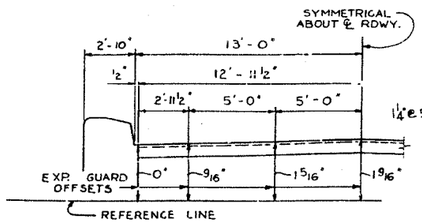
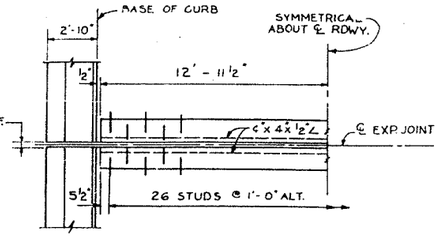


ELEVATION OF EXP. GUARDS

NO SCALE.



PLAN OF EXP. GUARDS

NO SCALE.

EXPANSION GUARD NOTES:

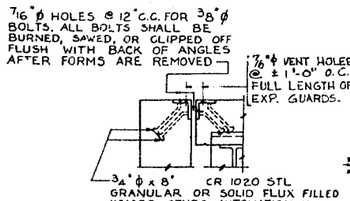
1) SEE "GENERAL NOTES FOR STRUCTURAL STEEL", SHT. NO. 2.
2) EXPANSION GUARD ASSEMBLIES SHALL BE FABRICATED AND ERECTED TO CONFORM TO THE ROADWAY CROWN AND SLOPE OF GRADE AT THE GUARD. THEY SHALL BE ASSEMBLED IN THE SHOP FOR INSPECTION.
3) ALL PARTS OF GUARD ASSEMBLY INCLUDING STUDS SHALL BE INCLUDED IN STRUCTURAL STEEL FOR PAYMENT.

GUARD SETTING INSTRUCTIONS:

1) JOINT OPENINGS SHOWN ON GUARD DETAILS ARE BASED ON AN ASSUMED TEMPERATURE OF 50°F. THE OPENING ALSO INCLUDES A 1/2" ALLOWANCE FOR POSSIBLE FORWARD MOVEMENT AT THE TOP OF THE ABUTMENT DUE TO EARTH PRESSURE THRUST OF APPROACH SLAB, ETC. THE OPENING WILL INCREASE OR DECREASE APPROXIMATELY 332" FOR EACH 10°F DROP OR RISE IN TEMPERATURE.
2) TOTAL ESTIMATED WEIGHT OF SUPERSTRUCTURE EXPANSION GUARDS = 1,457 LBS.

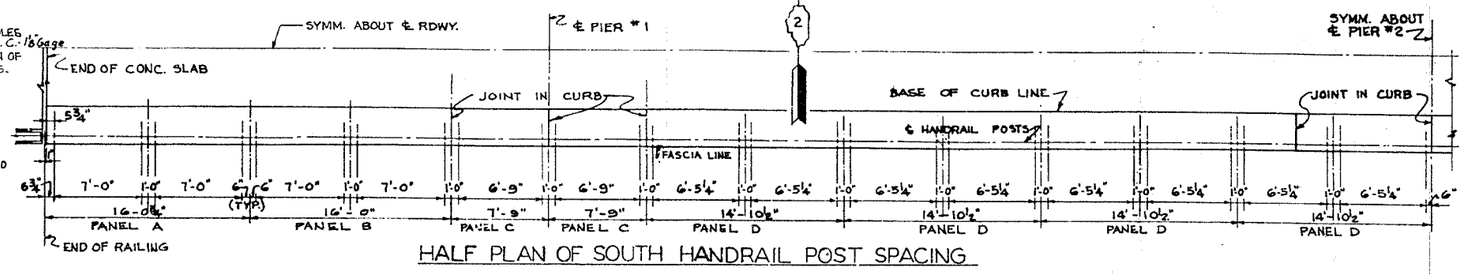
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80	37-1HB-1	HENRY	133	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJ.		

EXPANSION GUARD ADJUSTMENT SCHEDULE						
TEMPERATURE °F	110°	90°	70°	50°	30°	10°
OPENING @ ABUTMENTS	3/4"	15/16"	1 1/16"	1 1/4"	1 7/16"	1 9/16"

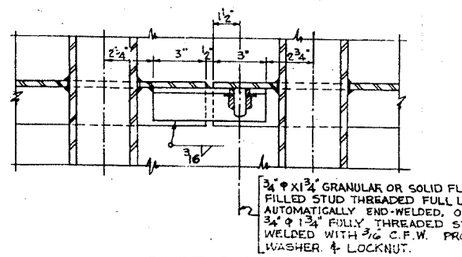


DETAIL OF EXP. GUARDS

SCALE: 3/4" = 1'-0"



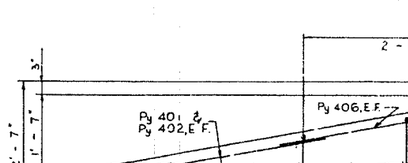
HALF PLAN OF SOUTH HANDRAIL POST SPACING



¾"ϕ x 13¾" GRANULAR OR SOLID FLUX FILLED STUD THREADED FULL LENGTH - AUTOMATICALLY END-WELDED, OR ¾"ϕ x 13¾" FULLY THREADED STUD WELDED WITH 5/16" C.F.W. PROVIDE WASHER & LOCKNUT.

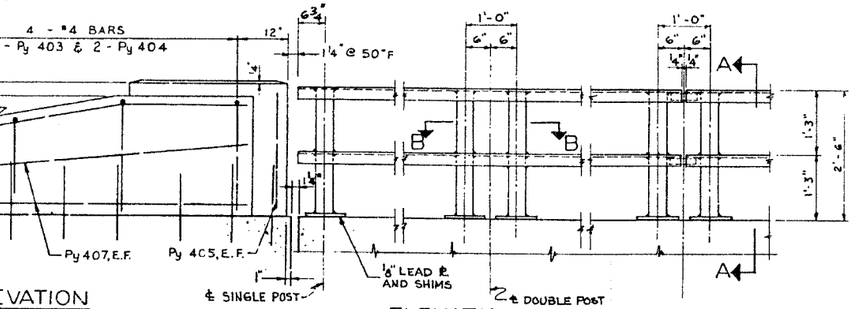
SECTION C-C

SCALE: 3"=1'-0"



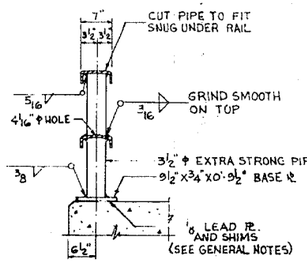
ELEVATION

SCALE: 3/4" = 1'-0"



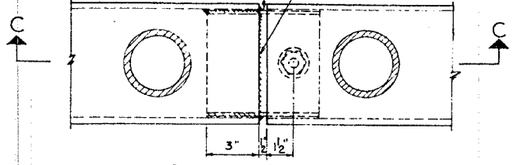
ELEVATION - TYPICAL PANEL

SCALE: 3/4" = 1'-0"



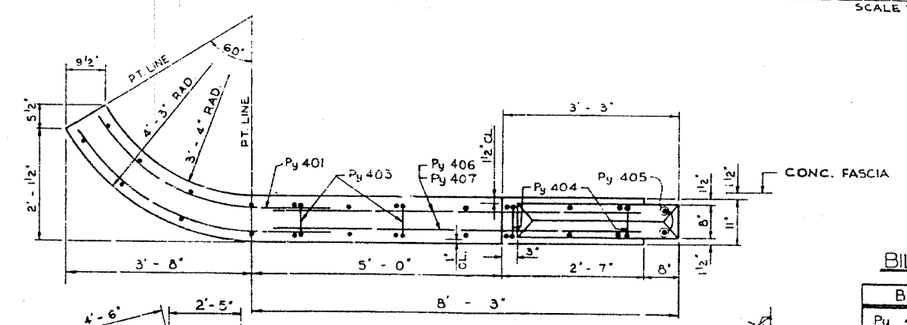
SECTION A-A

SCALE: 3/4" = 1'-0"



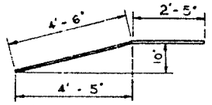
SECTION B-B

SCALE 3" = 1'-0"

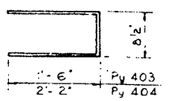


PLAN - END POST

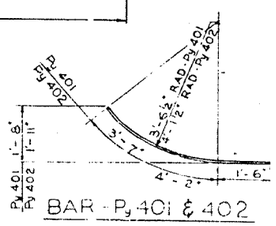
SCALE: 3/4" = 1'-0"



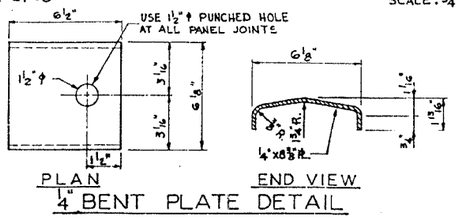
BAR - Py 406



BAR - Py 403 & 404



BAR - Py 401 & 402

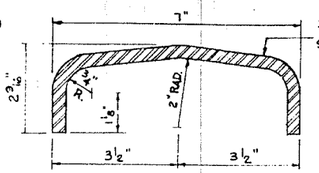


PLAN

END VIEW

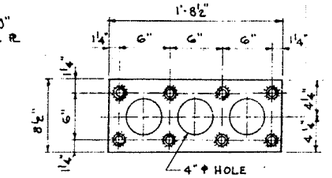
4" BENT PLATE DETAIL

SCALE: 3" = 1'-0"

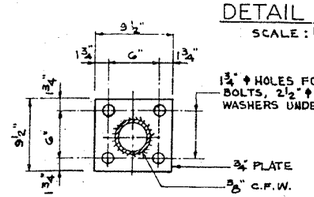


DETAIL OF RAIL

SCALE: ½" = 1"

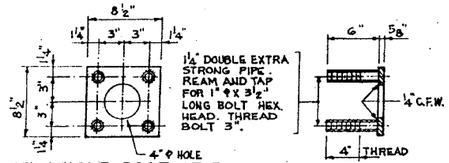


AT DOUBLE POST WITHIN EACH PANEL



BASE PLATE ALL POSTS - SUPERSTRUCTURE

SCALE: 1½" = 1'-0"



AT SINGLE POST AT EACH END OF PANEL

ANCHOR DEVICES

SCALE: 1½" = 1'-0"

BILL OF REINFORCEMENT -

BAR	NO.	SIZE	LENGTH	SHAPE	WEIGHT
Py 401	8	#4	5'-1"		
Py 402	8	#4	5'-8"		
Py 403	8	#4	3'-9"		
Py 404	8	#4	5'-1"		
Py 405	8	#4	2'-3"		
Py 406	8	#4	6'-9"		
Py 407	16	#4	7'-0"		

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
CLASS X CONCRETE	CU YD	5.8
REINFORCEMENT BARS	POUND	455
FURNISHING & ERECTING HANDRAIL	LIN FT	429
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1,457

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 1-⅛" AND 2-1/16" SHIMS FOR 50% OF THE POSTS.

COARSE AGGREGATE WHICH IS TO BE USED IN CLASS X CONCRETE FOR HANDRAIL PARAPETS SHALL BE ABSOLUTELY FREE FROM CHERT, FLINT, LIMONITE, LIGNITE, AND SOFT SANDSTONE.

DE LEUW, CATHER & CO., ENGINEERS
DESIGNED BY V. K. BURKEVICS
DRAWN BY M. V., F. H.
CHECKED D. H. MICHLEWACKER
IN CHARGE E. S. MARTINS
APPROVED L. H. RIAN

EXPANSION GUARDS, HANDRAIL AND PYLON DETAILS

F.A.I. 80 SECTION 37-1HB-1
F.A.I. 80 UNDER S.B.I.-7 (ALT.)
HENRY COUNTY
STATION 461 + 72.02

SCALE: AS NOTED DATE: