STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-57	46-1HB	KANKAKEE	25	1
F.A.I. PROJ. ILR NO. 41	ILLINOIS	PROJECT		

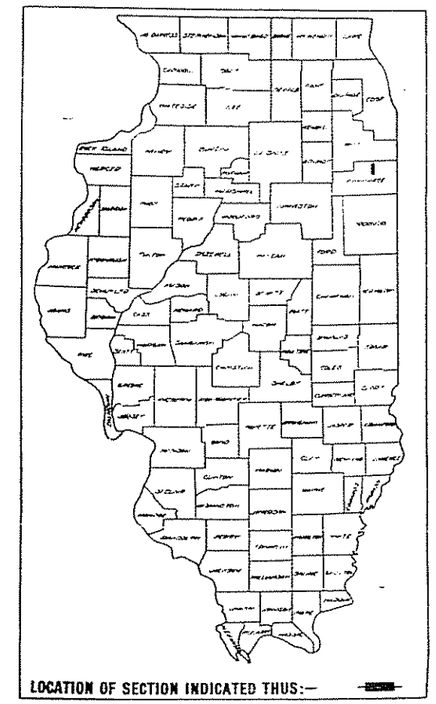
P-93-019-00

SCALES
- PLAN 1 INCH 100 FT.
- PROFILE, HOR. 1 INCH 100 FT.
- PROFILE, VERT. 1 INCH 10 FT.
- CROSS-SECTIONS 1 INCH 5 FT. VERT. 1 INCH 10 FT. HOR.

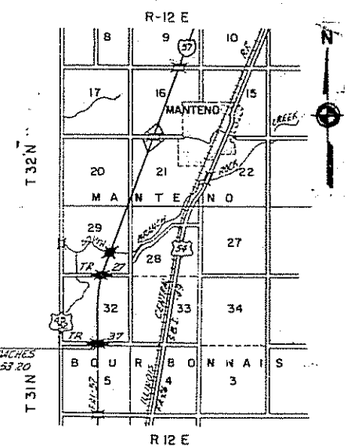
INDEX OF SHEETS ON SHEET NO. 4

F.A.I. ROUTE 57
SECTION 46-1HB
KANKAKEE COUNTY

C-93-221-64



LOCATION OF SECTION INDICATED THUS:—



F.A.I. STA. 474+73.50 SEC. 46-1HB
GRADE SEPARATION STRUCTURE & APPROACHES
SEC. LINE STA. 1457+95.98 TO STA. 1482+53.20
(NON-PARTICIPATING).

LAYOUT
SCALE: 1" = 1 MILE (APPROX.)

HIGHWAY CLASSIFICATION

ROAD	CLASS	ADT	YEAR	SPEED
F.A.I. 57	E - MODIFIED	105	1975	45
		124	1983	45

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
W. E. Baumann 9/10/63
ASSISTANT DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED Dec 28 1963
PROJECT ENGINEER
APPROVED July 9 1964
DIRECTOR OF HIGHWAYS
PLANS AND SPECIFICATIONS
PREPARED July 9 1964
ENGINEER OF DESIGN
APPROVED July 9 1964
ENGINEER OF MAINTENANCE
APPROVED July 9 1964
ENGINEER OF TRAFFIC

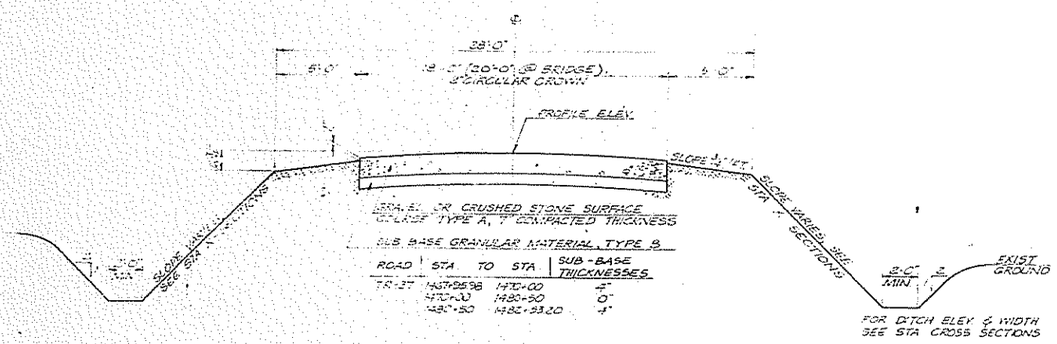
LENGTH OF PROPOSED IMPROVEMENT

F.A.I. STA.	SECTION	ROADWAY	STRUCTURE	TOTAL
474+73.50	46-1HB	1231.18 LIN. FT.	226.04 LIN. FT.	1457.22 LIN. FT. = 0.276 MILES

PLANS PREPARED BY
STANLEY ENGINEERING COMPANY
MUSCATINE, IOWA — CHICAGO, ILLINOIS

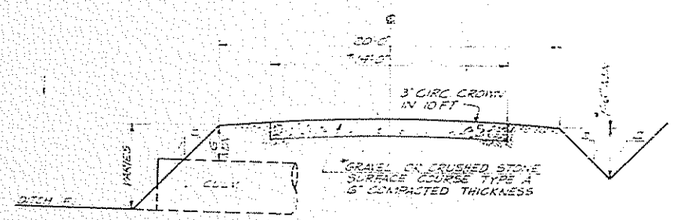
CONTRACT NO. 28688

FEDERAL AID ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I. - 57	46-1HB.	KANKAKEE	25	2
FED. ROAD DIST. No. 7	ILLINOIS	PROJ.		



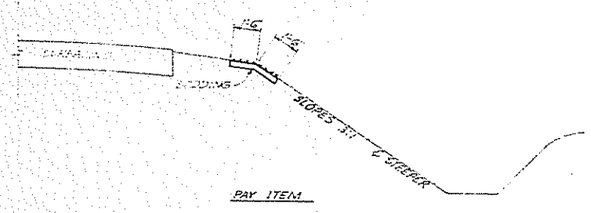
TYPICAL SECTION - APPROACHES TO STRUCTURES

CARRYING LOCAL ROADS OVER F.A.I.-57



* APPLIES ONLY TO F.E. LT. STA 1521+40 TO 1524+91 (NOT IN THIS CONTRACT)

TYPICAL FIELD ENTRANCE



PAY ITEM

SC YDS SODDING 600

TREATMENT OF SIDE SLOPES & SHOULDERS

ON APPROACH FILLS TO STRUCTURES CARRYING LOCAL ROADS OVER F.A.I.-ROUTE 57.

NOTES:

THE NOMINAL THICKNESSES FOR SUB-BASE GRANULAR MATERIAL AND GRAVEL OR CRUSHED STONE SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESSES SHALL NOT BE LESS THAN 90 PER CENT OF THE NOMINAL THICKNESS AT ANY LOCATION.

SHOULDERS AND SIDESLOPES SHALL BE ROUNDED 12 INCHES IN EACH DIRECTION FROM THE TANGENT INTERSECTION OF THESE SURFACES.

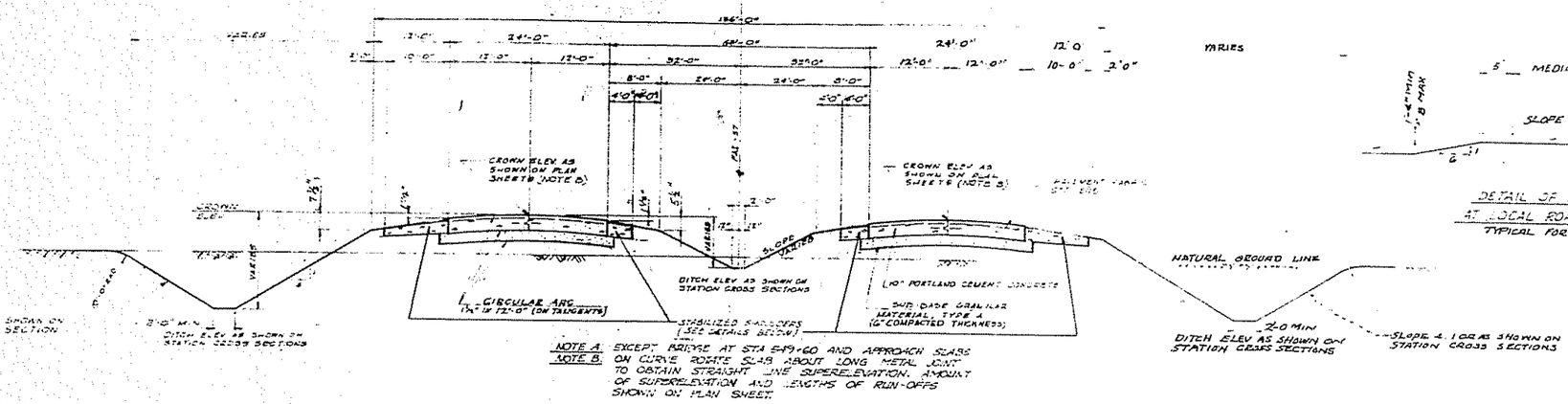
WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

TYPICAL SECTIONS
F.A.I.-57 SEC. 46-1HB.
KANKAKEE COUNTY
NO SCALE

FEDERAL AID ROUTE No.	SEC	COUNTY	TOTAL SHEETS	SHEET No.
F A I - 57	46-1HB	KANKAKEE	25	3

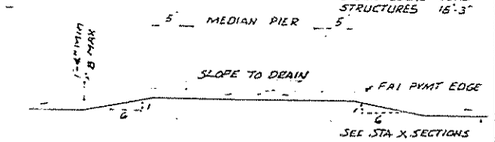
FED ROAD DIST No 7 ILLINOIS PROJECT

TYPICAL CROSS SECTION (FAI-57)
64'-0" MEDIAN

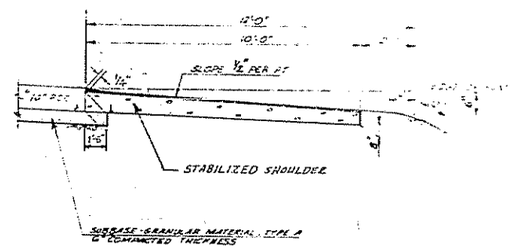


NOTE A. EXCEPT BRIDGE AT STA 549+60 AND APPROACH SLABS ON CURVE ROTATE SLAB ABOUT LONG METAL JOINT TO OBTAIN STRAIGHT LINE SUPERELEVATION. AMOUNT OF SUPERELEVATION AND LENGTHS OF RUN-OFFS SHOWN ON PLAN SHEET.

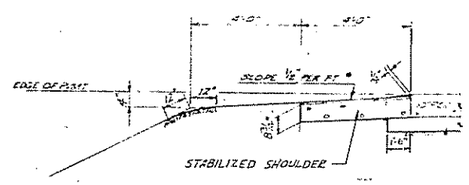
NOTE B. MINIMUM CLEARANCE UNDER LOCAL ROAD STRUCTURES 16'-3"



DETAIL OF MEDIAN DITCH AT LOCAL ROAD STRUCTURES
TYPICAL FOR FOUR STRUCTURES



DETAIL OF OUTSIDE SHOULDER F.A.I. ROUTE 57



*AT MEDIAN PIERS THE MEDIAN CROSS SLOPE SHALL BE BETWEEN 1/2" PER FT. AND 5/8" PER FT. TO ASSURE DRAINAGE AND PROVIDE ADEQUATE COVER FOR PIER FOOTINGS

DETAIL OF MEDIAN SHOULDER F.A.I. ROUTE 57

THIS SHEET FOR INFORMATION ONLY

TYPICAL CROSS SECTION AND PAVEMENT DETAILS
F A I - 57 SEC. 46-1HB
KANKAKEE COUNTY
NO SCALE

46-1HB

ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
F A I-57		KANKAKEE	25	5
FED. ROAD DIST. No. 7	ILLINOIS	PROJ.		

ROAD SURFACING MATERIALS

SECTION	STATION	TO STATION	SUB-BASE GRAN. MATLS. TYPE B THICK	TONS	GRAV. OR CR. ST. SURF. CSE. TYPE A THICK.	TONS
46-1HB	1467+95.98	1470+00	4"	93	7"	168
	1470+00	1478+50.70	0		7"	285
	1478+53.81	1480+50	0		7"	372
	1480+50	1482+53.00	4"	93	7"	162
		TOTALS		186		987

FERTILIZER NUTRIENTS — [illegible] LBS. N.
SUPPLEMENTAL WATERING FOR SODDED AREAS — [illegible]
MULCHING, METHOD 2:
STRAW, SEEDED AREAS — 2 TONS
PLANTED AREAS — 4 TONS
EMULSIFIED ASPHALT — [illegible]

CLASS X CONC. HEADWALLS AND DRAINAGE ITEMS

SECTION	STATION	STANDARD NO. OR TYPE	CLASS X CONC. HDWLS CU. YDS.	REINF. BARS LBS.	PIPE CULVERTS TYPE 1 18" LIN. FT.	TYPE 1 24" LIN. FT.	TYPE 3 24" LIN. FT.	TYPE 2A 36" LIN. FT.
46-1HB	1469+37 LT	F.E. CULV.			28			
	1469+37 RT	F.E. CULV.			30			
	1473+84	SLOPE WALL CULV.						102
	1476+56	SLOPE WALL CULV.						106
	1481+25 LT	F.E. CULV.			28			
	1481+25 RT	F.E. CULV.			28			
		TOTALS			114			208

QUANTITIES FOR BRIDGES LISTED ON BILLS OF MATERIALS

TREE REMOVAL

STATION	SIDE	DIST.	OVER 15" IN. DIA.
1469+17	LT.	34	16
1469+69	LT.	36	16
1469+82	LT.	36	16
	TOTALS		48

QUANTITY SCHEDULES
F.A.I-57 SEC. 46-1HB
KANKAKEE COUNTY

SEC. 46-1 HB KANKAKEE COUNTY

FEDERAL AID ROUTE No	SEC	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I.-57	46-1HB	KANKAKEE	25	6
STA 470+00		TO STA 500+00		
FED. ROAD DIST No 7	ILLINOIS	FED AID PROJECT		

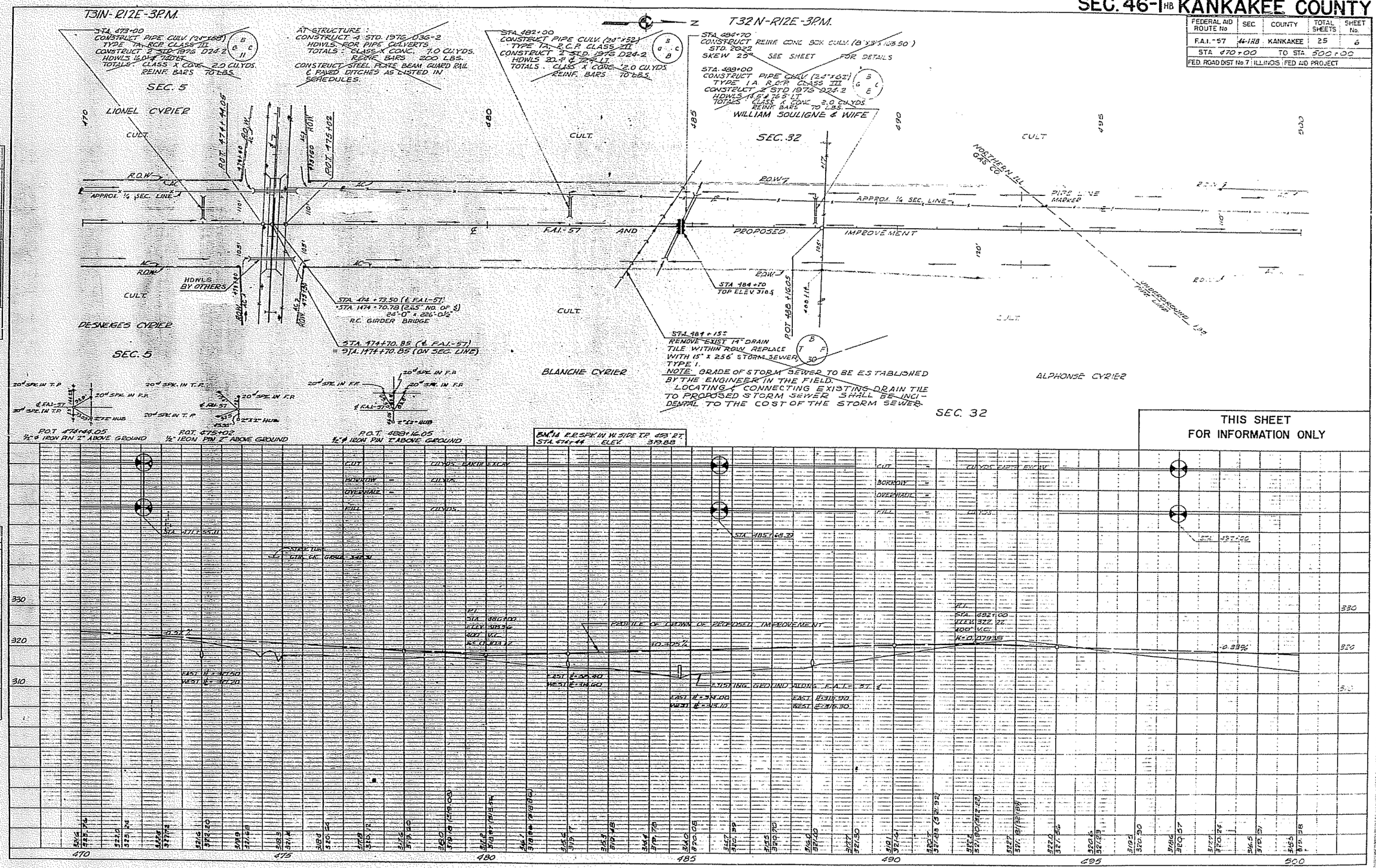


PLATE 1—PLAN-PROFILE D.P.R.A.R.E. STANDARD
NEWFEL & ESSER CO., NEW YORK

H.&E. Co. No. 248-HC

PLAN		
	NOTE BOOK	
	NO. 2252	
	RUNTER	R.G.H.
	CHECKED	A.T.K.
	CHECKED	R.E.L.
	CHECKED	R.E.L.
	DATE	6-7-72
	DATE	6-7-72
	DATE	6-7-72

PROFILE		
	NOTE BOOK	
	NO. 2252	
	RUNTER	J.C.T.
	CHECKED	R.E.L.
	CHECKED	R.E.L.
	CHECKED	R.E.L.
	DATE	10-17-72
	DATE	6-7-72
	DATE	6-7-72
	DATE	10-17-72

FEDERAL AID ROUTE No	SEC	COUNTY	TOTAL SHEETS	SHEET No
F.A.I. - 57		KANKAKEE	28	7
STA 1457 + 25.95 TO STA 1482 + 53.20				
FED. ROAD DIST No 7	ILLINOIS	FED. AID PROJECT		

46-1HB

UNLESS OTHERWISE NOTED, DIMENSIONS AND STATIONS REFER TO THE STA. TRANSIT LINE (℄) OR TO ℄ OF F.A.I.-57.

CLASS "E-1" ROAD (MODIFIED)

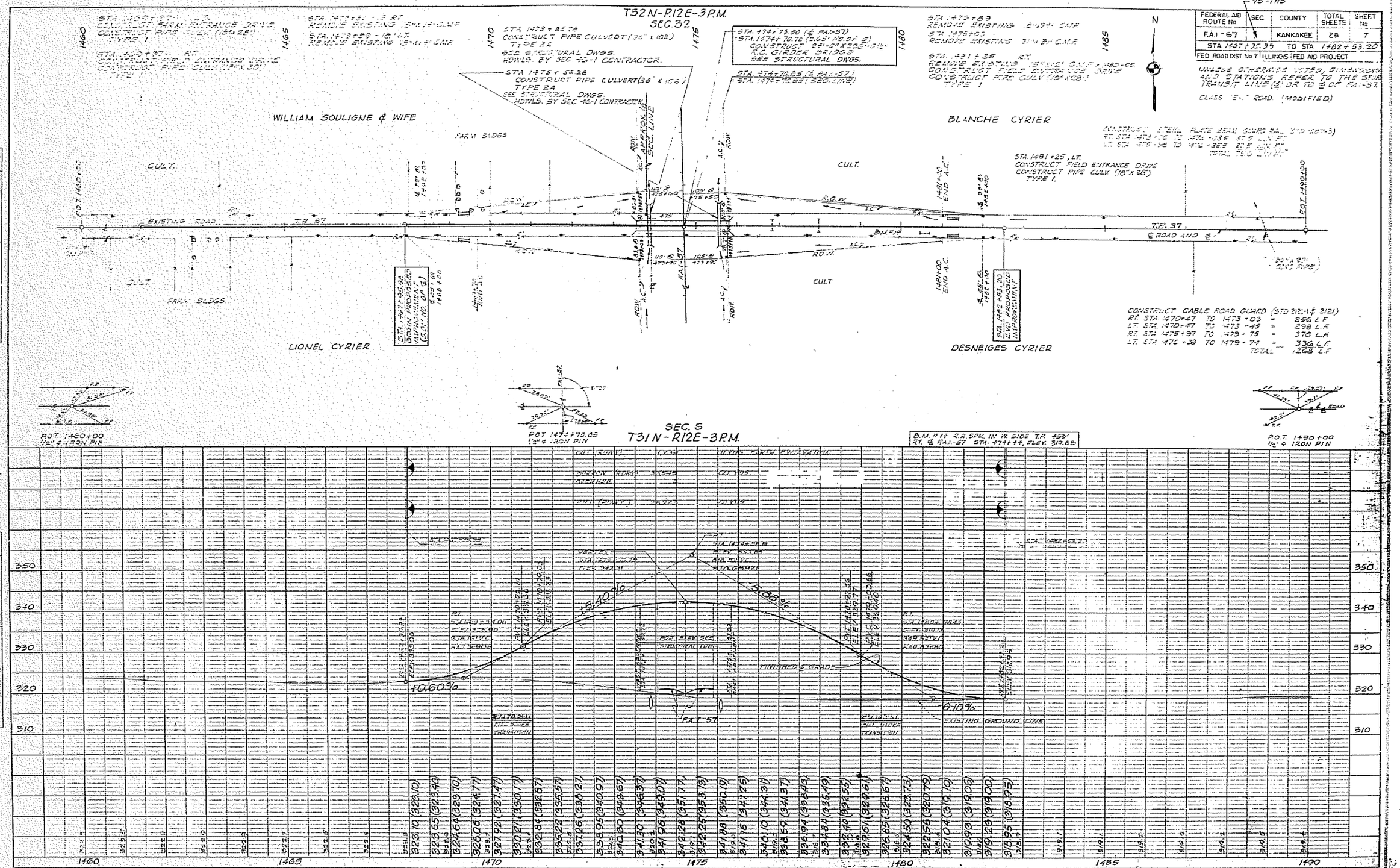


PLATE 1 - PLAN-PROFILE C.P.R. & R.E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.
K. & E. Doc. No. 840-1C

LOCAL ROAD AT F.A.I. 57 STA. 474 + 73.50

#6

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

46-1HB

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-57		KANKAKEE	25	2
STA		TO-STA		
FED ROAD DIST No 7	ILLINOIS	FED AID PROJECT		

SHT. 1
OF 10

BILL OF MATERIAL

ITEM		SUPER	SUB	TOTAL
Class X Concrete	Cu Yds	367.7	167.2	534.9
Reinforcement Bars	Lbs	98,873	20,497	119,370
Structural Steel	Lbs	8,936	—	8,936
Metal Handrail	Lin Ft	480	—	480
Name Plates	Each	—	2	2
Slope Wall	Sq. Yds.	—	335	335
Class A Excavation for Structures	Cu Yds	—	120	120
		—		
Steel Piles, 10BP42	Lin Ft	—	1347	1347
Test Piles (Steel)	Each	—	2	2
PROTECTIVE COAT	SQ YD	810	—	810

SHEET INDEX STRUCTURE

SHEET NO.	TITLE
1	INDEX AND BILL OF MATERIAL
2	GENERAL PLAN AND ELEVATION
3	SUPERSTR. X-SECTION, BRG DETAILS & GIRD ORD'S
4	SUPERSTR. SLAB REINFORCING
5	SUPERSTR. GIRDER DETAILS
6	METAL HANDRAIL
7	PIERS NO 1 & 3 (EXPANSION)
8	PIER NO 2 (FIXED)
9	ABUTMENTS
10	BORING DATA

GENERAL LEGEND

ELEVATION MARKER

A/2 SECTION MARKER - THE LETTER IDENTIFIES THE SECTION AND THE NUMBER REFERS TO THE SHEET ON WHICH THE SECTION IS DETAILED.

A/2 DETAIL IDENTIFICATION SYMBOL - THE LETTER IDENTIFIES THE SECTION AND THE NUMBER REFERS TO THE SHEET ON WHICH THE SECTION IS LOCATED.

2 GIRDER IDENTIFICATION SYMBOL

DESIGN NOTES

SPECIFICATIONS

DESIGN: STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES OF A.A.S.H.O. (1961)
CONSTRUCTION: STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 2, 1958, AND SUPPLEMENTAL SPECIFICATIONS, EFFECTIVE MARCH 2 1964

DESIGN STRESSES

$f_c' = 3,500$ psi
$f_c = 1,400$ psi - SUPER.
$f_c = 1,000$ psi - SUB. (WITH EARTH PRESSURE)
$f_s = 20,000$ psi - (REINFORCEMENT)
$f_s = 20,000$ psi - (STRUCTURAL STEEL ASTM A36)
$v = 75$ psi - PIER FOOTING
$n = 10$

LOADING

H15-S12-44
FUTURE WEARING SURFACE - 18 psf.

GENERAL NOTES

CLASS X CONCRETE SHALL BE USED THROUGHOUT.

THE CONCRETE FLOOR SLABS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATION.

MINIMUM LAP FOR ALL BAR SPLICES SHALL BE 20 DIAMETERS UNLESS OTHERWISE NOTED.

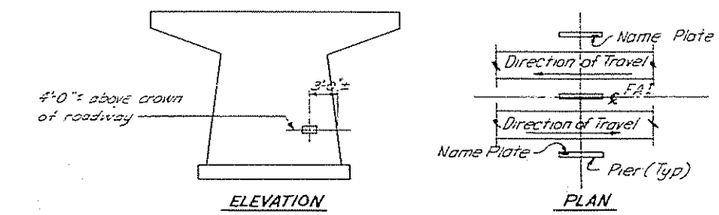
SLOPE WALLS SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, NO. 4 WIRES, WEIGHING 58 LBS. PER 100 SQ. FT.

ALL ROCKERS, BEARING PLATES, LEAD PLATES, PINTLES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED ALL STRUCTURAL STEEL AND HANDRAILS SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. THE ½" ø STUDS USED FOR ANCHORAGE OF TOP BEARING PLATES SHALL NOT BE PAINTED. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL DRIVE 2 TEST PILES IN PERMANENT LOCATIONS AS NOTED AND DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES. (ONE STEEL PILE AT EAST ABUTMENT AND 1 AT PIER #1)

THE FOLLOWING BRIDGE DRAWINGS ARE NOT TO SCALE AND SHOULD NOT BE USED FOR SCALING PURPOSES.



NAME PLATE LOCATION

STATION 474+73.50
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 57 SEC 46-1HB

LOADING H15-S12

LETTERING FOR NAME PLATE
See Standard 2113-1

DESIGNED	
CHECKED	
DRAWN	L.S.
CHECKED	WRT

EXAMINED _____ 19
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED _____
ENGINEER OF DESIGN
APPROVED _____
CHIEF HIGHWAY ENGINEER

STANLEY ENGINEERING COMPANY
MUSCATINE, IOWA CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
STRUCTURES
INDEX AND BILL OF MATERIAL
F.A.I. RTE. 57 SEC. 46-1 HB
KANKAKEE COUNTY
STA. 474 + 73.50

Revision: 7-24-63 Protective Coat 745 to 810 Sq.Yd., Reinforcement 116,704 to 119,370, Change Structural Steel Designation to ASTM A-36, Removal of Timber Piles 120 Lin. Ft., Steel Piles from 1183 to 1347 Lin. Ft., S.F.M.

Rev. 5-1-66 Removed Project No. from Name Plate. TKM

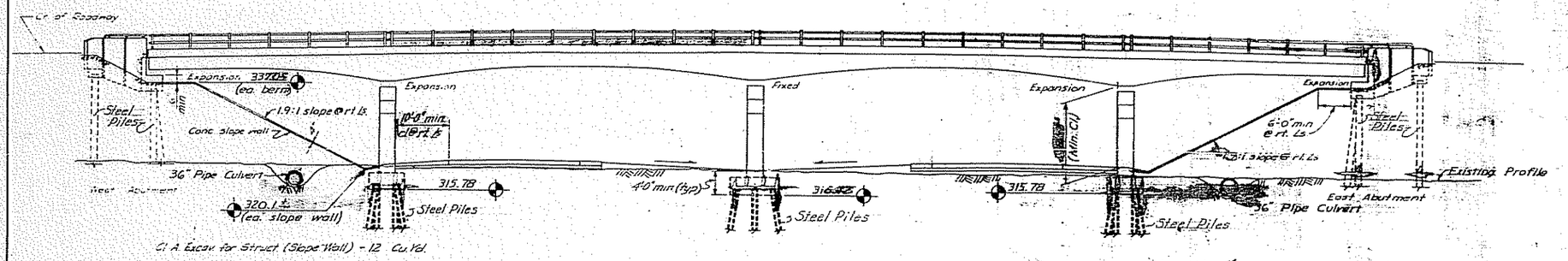
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

46-1HB

COUNTY	TOTAL SHEETS	SHEET NO.
KANKAKEE	25	9

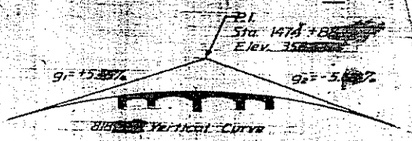
SHT. 2 OF 10

Bench mark data
B.M. #14 - R.R. Spk. in W. side T.P.
453' Rt. ℄ F.A.I.-57 Sta. 474 + 44
Elev. 319.88
No existing structure

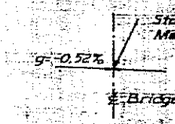


C.I.A. Excav. for Struct. (Slope Wall) - 12 Cu. Yd.

ELEVATION

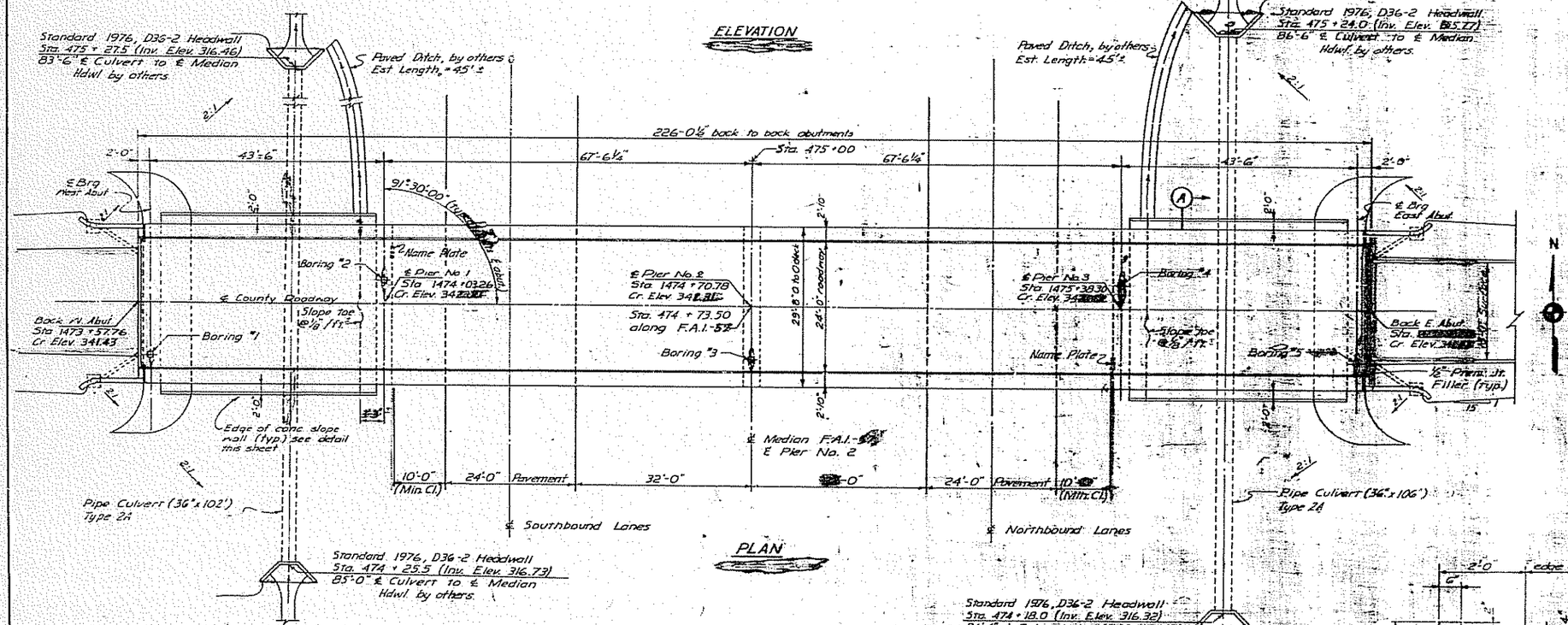


COUNTY ROADWAY
Classification "E-1", Modified

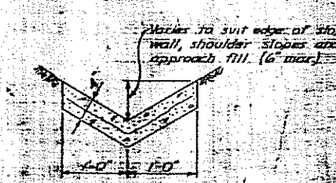


F.A.I.-57
(Same for both lanes)

GRADE PROFILES



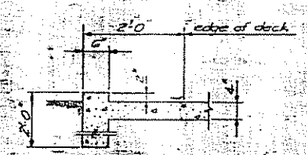
PLAN



Reinforce with wire mesh weighing not less than 55 lbs. per 100 sq. ft. (Incidental to cost of paved ditch.)

Note:
Paved Ditch to be constructed after grading of F.A.I.-57 to suit ground conditions at the time. Paved Ditch and F.A.I.-57 grading & paving by Contractors for Sec. 46-1.

PAVED DITCH



SECTION (A)

BILL OF MATERIAL

Item	Unit	Quantity
Slope Wall	Sq. Yd.	335
Protective Coat	Sq. Yd.	810

DESIGNED	LFB
CHECKED	LJL
DRAWN	L.C.H.
CHECKED	LFB LJL

EXAMINED _____ 19
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED _____
ENGINEER OF DESIGN
APPROVED _____
CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS
GENERAL PLAN AND ELEVATION
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 73.50

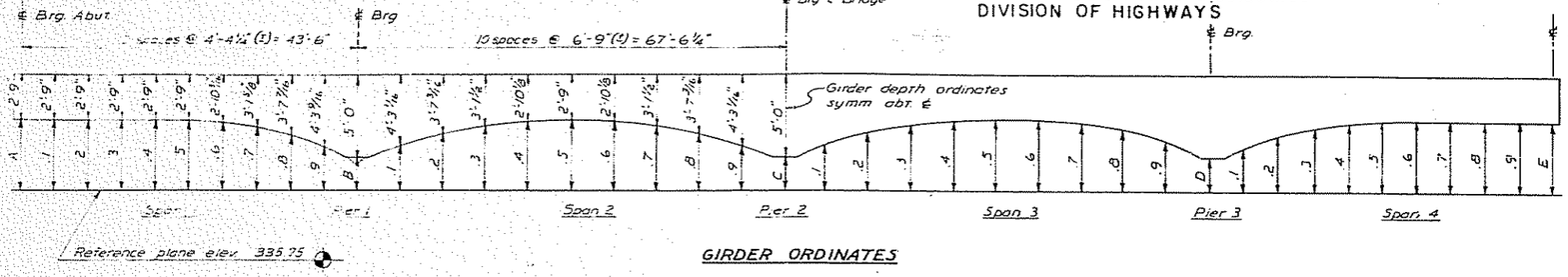
Revision: 7-24-63 Protective Coat Quantity Added. 810 Sq. Yds.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-57	9	KANKAKEE	25	10
STA.		TO STA.		
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT		

46-1HB

SHT. 3 OF 10

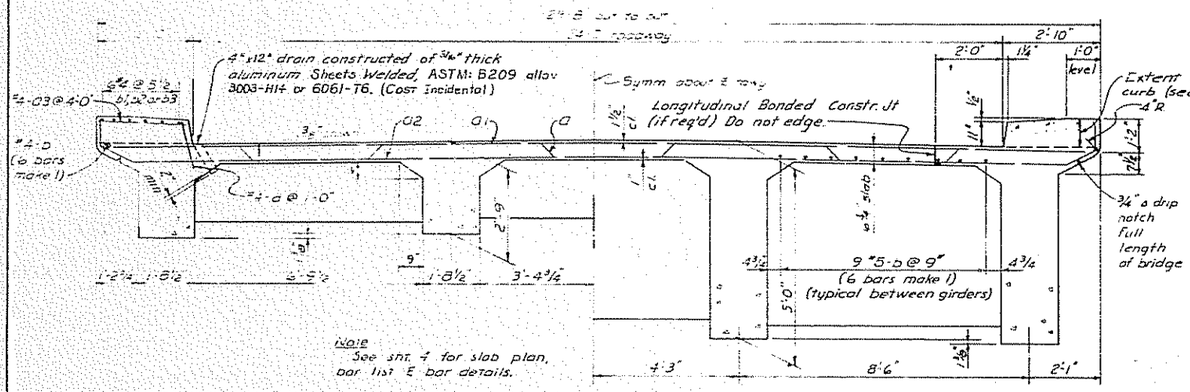


GIRDER ORDINATES

TABLE OF ORDINATES

GIRDER	POINT	.1	.2	.3	.4	.5	.6	.7	.8	.9	POINT
1	A = 2'-10 3/16"	2'-10 7/16"	2'-11 1/16"	3'-0 9/16"	3'-1 1/8"	3'-1 3/8"	3'-1 1/8"	2'-10 9/16"	2'-4 5/16"	1'-9 3/8"	B
	B = 1'-1 7/16"	1'-11 3/16"	2'-7 7/8"	3'-2 5/16"	3'-6 3/8"	3'-7 5/16"	3'-7"	3'-3 1/16"	2'-10 1/16"	2'-2 1/8"	C
	C = 1'-5 3/16"	2'-2 1/8"	2'-10 1/16"	3'-3 9/16"	3'-7"	3'-7 1/8"	3'-6 5/16"	3'-2 1/8"	2'-7 9/16"	1'-11 1/16"	D
	D = 1'-1 3/8"	1'-9 1/8"	2'-4 3/8"	2'-10 1/8"	3'-1 1/16"	3'-1 7/16"	3'-1 1/16"	3'-0 5/16"	2'-11 3/8"	2'-10 3/8"	E = 2'-9 5/16"
2	A = 2'-11 3/8"	3'-0 1/8"	3'-1 1/16"	3'-1 5/16"	3'-2 1/2"	3'-3 1/8"	3'-2 1/2"	2'-11 3/16"	2'-6 5/16"	1'-10 7/16"	B
	B = 1'-2 13/16"	2'-0 1/2"	2'-9 1/4"	3'-3 9/16"	3'-7 3/8"	3'-9 5/16"	3'-8 3/8"	3'-5 1/16"	2'-11 7/16"	2'-3 1/2"	C
	C = 1'-6 9/16"	2'-3 1/2"	2'-11 7/16"	3'-5 1/16"	3'-8 3/8"	3'-9 5/16"	3'-7 3/8"	3'-3 1/16"	2'-9 1/4"	2'-0 1/2"	D
	D = 1'-2 3/4"	1'-10 7/16"	2'-6 1/4"	2'-11 3/16"	3'-2 7/16"	3'-3 9/16"	3'-2 3/4"	3'-1 3/8"	3'-1"	3'-0 3/16"	E = 2'-11 3/16"

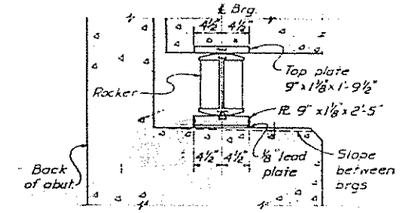
Notes:
1. Ordinates include dead load deflection. Contractor shall allow for settlement of forms and shrinkage.
2. Girders #4 and #3 are similar to girders #1 and #2 respectively by rotation thru. 180°



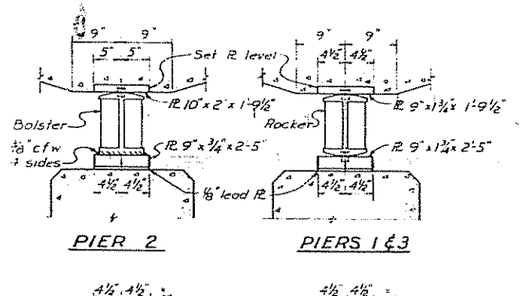
HALF SECTION AT MID SPAN

HALF SECTION AT PIERS

CROSS SECTION

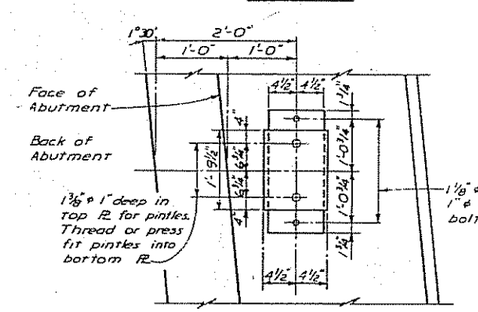


ELEVATION

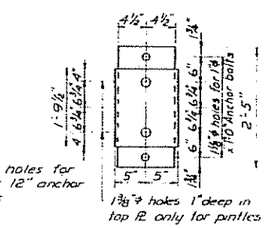


PIER 2

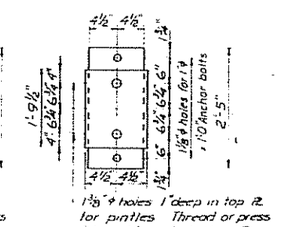
PIERS 1 & 3



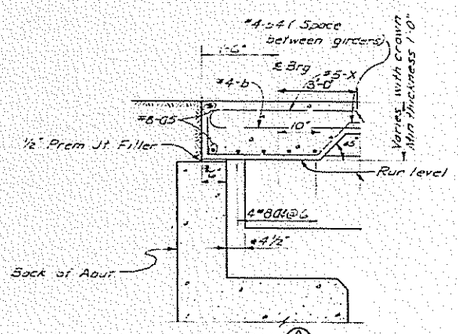
PLAN



PLAN - PLATES

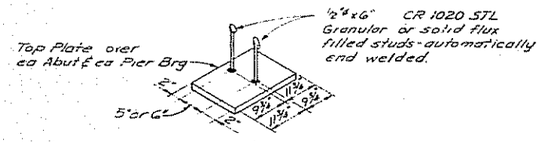


PLAN - PLATES



SECTION A/2

* These dimensions given for 50° temperature. If temperature is above or below 50° or if abutments have moved make appropriate corrections to give the required dimensions at 50°.



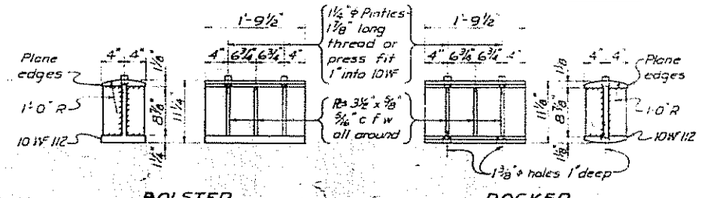
TOP BEARING & ANCHOR DETAIL

PINTLE

BILL OF MATERIAL - SUPERSTRUCTURE

Item	Unit	Quantity
Class X Concrete	Cu. Yds.	367.7
Reinforcement Bars	Lbs.	98,873
Structural Steel	Lbs.	8,936

NOTE:
Aluminum floor drains and aluminum sheets in curb joints are incidental to cost of Class X Concrete.



BOLSTER

ROCKER

DESIGNED LFS
CHECKED LJL
DRAWN LCH
CHECKED LFB LJL

EXAMINED — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS

SUPERSTRUCTURE
CROSS SECTION, BEARING DETAILS AND GIRDER ORDINATES
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474+73.50

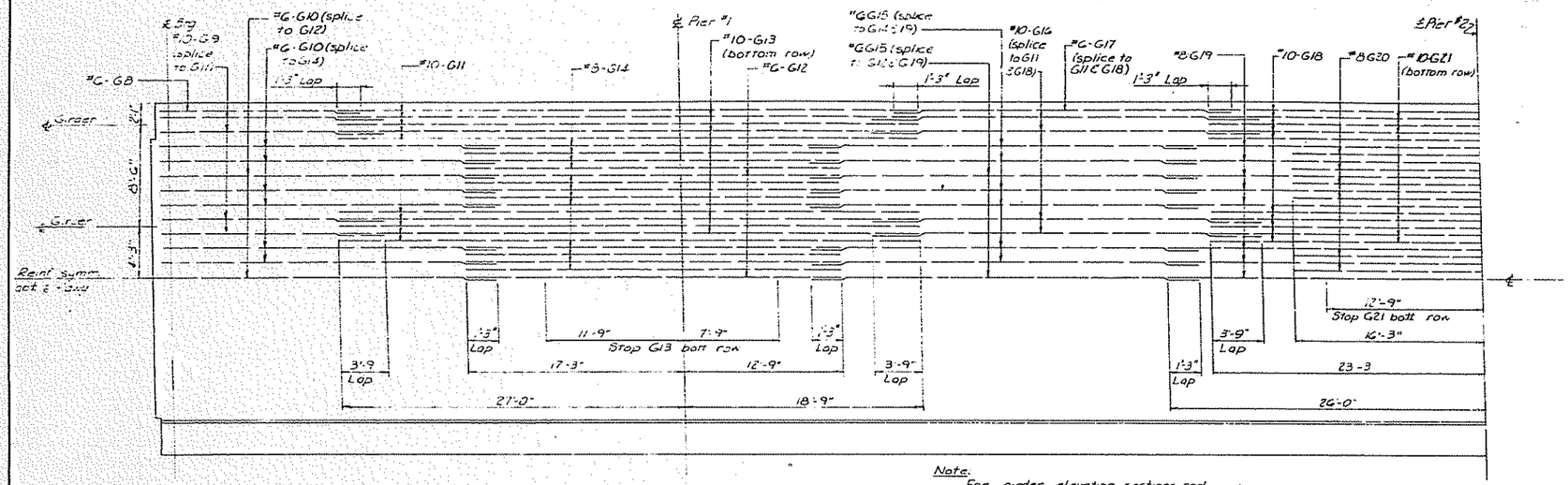
Revision: 7-23-63 Reinforcement 96,083# to 98,873#, #4 b bars to #5 b bars, #5 X bars to #6 X bars. S.F.M.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-57	1	KANKAKEE	25	11
STA.		TO STA.		
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT		

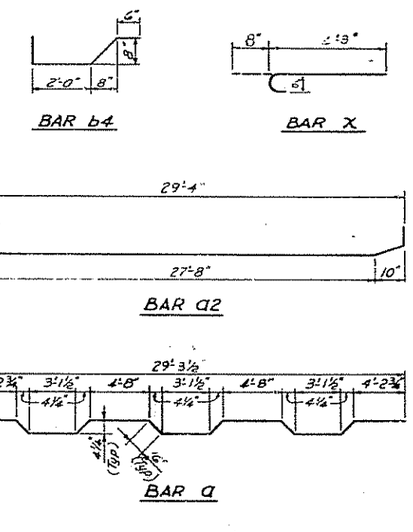
46-1HB

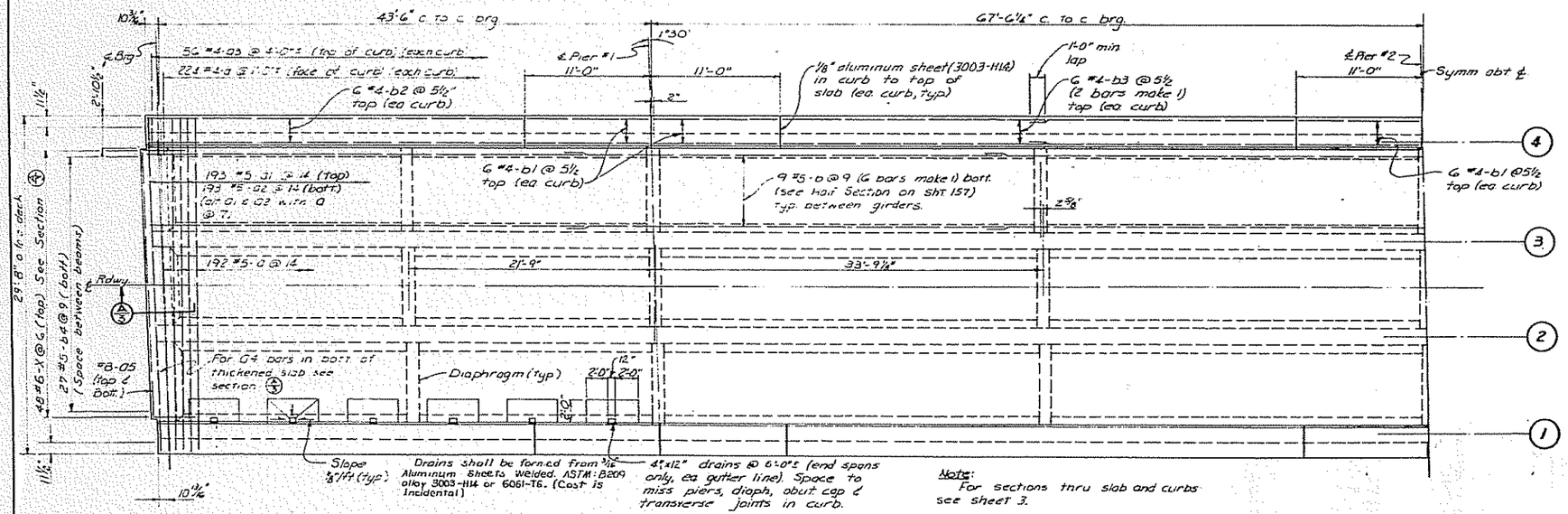
SHT. 4 OF 10



Note:
For girder elevation, sections and bar list see sheet 5

GIRDER REINFORCEMENT IN SLAB





Note:
For sections thru slab and curbs see sheet 3.

SLAB REINFORCEMENT

BAR LIST - SLAB

Bar	No.	Size	Length	Shape
a	192	#5	30'-2"	
a1	193	#5	29'-2"	
a2	193	#5	31'-4"	
a3	112	#4	2'-6"	
a4	8	#8	26'-10"	
a5	4	#8	23'-9"	
b	174	#5	38'-3"	
b1	72	#4	10'-9"	
b2	24	#4	33'-0"	
b3	48	#4	23'-2"	
b4	54	#4	4'-1"	
d	448	#4	1'-8"	
X	96	#6	4'-11	

NOTE:
For Bill of Material - Superstructure see sheet 3.

DESIGNED	RD
CHECKED	KJH
DRAWN	L.L.S.
CHECKED	RD LJL

EXAMINED _____ 19
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED _____
ENGINEER OF DESIGN
APPROVED _____
CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS

SUPERSTRUCTURE
SLAB REINFORCING
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 73.50

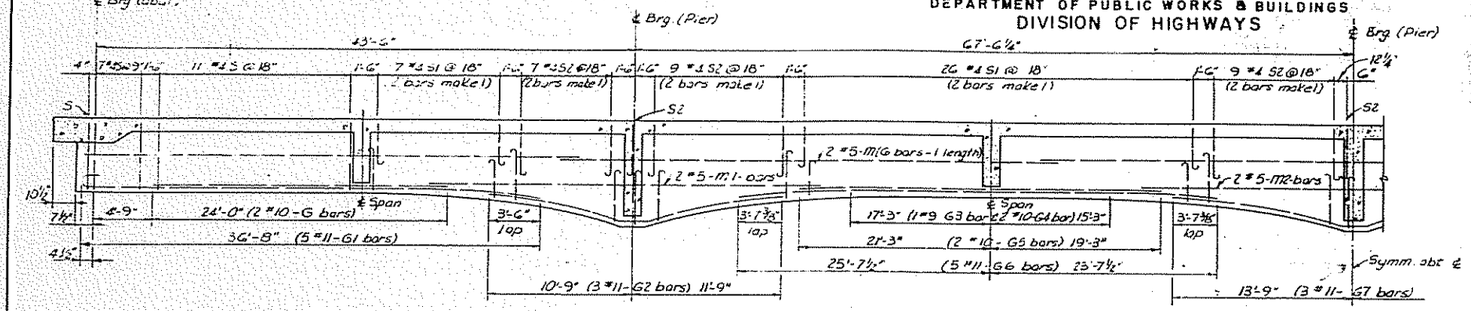
TRACEY BLUE 1966 Revision: 7-23-63; 4x8 to 4x12 drains of ⅜" Aluminum Sheets Welded, Spacing of drains from 8'-0"± 6'-0"±, b bars from #4 to #5, X bars from #5 to #6, J.E.M.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

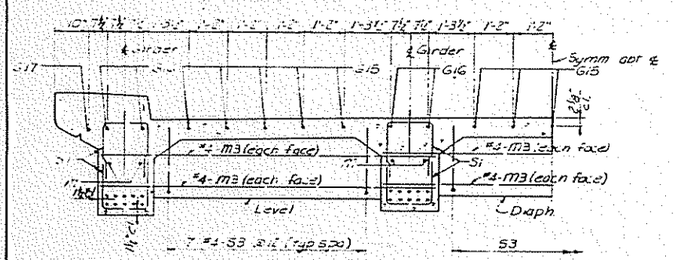
46-1HB

ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I.-57		KANKAKEE	25	12
STA.		TO STA		
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT		

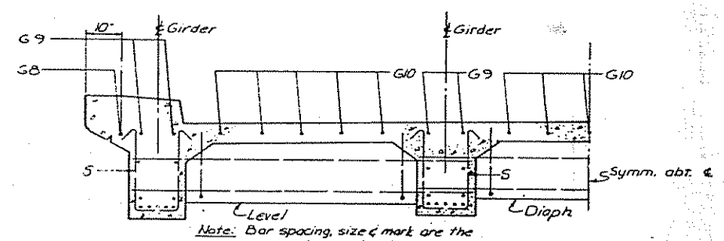
SHT. 5 OF 10



HALF ELEVATION OF GIRDERS

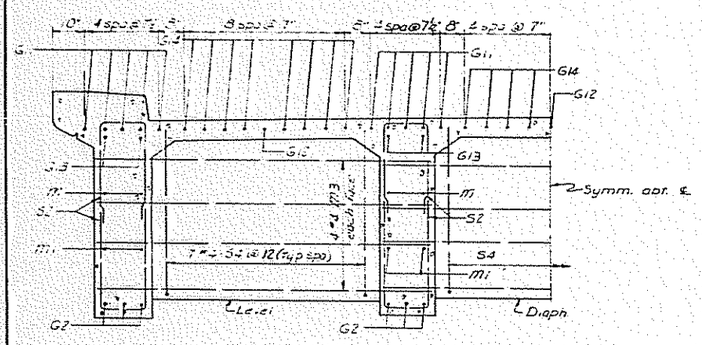


HALF SECTION AT ℄ INT. SPAN

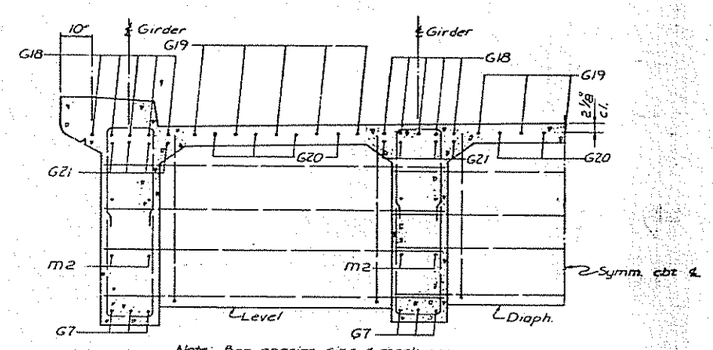


Note: Bar spacing, size & mark are the same as section @ ℄ int. span unless otherwise noted.

HALF SECTION AT END SPAN

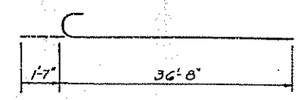


HALF SECTION AT PIERS 1 & 3

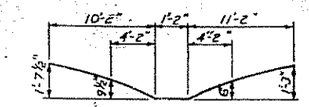


Note: Bar spacing, size & mark are the same as half section @ piers 1 & 3 unless otherwise noted.

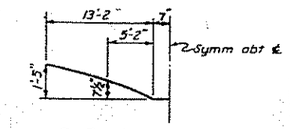
HALF SECTION AT PIER 2



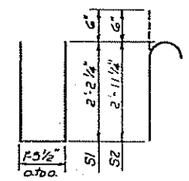
BAR - G1



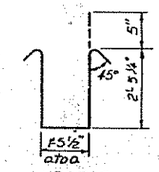
BAR - G2



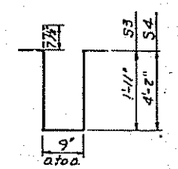
BAR - G7



BAR - S1, S2



BAR - S

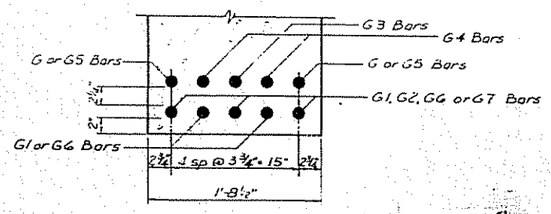


BAR S3, S4

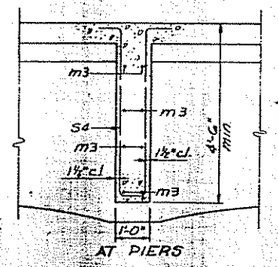
BAR LIST - GIRDERS

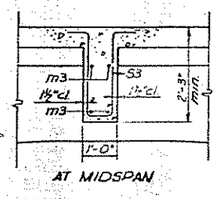
Bar	No.	Size	Length	Shape
G	16	#10	24'-0"	
G1	40	#11	38'-3"	
G2	24	#11	22'-9"	
G3	8	#9	32'-6"	
G4	16	#10	32'-6"	
G5	16	#10	41'-6"	
G6	40	#11	49'-3"	
G7	12	#11	27'-9"	
G8	4	#6	18'-6"	
G9	16	#10	21'-0"	
G10	30	#6	28'-3"	
G11	40	#10	45'-9"	
G12	6	#6	30'-0"	
G13	16	#10	19'-6"	
G14	48	#8	30'-0"	
G15	30	#6	31'-3"	
G16	16	#10	33'-0"	
G17	4	#6	28'-0"	
G18	20	#10	46'-6"	
G19	15	#8	52'-0"	
G20	12	#8	32'-6"	
G21	16	#10	25'-6"	
S	152	#4	7'-2"	
S1	328	#4	6'-10"	
S2	432	#4	8'-4"	
S3	84	#4	5'-10"	
S4	63	#4	10'-4"	
m	48	#5	38'-6"	
m1	16	#5	30'-6"	
m2	8	#5	32'-3"	
m3	120	#4	9'-6"	

NOTE: For Bill of Material - Superstructure, see sheet 3.



GIRDER DETAIL





SECTIONS THRU DIAPHRAGMS

DESIGNED	RD
CHECKED	RJH
DRAWN	L.L.S.
CHECKED	RD LJL

EXAMINED ____ 19
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED ____
ENGINEER OF DESIGN
APPROVED ____
CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS

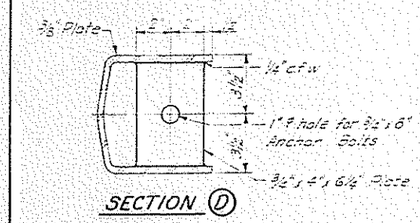
SUPERSTRUCTURE
GIRDER DETAILS
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 13.50

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

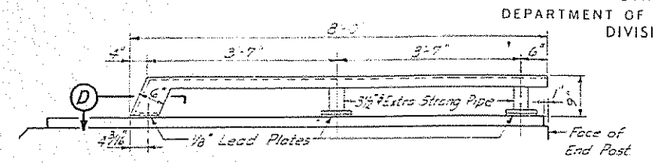
46-1HB

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET
F.A.I. 57		KANKAKEE	25	13
STA.		TO STA.		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

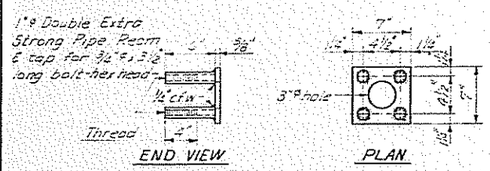
SHT. 6 OF 10



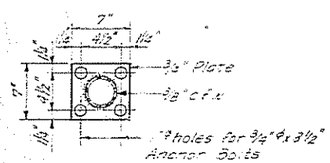
SECTION (D)



END POST PANEL

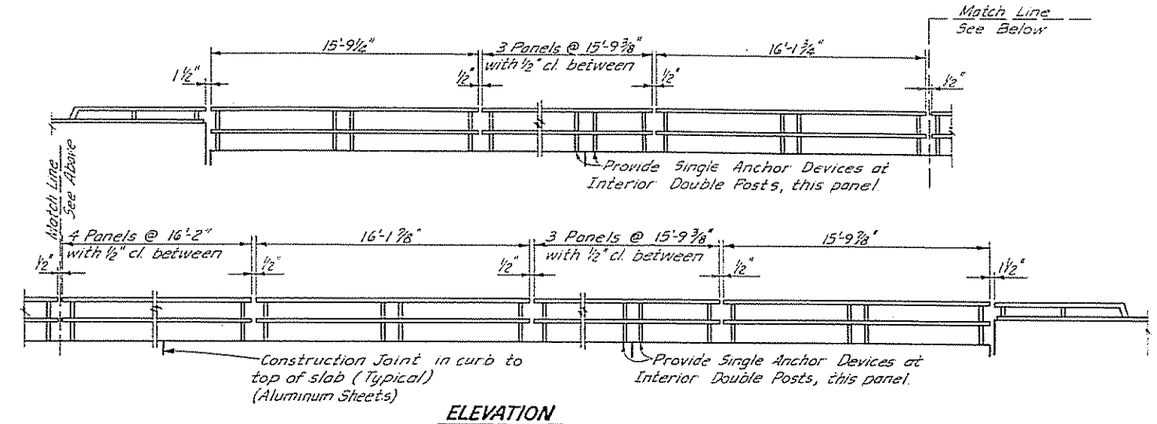


ANCHOR DEVICE
2 Req'd Per Panel

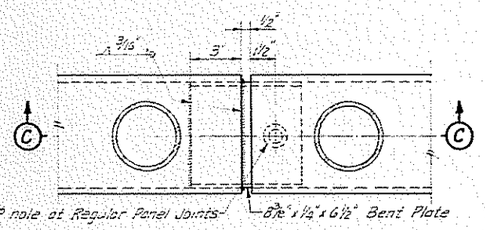


BASE PLATE

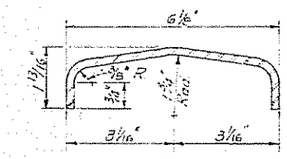
END POST PANEL DETAILS



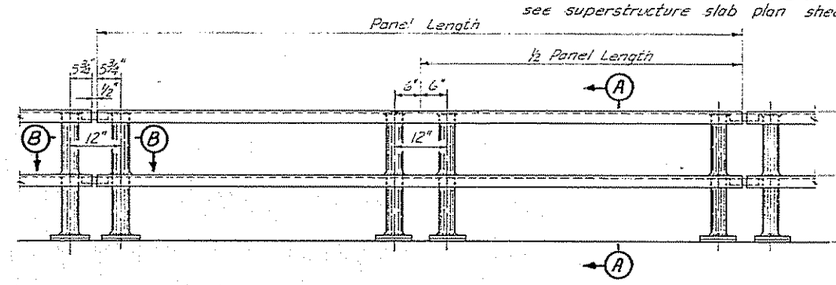
ELEVATION
North Rails - West to East
South Rails - East to West
Note: For location of Aluminun Curb Joints see superstructure slab plan sheet.



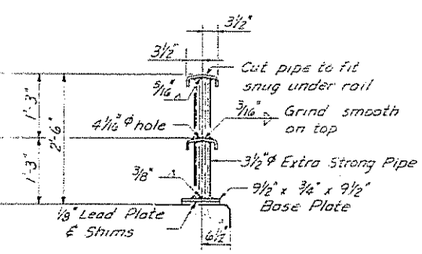
SECTION (B)



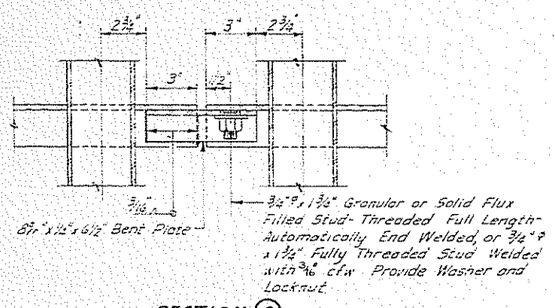
DETAIL OF 1/4" BENT PLATE



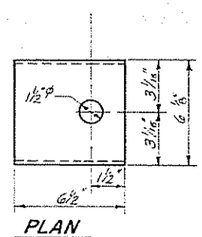
ELEVATION TYPICAL PANEL



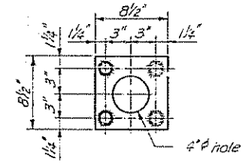
SECTION (A)



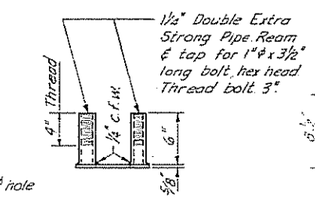
SECTION (C)



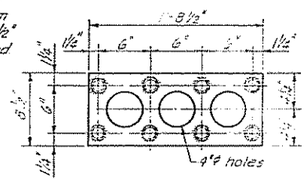
PLAN
Bent Plate to be used at regular panel joints.



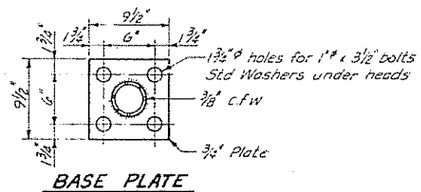
ANCHOR DEVICE
For Single Post at Each End of Panel.



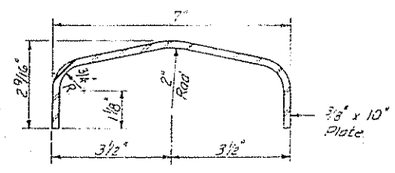
END VIEW



ANCHOR DEVICE
For Double Posts within Each Panel.



BASE PLATE
ALL POSTS



DETAIL OF RAIL

GENERAL NOTES

After erection all Bolts and Washers shall be spot painted with one coat of red lead and two coats of aluminum paint.

Provide 1-1/8" and 2-1/2" Shims for 50% of the Posts.

BILL OF MATERIAL

	Item	Unit	Quantity
*	Metal Handrail	Lin Ft	480

* Includes both the single plate and the double plate rail.

ILLINOIS DIVISION OF HIGHWAYS

METAL HANDRAIL

F.A.I. RTE. 57 SEC. 46-1HB

KANKAKEE COUNTY

STA. 474 + 73.50

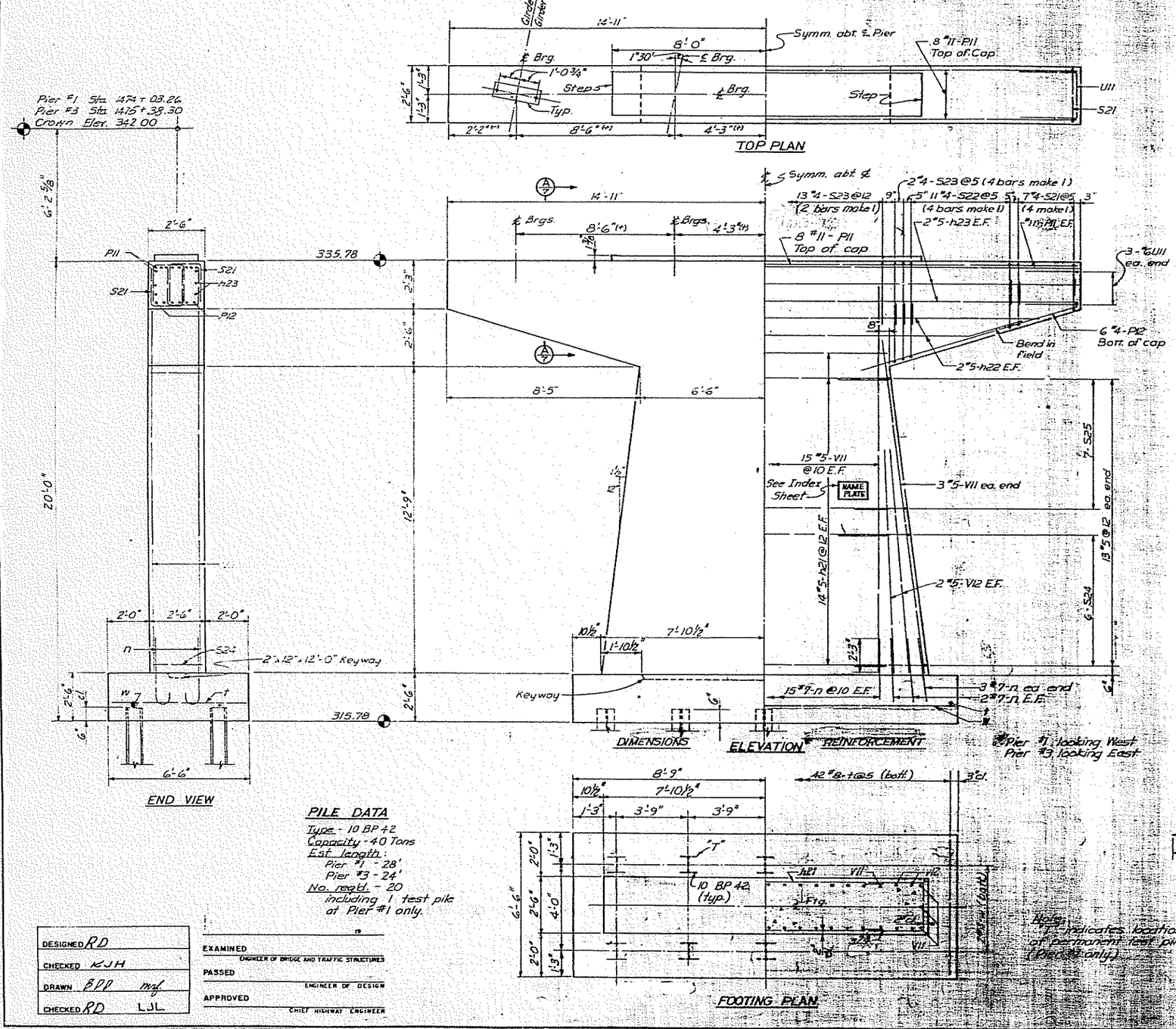
DESIGNED		EXAMINED	ENGINEER OF HIGHWAY MAINTENANCE, STRUCTURES
CHECKED		PASSED	ENGINEER OF DESIGN
DRAWN	L.S.	APPROVED	STATE HIGHWAY ENGINEER
CHECKED	WRT		

Revisions: 7-24-63 Dimensions changed to meet the New Standards. RFM

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	48-1HB	KANKAKEE	25	14
STA.		TO STA.		
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT		

SHT. 7 OF 10



Bar	A	B
S21	1'-4"	2'-0"
S22	1'-4"	2'-8"
S23	1'-4"	2'-10"
S24	2'-2"	2'-11"
S25	2'-2"	2'-1"

PIER 1 & 3 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h21	56	#5	12'-10"	
h22	8	#5	26'-0"	
h23	8	#5	29'-6"	
S23		#4	6'-3"	
n	88	#7	5'-1"	
P11	20	#11	29'-6"	
P12	24	#4	10'-0"	
S21	112	#4	5'-4"	
S22	176	#4	6'-8"	
S23	84	#4	7'-0"	
S24	28	#5	8'-10"	
S25	28	#5	6'-4"	
T	84	#8	6'-0"	
U11	12	#6	6'-4"	
V11	72	#5	14'-6"	
V12	16	#5	8'-9"	
W	4	#8	17'-0"	
Class X Concrete			Cu. Yds.	77.8
Reinforcement Bars			Lbs.	10,710
Steel Piles			Lin. Ft.	492
Test Piles (Steel)			Ea.	1
Ex. Excavation-Structure			Cu. Yds.	64.2

PILE DATA

Type - 10 BP 42
Capacity - 40 Tons
Est. length:
Pier #1 - 28'
Pier #3 - 24'
No. reqd. - 20
including 1 test pile at Pier #1 only.

DESIGNED	RD
CHECKED	KJH
DRAWN	BPP mgf
CHECKED	RD LJL

EXAMINED — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS

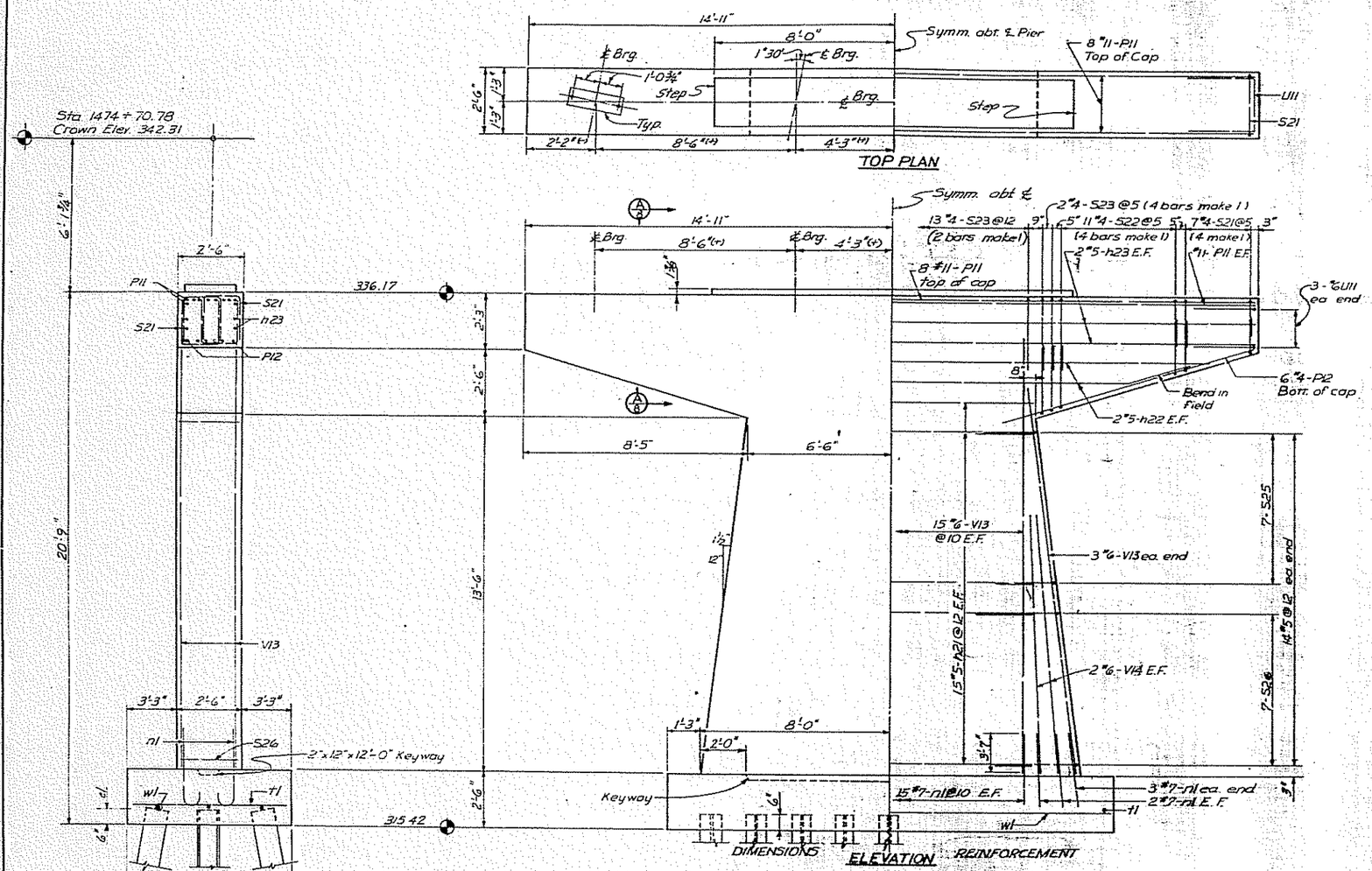
PIERS NO. 1 & 3 (EXPANSION)
F.A.I. RTE. 57 SEC. 48-1HB
KANKAKEE COUNTY
STA. 474 + 73.50

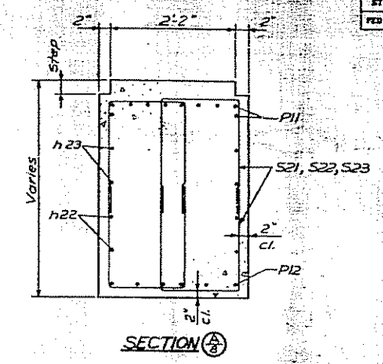
Revision: 7-23-65 Removed batter on piles, S.F.M.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

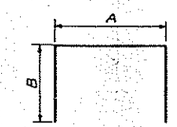
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-57	46-1HB	KANKAKEE	25	15
STA.		TO STA.		
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT		

SHT. 8 OF 10





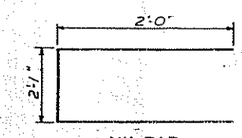
Note: All edges shall have standard ¾" chamfers except footings



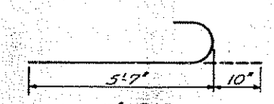
A & B DIMENSIONS

Bar	A	B
S21	1'-4"	2'-0"
S22	1'-4"	2'-8"
S23	1'-4"	2'-10"
S25	2'-2"	2'-1"
S26	2'-2"	3'-0½"

S BARS



U11 BAR



n1 BAR

PIER 2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h21	30	#5	12'-10"	
h22	4	#5	26'-0"	
h23	4	#5	29'-6"	
n1	44	#7	6'-5"	
P11	10	#11	29'-6"	
P12	12	#4	10'-0"	
S21	56	#4	5'-4"	
S22	88	#4	6'-8"	
S23	42	#4	7'-0"	
S25	14	#5	6'-4"	
S26	14	#5	8'-3"	
t1	44	#8	8'-6"	
U11	6	#6	6'-1"	
V13	36	#6	15'-6"	
V14	8	#6	9'-6"	
w1	3	#4	18'-0"	
Class X Concrete			Cu. Yds.	44.9
Reinforcement Bars			Lbs.	5,900
Steel Piles			Lin. Ft.	322
DLA Excav. for Struct.			Cu. Yds.	44

DESIGNED	RD
CHECKED	KJH
DRAWN	BDD mk
CHECKED	RD LJL

EXAMINED — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS
PIER NO. 2
(FIXED)
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474+73.5

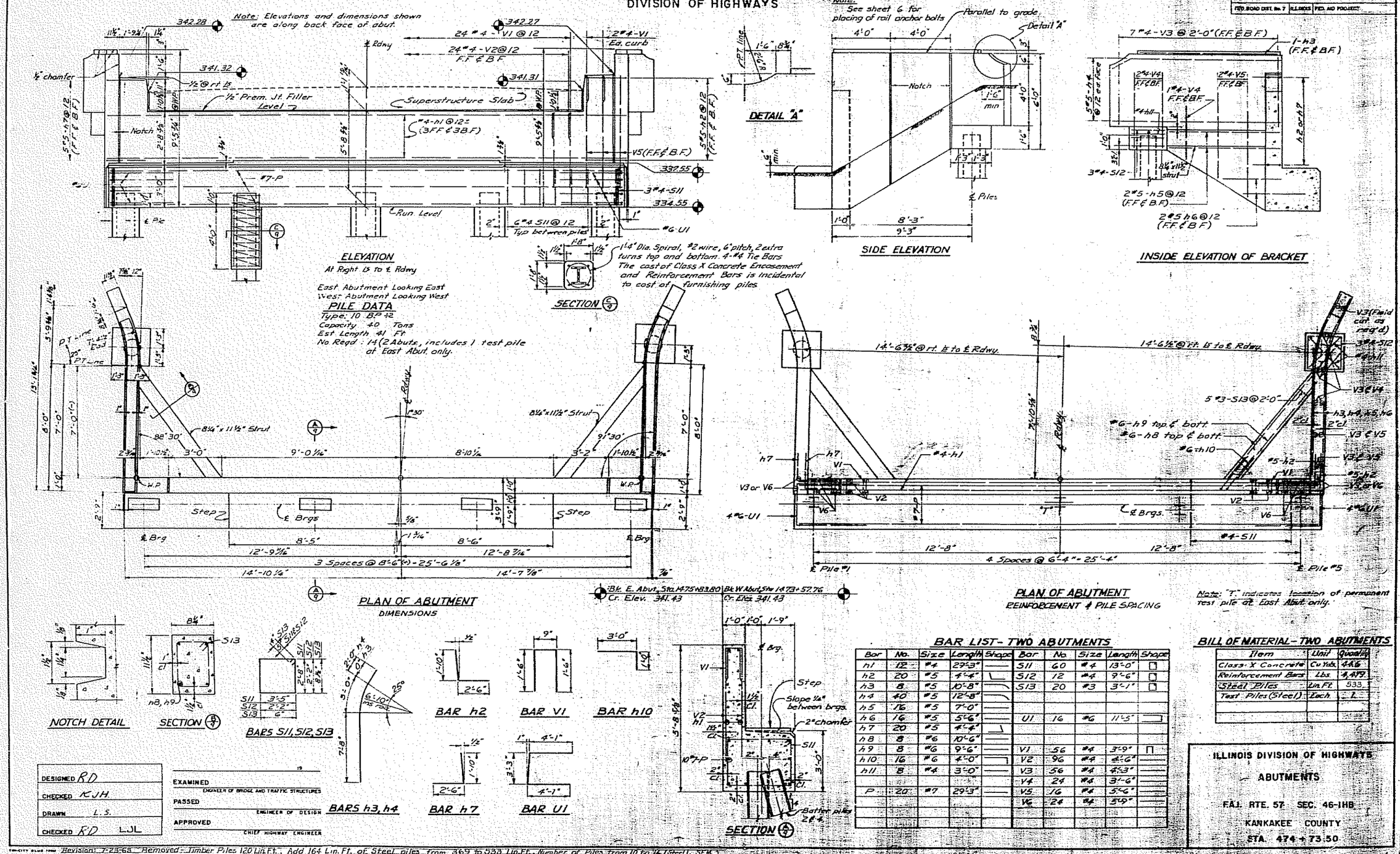
Revision: 7-25-63 Removal of 45° angle for direction of batter for corner piles, SFM.

1 2 3

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHT. 9 OF 10				
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-57		KANKAKEE	25	16
STA.		TO STA.		
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT		

46-1HB



BAR LIST - TWO ABUTMENTS

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
h1	12	#4	29'-3"		S11	60	#4	13'-0"	
h2	20	#5	4'-4"		S12	12	#4	9'-6"	
h3	8	#5	10'-8"		S13	20	#3	3'-1"	
h4	40	#5	12'-8"						
h5	16	#5	7'-0"						
h6	16	#5	5'-6"		U1	16	#6	11'-5"	
h7	20	#5	4'-4"						
h8	8	#6	10'-6"						
h9	8	#6	9'-6"		V1	56	#4	3'-9"	
h10	16	#6	4'-0"		V2	96	#4	4'-6"	
h11	8	#4	3'-0"		V3	56	#4	4'-3"	
					V4	24	#4	3'-6"	
P	20	#7	29'-3"		V5	16	#4	5'-6"	
					V6	24	#4	5'-9"	

BILL OF MATERIAL - TWO ABUTMENTS

Item	Unit	Quantity
Class X Concrete	Cu. Yds.	446
Reinforcement Bars	Lbs.	4,879
Steel Piles	Lin. Ft.	533
Test Piles (Steel)	Each	1

DESIGNED	RD
CHECKED	KJH
DRAWN	L.S.
CHECKED	RD LJL

EXAMINED — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS
ABUTMENTS
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 73.50

Revision: 7-23-68 Removed: Timber Piles 120 Lin.Ft., Add 164 Lin.Ft. of Steel piles from 369 to 533 Lin.Ft., Number of Piles from 10 to 14 (Steel), S.M.

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-57	1	KANKAKEE	25	17
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

46-1HB

SHT 10 OF 10

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

FOUNDATION BORINGS

Structure No. 6
Boring No. 1
Station 474+63.85
Offset 111.0'Rt
Surface Elev. 319.0±
Date 3-17-58

Ground Water Elevations

Date	Time	Elevation
3-17	AB	317.0
3-18	24 Hrs.	303.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N	Elevation	Relative Moisture Content	Compressive Strength Tons/sq.ft.	Description
1	318.0	34		Moist	-	Brown-Silty CLAY, trace of Sand
2	316.0	24		Moist	-	
3	314.0	21		Moist	-	
4	312.0	11	311.0	Moist	1.1	
5	310.0	32		Moist	5.8	Gray-CLAY & SILT, trace of Sand & Gravel
6	308.0	43		Moist	-	
7	306.0	40		Moist	4.0	
8	304.0	30	303.0	Moist	3.3	
9	302.0	30		Wet	-	Gray-Silty CLAY, trace of Sand & Gravel
10	300.0	30	299.0	Moist	2.2	
11	298.0	24		Moist	-	Gray-Silty Gravelly fine to coarse SAND
12	296.0	15	294.0	Moist	-	
13	293.0	104/0	292.0	Moist	-	Gray-Sandy SILT, trace of Clay & Gravel
						End of Boring-Probable Bedrock

FOUNDATION BORINGS

Structure No. 6
Boring No. 2
Station 474+77.85
Offset 67.5'Rt
Surface Elev. 319.0±
Date 3-18-58

Ground Water Elevations

Date	Time	Elevation
3-18	AB	312.0
3-19	24 Hrs.	306.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N	Elevation	Relative Moisture Content	Compressive Strength Tons/sq.ft.	Description
1	318.0	24		Moist	-	Dark Brown-Silty CLAY, trace of Sand & Organic
2	316.0	33	315.0	Moist	-	
3	314.0	6		Moist	-	Brown-Silty CLAY, trace of Sand & Gravel
4	312.0	14		Moist	1.2	
5	310.0	27	309.0	Moist	2.8	
6	308.0	57		Moist	4.6	Gray-CLAY & SILT, trace of Sand & Gravel
7	306.0	31		Moist	4.4	
8	304.0	52	303.0	Moist	3.6	
9	302.0	52	301.0	Moist	-	Gray-Silty fine SAND, trace of Gravel
10	300.0	40		Moist	2.2	Gray-Silty CLAY, trace of Sand & Gravel
11	298.0	9		Moist	-	Gray-Sandy SILT, trace of Clay & Gravel
12	296.0	13	295.0	Moist	-	
13	293.0	43		Moist	-	Gray-Gravelly SAND, trace of Clay & Silt
14	291.0	33		Moist	-	
15	289.3	133/6"	288.5	Moist	-	
						End of Boring-Probable Bedrock

FOUNDATION BORINGS

Structure No. 6
Boring No. 3
Station 474+63.85
Offset Centerline
Surface Elev. 319.0±
Date 11-27-57

Ground Water Elevations

Date	Time	Elevation
11-27	WD	312.0
11-27	BCR	316.0
11-27	ACR	318.0
11-28	24 Hrs.	306.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N	Elevation	Relative Moisture Content	Compressive Strength Tons/sq.ft.	Description
1	318.0	30	317.0	Moist	-	Dark Brown-Clayey SILT, trace Sand, trace Organic
2	316.0	37		Moist	-	Gray Brown-Silty CLAY, trace of Sand
3	314.0	7		Moist	-	
4	312.0	25	311.0	Moist	1.7	
5	310.0	45	309.0	Moist	3.3	Gray Brown-SILT & CLAY, trace of Sand
6	308.0	42		Wet	-	Brown-Clayey SAND & SILT
7	306.0	41	305.0	Wet	-	
8	304.0	42	303.0	Moist	-	Gray-Gravelly Silty SAND, trace of Clay
9	302.0	30		Moist	-	Gray-SAND, trace of Silt
10	300.0	39	299.0	Moist	-	
11	298.0	40		Moist	-	Gray-Sandy SILT, trace of Clay
12	296.0	54	295.0	Moist	-	
13	294.0	100		Moist	-	Gray-Gravelly Sandy SILT, trace of Clay
14	292.5	100	292.0	Moist	-	
		DB				Buff Yellow-LIMESTONE 70% Core Recovery
						End of Boring

FOUNDATION BORINGS

Structure No. 6
Boring No. 4
Station 474+77.85
Offset 67.5'Rt
Surface Elev. 319.0±
Date 3-17-58

Ground Water Elevations

Date	Time	Elevation
3-17	AB	316.0
3-18	24 Hrs.	306.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N	Elevation	Relative Moisture Content	Compressive Strength Tons/sq.ft.	Description
1	318.0	25	317.0	Moist	-	Dark Brown-Silty CLAY, trace of Sand & Organic
2	316.0	33		Moist	-	Gray Brown-Silty CLAY, trace of Sand & Gravel
3	314.0	10		Moist	-	
4	312.0	14	311.0	Moist	2.0	
5	310.0	27		Moist	2.5	Gray-SILT & CLAY, trace of Sand & Gravel
6	308.0	54		Moist	5.8	
7	306.0	31		Moist	5.7	
8	304.0	49	303.0	Moist	4.4	
9	302.0	54	301.0	Moist	-	Gray-Clayey SILT, trace of Sand & Gravel
10	300.0	42	299.0	Moist	-	Gray-Sandy SILT, trace of Clay
11	298.0	14		Wet	-	Gray-SILT & fine SAND, trace of Clay & Gravel
12	296.0	15		Wet	-	
13	293.0	77	292.0	Moist	-	Buff Yellow-Highly weathered LIMESTONE
						End of Boring-Bedrock

FOUNDATION BORINGS

Structure No. 6
Boring No. 5
Station 474+61.85
Offset 111.0'Rt
Surface Elev. 319.0±
Date 3-18-58

Ground Water Elevations

Date	Time	Elevation
3-19	AB	318.0
3-20	24 Hrs.	305.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N	Elevation	Relative Moisture Content	Compressive Strength Tons/sq.ft.	Description
1	318.0	40	316.0	Moist	-	Dark Brown-Silty CLAY, trace of Sand & Organic
2	316.0	24		Moist	-	Brown-Silty CLAY, trace of Sand
3	314.0	13		Moist	2.4	
4	312.0	35		Moist	3.6	
5	310.0	27	309.0	Moist	3.1	
6	308.0	36		Moist	4.4	Gray-CLAY & SILT, trace of Sand
7	306.0	35		Moist	4.5	
8	304.0	44	303.0	Moist	2.8	
9	302.0		301.0	Moist	-	Gray-Gravelly Silty fine to coarse SAND, trace Clay
10	300.0	22		Wet	-	Gray-Clayey Sandy SILT
11	298.0	18	297.0	Wet	-	
12	296.0	16		Wet	-	Gray-Silty fine to medium SAND, trace Gravel
13	294.0	104	293.5	Moist	-	
						End of Boring-Probable Bedrock

LEGEND

"N" = Relative Density - No. of blows required to drive 1-3/8" ID x 2" OD sample spoon 12" with 140 lb. weight falling 30"

WD = While Drilling

BCR = Before Casing Removal

DB = Diamond Bit

AB = After Boring

ACR = After Casing Removal

Note: For location of soil borings see General Plan and Elevation.

DESIGNED	
CHECKED	
DRAWN	L.S.
CHECKED	LJL

EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

PASSED
ENGINEER OF DESIGN

APPROVED
CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS

BORING DATA

F.A.I. RTE. 57 SEC. 45-1HB

KANKAKEE COUNTY

STA. 474 + 73.50

FEDERAL AID ROUTE No.	SEC	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I.-57		KANKAKEE	25	18

FED ROAD DIST. No 7 ILLINOIS PROJECT

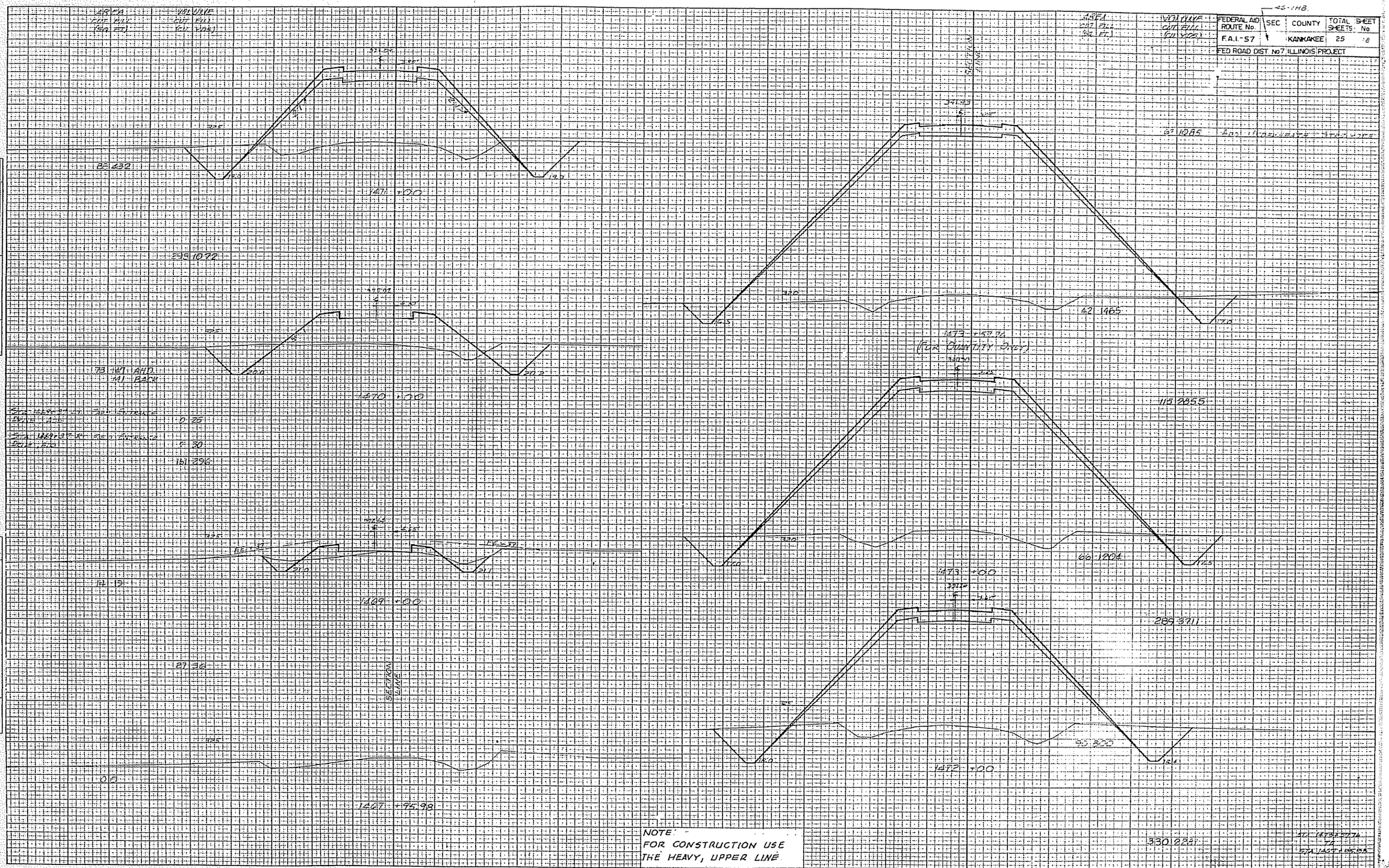


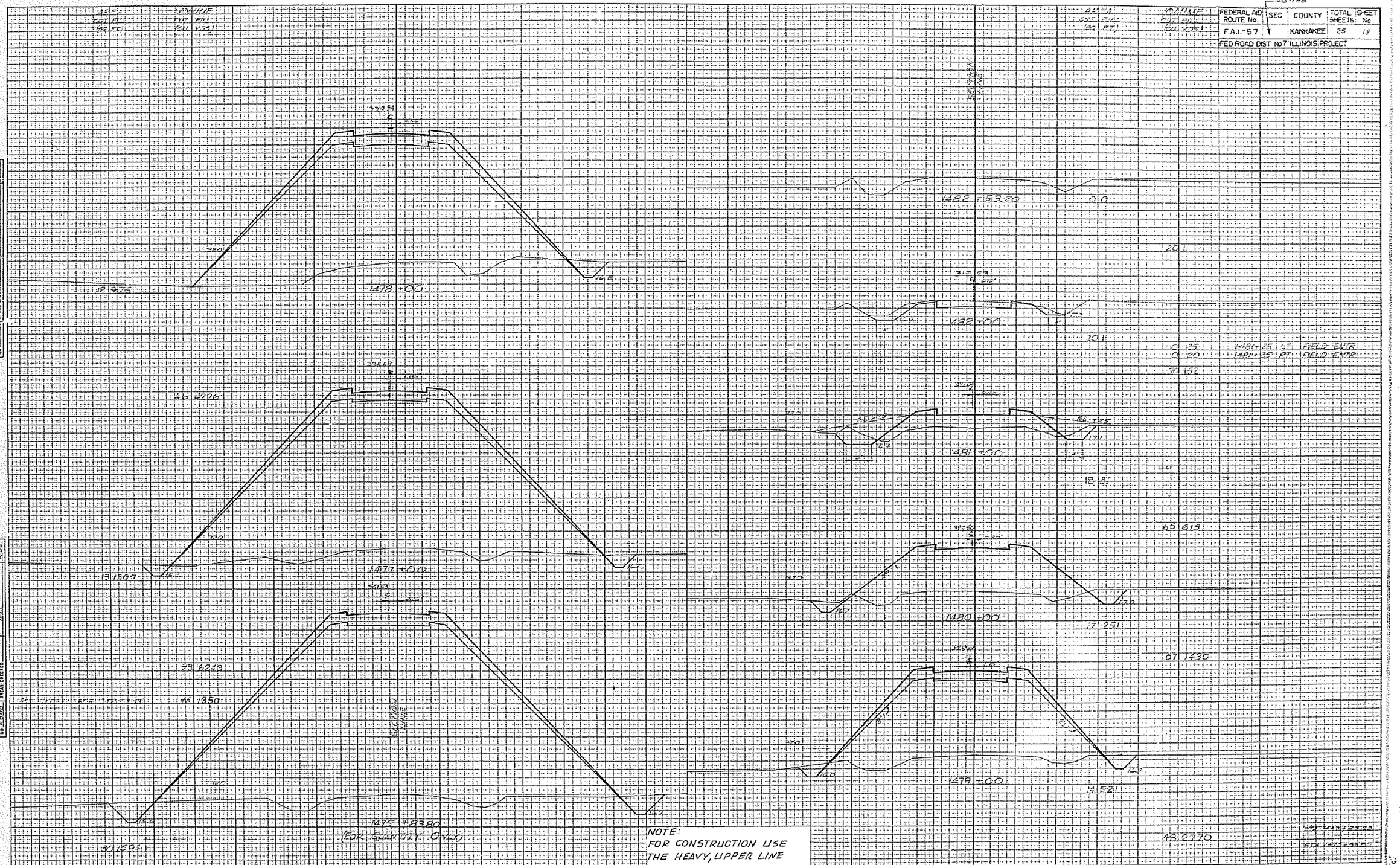
PLATE 3 CROSS SECTION G.P.R. STANDARD

LOCAL ROAD AT F.A.I. 57 STA. 474+73.50

#6

FEDERAL AID ROUTE No.	SEC	COUNTY	TOTAL SHEETS	SHEET No
F.A.I.-57	36-14B	KANKAKEE	25	13

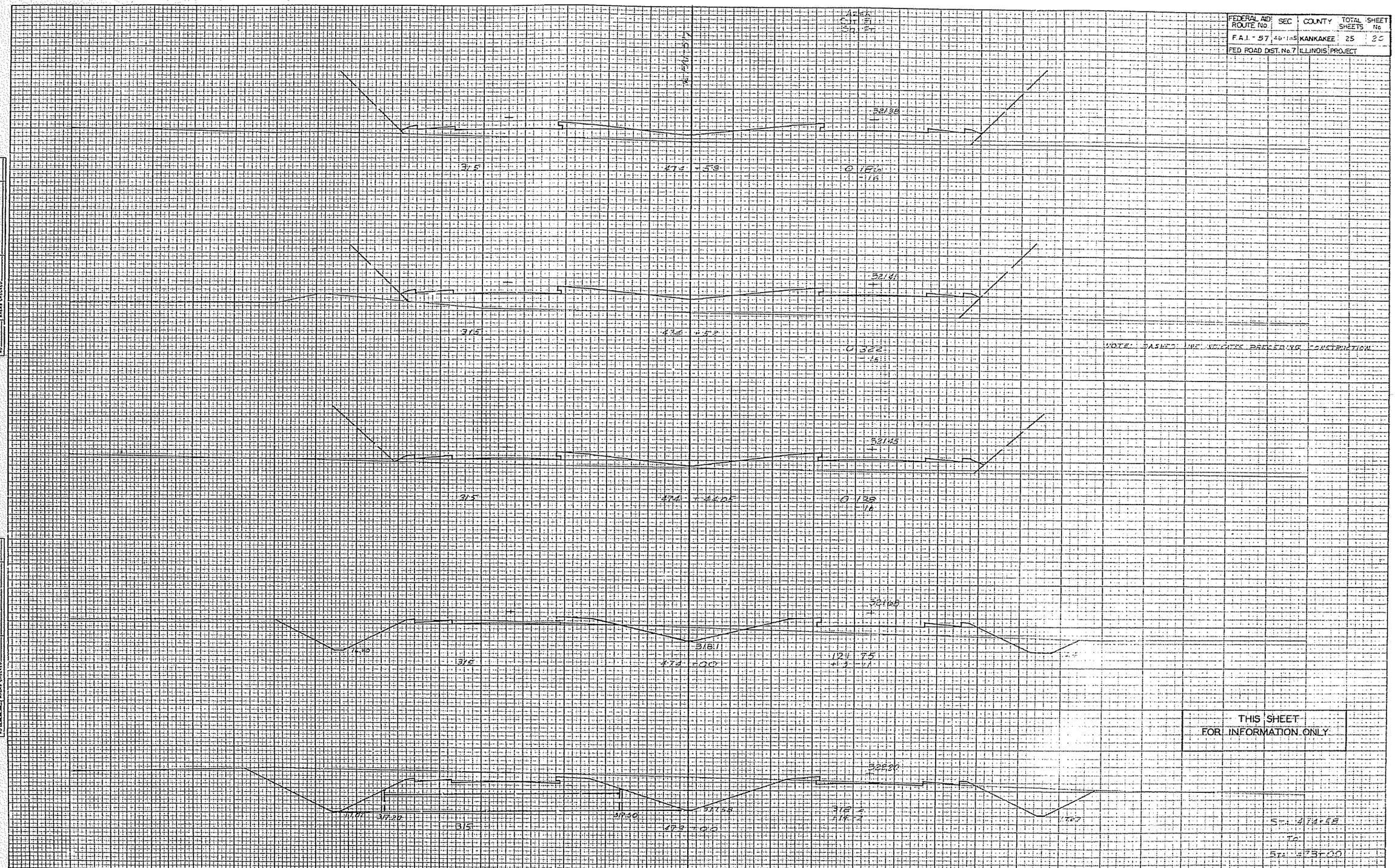
FED ROAD DIST No 7 ILLINOIS PROJECT



LOCAL ROAD AT F.A.I. 57 STA 474+73.50

PLATE 3 CROSS SECTION B.P.R. STANDARD

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I. - 57	49-1-15	KANKAKEE	25	20
FED ROAD DIST. No. 7	ILLINOIS	PROJECT		



FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. 2255 — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY E.C.W. — DATE 7/57

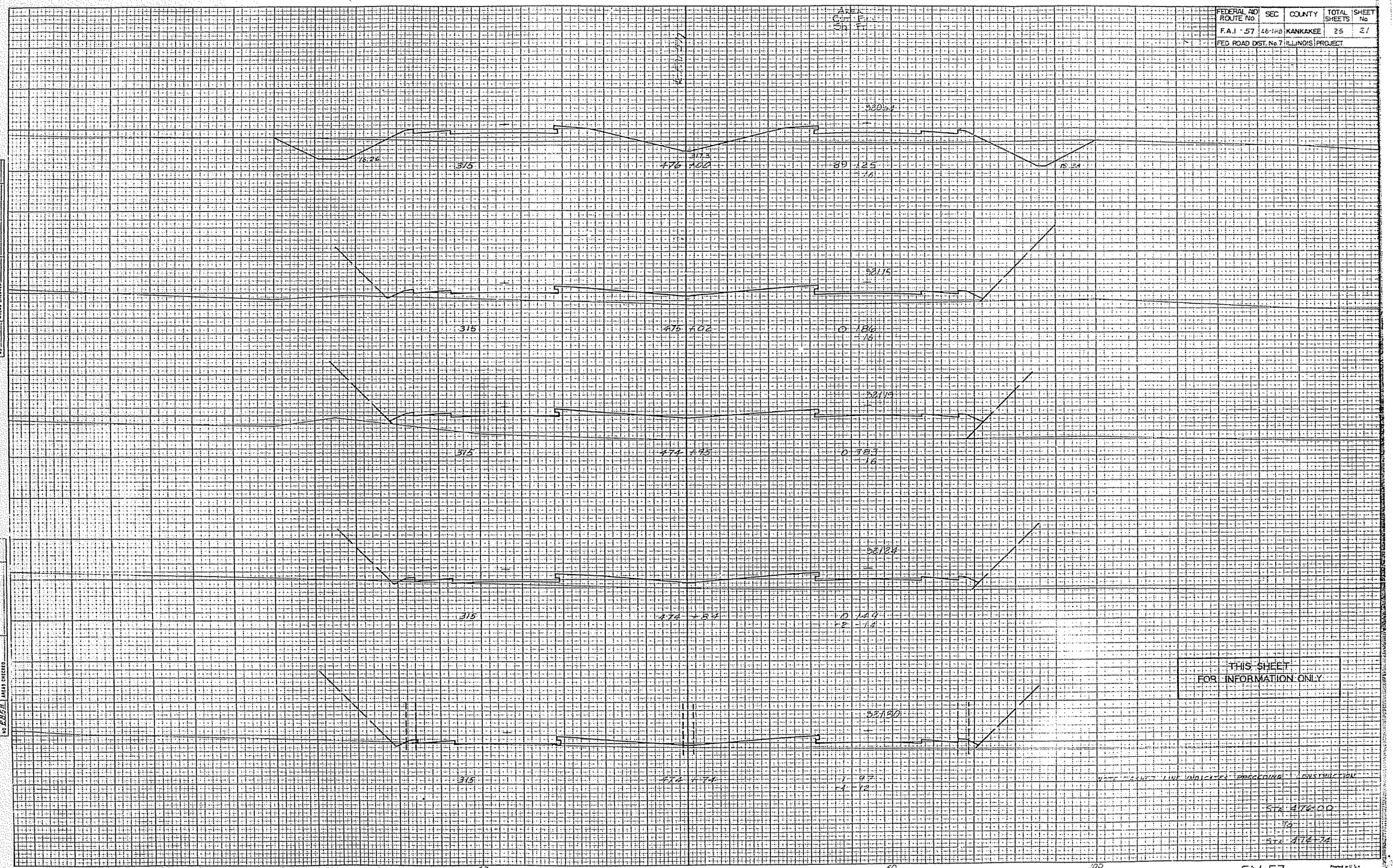
PLATE 3 CROSS SECTION B.P.R. STANDARD
ENGINE DIETZGEN CO. CHICAGO NEW YORK

FAI-57

Printed in U.S.A. On ARCHYPGHT Tracing Cloth

FEDERAL AID ROUTE No.	SEC	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I - 57	46-1-R3	KANKAKEE	25	21
FED. ROAD DIST. No. 7	ILLINOIS	PROJECT		

AREA
Cut Fill
Sh Fill



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AREAS	
AREAS CHECKED	
BY	
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