'
D = 0°-10' (ARC.)
R = 34,377.47'
T = 1,155.43'
L = 2,310.00'
E = 19.41'
S.E. = NONE
P.C. = 935+80.94
P.T = 958+90.94



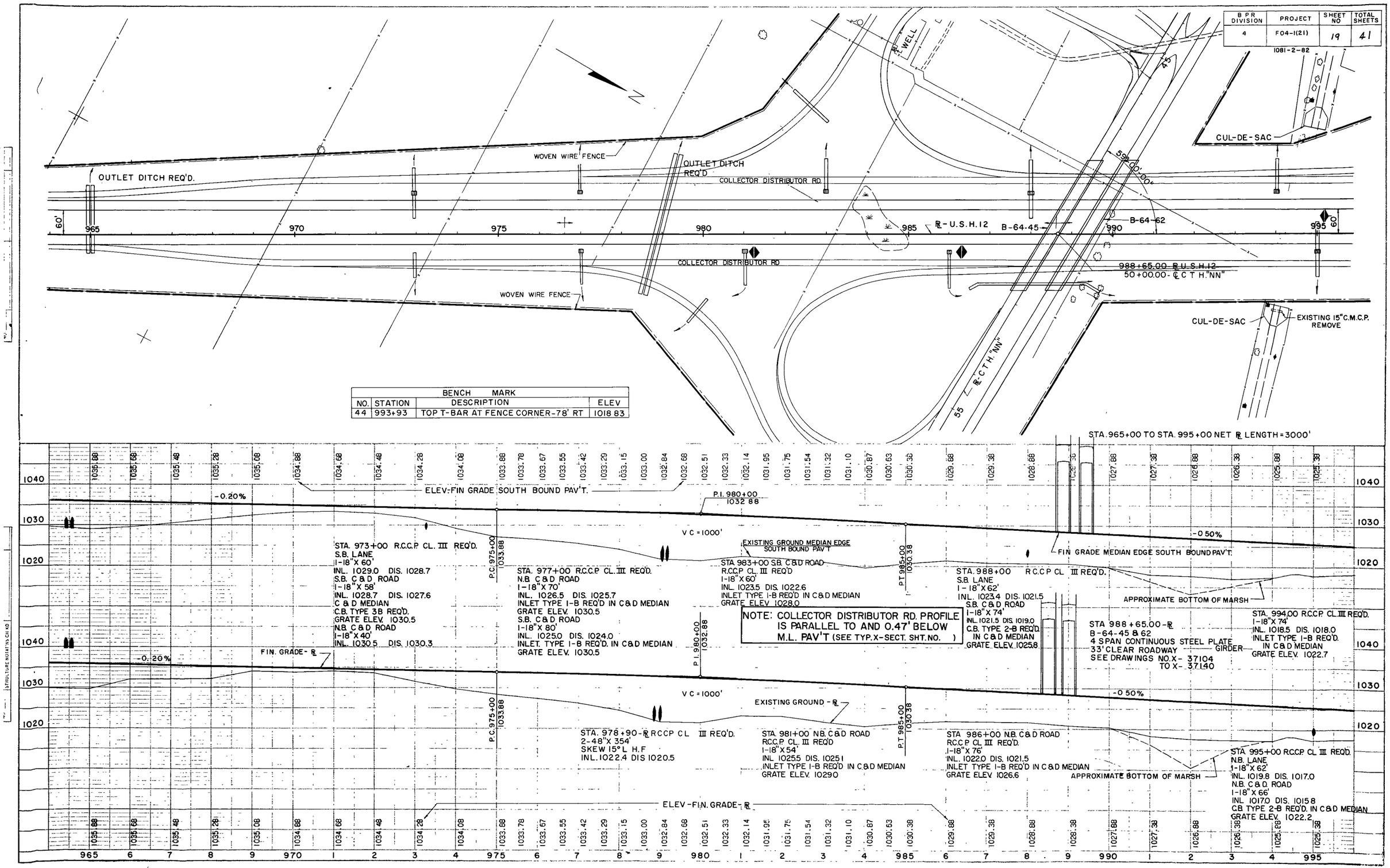
BENCH MARK			
NO	STATION	DESCRIPTION	ELEV
41	932+00	R.R SPIKE IN POWER POLE- 195' RT	1027.31
43	958+70	R.R SPIKE IN 38" ELM -305' RT	1036.14

STA. 935+00 TO STA 965+00 NET R LENGTH = 2,953.42'



B P R DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	19	41

1081-2-82



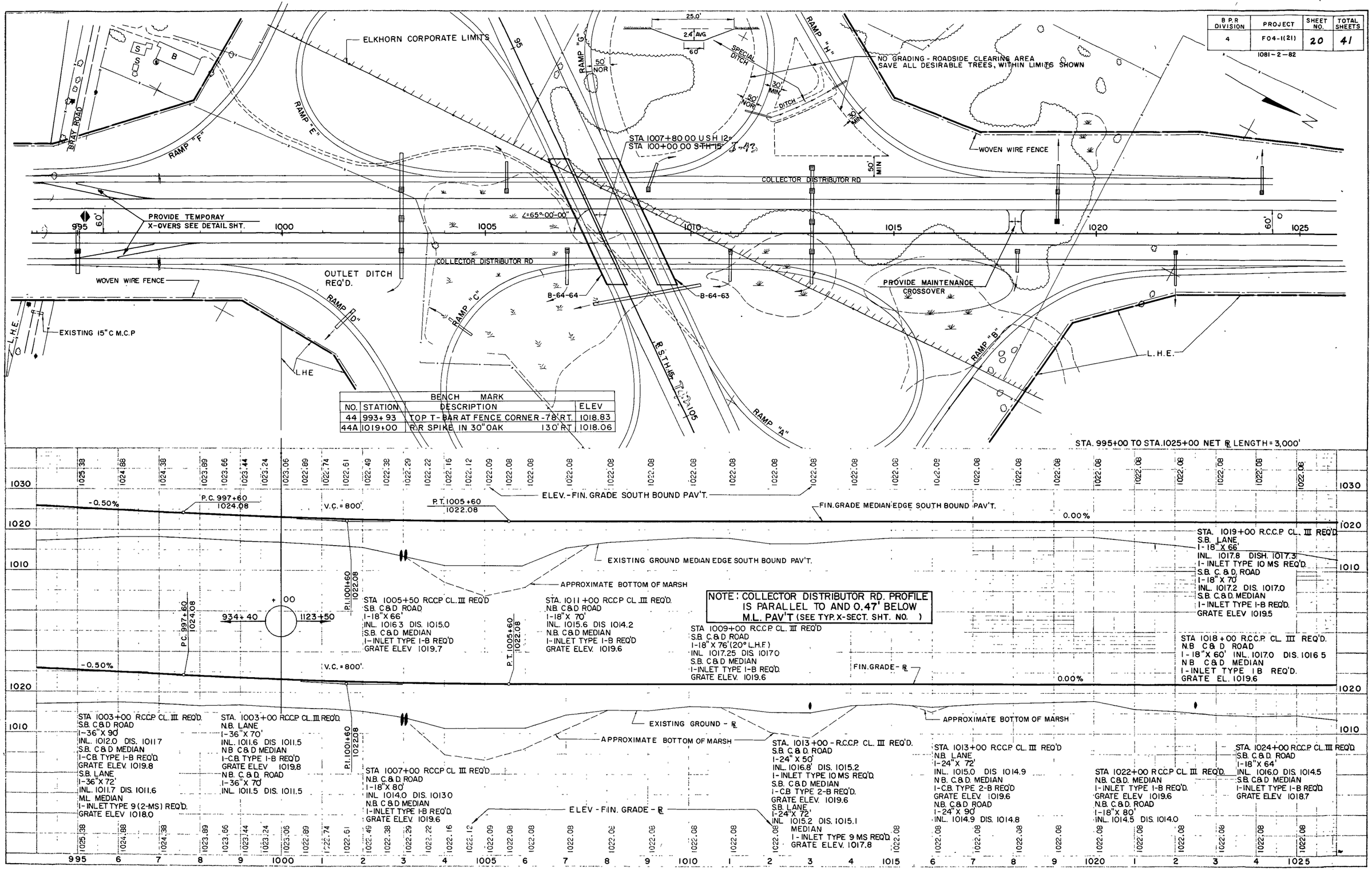
BENCH MARK

NO.	STATION	DESCRIPTION	ELEV
44	993+93	TOP T-BAR AT FENCE CORNER-78' RT	1018.83

STRUCTURE NO. 147'N'S CH. KD

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	20	41

1081-2-82

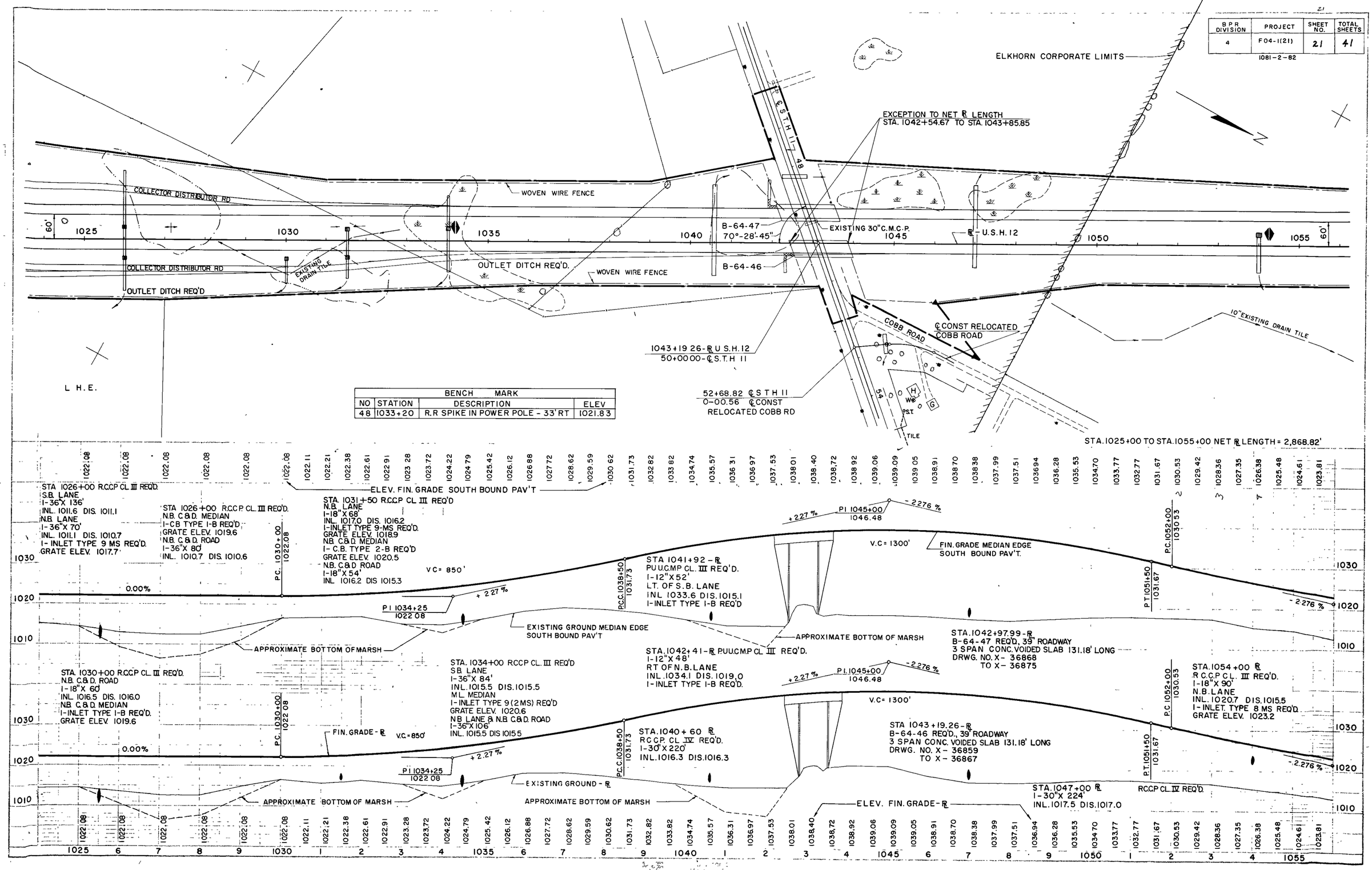


BENCH MARK			
NO.	STATION	DESCRIPTION	ELEV
44	993+93	TOP T-BAR AT FENCE CORNER - 78' RT.	1018.83
44A	1019+00	R.R. SPIKE IN 30" OAK 130' RT.	1018.06

995-1025

BPR DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F04-1(21)	21	41

1081-2-82

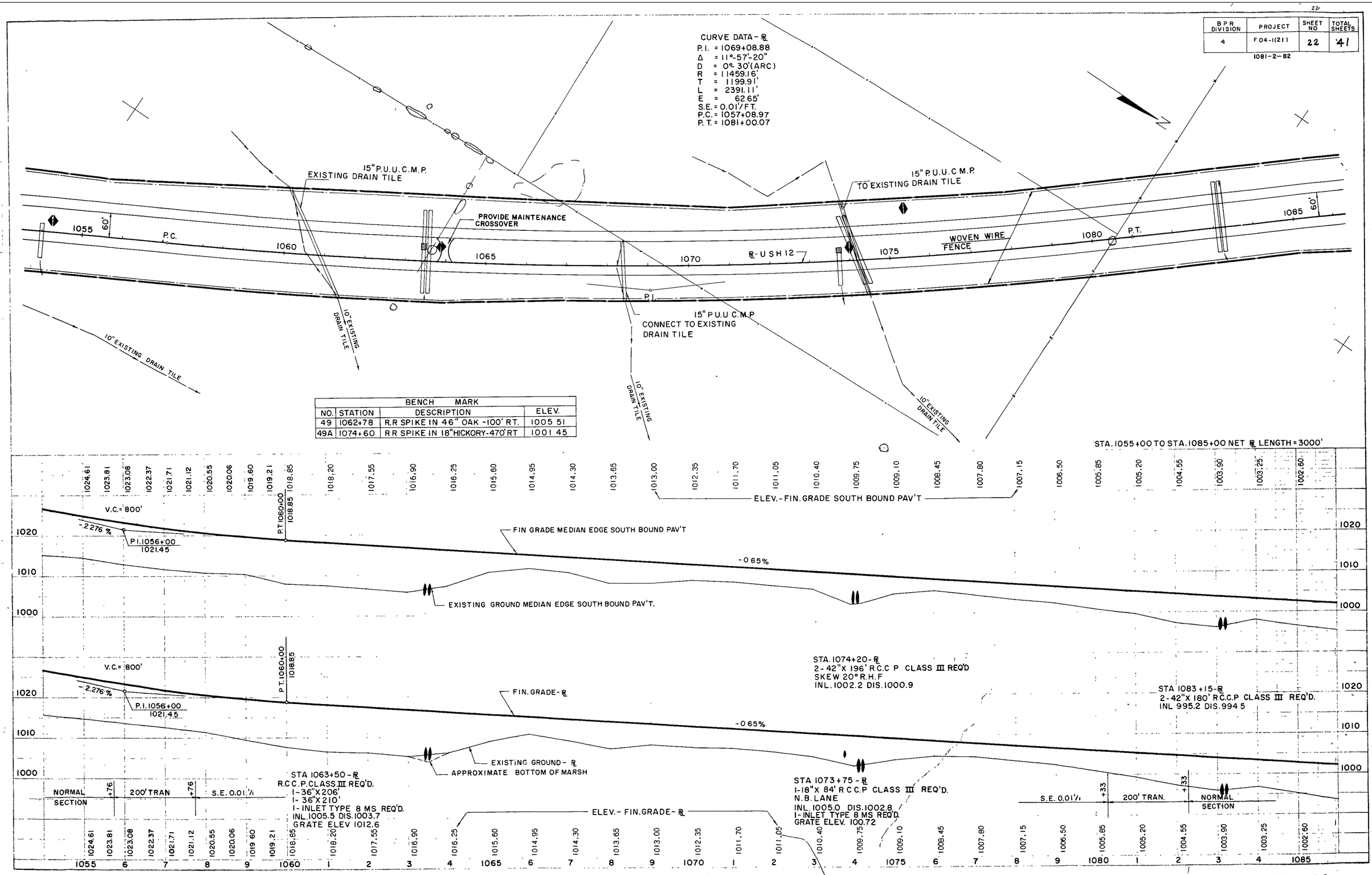


BENCH MARK			
NO	STATION	DESCRIPTION	ELEV
48	1033+20	R.R SPIKE IN POWER POLE - 33' RT	1021.83

BPR DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	F04-1(21)	22	41

1081-2-82

CURVE DATA - ℞
P.I. = 1069+08.88
Δ = 11°-57'-20"
D = 0° 30'(ARC)
R = 11459.16'
T = 1199.91'
L = 2391.11'
E = 62.65'
S.E. = 0.01'/FT.
P.C. = 1057+08.97
P.T. = 1081+00.07

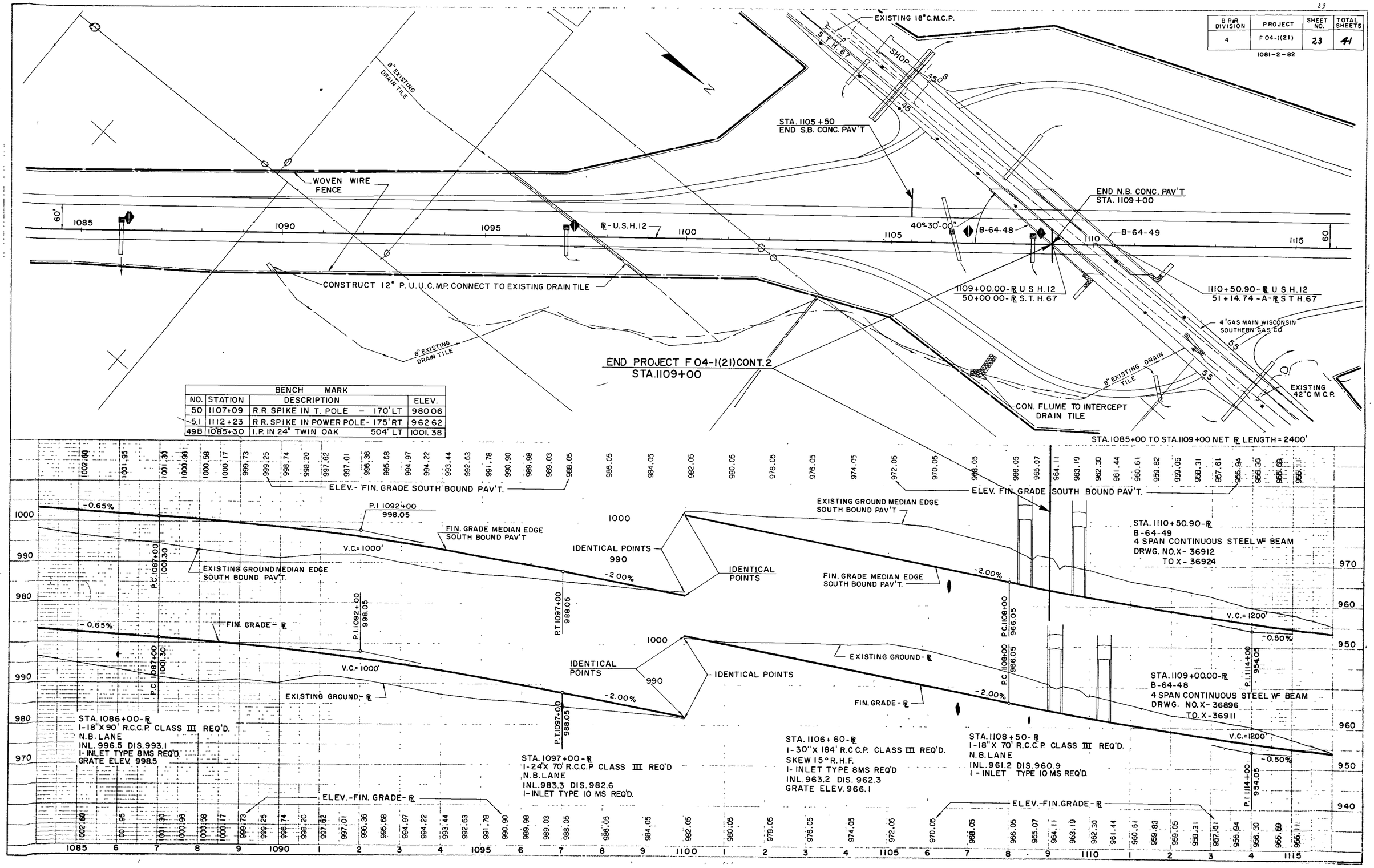


BENCH MARK			
NO.	STATION	DESCRIPTION	ELEV.
49	1062+78	R.R SPIKE IN 46" OAK -100' RT.	1005 51
49A	1074+60	R R SPIKE IN 18" HICKORY-470' RT	1001 45

1055-1085

B.R.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F 04-1(21)	23	41

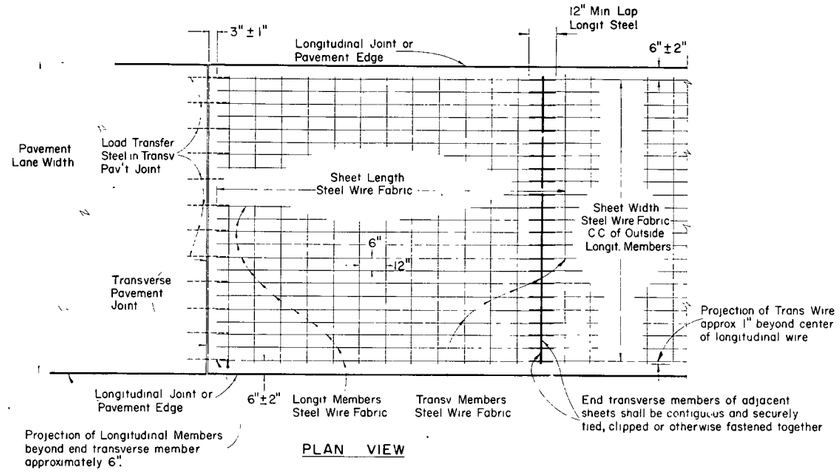
1081-2-82



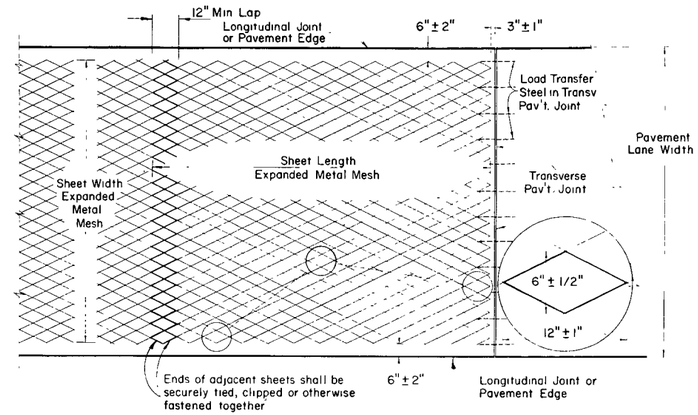
BENCH MARK			
NO.	STATION	DESCRIPTION	ELEV.
50	1107+09	R.R. SPIKE IN T. POLE - 170' LT	980.06
51	1112+23	R.R. SPIKE IN POWER POLE - 175' RT.	962.62
49B	1085+30	I.P. IN 24" TWIN OAK 504' LT	1001.38

1085-1115

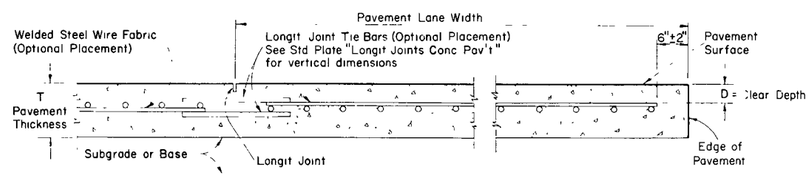
28-41



PLAN VIEW

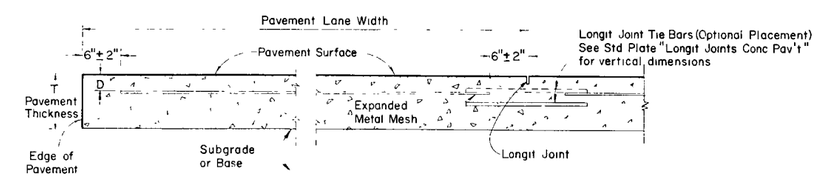


PLAN VIEW



CROSS SECTION

WELDED STEEL WIRE FABRIC



CROSS SECTION

EXPANDED METAL MESH

Pavement Thickness	"D"
8"	2'-4"
9"	2'-4 1/2"
10"	2'-5"

GENERAL NOTES-

Details of Construction and Materials not shown hereon shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

WELDED STEEL WIRE FABRIC

Manufacturer's No. 612-04
Approx Weight per 100 Sq Ft = 69.0 lbs
Longitudinal Steel - Gage No. 0 = 0.3065" D at 6" CC
Transverse Steel - Gage No 4 = 0.2253" D at 12" CC

Welded Steel Wire Fabric shall conform to the requirements of the Standard Specifications for Welded Steel Wire Fabric for Concrete Reinforcement A A S H O Designation M55
Side lap of adjacent sheets approximate 6"

EXPANDED METAL MESH

Weight per 100 Sq Ft = 76.0 lbs min
Expanded Metal Mesh shall be manufactured from open hearth steel, having a phosphorus content of not more than 0.05 percent, and a yield point of not less than 55,000 p s i The steel shall be sufficiently ductile to permit any strand to be bent through an angle of 180 degrees over one diam without fracture
The diamond shaped mesh shall be fabricated by a cold drawn process which will cut and draw the steel forming uniform dimensioned strands conforming to shape and weight as shown elsewhere hereon
Side lap of adjacent sheets approximate 6"

SHIPPING REQUIREMENTS

Welded Steel Wire Fabric or Expanded Metal Mesh Concrete Pavement Reinforcement shall be shipped to the job site in flat sheets

S T D D E T A I L

CONCRETE PAVEMENT REINFORCEMENT

STATE HIGHWAY COMMISSION OF WISCONSIN

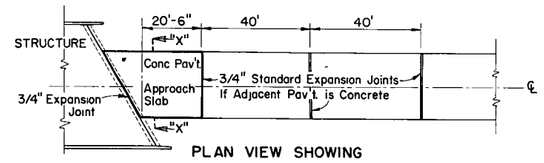
RECOMMENDED FOR APPROVAL

DATE — CHIEF DESIGN ENGINEER

APPROVED 2/2/66
DATE — STATE HIGHWAY ENGINEER

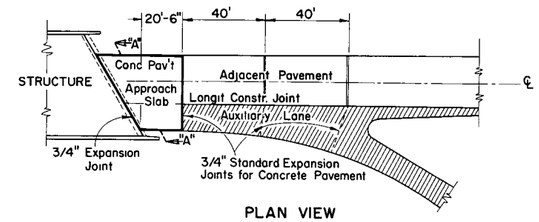
PLATE NO 2.1.2

28.1-41



PLAN VIEW SHOWING

CONCRETE PAVEMENT APPROACH SLAB & ADJACENT PAVEMENT



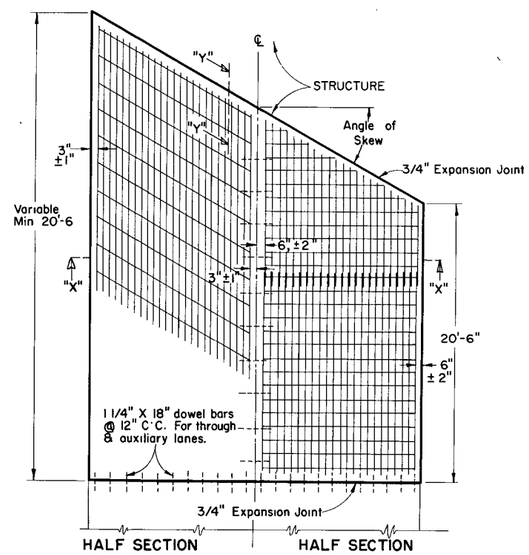
PLAN VIEW

CONCRETE PAVEMENT APPROACH SLAB WITH AUXILIARY LANE & ADJACENT PAVEMENT

INFORMATION FOR BIDDING PURPOSES

ESTIMATE QUANTITIES FOR VARIOUS SKEWED STRUCTURE APPROACHES (ONE END ONLY) 24 FOOT WIDTH PAVEMENT

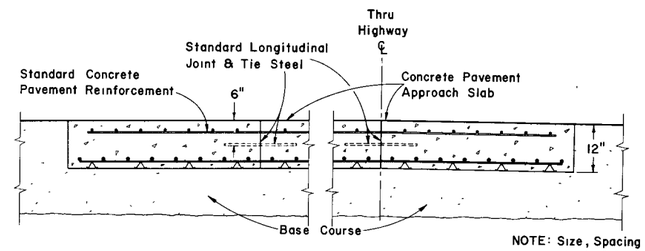
Angle of Skew	Concrete Pavement Sq. Yards	Concrete Pavement Cu. Yards	Concrete Pavement Reinforc't Sq. Yards	Bar Steel 48 Pcs. No. 8 x 20'-0" Pounds	Bar Steel Spacer Bars No. 4 Pounds
0°	54.7	18.2	54.7	2,701	156
15°	63.2	21.1	63.2	"	162
30°	73.2	24.4	73.2	"	180
45°	86.7	28.9	86.7	"	220
60°	110.1	36.7	110.1	"	313



HALF SECTION SHOWING REINF. STEEL IN BOTTOM OF SLAB

HALF SECTION SHOWING REINF. STEEL IN TOP OF SLAB

CONCRETE PAVEMENT APPROACH SLAB



NOTE: Size, Spacing & Positioning of steel in pavement same as shown for section "X"-"X".

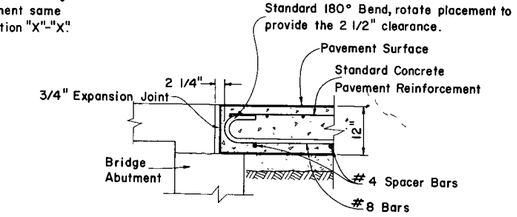
SECTION "A"-"A" SHOWING REINFORCEMENT STEEL

APPROACH SLAB

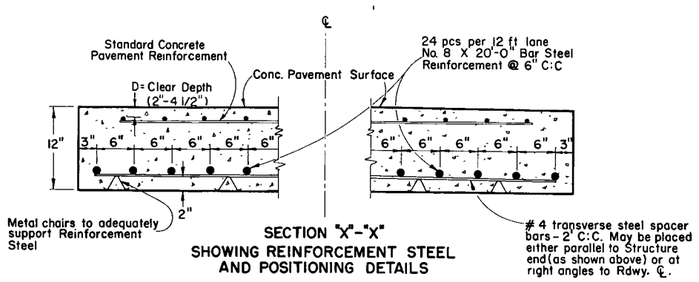
GENERAL NOTES-

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Details for Standard Concrete Pavement Reinforcement shall conform to the pertinent requirements of the Standard Detail Drawing for such reinforcement.

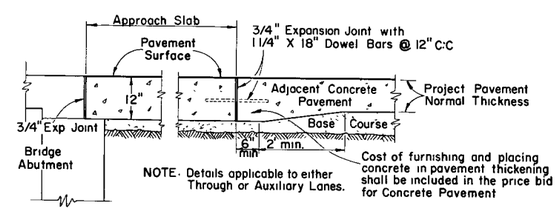


SECTION "Y"-"Y" BEND DETAIL FOR REINF. STEEL IN BOTTOM OF SLAB



SECTION "X"-"X" SHOWING REINFORCEMENT STEEL AND POSITIONING DETAILS

APPROACH SLAB



ELEVATION SHOWING

APPROACH SLAB & ADJACENT PAVEMENT TRANSITION DETAILS

STRUCTURE APPROACH AND CONCRETE PAVEMENT APPROACH SLAB

State of Wisconsin
Department of Transportation
Division of Highways

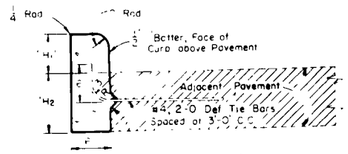
RECOMMENDED FOR APPROVAL
1/25/68 DATE — CHIEF DESIGN ENGINEER

APPROVED
2/8/68 DATE — STATE HIGHWAY ENGINEER

Plate No. 2-3.1.5

Plate No. 2-3.1.5

282-41

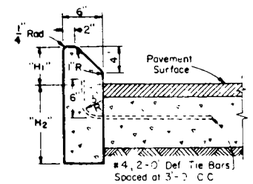


Tie Bar recess positioned in reverse when Concrete Curb is constructed first

"H1" = 9" max and 3 1/2" min and shall be 6" unless otherwise shown on the plans
"H2" - Same as adjacent pavement thickness for rigid pavement
"H2" = 12" For other than rigid pavement (Tie Bars Omitted)

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

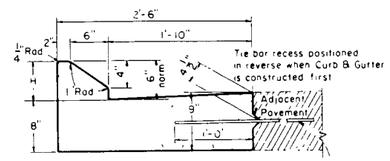
CONCRETE CURB



"H1" = 9" Max and 4" min and shall be 6" unless otherwise shown on plans
"H2" - Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted)

TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

CONCRETE CURB
(Mountable Type)



"H" = 9" max and 4" min & shall be 6" unless otherwise shown on the plans

#4, 2'-0" Def Tie Bars or alternate Bolt Type instal may be used, spaced at 3'-0" C.C.

TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

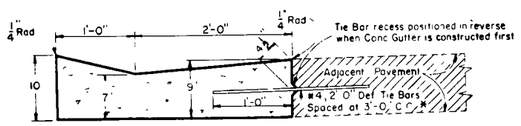
CONCRETE CURB AND GUTTER
(Mountable Type)

GENERAL NOTES

Details of construction and materials not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

JOINTS -

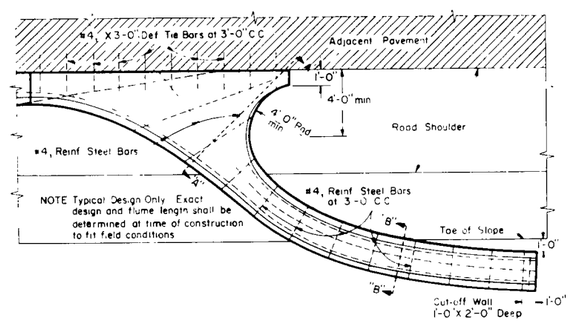
Joints shall not be sealed in concrete curb, concrete gutter, concrete curb and gutter, or concrete surface drains

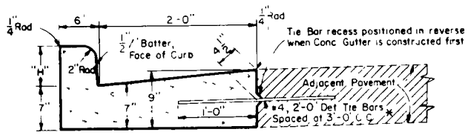


* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE GUTTER



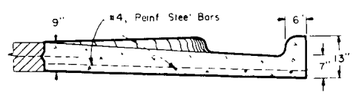


"H" = 9" Max, 3 1/2" Min, and shall be 6" unless otherwise shown on the plans

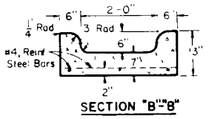
* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE CURB AND GUTTER
(Barrier Type)



SECTION "A"-"A"



SECTION "B"-"B"

CONCRETE INLET OR DISCHARGE FOR CURB AND GUTTER SURFACE DRAIN

CONCRETE CURB, CONCRETE GUTTER CONCRETE CURB AND GUTTER AND CONCRETE SURFACE DRAINS

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

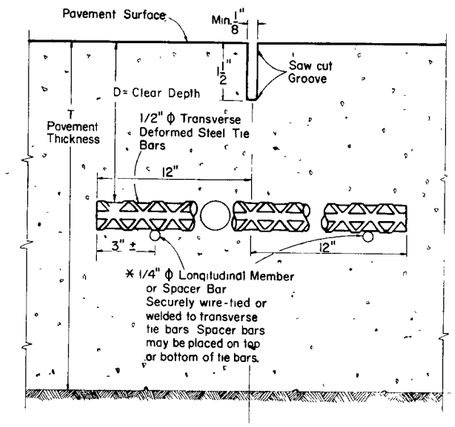
2-5-63 DATE — J. S. Pulf ENGINEER OF DESIGN

APPROVED

2/6/63 DATE — E. L. Rettlinger STATE HIGHWAY ENGINEER

PLATE NO. 3-1.17

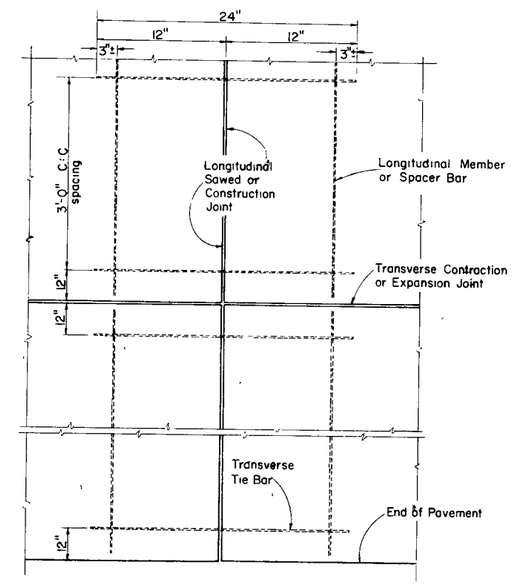
28.3-41



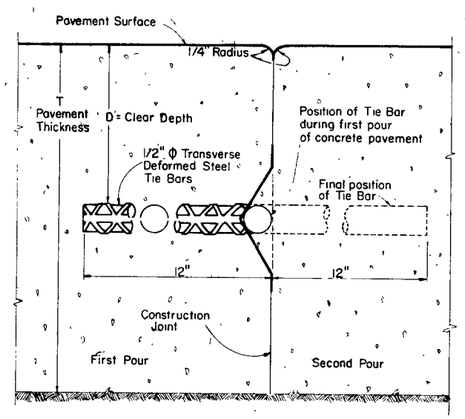
SAWED JOINT

ELEVATION, Showing Tie Bars and Positioning Details

Pavement Thickness	"D"
8"	2"-4 3/4"
9"	2"-5 1/2"
10"	2"-5 3/4"



PLAN VIEW, Showing Tie Bars and Location Details



CONSTRUCTION JOINT

ELEVATION, Showing Tie Bars and Positioning Details

GENERAL NOTES

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

ALTERNATE DESIGNS-

Alternate designs of Bolt Type joint installations may be used upon written approval of the engineer.

SEALING JOINTS -

Longitudinal Joints shall not be sealed

* TIE BARS

Tie bars shall be installed as shown (assembled ladder type pattern), or the longitudinal member spacer bar may be omitted if the transverse tie bars can be accurately placed and firmly held during the placing and setting of concrete by devices or methods approved by the engineer, or if mechanical means of placing the tie bars in the plastic concrete are approved by the engineer

Devices may be omitted on the longitudinal construction joint type when in the opinion of the engineer the tie bars will be retained in their proper designated position.

LONGITUDINAL JOINTS CONCRETE PAVEMENT

STATE HIGHWAY COMMISSION OF WISCONSIN

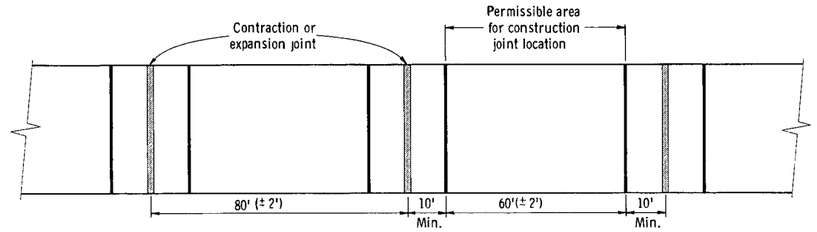
RECOMMENDED FOR APPROVAL:

2/3/66 DATE — E.J. Ostrit CHIEF DESIGN ENGINEER

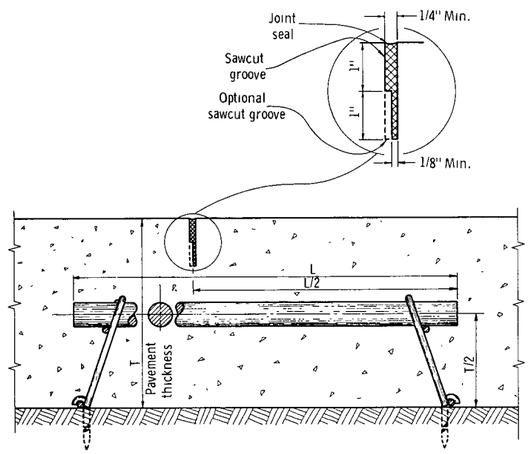
APPROVED

2/3/66 DATE — A. Summitt STATE HIGHWAY ENGINEER

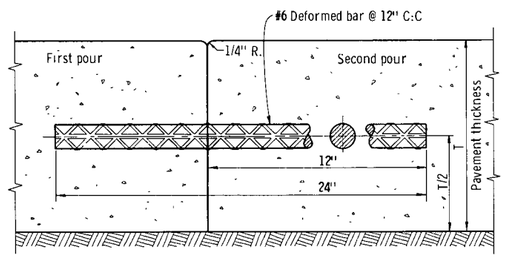
PLATE NO. 4-4.4.8



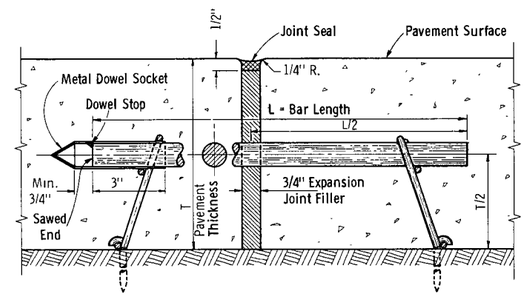
SCHEMATIC SHOWING JOINT LOCATIONS



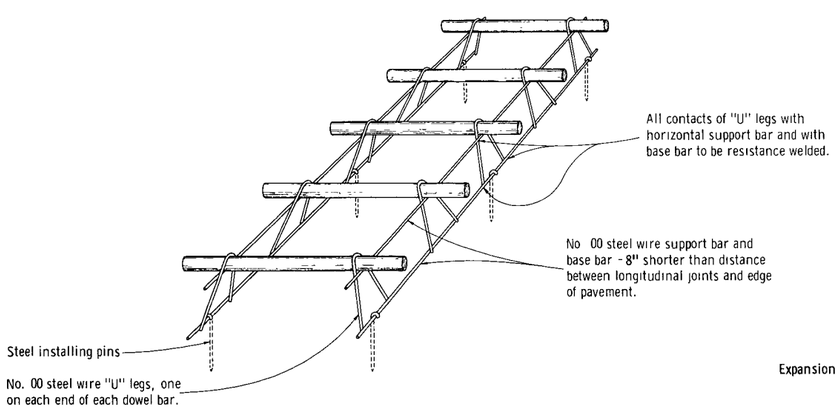
CONTRACTION JOINT



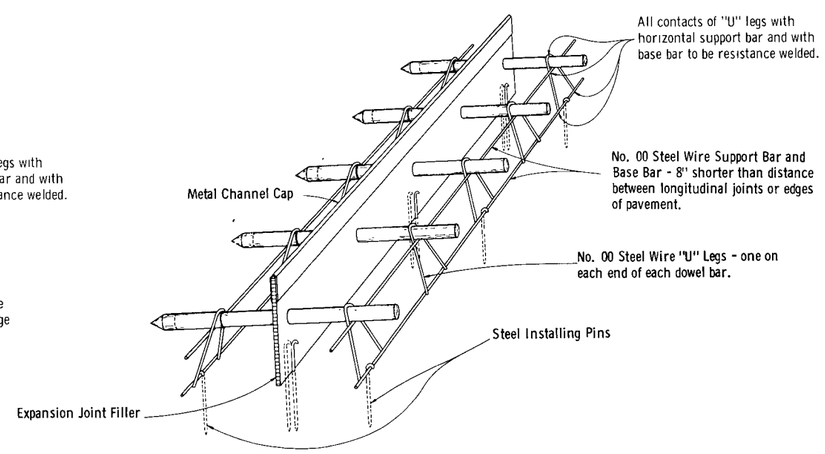
CONSTRUCTION JOINT



EXPANSION JOINT



INSTALLING DEVICE FOR LOAD TRANSFER DOWELS FOR CONTRACTION JOINTS



INSTALLING DEVICE FOR LOAD TRANSFER DOWELS AND EXPANSION JOINT ASSEMBLY

GENERAL NOTES 28.4-41

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Steel installing pins of sufficient number, length, and rigidity shall be placed so as to prevent movement of the joint assembly during construction operations..

Details shown hereon make provision for a minimum of structural adequacy and stability to satisfy Standard Specifications requirements.

ALTERNATE DESIGNS

Alternate designs for load transfer dowels for contraction and expansion joints and appurtenances other than shown hereon may be used upon written approval of the Engineer.

CONTRACTION JOINTS

Contraction joints shall be installed at 80' (±2') spacing from adjacent contraction or expansion joints, except that lesser spacings ranging to a minimum of 40' shall be used:

1. At locations or spacing indicated on the plans.
2. As extensions of transverse joints or cracks in abutting pavement lanes.
3. At locations designated by the Engineer where there are manholes or other fixtures in the pavement.

CONSTRUCTION JOINTS

Deformed bars shall be spaced at 12" C:C and 6" from each edge of pavement.

Deformed bars may be inserted after the concrete has been poured.

Construction joints shall be installed as necessary, except that a construction joint shall be not less than 10 feet from the nearest contraction or expansion joint.

EXPANSION JOINTS

Expansion joints are required only at structure approaches and/or where shown on the plans. The locations may be shifted to avoid stationary fixtures in the pavement.

Expansion joint filler shall be secured with sufficient number of steel pins to preclude any horizontal movement during the placing of concrete.

Metal dowel socket (CAP), 1 1/16" or 1 5/16" Dia., 24 gauge, closed on one end, shall be placed on the sawed end of each dowel bar as required for proper pavement expansion.

SEALING JOINTS

Joints shall be sealed as shown.

DOWEL BARS

Dowel bars shall be spaced at 12" C:C and 6" from each edge of pavement.

One end of each dowel bar shall be sawed and free of all burrs or protruding edges.

Dowel bars shall be painted with a rust inhibitive paint and coated for at least 2/3 their length with liquid asphalt MC 70 or MC 250, or other approved lubricant, to prevent bonding with concrete. The asphalt coating shall be applied to the sawed and capped end of the dowel bar and shall be sufficiently dry so that it will not be removed by the handling and placing of the dowel assembly.

Dowel bar dimensions:

For 7" P.C. Pavement = 1" Ø x 18"
For 8" P.C. Pavement = 1" Ø x 18"
For 9" P.C. Pavement = 1 1/4" Ø x 18"
For 10" P.C. Pavement = 1 1/4" Ø x 18"

TRANSVERSE JOINTS FOR CONCRETE PAVEMENT

State of Wisconsin
Department of Transportation
Division of Highways

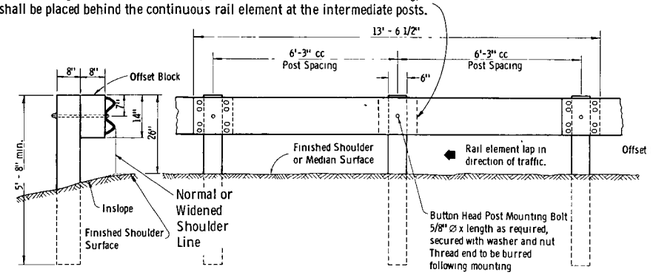
RECOMMENDED FOR APPROVAL
5/24/68 DATE — E. J. Ostrit, CHIEF DESIGN ENGINEER

APPROVED
5/27/68 DATE — W. Hurmuzlu, STATE HIGHWAY ENGINEER

Plate No. 4-4.5.11

28.6-41

One foot long section of rail element, with a 3/4" slotted hole for mounting, shall be placed behind the continuous rail element at the intermediate posts.

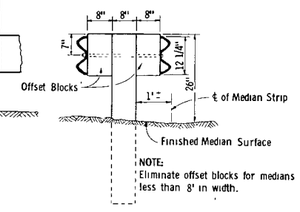


END ELEVATION

FRONT ELEVATION

STEEL PLATE BEAM GUARD

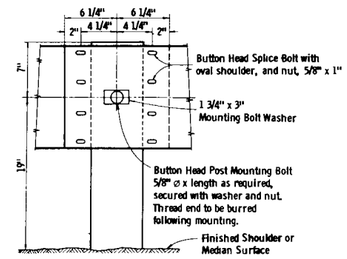
Sawed treated timber posts 6" x 8" x 6'-0" and sawed treated timber offset blocks 6" x 8" x 14" shall be furnished and placed in accordance with Standard Specifications.



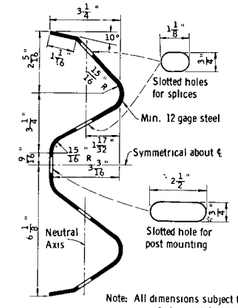
END ELEVATION

STEEL PLATE BEAM MEDIAN GUARD

STEEL PLATE BEAM GUARD OR STEEL PLATE BEAM MEDIAN GUARD



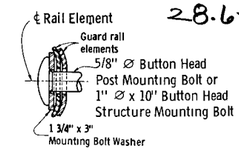
RAIL ELEMENT SPLICING AND POST MOUNTING DETAILS



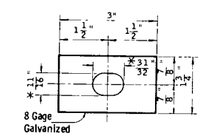
Note: All dimensions subject to manufacturing tolerance

SECTION THRU RAIL ELEMENT

Holes for Structure Mounting shall be 1 1/16" dia.



MOUNTING BOLT DETAIL



MOUNTING BOLT WASHER

* Hole in Structure Mounting Bolt Washer to be 1 1/16" dia.

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

The exact location of the beginning and end of each Guardrail installation shall be as shown on the plans or as directed by the engineer.

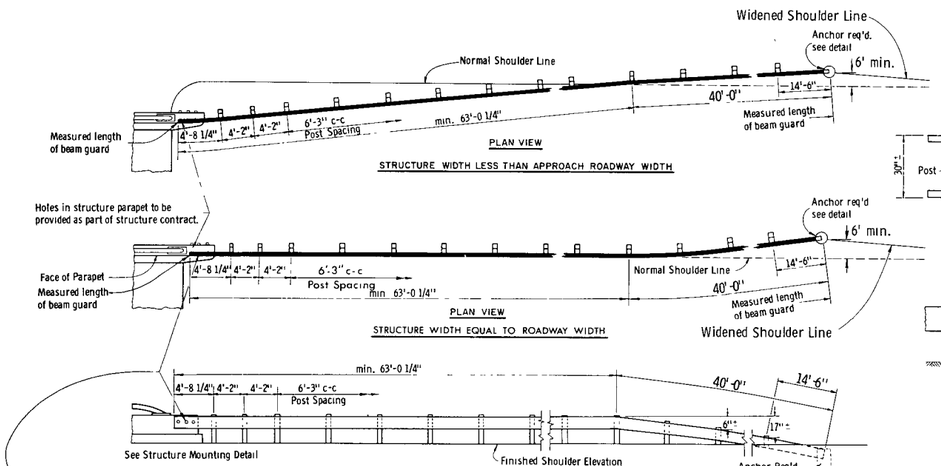
TERMINATION AT STRUCTURES NOT PROVIDED WITH A NOTCH
For those structures where a notch is not provided, the Guardrail will be terminated as directed by the engineer

POST FOOTING DETAIL AT PIERS
The Post-Footing Details shall be used when guard-rail posts are over structure footings and less than 3' 6" of earth is provided over the top of the footing

STEEL PLATE BEAM MEDIAN GUARD
Eliminate offset blocks for medians less than 8 foot in width

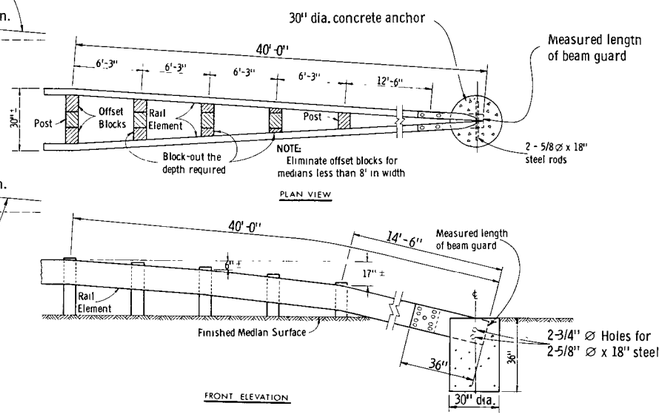
ALTERNATE ANCHORS
Square anchors will be permitted Square anchors shall be a minimum of 24 inches x 24 inches

SHOULDER WIDENING
The shoulder widening to accommodate the anchored end of the Guardrail shall be accomplished at a rate of widening not to exceed 50 to 1.

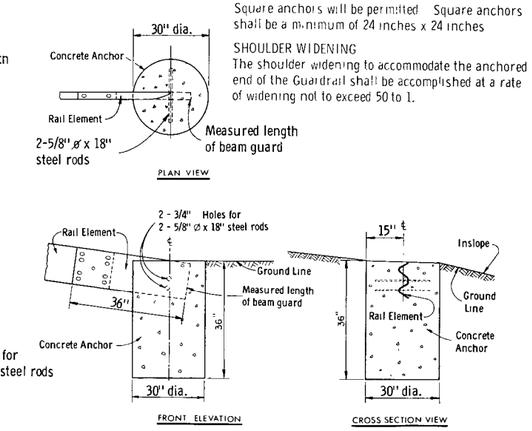


TYPICAL INSTALLATION AT STRUCTURES

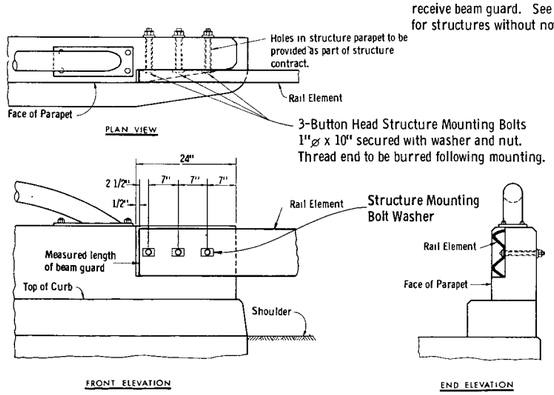
For structures constructed with notch to receive beam guard. See General Notes for structures without notch.



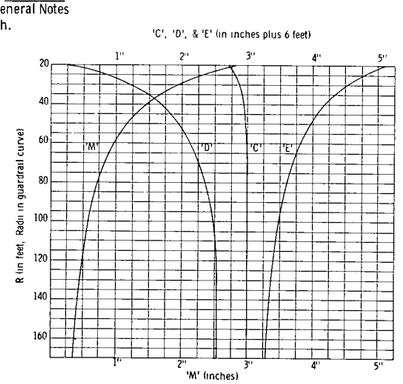
ANCHOR DETAIL
FOR DOUBLE RAIL ELEMENT INSTALLATION



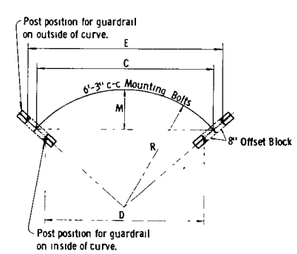
ANCHOR DETAIL
FOR SINGLE RAIL ELEMENT INSTALLATION



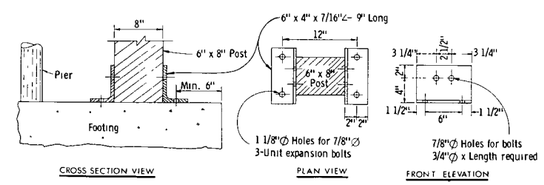
STRUCTURE MOUNTING DETAIL



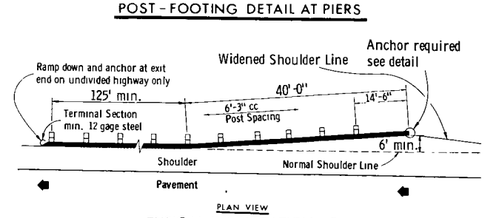
CURVE DATA FOR POST SPACING AND BEAM CURVING



Chord lengths for post spacing and middle ordinates for beam curving



POST - FOOTING DETAIL AT PIERS



TYPICAL INSTALLATION AT LOCATIONS OTHER THAN STRUCTURES

STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD

State of Wisconsin
Department of Transportation
Division of Highways

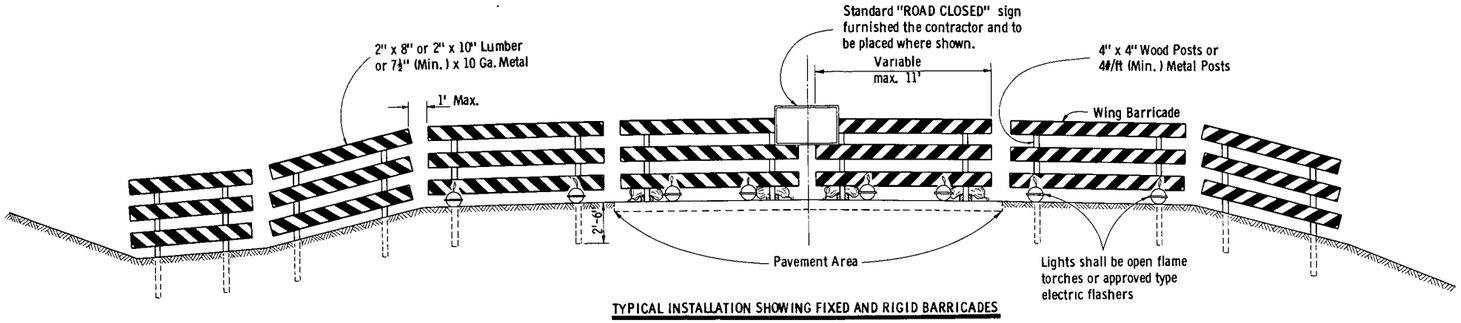
RECOMMENDED FOR APPROVAL
1/25/68 DATE — E. J. Ruplet CHIEF DESIGN ENGINEER

APPROVED
2/8/68 DATE — L. J. Summerfelt STATE HIGHWAY ENGINEER

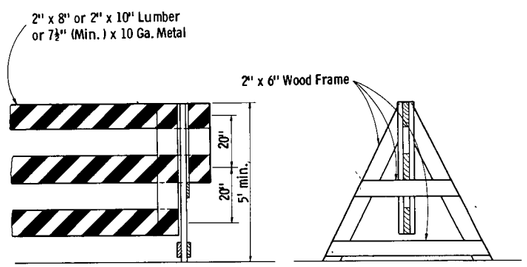
Plate No. 7-2.4.13

Plate No. 7-2.4.13

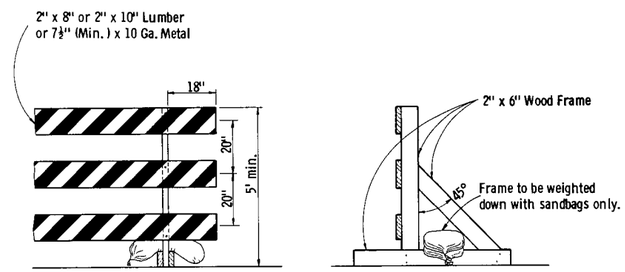
287-41



TYPICAL INSTALLATION SHOWING FIXED AND RIGID BARRICADES

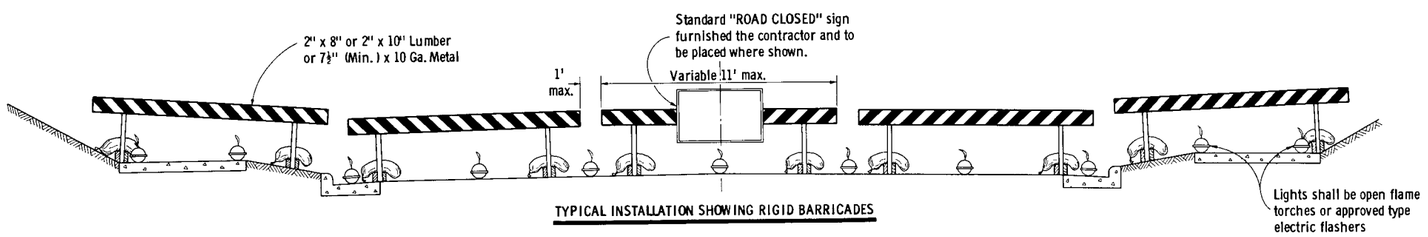


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

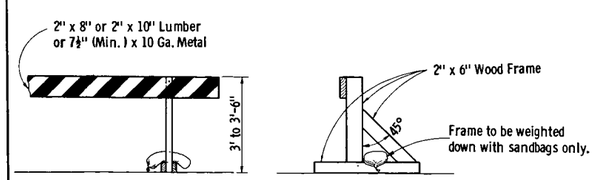


ALTERNATE TYPE INSTALLATION (RIGID)

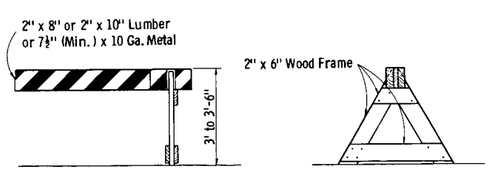
CLASS I BARRICADES



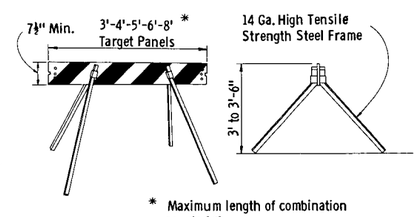
TYPICAL INSTALLATION SHOWING RIGID BARRICADES



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)



* Maximum length of combination panels 16'

ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADES

GENERAL NOTES

The contractor shall construct, place and maintain barricades as shown on the drawing and as required by the Standard Specifications or applicable Special Provisions.

CLASS 1 BARRICADE:

Class 1 Barricades shall be of variable length as indicated, and long barricades shall be assembled from these units. The Class 1 Barricade is the type normally required for major operations, where the barricade will remain in place for extended periods. Class 1 Barricades shall be used at points where the road is closed to traffic. Gates or movable sections of a barricade shall be provided when necessary, for access of equipment or other authorized vehicles.
Wing Barricades are Class 1 Barricades erected on the shoulder on one or both sides of the pavement to give Traffic the perceptive effect of a narrowing or restricted roadway. The ends closest to traffic of all three members of a wing barricade shall be in a vertical line. If used in a series, they should start at the outer edge of the shoulder and be brought progressively closer to the pavement. Wing Barricades may be used as a mounting for the advance warning or guide signs or for flashers. When used on two-way roadways, the back of the wing barricade shall be painted reflectorized white.

CLASS 11 BARRICADE:

Class 11 Barricades may be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

MATERIAL & FABRICATION:

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
Metal shall be sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
The fabrication of the barricade shall be in accord with good pertinent woodworking and metalworking practices.
All lumber or timber dimensions stated are nominal.

PAINTING:

All barricades shall be painted in alternate 4" or 6" black and white stripes at a 45° angle. The width of stripe shall be consistent for each complete barricade installation.
Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be primed, followed by two coats of white reflectorized paint or reflective wide angle sheeting.

DIRECTION OF DIAGONAL STRIPES:

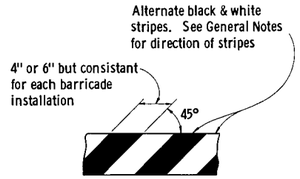
Where a barricade extends entirely across the roadway with no vehicle access provision, the stripes shall slope downward toward the highway centerline.
Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.
Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.
The stripes on wing barricades shall point downward toward the roadway.

LIGHTING:

Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

MEASUREMENT & PAYMENT:

All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.



TYPICAL DIAGONAL STRIPES

Applies to all Classes & Types of Barricades

CONSTRUCTION BARRICADE

State Highway Commission of Wisconsin

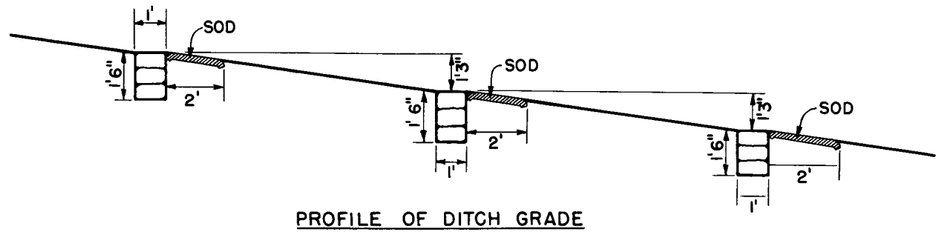
RECOMMENDED FOR APPROVAL
1/11/67 DATE — E. J. Bechtel CHIEF DESIGN ENGINEER
APPROVED
1/13/67 DATE — W. J. Cunningham STATE HIGHWAY ENGINEER

Plate No. 7-4.1.5

Plate No. 7-4.1.5

6

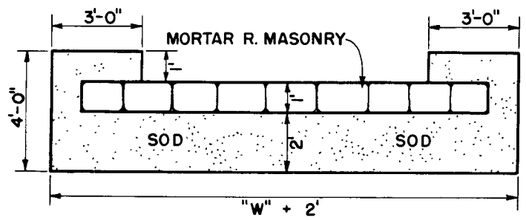
28.841



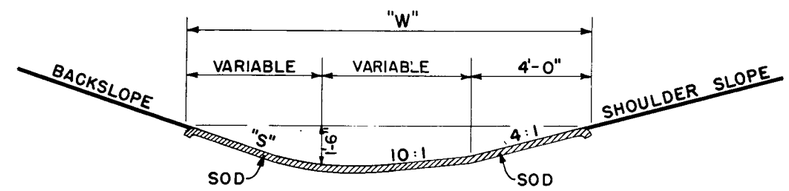
PROFILE OF DITCH GRADE

PROFILE OF DITCH GRADE

NOTE: NUMBER REQUIRED WILL BE DETERMINED BY VERTICAL SPACING.



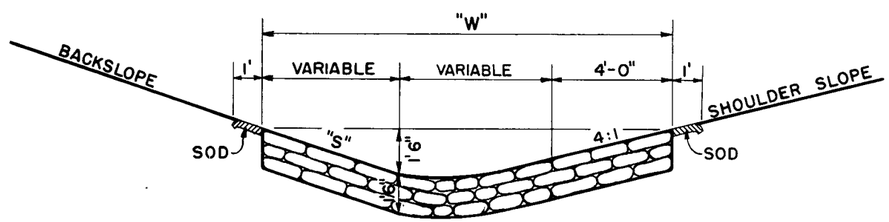
PLAN VIEW SHOWING SOD



SECTION

SOD DITCH CHECKS

QUANTITIES		
"S"	"W"	EACH SQ. YD.
2:1	12'	8
3:1	13.5'	9
4:1	15'	10



SECTION

MORTAR RUBBLE MASONRY

QUANTITIES			
"S"	"W"	SOD SQ. YD.	EACH CU. YD.
2:1	12'	4.0	0.67
3:1	13.5'	4.33	0.75
4:1	15'	4.67	0.83

CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

8-1.3.1

DITCH CHECKS
MORTAR RUBBLE MASONRY & SOD

STATE HIGHWAY COMMISSION OF WISC.

RECOMMENDED FOR APPROVAL:

Frank Crane
DESIGN ENGINEER

DATE:

CONSTRUCTION ENGINEER

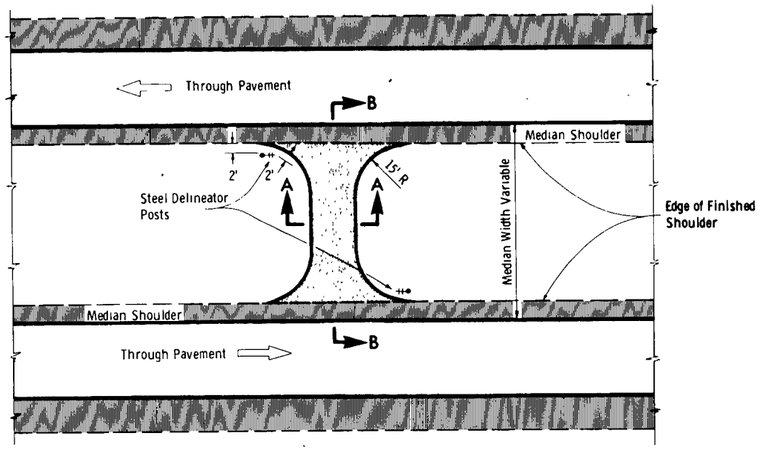
APPROVED:

DRAWN DIV. 9
CHECKED N.F.

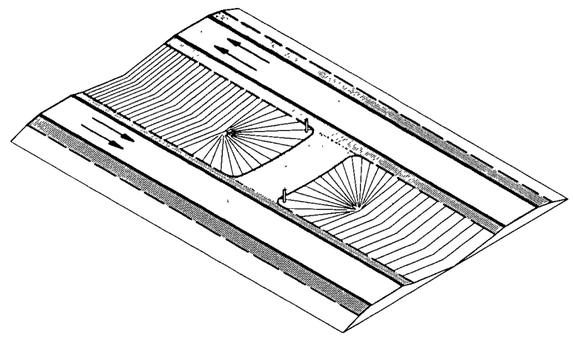
E. L. Roettger
STATE HIGHWAY ENGINEER

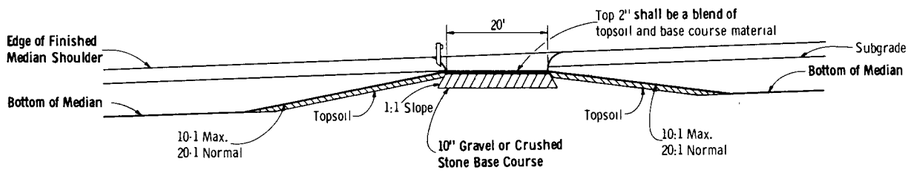
8-1.3.1

28.9-41

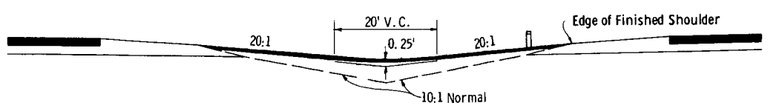


PLAN VIEW





SECTION A-A



SECTION B-B

GENERAL NOTES

Blend sufficient topsoil with the top 2 inches of the base course material to provide a seed bed and to subdue the stone color. The entire surface shall be fertilized and seeded.

Details of construction shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

MAINTENANCE CROSSOVER FOR FREEWAYS

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL
DATE 1/25/68 — CHIEF DESIGN ENGINEER

APPROVED
DATE 2/9/68 — STATE HIGHWAY ENGINEER

Plate No. 13-1.1.1