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

SHEET NO. 1 / 1 SHEETS

BM. #27 Stn 1°Cottonwood 35' Lt. El. 436.445 El. 435.80 - the Existing structure

Drainage Data:
Drainage Area 576 Acres
Character - Hilly
Assumed "C" in Talbot's Form. = 0.8
Opening provided below high water = 96 sq. Ft.

Bevel corners on rail and rail posts ½"

33'-0" back to back abutments

3'-4" 14" 5 Sp @ 18" = 7'-6" 3 Sp @ 18" = 4'-6"
4" 2'-0" 4" ½" Open joints

¾" bars c 2½" bars c1 2½" bars c1 2¼" bars c2

¾" band

Crown of Pvmt.
3½ Rail 3 Rails
Sta. 0+0 10° Right
Fill Stringers 24"-WF-80#
El. = 441.14 H.W. Elev = 437.0
¾" Rods 4'-6" long Thread both ends 9" Symm about ℄
¾" Rods 2'-3" long 18" ctrs.
Abut. Piles Est. Lgth 30'
Present Grd. Line El. 435.4
Wing Piles Est. Lgth 20'
Bed of Stream Elev = 433.4
2:1 Slope
6'-0" = 12'-0"
HALF ELEVATION
93'-0" back to back abut. caps
15'-6"
17'-6"
10'-6"
8'-11.5
10-WF-21
7'-0"
Spacer
Diaph.
3'-6"
2'-0"
Crown Elev = 444.00
Cr. El. 444.03
See brk. detail below
℄ of Roadway
Span
5'-0" bars @ 5" ctrs. @ top
¾" bars @ 5½" ctrs. @ bolt.
¾" bars d1 bolt - see cross section for sp
4'-6" Floor Drains = 12" ctrs.
4:1 6'-6" long
¾" Rods 2'-3" long 18" ctrs.
HALF PLAN
Steel shims
Steel brg. pl.
¾" holes for ½"-12" lag screws
BEARING DETAIL
Brace Splice.
D.L. DEFLECTION DIAGRAM
Note: Increase fillet height above that shown for D.L. deflection ½ promile
¾" Camber at ℄ as shown on H.&A.
4'-0" 4'-0" 4'-0" 4'-0"
DETAIL OF a1 BARS
36'-0"
DETAIL OF b BARS
17'-9"

4-¾" bolts
7'-0" c to c brms
Level
Conn. cut from 12"-E-25
4 @ 6'-6" = ¾" bolts
10-WF-21 8-E-11.5
DIAPHRAGM SPACER DETAILS

1½ cl
-a -b bars
2"
a1 -b1 Spacer
-6"x9"x ℄ steel shims
9"x½"x9" Steel brg. pl.
⅞"-18" lag screws 2 req'd in each beam
Encase ends of brms in d curtain wall
c bars
metal Cap
SECTION THROUGH ABUTMENT

½" triangular drip mould full length of bridge
Opening formed in conc curb width = 6"
⅜" C.I. Floor Drains 4'-6" inset
Const. joint optional
SECTION X-X
PLAN OF FLOOR DRAINS

Field Conn's. - ¾" ϕ Bolts.

GENERAL NOTES

Shop connections shall be riveted. Rivets ⅞" - Holes 15/16"
Structural steel shall receive one shop coat of blue lead paint and two field coats of white lead paint. All paint to be furnished by the department.
All steel surfaces in contact with Concrete and Contact surfaces of ship riveted or welded str. steel shall not be painted. See specifications for inaccessible surfaces.
Inspection by Illinois Division of Highways before painting.
All rods, bolts and nuts shall be wrought iron A.S.T.M. A-41-30 for timber conn.
All spikes and lag screws shall be galvanized steel.
O.G. or malleable iron washers shall be used on rods through piles.
Contractor shall cut off, at his own expense, all rods which project more than one inch beyond nut.
Piles in abutments shall be driven to a minimum penetration of 15 feet below stream bed and shall have a minimum capacity of 15 tons.
Piles in wings shall have a minimum capacity of 10 tons.
All piles in the structure shall be creosoted. All piles shall have metal Caps and shall be treated in accordance with Art. 15-1 the specs. for Piling effective Feb. 1st 1937.
Plank backing shall be fastened to each pile with two 60d spikes.
All lumber shall be structural square edge and sound longleaf (1600#) or dense structural square edge and sound shortleaf (1600#) southern yellow pine or select structural (1600#) Douglas fir. Caps shall be 545; backing and bracing shall be full sawn rough.
All lumber shall be creosoted.
Backing, bracing and caps may be furnished full length or spliced.
Quantities of lumber and hardware based on sizes and lengths shown and Includes splices shown only. No extra compensation will be allowed for splices or waste.

Class "X" concrete shall be used throughout.
Aggregate which is to be used in handrails must be absolutely free of chert, flint, limonite, lignite and soft sandstone.
Drive 1 test pile as directed by the Engineer before ordering piling.

17'-3" 17'-0" 17'-0"
e.et. d
a1 b1 bars
b a
a1 b1 steel shims
Cap Plate
brg. pl.
Roadway
Handrail Conc. above this line
2% Crown
c bars
For fillet heights see det. diagram
Cap Plate
Brace Bars
Cross
3"x10"x1'-0" Fills
3"x10"x15'-6" Backing. 11 Req'd each abut. of each size. 5 Spaces @ 7'-0" = 35'-0"
58'-0" long
¾" Rods 2'-9" long Thrd both ends 9"
¾" Rods 2'-6" long Thrd both ends 9"
Back of Abut.
ABUTMENT CROSS SECTION

BILL OF MATERIAL

Bars	Number	Size	Length
a	79	¾ ϕ	37'-0"
a1	72	"	38'-0"
b	50	⅝"	20'-0"
b1	63	½"	32'-6"
c	4	½"	37'-0"
d	52	½"	3'-0"
e	8	½"	4'-3"
e1	8	½"	7'-3"
e_2	4	"	8'-9"

Rods	lbs	490
~~Malleable Washers~~	~~Pieces~~	
Creosoted Lumber	FT.B.M.	5100
Treated Piling - ~~Wood~~ (20' Long)	Ln. Ft.	240
Treated Piling (30' Long)	Ln. Ft.	360
~~Treated Piling over 35'~~	~~Ln. Ft.~~	
C.I. Floor Drains	Each	6
~~Removal of Existing Structure~~	~~Each~~	
Test Piles	Each	1
~~Memorial Plate~~	~~Each~~	~~1~~

Handrail Concrete	Cu. Yds.	4.0
Class "X" Concrete	Cu. Yds.	31.8
Reinforcing Steel	Lbs.	6860
Structural Steel	Lbs.	18390
Hardware	Lbs.	380

F.A. ROUTE 155 - SECTION 1-B
BLUFFDALE TWP. - GREENE COUNTY
PROJECT 325-0
STATION 237+00

COMPUTED	J.C Anderson		
STANDARDS	CHECKED	DRAWN	J.C.A.
	CHECKED		
SPECIAL	ASSEMBLED	A.S Haynes	
	CHECKED		

10-13-37

FOR INFORMATION ONLY

FILE NAME = ⊕FILE⊕	USER NAME = ⊕USER⊕	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = ⊕SCALE⊕	CHECKED -	REVISED -
	PLOT DATE = ⊕DATE⊕	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	145
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		