ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-55	SW-1818.3-2H	COOK	89	49
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT I.Q.-55-7(08)-286		

Note: The Girder Web shall be vertical when all dead loads have been applied

Intermediate Stiffeners PL 8" x 1/2"

Span ES8

Span ES7

℄ Brgs.

℄ Pier

℄ East Col.

Work Chord

For Angles at PL See Girder Schedule Sheet No. S48

Sta. 101+20.00

℄ E.S. Ramp

℄ West Col.

See Details "A" & "B"

℄ Bearings

23°59'32" Skew

1'-6" 1'-6"

49'-1 15/16"

℄ Bearing

1/16" ø Holes in Shelf PL For 1 1/2" ø Steel Bolts

SECTION A-A
Scale: 1/4"=1'-0"

DETAIL "B"
Setting Diagram for Bearings (Span ES8)
El. 39.388

℄ Expansion Brg.

℄ Fixed Brg.

29 spa. @ 12" = 29'-0"
Stud Shear Connectors

2 PL 14"x1/4" Brg. Stiffeners End PL-30"x 1/2" ℄

Top Col. El. 33.500'

Web PL 62"x 7/16

PL-30"x12"

PL-30"x24"

See Detail "A" Sheet No. S40

2 PLS 14"x1/4" Brg. Stiffeners El. 37.488

End PL-30"x1/2"

Top Col. El. 34.600'

26 - #11 bars V65

26 - #11 bars V64

Deflection and Camber Data

Point	A	B	C
Steel deflection	1/16	1/8	1/16
Concrete deflection	1/4	3/8	5/16
Required Camber	3/8	1/2	3/8

Δ steel
Δ concrete
Required Camber
A B C
4 Equal Spaces

DEFLECTION AND CAMBER DIAGRAM

VIEW C-C
Scale: 1/4"=1'-0"

SECTION D-D
Scale: 1/4"=1'-0"

SECTION H-H
Scale: 1/4"=1'-0"

ELEVATION
Scale: 1/4"=1'-0"

DETAIL "A"
Scale: 1"=1'-0"

SECTION B-B
Scale: 1/2"=1'-0"

BEARING STIFFENERS
Scale: 1/2"=1'-0"

INTERMEDIATE STIFFENERS
Scale: 1/2"=1'-0"

Do not paint lower surface of Sole PL & upper surface of Masonry PL

Lead PL-15"x1/8"x2'-2"

SECTION G-G
Scale: 1/8"=1'-0"

EXPANSION BEARING
Scale: 1"=1'-0"

Type E16a Bearing 1 1/2" ø H.S. Bolts with Hexagon Head & Nut, & Washer. For Brg. Details see Sheet No. S42

Tight fit

Shelf PL-16 1/2"x12"x1'-10"

PL-14"x14"

Finish to bear

Hex. Nut

Bevel Washer

14" ø Swedge Bolt x 2'-0"

1 5/8" x 2 3/4" Slotted Holes in Flange & Sole PL. Anchor Bolt to be set at center of the slot at 50°F

Level

Bevel To Grade

1 5/8" ø Holes

Bronze PL 11"x5"x2'-0 Self Lubricating Drilled-in or trepanned Recesses on the top and bottom surfaces See Special Provisions

Structural Steel Quantities in Lbs.

Cap Girder and Details	34,700
Shear Connector Studs	80
Bearings	1,640
Total	36,420

Sole PL 15"x2 1/4"x2-2

Bronze PL 13"x3 1/4"x2-0 self Lubricating Drilled-in or trepanned Recesses on the top and bottom surfaces, See Special Provisions. Masonry PL-15"x2"x2-2 Lead PL-15"x1/8"x2-2

FIXED BEARING
Scale: 1"=1'-0"

BILL OF MATERIAL

Description	Unit	Quantity
Class "X" Concrete	Cu.Yds.	67.6
Reinforcement Bars	Lbs.	12,180
Structural Steel	Lbs.	36,420
Class "A" Excavation for Structs	Cu.Yds.	23

For Structural Steel Notes see Sheet S-34

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

SOUTHWEST ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
S. LAKE PARK AVE. TO S. LAKE SHORE DRIVE
SECTION SW-1818.3-2H

PIER ES7

SCALE: AS NOTED DEC. 1964
SHEET NO. S-28 OF 89 SHEETS

FOR INFORMATION ONLY

DESIGNED BY
DRAWN BY E.M. 3.14.63
CHECKED BY B.M. 4.29.63
QUANTITIES BY K.A.

FILE NAME = I:\102908_I-55\STRUCTURAL\sheets\Existing Plans\60P37-32-pier ES7.dgn

CHRISTIAN-ROGE & ASSOCIATES, INC.

USER NAME = IDOT	DESIGNED - J.C.N./B.N.S.	REVISED -	
	CHECKED - B.N.S./J.C.N.	REVISED -	
PLOT SCALE = 50.0000 ' / IN.	DRAWN - F.M.	REVISED -	
PLOT DATE = 10/12/2011	DATE - OCTOBER 12, 2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER ES7
EXISTING PLANS
SHEET NO. S32 OF S41 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2011-031-BR	COOK	41	32
		CONTRACT NO. 60P37		
	ILLINOIS FED. AID PROJECT			