Illinois Department of Transportation
Division of Highways
OSG Consultants

SOIL BORING LOG

Page 1 of 1

ROUTE I-80 DESCRIPTION Noise Wall B23 LOGGED BY SB
SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,
COUNTY Will DRILLING RIG Mobile B-57 Latitude , Longitude
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 89
Date 4/8/25

STRUCT. NO. N/A
Station N/A
BORING NO. NAW-20A
Station 10+21.36
Offset 52.82ft RT
Ground Surface Elev. 612.61 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4 inches of Asphalt 612.28				
Gray, Moist FILL: SILTY CLAY, with gravel, some sand		10		
		7	4.5	
		5	P	
609.11				
Very Stiff		7		
Brown and Black, Moist SILTY CLAY, trace gravel, trace sand (CL/ML)	-5	8	2.0	
		8	P	
606.61				
Very Stiff to Hard		6		
Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)		8	4.5	
		8	P	
		9		
Cobbles at 9 feet		8	4.5	
	-10	10	P	
		5		
		8	4.5	
		11	P	
598.61		7		
WEATHERED LIMESTONE 598.11		50/3"	3.0	
Auger refusal at 14.5 feet	-15		P	
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
OSG Consultants

SOIL BORING LOG

Page 1 of 1

ROUTE I-80 DESCRIPTION Noise Wall B23 LOGGED BY SB
SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,
COUNTY Will DRILLING RIG Mobile B-57 Latitude , Longitude
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 89
Date 4/8/25

STRUCT. NO. N/A
Station N/A
BORING NO. NAW-21
Station 8+10.23
Offset 43.12ft RT
Ground Surface Elev. 612.43 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4 inches of Asphalt 612.10				
Light Brown and Black, Moist FILL: GRAVEL, with sand, little slag		6		
610.68		4		
Stiff		2		
Brown, Moist SILTY CLAY, trace gravel, trace sand (CL/ML)		4		
	-5	3	1.5	
		4	P	
606.43				
Hard		4		
Brown, Moist SILTY CLAY, trace gravel, trace sand (CL/ML)		6	4.3	
		10	P	
		6		
	-10	11	4.5	
		18	P	
601.43				
WEATHERED LIMESTONE 600.93		50/3"		
Auger refusal at 11.5 feet			4.5	
End of Boring			P	
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
OSG Consultants

SOIL BORING LOG

Page 1 of 1

ROUTE I-80 DESCRIPTION Noise Wall B23 LOGGED BY SB
SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,
COUNTY Will DRILLING RIG CME-75 Latitude , Longitude
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 78.8
Date 5/21/25

STRUCT. NO. N/A
Station N/A
BORING NO. NAW-22
Station 6+03.71
Offset 84.40ft RT
Ground Surface Elev. 598.26 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
2 inches of Asphalt 598.09				
10 inches of Gravel 597.26				
Hard		7		
Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)		10	4.5	
		13	P	
		6		
		9	4.5	
	-5	9	P	
		8		
		13	4.5	
		17	P	
		7		
	-10	10	4.5	
		14	P	
		7		
		11	4.5	
		13	P	
		8		
583.26	-15	9	4.5	
End of Boring		14	P	
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
OSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 3/27/25

ROUTE I-80 DESCRIPTION Noise Wall B23 LOGGED BY DV

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY Will DRILLING RIG CME-75 Latitude , Longitude
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 78.8

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-23A
Station 4+35.97
Offset 182.46ft RT
Ground Surface Elev. 624.36 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
1 inch of Topsoil / 624.28				
Hard Brown, Moist SILTY CLAY LOAM, trace gravel (ML/CL)		5		
		9 11	5.0 B	23
		7		
		13 13	4.6 B	17
618.36	-5			
Very Stiff to Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML)		7		
		10 12	4.4 B	18
		6		
		13 9	4.1 B	13
	-10			
		5		
Some Gravel at 12 feet		8 11	3.5 B	17
		5		
609.36	-15	7 11	3.1 B	16
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
OSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 3/27/25

ROUTE I-80 DESCRIPTION Noise Wall B23 LOGGED BY DV

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY Will DRILLING RIG CME-75 Latitude , Longitude
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 78.8

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-24A
Station 4+31.76
Offset 306.00ft RT
Ground Surface Elev. 623.14 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
1 inch of Topsoil / 623.05				
Stiff Brown, Moist SILTY CLAY, with sand, little gravel (CL/ML)		2		
		3 4	1.9 B	22
619.64				
Hard Brown, Moist SILTY CLAY, with sand, little gravel (CL/ML)		8		
		10 12	6.0 B	11
617.14	-5			
Very Stiff to Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML)		7		
		12 15	7.7 B	19
		6		
		9 10	7.1 B	19
	-10			
		6		
		7 9	3.3 B	13
		7		
608.14	-15	12 15	4.8 B	15
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
OSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/22/25

ROUTE I-80 DESCRIPTION Noise Wall B23 LOGGED BY SB

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY Will DRILLING RIG CME-75 Latitude , Longitude
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 78.8

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-26
Station 36+49.00
Offset 139.26ft LT
Ground Surface Elev. 605.14 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6 inches of Asphalt / 604.64				
2 inches of Aggregate Base / 604.47				
Stiff Brown, Moist SILTY CLAY, little sand, little gravel (CL/ML)		22		
		5 4	1.8 P	
601.64				
Very Stiff to Hard Brown and Gray, Moist SILTY CLAY, with gravel, little sand (CL/ML)		3		
		5 5	3.5 P	
	-5			
		5		
		6 11	4.5 P	
		7		
		8 11	4.5 P	
	-10			
		5		
		8 11	4.5 P	
		5		
590.14	-15	8 6	4.5 P	
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 2 NOISE ABATEMENT WALL B23B - SN 099-N1026	
	CHECKED - NBR/PJL	REVISED -			
PLOT SCALE = 0:2.000 ':" / in.	DRAWN - BK/GM	REVISED -			
PLOT DATE = 6/9/2025	CHECKED - MS	REVISED -		SHEET SL-08 OF SL-09 SHEETS	

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	802
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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Illinois Department of Transportation
Division of Highways
OSG Consultants

SOIL BORING LOG

Date 5/21/25

ROUTE I-80 DESCRIPTION Noise Wall B23 LOGGED BY SB

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY Will DRILLING RIG CME-75 Latitude , Longitude
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 78.8

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-29
Station 41+01.01
Offset 140.78ft LT
Ground Surface Elev. 596.42 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4 inches of Topsoil 596.09				
Stiff Brown, Moist SILTY CLAY, trace gravel (CL/ML)		3		
		3 4	1.0 P	
		5		
		6 7	1.3 P	
	-5			
		4		
		4 4	1.5 P	
		3		
		4 4	1.3 P	
	-10			
Low recovery at 11 feet		1		
		1 1		
582.92				
Medium Dense Light Brown, Moist GRAVEL, with sand (GP)		6		
581.42	-15	2 13		
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	
	CHECKED - NBR/PJL	REVISED -	
PLOT SCALE = 0:2.000 ':" / in.	DRAWN - BK/GM	REVISED -	
PLOT DATE = 6/9/2025	CHECKED - MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 3
NOISE ABATEMENT WALL B23B - SN 099-N1026
SHEET SL-09 OF SL-09 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	803
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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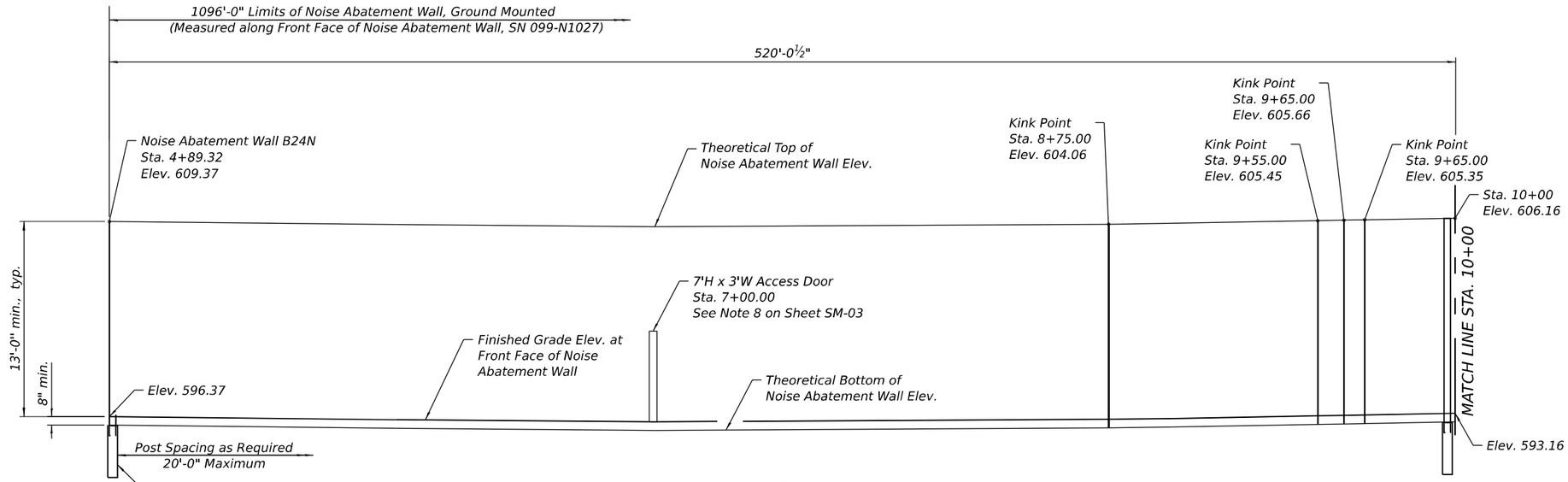
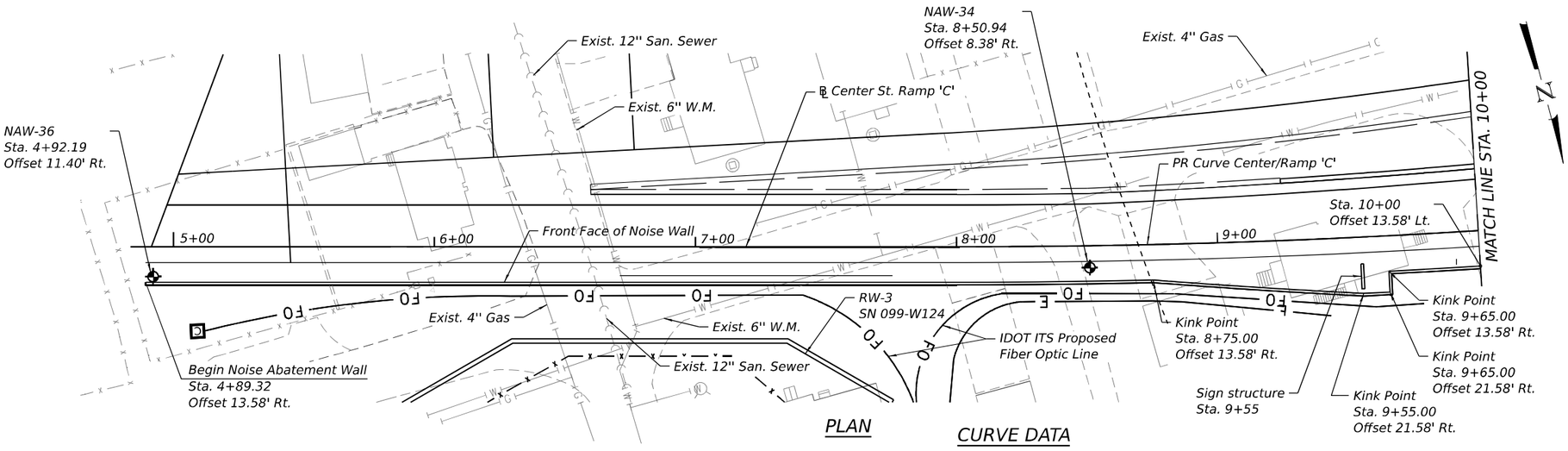
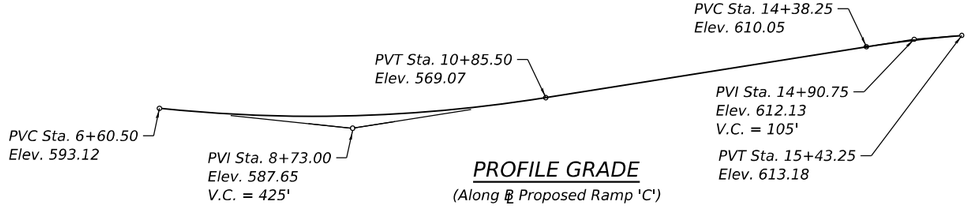


ELEVATION

(Unfolded - Looking South)



PLAN



PROFILE GRADE

(Along ℄ Proposed Ramp 'C')

CURVE DATA

PR Curve Center / Ramp 'C'
PI Sta. = 9+07.47
Δ = 03°49'25" (LT)
D = 01°46'54"
R = 3,216.00'
T = 107.35'
L = 214.63'
E = 1.79'
e = 3.20%
TR = 64.0'
SE Run = 102.4'
PC Sta. = 8+00.12
PT Sta. = 10+14.75

NOTES:

1. For General Notes and Total Bill of Material, see Sheet SM-03.
2. Stations are measured along and Offsets are measured to BL Prop. Ramp C/BL Center St.
3. Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.

INDEX OF SHEETS

SM-01 General Plan and Elevation 1
SM-02 General Plan and Elevation 2
SM-03 General Notes and Total Bill of Material
SM-04 Wall Details
SM-05 Soil Boring Logs 1
SM-06 Soil Boring Logs 2

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Struct. Steel, M270 Grade 50, posts)
fy = 36,000 psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

f'c = 4,500 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADS

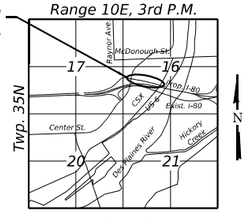
Strength III or V Wind : 35 psf
Service I Wind : 15 psf

Note:
All existing utilities are at least 2'-0" below existing Grade and 23'-0" min. below Finished Grade along the wall.

LEGEND

——— – – ———	Proposed ROW line
——— FO ———	Proposed Fiber Optic line
——— E ———	Proposed Electric line
——— T ———	Existing Telephone line
——— A ———	Existing Aerial line
——— E ———	Existing Electric line
——— – ———	Existing ROW line
——— G ———	Existing Gas line
-C-C-C-C-C-C-	Existing Sanitary Sewer
——▷——	Existing Storm Sewer
——— W ———	Existing Water main
——— CTV ———	Existing Cable TV line
◆	Indicates Soil Boring location

Proposed Structure



LOCATION SKETCH

GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG RAMP-C
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 4+89.32 TO STA. 33+09.23
STRUCTURE NO. 099-N1027 (NOISE WALL B24N)

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	
	CHECKED - NBR/PJL	REVISED -	
PLOT SCALE = 50:0 ':" / in.	DRAWN - BK/GM	REVISED -	
PLOT DATE = 6/9/2025	CHECKED - MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET SM-01 OF SM-06 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	804
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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1096'-0" Limits of Noise Abatement Wall, Ground Mounted
(Measured along Front Face of Noise Abatement Wall, SN 099-N1027)

575'-0½"

Kink Point
Sta. 32+45.61
Elev. 624.82

Theoretical Top of
Noise Abatement Wall Elev.

Kink Point
Sta. 14+50.43
Elev. 623.78

Kink Point
Sta. 32+27.62
Elev. 624.70

Kink Point
Sta. 32+64.34
Elev. 624.77

Sta. 10+00
Elev. 606.16

End Noise Abatement Wall B24N
Sta. 33+09.23
Elev. 624.44

13'-0" min., typ.

MATCH LINE STA. 10+00

8" min.

Kink Point
Sta. 14+15.65
Elev. 622.06

Kink Point
Sta. 14+67.76
34.03' Rt./
Sta. 32+11.81
Elev. 624.35

Theoretical Bottom of
Noise Abatement Wall Elev.

Kink Point
Sta. 14+33.44
Elev. 623.01

Finished Grade Elev. at
Front Face of Noise
Abatement Wall

Elev. 611.44

Elev. 593.16

Drilled shaft, typ.

ELEVATION
(Unfolded - Looking South)

N

℄ Center St. Ramp 'C'

IDOT ITS
Proposed Fiber Optic Line

F.O.

NAW-33
Sta. 10+50.74
Offset 11.70' Rt.

Kink Point
Sta. 14+15.65
13.58' Rt.

Front Face of Noise Abatement Wall

15+00

14+00

13+00

12+00

11+00

32+00

MATCH LINE STA. 10+00

Kink Point
Sta. 14+33.44
15.70' Rt.

Kink Point
Sta. 14+50.43
22.30' Rt.

Sta. 10+00.00
13.58' Rt.

℄ Center St.

24" RCP

Kink Point
Sta. 14+67.76
34.03' Rt./
Sta. 32+11.81
87.71' Rt.

18" RCP

Exist. 4" Gas

Exist. 2" Gas

Kink Point
Sta. 32+27.62
76.93' Rt.

33+00

NAW-30
Sta. 33+67.90
Offset 55.98' Rt.

Kink Point
Sta. 32+45.61
70.40' Rt.

Kink Point
Sta. 32+64.34
66.49' Rt.

End Noise Wall
Sta. 33+09.23
Offset 61.59' Rt.

NAW-31
Sta. 32+26.77
Offset 73.63' Rt.

Sta. 31+00.00
Elev. 613.82

-0.74%

Sta. 33+50.00
Elev. 611.96

PROFILE GRADE
(Along ℄ Center St.)

PLAN

MODEL: Default
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6/9/2025 2:51:50 PM

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	
	CHECKED - NBR/PJL	REVISED -	
PLOT SCALE = 50.000 ' / in.	DRAWN - BK/GM	REVISED -	
PLOT DATE = 6/9/2025	CHECKED - MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION 2
NOISE ABATEMENT WALL B24N - SN 099-N1027

SHEET SM-02 OF SM-06 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	805
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES:

1. Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.

2. See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction and erection and other requirements for installation of the proposed Noise Abatement Wall.

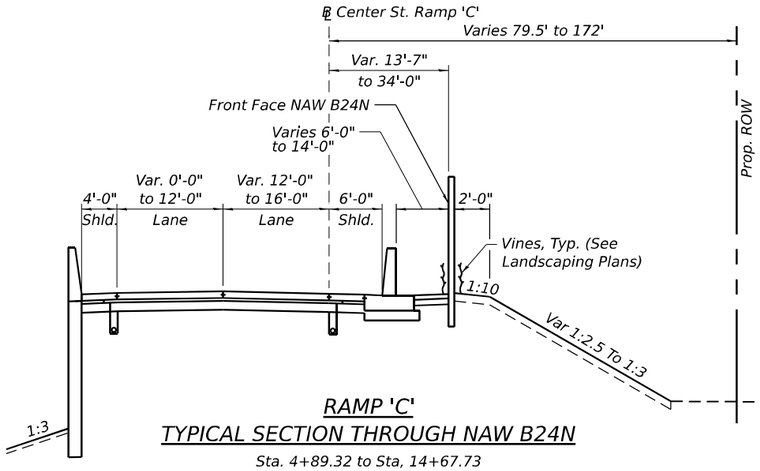
3. The existing utilities will be adjusted. The Contractor shall field verify location of the existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost.

4. Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.

5. Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.

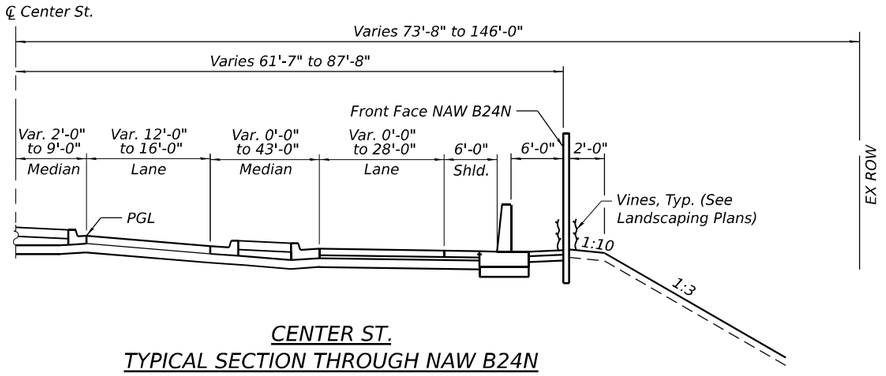
6. The default color of both sides of the NAW panels, posts and other visible elements shall be Federal Standard 30279 - Sand.

7. Access door location shown in the plans is approximate and may be adjusted to accommodate final fire hydrant locations provided by the City of Joliet. This work shall be included as part of the respective Noise Abatement Wall costs.



RAMP 'C'
TYPICAL SECTION THROUGH NAW B24N

Sta. 4+89.32 to Sta, 14+67.73
(Looking West)

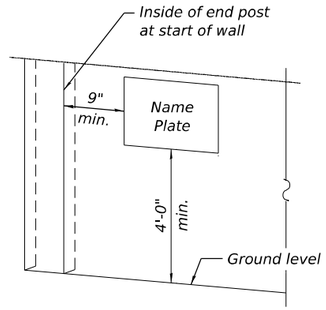


CENTER ST.
TYPICAL SECTION THROUGH NAW B24N

Sta. 32+11.81 to Sta. 33+09.23
(Looking West)

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.I. RTE. I-80
SECTION FAI 80 21 INTERCHANGE
FROM STA. 4+89.32 TO STA. 33+09.23
STRUCTURE NO. 099-N1027

NAME PLATE
See Std. 515001



FOR NOISE ABATEMENT WALL GROUND MOUNTED

NOISE ABATEMENT WALL B24N (DATA TABLE)

Station	Offset (Rt.) to ℄ Face of Wall (ft.)	Theoretical Top of NAW Elev.	℄ Ramp C/ ℄ Center St. Elev	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)
4+89.32	13.58	609.37	596.46	596.37	596.37	551.66	595.70	13.67
5+00.00	13.58	609.18	596.25	596.18	596.18	552.48	595.51	13.67
5+50.00	13.58	608.31	595.28	595.31	595.31	555.74	594.64	13.67
6+00.00	13.58	607.30	594.30	594.30	594.30	558.54	593.63	13.67
6+50.00	13.58	606.26	593.32	593.26	593.26	561.53	592.59	13.67
7+00.00	13.58	605.14	592.22	592.14	592.14	564.92	591.47	13.67
7+50.00	13.58	604.36	591.43	591.36	591.36	566.68	590.69	13.67
8+00.00	13.58	603.95	591.03	590.95	590.95	568.25	590.28	13.67
8+50.00	13.58	603.93	591.01	590.93	590.93	568.07	590.26	13.67
8+75.00	13.58	604.06	591.14	591.06	591.06	569.36	590.39	13.67
9+00.00	16.08	604.39	591-37	591.39	591.39	569.61	590.72	13.67
9+50.00	21.08	605.34	592.41	592.34	592.34	569.76	591.67	13.67
9+55.00	21.58	605.45	592.12	592.45	592.45	569.97	591.78	13.67
9+65.00	21.58	605.66	592.42	592.66	592.66	570.61	591.99	13.67
9+65.00	13.58	605.35	592.63	592.35	592.35	570.88	591.68	13.67
10+00.00	13.58	606.16	593.25	593.16	593.16	571.83	592.49	13.67
10+50.00	13.58	607.68	594.76	594.68	594.68	572.32	594.01	13.67
11+00.00	13.58	609.56	596.65	596.56	596.56	574.29	595.89	13.67
11+50.00	13.58	611.54	598.63	598.54	598.54	576.28	597.87	13.67
12+00.00	13.58	613.52	600.61	600.52	600.52	579.16	599.85	13.67
12+50.00	13.58	615.50	602.59	602.50	602.50	582.93	601.83	13.67
13+00.00	13.58	617.48	604.57	604.48	604.48	585.23	603.81	13.67
13+50.00	13.58	619.46	606.55	606.46	606.46	589.75	605.79	13.67
14+00.00	13.58	621.44	608.54	608.44	608.44	594.13	607.77	13.67
14+15.65	13.58	622.06	609.16	609.06	609.06	592.60	608.39	13.67
14+33.44	15.70	623.01	609.86	610.01	610.01	589.40	609.34	13.67
14+50.43	22.30	623.78	610.52	610.78	610.78	589.21	610.11	13.67
14+67.76 /32+11.81	34.03/87.71	624.35	612.99	611.35	611.35	590.10	610.68	13.67
32+27.62	76.93	624.70	612.87	611.70	611.70	590.86	611.03	13.67
32+45.61	70.40	624.82	612.74	611.82	611.82	591.47	611.15	13.67
32+64.34	66.49	624.77	612.60	611.77	611.77	592.03	611.10	13.67
33+09.23	61.59	624.44	612.27	611.44	611.44	594.58	610.77	13.67

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	14,980

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	4+89.32	33+09.23	Reflective	-
Residential face	4+89.32	33+09.23	Reflective	-

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND TOTAL BILL OF MATERIAL NOISE ABATEMENT WALL B24N - SN 099-N1027
	CHECKED - NBR/PJL	REVISED -		
PLOT SCALE = 50.000 ' / in.	DRAWN - BK/GM	REVISED -		SHEET SM-03 OF SM-06 SHEETS
PLOT DATE = 4/23/2025	CHECKED - MS	REVISED -		

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	806
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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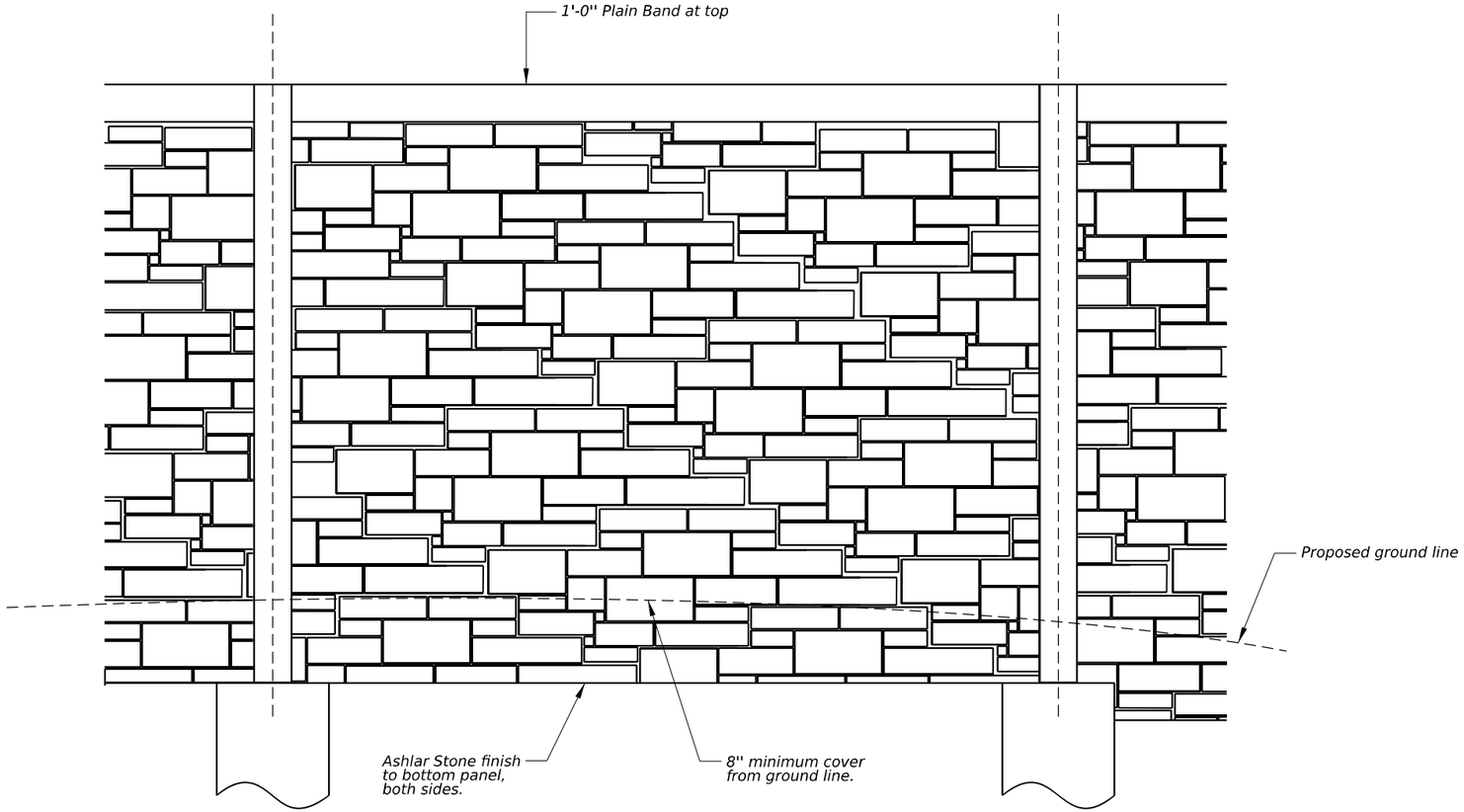
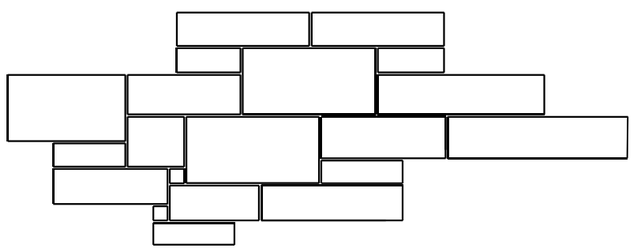
4/23/2025 10:24:21 AM

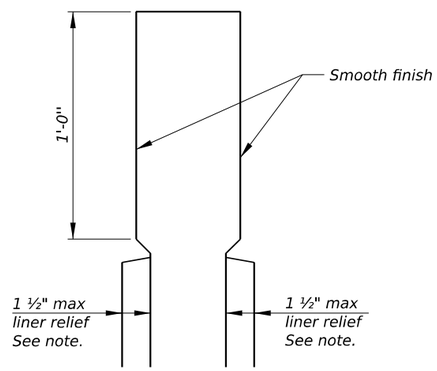
Notes:
Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 ½" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.





Stone Pattern Sizes:
3" x 3" - 14" x 28"

ENLARGED PATTERN DETAIL



ENLARGED CAP DETAIL

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	
	CHECKED - NBR/PJL	REVISED -	
PLOT SCALE = 0.16666667 ' / in.	DRAWN - BK/GM	REVISED -	
PLOT DATE = 4/23/2025	CHECKED - MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL DETAILS
NOISE ABATEMENT WALL B24N - SN 099-N1027
SHEET SM-04 OF SM-06 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	807
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: NOISE WALLS DETAILS
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4/23/2025 10:25:05 AM

Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/30/25

ROUTE I-80 DESCRIPTION Noise Wall B24 LOGGED BY SB

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY Will DRILLING RIG Geoprobe DRILLING METHOD HSA Latitude , Longitude HAMMER TYPE Auto HAMMER EFF (%) 99

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-30
Station Sta. 33+67.90
Offset Offset 55.98' Rt.
Ground Surface Elev. 599.18 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
3 inches of Topsoil 598.93				
Brown, Moist FILL: SILTY CLAY, little sand, trace roots, trace gravel		3		
		2	0.8	
		3	P	
		2		
		1	0.5	
	-5	1	P	
593.18				
3 inches of Concrete 592.93		35		
Brown, Moist FILL: SILTY CLAY, little gravel, little roots		9	2.0	
		9	P	
590.68				
Stiff		3		
Dark Brown, Moist SILTY CLAY, trace gravel (CL/ML)		4	1.3	
	-10	4	P	
588.18				
Gray, Moist WEATHERED LIMESTONE		50/5"		
		50/3"		
584.18	-15			
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/30/25

ROUTE I-80 DESCRIPTION Noise Wall B24 LOGGED BY SB

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY Will DRILLING RIG Geoprobe DRILLING METHOD HSA Latitude , Longitude HAMMER TYPE Auto HAMMER EFF (%) 99

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-31
Station Sta. 32+26.77
Offset Offset 73.63' Rt.
Ground Surface Elev. 589.66 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4 inches of Topsoil 589.32				
Stiff Brown, Moist SILTY CLAY, trace gravel, trace roots (CL/ML) 588.16		50/3"	1.3	
			P	
Gray, Moist WEATHERED LIMESTONE 586.66				
Auger refusal at 3 feet				
End of Boring	-5			
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 3/20/25

ROUTE I-80 DESCRIPTION Noise Wall B24 LOGGED BY SB

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY Will DRILLING RIG Mobile B-57 DRILLING METHOD HSA Latitude , Longitude HAMMER TYPE Auto HAMMER EFF (%) 92.1

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-33
Station 10+50.74
Offset 11.70ft RT
Ground Surface Elev. 573.95 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4 inches of Topsoil 573.61				
Very Dense Brown, Moist GRAVEL, with sand, trace clay (GP)		50/4"		28
571.45				
Gray, Moist WEATHERED LIMESTONE 570.95				
Auger refusal at 3 feet				
End of Boring	-5			
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	
	CHECKED - NBR/PJL	REVISED -	
PLOT SCALE = 0:2.000 ':" / in.	DRAWN - BK/GM	REVISED -	
PLOT DATE = 6/9/2025	CHECKED - MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 1
NOISE ABATEMENT WALL B24N - SN 099-N1027
SHEET SM-05 OF SM-06 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	808
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 3/20/25

ROUTE I-80 DESCRIPTION Noise Wall B24 LOGGED BY SB

SECTION C-91-109-22 LOCATION SEC. , TWP. , RNG. ,
Latitude , Longitude

COUNTY Will DRILLING RIG Mobile B-57
DRILLING METHOD HSA
HAMMER TYPE Auto
HAMMER EFF (%) 92.1

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-34
Station 8+50.94
Offset 8.38ft RT
Ground Surface Elev. 571.15 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
570.65				6 inches of Topsoil
	4			Soft Black, Moist
569.15	7	0.3	52	SILTY CLAY, little gravel, trace roots (CL/ML)
	50/2"	P		WEATHERED LIMESTONE
568.15				Auger refusal at 3 feet
				End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/29/25

ROUTE I-80 DESCRIPTION Noise Wall B24 LOGGED BY EH

SECTION C-91-109-22 LOCATION SEC. , TWP. , RNG. ,
Latitude , Longitude

COUNTY Will DRILLING RIG CME-75
DRILLING METHOD HSA
HAMMER TYPE Auto
HAMMER EFF (%) 78.8

STRUCT. NO. N/A
Station N/A

BORING NO. NAW-36
Station Sta. 4+92.19
Offset Offset 11.40' Rt.
Ground Surface Elev. 551.92 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Gray, Moist FILL: GRAVEL, with sand
550.92	6			Black, Moist
550.42	10		7	SILTY CLAY, with gravel (CL/ML)
	50/1"			Very Dense Brown, Moist SAND, with gravel (SP)
548.92				Auger refusal at 3 feet End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USGM717780	DESIGNED - MS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 2 NOISE ABATEMENT WALL B24N - SN 099-N1027	
	CHECKED - NBR/PJL	REVISED -			
PLOT SCALE = 0:2.000 ':" / in.	DRAWN - BK/GM	REVISED -			
PLOT DATE = 6/9/2025	CHECKED - MS	REVISED -		SHEET SM-06 OF SM-06 SHEETS	

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	809
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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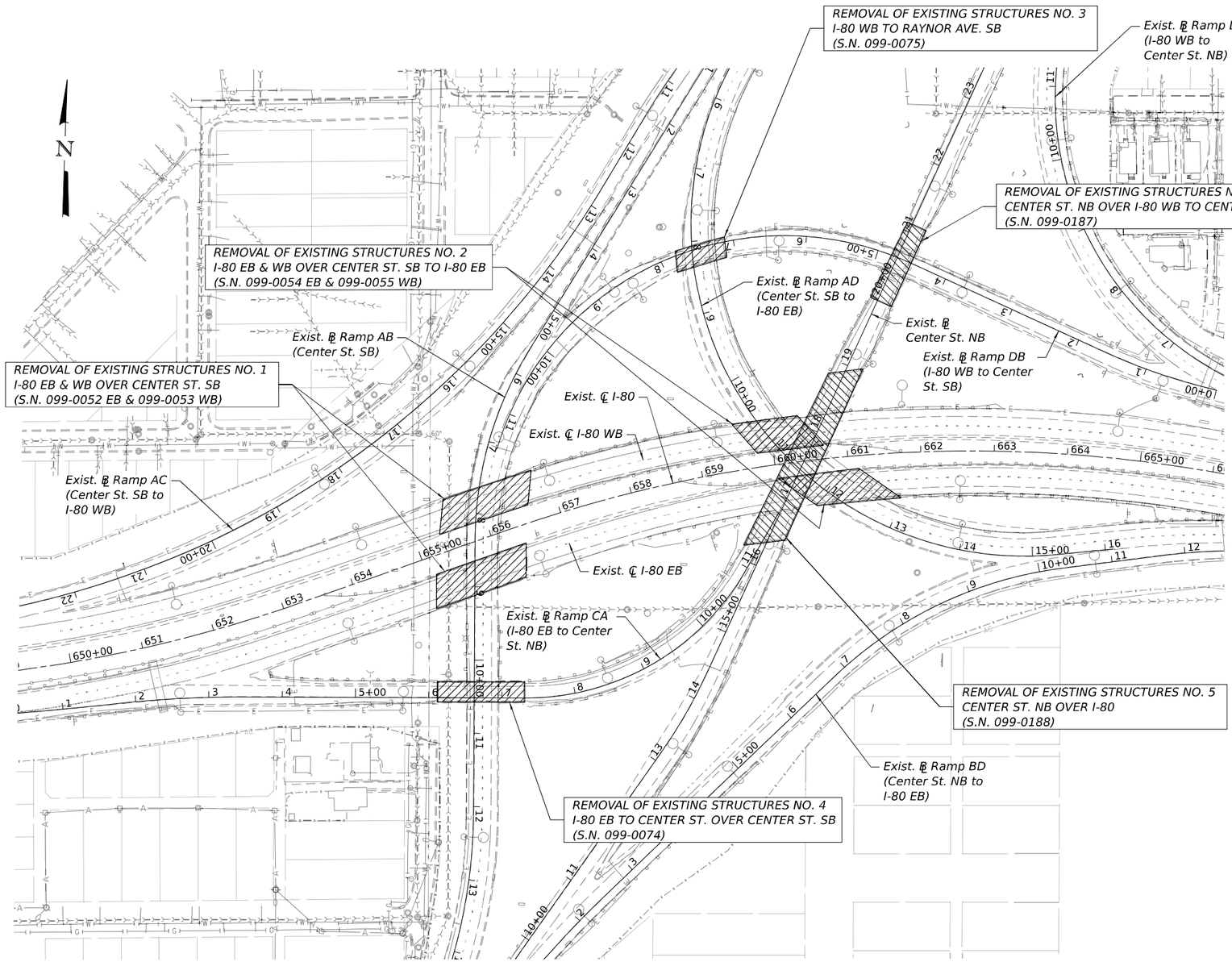

KEY PLAN

INDEX OF SHEETS

SN-1	Key Plan
SN-2	Structure No. 099-0052 EB & 099-0053 WB
SN-3	Structure No. 099-0054 EB & 099-0055 WB
SN-4	Structure No. 099-0075
SN-5	Structure No. 099-0074
SN-6 thru SN-10	Structure No. 099-0188
SN-11	Structure No. 099-0187

LEGEND

Removal of Existing Structure

Notes:

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause of additional compensation for a change in scope of work, however, the Contractor will be paid for quantity actually furnished at the unit price bid for the work.
2. Removal of Existing Structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include concrete removal of the bridge concrete deck, superstructure, protective shield, and partial removal of the abutment down to a minimum elevation as noted in the plans.
3. The existing structural steel coating contains lead. The Contractor shall take appropriate cautions to deal with the presence of lead on this project.
4. Contractor shall not scale dimensions from the contract plans for construction purposes. Scales are shown for information only.
5. The Contractor shall take all necessary precautions to protect existing utilities, foundations and adjacent structures during removal/construction of the bridge.
6. For suggested stages of construction and sequencing requirements, see Roadway Plans and Special Provisions.

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 1	Each	1
Removal of Existing Structures No. 2	Each	1
Removal of Existing Structures No. 3	Each	1
Removal of Existing Structures No. 4	Each	1
Removal of Existing Structures No. 5	Each	1
Removal of Existing Structures No. 6	Each	1
Protective Shield	Sq. Yd.	90
Deck Slab Repair (Partial)	Sq. Yd.	225

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - MHD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	KEY PLAN BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS	
	DRAWN - MHD	REVISED -			
PLOT SCALE = 166.7.9200 '-" / in.	CHECKED - PJL	REVISED -			
PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -		SHEET SN-1 OF SN-11 SHEETS	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	810
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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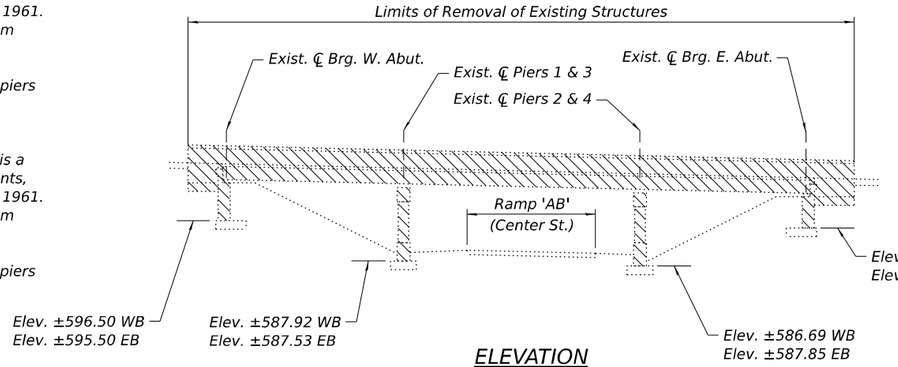
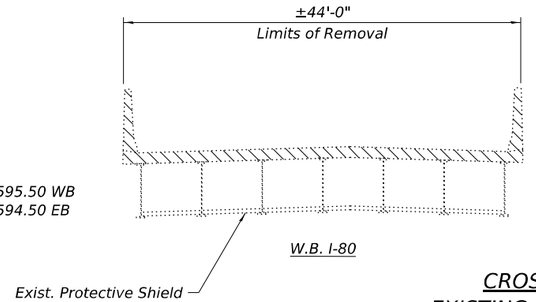
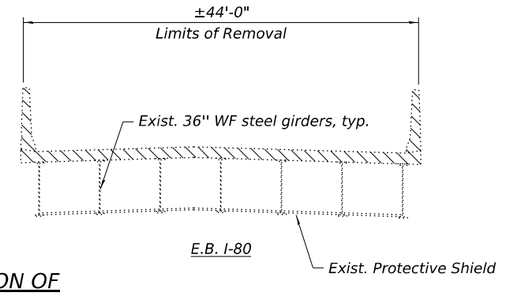
Existing EB Structure: S.N. 099-0052 is a ±131'-10" long back to back of abutments, three span structure originally built in 1961. The existing structure has a multi-beam non-composite superstructure with an overall width of ±44'-0". The existing pedestal abutments and multicolumn piers with tapered columns are founded on spread footings.

Existing WB Structure: S.N. 099-0053 is a ±128'-4" long back to back of abutments, three span structure originally built in 1961. The existing structure has a multi-beam non-composite superstructure with an overall width of ±44'-0". The existing pedestal abutments and multicolumn piers with tapered columns are founded on spread footings.

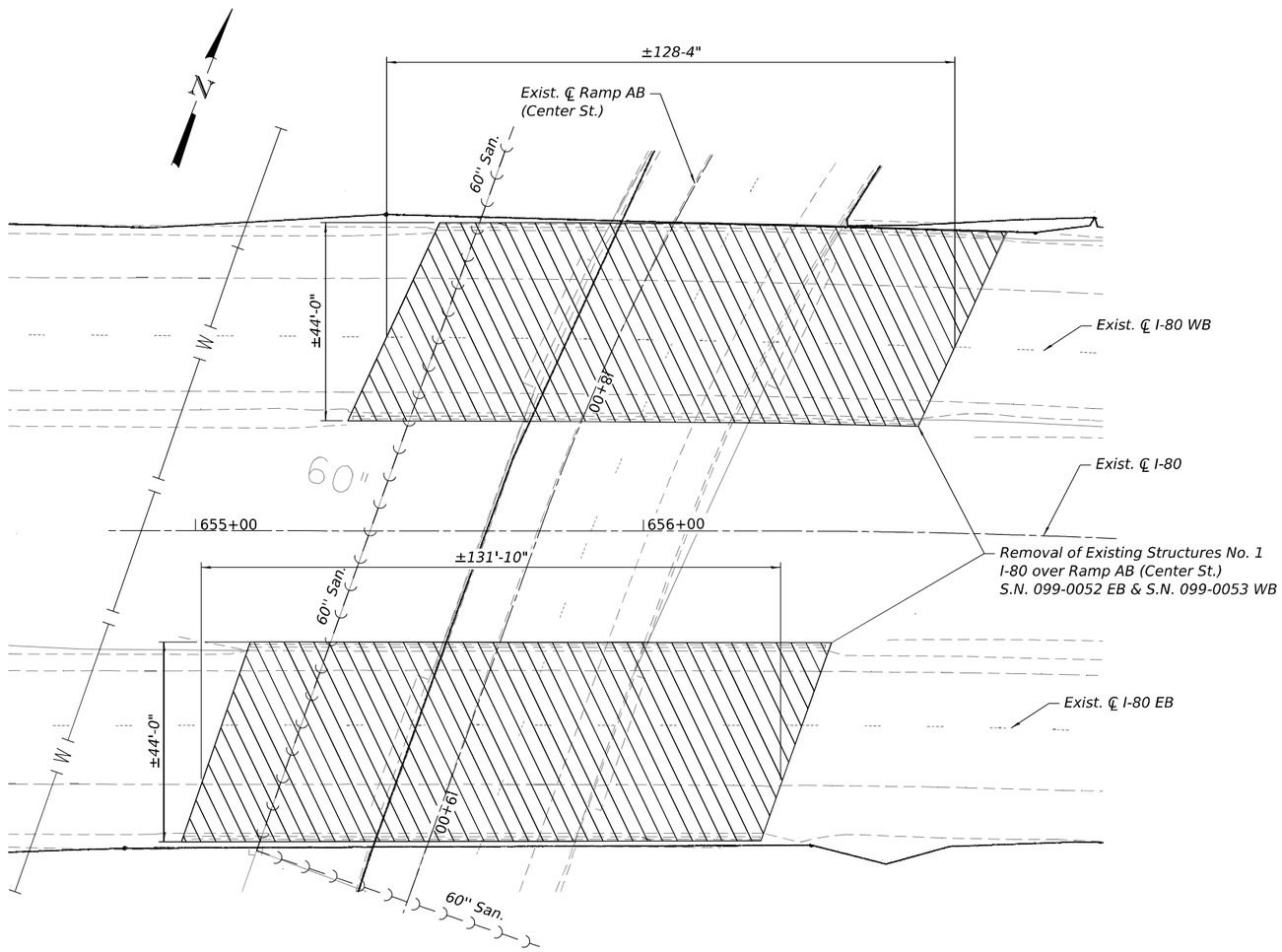


ELEVATION





CROSS SECTION OF EXISTING SUPERSTRUCTURES



PLAN

LEGEND

Removal of Existing Structure

Water Line

Notes:

1. *Removal of Existing Structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include concrete removal of the bridge concrete deck, superstructure, protective shield, and partial removal of the abutments and piers down to a minimum elevation as noted in the plans.*
2. *Deck slab repair areas are based upon 5% of the deck needing partial depth repairs. Actual location and size of patches to be placed shall be determined by the Engineer in the field at the time of construction and shown on As-built plans. See Special Provision "Bridge Deck Maintenance Patching".*

BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 1	Each	1
Deck Slab Repair (Partial)	Sq. Yd.	64

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - MHD	REVISED -	
	DRAWN - MHD	REVISED -	
PLOT SCALE = 33:3.9840 '=' / in.	CHECKED - PJL	REVISED -	
PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-0052 EB & 099-0053 WB
BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
SHEET SN-2 OF SN-11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	811
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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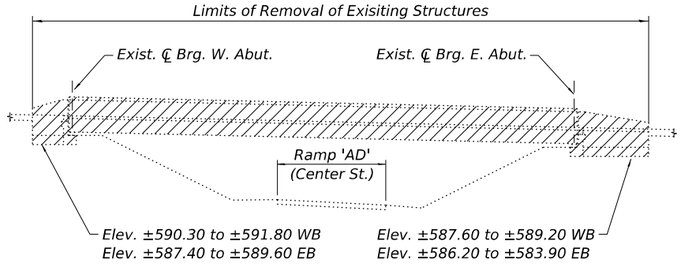
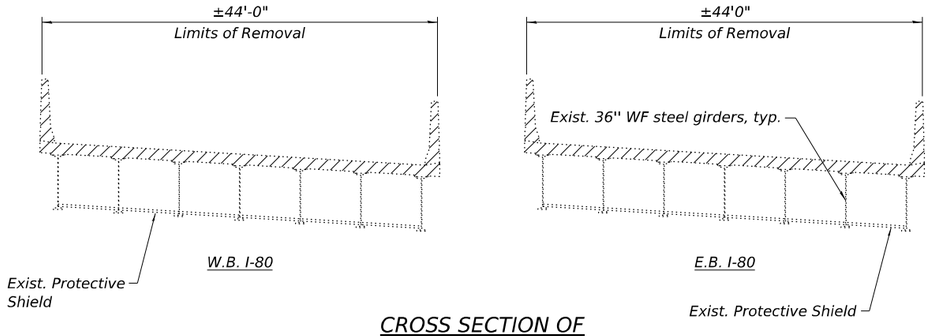
Existing EB Structure: S.N. 099-0054 is a ±118'-5" long back to back of abutments, four span structure originally built in 1961. The existing structure has a multi-beam composite superstructure with an overall width of ±44'-0". The existing pedestal abutments are founded on piles and the piers are founded on spread footings.

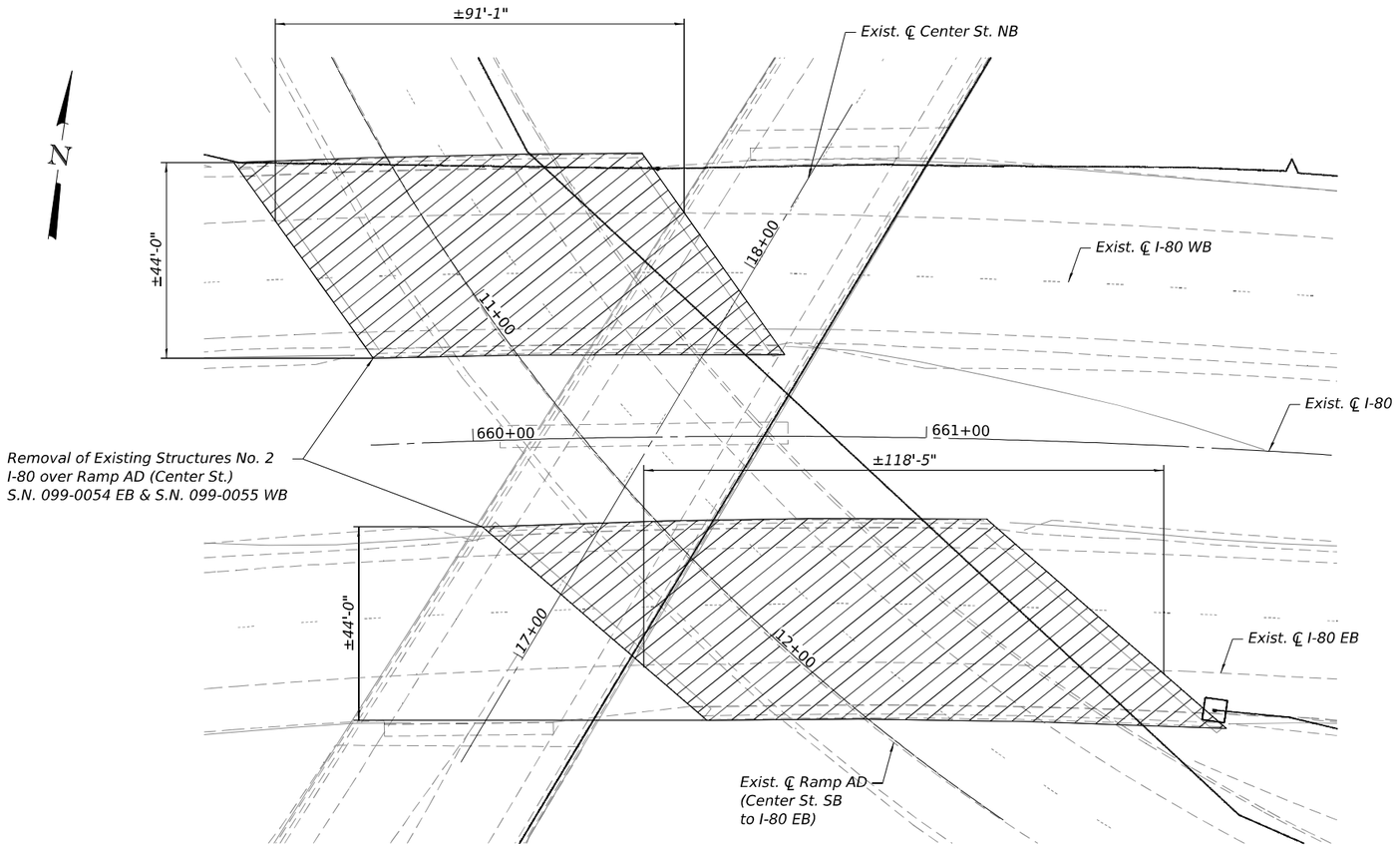
Existing WB Structure: S.N. 099-0055 is a ±91'-1" long back to back of abutments, four span structure originally built in 1961. The existing structure has a multi-beam composite superstructure with an overall width of ±44'-0". The existing pedestal abutments are founded on piles and the piers are founded on spread footings.



ELEVATION



CROSS SECTION OF EXISTING SUPERSTRUCTURES



PLAN

LEGEND

Removal of Existing Structure

Notes:

1. *Removal of Existing Structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include concrete removal of the bridge concrete deck, superstructure, protective shield, and partial removal of the abutments down to a minimum elevation as noted in the plans.*
2. *Deck slab repair areas are based upon 5% of the deck needing partial depth repairs. Actual location and size of patches to be placed shall be determined by the Engineer in the field at the time of construction and shown on As-built plans. See Special Provision "Bridge Deck Maintenance Patching".*

BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 2	Each	1
Deck Slab Repair (Partial)	Sq. Yd.	50

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - MHD	REVISED -	
	DRAWN - MHD	REVISED -	
PLOT SCALE = 33:3.9840 '=' / in.	CHECKED - PJL	REVISED -	
PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-0054 EB & 099-0055 WB
BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
SHEET SN-3 OF SN-11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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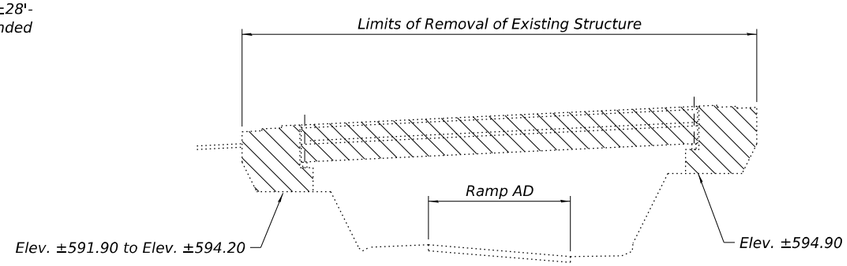
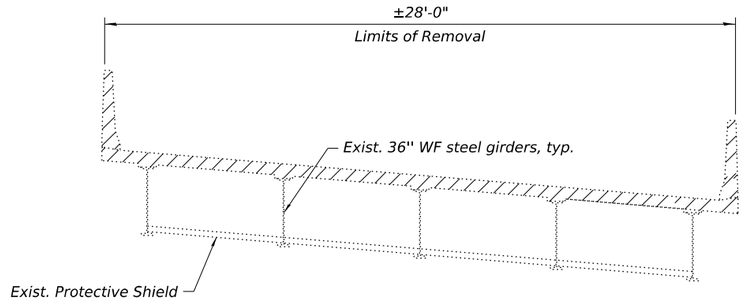
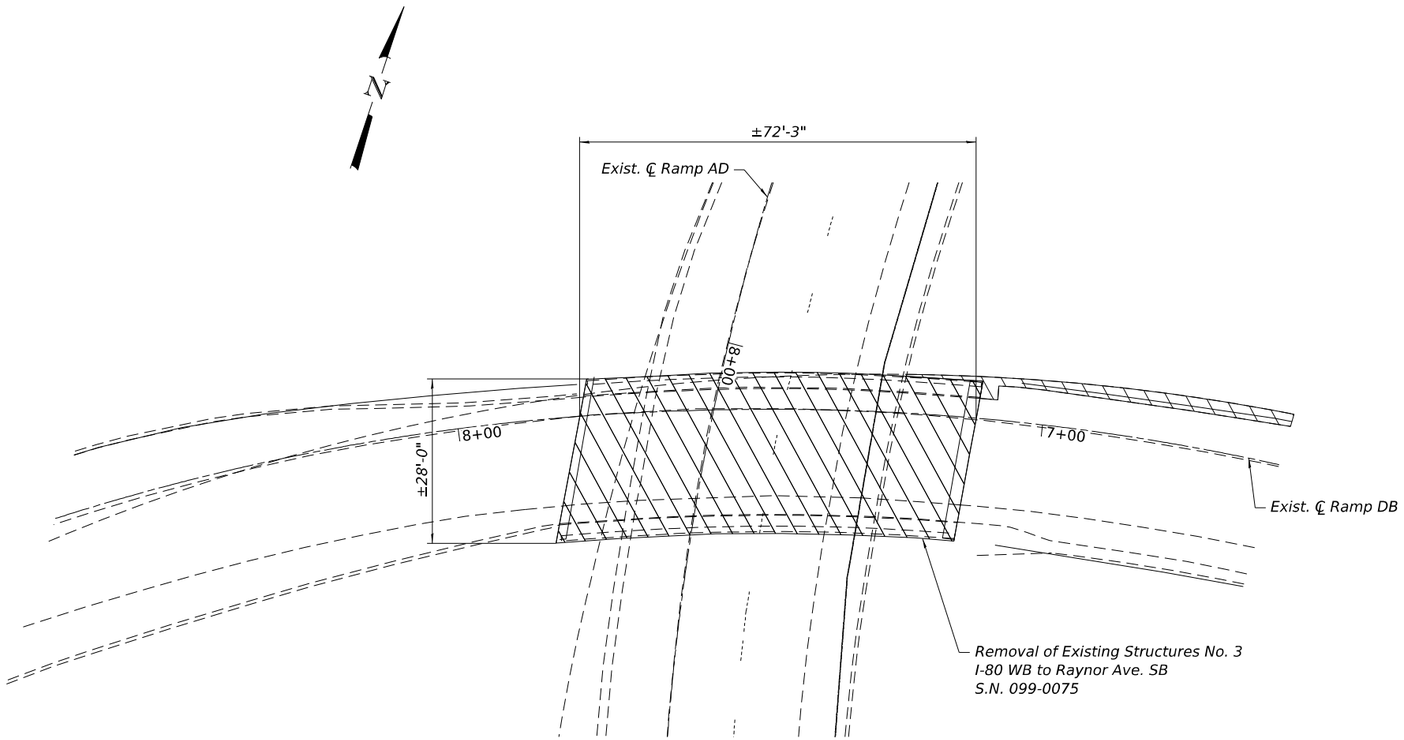
Existing Structure: S.N. 099-0075 is a ±72'-3" long back to back of abutments, single span structure originally built in 1961. The existing structure has a multi-beam composite superstructure with an overall width of ±28'-0". The existing stub abutments are founded on spread footings.



ELEVATION



CROSS SECTION OF EXISTING SUPERSTRUCTURE



PLAN

LEGEND

Removal of Existing Structure

Notes:

1. *Removal of Existing Structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include concrete removal of the bridge concrete deck, superstructure, protective shield, and partial removal of the abutments down to a minimum elevation as noted in the plans.*
2. *Deck slab repair areas are based upon 5% of the deck needing partial depth repairs. Actual location and size of patches to be placed shall be determined by the Engineer in the field at the time of construction and shown on As-built plans. See Special Provision "Bridge Deck Maintenance Patching".*

BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 3	Each	1
Deck Slab Repair (Partial)	Sq. Yd.	11

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - MHD	REVISED -	
	DRAWN - MHD	REVISED -	
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PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-0075
BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
SHEET SN-4 OF SN-11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	813
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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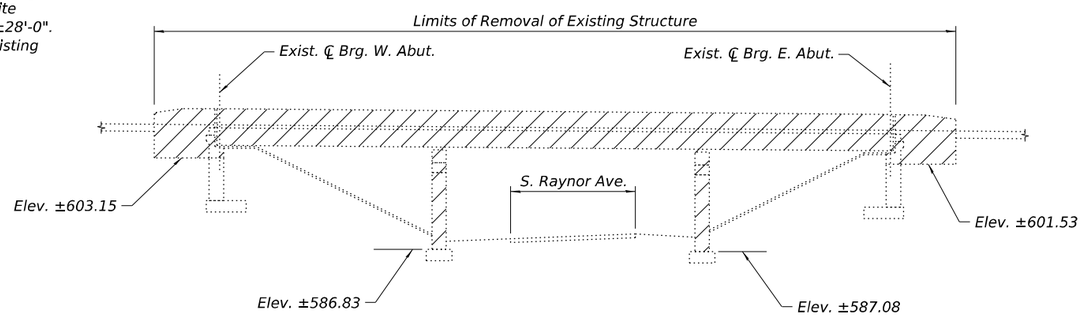
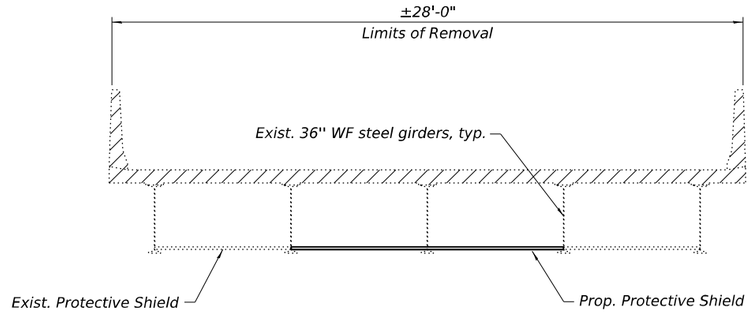
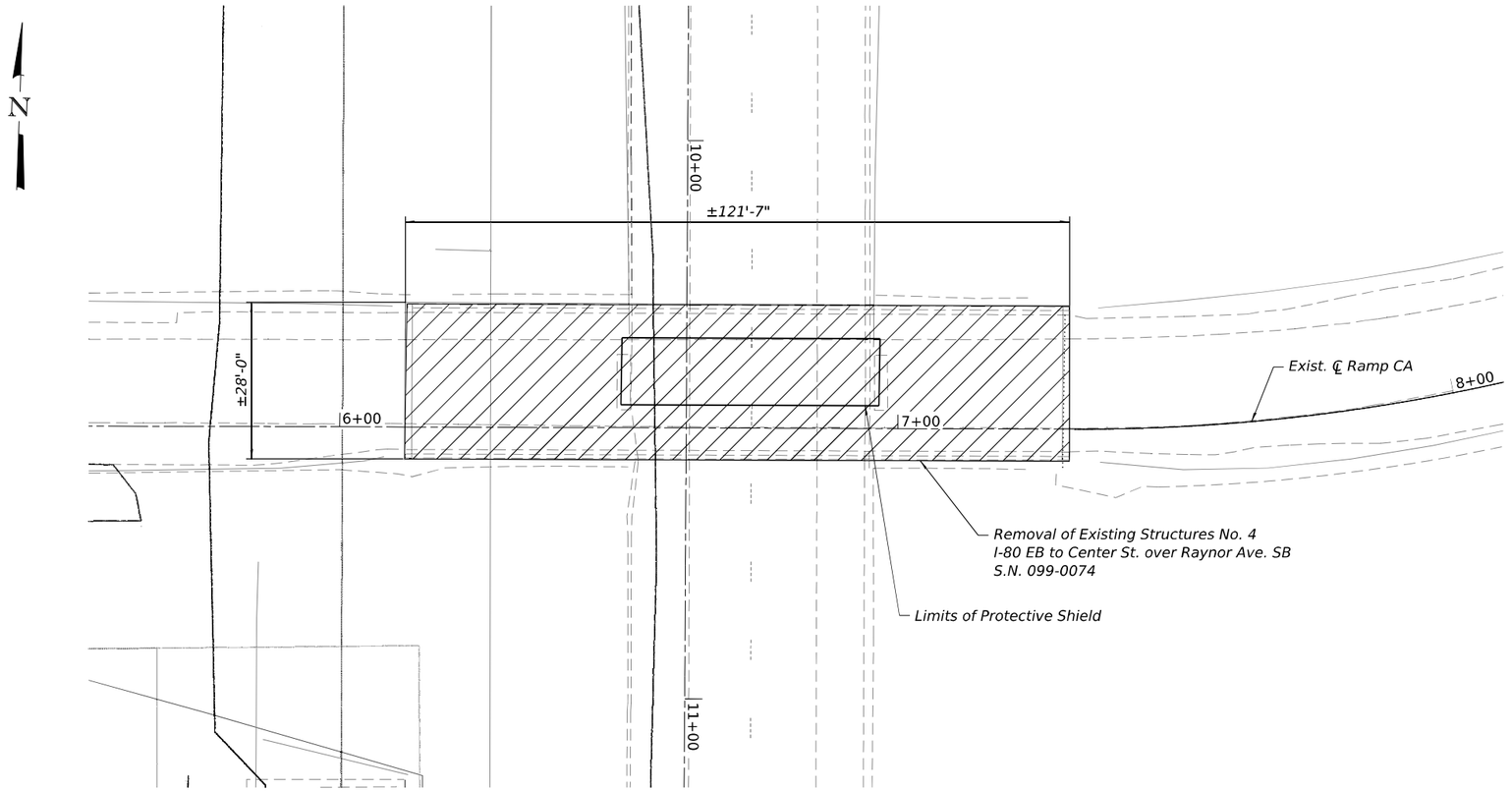
Existing Structure: S.N. 099-0074 is a ±121'-7" long back to back of abutments, three span structure originally built in 1961. The existing structure has a multi-beam non-composite superstructure with an overall width of ±28'-0". The existing pedestal abutments and existing piers are founded on spread footings.



ELEVATION



CROSS SECTION OF EXISTING SUPERSTRUCTURE



PLAN

LEGEND

Removal of Existing Structure

Notes:

1. *Removal of Existing Structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include concrete removal of the bridge concrete deck, superstructure, protective shield, and partial removal of the abutments and piers down to a minimum elevation as noted in the plans.*
2. *Deck slab repair areas are based upon 5% of the deck needing partial depth repairs. Actual location and size of patches to be placed shall be determined by the Engineer in the field at the time of construction and shown on As-built plans. See Special Provision "Bridge Deck Maintenance Patching".*

BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 4	Each	1
Protective Shield	Sq. Yd.	90
Deck Slab Repair (Partial)	Sq. Yd.	19

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

MODEL: Default
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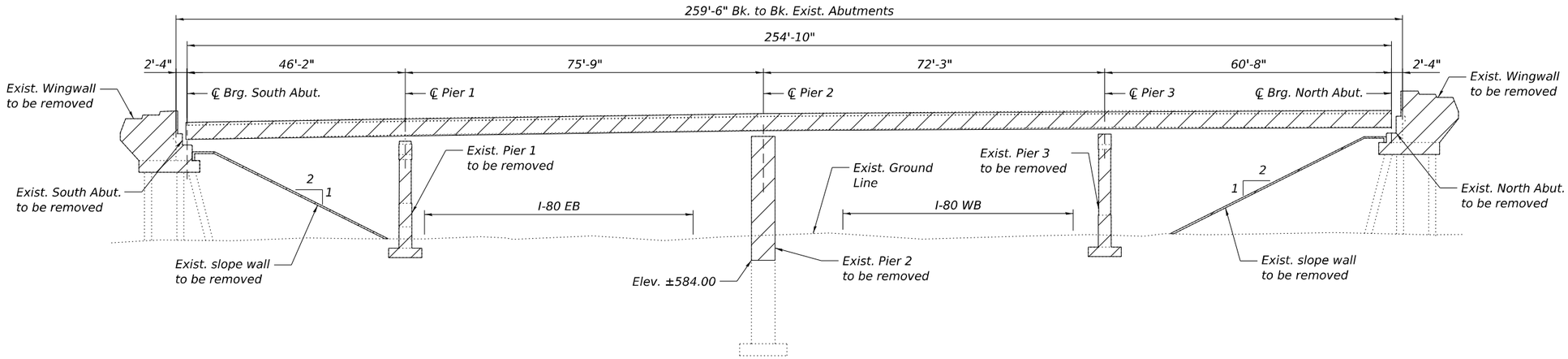
PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

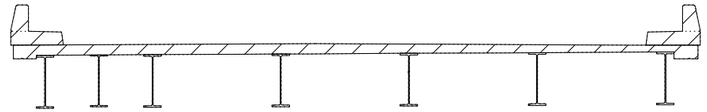
STRUCTURE NO. 099-0074
BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
SHEET SN-5 OF SN-11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	814
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

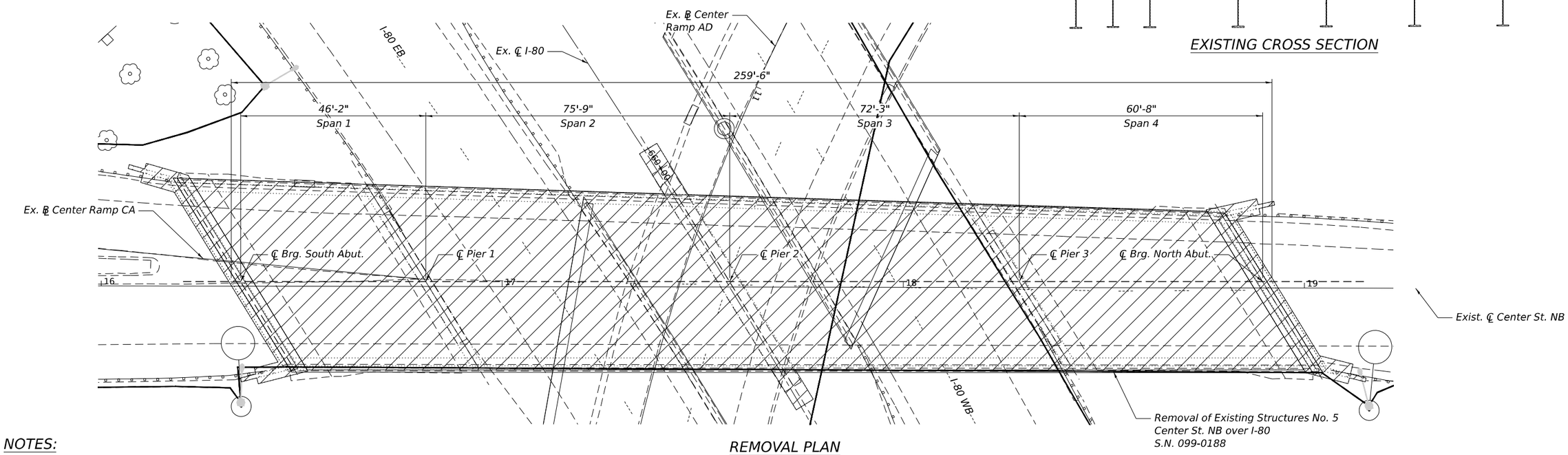
Existing Structure: S.N. 099-0188 is a 259'-6" long back-to-back abutments, four span structure originally built in 1961. The existing structure has a multi-beam non-composite superstructure with a varying width of ±39'-5 1/2" to ±47'-10". The existing abutments are founded on piles and the mulitcolumn piers and straddle bent pier are founded on spread footings.



REMOVAL ELEVATION



EXISTING CROSS SECTION



REMOVAL PLAN

NOTES:

1. *Removal of Existing Structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include concrete removal of the bridge concrete deck, superstructure, protective shield, and partial removal of the abutments and piers down to a minimum elevation as noted in the plans.*
2. *Deck slab repair areas are based upon 5% of the deck needing partial depth repairs. Actual location and size of patches to be placed shall be determined by the Engineer in the field at the time of construction and shown on As-built plans. See Special Provision "Bridge Deck Maintenance Patching".*
3. *For substructure removal details, see sheets SN-7 through SN-10.*
4. *The existing metal handrail removal shall not be paid separately but shall be included in the cost of Removal of Existing Structures No. 5.*

LEGEND

Removal of Existing Structures

BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 5	Each	1
Deck Slab Repair (Partial)	Sq. Yd.	63

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HBM ENGINEERING GROUP, LLC

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	DRAWN - PG	REVISED -	
PLOT SCALE = 25.999 ' / in.	CHECKED - MI	REVISED -	
PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-0188
BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS

SHEET SN-6 OF SN-11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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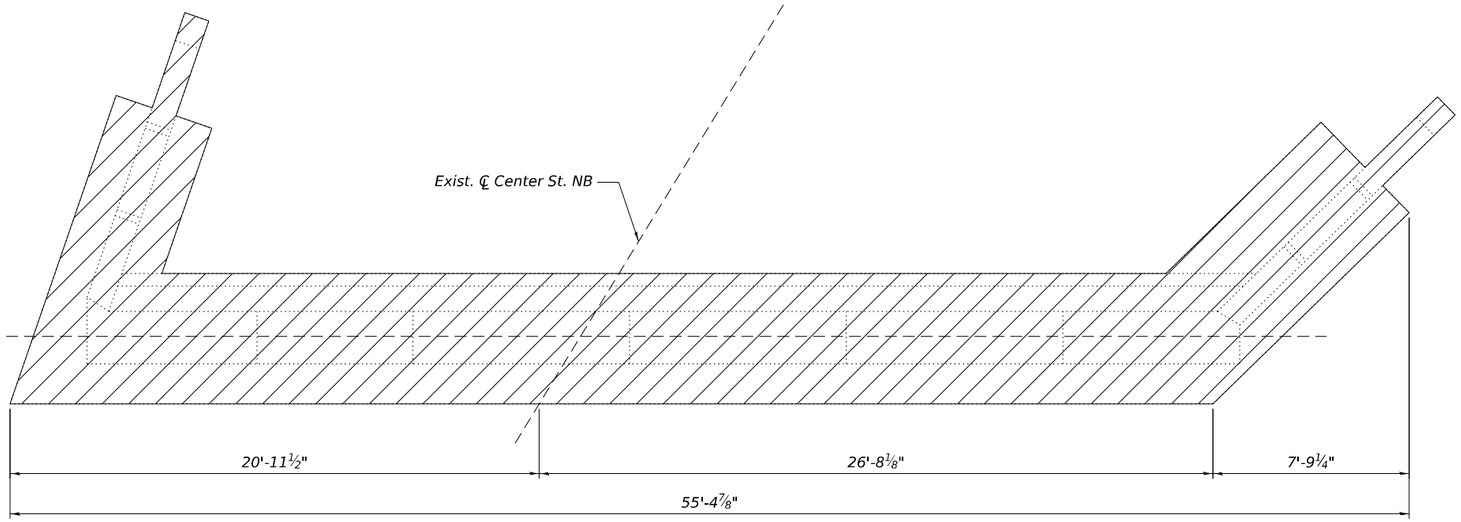
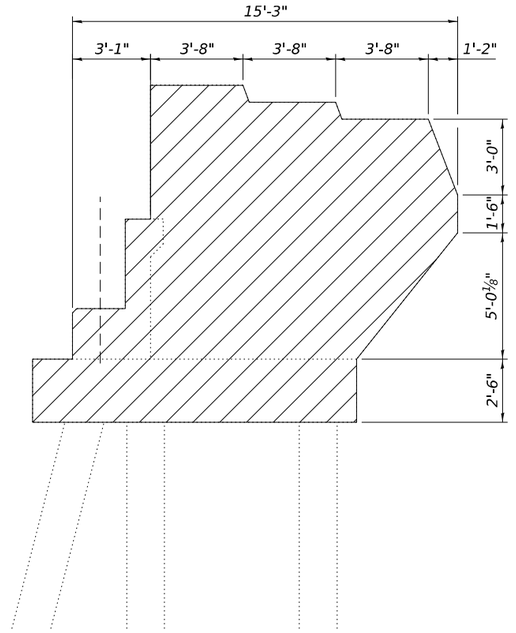
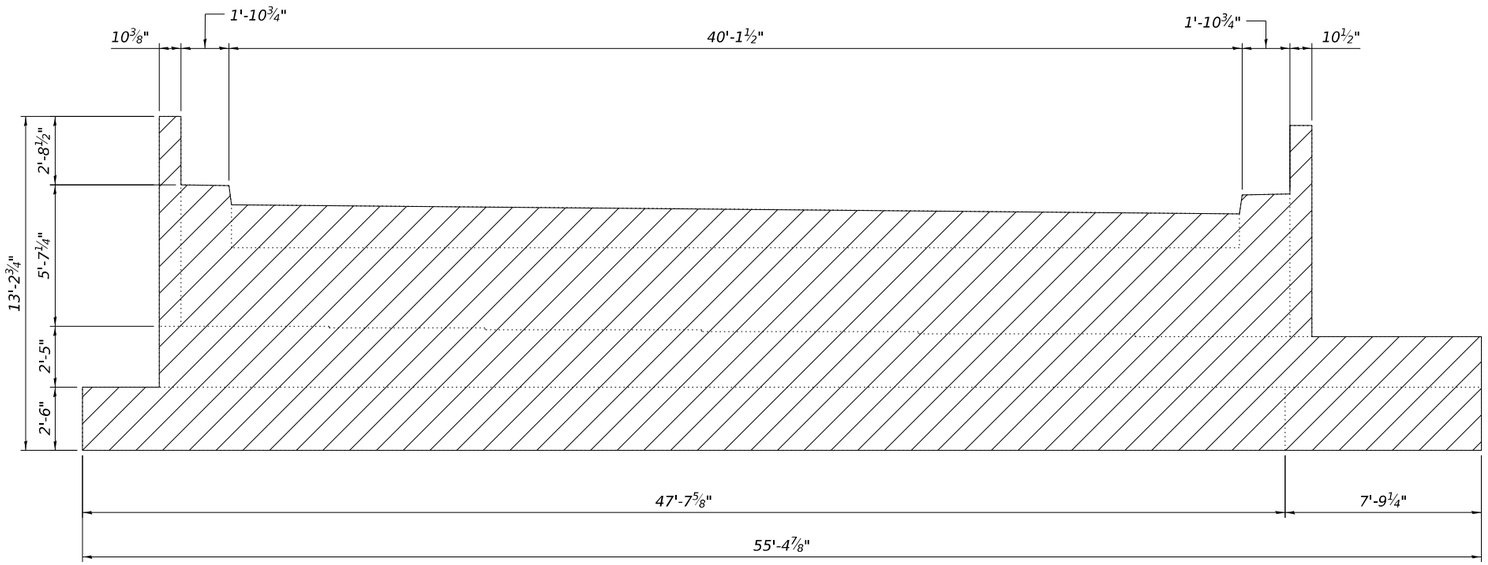
		CONTRACT NO. 62R22		
		ILLINOIS FED. AID PROJECT		



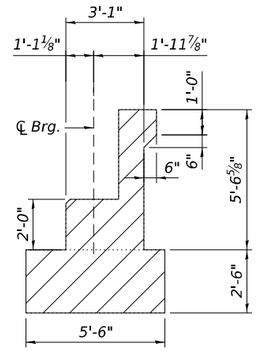
PLAN - NORTH ABUTMENT REMOVAL



ELEVATION - TYPICAL WINGWALL REMOVAL



ELEVATION - NORTH ABUTMENT REMOVAL



SECTION THRU NORTH ABUTMENT

NOTES:

1. Existing Piles shall not be removed.

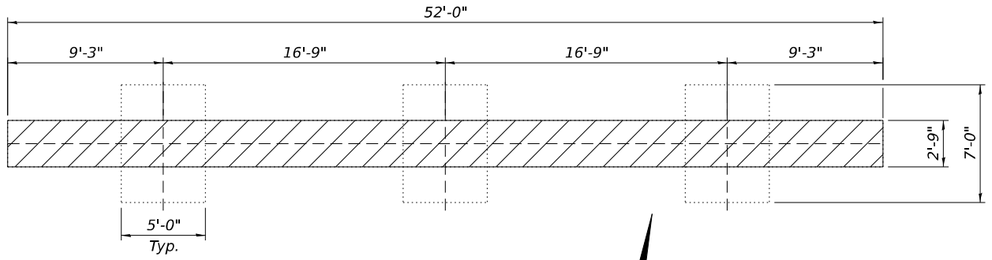
LEGEND

Removal of Existing Structures

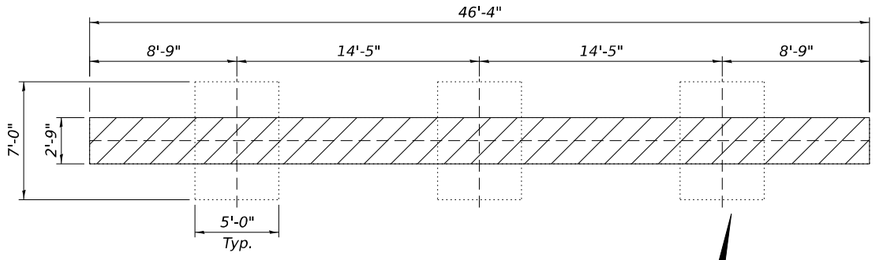
MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-Hosted/Documents/Projects_2018/CH4014011800220/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Exist_Struct_Removal/Exist_Struct_Removal_099018B-62R22-ESN007.dgn

HBM ENGINEERING GROUP, LLC	USER NAME = USSJ696614	DESIGNED - PG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 099-0188
		DRAWN - PG	REVISED -		BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
	PLOT SCALE = 6.000 ' / in.	CHECKED - MI	REVISED -		SHEET SN-7 OF SN-11 SHEETS
	PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -		

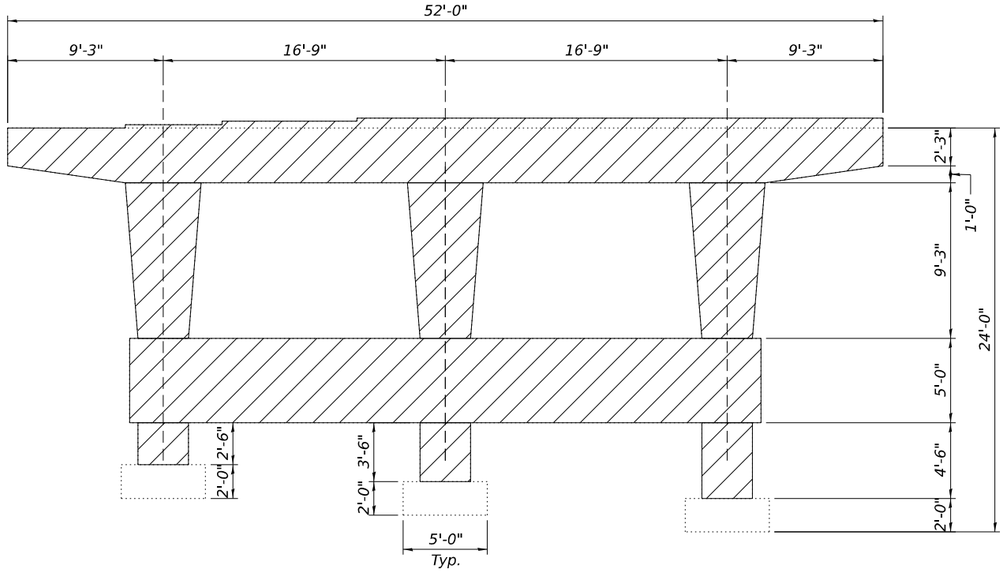
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	816
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		



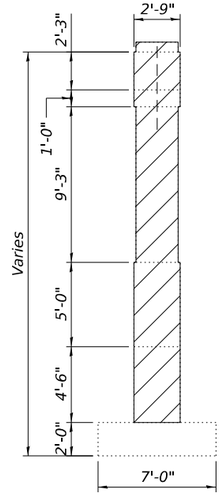
PLAN - PIER 1 REMOVAL



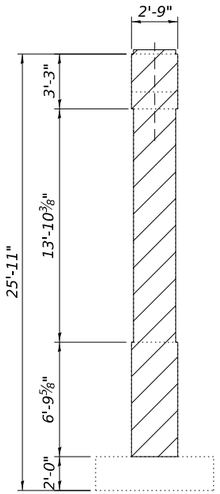
PLAN - PIER 3 REMOVAL



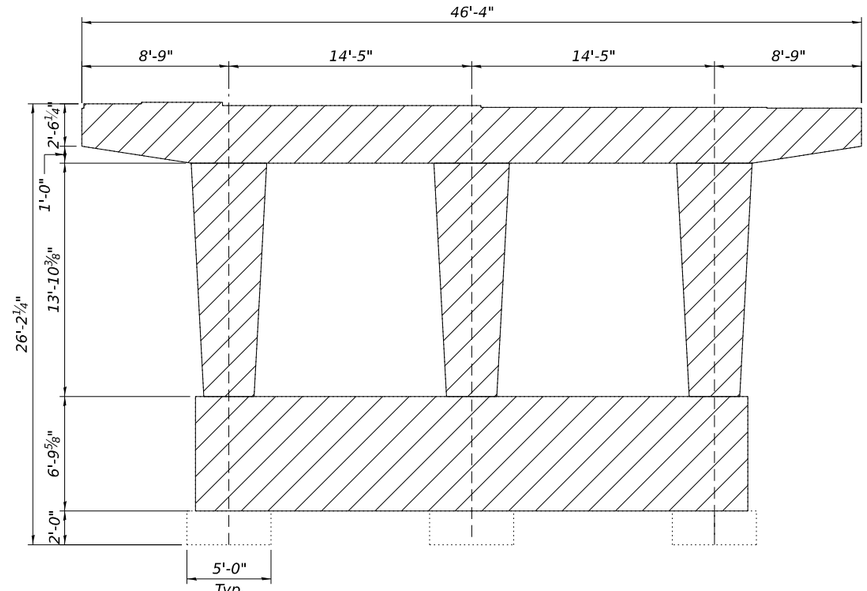
ELEVATION - PIER 1 REMOVAL



SIDE ELEVATION - PIER 1



SIDE ELEVATION - PIER 3



ELEVATION - PIER 3 REMOVAL

LEGEND

Removal of Existing Structures

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HBM ENGINEERING GROUP, LLC	USER NAME = USSJ696614	DESIGNED - PG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 099-0188
		DRAWN - PG	REVISED -		BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
	PLOT SCALE = 9.000 ' / in.	CHECKED - MI	REVISED -		SHEET SN-8 OF SN-11 SHEETS
	PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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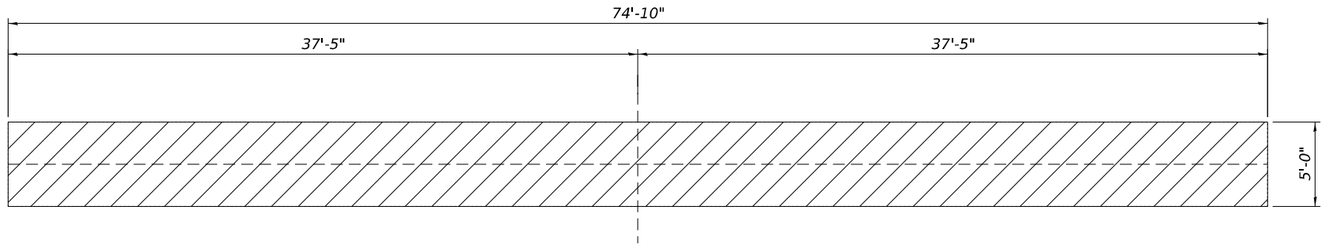
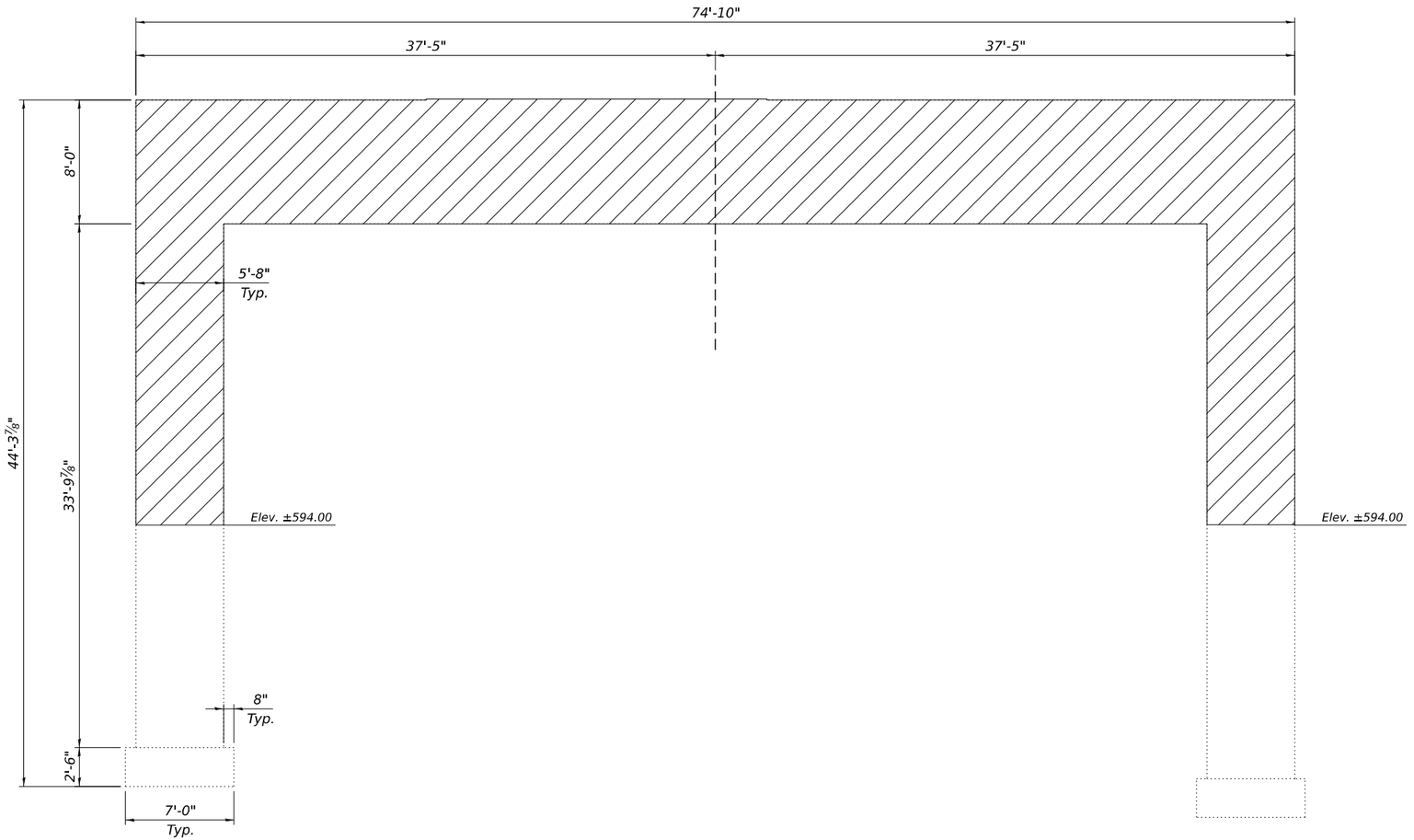
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

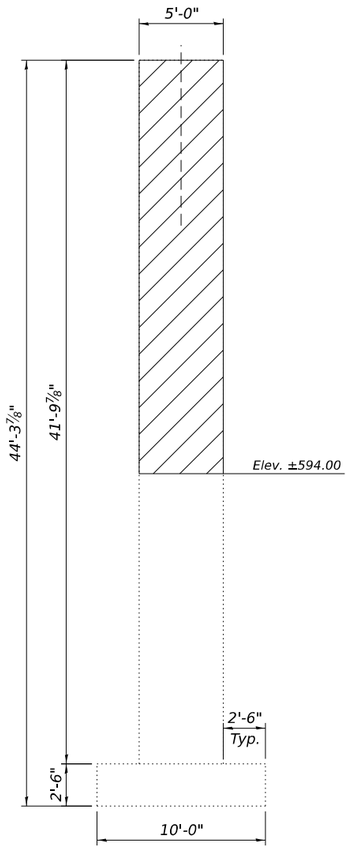


LEGEND

Removal of Existing Structure

PLAN - PIER 2 REMOVAL





ELEVATION - PIER 2 REMOVAL

SIDE ELEVATION - PIER 2

MODEL: Default
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HBM ENGINEERING GROUP, LLC

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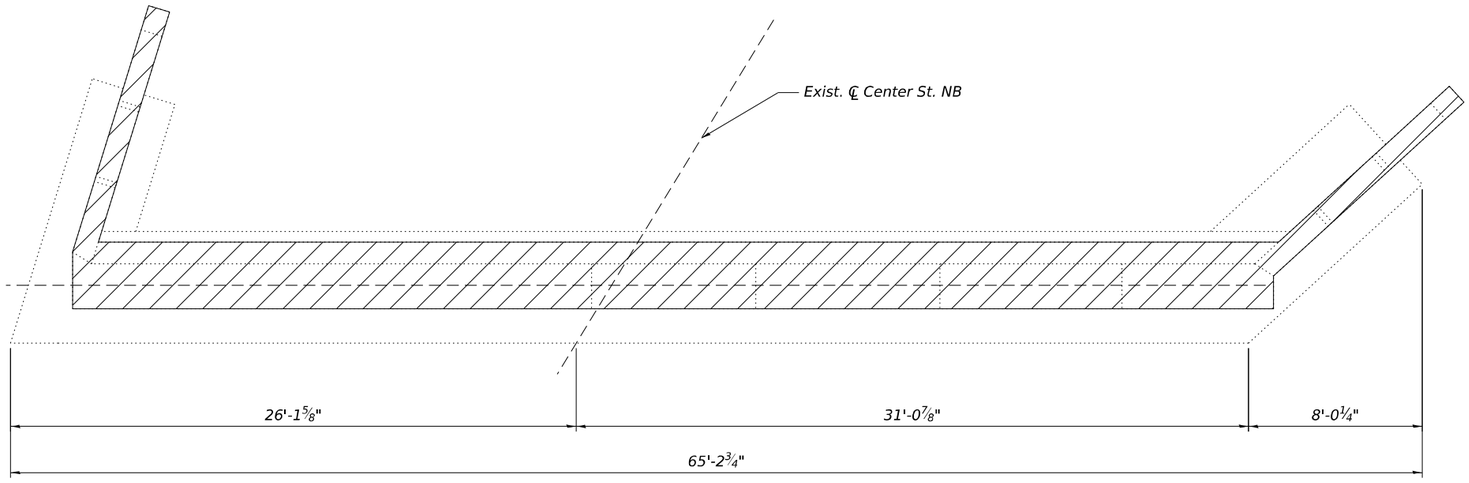
	DRAWN - PG	REVISED -	
PLOT SCALE = 9.000 ' / in.	CHECKED - MI	REVISED -	
PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -	

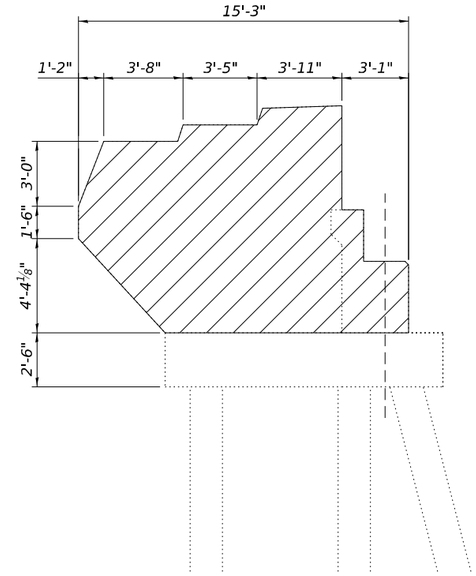
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

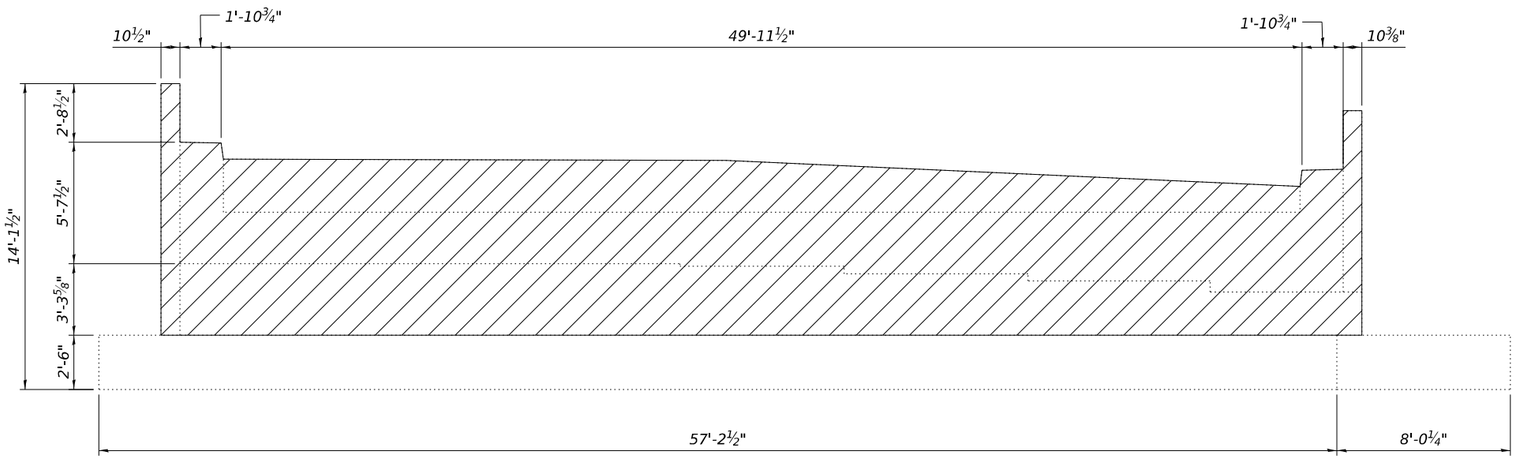
STRUCTURE NO. 099-0188
BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
SHEET SN-9 OF SN-11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	818
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

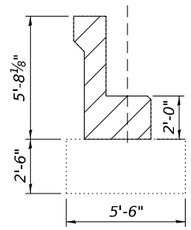


PLAN - SOUTH ABUTMENT REMOVAL





ELEVATION - SOUTH ABUTMENT REMOVAL



SECTION THRU SOUTH ABUTMENT

LEGEND

Removal of Existing Structures

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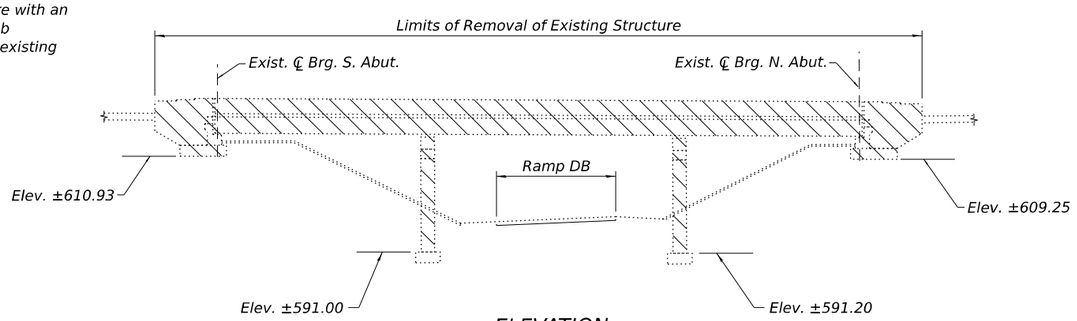
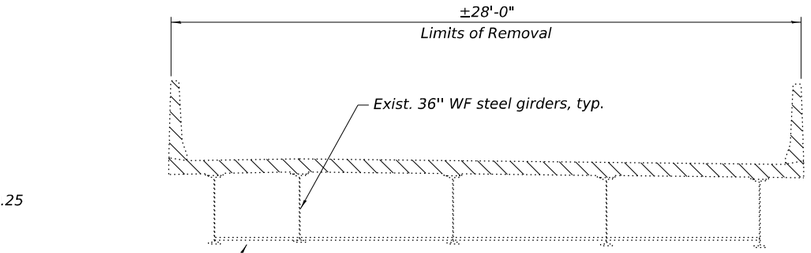
HBM ENGINEERING GROUP, LLC	USER NAME = USSJ696614	DESIGNED - PG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 099-0188 BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS SHEET SN-10 OF SN-11 SHEETS
		DRAWN - PG	REVISED -		
	PLOT SCALE = 7.000 ' / in.	CHECKED - MI	REVISED -		
	PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	819
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

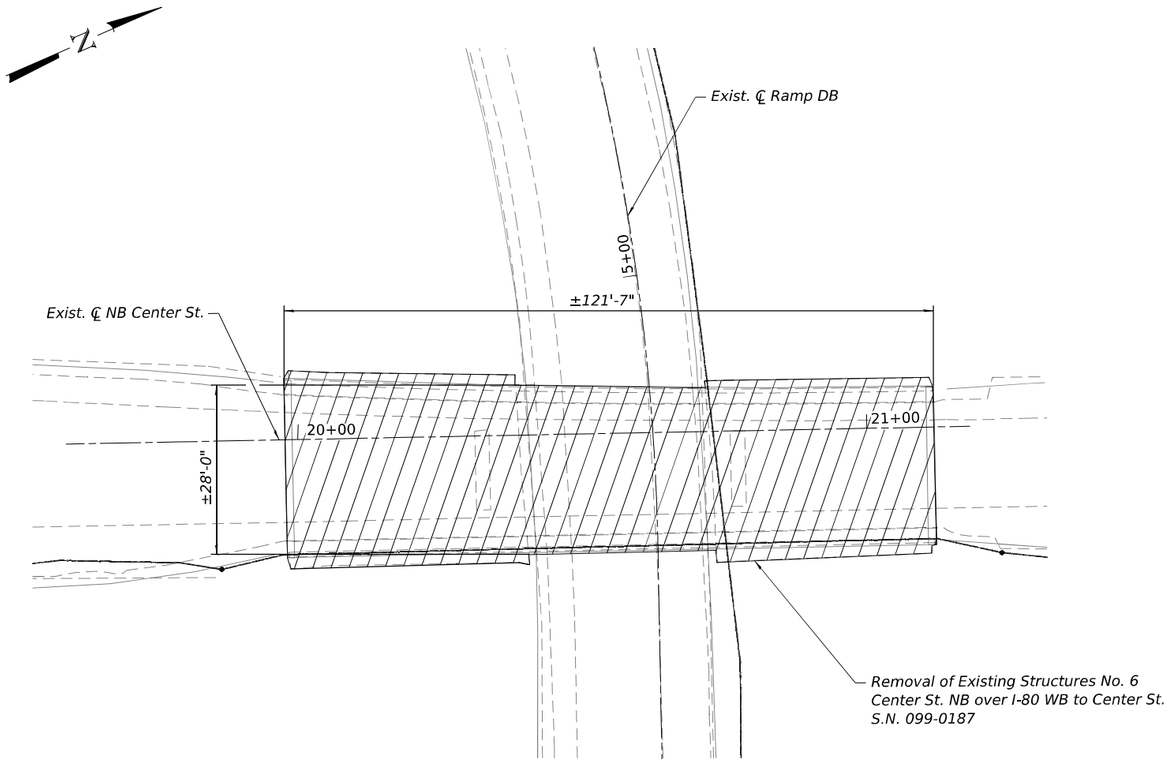
Existing Structure: S.N. 099-0187 is a ±121'-7" long back to back of abutments, three span structure originally built in 1961. The existing structure has a multi-beam non-composite superstructure with an overall width of ±28'-0". The existing stub abutments are founded on piles and the existing piers are founded on spread footings.



ELEVATION



CROSS SECTION OF EXISTING SUPERSTRUCTURE



PLAN

LEGEND

Removal of Existing Structure

Notes:

1. *Removal of Existing Structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include concrete removal of the bridge concrete deck, superstructure, protective shield, and partial removal of the abutments and piers down to a minimum elevation as noted in the plans.*
2. *Deck slab repair areas are based upon 5% of the deck needing partial depth repairs. Actual location and size of patches to be placed shall be determined by the Engineer in the field at the time of construction and shown on As-built plans. See Special Provision "Bridge Deck Maintenance Patching".*

BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 6	Each	1
Deck Slab Repair (Partial)	Sq. Yd.	18

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - MHD	REVISED -	
	DRAWN - MHD	REVISED -	
PLOT SCALE = 26:7.9872 '=' / in.	CHECKED - PJL	REVISED -	
PLOT DATE = 4/22/2025	DATE - 6/14/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-0187
BRIDGE MAINTENANCE PATCHING & EXIST. STR. REMOVAL PLANS
SHEET SN-11 OF SN-11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	820
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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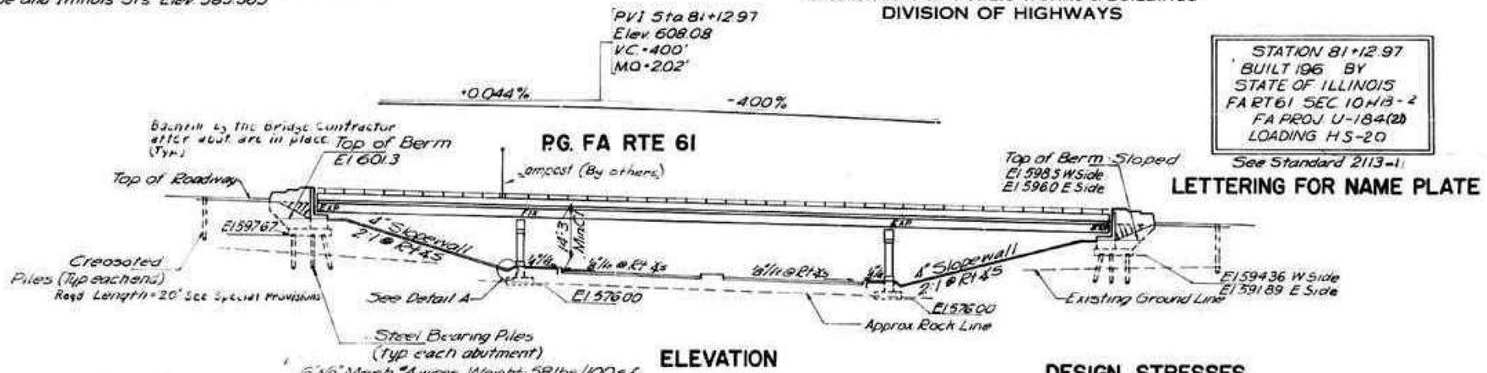
Bench Mark No 468 Top of Ring (for chains to caps on outlets) on Fire Hydrant S Side Hyd, N W Corner Munroe and Illinois Sts Elev 585.365

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 331	2,1&2	WILL	197	136
FAI 80	99-3			
FED. ROAD DIST. NO. 1	ILLINOIS	STA. U-184(21)		

SHEET NO 1
SHEETS 10

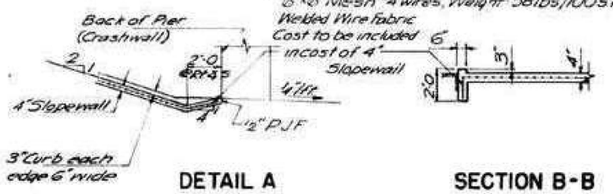


ELEVATION

STATION 81+12.97
BUILT 196 BY
STATE OF ILLINOIS
FA RT 61 SEC 10 H/B-2
FA PROJ U-184(21)
LOADING H S-20

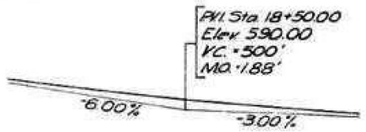
See Standard 2113-11

LETTERING FOR NAME PLATE



DETAIL A

SECTION B-B



P.G. McDONOUGH STREET

DESIGN STRESSES

Reinforced Concrete
- fc = 3,500 psi
- fs = 20,000 psi
- n = 10
- fc = 1,400 psi (without Earth Pressure
- fc = 1000 psi (with Earth Pressure)
- vc = 90 psi (without Earth Pressure)
- vc = 75 psi (with Earth Pressure)

Structural Steel
- fs = 20,000 psi (ASTM A36)

Loading H S 20-44

GENERAL NOTES

Class X Concrete shall be used throughout Coarse aggregate used in parapets and end posts shall be free of chert, flint, limonite, lignite and soft sandstone.

The concrete floor slab shall be finished in accordance with Article 511.19 of the Standard Specifications.

All welding shall comply with the requirements of the Standard Specifications for Welded Highway and Railway Bridges, of the American Welding Society.

All Rockers, Bolsters, Bearing Plates, Lead Plates, Pintles, and Anchor Bolts shall be fabricated and set in accordance with Article 511.15 of the Standard Specifications and are included in quantity of Structural Steel.

Anchor Bolts shall be set before connecting diaphragms over support. Space reinforcing to miss Anchor Bolts.

Expansion guards and plates shall be fabricated and erected in accordance with Article 511.13(d) of the Standard Specifications and are in quantity of Structural Steel.

Except as otherwise provided all Structural Steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 561 to 565 inclusive of the Standard Specifications.

All surfaces of expansion guards inaccessible after erection shall be given two shop coats of red lead paint. The ¾"ϕ welded studs shall not be painted.

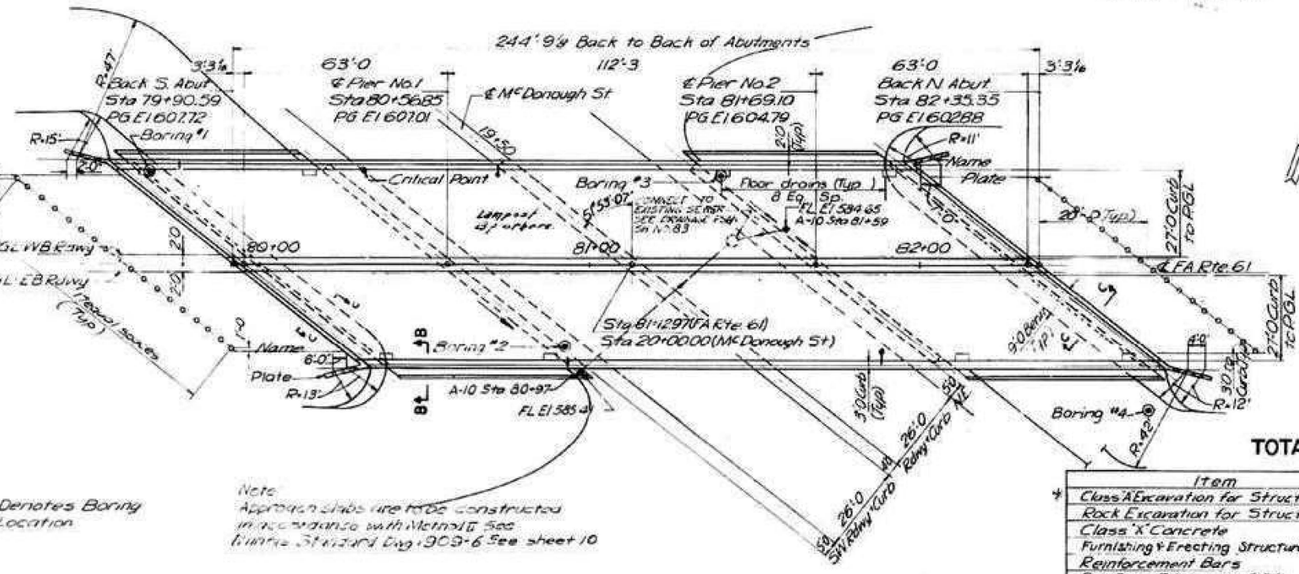
The Contractor shall drive two(2) test piles in permanent locations as directed by the Engineer, before ordering remainder of piles. One each of either one of the East and West Abutments.

No rock larger than 3' shall be placed in fills in the area where piles are to be driven.

All steel bearing piles are to be driven to refusal.

Rivets shall be ¾"ϕ with ⅞"ϕ open holes unless noted.

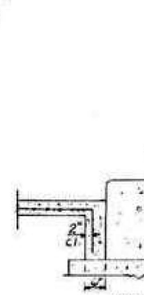
Structural steel shall conform to the specifications for structural steel, ASTM - A36.

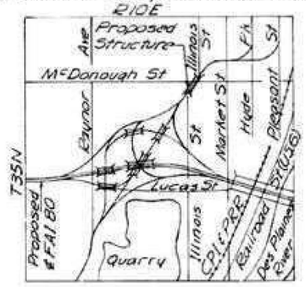


PLAN

◉ Denotes Boring Location

Note
Approach slabs are to be constructed in accordance with Metric II Sec Illinois Standard Dwg 1909-6 See sheet 10





LOCATION PLAN

Note: Excavation for portions of structure in the embankments shall not be classified.

TOTAL BILL OF MATERIALS
Sec 10 Str 7

Item	Unit	Super	Sub	Total
Class 'A' Excavation for Structures	Cu Yd	—	361	361
Rock Excavation for Structures	Cu Yd	—	21	21
Class 'X' Concrete	Cu Yd	436.0	594.8	1030.8
Furnishing & Erecting Structural Steel	Lb	608,970	—	608,970
Reinforcement Bars	Lb	118,360	57,730	176,090
Fur. Creo Piles up to 20 ft	Lin Ft	—	720	720
Driving Timber Piles	Lin Ft	—	720	720
Furnishing Steel Piles 10BP42	Lin Ft	—	1040	1040
Test Piles Steel 10BP42	Each	—	2	2
Driving Steel Piles	Lin Ft	—	1040	1040
Name Plates	Each	2	—	2
Slopewall 4"	Sq Yd	—	113.4	113.4
Aluminum Handrail	Lin Ft	483	—	483
Bridge Seat Sealant	Lump Sum		0.1	0.1
Protective Coat	Sq Yd	1880	—	1880

* Includes excavation for Slope Walls
** Applied at abutments.

Revised 2-27-63 Change leng. of Cre Piles from 22' to 20'. Change turn Earning Cre. timber piles from 792 to 720 lin. ft

Rev 12-19-62 Prot Coat = 1880 Sq Yd. SFM.

12-16-64 J.M.J. Rev. class X conc 1030.4 to 1030.8 cu yds, reinforcing bars from 168,170 to 176,290 Slope wall from 1134 to 1134 sq yds. Added Bridge Seat Sealant.

Prepared and recommended by Blauvelt Engineering Co. Structural Engineer
*81-2251

GENERAL PLAN & ELEVATION
FA 61 OVER
McDONOUGH STREET
FA 61 STA. 81+12.97

F A ROUTE 61	PROJECT U-184(21)
SECTION 10 Str 7	WILL COUNTY
Scale NO SCALE	Date NOV 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	GMN
CHECKED	CS
DRAWN	GMN
CHECKED	HSR

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901866-62R22-Existing01.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
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PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

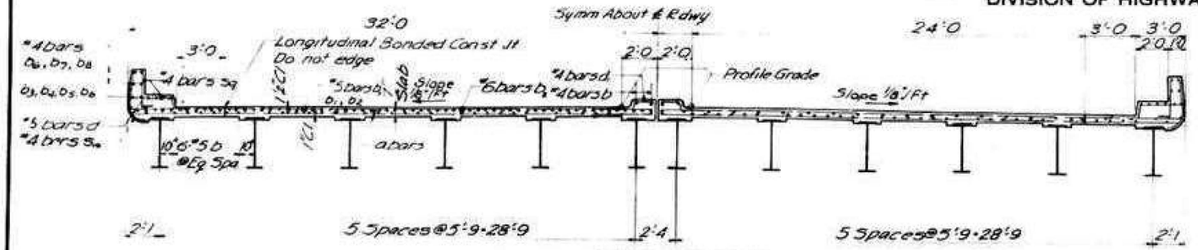
SHEET 1 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	821
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

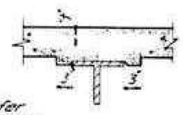
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80	10	WILL	197	154
FAS	10-7			
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 2
SHEETS 10

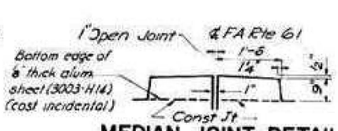


CROSS SECTION



After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at int shown on DL Defl Diag From these elevations subtract the increment of deflections for these points determined from the DL Deflection Diagram The elevations so attained subtracted from the theoretical grade elevations minus floor thickness equals the fillet heights above top of beam

METHOD OF DETERMINING FILLET HEIGHT "t"

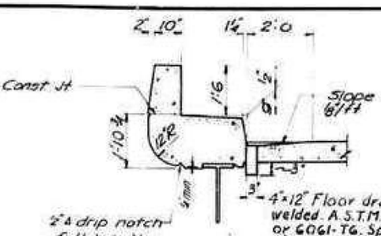


MEDIAN JOINT DETAIL

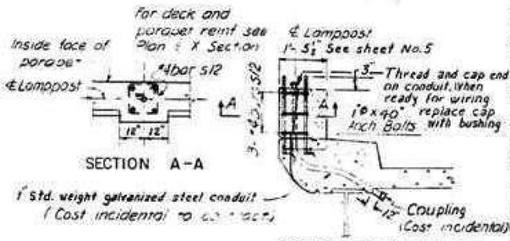
BILL OF MATERIALS

Class X Concrete	Cu Yds	4360
Reinf. Bars	Lbs	118,500
*Structural Steel	Lbs	60897.0

*Structural Steel includes weight of rockers, bolsters, bearing plates, lead plates, pintles, and anchor bolts Estimated Wt = 14,530#



CURB DETAIL

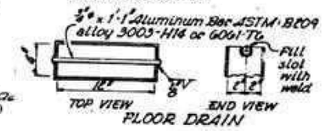


DETAILS AT LAMPPOST
for details and location of lamppost see Sheet No. 5

BILL OF REINFORCEMENT

Bar	No	Size	Lgth	Shape
a	906	#5	31'-8	—
a_1	906	#5	31'-2	—
a_2*	300	#5	32'-0	—
a_3	18	#5	4'-0	—
a_4	18	#5	26'-6	—
b	756	#5	30'-0	—
b_1	108	#5	38'-6	—
b_2	168	#6	26'-9	—
b_3	64	#4	30'-0	—
b_4	32	#4	28'-0	—
b_5	16	#4	39'-0	—
b_6	104	#4	7'-0	—
b_7	96	#4	14'-6	—
b_8	16	#4	11'-6	—
d	240	#5	9'-8"	⌐
d_1	480	#4	3'-4	⊓
S_9	48	#4	3'-7	⌐
S_{10}	482	#5	3'-6	L
S_{12}	6	#4	3'-7	□

*Bar will vary from 2'-0 to full length minus 2'-0.



FLOOR DRAIN

ELEVATIONS - TOP OF SLAB**
(See sheet #3 for locations of points)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	607.63	607.58	607.52	607.46	607.38	607.28	607.18	607.07	606.95	606.82	606.68	606.53	606.37	606.19	606.01	605.81	605.61	605.40	605.16	604.90	604.66	604.40	604.12	603.83
B	607.66	607.60	607.54	607.46	607.37	607.28	607.17	607.05	606.92	606.78	606.63	606.47	606.30	606.12	605.93	605.73	605.52	605.29	605.04	604.80	604.54	604.27	603.98	603.68
C	607.68	607.62	607.55	607.46	607.37	607.26	607.14	607.02	606.88	606.73	606.58	606.41	606.23	606.03	605.83	605.64	605.42	605.19	604.94	604.68	604.41	604.13	603.84	603.53
D	607.70	607.63	607.55	607.46	607.35	607.24	607.11	606.98	606.84	606.68	606.52	606.35	606.16	605.96	605.76	605.54	605.31	605.08	604.82	604.55	604.27	603.99	603.69	603.37
E	607.71	607.63	607.54	607.44	607.33	607.21	607.08	606.94	606.79	606.63	606.45	606.27	606.08	605.88	605.66	605.44	605.20	604.96	604.70	604.42	604.13	603.84	603.53	603.21
F	607.72	607.63	607.54	607.43	607.31	607.18	607.04	606.89	606.73	606.56	606.39	606.20	606.00	605.78	605.56	605.33	605.09	604.84	604.56	604.28	603.99	603.68	603.37	603.04
G	607.69	607.61	607.51	607.40	607.28	607.14	607.00	606.83	606.66	606.47	606.27	606.06	605.84	605.61	605.36	605.11	604.84	604.56	604.27	603.97	603.66	603.34	603.01	602.67
H	607.51	607.48	607.37	607.25	607.12	606.98	606.83	606.67	606.50	606.32	606.13	605.93	605.72	605.50	605.27	605.03	604.77	604.51	604.23	603.94	603.63	603.31	602.98	602.63
J	607.45	607.34	607.23	607.10	606.96	606.82	606.66	606.49	606.32	606.13	605.93	605.72	605.50	605.27	605.04	604.80	604.54	604.27	603.99	603.69	603.39	603.07	602.74	602.39	602.04
K	607.32	607.21	607.08	606.95	606.80	606.65	606.48	606.31	606.12	605.93	605.72	605.50	605.27	605.03	604.78	604.52	604.25	603.97	603.68	603.37	603.05	602.72	602.38	602.02
L	607.18	607.06	606.93	606.79	606.64	606.47	606.30	606.12	605.93	605.72	605.51	605.28	605.05	604.81	604.55	604.29	604.01	603.72	603.42	603.10	602.78	602.44	602.09	601.73
M	607.04	606.91	606.77	606.62	606.46	606.29	606.11	605.92	605.72	605.51	605.29	605.06	604.82	604.57	604.30	604.03	603.75	603.45	603.14	602.82	602.48	602.13	601.78	601.41

** Where Curb or Raised Median is over stringer, elevation shown is that of the projection of top of slab along its cross slope

SLAB PLAN & CROSS SECTION
FA 61 OVER
Mc DONOUGH STREET
FA 61 STA. 81+12.97

F.A. ROUTE 61 — PROJECT
SECTION 10 Str7 — WILL COUNTY
Scale: NO SCALE — Date: NOV. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. , CRYSTAL LAKE, ILL.

DESIGNED GMN
CHECKED CS
DRAWN GMN
CHECKED H.S.R.

12-1-69 J.M.J. Rev. "4 sio 4d @ 18" cts. to "5 @ 12" cts, "4 s @ 18" cts. to "4 @ 12" cts. and recrein. bars from 115,410 to 118,500 lbs.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing02.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ " / In.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

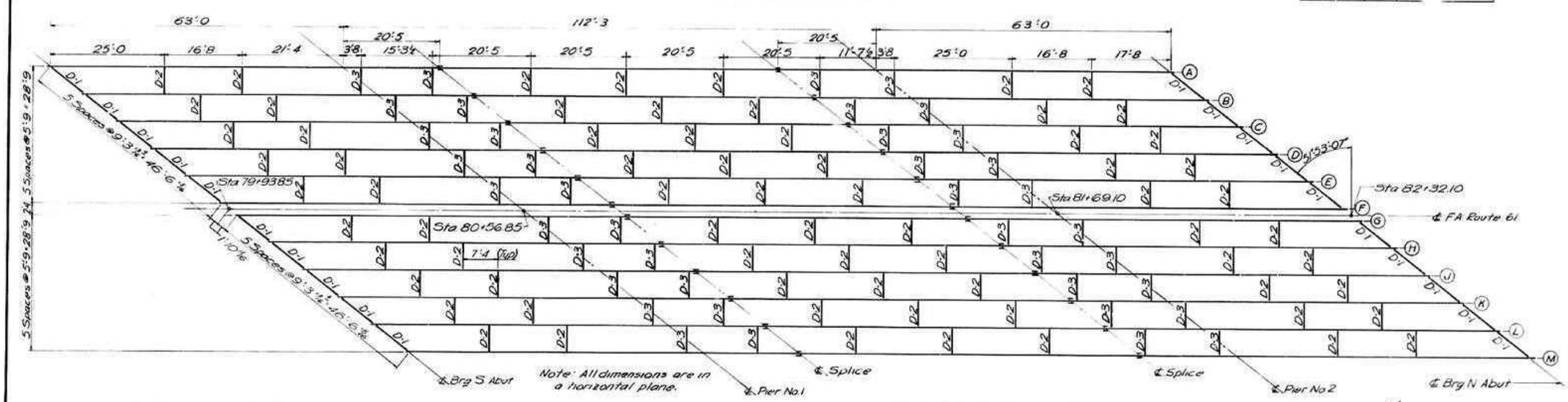
SHEET 2 OF 62 SHEETS

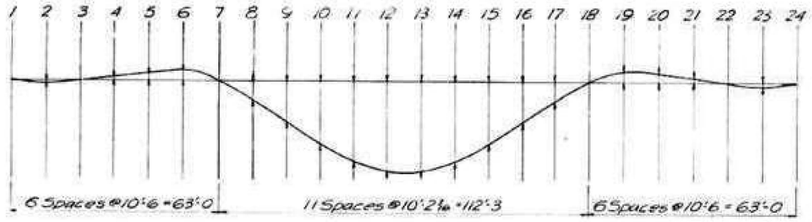
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	822
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80	58R2	WILL	197	157
FAI 80	58R3			

SHEET NO. 3
SHEETS 10

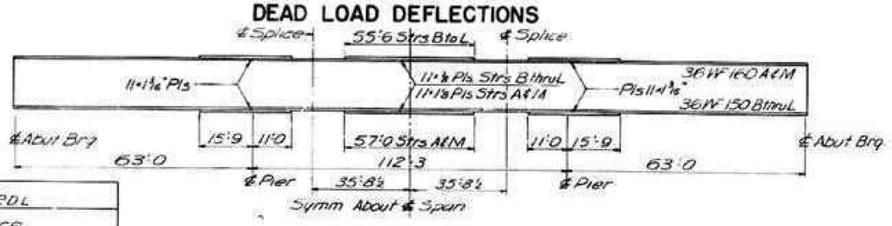




Pt / Str	Δ 2&23	4&21	5&20	6&19	8&17	9&16	10&15	11&14	12&13
A & M	00035	00064	00136	00187	00314	00651	01079	01369	01549
B thru L	00025	00046	00097	00134	00235	00486	00807	01021	01159

Δ - Dead load deflection in feet due to weight of slab

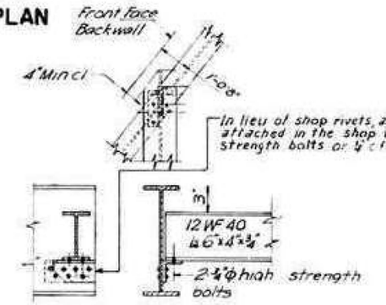
DEAD LOAD DEFLECTIONS



STRINGER DETAIL

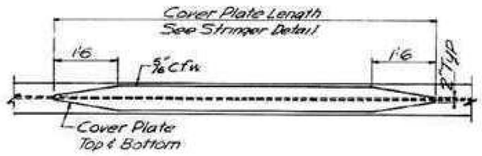
DESIGNED	RDL
CHECKED	CS
DRAWN	GMN
CHECKED	HSR

FRAMING PLAN



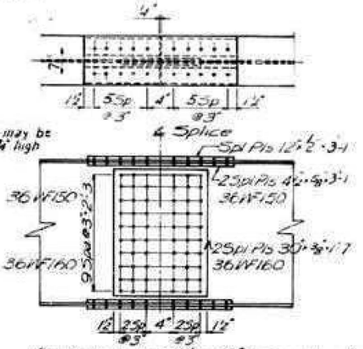
DIAPHRAGM D-2 & D-3

DIAPHRAGM D-1



COVER PLATE DETAIL

At ℄ Span 2 and At Piers 1 and 2
For Cover Plate Length See Stringer Detail



(All rivets to be ⅞" ϕ in 15/16" ϕ reamed holes)

SPLICE DETAIL

Note
For top of stringer elevations see Sheet 4.

Revised. Remove note regarding Strait Steel - A-373.
4-27-65
A.D.J.

FRAMING PLAN AND STEEL DETAILS
FA 61 OVER
Mc DONOUGH STREET
FA 61 STA. 81 + 12.97

F A ROUTE 61 — PROJECT
SECTION 10 — WILL COUNTY
Scale NO SCALE — Date NOV. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

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30 N. LASALLE STREET
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PLOT SCALE = 7:11.99616 '=' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 3 OF 62 SHEETS

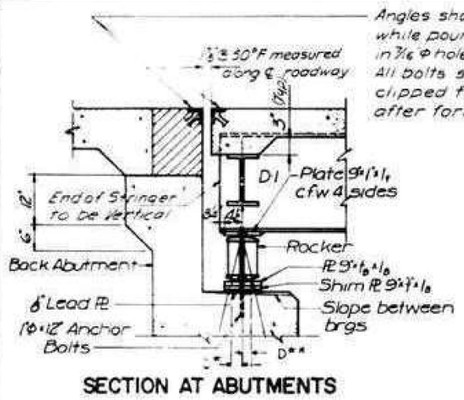
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	823
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing03.dgn

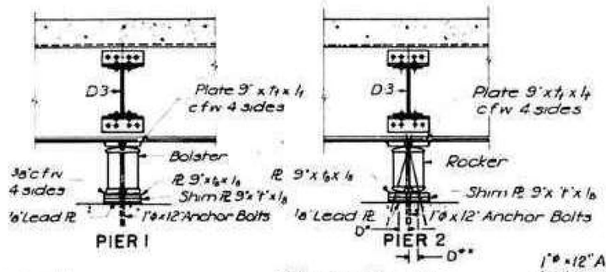
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

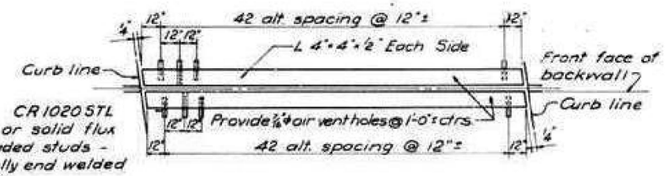
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80	10-AB 99-3	WILL	197	138
FED. ROAD DIST. NO. 9	ILLINOIS	PROJECT		

SHEET NO. 4
SHEETS 10



SECTION AT ABUTMENTS



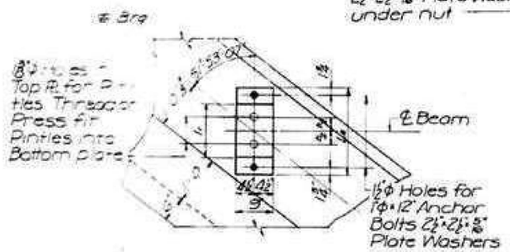


¾"φ x 8" CR 1020 STL Granular or solid flux filled headed studs - automatically end welded at 12"± ctrs.

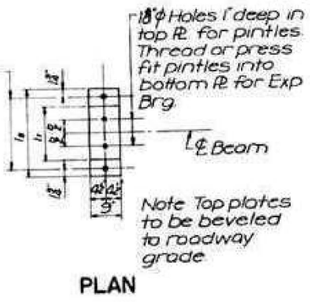
ANGLE GUARD DETAILS
(4 sets req'd)

1"φ x 12" Anchor Bolts to be grouted into drilled holes after beams are in place, or bolts at fixed pier may be built into the masonry.

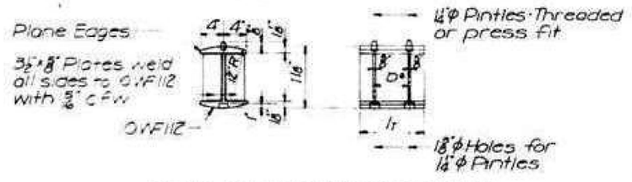
D* = 1/8 / 100 ft. of exp. for every 15°F below the normal temp. of 50°F.
D** = 1/8 / 100 ft. of exp. for every 15°F above the normal temp. of 50°F.



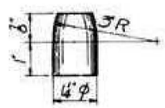
PLAN



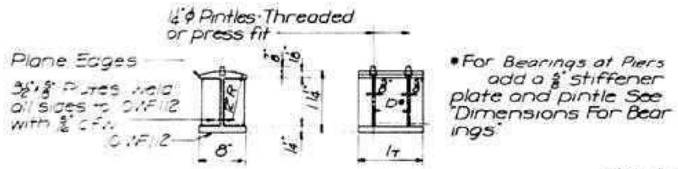
PLAN



DETAIL OF EXPANSION BEARING



DETAIL OF PINTLE



DETAIL OF FIXED BEARING

DIMENSIONS FOR BEARINGS

Str	Location	Type	l1	l8	c fw	t8	t1	b
A thru M	S.E.N. Abuts.	Exp.	13"	20⅝"	½"	1⅝"	1"	6½"
A thru M	Pier 1	Fix.	14"	21½"	⅜"	1"	1½"	9@4½"
A thru M	Pier 2	Exp.	14"	21½"	⅜"	1⅝"	1½"	9@4½"

TABLE OF "t" DIMENSIONS

Str	S Abut.	Pier 1	Pier 2	N Abut.	Str	S Abut.	Pier 1	Pier 2	N Abut.
A	—	3/8"	—	—	G	—	—	—	—
B	—	5/8"	—	—	H	—	—	—	—
C	1/4"	3/4"	—	—	J	—	—	—	—
D	1/16"	—	—	—	K	—	—	—	—
E	5/8"	7/16"	—	—	L	—	—	—	—
F	1/16"	—	—	—	M	—	—	—	—

AS AWARDED

TOP OF STRINGER ELEVATIONS

	S ABUT	PIER 1	SPLICE	SPLICE	PIER 2	N ABUT
A	606.90	606.45	606.22	605.09	604.67	603.10
B	606.94	606.45	606.20	605.01	604.57	602.97
C	606.96	606.42	606.16	604.92	604.47	602.81
D	606.98	606.39	606.12	604.82	604.36	602.65
E	606.99	606.36	606.07	604.72	604.24	602.49
F	607.00	606.32	606.01	604.61	604.12	602.32
G	606.97	606.28	605.96	604.54	604.04	602.23
H	606.85	606.11	605.78	604.31	603.79	601.93
J	606.73	605.94	605.60	604.07	603.53	601.68
K	606.60	605.76	605.40	603.82	603.27	601.32
L	606.46	605.58	605.20	603.57	603.01	601.01
M	606.31	605.38	604.99	603.30	602.72	600.68

These elevations are at top of top flange of stringers (exclusive of cover and splice plates) and are for fabrication of structural steel (no allowance for deflections)

AS BUILT

* TOP OF STRINGER ELEVATIONS

	S ABUT	PIER 1	SPLICE	SPLICE	PIER 2	N ABUT
A	606.90	606.47	606.33	605.19	604.68	603.11
B	606.94	606.48	606.33	605.14	604.61	602.97
C	606.97	606.45	606.28	605.03	604.49	602.81
D	606.98	606.42	606.24	604.94	604.38	602.65
E	607.00	606.39	606.18	604.83	604.26	602.49
F	607.00	606.34	606.13	604.73	604.14	602.32
G	606.97	606.30	606.09	604.55	604.06	602.23
H	606.85	606.13	605.90	604.42	603.81	601.93
J	606.73	605.96	605.71	604.19	603.56	601.63
K	606.60	605.78	605.51	603.93	603.29	601.32
L	606.46	605.60	605.32	603.69	603.03	601.00
M	606.31	605.40	605.11	603.41	602.74	600.68

BEARING & MISC. STEEL DETAILS
FA 61 OVER
McDONOUGH STREET

FA 61 STA. 81+12.97
F.A. ROUTE 61 PROJECT
SECTION 10 STR. 7 WILL COUNTY
Scale: NO SCALE Date: NOV. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	G.M.I.
CHECKED	C.S.
DRAWN	G.M.I.
CHECKED	H.S.B.

Rev. Top Of Stringer Elevations-As Built 4.12.66 L.H.

FOR INFORMATION ONLY

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FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing04.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

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PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

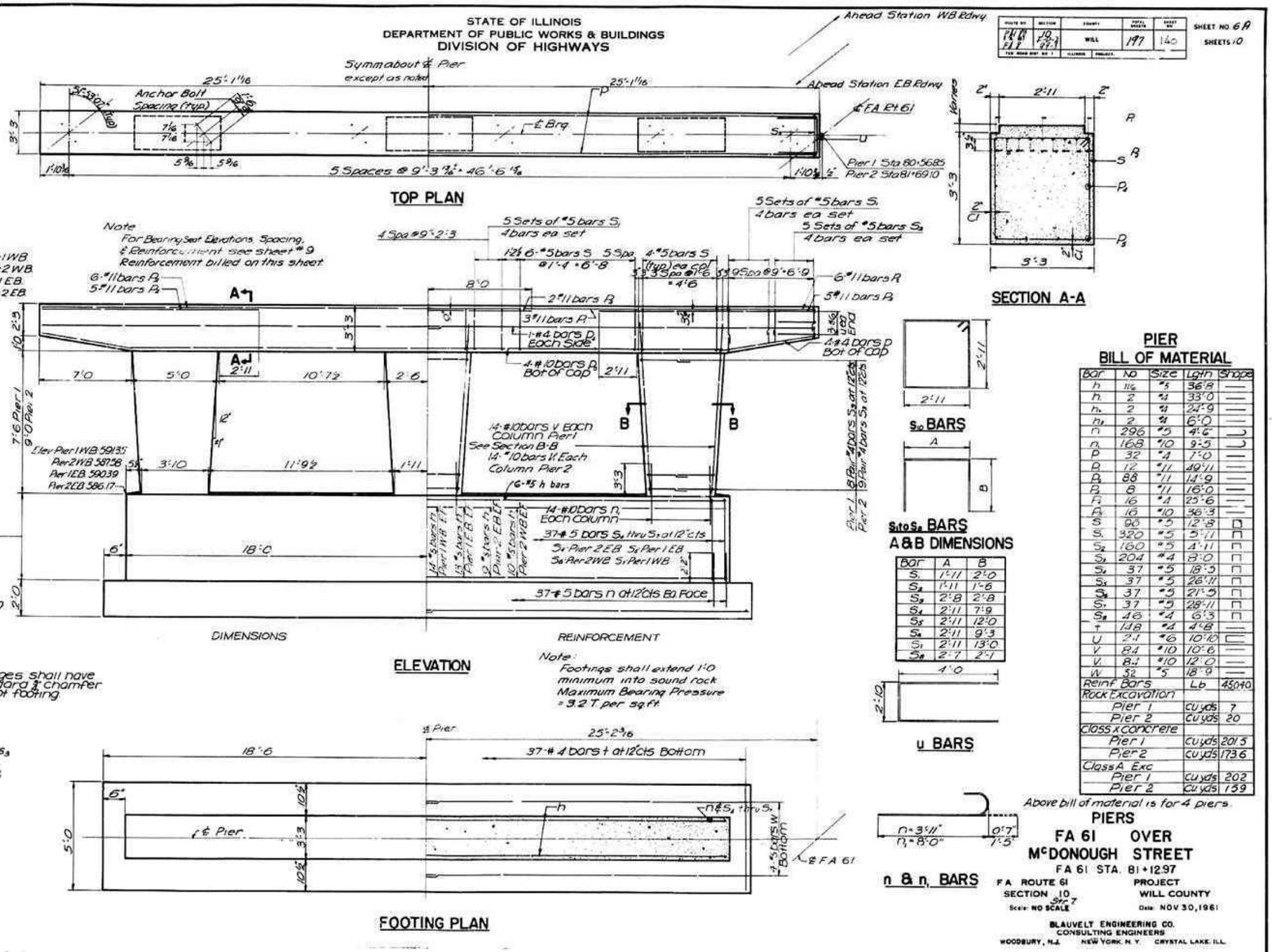
SHEET 4 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	824
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 61	10	WILL	197	140
F.A.P.	10-7			
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT		

SHEET NO. 6A
SHEETS 10



Bar	A	B
S_1	1'-11	2'-0
S_4	1'-11	1'-6
S_9	2'-8	2'-8
S_4	2'-11	7'-9
S_5	2'-11	12'-0
S_{11}	2'-11	9'-3
S_1	2'-11	13'-0
S_{11}	2'-7	2'-1

PIER
BILL OF MATERIAL

Bar	No	Size	Lgth	Shape
h	116	#5	36'-8	—
h_1	2	#4	33'-0	—
h_2	2	#4	24'-9	—
h_3	2	#4	6'-0	—
n	296	#5	4'-6	U
n_1	168	#10	9'-5	U
P	32	#4	7'-0	—
P_1	12	#11	49'-11	—
P_2	88	#11	14'-9	—
P_3	8	#11	16'-0	—
P_4	16	#4	25'-6	—
P_5	16	#10	36'-3	—
S	90	#5	12'-8	□
S_1	320	#5	3'-11	□
S_2	160	#5	4'-11	□
S_3	204	#4	13'-0	□
S_4	37	#5	18'-5	□
S_5	37	#5	26'-11	□
S_6	37	#5	21'-5	□
S_7	37	#5	28'-11	□
S_8	46	#4	6'-3	□
t	148	#4	4'-8	—
U	24	#6	10'-10	⊏
V	84	#10	10'-6	—
V_1	84	#10	12'-0	—
W	32	#5	18'-9	—
Reinf Bars		Lb	45040	
Rock Excavation				
Pier 1		cu yds	7	
Pier 2		cu yds	20	
Class X concrete				
Pier 1		cu yds	201.5	
Pier 2		cu yds	173.6	
Class A Exc				
Pier 1		cu yds	202	
Pier 2		cu yds	139	

Above bill of material is for 4 piers.

DESIGNED	RDL
CHECKED	CS
DRAWN	GMN
CHECKED	HSR

PIERS
FA 61 OVER
McDONOUGH STREET
FA 61 STA. 81+12.97
FA ROUTE 61 PROJECT
SECTION 10 Str 7 WILL COUNTY
Scale: NO SCALE Date: NOV 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

12-2-64 J.M.J. Rev. Reinf. bars from 40,010 to 45,040 lbs

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

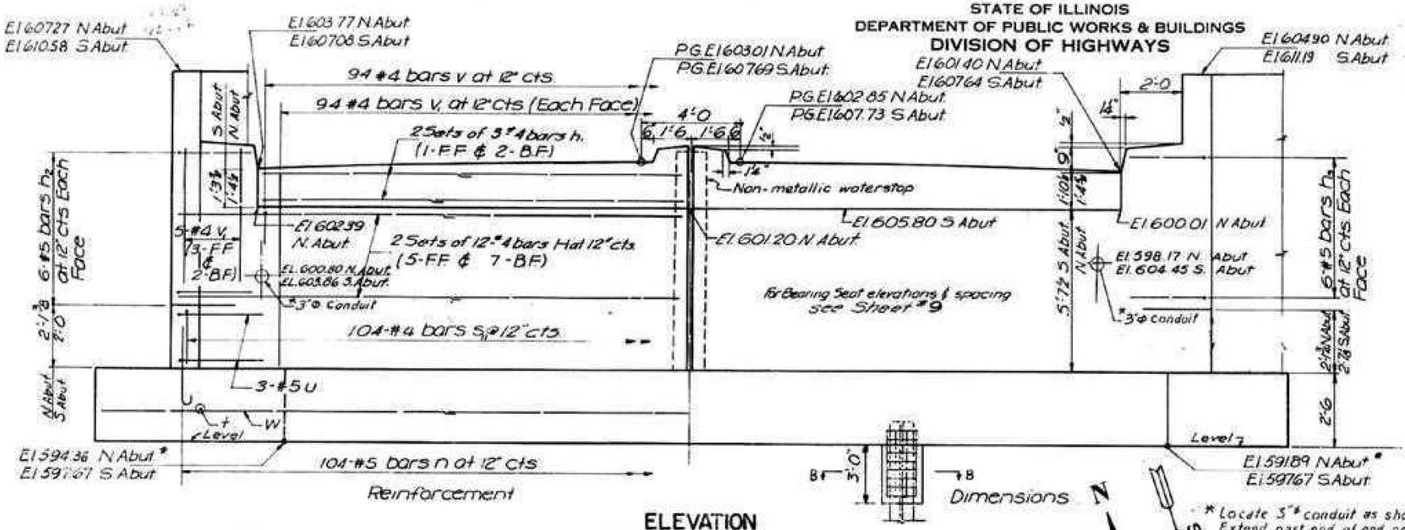
EXISTING BRIDGE PLANS
SHEET 5 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	825
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

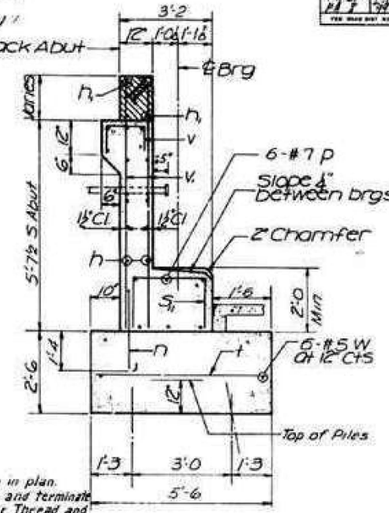
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 80	10	WILL	197	141
FAS 1179	5BR-7			
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 7
SHEETS 10



ELEVATION
At Right Angles to Roadway

*North Abutment Footing slopes 2.64 % down from West to East
South Abutment Footing level.



SECTION A-A

* Locate 3"ø conduit as shown in plan. Extend past end of end post and terminate at a point outside of shoulder. Thread and cap each end of conduit. Cost incidental to bridge structure.

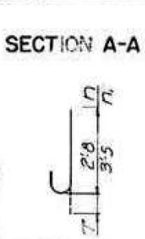
NO. & SO. ABUTMENTS BAR LIST

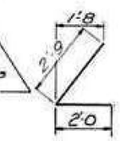
Bar	NO	Size	Lgth	Shape
h	96	#4	27'-3	—
h1	24	#4	23'-9	—
h2	12	#5	4'-9	L
h3	12	#5	5'-0	⌋
n	208	#5	3'-3	⊐
n1	56	#5	4'-0	⊐
p	48	#7	27'-3	—
S1	208	#4	6'-6	⊓
t	208	#5	5'-0	—
t1	32	#5	4'-6	—
U	12	#5	5'-9	⊓
V	188	#4	2'-9	⊓
V1	396	#4	6'-6	—
W	36	#5	34'-1"	—
W1	10	#5	11'-0	—
W2	10	#5	8'-9	—

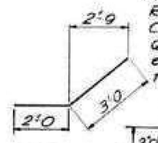
NO. & SO. ABUTMENTS BILL OF MATERIALS

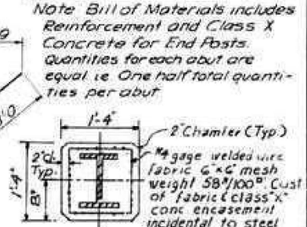
Item	Unit	Quan
Class X Concrete	Cu Yds	219.7
Reinf. Bars	lbs	12750
Steel Piles(10BP42)	L.F	1040
Test Piles Steel 10BP42	Each	2

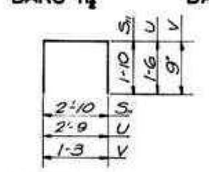
Note Bill of Materials includes Reinforcement and Class X Concrete for End Posts. Quantities for each abut are equal ie One half total quantities per abut.

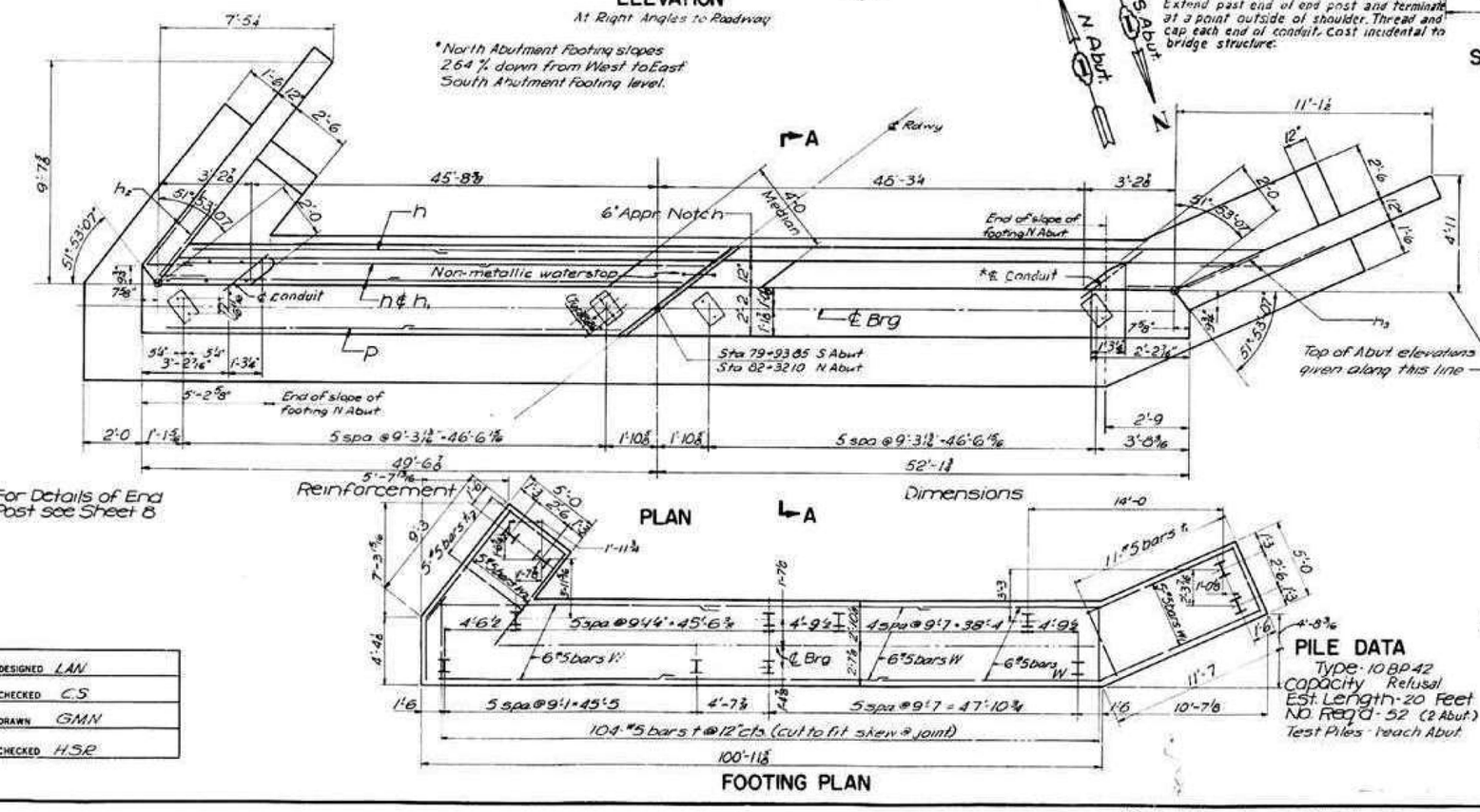












DESIGNED	LAN
CHECKED	C.S
DRAWN	G.M.N
CHECKED	H.S.R

PILE DATA

Type: 10 BP 42
Capacity Refusal
Est. Length-20 Feet
No. Req'd - 52 (2 Abut.)
Test Piles - 1 each Abut.

ABUTMENTS FA 61 OVER Mc DONOUGH STREET

FA 61 STA. 81+12.97

F.A. ROUTE 61 — PROJECT
SECTION 10 BR-7 — WILL COUNTY
Scale: NO SCALE — Date: NOV. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

122-64 J.M.J. Rev. class x from 219.3 to 219.7 cu yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing06.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 7:11.99616 '=' / in.	CHECKED -	REVISED -
PLOT DATE = 4/22/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

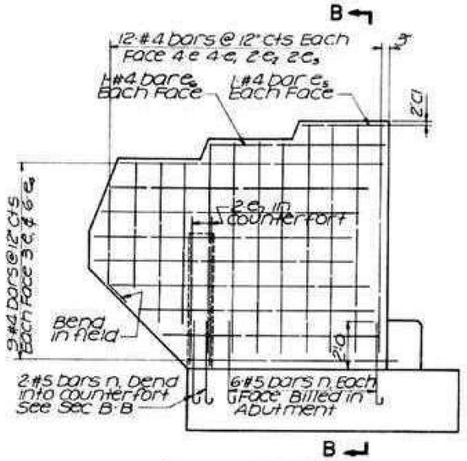
SHEET 6 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	826
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80	10	WILL	197	142

SHEET NO. 8
SHEETS 10



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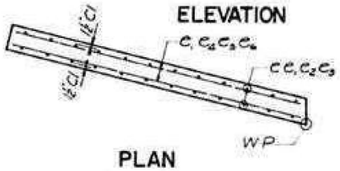
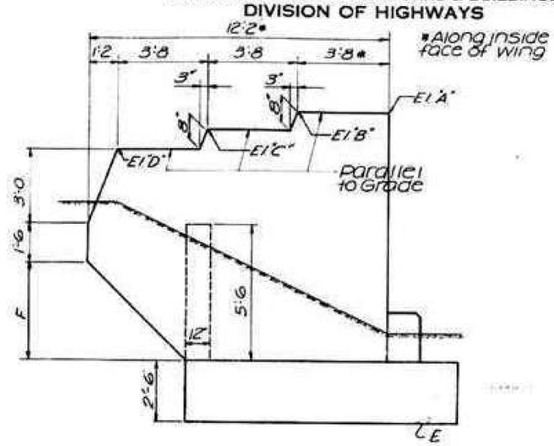


PLAN

Note: Piles not shown. For spacing see sheet #7



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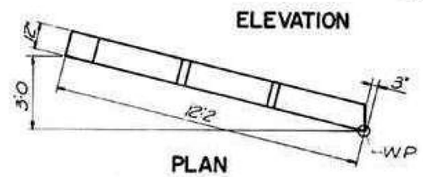
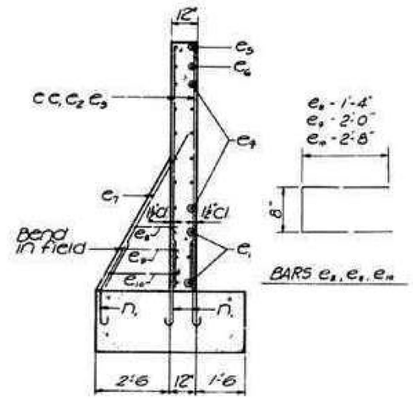


PLAN



SECTION B-B

ONE END POST BILL OF MATERIAL

Bar	No.	Size	Lgth	Shape
e	8	#4	9-3	—
e1	14	#4	8-6	—
e2	4	#4	6-6	—
e3	4	#4	5-0	—
e4	12	#4	10-6	—
e5	2	#4	3-6	—
e6	2	#4	7-0	—
e7	2	#5	7-0	—
e8	1	#4	3'-2"	n
e9	1	#4	4'-6"	n
e10	1	#4	5'-10"	n
*Reinforcement Bars			lbs	280
*Class x Conc.				
North Abut			cu yds	8.3
South Abut			cu yds	8.7

*Included in Quantity on sheet #7

Elev	N Abut.		S. Abut.	
	W.W.W.	E.W.W.	W.W.W.	E.W.W.
A	607.27	604.90	611.19	610.58
B	607.17	604.77	611.20	610.62
C	606.40	603.97	610.54	609.99
D	605.62	603.17	609.88	609.36
E	594.36	591.89	597.67	597.67
F	5'-10 7/8"	6'-0 1/8"	6'-6 1/4"	5'-10 7/8"

DESIGNED	GMN
CHECKED	CS
DRAWN	GMN
CHECKED	HSR

ABUTMENT DETAILS
FA 61 OVER
McDONOUGH STREET
FA 61 STA. 81+12.97

F.A. ROUTE 61
SECTION 10 STC 7
Scale NO SCALE

PROJECT
WILL COUNTY
Date NOV 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

12-2-64 M.J. Rev. class x conc. N. abut. from 8.1 to 8.3 cu yd. S. abut from 8.5 to 8.7 cu yds.

FOR INFORMATION ONLY

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WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 7 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	827
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-80	19-2	WILL	197	142
FAI-80	19-3			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

SHEET NO. 9
SHEETS 10

Boring No.1
Boring located at Sta 79+67
28' Left

Elev	N	Ground El 588.0
		Bituminous Surface Treatment
		Medium dense white gravel fill
585	19	Qu=1.9
		Stiff brown silty clay, trace of gravel
	35	Qu=3.0
580	80% Rec	Medium hard stratified limestone with lenses of soft brown limestone

Boring No.2
Boring located at Sta 80+93
25' Right of ℄

Elev	N	Ground El 584.4
		Medium stiff black topsoil
	24	Qu=2.6
580		Very stiff brown silty clay, trace of gravel
	30	Qu=2.9
575	80% Rec	Medium hard stratified limestone with lenses of soft brown limestone

Boring No.3
Boring located at Sta 81+40
27' Left of ℄

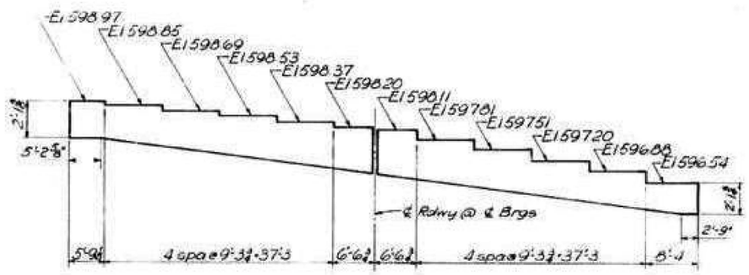
Elev	N	Ground El 584.9
		Bituminous Surface Treatment
		Medium dense white gravel fill
		Qu=2.0
	20	Stiff brown silty clay, trace of gravel
580		
575	71.1% Rec	Medium hard stratified limestone with lenses of soft brown limestone

Boring No.4
Boring located at Sta. 82+69
44' Right of ℄

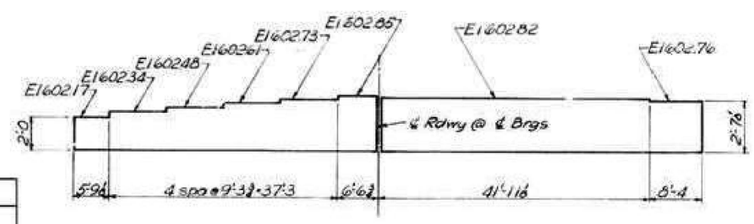
Elev	N	Ground El 581.9
		Loose black cinders and clay fill
580		Medium dense brown sand and large gravel with clay
	55.2% Rec	Medium hard stratified limestone with lenses of soft brown limestone
575		

Note N=Blows per ft. of penetration of sampling spoon Hamer Wt.=140 lbs. Drop=30"
Qu=Unconfined compressive strength in tons per square foot.

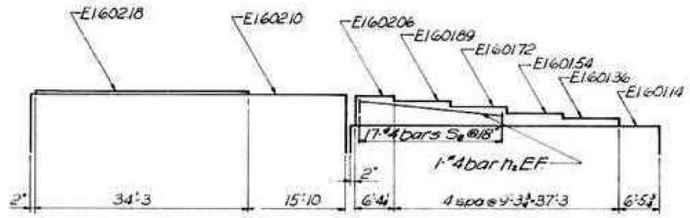
BORING DATA



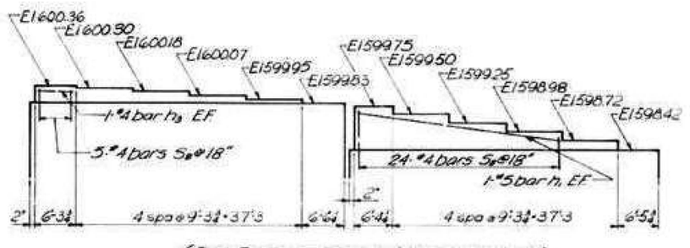
NORTH ABUTMENT
Looking Ahead



SOUTH ABUTMENT
Looking Back



PIER 1
Looking Ahead



(Pad Reinforcement Dilled on Sheet "6)

PIER 2
Looking Ahead

DESIGNED	CS
CHECKED	GMN
DRAWN	ER
CHECKED	HSR

ELEVATIONS & BORING DATA
F.A.61 OVER
MC DONOUGH STREET
F.A.61 STA. 81+12.97

F A ROUTE 61 — PROJECT
SECTION 10 Sec 7 — WILL COUNTY
Scale NO SCALE — Date NOV. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE ILL.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '=' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
SHEET 8 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	828
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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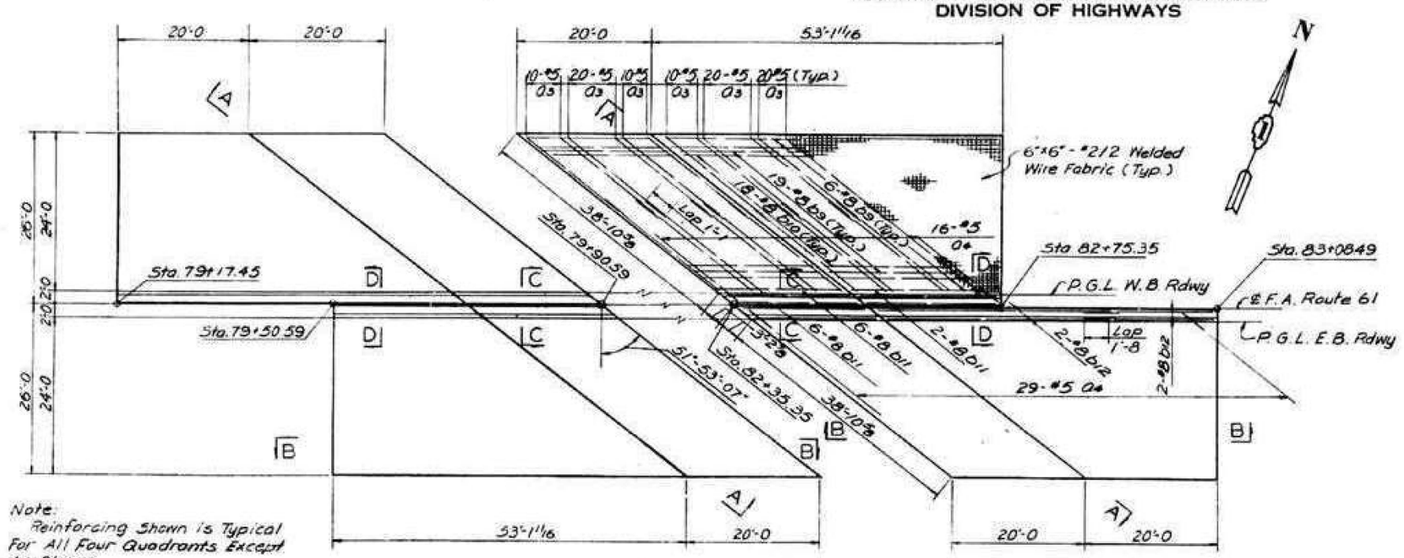
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

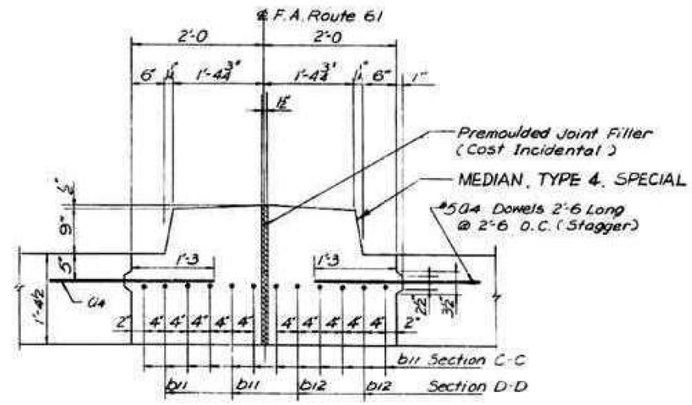
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 61	7-10	WILL	199	144
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 10
SHEETS 10

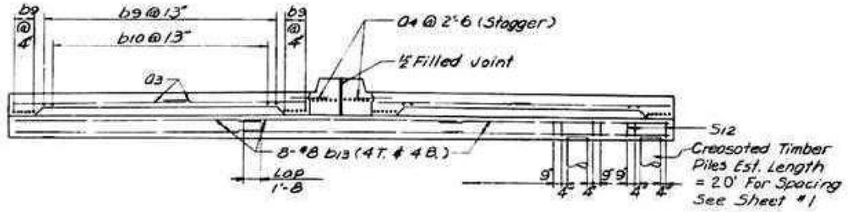


Note:
Reinforcing Shown is Typical For All Four Quadrants Except As Shown
For Additional Notes And Details See Illinois Std. 1909-6

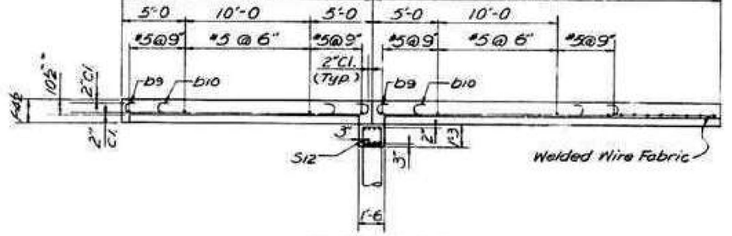
PLAN



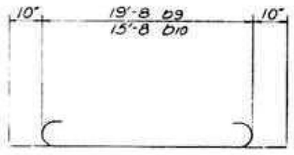
SECTION C-C & D-D



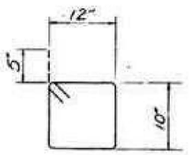
SECTION A-A



SECTION B-B



BARS b9 & b10



BAR 5i2

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
03	320	#5	19'-10	
04	90	#5	2'-6	
b9	248	#8	21'-4	
b10	144	#8	17'-4	
b11	28	#8	19'-8	
b12	8	#8	27'-3	
b13	48	#8	29'-0	
5i2	140	#4	4'-6	

DESIGNED	J. J. H.
CHECKED	R. H. W
DRAWN	J. J. H
CHECKED	R. H. W.

Revised Sect AA Cre Piles change len. from 22' to 20'. 1-28-63
Bill of Matl Cre Piles-change from 792 to 720 lin ft
V.D.S

APPROACH SLABS
F A ROUTE 61 OVER McDONOUGH ST.
F A ROUTE 61 STA. 81+12.97
F A ROUTE 61 SECTION 10 (STR 7)
PROJECT WILL COUNTY
Scale: No Scale
Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ROCKBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '=" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 9 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	829
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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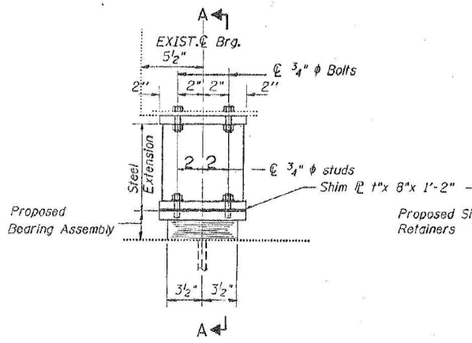
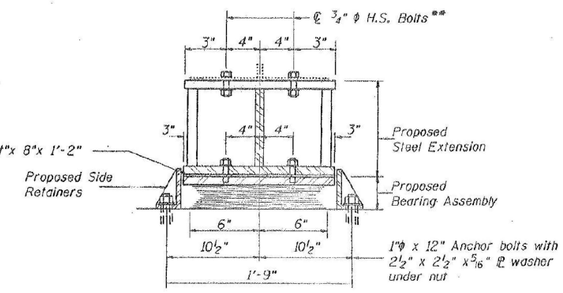
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
61	10HB-21	WILL	16	6
STA.		TO STA.		
FED. ROAD DIST. No.	ILLINOIS	FED. AID PROJECT		

Sheet 6 of 16



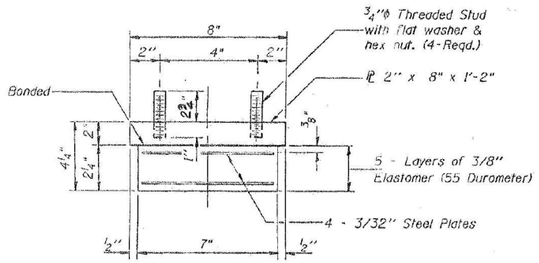
ELEVATION AT SOUTH ABUTMENT

(12 Required)



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

Table Of Dimension "I" For Shim Plates												
Beam No.	A	B	C	D	E	F	G	H	J	K	L	M
So. Abutment			1/4"	7/16"	5/8"	11/16"						

(See Sheet 9 for Beam Locations)

NOTES:

Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost is incidental to Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

** 13/16" diameter holes are to be drilled in the field in the bottom of existing beams. Cost incidental to Furnishing and Erecting Structural Steel.

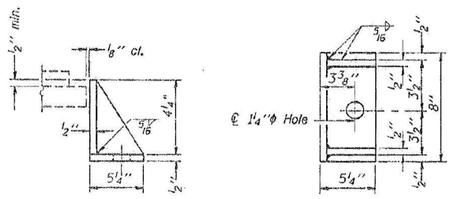
For the details of existing bearings see sheet 10.

Contractor shall submit jacking details for approval by the bridge office.

For anchor bolt details see sheet 14.

Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions

Diaphragm removal and replacement may be required to facilitate drilling holes in the bottom flange for bearing attachment. Cost incidental to Furnishing and Erecting Structural Steel.



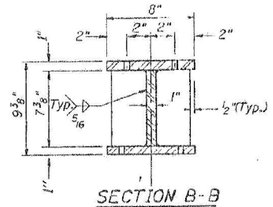
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

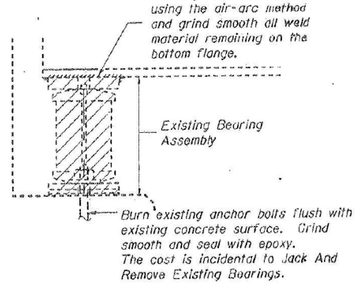
(24 REQUIRED)

GIRDER REACTIONS

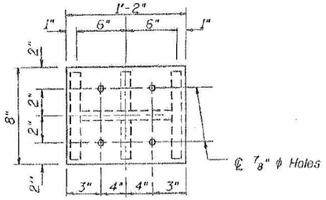
RDL	(K)	18.4
RLL+Imp.	(K)	39.0
R (Total)	(K)	57.4



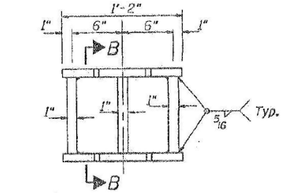
SECTION B-B



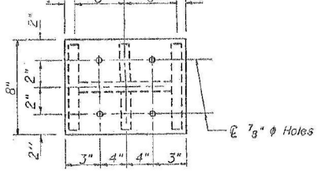
EXISTING BEARING REMOVAL



PLAN TOP PLATE



STEEL EXTENSION DETAIL



PLAN BOTTOM PLATE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Furnishing And Erecting Structural Steel	lbs.	2100
Jack And Remove Existing Bearings	Each	12

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CENTER STREET
OVER U.S. ROUTE 52
ELASTOMERIC BEARING DETAIL
FOR SOUTH ABUTMENT
S.N. 099-0186
SCALE: 50"=1" DRAWN BY CADD
DATE 02/21/95 CHECKED BY JAF

I-2-E1 2-26-93

Tue Feb 21 14:06:29 1995
/user/pw_jaf/dl7393/dl7393b2.m32 LV41-63

MODEL: Default
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FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

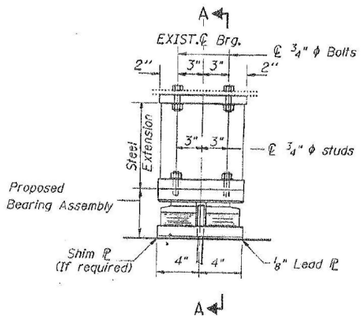
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 10 OF 62 SHEETS

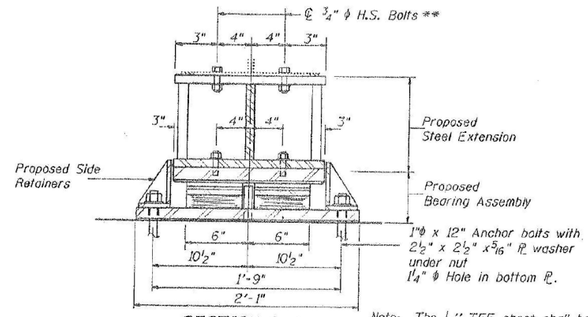
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	830
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
61	10HB-2,1	WILL	16	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION AT NORTH ABUTMENT

(12 Required)



SECTION A-A

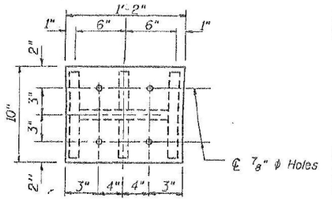
TYPE III ELASTOMERIC EXP. BRG.

Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

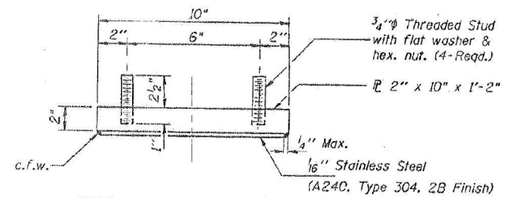
Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

GIRDER REACTIONS

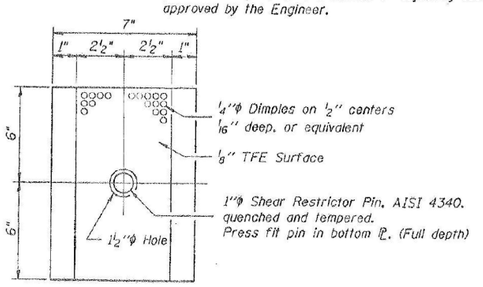
RDL	(K)	18.4
RLL+Imp.	(K)	39.0
R (Total)	(K)	57.4



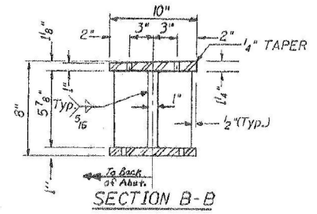
PLAN TOP PLATE



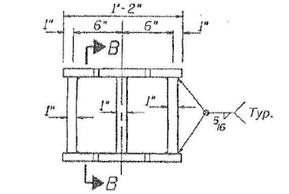
TOP BEARING ASSEMBLY



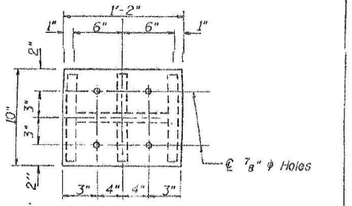
PLAN-TFE ELASTOMERIC BRG.



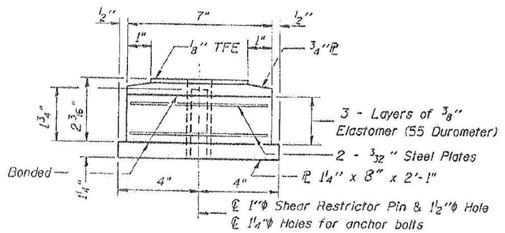
SECTION B-B



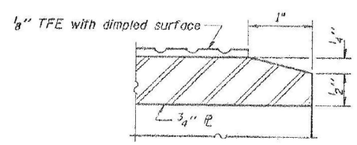
STEEL EXTENSION DETAIL



PLAN BOTTOM PLATE



BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

NOTES:

Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost is incidental to Jack And Remove Existing Bearings. See Existing Bearing Removal Detail (See sheet 6 of 16).

New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

** 13/16" diameter holes are to be drilled in the field in the bottom of existing beams. Cost incidental to Furnishing and Erecting Structural Steel.

For the details of existing bearings see sheet 10.

Contractor shall submit jacking details for approval by the bridge office.

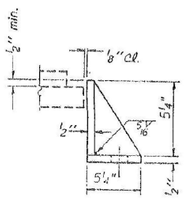
For anchor bolt details see sheet 14.

Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions

Diaphragm removal and replacement may be required to facilitate drilling holes in the bottom flange for bearing attachment. Cost incidental to Furnishing and Erecting Structural Steel.

BILL OF MATERIAL

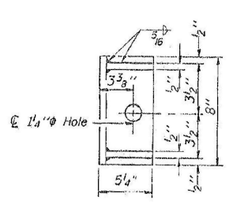
Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	12
Furnishing And Erecting Structural Steel	lbs.	2450
Jack And Remove Existing Bearings	Each	12

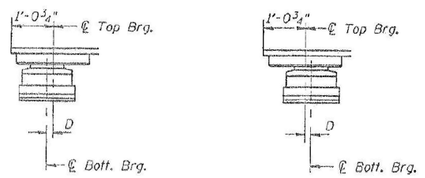


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

(24 REQUIRED)





SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100° of expansion for every 15° temp. change from the normal temp. of 50° F.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CENTER STREET
OVER U.S. ROUTE 52
ELASTOMERIC BEARING DETAIL
FOR NORTH ABUTMENT
S.N. 099-0186

SCALE: 50'=1" DRAWN BY CADD
DATE 02/21/95 CHECKED BY JAF

I-2-E3 2-26-93

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '=" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 11 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	831
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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Tue Feb 21 14:05:16 1995
User:rwilson-jaf
d:\7393\dgn\7352-r32 LV 1:63

Bench Mark #45: Top of "0" on open fire hydrant, NW corner of Raynor Ave & Cochrane St. El 608.40

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

SHEET NO. 1
10 SHEETS

PVI Sta. 358+60.00
El. 625.59
V.C. 1600'
M.O. -8.13

+1.066% -3.00%

PG FAI-80

Top of Berm El 602.0 W.B
El 602.8 E.B

Top of Berm El 6046 W.B
El 6055 E.B

Crown of Roadway

Backfill by the Bridge Contractor after abut. are in place (Typ.)

Granular Backfill

4" Slopewall

2:1 Slope

Varies

Min D

Existing Ground Line

Rock Line
El. N.E. Abut 593.50
El. S.E. Abut 592.50

El. Pier 2 584.69
El. Pier 4 585.63

Existing 60" Conc. Sewer

See Detail A

El. N.W. Abut 594.50
El. S.W. Abut 593.50

ELEVATION

El. Pier 1 585.92
El. Pier 3 585.53

Existing 60" Conc. Sewer (Approx. loc.)

STATION 363+67.23
Built 1966 By
STATE OF ILLINOIS
F.A.I. Rt. 80 Sec. 99-3HB-1
FA. PROJ. I-80-4(22)
Loading: H5-20 & Alt.

See Standard 2113-1

LETTERING FOR NAME PLATE

DESIGN STRESSES
Reinforced Concrete:
ft = 350.0 psi
fs = 20,000 psi
n = 10
fc = 1,400 psi (except footings)
fc = 1,000 psi (footings)
Vc = 90 psi (except footings)
Vc = 75 psi (footings)
Structural Steel:
fs = 20,000 psi
Maximum Soil Pressure = 5 Tons/sq. ft.
Loading: H5-20-44 & Alternate

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL STEEL, A.S.T.M. DESIGNATION A 36.

RIVETS SHALL BE 3/4" ϕ WITH 13/16" ϕ OPEN HOLES UNLESS NOTED.

CLASS X CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE USED IN PARAPETS AND END POSTS SHALL BE FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE AMERICAN WELDING SOCIETY.

ALL ROCKERS, ROLLERS, 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.

ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13 (A) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. THE 3/4" ϕ WELDED STUDS SHALL NOT BE PAINTED.

NO ROCK LARGER THAN 3' SHALL BE PLACED IN FILLS IN THE AREA WHERE PILES ARE TO BE DRIVEN.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

Excavation for portions of structures in the embankment shall not be classified.

Note: The items (as described) to be 15'-0" vertical clearance route.

Top of Curb Eq. Edge 6" Wide

4" Slopewall

Varies 6" to 9" Radius

2" R.U.F.

Type 3 Coping or Type 6 Curb

Welded Wire Fabric

DETAIL A

N

Note: These dimensions are arc lengths along ℄ of FAI-80

128'-3½

35'-1⅜ 54'-9⅝ 34'-1⅜

2:1⅝

Back N.W. Abut. Sta. 363+33.07 PG El 610.04

℄ Pier No. 1 Sta. 363+70.32 PG El 609.22

℄ Pier No. 2 Sta. 364+25.12 PG El 607.94

Back N.E. Abut Sta. 364+61.37 PG El 607.05

Critical Pt for Cl

Boring #2

Name Plate

℄ Brgs

Scuppers 4 Eq. Sp.

P.G.L. Westbound Roadway

65'-24'-00" (Typ)

Berm Line

Continuous Slope Wall between structures

P.C. Sta. 364+16.00

℄ FAI-80

Welded Wire Fabric

Type 4 Gutter

SECTION A-A

FAI-80 363+67.23
AB 26+39.57
Top of Cut

R.T. Ramp DB Sta. 34+96.29
R.T. Ramp AB Sta. 26+36.09

18°-29'-27"

70°-30'-33" (Typ)

P.G.L. Eastbound Roadway

P.C. Sta. 364+49.06

Ramp AB

Ramp DB

P.G.L. Ramp DB

Existing Manhole

Boring #1-7 pairs Sta. 5½

Boring #3

Name Plate R=13'

Berm R=18'

Existing 60" Conc. Sewer (Approx. loc.)

Back S.W. Abut Sta. 362+95.60 PG El 610.84

℄ Pier No. 3 Sta. 363+31.60 PG El 609.94

℄ Pier No. 4 Sta. 363+87.20 PG El 608.83

Back S.E. Abut Sta. 364+27.46 PG El 607.88

2'-0⅛ 39'-11⅝ 49'-7⅜ 38'-3⅛ 2'-0⅛

131'-10⅝

Type 6 curb

Note: These dimensions are arc lengths along ℄ FAI-80

● Denotes Boring Location

PLAN

℄ Brgs N.W. Abut ℄ Pier 1 ℄ Pier 2 ℄ Brgs N.E. Abut

35'-1⅛" 35'-0⅛" 35'-8½"

P.G.L. W.B. Rdway

Sta 363+35.18
Sta 363+70.32
℄ FAI 80

Sta 364+25.12

Sta 364+59.27

Tang. to W.B. P.G.L. @ P.C. Sta. 363+63.47

P.C. Sta 364+16.00

LAYOUT OF WESTBOUND STRUCTURE

Welded wire fabric

Section BB

Note: Welded Wire Fabric in slopewall shall be 6"x6" mesh, #2 wires, 58 lbs/100 s.f.
Cost of Welded Wire Fabric shall be included in cost of 4" slopewall.

Cost of premoulded joint filler shall be incidental to the contract.

Note Approach slabs to be constructed in accordance with Method I of Illinois Standard 2138-4

TOTAL BILL OF MATERIAL
Sec 99-3 Str. 1

Item	Unit	Super	Sub	Total
Class A Excavation for Structures	Cu. Yd.	——	2680	2680
Rock Excavation for Structures	Cu. Yd.	——	104	104
Class X Concrete	Cu. Yd.	3191	3721	6912
Furnishing & Erecting Structural Steel	Lb.	234,500	——	234,500
Reinforcement Bars	Lb.	76,620	55180	132,400
Name Plate	Each	2	——	2
Slopewall 4"	Sq. Yd.	——	1329	1329
Aluminum Handrail	Lin. Ft.	513	——	513
Bridge Seat Sealer	L.S.		0.2	0.2
Protective Coat	Sq. Yd.	1392	—	1392
Granular Backfill	Cu. Yd.		1657	1657

*Includes excavation for Slope Walls
**Applied at Abutments

PVI Sta 27+00.00
El. 590.18
VC = 200'
MO = -0.09'

-0.280% -0.629%

P.G. RAMP AB

Prepared and Recommended By
Blauvelt Engineering Co.
Structural Engineers
781-2251

LOCATION PLAN

GENERAL PLAN & ELEVATION
FAI-80 OVER RAMP AB
STA. 363+67.23
F.A.I. ROUTE 80
SECTION 99-3-1
Scale NO SCALE
PROJECT I-80-4(22)133
WILL COUNTY
Date Nov 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	R.D.L.
CHECKED	L.A.N.
DRAWN	R.D.L.
CHECKED	L.A.N., J.T.L.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '=' / In.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
SHEET 12 OF 62 SHEETS

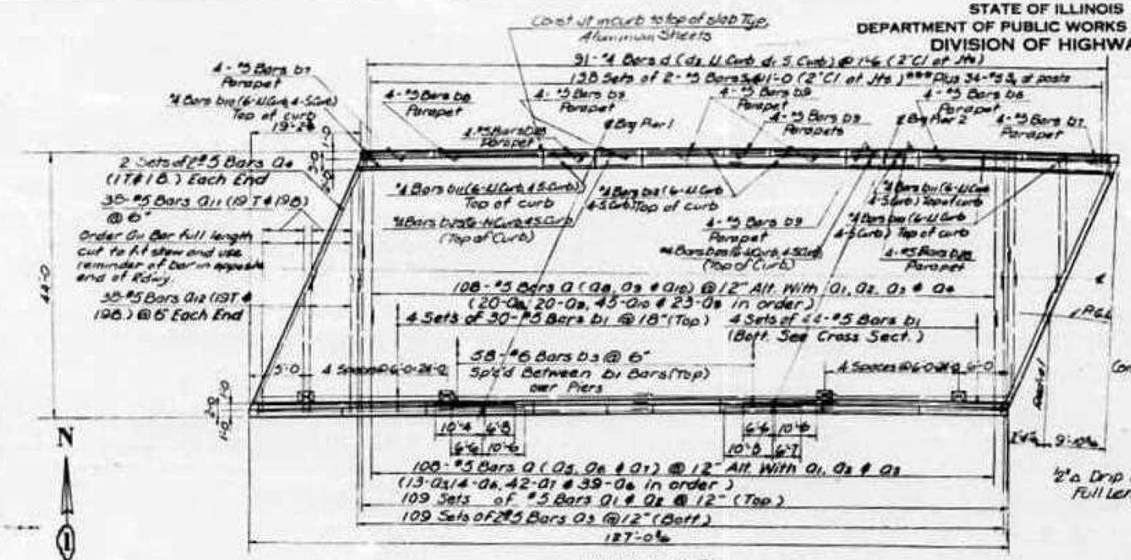
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	832
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401140118002203-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing12.dgn

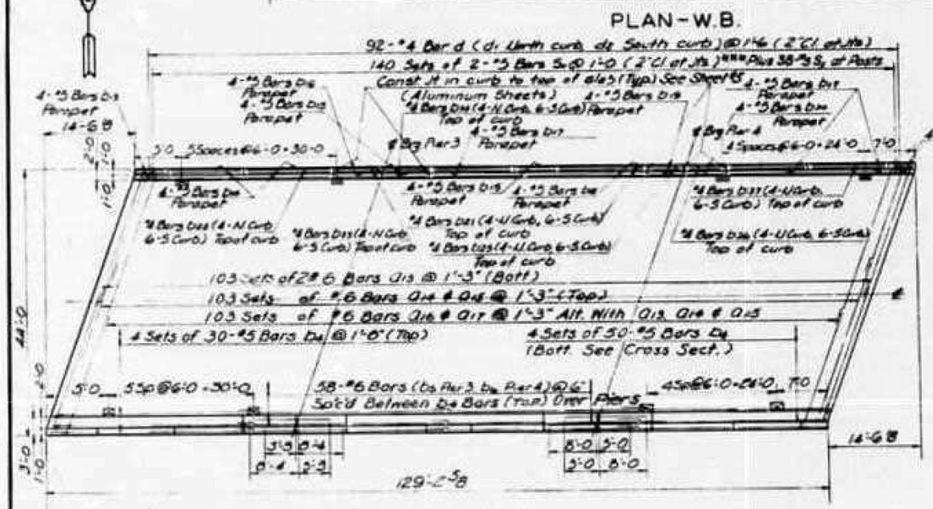
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 2
10 SHEETS

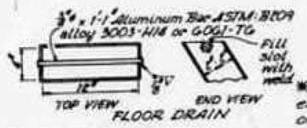
After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so attained subtracted from the theoretical grade elevations minus floor thickness equals the fillet heights above top of beams.



PLAN - W.B.



PLAN - E.B.

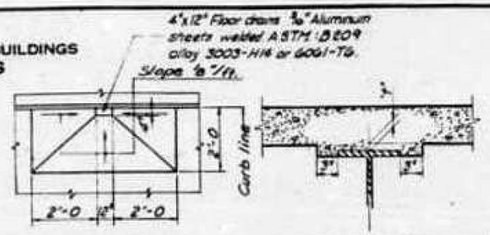


DESIGNED	JJH
CHECKED	JTL
DRAWN	AME
CHECKED	JTL

*** Where curb is over stringer elevation shown is that of the projection of top of slab along its cross slope

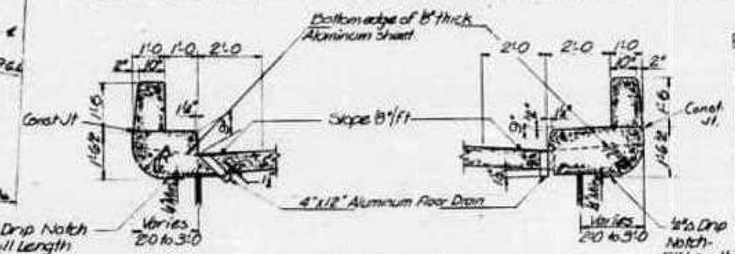
See Sheet 3 for Locations of Points.
See Sheet 4 for Cross Section

*** Place 2-#5 Bs, 1 ea of each rail post or insure face (road side) of parapet.



DRAIN DETAILS

METHOD OF DETERMINING FILLET HEIGHT 't'



CURB DETAILS



DETAILS OF 1/8" ALUMINUM SHEETS
Used in Curb Joints.
ASTM B209 alloy 3003-H14

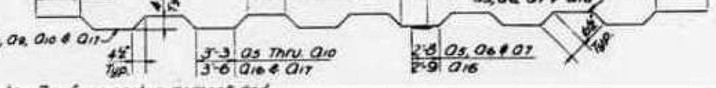
BILL OF MATERIALS

Class X Concrete	Cu Yds	397
Reinforcement Bars	Lbs.	76,020
*Structural Steel	Lbs.	234,300

*Structural Steel includes weight of rockers, bolsters, bearing plates, load plates, pintles, and anchor bolts. Estimated Wt. = 14,340 lbs
Cost of furnishing and installing drains, aluminum sheets shall be incidental to the contract.

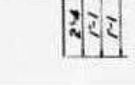
BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
Q1	109	#5	26-1	
Q2	109	#5	19-7	
Q3	218	#5	22-6	
Q4	8	#5	24-1	
Q5	13	#5	20-5	
Q6	58	#5	20-2	
Q7	42	#5	19-11	
Q8	20	#5	26-9	
Q9	43	#5	27-1	
Q10	45	#5	21-5	
Q11*	76	#5	24-8	
Q12	76	#5	22-0	
Q13	206	#6	25-10	
Q14	103	#6	27-4	
Q15	103	#6	20-3	
Q16	103	#6	21-6	
Q17	103	#6	28-9	
b1	2916	#5	32-6	
b2	116	#6	17-0	
b3	320	#5	33-1	
b4	58	#6	19-7	
b5	56	#6	13-0	
b7	16	#5	12-4	
b8	16	#5	13-2	
b9	24	#5	6-3	
b10	20	#4	27-11	
b11	20	#5	7-4	
b12	20	#4	21-1	
b13	16	#5	4-2	
b14	16	#5	14-2	
b15	16	#5	6-8	
b16	8	#5	6-10	
b17	24	#5	13-8	
b18	8	#5	14-8	
b19	8	#5	6-3	
b20	8	#5	6-10	
b22	10	#4	33-4	
b23	10	#5	6-10	
b24	10	#4	6-8	
b25	10	#5	33-8	
b27	30	#5	6-4	
b28	10	#5	6-10	
b27	10	#4	32-3	
b28	16	#5	7-5	
b29	16	#5	10-4	
d1	183	#4	2-9	
d2	183	#4	3-9	
S	1256	#5	2-10	



BAR Q

Note: Reinforcement in parapet and curb symmetrical about ℄ unless noted otherwise.
Splices of adjacent truss bars to be located on opposite sides of center of structure.



BARS d & s

ELEVATIONS - TOP OF SLAB ** (Elevations are not adjusted for dead load deflections)

Stgr.	Pt.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
W.B.	A	609.52	609.36	609.24	609.01	608.86	608.70	608.54	608.38	608.19	607.92	607.68	607.45	607.32	
	B	609.67	609.50	609.35	609.07	608.90	608.71	608.53	608.34	608.07	607.86	607.62	607.36	607.26	
	C	609.83	609.64	609.45	609.19	608.93	608.74	608.55	608.32	608.01	607.79	607.56	607.32	607.19	
	D	609.95	609.74	609.53	609.20	608.98	608.75	608.53	608.29	607.96	607.73	607.50	607.26	607.13	
	E	610.02	609.79	609.56	609.22	608.98	608.75	608.51	608.26	607.91	607.67	607.43	607.19	607.07	
	F	610.01	609.78	609.55	609.19	608.95	608.71	608.47	608.22	607.86	607.61	607.37	607.13	607.00	
	G	609.95	609.72	609.49	609.13	608.89	608.65	608.41	608.16	607.80	607.55	607.31	607.07	606.94	
E.B.	H	610.44	610.25	610.01	609.80	609.56	609.36	609.18	608.91	608.68	608.46	608.26	608.08	607.90	607.75
	I	610.62	610.41	610.20	609.99	609.77	609.57	609.33	609.10	608.87	608.65	608.45	608.28	608.01	607.86
	J	610.75	610.54	610.33	610.12	609.90	609.68	609.46	609.25	609.01	608.79	608.56	608.35	608.10	607.91
	K	610.81	610.60	610.39	610.17	609.96	609.74	609.52	609.29	609.07	608.84	608.61	608.37	608.13	607.93
	L	610.78	610.57	610.36	610.13	609.91	609.72	609.50	609.27	609.05	608.83	608.60	608.35	608.11	607.91
	M	610.70	610.49	610.28	610.07	609.85	609.65	609.41	609.19	608.97	608.75	608.52	608.28	608.03	607.83
	N	610.61	610.40	610.19	609.98	609.76	609.55	609.32	609.11	608.88	608.66	608.43	608.20	607.95	607.75

SLAB PLAN
FAI 80 OVER RAMP AB
STA. 363+67.23 *

F.A.I. ROUTE 80 — PROJECT
SECTION 99-3 (Str. *1) — WILL COUNTY
Scale NO SCALE — Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

Provide core for floor drains if slab depth, provide 2 additional #5 for each, cut to fit (see Sheet From Route 80 to Rte 130

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 13 OF 62 SHEETS

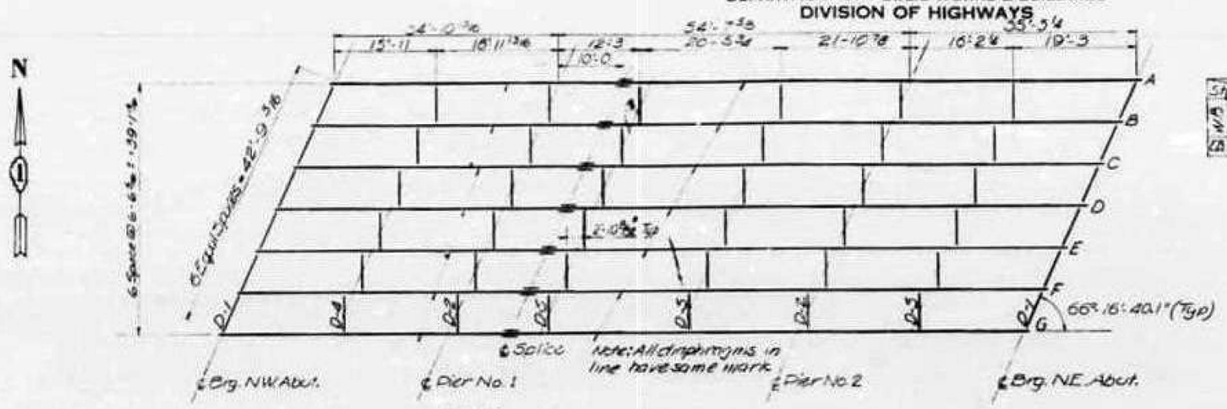
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	833
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing13.dgn

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80 (I-80)	21 (Ltr.)	WILL	97	77
FAP (US)	(Ltr.)			
FED. ROAD DIST. NO.	STATE	PROJECT		

SHEET NO. 3
10 SHEETS

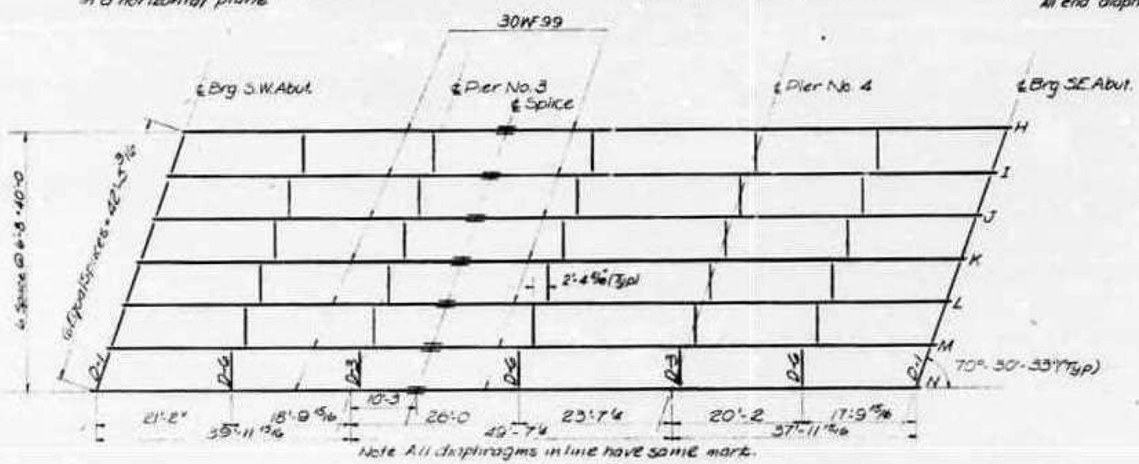


30WF108

FRAMING PLAN – W.B.

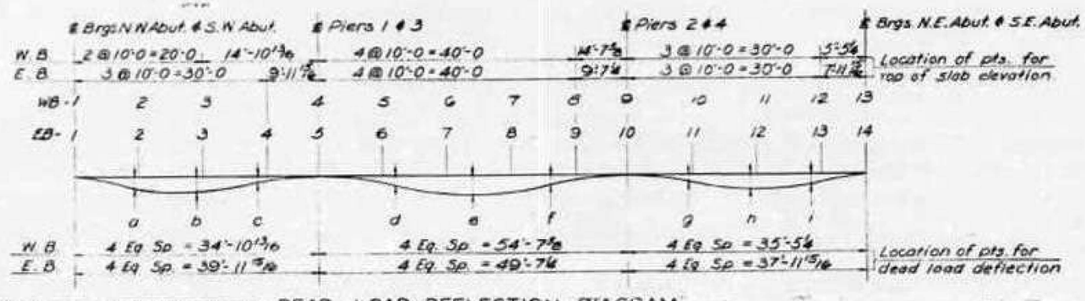
Note: All dimensions are measured in a horizontal plane

Note: All interior diaphragms to be 12 WF 36
All end diaphragms to be 12 WF 40



Note All diaphragms in line have same mark.

FRAMING PLAN – E.B.



DEAD LOAD DEFLECTION DIAGRAM

DEAD LOAD DEFLECTIONS (+ = downward deflection)

Stgr \ Pt	a	b	c	d	e	f	g	h	i
W.B. A, G	+1/32	+1/32	-1/32	+3/16	+1/2	+5/16	-1/32	+1/32	+1/32
B, C, D, E, F	+1/32	+1/32	0	+3/16	+5/16	+3/16	0	+1/32	+1/32
E.B. All Stgrs	+1/8	+1/8	+1/16	+1/32	+3/16	3/32	+1/16	+1/8	+1/8

Above deflections are in inches and include weight of concrete only.

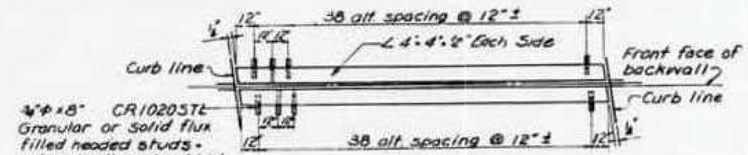
AS AWARDED **AS BUILT

TOP OF STRINGER ELEVATIONS*

Stgr	Pt	W.Abut's	Piers 1&3	Splice	Piers 2&4	E.Abut's
W.B.	A	608.89	608.38	608.23	607.32	606.69
	B	609.04	608.44	608.27	607.44	606.63
	C	609.20	608.52	608.32	607.58	606.56
	D	609.32	608.57	608.35	607.73	606.50
	E	609.39	608.59	608.35	607.78	606.44
	F	609.38	608.58	608.32	607.73	606.37
	G	609.32	608.50	608.26	607.17	606.31
E.B.	H	609.81	608.95	608.73	607.83	607.12
	I	609.99	609.14	608.92	608.02	607.21
	J	610.12	609.27	609.05	608.16	607.25
	K	610.18	609.33	609.11	608.21	607.30
	L	610.15	609.31	609.09	608.20	607.25
	M	610.07	609.22	609.00	608.12	607.20
	N	609.98	609.13	608.92	608.05	607.12

Stgr	Pt	Splice	Pier 1&4
W.B.	A		607.37
	B		607.36
	C		607.34
	D		607.32
	E	608.36	607.29
	F		
	G		
E.B.	H		607.19
	I		608.05
	J		608.13
	K		608.19
	L		608.17
	M		608.08
	N	608.19	608.00

*These elevations are of top of top flange of stringer, exclusive of deflections.



ANGLE GUARD DETAILS

DESIGNED	GF
CHECKED	LD
DRAWN	[illegible]
CHECKED	JTL

FRAMING PLAN
FAI 80 OVER RAMP AB
STA. 363+67.23

F.A.I. ROUTE 80 — PROJECT
SECTION 99-3 (Str. #1) — WILL COUNTY
Scale: NO SCALE — Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing14.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

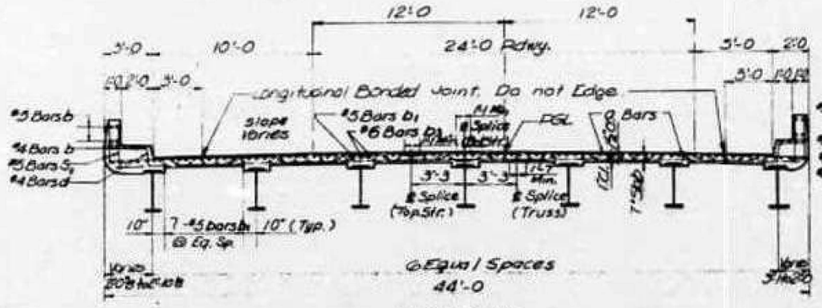
EXISTING BRIDGE PLANS

SHEET 14 OF 62 SHEETS

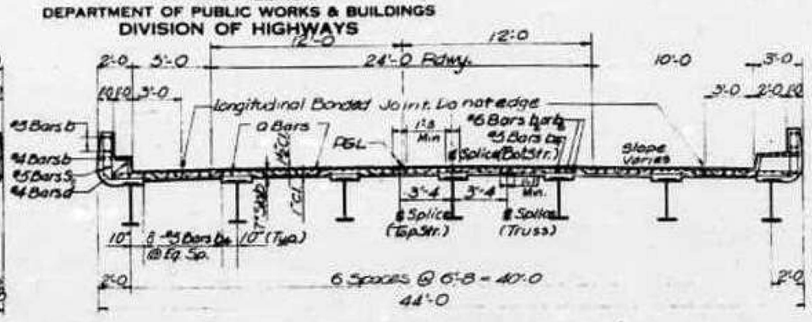
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	834
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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

SHEET NO. 4
10 SHEETS



W.B. RDWY.



E.B. RDWY.

CROSS SECTION

TABLE OF 't' DIMENSIONS
't' = 0" unless otherwise noted

		W Abuts	Pier 1 & 3	Piers 2 & 4	E Abuts
W.B.	A	—	—	—	—
	B	—	—	—	—
	C	—	—	11	—
	D	—	3/16	—	—
	E	(3/16)	7/16	11/16	—
	F	—	—	—	—
	G	—	—	—	—
E.B.	H	—	—	—	—
	I	—	—	—	—
	J	—	—	—	—
	K	7/16	3/16	11/16	3/16
	L	—	—	13/16	—
	M	—	—	—	—
	N	—	—	—	—

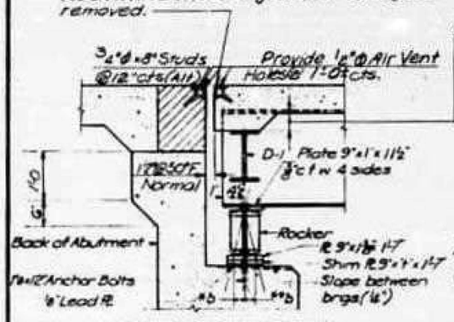
Anchor bolts shall be grouted into drilled holes after beams are in place, or bolts of fixed pier may be built into masonry.

*D = 6'/100' of exp. for every 15° below the normal temp. of 50°F.

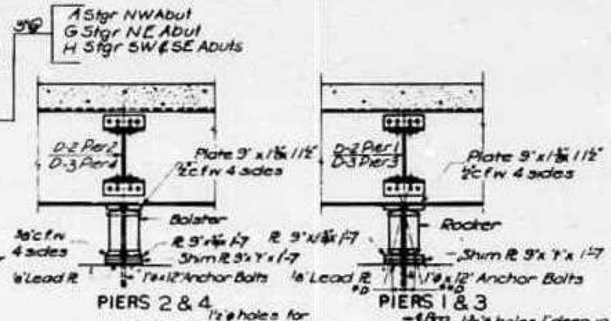
**D = 6'/100' of exp. for every 15° above the normal temp. of 50°F.

All structural steel shall be A-36.

Angles shall be held securely in place, while pouring concrete, with 3/4"ϕ bolts in 7/8"ϕ holes set on gageline at 12" cts. All bolts shall be burned, sawed or chipped flush with back of angle after forms are removed.

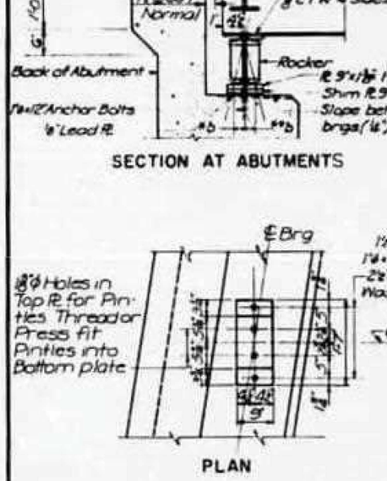


SECTION AT ABUTMENTS



PIERS 2 & 4

PIERS 1 & 3

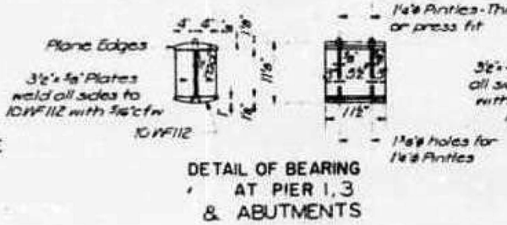


PLAN

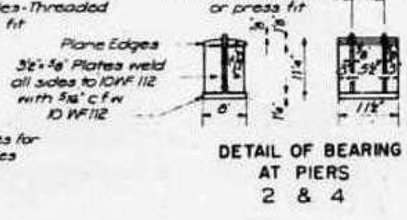
PLAN

PLAN

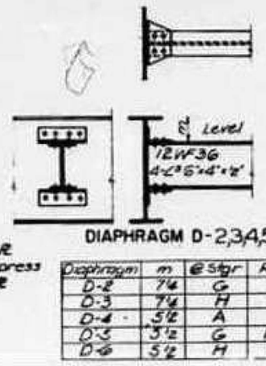
DETAIL OF PINTLE



DETAIL OF BEARING AT PIER 1, 3 & ABUTMENTS

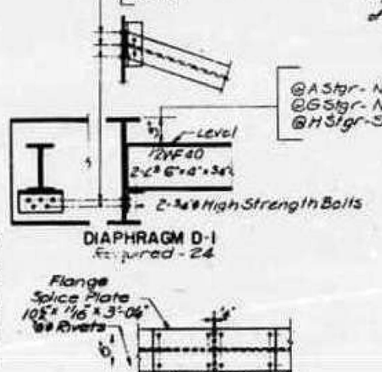


DETAIL OF BEARING AT PIERS 2 & 4

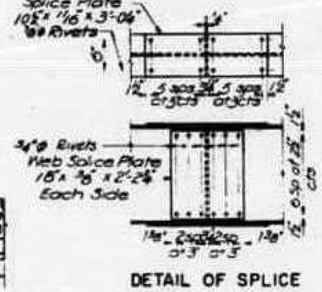


DIAPHRAGM D-2,3,4,5 & 6

Diaphragm	m	@ Stgr	Reqd
D-2	7/16	G	12
D-3	7/16	H	12
D-4	5/16	A	6
D-5	5/16	G	18
D-6	5/16	H	18



DIAPHRAGM D-1
Fy required - 24



DETAIL OF SPLICE

CROSS SECTION & STEEL DETAILS
F.A.I. 80 OVER RAMP AB
STA. 363+67.23

F A I ROUTE 80 | PROJECT
SECTION 99-3 (Str. "1") | WILL COUNTY
Scale: NO SCALE | Date: Nov. 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	AME & JJH
CHECKED	JTL
T-ABN	AME & J.J.H. 11
CHECKED	JTL

As Awarded

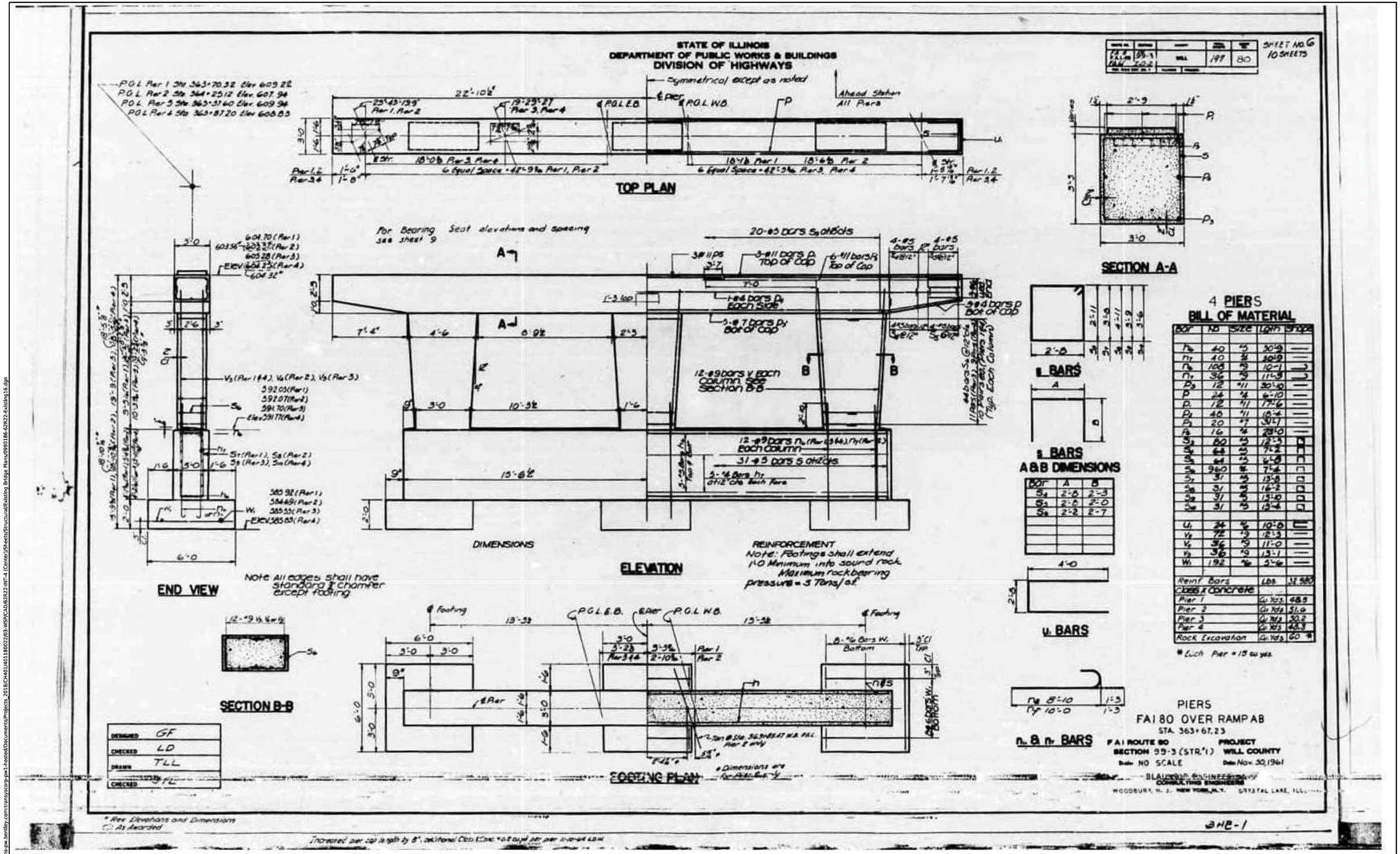
FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS	
	DRAWN -	REVISED -			
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -			
PLOT DATE = 4/22/2025	DATE -	REVISED -		SHEET 15 OF 62 SHEETS	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	835
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2019/CH401/401180022I03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing15.dgn



Bar	No	Size	Lgth	Shape
h_6	40	#5	30'-9	—
h_7	40	#4	30'-9	—
n_6	108	#9	10'-1	⌣
n_7	36	#9	11'-3	⌣
P_3	12	#11	30'-10	—
P	24	#4	6'-10	—
P_1	12	#11	17'-6	—
P_2	48	#11	18'-4	—
P_3	20	#7	31'-1	—
P_4	16	#4	23'-0	—
S_3	80	#5	12'-3	□
S_4	64	#5	7'-2	□
S_5	64	#5	6'-8	□
S_6	960	#4	7'-4	□
S_7	31	#5	13'-8	□
S_8	31	#5	16'-2	□
S_9	31	#5	15'-10	□
S_{10}	31	#5	15'-4	□
U_1	24	#6	10'-8	⊏
V_2	72	#9	12'-3	—
V_3	36	#9	11'-0	—
V_4	36	#9	13'-1	—
W_1	192	#6	5'-6	—
Reinf. Bars			Lbs.	32,980
Class X Concrete				
Pier 1			Cu. Yds.	48.5
Pier 2			Cu. Yds.	51.6
Pier 3			Cu. Yds.	50.2
Pier 4			Cu. Yds.	48.3
Rock Excavation			Cu. Yds.	60 *

* Each Pier = 15 cu. yds.

Bar	A	B
S_4	2'-8	2'-3
S_5	2'-8	2'-0
S_6	2'-2	2'-7

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing16.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

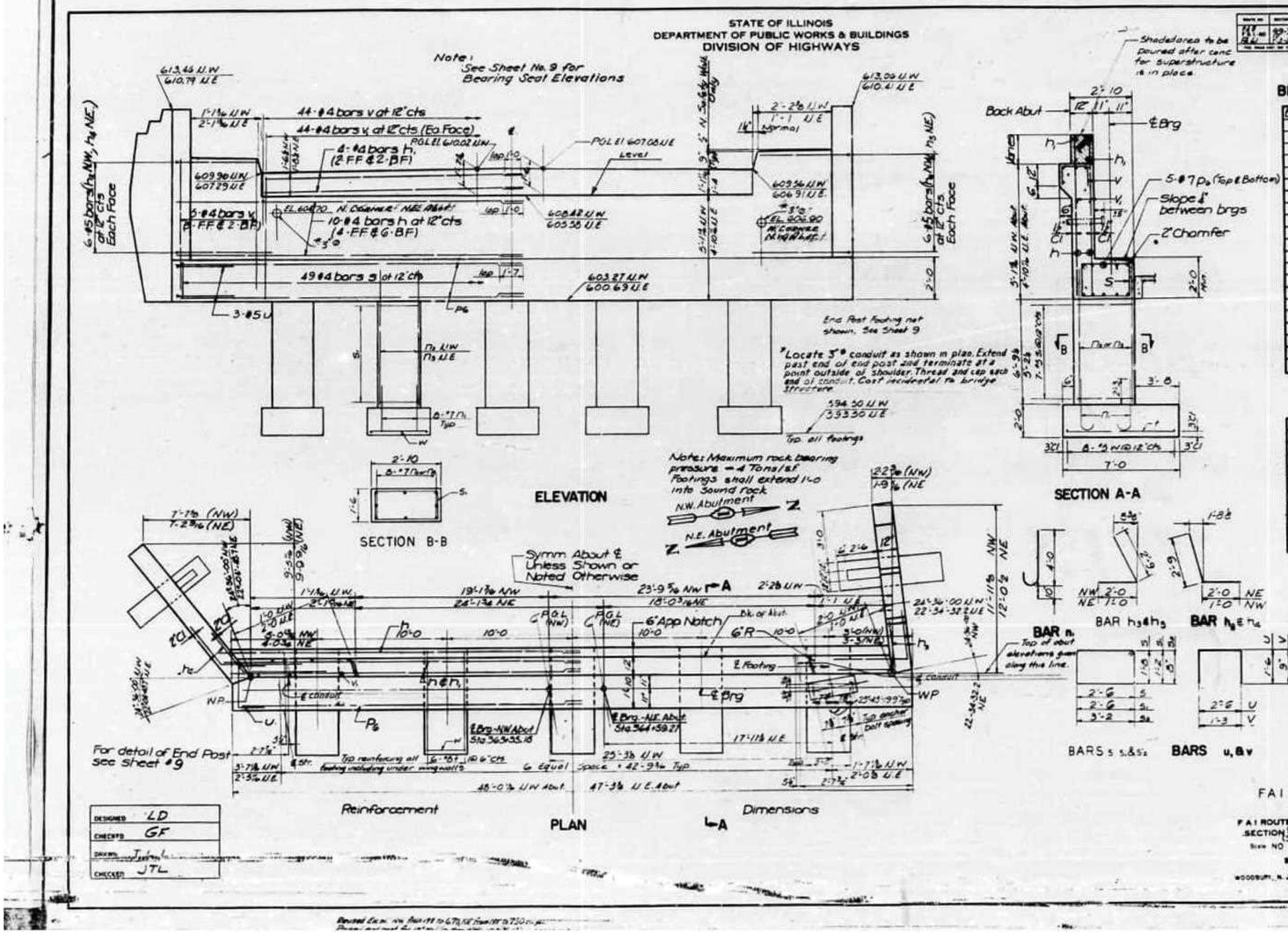
EXISTING BRIDGE PLANS

SHEET 16 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	836
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

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

		WILL	197	81	SHEET NO. 7 10 SHEETS



2 ABUTMENTS
BILL OF REINFORCEMENT

Bar	No	Size	Lgth	Shape
h	40	#4	24'-4	
h1	14	#4	21'-9	
h2	12	#5	4'-9	
h3	12	#5	4'-9	
h4	12	#5	3'-9	
h5	12	#5	3'-9	
n1	104	#7	4'-10	
n2	52	#7	8'-7	
n3	52	#7	7'-0	
P6	40	#7	24'-7	
s	98	#4	9'-2	
s1	70	#5	8'-4	
s2	28	#5	8'-8	
v	88	#4	2'-9	
v1	196	#4	5'-10	
u	12	#5	5'-6	
t	84	#8	6'-6	
w	112	#5	2'-6	

2 ABUTMENTS
BILL OF MATERIAL

Item	Unit	Quan
Reinforcement Bars	Lbs	11,120
Class X Concrete		
N.W. Abut.	Cu Yds	48.6
N.E. Abut.	Cu Yds	43.3
Rock Excavation		
N.W. Abut.	Cu Yds	5
N.E. Abut.	Cu Yds	14
Class A Excavation		
N.W. Abut.	Cu Yds.	670
N.E. Abut.	Cu Yds	750

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

NW & NE
ABUTMENTS
FAI 80 OVER RAMP AB

STA. 363+67.23
F.A.I. ROUTE 80 SECTION 99-3 (Str. #1)
PROJECT WILL COUNTY
Scale NO SCALE
Date Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	LD
CHECKED	GF
DRAWN	[illegible]
CHECKED	JTL

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing17.dgn

WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USCP702533	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -
	PLOT DATE = 4/22/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 17 OF 62 SHEETS

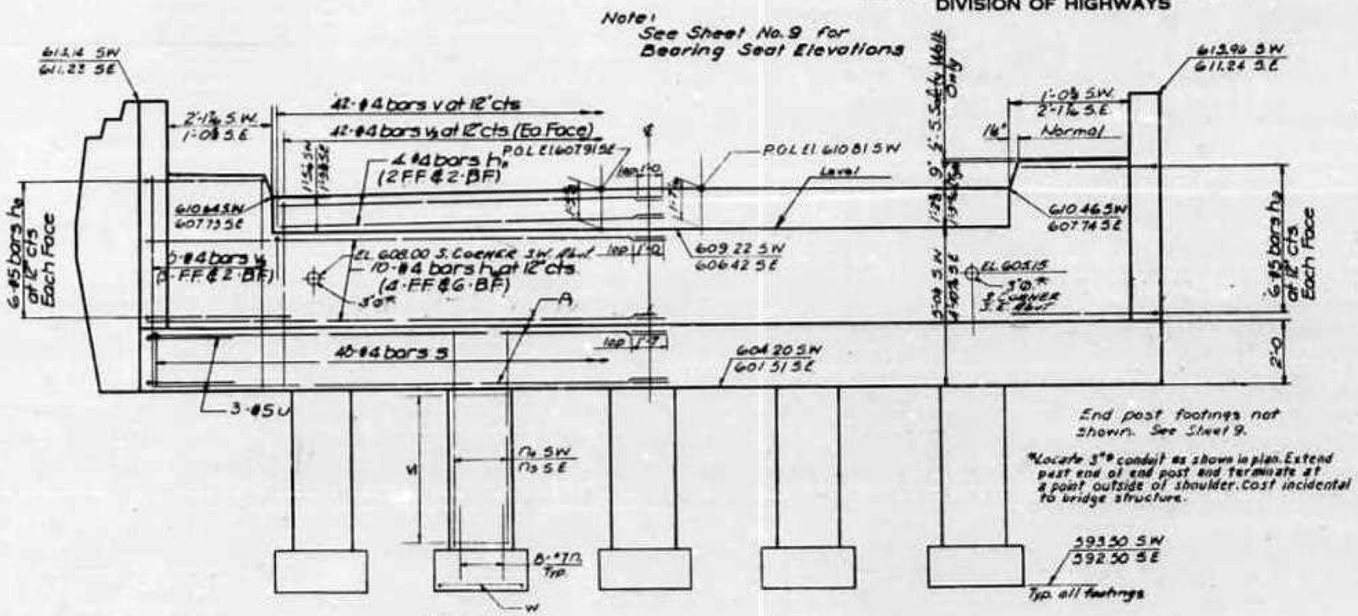
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	837
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

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

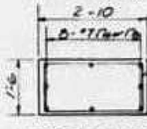
F.A.I. RTE. 80	SECTION 99-3 (Str. #1)	WILL	199	82

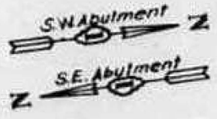
SHEET NO. 6
10 SHEETS

Note! See Sheet No. 9 for Bearing Seat Elevations

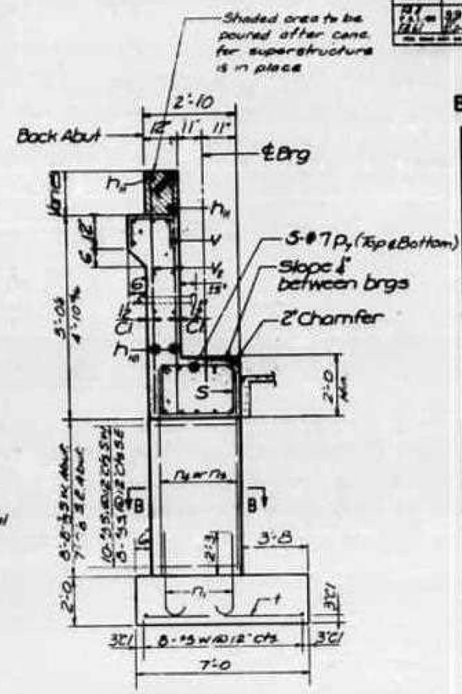


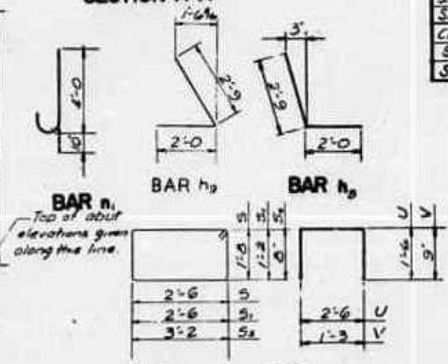
ELEVATION











Note: Maximum Rock Bearing Pressure = 4 Tons/sf. Footings shall be extended 1'0" into sound rock.

2 ABUTMENTS BILL OF REINFORCEMENT

Bar	No	Size	Lgth	Shape
h_8	24	#5	4'-9	
h_9	24	#5	4'-9	
h_{10}	40	#4	23'-9	
h_{11}	16	⅜	21'-0	
n_1	104	#7	4'-10	
n_4	52	#7	10'-6	
n_5	52	#7	8'-10	
P_y	40	#7	24'-0	
s	96	#4	9'-2	
s_1	90	#5	8'-4	
s_2	36	#5	8'-8	
v	84	#4	2'-9	
v_2	180	#6	5'-11	
u	12	#5	5'-6	
t	84	#8	6'-6	
w	112	#5	2'-6	

2 ABUTMENTS BILL OF MATERIAL

Item	Unit	Quan
Reinforcement Bars	Lbs	11,680
Class X Concrete		
S.W. Abut	Cu Yds	47.2
S.E. Abut	Cu Yds	43.6
Rock Excavation		
S.W. Abut.	Cu Yds	11
S.E. Abut.	Cu Yds	18
Class A Excavation		
S.W. Abut.	Cu Yds	650
S.E. Abut.	Cu Yds	600

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

DESIGNED	LD
CHECKED	GF
DRAWN	TLL
CHECKED	JTL

SW & SE ABUTMENTS
FAI 80 OVER RAMP AB
STA. 363+67.23
F A I ROUTE 80 SECTION 99-3 (Str. #1)
PROJECT WILL COUNTY
Scale NO SCALE
Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

Revised: Top front rail N & SE Station 3.33 to 6.66 ft
Raised end post for 42" rail (gutter elev. plus 2'-0") 11-10-64 L.D.W.
Additional Conc. = 0.2 cu yd. per abut.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscop-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing18.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

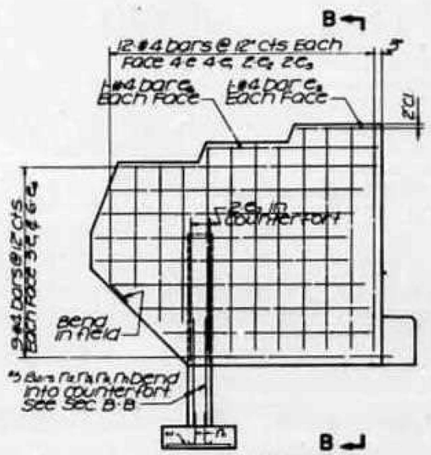
EXISTING BRIDGE PLANS

SHEET 18 OF 62 SHEETS

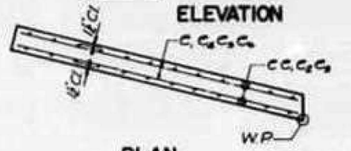
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	838
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

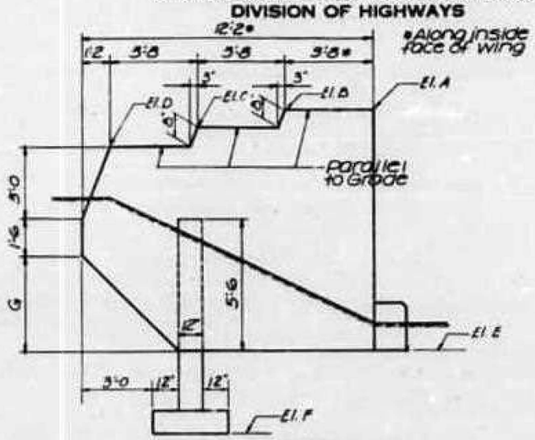
SHEET NO. 9
10 SHEETS



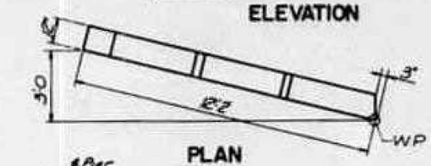
ELEVATION



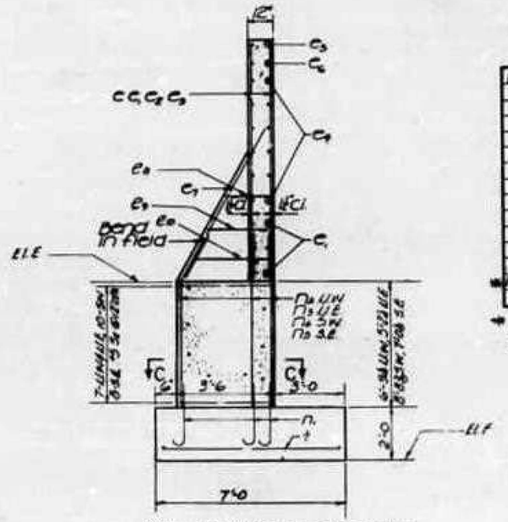
PLAN



ELEVATION



PLAN



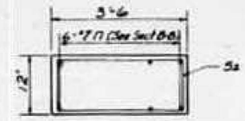
Note: See abut. drawing for footing reinforcing

SECTION B-B

ONE END POST
BILL OF MATERIAL

Bar	No	Size	Lgth	Shape
C	8	#4	9'-3	—
C_1	14	#4	8'-6	—
C_2	4	#4	6'-6	—
C_3	4	#4	5'-0	—
C_4	12	#4	10'-6	—
C_5	2	#4	3'-6	—
C_6	2	#4	7'-0	—
C_7	2	#5	7'-0	—
E_8	1	#4	3'-2"	—
E_9	1	#4	4'-6"	⌐
E_{10}	1	#4	5'-10"	⌐
Reinforcement lbs			105	260

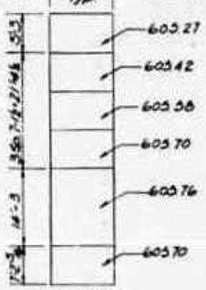
* Included in quantities on Sheets 7 & 8



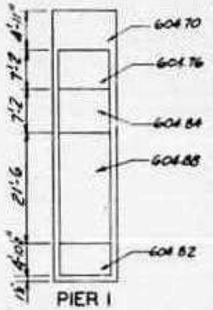
SECTION C-C

Dimension 1'-10" Typ. Elevation

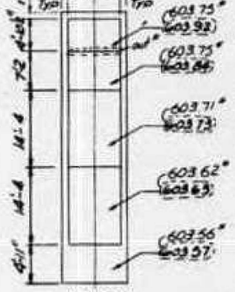
Ahead Sta. ___



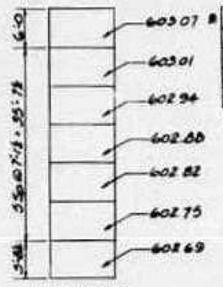
N.W. ABUT.



PIER 1



PIER 2



N.E. ABUT.

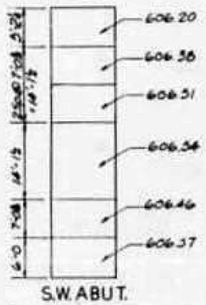
Class X Concrete		
N.W. Abut	Cu. Yds	8.3
N.E. Abut	Cu. Yds	8.0
S.W. Abut	Cu. Yds	8.2
S.E. Abut	Cu. Yds	7.0

* Included in quantities on Sheets 7 & 8

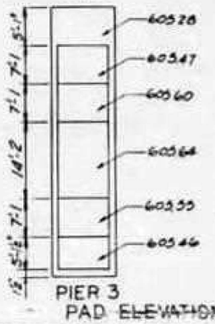
TABLE OF WINGWALL ELEVATIONS & DIMENSIONS

Abut	Pt.	A	B	C	D	E	F	G
N.W. Abut	U. Wall	613.00	613.16	612.86	611.98	603.27	594.50	4'-2⅝"
	S. Wall	613.46	613.54	612.96	612.35	603.27	594.50	4'-7"
N.E. Abut	U. Wall	610.79	610.70	609.95	609.19	600.69	593.50	4'-0"
	S. Wall	610.41	610.32	609.57	608.81	600.69	593.50	3'-7⅞"
S.W. Abut	U. Wall	613.96	614.04	613.44	612.85	604.20	593.50	4'-1⅜"
	S. Wall	614.14	614.22	613.62	613.03	604.20	593.50	4'-4"
S.E. Abut	U. Wall	611.23	611.14	610.39	609.63	601.51	592.50	3'-7½"
	S. Wall	611.24	611.15	610.40	609.64	601.51	592.50	3'-7⅝"

Ahead Sta. ___



S.W. ABUT.



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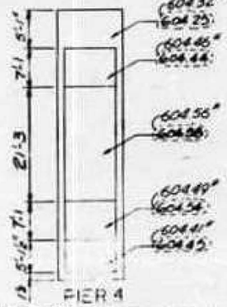

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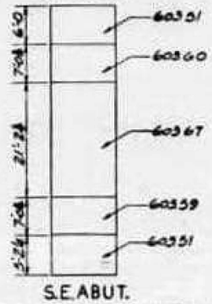
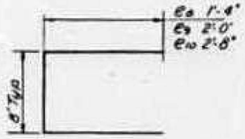


S.E. ABUT.

PAD ELEVATIONS & PLAN



BARS e_8, e_9 & e_{10}

DESIGNED	TLL
CHECKED	JTL
DRAWN	SEF
CHECKED	JTL

PIER ELEVATIONS & ABUTMENT DETAILS

FAI 80
OVER RAMP AB
STA. 363+67.23

FAI ROUTE 80 PROJECT
SECTION 99-3 (Str. 1) WILL COUNTY
Scale NO SCALE Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODCLIFF, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH40140118002203-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing19.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 19 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	839
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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

Bench Mark No. 44A: R.R. Spk. in power pole N.W. Corner Lucas and Hunter Sts. Elev. 590.454

No Existing Structure

PVI Sta 366+86.77
El 623.82
VC = 600'
MO = 3.96'
+3.41%
-1.87%
PG FA RTE 61

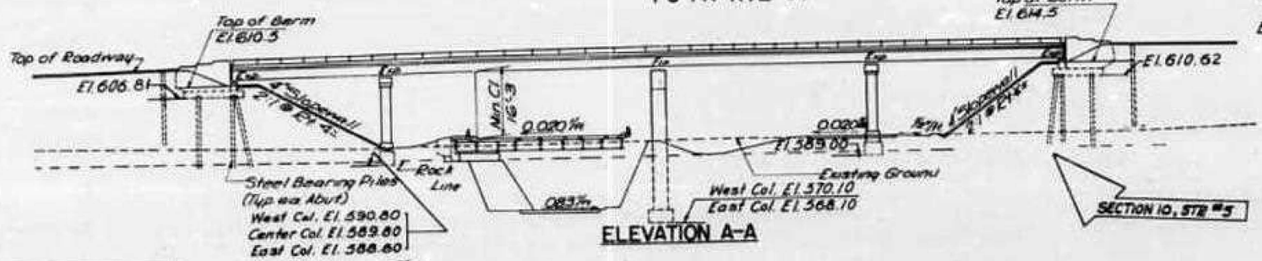
Approach Slab for Sec. 10 (Str. 5) ends at Sta. 66+16 and Approach Slab for Sec. 99-3 (Str. 2) begins at Sta. 66+16.

PVI Sta 358+80
El 625.59
VC = 1600'
MO = 8.13'
+10.66%
-3.0%
PG FAI 80

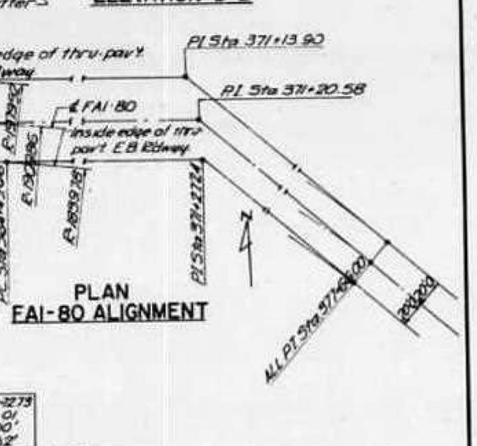
Top of Berm & Batt of Abut
WB-N Side El 591.80
-S Side El 590.30
EB-N Side El 589.60
-S Side El 587.40

Top of Berm & Batt of Abut
WB-N Side El 589.20
-S Side El 587.60
EB-N Side El 586.20
-S Side El 583.90

SHEET NO. 1
12 SHEETS



ELEVATION A-A

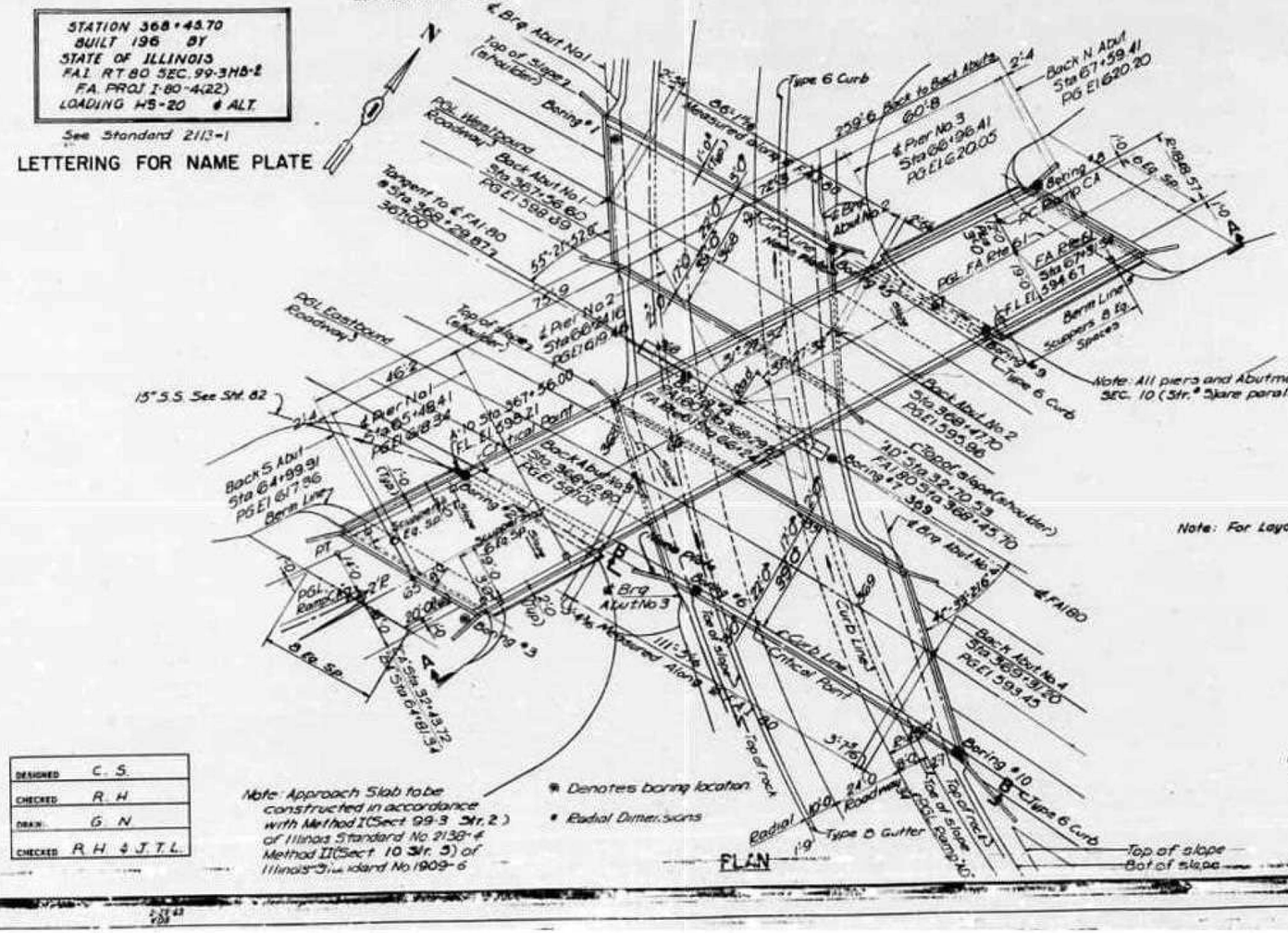


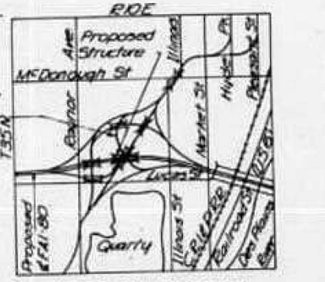
ELEVATION B-B

STATION 368+45.70
BUILT 196 BY
STATE OF ILLINOIS
FAI RT 80 SEC. 99-3HB-2
FA. PROJ I-80-4(22)
LOADING H5-20 & ALT.

See Standard 2113-1

LETTERING FOR NAME PLATE





LOCATION SKETCH

DESIGNED	C. S.
CHECKED	R. H
DRAWN	G. N.
CHECKED	R. H & J. T. L.

Prepared And Recommended
By Blauvelt Engineering Co.
Structural Engineer
81-2251

GENERAL PLAN & ELEVATION
FAI-80 OVER RAMP AD
STA. 368+45.70

F.A.I. ROUTE 80
SECTION 99-3HB-2 STR 2
Scale: NO SCALE
PROJECT I-80-4(22)-133
WILL COUNTY
Date: NOV. 30, 1981

BLAUVELT ENGINEERING CO
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '=' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 20 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	840
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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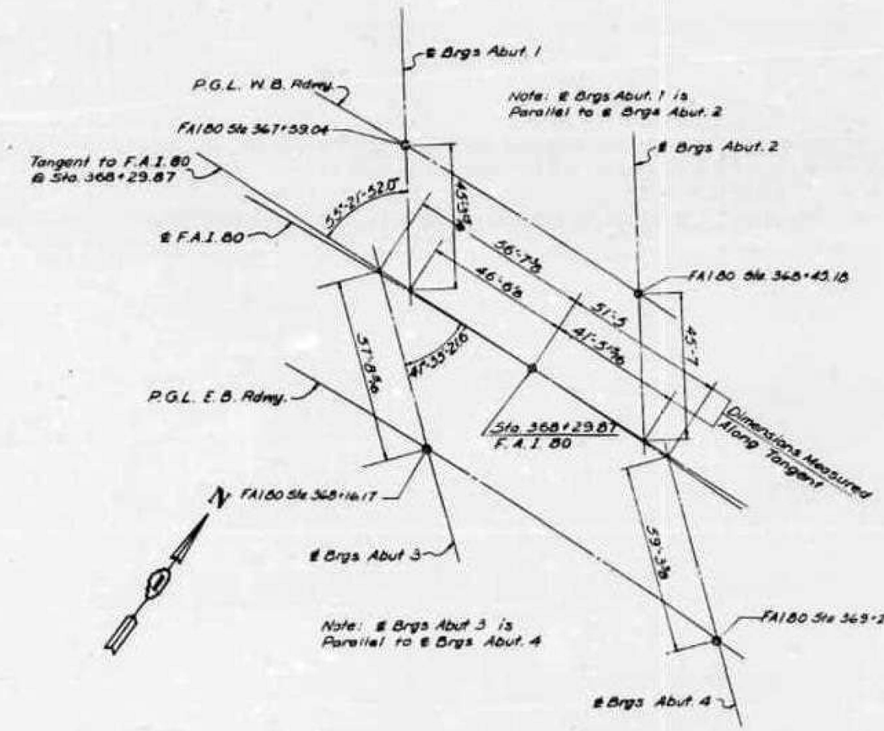
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2019/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing20.dgn

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

11-1-60	99-3				SHEET NO. 2
REVISED		WILL	197	80	12 SHEETS



LAYOUT OF ABUTMENTS

DESIGN STRESSES

Reinforced Concrete :
- f'_c = 3,500 psi.
- f_s = 20,000 psi.
- n = 10 .
- f_c = 1,400 psi. (Except Footings)
- f_c = 1,000 psi. (Footings)
- V_c = 90 psi. (Except Footings)
- V_c = 75 psi. (Footings)

Structural Steel :
- f_s = 20,000 psi.

Maximum Soil Pressure = 3½ Tons/S.F.
Loading : H-S-20-44 & Alt.

TOTAL BILL OF MATERIALS
Section 99-3 (Str. 2)

Item	Unit	Super	Sub.	Total
Rock Excavation for Structures	C. Yd.	—	55	55
Class X Concrete	C. Yd.	260.3	192.2	452.5
Furnishing & Erecting Structural Steel	Lb.	443,890	—	443,890
Reinforcement Bars	Lb.	62,490	14,890	77,380
Name Plate	Each	2	—	2
Aluminum Handrail	Lin. Ft.	407	—	407
Bridge Seat Sealant	Lb.		0.2	0.2
Protective Coat	Sq. Yd.	1082	—	1082

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36.

RIVETS SHALL BE 3/4" ϕ WITH 13/16" ϕ OPEN HOLES UNLESS NOTED.

CLASS X CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE USED IN PARAPETS AND END POSTS SHALL BE FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE AMERICAN WELDING SOCIETY AND THE SPECIAL PROVISIONS.

ALL ROCKERS, ROLLERS, 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.

ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13 (d) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. THE 3/4" ϕ WELDED STUDS SHALL NOT BE PAINTED.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING CONCRETE FLOOR.

Excavation for portions of structures in the embankment shall not be classified.

DESIGNED	G.F.
CHECKED	J.T.L.
DRAWN	J.F.M.
CHECKED	J.T.L.

GENERAL NOTES & LAYOUT
F.A.I 80 OVER RAMP AD
STA. 368+45.70

F.A.I ROUTE 80
SECTION (Str. 2) 99-3
Scale: No Scale

PROJECT
WILL COUNTY
Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

Replace 4 set Expansion Joint "A" (Revised) & Conc. from 40.5 to 45.5 cu yds. Str. 3H from 446,490 to 443,890 lbs., Rem. from 14,110 to 12,380 lbs. 3-11-64 L.D.W.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2019/CH401140118002203-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing21.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 7:11.99616 '=' / In.	CHECKED -	REVISED -
PLOT DATE = 4/22/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

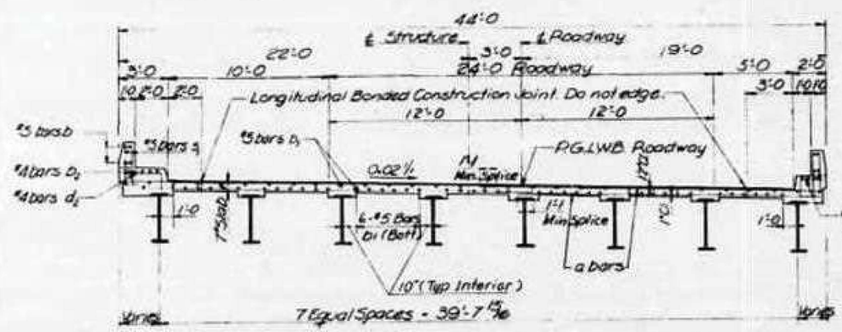
EXISTING BRIDGE PLANS

SHEET 21 OF 62 SHEETS

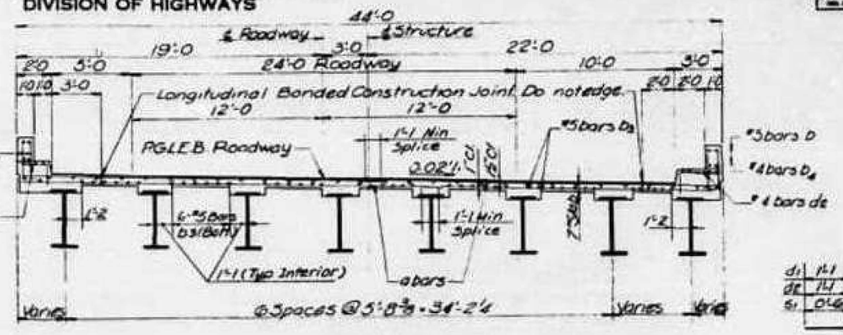
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	841
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

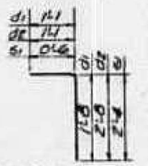
		WILL	177	67	SHEET NO. 3 12 SHEETS



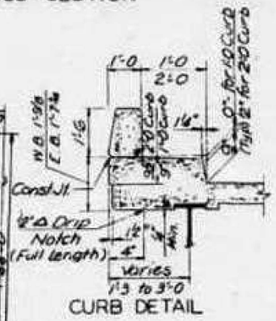
W.B. ROADWAY

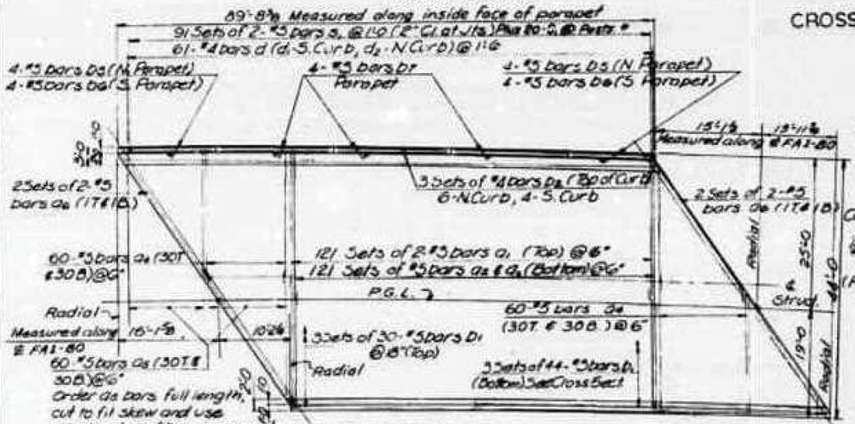


E.B. ROADWAY



CROSS-SECTION





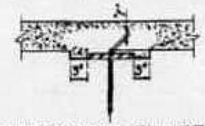
DESIGNED	AME
CHECKED	JTL
DRAWN	AME
CHECKED	JTL

Note: Reinforcement in Parapets and Curbs symmetrical about ℄s of Structures unless noted otherwise. for Parapet Joint Dimension See Dtl 6

N

* Place 2-#5 S1 bars at each handrail post on inside (roadway) face of parapet. (92 S1 bars included for posts.)

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so attained subtracted from the theoretical grade elevations minus floor thickness equals fillet heights above top of beams.



METHOD OF DETERMINING FILLET HEIGHT "t"

BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
a1	492	5	22'-6	
a2	246	5	25'-0	
a3	246	5	19'-8	
a4	372	5	21'-0	
a5	372	5	23'-6	
a6	8	5	27'-6	
a7	4	5	32'-9	
a8	4	5	35'-0	
b1	222	5	30'-10	
b2	30	4	30'-10	
D1	296	5	28'-11	
D2	40	4	28'-11	
D3	8	5	15'-3	
D4	8	5	13'-10	
D5	24	5	19'-2	
D6	8	5	14'-7	
D7	8	5	14'-10	
D8	16	5	17'-10	
D9	16	5	18'-6	
D10	4	5	8'-8	
D11	4	5	9'-4	
d1	137	4	2'-9	
d2	137	4	3'-9	
S1	912	5	2'-10	

BILL OF MATERIALS

Class "X" Concrete	Cu.Yd.	260.9
Reinforcement Bars	Lbs.	60,490
Structural Steel **	Lbs.	449890

** Structural Steel includes weight of Rockers, Bolsters, Bearing Plates, Lead Plates, Pintles and Anchor Bolts. Estimated Wt. = 10,537#

ELEVATIONS - TOP OF SLAB *** Elevations are not adjusted for dead load deflections.

	Pt.	1	2	3	4	5	6	7	8	9	10	11	12
West Bound	S1	599.88	599.28	598.98	598.68	598.38	598.08	597.78	597.49	597.19	596.96	———	———
	S2	599.36	599.06	598.75	598.45	598.15	597.86	597.56	597.26	596.96	596.73	———	———
	S3	599.13	598.83	598.53	598.23	597.93	597.63	597.33	597.03	596.74	596.51	———	———
	S4	598.91	598.61	598.30	598.00	597.70	597.40	597.10	596.80	596.51	596.28	———	———
	S5	598.68	598.38	598.08	597.77	597.47	597.17	596.87	596.57	596.28	596.05	———	———
	S6	598.46	598.15	597.85	597.55	597.24	596.94	596.64	596.34	596.05	595.81	———	———
	S7	598.23	597.93	597.62	597.32	597.02	596.71	596.41	596.11	595.82	595.58	———	———
	S8	598.00	597.70	597.39	597.09	596.79	596.48	596.18	595.88	595.58	595.35	———	———
East Bound	S9	597.85	597.54	597.23	596.92	596.61	596.30	596.00	595.69	595.39	595.09	594.78	594.50
	S10	597.33	597.22	596.91	596.60	596.29	595.99	595.68	595.38	595.07	594.77	594.47	594.19
	S11	597.22	596.91	596.60	596.29	595.98	595.67	595.36	595.06	594.76	594.45	594.15	593.87
	S12	596.90	596.59	596.28	595.97	595.66	595.35	595.05	594.74	594.44	594.14	593.83	593.55
	S13	596.59	596.27	595.96	595.65	595.34	595.04	594.73	594.42	594.12	593.82	593.52	593.23
	S14	596.27	595.96	595.65	595.33	595.03	594.72	594.41	594.11	593.80	593.50	593.19	592.91
	S15	595.92	595.64	595.33	595.02	594.71	594.40	594.09	593.79	593.48	593.18	592.88	592.59
	S16	595.69	595.37	595.06	594.75	594.43	594.12	593.82	593.51	593.20	592.90	592.59	592.27

*** Where curb is over stringer, elevation shown is that of the projection of top of slab along its cross slope. See sheet 4 for locations of points.

SLAB PLAN & CROSS-SECTION
FAI 80 OVER RAMP AD

FAI 80 STA. 368+45.70
F.A.I. ROUTE 80 PROJECT
SECTION 99-3(STR.#2) WILL COUNTY
State None Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

Bridge quantities: Concrete 260.9 to 260.9 Cu.Yd., Reinforcement Bars 60,490 to 60,490 lb., Structural Steel 449,890 to 449,890 lb. 11-13-24 L.E.W.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 22 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	842
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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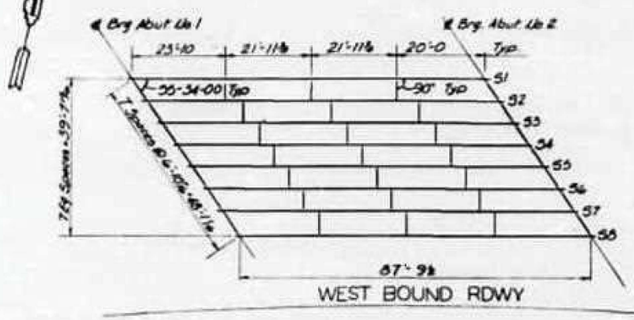
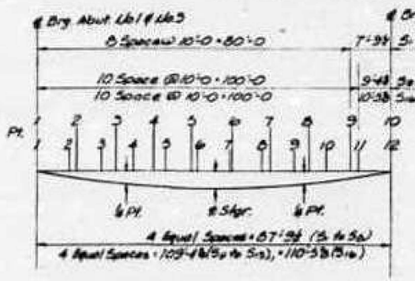
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

		COUNTY	TOTAL SHEETS	SHEET NO.
		WILL	199	88

SHEET NO. 4
12 SHEETS



WEST BOUND RDWY



DEAD LOAD DEFLECTION DIAGRAM

W B STRINGERS

Stgr. \ Pt.	¼ Pts.	℄
S1	1 7/16"	2 3/32"
S2 to S7	1 1/16"	1 7/8"
S8	1⅛"	1 29/32"

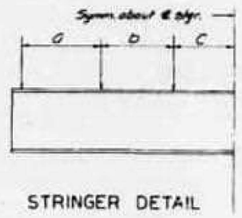
Deflections for W.B. stringers are for concrete only.

E B STRINGERS

Stgr. \ Pt.	¼ Pts.			℄		
	Steel	Conc.	Total	Steel	Conc.	Total
S8	1⅛"	2 3/16"	2 5/16"	1 5/16"	2 7/16"	3 1/32"
S8 to S9	1⅛"	1 3/16"	2 5/16"	1⅜"	2⅛"	3⅜"
S9	1 3/32"	2 5/32"	2⅛"	1 7/16"	3 1/16"	4⅛"

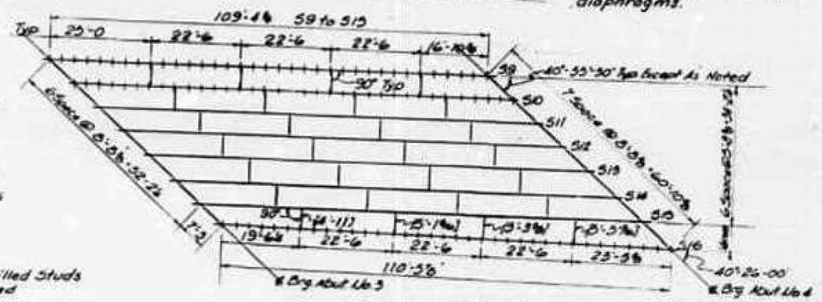
E.B. Stringers shall be cambered for total dead load deflection.

DEAD LOAD DEFLECTIONS



STRINGER DETAIL

Note:
E.B. interior stringer intermediate stiffeners shown are typical for all E.B. interior stringers.
Flange and web splices to clear intermediate stiffeners by 1'-0. Intermediate stiffeners to be spaced equally between cross frames with number as shown on framing plan.



EAST BOUND RDWY

Dimensions shown thus [ ] are c. to c. stringers along diaphragms.

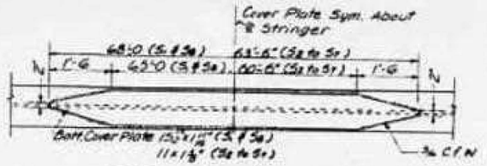
FRAMING PLAN

Stgr. \ Pt.		Abuts 1&5	Abuts 2&4
West Bound	S1	598.88	596.36
	S2	598.76	596.13
	S3	598.53	595.91
	S4	598.31	595.68
	S5	598.08	595.45
	S6	597.86	595.21
	S7	597.63	594.98
	S8	597.40	594.75
East Bound	S9	597.19	593.84
	S10	596.87	593.53
	S11	596.56	593.21
	S12	596.24	592.89
	S13	595.93	592.57
	S14	595.61	592.25
	S15	595.29	591.93
	S16	595.02	591.60

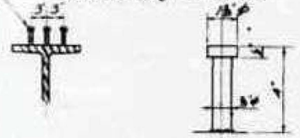
ELEVATIONS TOP OF BEAM

Stgr. Mark	Size	Shear Connector a		b		c
		Pitch	Lgth	Pitch	Lgth	Pitch
S1 to S6	36WF 260	9½"	14'-3"	14"	15'-2"	18"
S6 to S8	36WF 194	9⅝"	14'-3"	14"	15'-2"	18"
S8 to S16	See Detail This Sheet	11"	10'-1"	13"	9'-9"	18"

BEAM SCHEDULE & SHEAR CONNECTOR SPACING

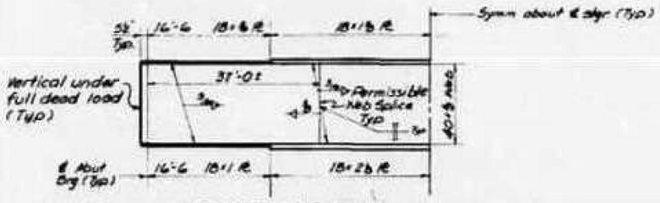


DETAIL OF COVER PLATE

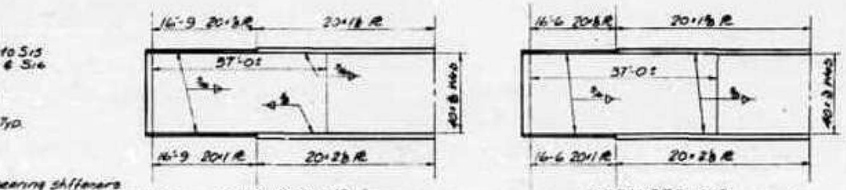


SHEAR CONNECTOR DETAILS

Shear connectors included in quantity of structural steel.
Welding Notes see Special Provisions for Welding.
The contractor shall submit to the Engineer for his approval a welding procedure for the fabrication of all parts.
All welding shall be done in accordance with the "Standard Specifications for welded Highway and Railway Bridges" The contractor shall provide the proper weld details as provided in paragraphs 221 or 220 (preference shall be given to detail as per paragraph 221) in accordance with the welding procedure and positions that are approved by the Engineer.
Preference shall be given to flat position welding where feasible. In general all welded splices in webs and flanges shall be made before welding flanges to webs.
Stringer sections shall be assembled for position welding with adequate supports to maintain proper dimensions and alignments and to hold distortion to a minimum.
All welding shall be by the submerged arc process.

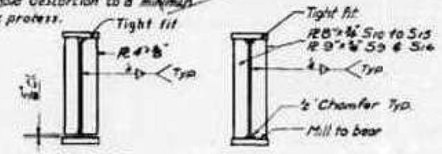


STRINGER S10 TO 15



STRINGER S9 STRINGER S16

Note: Electrodes conforming to either the E60XX or the E70XX series of Tentative Specifications for Mild Steel Arc Welding Electrodes (AWS Designation A5.1; ASTM Designation A233) shall be used for A36 steel in thicknesses of ¾inch or less. Only E70XX low hydrogen electrodes shall be used on thicknesses of A36 steel over ¾inch.



STIFFENER DETAILS

Note: All bearing stiffeners to be vertical. All intermediate stiffeners to be normal to flanges.



FLANGE SPLICE DETAIL

DESIGNED	G. F.
CHECKED	R. H. W.
DRAWN	T. L. L.
CHECKED	G. F. & J. T. L.

FRAMING PLAN & STEEL DETAILS
FAI 80 OVER
RAMP AD
STA. 368+45.70
FAI ROUTE 80
SECTION 59 (STR-2)
PROJECT
WILL COUNTY
Scale NO SCALE
Date Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS

Revised: Add Electrode note for welding A36 Steel, and note Shear connectors included in quantity of Struct Steel. (12-6-61) Add note. All welding by submerged arc process. Add Flange splice detail.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 23 OF 62 SHEETS

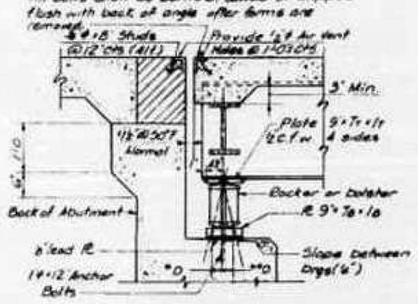
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	843
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing23.dgn

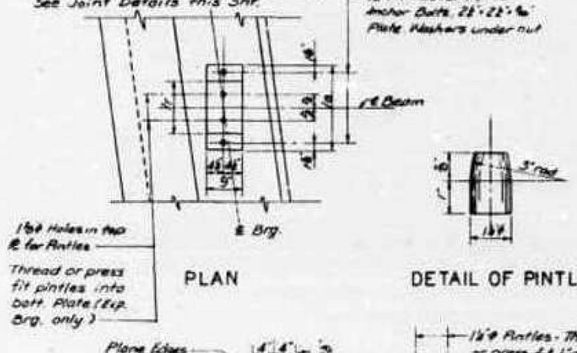
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

117	77-3	WILL	117	69	SHEET NO. 5
	77-3-2				12 SHEETS

Angles shall be held securely in place, while pouring concrete, with ⅞"ϕ bolts in 1⅛"ϕ holes set on gageline at 12" Ctrs. All bolts shall be burned, sawed or chipped flush with back of angle after forms are removed.

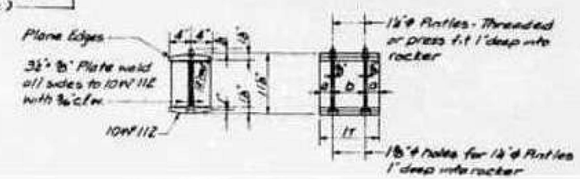


SECTION AT ABUTMENTS
Abuts. 2 & 4 Shown
Abuts 1 & 3 Similar but use fixed brg. See Joint Details this Sht.

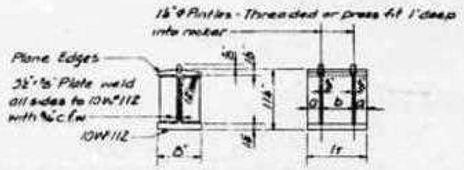


PLAN

DETAIL OF PINTLE

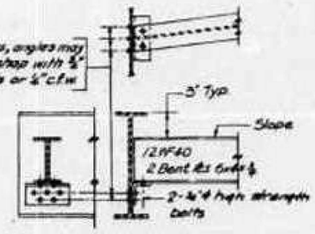


DETAIL OF EXPANSION BEARING

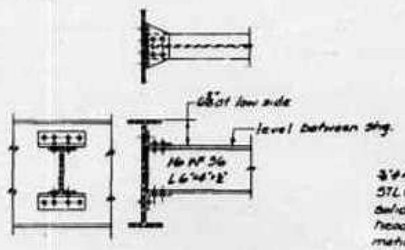


DETAIL OF FIXED BEARING

In lieu of shop rivets, angles may be attached in the shop with ⅞" high strength bolts or ⅜" c.f.w.



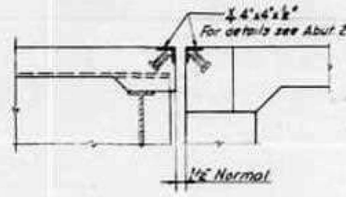
END DIAPHRAGM
(For West-Bound Rdwy)



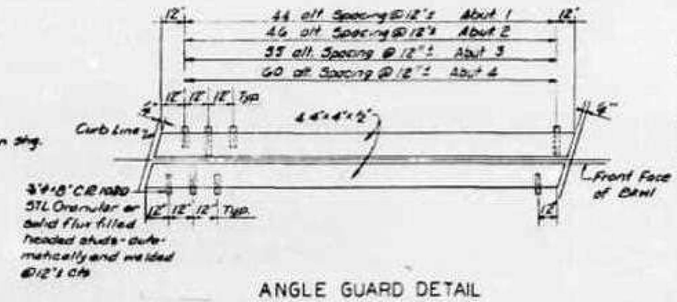
INTERMEDIATE DIAPHRAGM
(For West-Bound Rdwy)

DIMENSIONS FOR BEARINGS

Stgr.	Bearing	T1	T2	l1	l2	D	a
51 & 58	Exp.	1"	1⅛"	18'	25'-6"	26'-6"	3"
	Fix	1"	1"	18'	25'-6"	26'-6"	3"
52 to 57	Exp.	1"	1⅛"	13'	20'-6"	21'-6"	3"
	Fix	1"	1"	13'	20'-6"	21'-6"	3"
59 & 516	Exp.	1"	1⅛"	21'	28'-6"	29'-6"	3"
	Fix	1"	1"	21'	28'-6"	29'-6"	3"
510 to 515	Exp.	1"	1⅛"	13'	28'-6"	29'-6"	3"
	Fix	1"	1"	13'	28'-6"	29'-6"	3"



FIXED JOINT DETAILS
AT ABUTMENTS 1 & 3

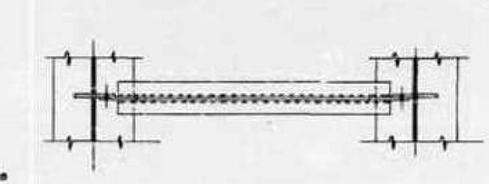


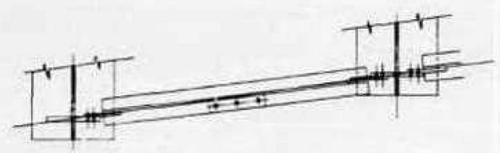
ANGLE GUARD DETAIL

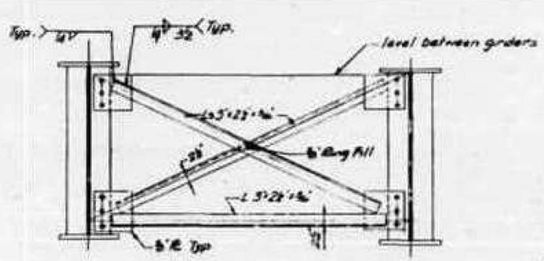
Anchor bolts shall be grouted into drilled holes after beams are in place, or bolts at fixed abutments may be built into the masonry.

*D = ⅛" per 100° of exp. for every 15° below the normal temp. of 50°F.

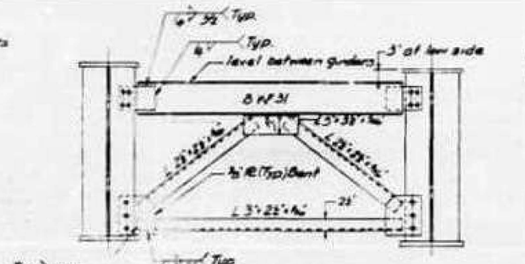
**D = ⅛" per 100° of exp. for every 15° above the normal temp of 50°F.







INTERMEDIATE CROSS FRAME
(For East-Bound Rdwy)



END CROSS FRAME
(For East-Bound Rdwy)

Notes:
All field connections on welded Plate Girders are to be made with high strength ⅞"ϕ bolts

BEARING & DIAPHRAGM DETAILS
FAI 80 OVER RAMP AD
STA 368+45.70
FAI ROUTE 80
SECTION (3R-2)
Scale: No Scale
PROJECT
WILL COUNTY
Date: Nov 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
MOSELEY N.C. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	T.L.L.
CHECKED	G.F. & J.T.L.
DRAWN	T.L.L.
CHECKED	G.F. & J.T.L.

Revised 2-26-62 Revise Intermediate Cross Frame (Top Flange)

Revised 4-6-62 Place of welded splices on welded Plate Girders, see "Detail of Splices" Sht. 4 of 12 Sheets

Revised 7-6-62 Add guard angles at Abuts 1 & 3 (1A 90 "L" 20#) Omit notes for washer plate and setting same

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

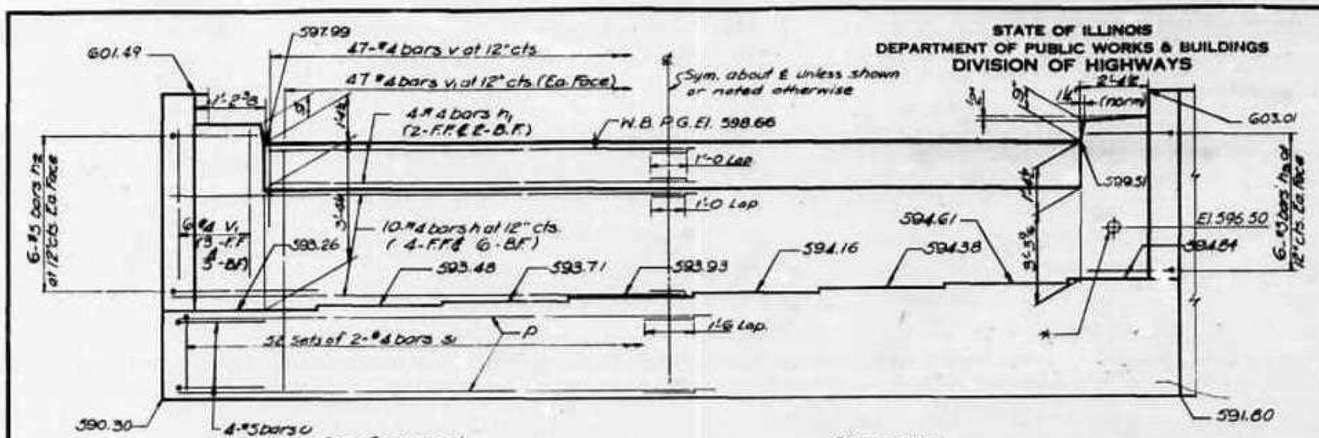
USER NAME = USCP702533	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS	
	DRAWN -	REVISED -			
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -			
PLOT DATE = 4/22/2025	DATE -	REVISED -		SHEET 24 OF 62 SHEETS	

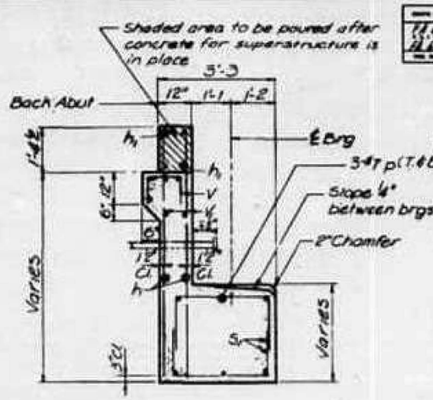
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	844
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscop-pw1-hosted/Documents/Projects_2019/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing24.dgn

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

	WILL	197	91	SHEET NO. 7 12 SHEETS





ONE ABUTMENT
BILL OF REINFORCEMENT

Bar	No	Size	Lgth	Shape
h	20	#4	26'-6	
h1	8	#4	23'-10	
h2	12	#5	3'-9	
h3	12	#5	4'-9	
P	12	#7	26'-3	
Si	104	#4	6'-9	
U	8	#5	3'-10	
V	47	#4	2'-9	
V1	100	#4	7'-3	

ONE ABUTMENT
BILL OF MATERIAL

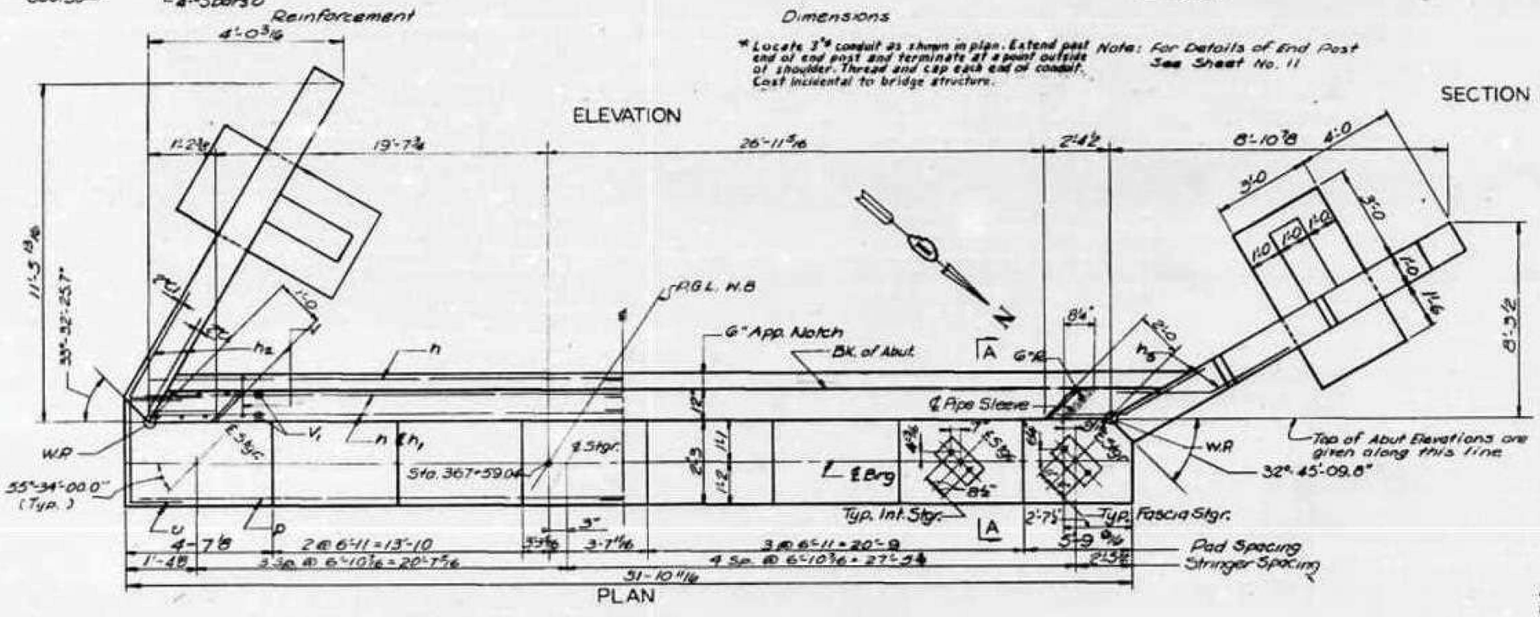
Item	Unit	Quan
Class X Concrete Cu Yds		38.8
Reinforcement Bars	lbs	3200
Rock Excavation	Cu Yds	14

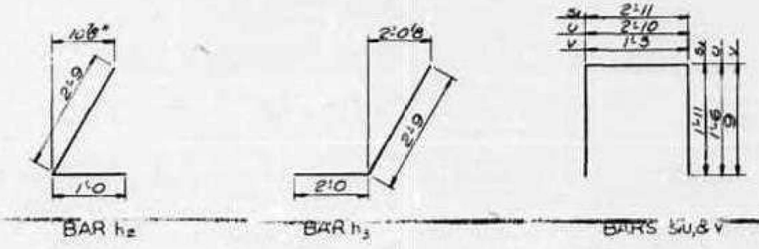
Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

Reinforcement Dimensions

* Locate 3" ℄ conduit as shown in plan. Extend past end of end post and terminate at a point outside of shoulder. Thread and cap each end of conduit. Cost incidental to bridge structure.

Note: For Details of End Post See Sheet No. 11





Note: All footings to be founded on Rock. Maximum Bearing Pressure = 3.5 Tons/sq ft

DESIGNED	RHW
CHECKED	AME
DRAWN	AME
CHECKED	JTL

ABUTMENT NO. 1
FAI 80 OVER RAMP AD
STA 368+45.70
FAI ROUTE 80
SECTION 99-3 (STR-2)
PROJECT
WILL COUNTY
Date: Nov. 30, 1967
SCALE
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
NEW YORK, N.Y. CRYSTAL LAKE, ILL.

Based end posts (gutter elev. plus 3'-6") for new rail, Conc. plus 0.2 cu. yds. 11-13-68 L.D.W.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing25.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

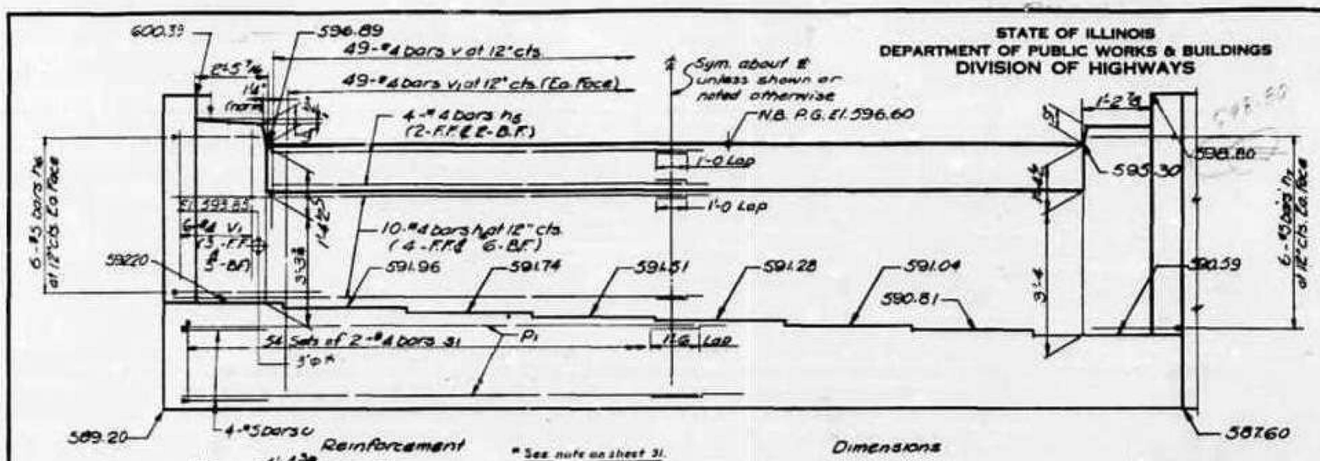
EXISTING BRIDGE PLANS

SHEET 25 OF 62 SHEETS

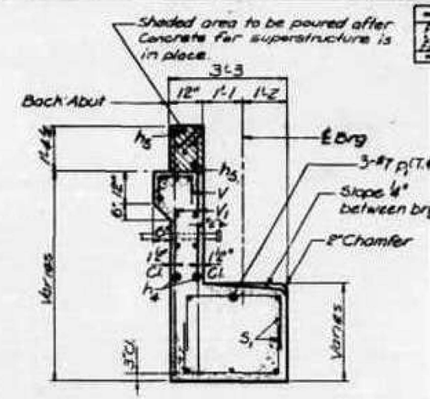
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	845
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

					SHEET NO. 8
		WILL	199	92	12 SHEETS



Note: For Details of End Posts See Sheet No. 11



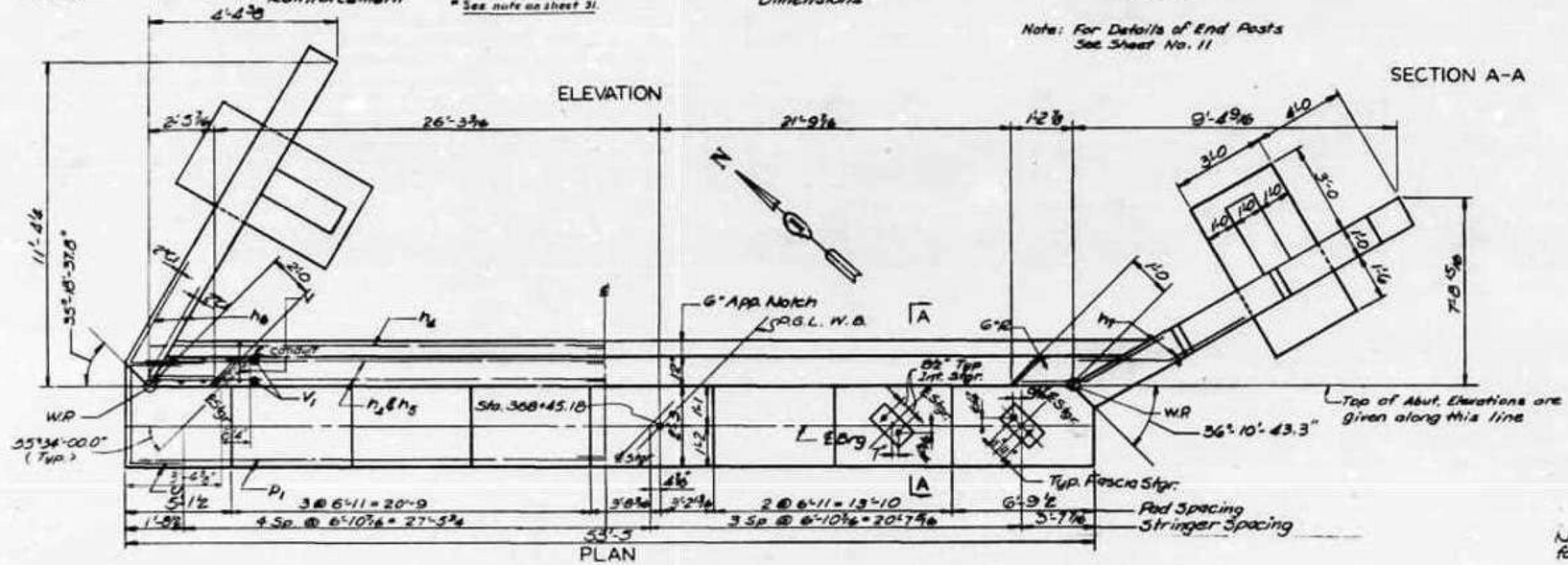
ONE ABUTMENT
BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
h8	20	#4	27'0	—
h5	8	#4	24'6	—
h8	12	#5	4'9	L
h7	12	#5	3'9	/
P1	12	#7	27'6	—
S1	108	#4	6'9	□
U	8	#5	3'10	□
V	49	#4	2'9	□
V1	110	#4	7'3	—

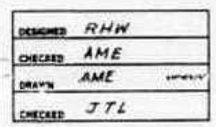
ONE ABUTMENT
BILL OF MATERIAL

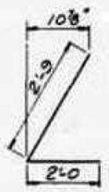
Item	Unit	Quan
Class X Concrete	Cu Yds	38.1
Reinforcement Bars	lbs	3270
Rock Excavation	Cu Yds	21

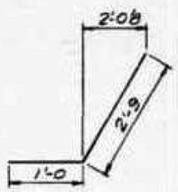
Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

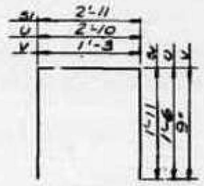


Note: All footings to be founded on Rock.
Maximum Bearing Pressure = 3.5 Tons/□'









ABUTMENT NO. 2
FAI 80 OVER RAMP AD
STA. 368+45.70
FAI ROUTE 80
SECTION 99-3 (STR-4E)
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: Nov. 30, 1961
CLAUDE U. VELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

8-12-69 J.M.L. Rev. Class X Conc. from 37.9 to 38.1 cu yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/099018G-62R22-Existing26.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

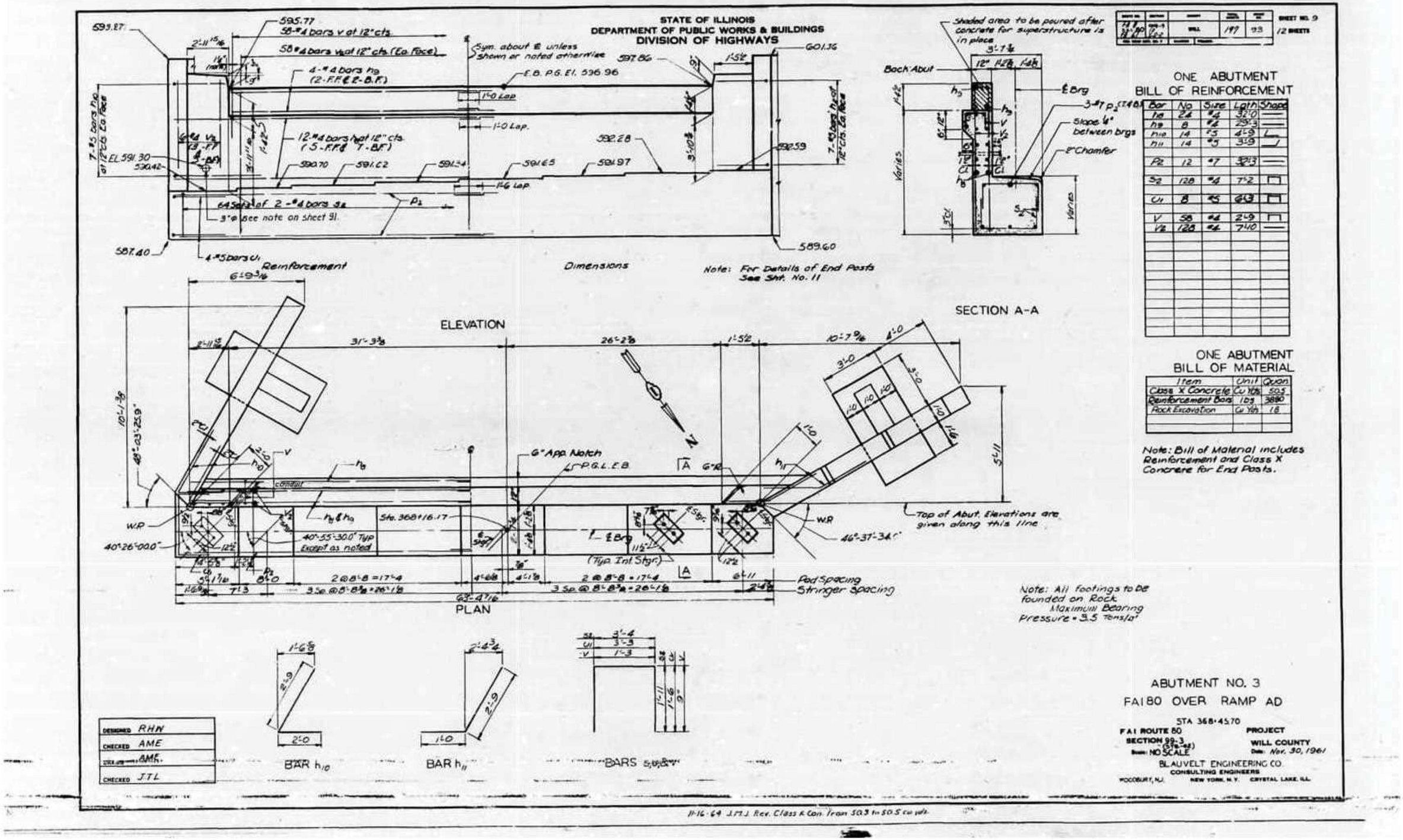
USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 26 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	846
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	



Bar	No	Size	Lgth	Shape
h8	24	#4	32'-0	
h9	8	#4	29'-3	
h10	14	#5	4'-9	
h11	14	#5	3'-9	
P2	12	#7	32'-3	
S2	128	#4	7'-2	
U1	8	#5	6'-3	
V	58	#4	2'-9	
V2	128	#4	7'-10	

Item	Unit	Quan
Class X Concrete	Cu Yds	50.5
Reinforcement Bars	lbs	3880
Rock Excavation	Cu Yds	18

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing27.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

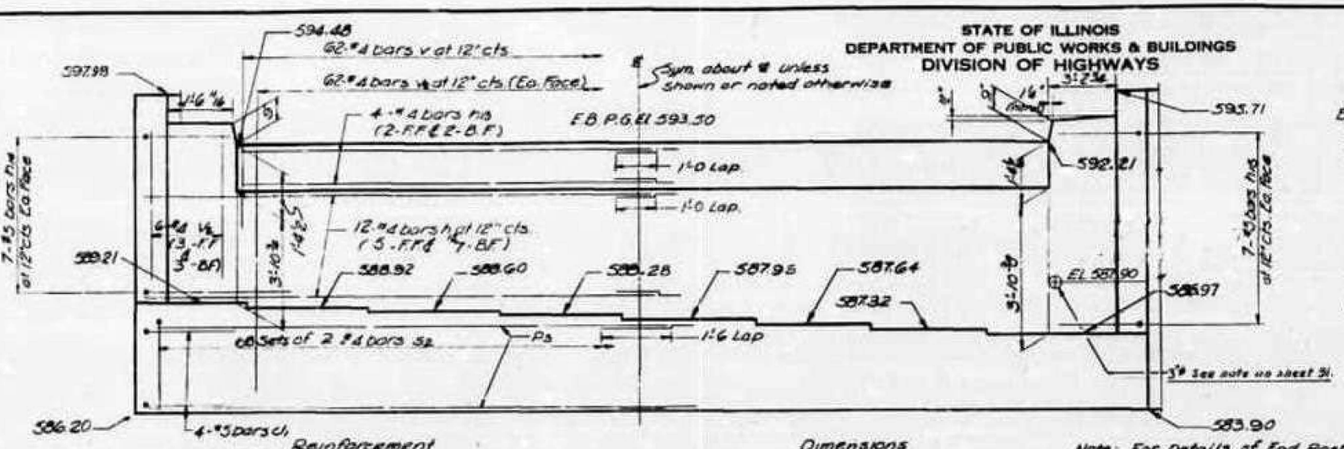
USER NAME = USCP702533	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

EXISTING BRIDGE PLANS

SHEET 27 OF 62 SHEETS

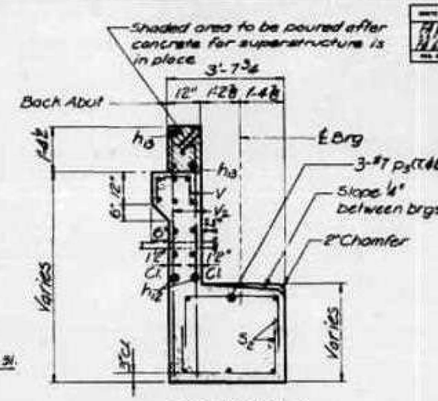
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	847
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

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



Reinforcement Dimensions

Note: For Details of End Posts See Sht. # 11.

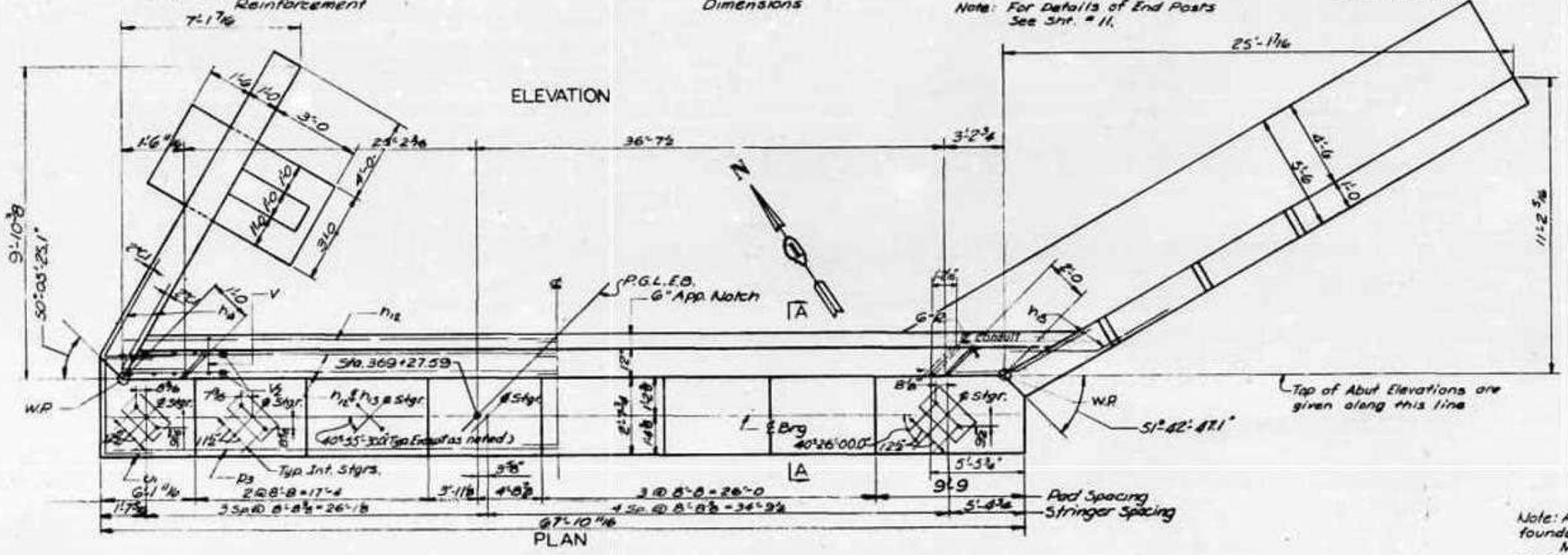


SECTION A-A

ONE ABUTMENT
BILL OF REINFORCEMENT

Bar	No	Size	Lgth	Shape
h12	24	#4	3'-3	
h13	8	#4	3'-5	
h14	14	#5	3'-9	L
h15	14	#5	4'-9	
P3	12	#7	38'-6	
S2	136	#4	7'-2	
U1	8	#5	6'-3	
V	62	#4	2'-9	
1/2	136	#4	7'-10	

ELEVATION

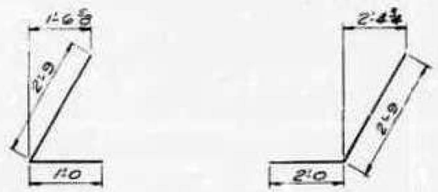


ONE ABUTMENT
BILL OF MATERIAL

Item	Unit	Quan
Class X Concrete	Cu Yds	64.8
Reinforcement Bars	lbs	4540

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

Note: All footings to be founded on Rock. Maximum Bearing Pressure = 3.5 Tons/sf



DESIGNED	R.H.W.
CHECKED	A.M.E.
DRAWN	A.M.F.
CHECKED	J.T.L.

ABUTMENT NO. 4
FAI 80 OVER RAMP AD
STA 368+45.70
FAI ROUTE 80
SECTION 99-3 (STR-42)
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: Nov. 20, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

11-16-64 J.M.J. Rev. Class X Conc. from 64.4 to 64.8 cu yds.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 28 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	848
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing28.dgn

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

					SHEET NO. 11 12 SHEETS
		WALL	117	95	

Abut-3 (NW & SE) 12-#4 bars @ 12" cts Each Face
Abut-4 (NW) Face 4-C_3 2-C_5 2-C_{10} 2-C_{11} 2-C_{12}
Abut-1 (NW & SE) 12-#4 bars @ 12" cts Each Face
Abut-2 (NW & SE) Face 4-e 2-C_1 2-C_4 2-C_8 2-e

#4 bars C_8 Each Face
#4 bars C_9 Each Face
12"cl
B
2'-0" Counterfort
8"-bars n. 4 Each Face
Bend in field
6-#5 bars t (3T & 3B)
2-#5 bars n. bend into counterfort See Sec B-B
#5 bars n. 2 Each Face
12-#5 bars W (6-Top & 6-Bottom)
9-#4 bars @ 12"cts. Each Face 2-C_{13} 1-C_{14} 6-C_2
B

ELEVATION

12"cl
e C_3 C_5 C_6 C_{12} C_{13}
C_1 C_2 C_3 C_4 C_5 C_6 C_7 C_8 C_9 C_{10} C_{11} C_{12}
WP

PLAN

*Along inside face of wing
12'-2"
3'-8" 3'-8" 3'-8"
3" 3"
A B C D
6"
parallel to Grade
F 1'-6" 3'-0"
4'-6"
4'-0" 3'-6"
E

ELEVATION

3'-0"
12'-2"
3"
WP

PLAN

#4 1'-6" C_{13} 2'-8"
9"
2"

BARS e_4 & C_{13}

12"
C_3 C_4
C_1 C_2 C_3 C_4 C_5 C_6 C_7 C_8 C_9 C_{10} C_{11} C_{12}
e
e_4 C_1
16"cl
Bend in field
e_4
C_{13}
C_{12}
5"
2'-0"
12"cl
n
w
3'-0" 12" 1'-6"
t

SECTION B-B

END POST ELEVATIONS & DIMENSIONS

Abut.	End Post	Elevations A	B	C	D	E	F
1	N.W.	603.01	601.18	602.56	602.00	591.80	3'-6⅜
	S.E.	601.49	601.60	601.04	600.48	590.30	3'-8⅛
2	N.W.	600.34	600.78	599.57	599.71	589.20	3'-10⅛
	S.E.	598.80	598.69	597.31	597.14	587.60	3'-10⅛
3	N.W.	601.36	601.46	600.30	600.34	589.60	4'-2⅜
	S.E.	599.27	599.38	598.19	598.26	587.40	4'-4⅜
4	N.W.	597.38	597.88	597.10	596.33	586.20	3'-7⅛

END POSTS - ABUTS. NO. 1, 2, 3 & N.W. END POST - ABUT. NO. 4

Note: All footings to be founded on rock. Maximum Bearing Pressure = 1.5 Tons/ft²

n	4'-7	7"	
n_2	3'-4	7"	
w	5'-0	7"	

BARS n, n_2, t, w,

*7-END POSTS BILL OF MATERIAL

Class X Concrete in Cu Yds	
Abutment 1	10.2
Abutment 2	9.7
Abutment 3	10.7
Abut 4 N Wall	5.4
Reinforcement Bars in lbs	
Abutment 1	840
Abutment 2	840
Abutment 3	850
Abut 4 N Wall	430

* 2 End posts per abutment unless noted

*7-END POSTS BILL OF MATERIAL

Bar	No	Size	Lgth	Shape
C	116	#4	10'-6	—
C_1	16	#4	9'-10	—
C_2	16	#4	7'-10	—
C_3	16	#4	6'-10	—
C_4	16	#4	5'-7	—
C_5	16	#4	3'-6	—
C_6	14	#4	7'-0	—
C_7	14	#5	6'-10	—
C_8	24	#4	11'-2	—
C_9	12	#4	10'-3	—
C_{10}	12	#4	8'-3	—
C_{11}	12	#4	7'-3	—
C_{12}	40	#4	5'-6	—
C_{13}	14	#4	8'-9	—
E_{14}	7	#4	3'-6"	—
E_{15}	7	#4	3'-2	—
n	98	#5	5'-2	⌐
t	42	#5	5'-0	—
w	84	#5	2'-6	—

*Bill of Material is for End Posts of Abuts. No. 1, 2, 3 & N.W. End Post of Abut. No. 4.

**1-END POST BILL OF MATERIAL

Bar	No	Size	Lgth	Shape
e	2	#4	10'-6	—
C_3	2	#4	5'-6	—
C_6	2	#4	7'-0	—
C_M	3	#5	9'-7	—
C_{15}	3	#5	8'-10	—
C_{16}	3	#5	8'-1	—
C_{17}	3	#5	6'-7	—
C_{18}	3	#5	5'-7	—
C_{19}	3	#5	4'-10	—
C_{20}	2	#4	9'-7	—
C_{21}	2	#4	8'-10	—
C_{22}	2	#4	8'-1	—
C_{23}	3	#4	6'-7	—
C_{24}	3	#4	5'-7	—
C_{25}	2	#4	4'-10	—
C_{26}	6	#4	2'-6	—
C_{27}	2	#4	15'-6	—
C_{28}	2	#4	21'-0	—
n_2	22	#5	3'-11	⌐
t_1	8	#4	2'-6	—
W_1	27	#5	3'-7	⌐
W_2	27	#4	3'-0	—
Class X Concrete	Cu Yds		16.9	
Reinforcement Bars	lbs		1861	890

**Bill of Material is for S.E. End Post Abut. 4 Reinf. quantities included with Abutments.

14-#4 bars @ 2'-0 cts. Front Face
6-C_{20} 2-C_{21} 2-C_{22} 3-C_{23} 3-C_{24} 2-C_{25}
22-#5 bars @ 15" Back Face
3-C_{14} 3-C_{15} 3-C_{16} 5-C_{17} 5-C_{18} 3-C_{19}
1-#4 bar e Ea. Face
1-#4 bar C_{26} Each Face
1-#4 bar C_{27} Each Face
1-#4 bar C_{28} Each Face
12"
3"cl
8-#4 bars t 4 Top & 4 Bottom
27-#5 bars W_1 @ 12" cts. (Top)
27-#4 bars W_2 @ 12" cts. (Bottom)
22-#5 bars n_2 @ 15" cts. (See Cross-section)

DESIGNED	AME
CHECKED	RHW
DRAWN	AME
CHECKED	JTL

S.E. END POST - ABUT. NO 4

2'-10"
3'-0" 3'-0" 3'-0" 16'-0"
3" 3" 3"
C
*Along inside face of wing
595.71
595.61
594.83
594.06
593.39
590.83
Finished Grade Back Face
Finished Grade Front Face
11'-3⅜
6'-11⅛"
12"
583.90

ELEVATION

1'-0"
C_{27}
e_{26}
C_4 C_5 C_{14} C_{17} C_{18} C_{19}
C_{20} C_{21} C_{22} C_{23} C_{24} C_{25}
3'-6" key
n_2
1'-0"
W_2
5'-6"
t_1

SECTION C-C

C

ABUTMENT DETAILS
FAI 80 OVER RAMP AD

FAI 80 STA. 368+45.70
F.A.I. ROUTE 80 PROJECT
SECTION 99-3(STR-#2) WILL COUNTY
Scale: NO SCALE Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

11-16-64 J.M.J. Rev. end post elev. & dim., increased illust. & const. "F" and note by it and end post from 16'-6 TO 15'-6 in. p.p.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 29 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	849
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

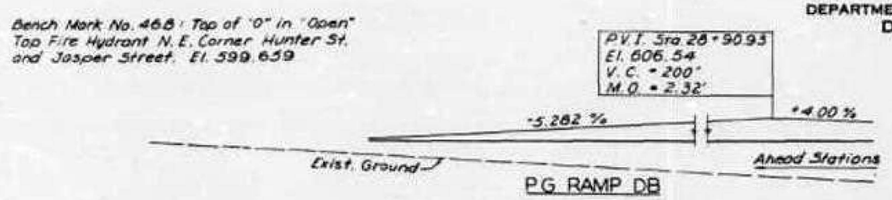
MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing29.dgn

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

11 (Sec 99-3)		WILL	197	97
11 (Str 33)				
	ILLINOIS	PROJECT	I-80-4(22)133	

SHEET NO. 1
8 SHEETS

Bench Mark No. 468 : Top of "O" in "Open" Top Fire Hydrant N.E. Corner Hunter St. and Jasper Street. El. 599.659



STATION 29+73.44
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 80 SEC. 99-3H8-3
F.A. PROJ. I-80-4(22)
LOADING HS-20

See Standard 2113-1

LETTERING FOR NAME PLATE

DESIGN STRESSES

Reinforced Concrete.
- f'_c = 3,500 p.s.i.
- f_s = 20,000 p.s.i.
- n = 10
- f_c = 1,400 p.s.i. (Except Footings)
- f_c = 1,000 p.s.i. (Footings)
- v_c = 90 p.s.i. (Except Footings)
- v_c = 75 p.s.i. (Footings)

Structural Steel:
- f_s = 20,000 p.s.i.

Maximum Bearing Pressure = 4 Tons/S.F.
Loading: HS 20 - 44

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36

RIVETS SHALL BE 3/4" ϕ WITH 13/16" ϕ OPEN HOLES UNLESS NOTED.

CLASS X CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE USED IN PARAPETS AND END POSTS SHALL BE FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE AMERICAN WELDING SOCIETY.

ALL ROCKERS, ROLLERS, 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.

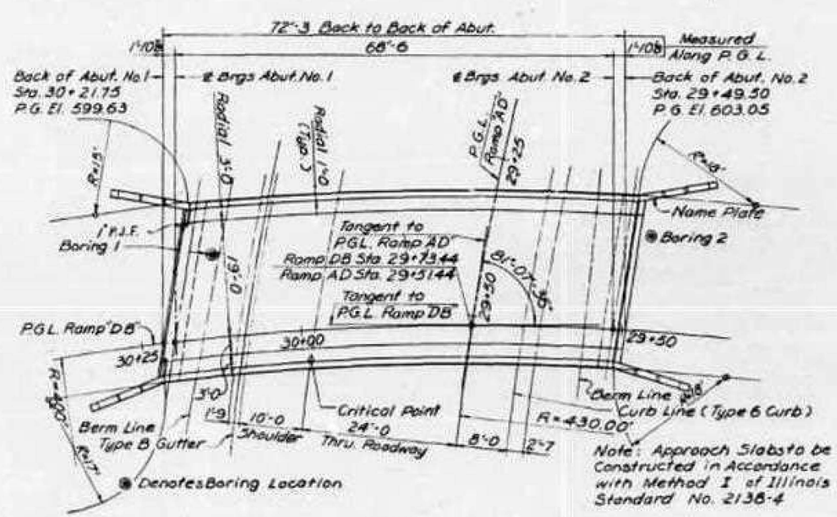
ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13 (d) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

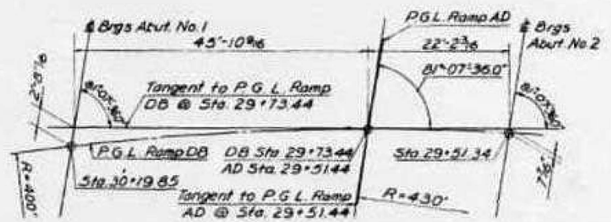
EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. THE 3/4" ϕ WELDED STUDS SHALL NOT BE PAINTED.

Permanent Forms will not be permitted in forming the concrete Floor.



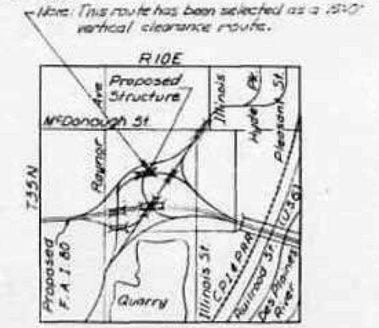
PLAN



ABUTMENT LAYOUT

TOTAL BILL OF MATERIALS
Sec. 99-3 (Str. 3)

Item	Unit	Super	Sub	Total
Class X Concrete	Cu. Yd	66.2	57.5	123.7
Furnishing + Erecting Structural Steel	Lb.	63,900	—	63,900
Reinforcement Bars	Lb.	14,310	4300	18,610
Name Plates	Each	1	—	1
Aluminum Handrail	Lin. Ft.	140	—	140
Rock Excavation	Cu. Yd.	—	6	6
Bridge Seat Sealant	L.S.		0.1	0.1
Protective Coat	Sq. Yd.	253	—	253



LOCATION PLAN

Note:- Excavation for portions of structure in the embankments shall not be classified.

DESIGNED	R. D. L.
CHECKED	J. T. L.
DRAWN	R. D. L.
CHECKED	J. T. L.

GENERAL PLAN & ELEVATION
RAMP DB OVER RAMP AD
RAMP DB STA. 29+73.44
F.A.I. ROUTE 80 PROJECT I-80-4(22)133
SECTION 99-3H8-3 (STR 33) WILL COUNTY
Scale: No Scale Date: Nov. 30, 1961

Prepared and Recommended by
Blauvelt Engineering Co.
Structural Engineer
CONSULTING ENGINEERS
NEW YORK, CRYSTAL LAKE, ILL.

11-17-64 J.T.L. Rev. Class A Conc. from 123.3 to 123.7 Cu. Yds. Also Data from 18.140 to 18.610 Added Bridge seat sealant L.S.1
Rev. 12-19-62 Prot. Coat = 253 Sq. Yd. B.F.M.
Rev. 2-16-63 Change Sect 99-3 to Sect 99-3H8-3 HDS

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2019/CH401140118002203-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing30.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '=' / In.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

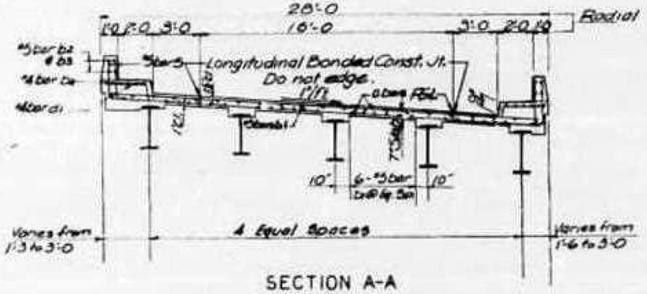
SHEET 30 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	850
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

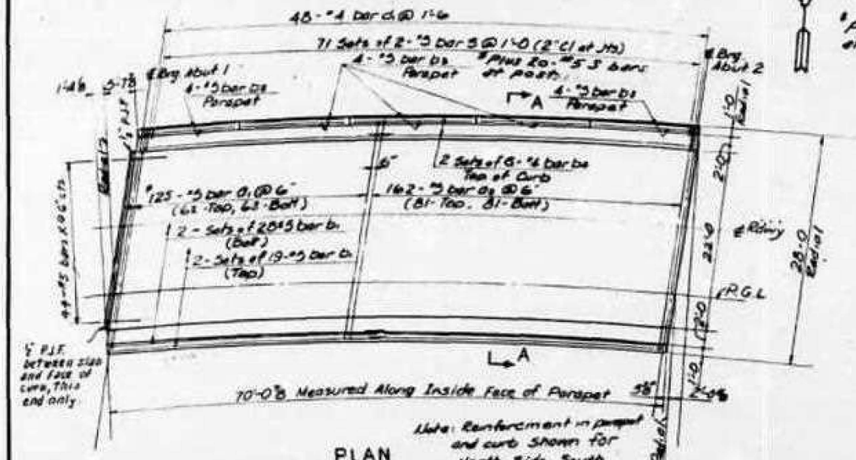
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

F.A.I. RTE. 80	SECTION 99-1 WILL	WILL	197	851
DIST. NO. 1	COUNTY			

SHEET NO. 2
8 SHEETS



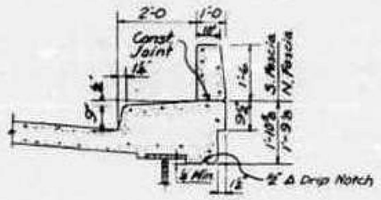
SECTION A-A



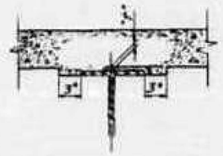
PLAN

* Cut or bend in the field to fit - See fixed jt. sheet #3 (22 #5 top, 32 #6 bott.)

N



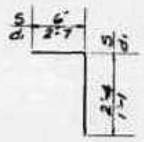
CURB DETAIL



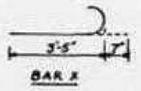
METHOD OF DETERMINING FILLET HEIGHT 'f'

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so obtained subtracted from the theoretical grade elevations minus floor thickness equals fillet heights above top of beams.

* Place 2-#5 S bars on inside face (road side) at each rail post



BARS s & d1



BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
b1	125	#5	28'-0	
b2	162	#5	27'-7	
b3	94	#5	35'-6	
b4	16	#5	12'-0	
b5	24	#5	14'-9	
b6	24	#4	35'-6	
d1	96	#4	3'-8	
s	324	#5	2'-10	
X	44	#5	4'-0"	

BILL OF MATERIALS

Class X Concrete	Cu Yds	662
Reinforcement Bars	Lbs	14,310
*Structural Steel	Lbs	63,900

* Structural Steel includes weight of rockers, bolsters, bearing plates, lead plates, pintles, and anchor bolts
Estimated Wt. = 2520

ELEVATIONS - TOP OF SLAB** (Elevations are not adjusted for dead load deflections)
(See sheet 3 for locations of points)

Point	1	2	3	4	5	6	7	8
A	601.67	602.12	602.59	603.09	603.56	604.01	604.44	604.78
B	601.11	601.57	602.02	602.52	603.03	603.49	603.92	604.27
C	600.55	601.01	601.50	602.01	602.50	603.96	603.40	603.75
D	599.99	600.46	600.94	601.46	601.96	602.44	602.88	603.24
E	599.45	599.90	600.40	600.92	601.43	601.91	602.36	602.73

** Where curb is over stringer, Elevation shown is that of the projection of roof slab along its cross slope

DESIGNED	AME
CHECKED	G.F.
DRAWN	AME
CHECKED	G.F.

SLAB PLAN & SECTION
RAMP DB OVER RAMP AD
RAMP DB STA. 29+73.44
F.A.I. ROUTE 80 PROJECT
SECTION 99-1 WILL COUNTY
SCALE
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

1H17-69 3 M.J. Rev. Class X Conc. from 667 to 662 cu yds, Rein. bars from 13860 to 14,310 lbs.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-Int-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing31.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

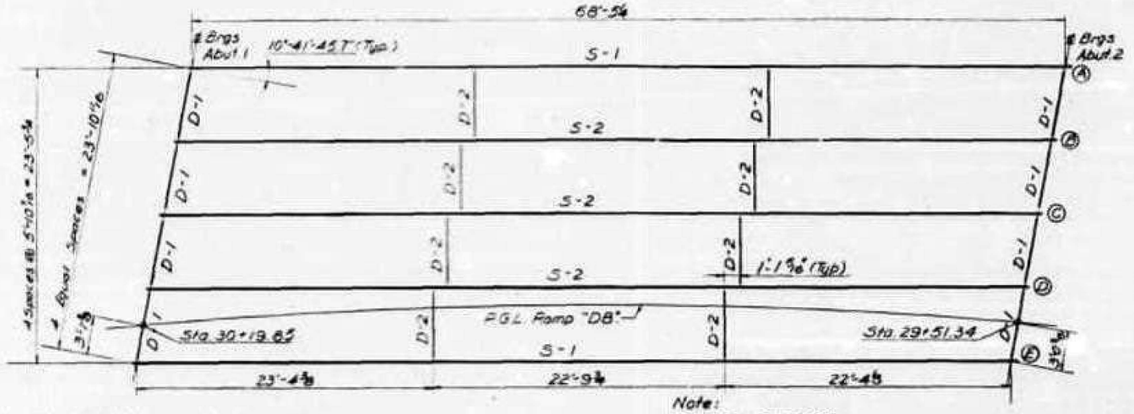
SHEET 31 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	851
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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

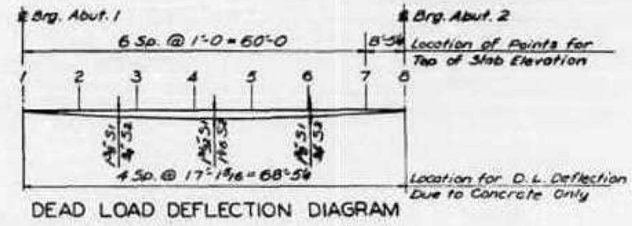
SECT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
62R-2	99-3	WILL	199	199

SHEET NO. 3
8 SHEETS

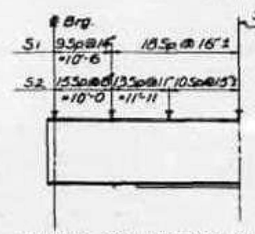


FRAMING PLAN

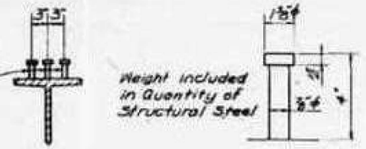
Note:
All Stgrs 33WF130
All Dimensions Measured in a Horizontal Plane



DEAD LOAD DEFLECTION DIAGRAM



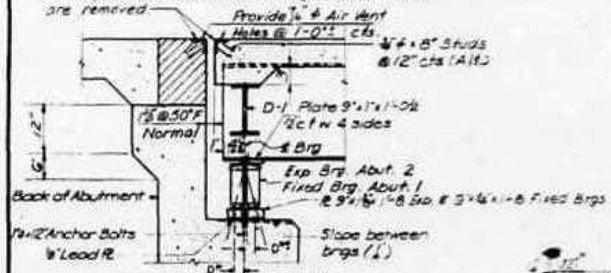
SHEAR CONNECTOR SPACING

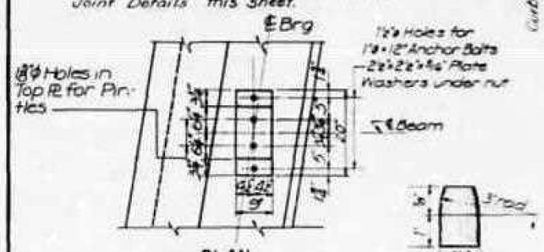


Weight included in Quantity of Structural Steel

SHEAR CONNECTOR DETAILS

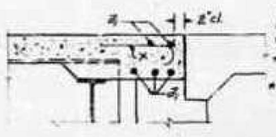
* Angles shall be held securely in place while pouring concrete with ⅞" ℄ bolts in ⅞" ℄ holes set on gage line at 12" cts. All bolts shall be burned, sawed or chipped flush with back of angles after forms are removed.





DETAIL OF PINTLE

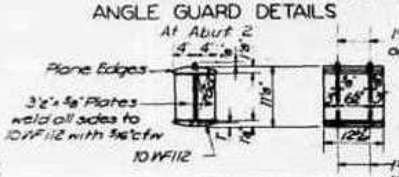
NOTES
1 * Anchor bolts to be grouted into drilled holes after beams are in place, or bolts at fixed abut. may be built into the masonry.
* D x 5/100 ft of exp. for every 15° below the normal temp. of 50°F.
** D x 5/100 ft of exp. for every 15° above the normal temp. of 50°F.



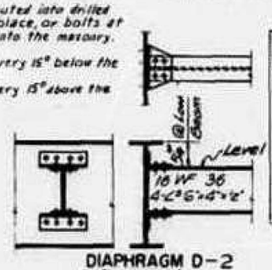
FIXED JOINT DETAILS
At Abut. 1



ANGLE GUARD DETAILS



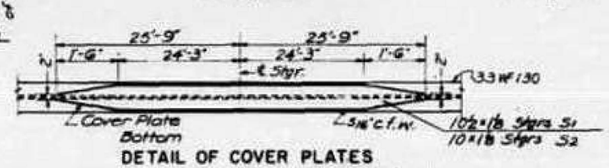
DETAIL OF BEARING AT ABUT. 2



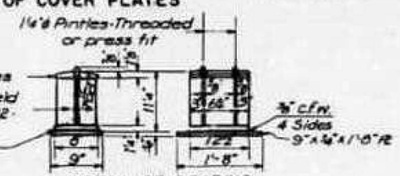
DIAPHRAGM D-2
8 Required

DIAPHRAGM D-1
8 Required

In lieu of shop rivets angles may be attached in the shop with ¾" high strength bolts or ⅝" C.I.W.



DETAIL OF COVER PLATES



DETAIL OF BEARING AT ABUT. 1

TOP OF BEAM ELEVATION

Stgr.	Pt.	℄ Brg Abut. 1	℄ Brg Abut. 2
A		601.04	604.15
B		600.48	603.64
C		599.92	603.12
D		599.36	602.61
E		598.80	602.10

These elevations are at top of top flange of stringers exclusive of deflections

Note: For top of slab elevations see sht. # 2
Cost of Hot Poured Seal, Premoulded Joint Filler and Water Stop shall be Incidental to the Contract.

DESIGNED	J. P. H.
CHECKED	L. D.
DRAWN	J. P. H.
CHECKED	G. F.

FRAMING PLAN & STEEL DETAILS
RAMP DB OVER RAMP AD

RAMP DB STA. 29+73.44

FAI ROUTE 80 PROJECT
SECTION (99-3) WILL COUNTY
NO SCALE

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing32.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

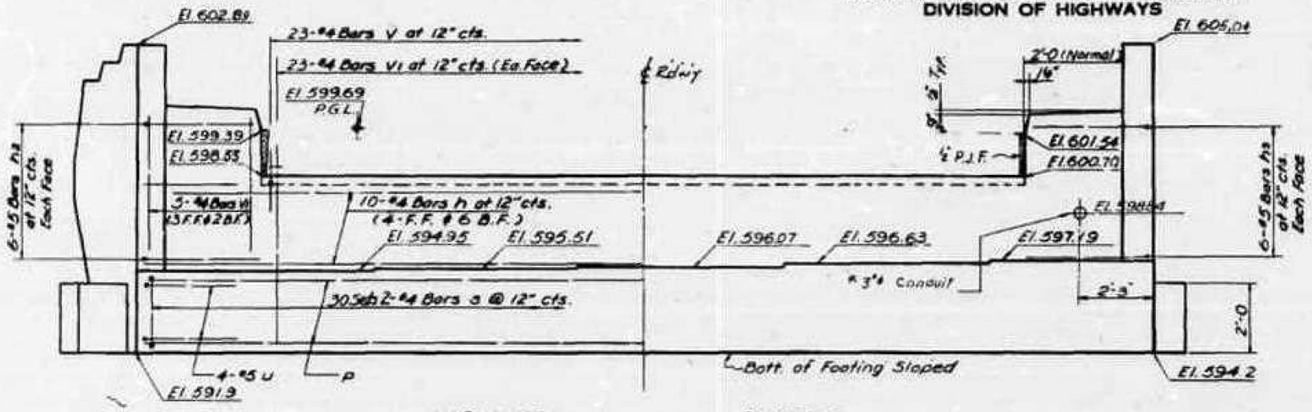
EXISTING BRIDGE PLANS

SHEET 32 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	852
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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

F.A.I. RTE. 80	SECTION 99-3 (3Fr.3)	COUNTY WILL	1209	101	SHEET NO. 5 OF 6 SHEETS

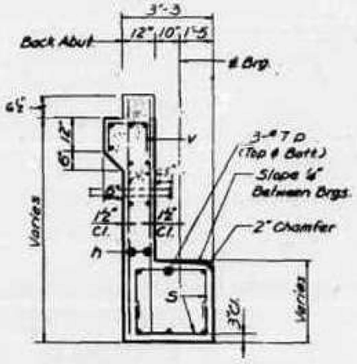


Reinforcement

ELEVATION

Dimensions

Note: Fig. to be founded on rock.



SECTION A-A

*Locate 3"ϕ conduit as shown on plan. Extend past end of end post and terminate at a point outside of shoulder. Thread and cap each end of conduit. Cost to be incidental to bridge structure.

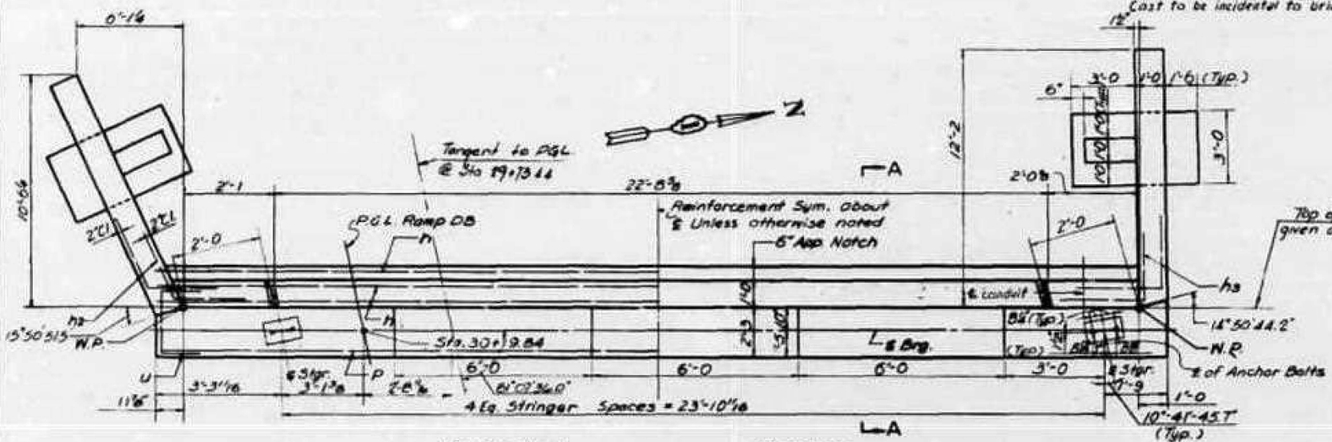
BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
h	10	#4	28'-7	—
h2	12	#5	3'-0	⌐
h3	12	#5	5'-0	⌐
s	60	#4	7'-0	⊓
V	23	#4	2'-9	⊓
V1	36	#4	6'-0	—
P	6	#7	28'-7	—
U	8	#5	5'-11	⊓

BILL OF MATERIAL

Item	Unit	Quan
Class X Concrete	Cu. Yds	26.1
Reinforcement Bars	Lbs	2050
Rock Excavation	Cu. Yds	5

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.



PLAN

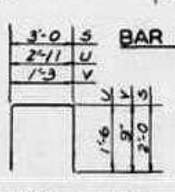
Reinforcement

Dimensions

L-A

3'-0	S
2'-11	U
1'-3	V

BAR h2 & h3



BARS U V & S

Note: For End Post Details See Sht. #7
Footings shall be founded on sound rock.

DESIGNED	J. J. W.
CHECKED	G. F.
DRAWN	J. J. W.
CHECKED	G. F.

ABUTMENT NO. 1
RAMP DB OVER RAMP AD
RAMP DB STA. 29+73.44
F.A.I. ROUTE 80
SECTION 99-3 (3Fr.3)
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: March 20th 1964

ALVEL ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

11-17-64 J.M.J. Rev. class X conc. from 25.4 to 26.1, Rein. bars from 2150 to 2050 lbs.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transysCorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing33.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

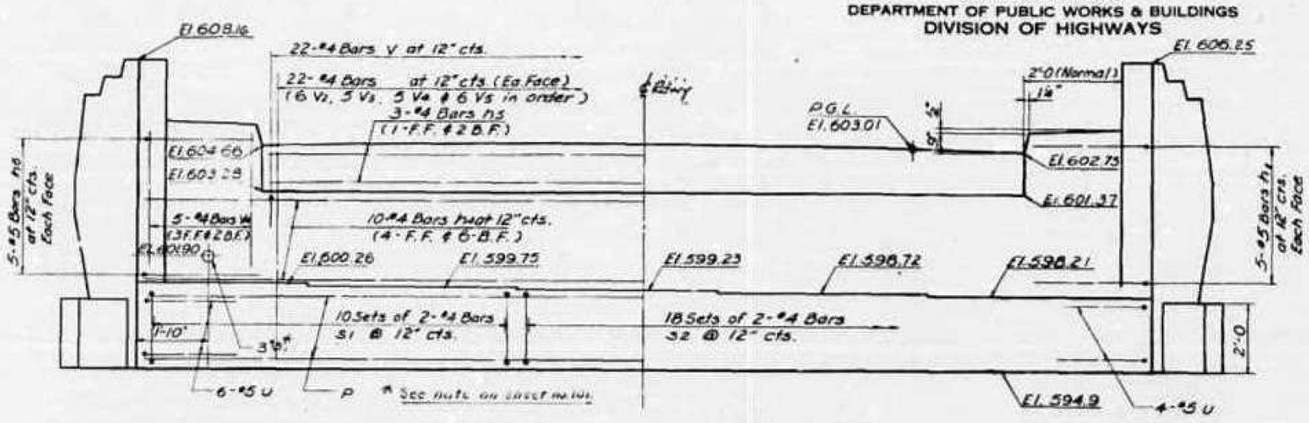
EXISTING BRIDGE PLANS

SHEET 33 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	853
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

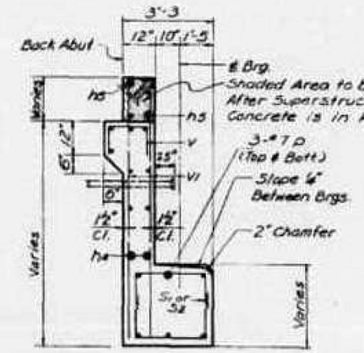
	99-3	WILL	177	172	SHEET NO. 6 OF 8 SHEETS



Reinforcement Dimensions

ELEVATION

Note: Abut. to be founded on rock



SECTION A-A

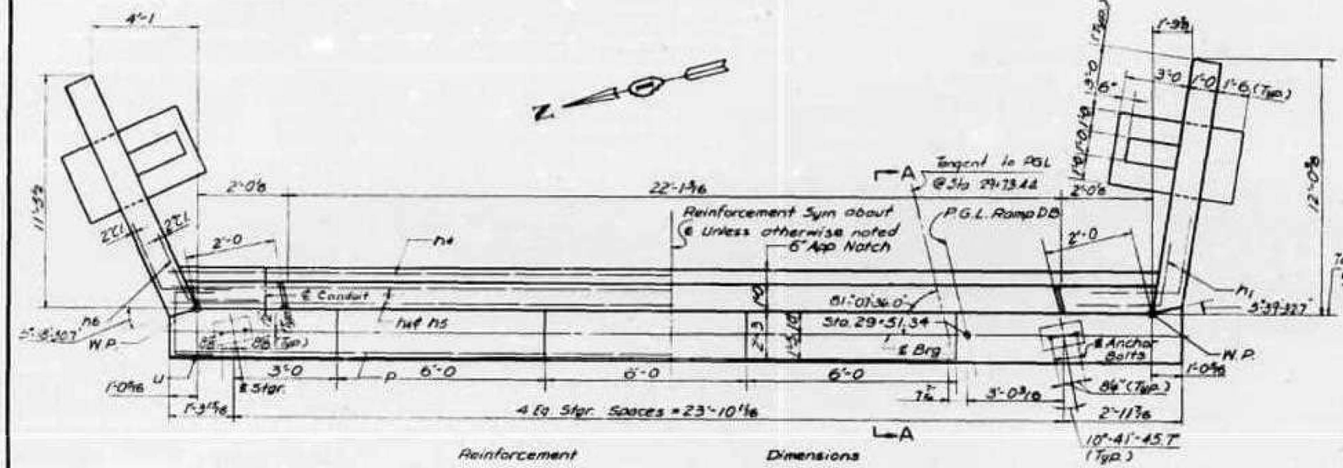
BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
h4	10	#4	27'-8	
h5	6	#4	21'-8	
h6	10	#5	5'-0	
h1	10	#5	5'-0	
P1	6	#7	27'-8	
S1	20	#4	9'-2	
S2	36	#4	8'-2	
U	10	#5	5'-11	
V2	12	#4	3'-0	
V3	10	#4	8'-6	
V4	10	#4	8'-0	
V5	12	#4	7'-6	
V	22	#4	2'-9	

BILL OF MATERIAL

Item	Unit	Quan
Class X Concrete	Cu Yds	31.4
Reinforcement Bars	Lbs	2250
Rock Excavation	Cu Yds	1

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.



PLAN



BAR h6 & h1

BAR S1, S2, U & V

Note: For End Post Details see Sht. #7 Footings shall be founded on sound rock.

DESIGNED	J. P. M.	
CHECKED	G	F
DRAWN	J. P. M.	
CHECKED	G	F

ABUTMENT NO. 2
RAMP DB OVER RAMP AD
RAMP DB STA. 29+73.44
F.A.I. ROUTE 80 PROJECT
SECTION 99-3 (Str. 3) WILL COUNTY
Scale: NO SCALE Date Oct. 30, 1964

BLAUVELT ENGINEERING CO
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK N.Y. CRYSTAL LAKE, ILL.

11-17-64 J.M.J. Rev. class X conc. from 31.2 to 31.4 cu. yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2019/CH401140118002203-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/099018

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 7:11.99616 '/ In.	CHECKED -	REVISED -
PLOT DATE = 4/22/2025	DATE -	REVISED -

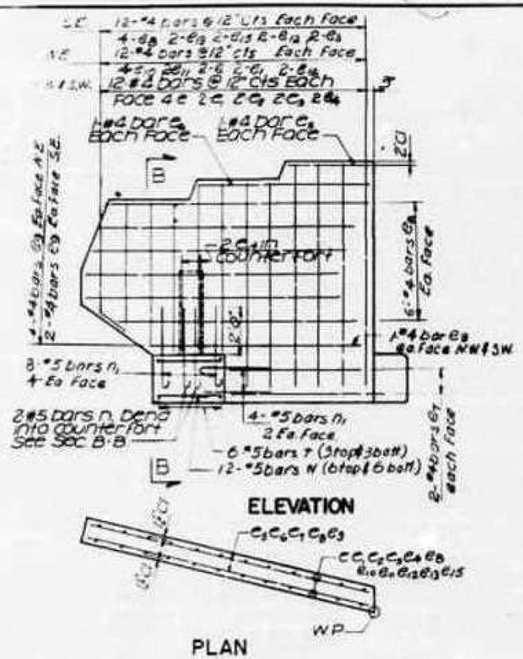
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

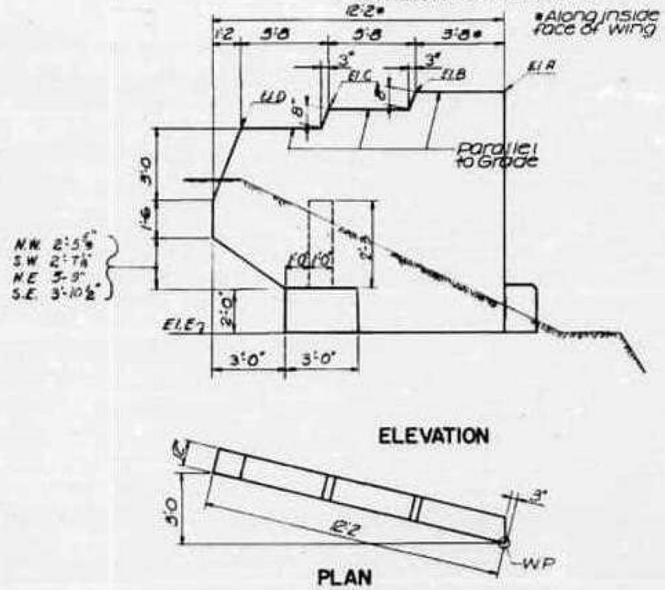
EXISTING BRIDGE PLANS

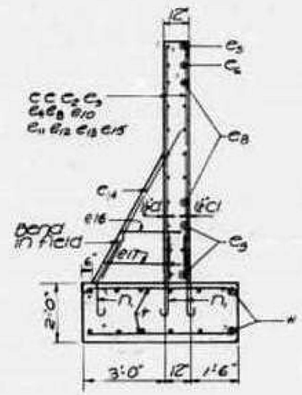
SHEET 34 OF 62 SHEETS

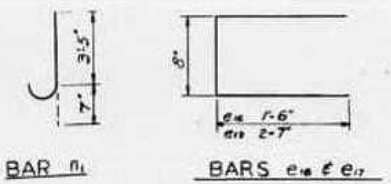
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	854
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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









FOUR END POSTS
BILL OF MATERIAL

Bar	No.	Size	Lgth	Shape
c	20	#4	10'0	—
c1	12	#4	9'3	—
c2	8	#4	7'3	—
c3	12	#4	6'3	—
c4	8	#4	5'0"	—
c5	8	#4	3'4	—
c6	8	#4	7'0"	—
c7	16	#4	5'6"	—
e8	56	#4	10'8	—
e9	16	#4	8'10	—
e10	8	#4	12'6"	—
e11	4	#4	12'0	—
e12	8	#4	7'6"	—
e13	4	#4	10'3"	—
e14	8	#5	4'3"	—
e15	4	#4	8'3	—
e16	4	#4	3'6	—
e17	4	#4	5'5	—
f	24	#5	5'0	—
n1	56	#5	4'0	⌐
w	48	#5	2'6	—
Reinforcement Bars				
* Abut. 1 (2 End Posts)			Lbs	790
* Abut. 2 (2 End Posts)			Lbs	900
Class X Concrete				
*Abut. 1 (2 End Posts)			Cu Yds	10.2
*Abut. 2 (2 End Posts)			Cu Yds	12.0

Notes: Reinf. includes Fig. Sheet.
* included in quantity on sheet # 5
^ included in quantity on sheet # 6

END POST ELEVATIONS

Elev. Top of Post	Abut No.1 NW	Abut No.1 SW	Abut No.2 NE	Abut No.2 SE
A	608.04	602.85	608.16	606.25
B	604.86	602.70	608.28	606.37
C	604.02	601.84	607.72	605.82
D	603.17	600.99	607.15	605.27
E	594.2	591.9	594.3	594.3

DESIGNED	G F
CHECKED	J J H
DRAWN	SFF & G F
CHECKED	J J H

ABUTMENT DETAILS
RAMP DB OVER RAMP AD
RAMP DB STA. 29+73.44
F A I ROUTE 80 PROJECT
SECTION 99-3 (Str. 3) WILL COUNTY
Scale NO SCALE Date Nov. 30, 1961
DLAUVELT ENGINEERING CO
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK N. Y. CRYSTAL LAKE, ILL.

Architectural & Electrical, classroom ... shall be from concrete ... 4,000 psi at 28 days with 6% to 8% air entrainment and a slump of 3" to 4".

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing35.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 35 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	855
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

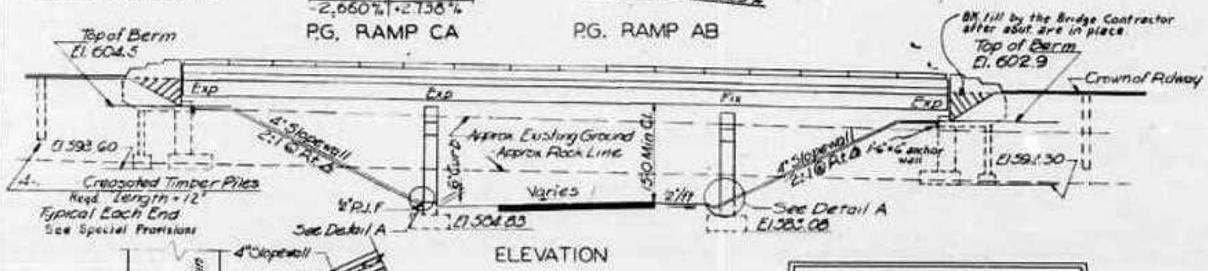
Bench Mark No. 44: Top of "O" on open fire hydrant, S.W. corner of Raynor Ave. & Kammerman Ave.
El. 608.610
No Existing Structure

PVI Sta 28+30.00
El. 605.99
VC = 350'
MO = -2.36'
-2.660% +2.138%
PG. RAMP CA

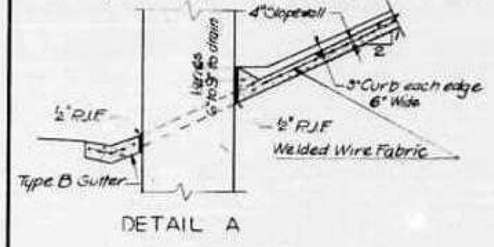
PVI Sta 27+00.00
El. 590.18
VC = 200'
MO = 0.09'
-0.280% -0.689%
PG. RAMP AB

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80	1-D-2	WILL	197	1-G
				SHEET NO. 1
				6 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT U-10(9)		



ELEVATION



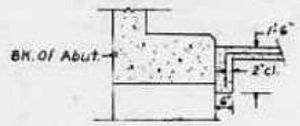
DETAIL A

STATION 28+52.21
BUILT 1961 BY
STATE OF ILLINOIS
F.A.P.R.T. 8 SEC. I-D-2-HB
F.A. PROJ. U-10(9)
LOADING HS-20

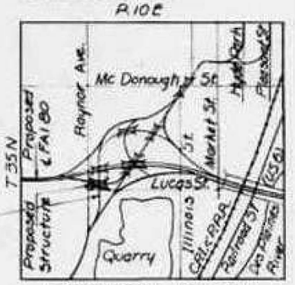
See Standard 2113-1
LETTERING FOR NAME PLATE

Note: Welded Wire Fabric in slopewall shall be 6"x6" mesh, #4 wires, 58 lbs/100 s.f.
Cost of Welded Wire Fabric shall be included in cost of 4" slopewall.
Cost of cutoff wall shall be included in cost of 4" slopewall.

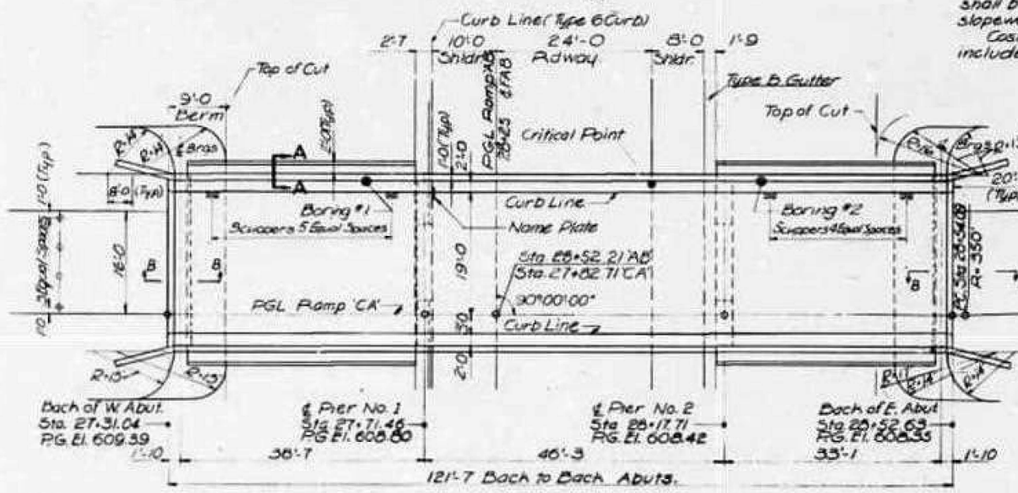
DESIGN STRESSES
Reinforced Concrete:
f'c = 3,500 psi
fs = 20,000 psi
n = 10
fc = 1400 psi (except footings)
fc = 1000 psi (footings)
Vc = 90 psi (except footings)
Vc = 75 psi (footings)
Structural Steel:
fs = 20,000 psi
Maximum Soil Pressure - 6.2 Tons/s.f.
Loading - HS 20-44



SECTION B-B



LOCATION PLAN
Not to Scale



PLAN

Note: Approach Slabs to be constructed in accordance with Method II of Illinois Standard No. 1909-6



SECTION A-A

● Denotes Boring Locations

DESIGNED	UTL
CHECKED	LD & GF
DRAWN	AME
CHECKED	UTL

TOTAL BILL OF MATERIALS
Sec. I-D-2 (Str. #4)

Item	Unit	Super	Sub	Total
* Class A Excavation for Structures	Cu. Yd.	—	287	287
Rock Excavation for Structures	Cu. Yd.	—	40	40
Class X Concrete	Cu. Yd.	1063	1233	2296
Furnishing + Erecting Structural Steel	Lb.	70670	—	70670
Reinforcement Bars	Lb.	21,400	14430	35850
Fur. Creo. Piles up to 20'	Lin. Ft.	—	96	96
Driving Timber Piles	Lin. Ft.	—	96	96
Name Plates	Each	1	—	1
Slopewall 4"	Sq. Yd.	—	296	296
Aluminum Handrail	Lin. Ft.	239	—	239
Bridge Seat Sealant	L. Stem		0.1	0.1
** Protective Coat	Sq. Yd.	430	—	430

* Include calc. for toe wall
** Applied at abutments

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36.

RIVETS SHALL BE 3/4" ϕ WITH 13/16" ϕ OPEN HOLES UNLESS NOTED.

CLASS X CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE USED IN PARAPETS AND END POSTS SHALL BE FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE AMERICAN WELDING SOCIETY.

ALL ROCKERS, ROLLERS, 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.

ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13 (4) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. THE 3/4" ϕ WELDED STUDS SHALL NOT BE PAINTED.

Excavation for portions of structure in the embankments shall not be classified.

NO ROCK LARGER THAN 3" SHALL BE PLACED IN FILLS IN THE AREA WHERE PILES ARE TO BE DRIVEN.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

Prepared and Recommended by
Blauvelt Engineering Co.
Structural Engineer
81-2251

GENERAL PLAN & ELEVATION
RAMP CA
OVER F.A. ROUTE 8

F.A. RTE. 8 STA 28+52.21
F.A. ROUTE 8 PROJECT U-10(9)
SECTION I-D-2 (STR. 4) WILL COUNTY
Scale NO SCALE Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

11-13-64 J.M.J. Rev. Class A Exc. from 282 to 287 cu. yds. for ft. Rev. 12-10-65 Prot. Coat - 430 sq. yd. STR. driving timber piles from 92 to 96 lin. ft. Slope wall from 287 to 296 sq. yd. and added Bridge Seat Sealant 0.1, Deleted quantity of Excavation from 287 cu. yds. to 287 cu. yds.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

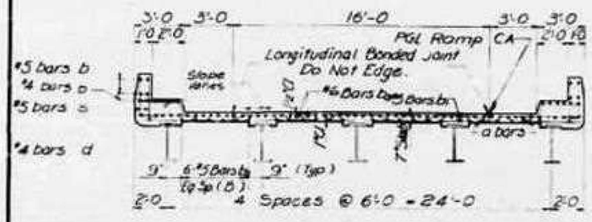
SHEET 36 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	856
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

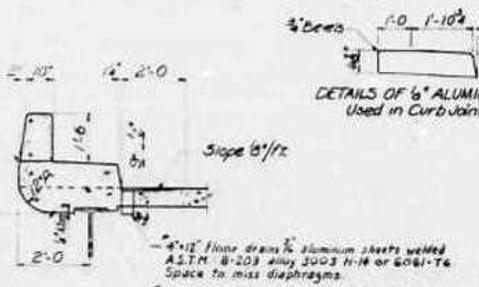
MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing36.dgn

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

SHEET NO. 2
8 SHEETS

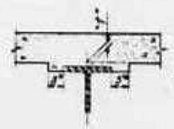


CROSS SECTION



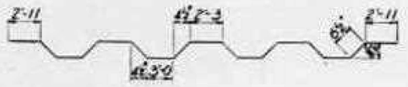
CURB DETAILS

*Cost of alum. sheets incidental to class X conc.

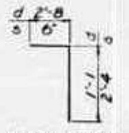


METHOD OF DETERMINING FILLET HEIGHT "f"

After all structural steel has been erected elevations of the top flanges of the beams shall be taken at intervals shown on D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so attained subfracted from the theoretical grade elevations minus floor thickness equals the fillet heights above tops of beams.



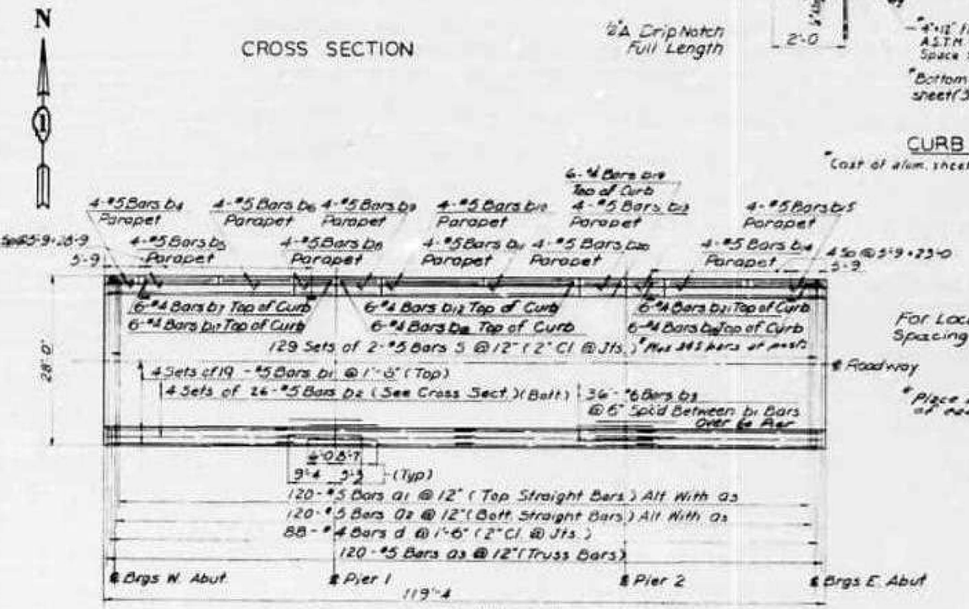
BAR a



BARS d & s

BILL OF REINFORCEMENT

Bar	No.	Size	Lgth	Shape
a1	120	#5	27'-7	
a2	120	#5	27'-3	
a3	120	#5	28'-11	
b1	76	#5	30'-9	
b2	104	#5	30'-7	
b3	72	#5	14'-7	
b4	8	#5	3'-6	
b5	8	#5	13'-10	
b6	8	#5	14'-0	
b7	12	#4	31'-11	
b8	8	#5	6'-8	
b9	8	#5	5'-11	
b10	8	#5	10'-9	
b11	8	#5	16'-6	
b12	12	#4	33'-6	
b13	8	#5	6'-2	
b14	8	#5	15'-4	
b15	8	#5	11'-4	
b16	12	#4	26'-11	
b17	12	#4	6'-8	
b18	12	#4	5'-11	
b19	12	#4	5'-8	
b20	8	#5	5'-8	
b21	12	#4	6'-2	
d	176	#4	3'-9	
s	584	#5	2'-10	

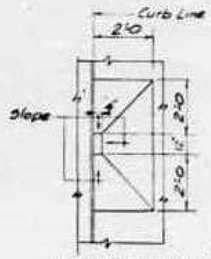


PLAN

Note Bar reinforcement and it spacing symmetrical about ℄ roadway

For Location of Parapet Joint Spacing See Sheet # 4.

* Place 2-5 bars on inside face of deck Parapet



DRAIN DETAIL



FLOOR DRAIN

ELEVATION – TOP OF SLAB ** (Elevations are not adjusted for D.L. deflection)

Stg. \ Pt.	1	2	3	4	5	6	7	8	9	10	11	12	13
A	609.15	608.94	608.72	608.54	608.38	608.23	608.07	607.96	607.83	607.78	607.68	607.62	607.53
B	609.21	609.01	608.82	608.65	608.50	608.37	608.23	608.12	608.02	607.97	607.89	607.84	607.78
C	609.28	609.09	608.91	608.76	608.63	608.50	608.39	608.29	608.20	608.16	608.10	608.06	608.03
D	609.34	609.17	609.01	608.87	608.76	608.64	608.54	608.46	608.39	608.36	608.31	608.29	608.27
E	609.41	609.25	609.11	608.98	608.88	608.78	608.70	608.63	608.58	608.55	608.52	608.51	608.52

See Sheet No. 3 For Locations Of Points.
** Where Curb is over Stringer, elevation shown is that of the projection of top of slab along its cross slope

DESIGNED	J.J.H.
CHECKED	L.D.
DRAWN	AME & J.J.H.
CHECKED	L.D.

* Structural Steel includes weight of rockers, bolsters, bearing plates, lead plates, pintles and anchor bolts. Estimated Weight = 4830 lbs.

Class "X" Concrete	Cu.Yd.	1063
Reinforcement Bars	Lbs.	21,400
Structural Steel *	Lbs.	70,670

BILL OF MATERIALS

Cost of furnishing and installing drains, aluminum sheets, waterstop, premoulded joint filler and joint sealing compound shall be incidental to the contract.

SLAB PLAN & CROSS SECTION
RAMP C A
OVER F.A. RTE. 8
F.A. RTE. 8 STA. 28+52.21

F.A. - ROUTE 8 SECTION 1-D-2 (Str. #4)
State NO SCALE
PROJECT WILL COUNTY
Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH4401/4011800220/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing37.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

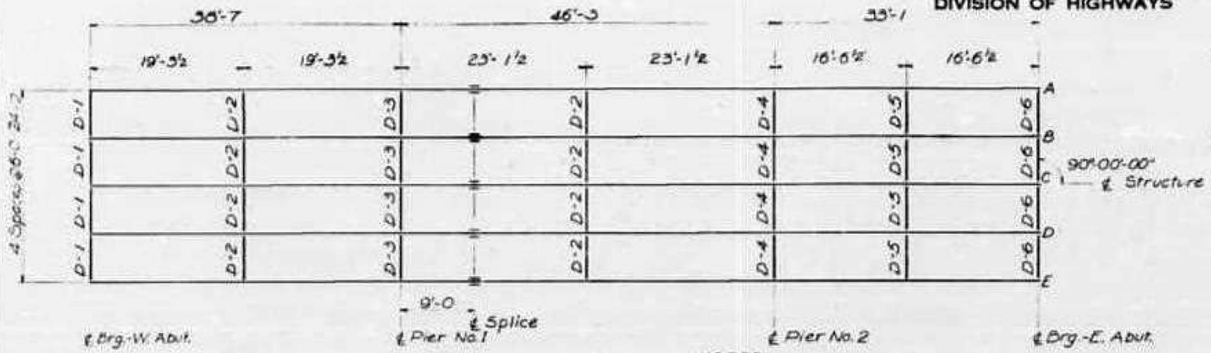
EXISTING BRIDGE PLANS

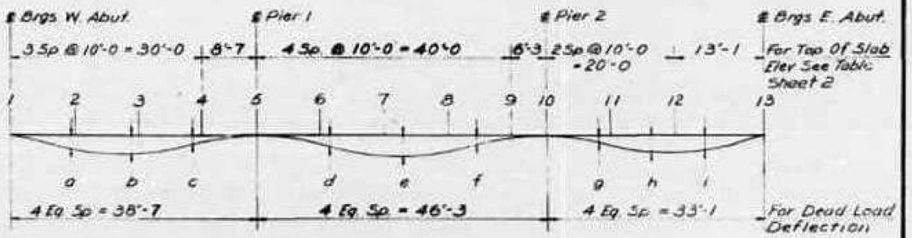
SHEET 37 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	857
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

Sheet 3 of 3 sheets





DEAD LOAD DEFLECTION DIAGRAM

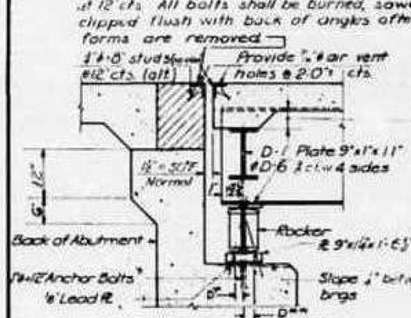
NOTES:
All Stgrs. Are 27 WF 94
D-1 & D-6 Diaphragms Are 12 WF 40
All Other Diaphragms Are 8 WF 28
D-1, D-2 & D-3 Diaphragms Are Level Between Stgrs. A & E
D-4 & D-5 Diaphragms Are Level Between Two Adjacent Stgrs.
D-6 Diaphragms Are Banked To The Same Cross Slope As The Slab Above
All m Dimensions Are At The Southern Face of Stgrs.
For D-2 Diaphragms m = 5 3/16" @ A Stgr.
For D-3 Diaphragms m = 7 1/16" @ A Stgr.
For D-4 Diaphragms m = 11 1/8", 9 1/4", 7 3/8" & 5 1/2" @ A, B, C & D Stgrs. Respectively
For D-5 Diaphragms m = 8 1/2", 7 1/16", 6 1/8" & 5 1/16" @ A, B, C & D Stgrs. Respectively

TABLE OF DEAD LOAD DEFLECTIONS (inches)

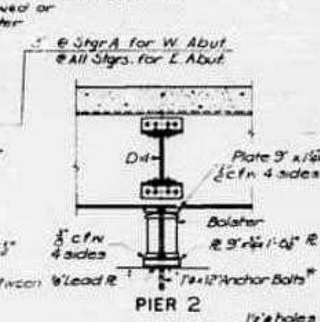
Stgr. pt.	a	b	c	d	e	f	g	h	i
A, E	0	3/32	1/16	1/16	3/32	1/16	1/16	3/32	0
B, C, D	3/32	1/8	3/32	3/32	1/8	3/32	3/32	1/8	3/32

Includes weight of concrete only.

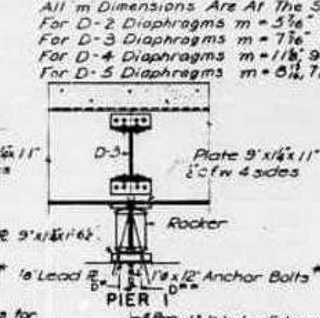
FRAMING PLAN



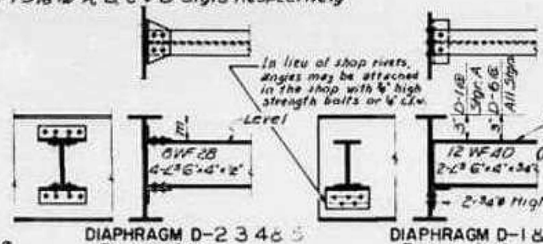
SECTION AT ABUTMENT



PIER 2



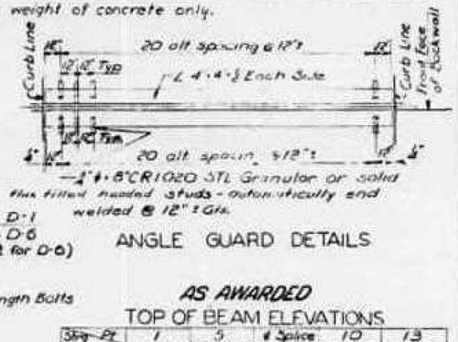
PIER 1



DIAPHRAGM D-2 3 4 & 5
Required 20

DIAPHRAGM D-1 & 6
Required 8

DETAIL OF SPLICE



ANGLE GUARD DETAILS

AS AWARDED
TOP OF BEAM ELEVATIONS

Stgr. Pt.	1	3	℄ Splice	10	13
A	608.52	607.72	607.62	607.15	606.90
B	608.58	607.87	607.75	607.34	607.15
C	608.65	608.00	607.88	607.53	607.40
D	608.71	608.13	608.02	607.75	607.64
E	608.78	608.25	608.16	607.92	607.89

These elevations are at top of top flange of Stringer exclusive of deflections.

Notes
for top of slab elevations see Shr.* 2

*AS BUILT

Stgr. Pt.	3	℄ Splice
A	607.64	607.49
B	607.74	607.55
C	607.86	607.68
D	608.00	607.81
E	608.11	607.95

FRAMING PLAN & STEEL DETAILS

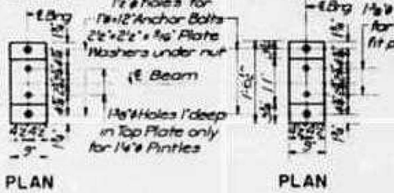
RAMP CA OVER F.A. RTE. 8

F.A. RTE. 8 STA. 28+52.21

F.A. ROUTE 8
SECTION 1,2,3,5 & 4
State NO. SC 4 -

PROJECT
WILL COUNTY
Date Nov. 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

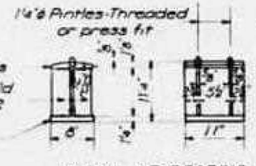




DETAIL OF PINTLE



DETAIL OF BEARING AT PIER 1 AND ABUTMENTS



DETAIL OF BEARING AT PIER 2

NOTES
* 1¾" ϕ x 12" anchor bolts to be grouted into drilled holes after beams are in place, or bolts of fixed pier may be built into the masonry.
D** = 1/8" (.1100 ft. al exp. for every 15° below the normal temp. of 50°F.
D*** = 1/8" (.1100 ft. al exp. for every 15° above the normal temp. of 50°F.

DESIGNED	JTL
CHECKED	LD
DRAWN	AMC & [illegible]
CHECKED	TLL

* Revised Elevations 4-29-66 L.H.

FOR INFORMATION ONLY

WSP USA Inc.
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CHICAGO, IL 60602
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 38 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	858
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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

Ahead Stationing

SHEET NO. 5
8 SHEETS

TOP PLAN

SECTION A-A

END VIEW

ELEVATION

FOOTING PLAN

DIMENSIONS

REINFORCEMENT

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

s BARS

u BARS

n BARS

A & B DIMENSIONS

Bar	A	B
S1	2'-2	2'-5
S2	2'-2	2'-2
S3	2'-2	2'-10
S4	2'-2	2'-0
S5	2'-2	1'-9

2 PIERS
BILL OF MATERIAL

Bar	No	Size	Lgth	Shape
h	8	#5	25'-10	—
h1	4	#5	17'-8	—
h2	40	#5	9'-8	—
n	44	#6	4'-3	⊃
P	18	#11	25'-10	—
P1	16	#5	8'-4	—
S1	44	#5	7'-0	⊏⊐
S2	32	#5	6'-6	⊏⊐
S3	20	#5	7'-10	⊏⊐
S4	16	#5	6'-2	⊏⊐
S5	32	#5	5'-8	⊏⊐
t	30	#5	4'-0	—
U	12	#6	10'-2	⊏
V	20	#6	15'-6	—
V1	12	#6	16'-2	—
V2	12	#6	15'-4	—
W	6	#5	13'-8	—
Rock Exc. Pier #1		Cu yds	15	
Rock Exc. Pier #2		Cu yds	15	
Reinf. Bars		lbs	6020	
Conc. Pier #1		Cu yds	27.7	
Conc. Pier #2		Cu yds	28.9	

Maximun bearing pressure = 6½ Tons/S.F.

DESIGNED	L.D
CHECKED	G.F.
DRAWN	J.J.H.
CHECKED	T.L.L.

PIERS
RAMP C A OVER F. A. RTE. 8
F. A. RTE. 8 STA. 28+52.21

F A ROUTE 8 — PROJECT
SECTION 1-D-E STR. E — WILL COUNTY
Scale NO SCALE — Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

* Revised Dimensions / Elevation 4-28-66 L.W.

FOR INFORMATION ONLY

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30 N. LASALLE STREET
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CHICAGO, IL 60602
TEL: (312) 782-8150
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PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

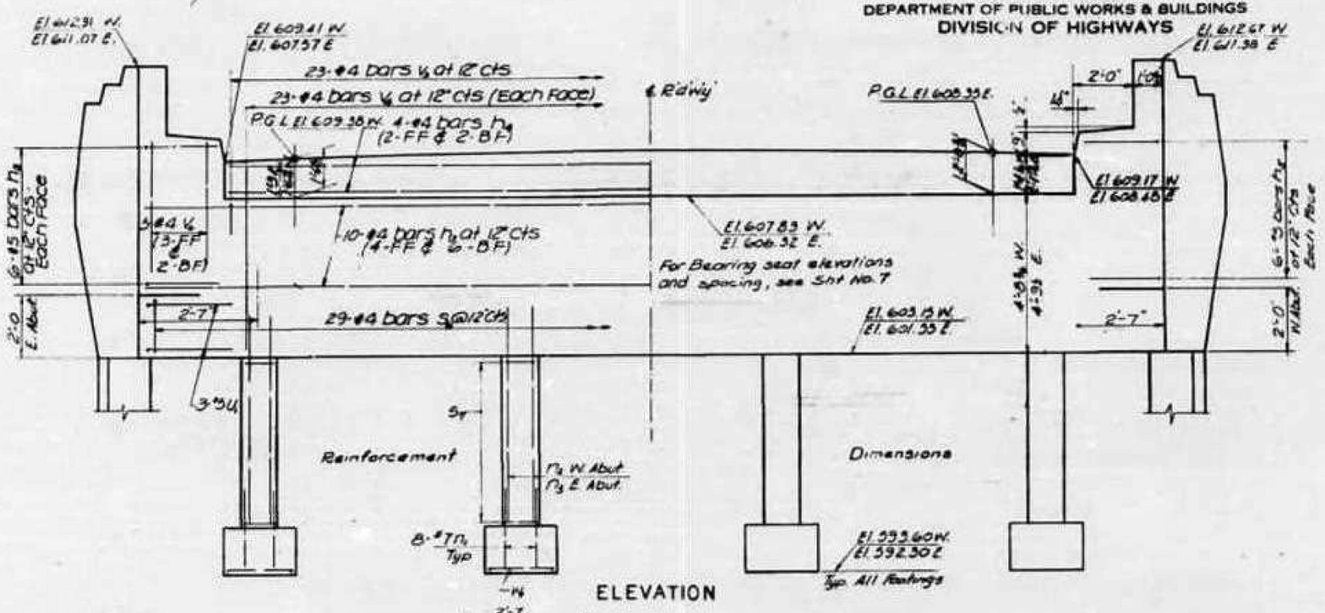
SHEET 39 OF 62 SHEETS

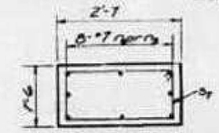
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	859
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80 21 IP-2 IR-3	WILL	197	110	SHEET NO. 6 OF 6 SHEETS

ELEVATION

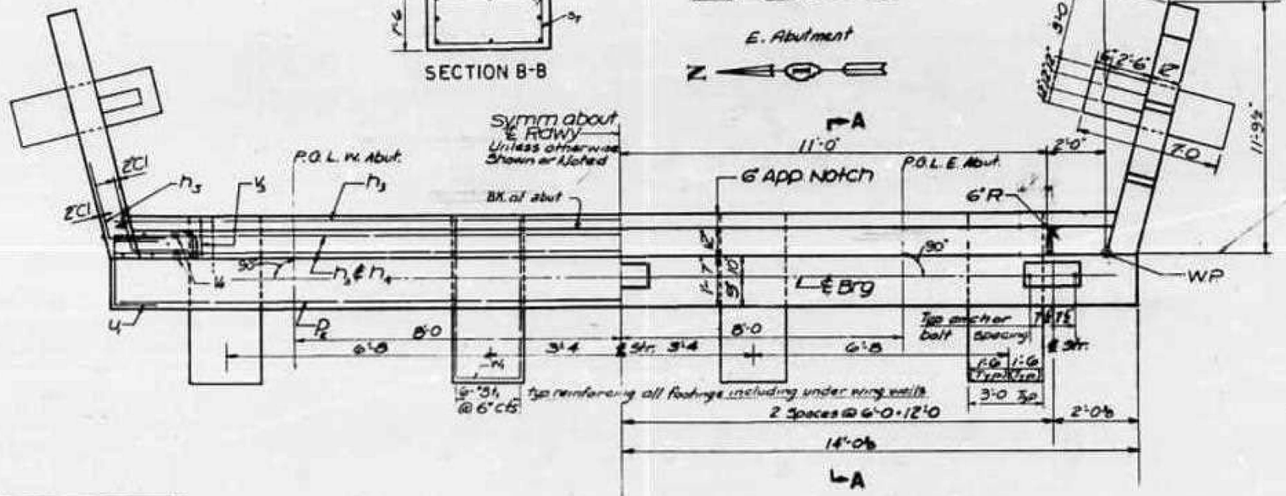




SECTION B-B

W. Abutment

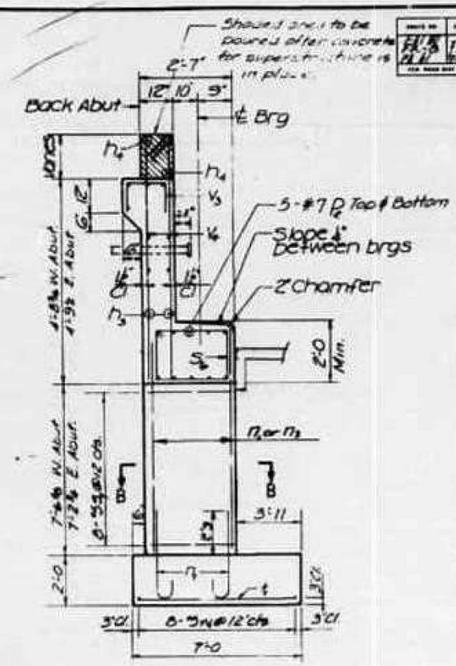
E. Abutment



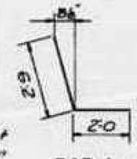
PLAN

Reinforcement

Dimensions

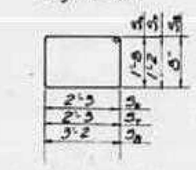


SECTION A-A

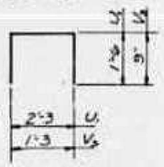


BAR h_5

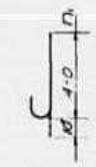
Top of Abutment elevations given along this line



BARS S_5, S_6 & S_7



BARS u_1 & v_1



BAR n.

2 ABUTMENTS BAR LIST

Bar	NO	Size	Lgth	Shape
n_1	20	#4	27'-8	—
n_2	8	#4	21'-8	—
n_4	24	#5	4'-9	L
n_3	88	#7	4'-10	⊃
n_5	44	#7	9'-4	—
n_6	44	#7	9'-0	—
P_2	20	#7	27'-8	—
S_6	58	#4	6'-8	□
S_5	64	#5	7'-10	□
S_7	32	#5	8'-0	□
U_1	12	#5	5'-5	⊓
t_1	72	#8	6'-6	—
V_1	16	#4	2'-9	⊓
V_2	66	#4	5'-8	—
W_1	96	#5	2'-6	—

2 ABUTMENTS BILL OF MATERIAL

Item	Unit	Quan
Reinf. Bars	lbs.	8430
Class X Conc E Abut	Cu Yds	34.8
Class X Conc W Abut	Cu Yds	33.9
Rock Exc E Abut	Cu Yds	5
Rock Exc W Abut	Cu Yds	5
Class A Exc E Abut	Cu Yds	108
Class A Exc W Abut	Cu Yds	146

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.
Maximum bearing pressure = 3.2 ton/S.F.
Footing should extend 1'-0 into Sound Rock.

DESIGNED	L.D.
CHECKED	G.F.
DRAWN	S.E.F.
CHECKED	J.G.H.

ABUTMENTS
RAMP C.A. OVER F.A. RTE. 8
F.A. RTE. 8 STA. 28+52.21
F.A. ROUTE 8 PROJECT
SECTION I-D-2 STR. #4 WILL COUNTY
Scale: NO SCALE Date: Nov. 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

11-13-69 J.H.S. Class X & A abut. from 34.6 to 34.8 cu yds & W. abut. from 33.7 to 33.9 cu yds.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

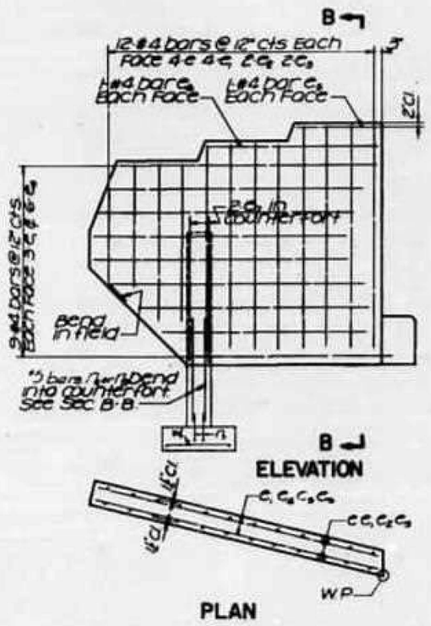
USER NAME = USCP702533	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS	
	DRAWN -	REVISED -			
PLOT SCALE = 7:11.99616 '/" / in.	CHECKED -	REVISED -			
PLOT DATE = 4/22/2025	DATE -	REVISED -		SHEET 40 OF 62 SHEETS	

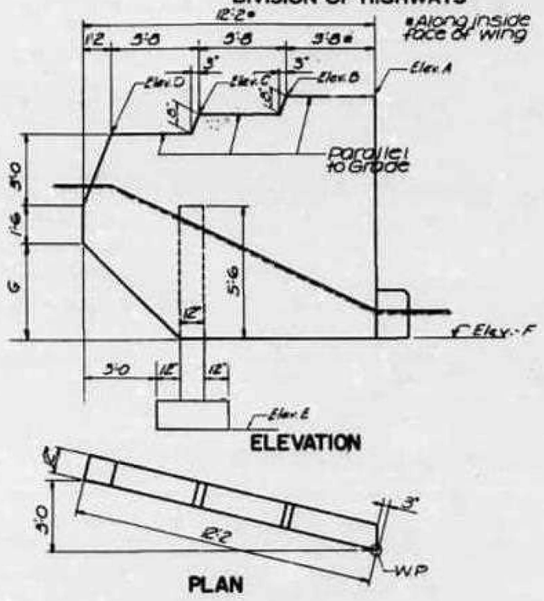
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	860
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

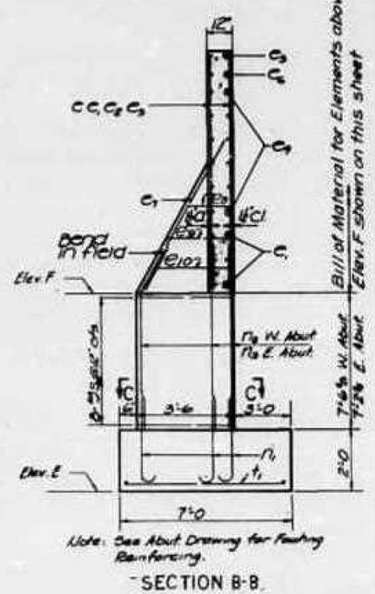
MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystemscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing40.dgn

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

Sheet 7
8 Sheets







Note: See Abut. Drawing for Footing Reinforcing.

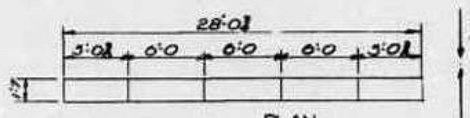
ONE END POST
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
C	6	#4	9'-5	—
C1	14	#4	8'-6	—
C2	4	#4	6'-6	—
C3	4	#4	5'-0	—
C4	12	#4	10'-6	—
C5	2	#4	3'-6	—
C6	2	#4	7'-0	—
C7	2	#5	7'-0	—
C8	1	#4	3'-3	—
C9	1	#4	4'-6	—
C10	1	#4	5'-10	—
Reinforcement lbs.			105	280
Class X conc.				
W. Abut., Two Ends (Cu. Yd.)				8.0
E. Abut., Two Ends (Cu. Yd.)				8.2

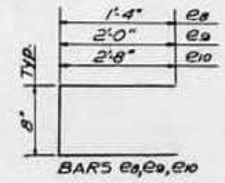
*Included in quantity on Sht. No. 6

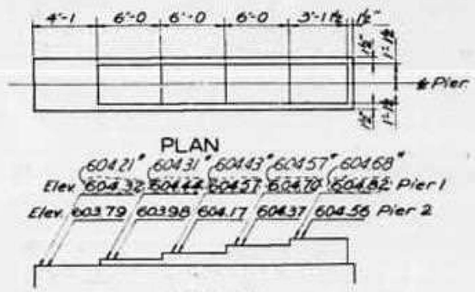
TABLE OF WINGWALL ELEVATIONS & DIMENSIONS

Wingwall	Pt	A	B	C	D	E	F	G
E. Abut.	N.E.W.	611.07	611.08	610.42	603.76	592.50	601.33	3'-11½"
	S.E.W.	611.38	611.38	611.32	610.66	592.50	601.33	4'-7½"
W. Abut.	N.W.W.	612.67	612.74	611.23	611.54	593.60	603.13	3'-10½"
	S.W.W.	612.31	612.38	612.38	611.78	593.60	603.13	4'-1½"

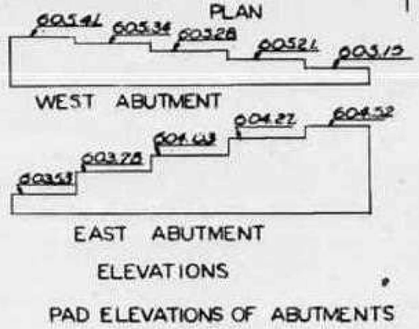








Ahead Station



DESIGNED	L.D
CHECKED	G.F
DRAWN	
CHECKED	T.L.L.

PIER ELEVATIONS & ABUTMENT DETAILS
RAMP CA
OVER F.A.RTE. 8
F.A.RTE.8 STA. 28+52.21
F.A. ROUTE 8 — PROJECT
SECTION (STR-#4) — WILL COUNTY
Scale: NO SCALE — Date: Nov. 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

*Revised Elevations 4-28-66 L.M.

11-19-64 J.M.J. Rev. all end post elevations, class X con. w. abut. from 7.6 to 8.0 cu yds & E. abut. from 8.0 to 8.2 cu yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw:/transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-Existing41.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

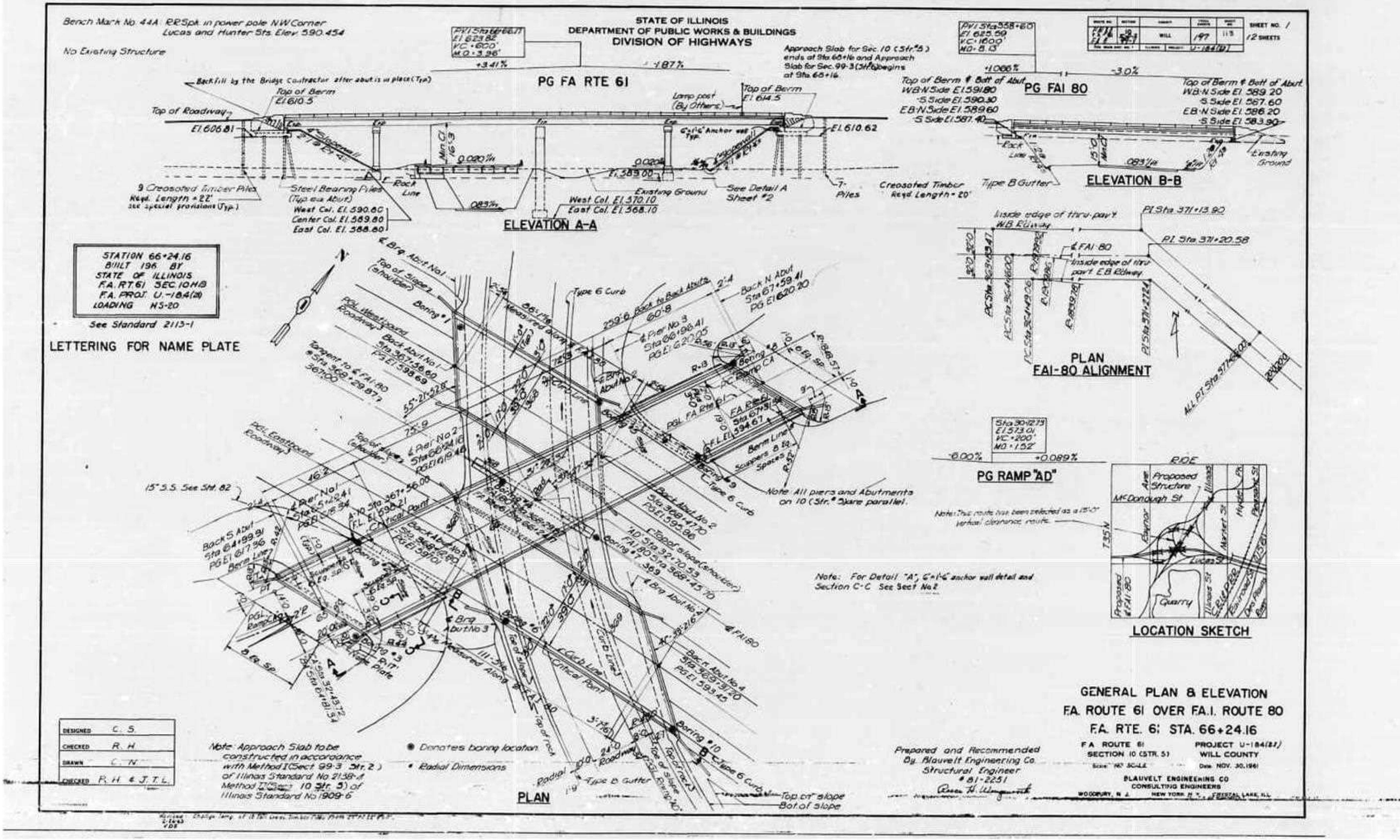
USER NAME = USCP702533	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -
PLOT DATE = 4/22/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 41 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	861
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		



FOR INFORMATION ONLY

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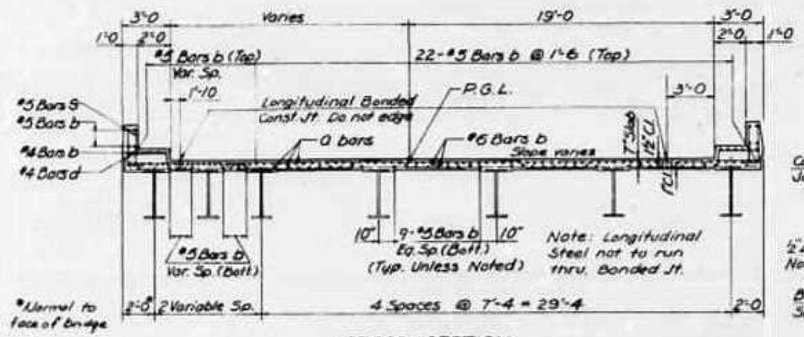
WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USCP702533	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			80	FAI 80 21 INTERCHANGE	WILL	1209 / 862
	PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -					CONTRACT NO. 62R22	
	PLOT DATE = 4/22/2025	DATE -	REVISED -		SHEET 42 OF 62 SHEETS			ILLINOIS FED. AID PROJECT	

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

SHEET NO. 3
12 SHEETS

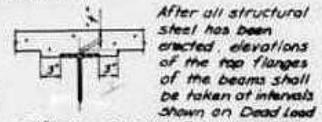
62R22	18	WILL	197	119

* 4"x12" floor drains of aluminum sheets welded. ASTM B-209 alloy 3003 H-14 or 6061-T6. Cost of all alum. sheets incidental to class X conc.



CROSS SECTION

CURB DETAILS

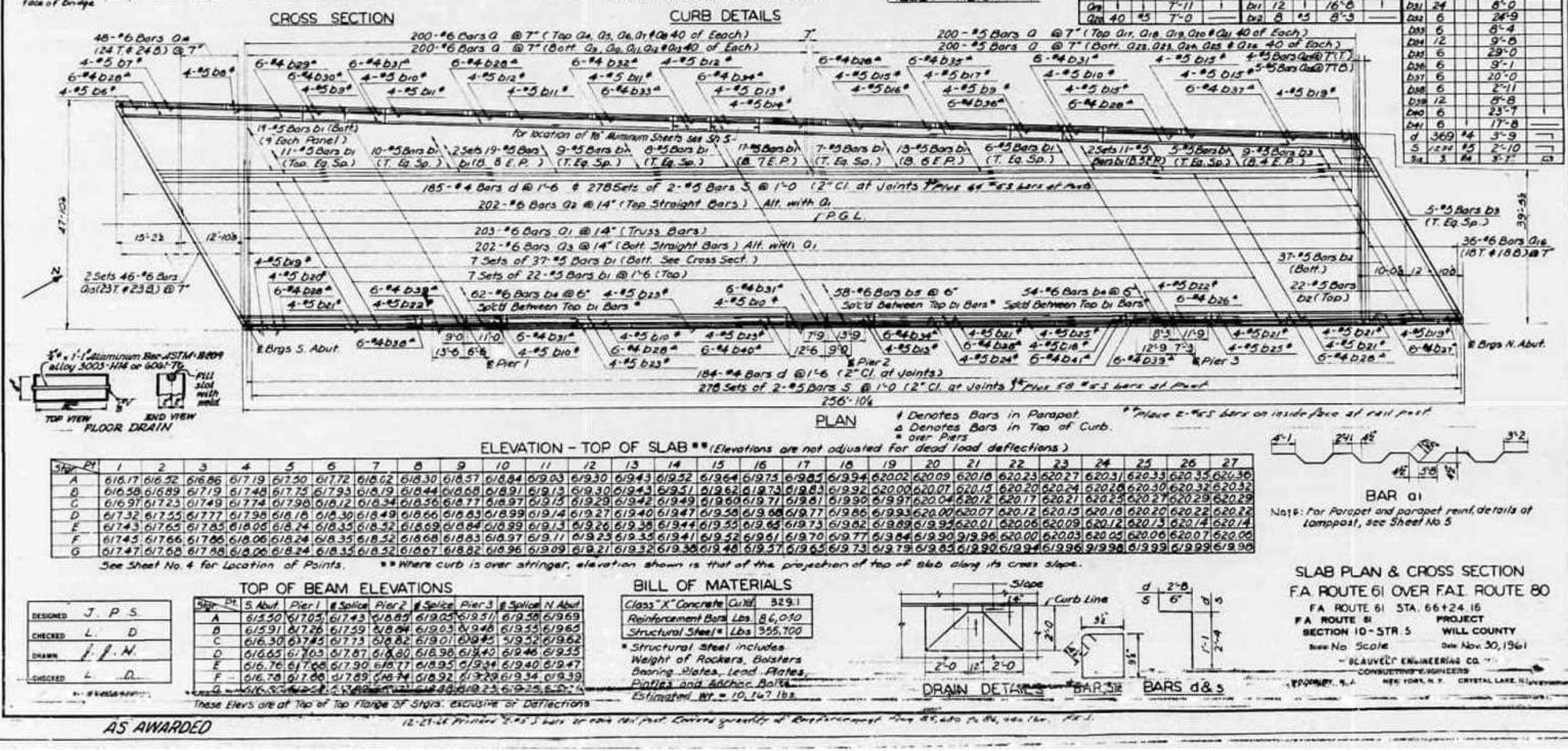


After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Dead Load Deflection Diagram. From these Elevations subtract the increment of deflections for these points determined from the D. L. Deflection Diagram. The elevations so attained subtracted from the theoretical grade elevations minus floor thickness equals the fillet heights above tops of beams.

METHOD OF DETERMINING FILLET HEIGHT "T"

BILL OF REINFORCEMENT * Bars will vary from 2'-0 to full length.

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
Q1	203	#6	35'-0		Q21	40	#5	6'-2		b13	8	#5	9'-8	
Q2	202		33'-8		Q22			11'-7		b14	4		14'-0	
Q3	202		31'-8		Q23			10'-9		b15	16		16'-1	
Q4	40		13'-11		Q24			9'-11		b16	4		7'-8	
Q5			13'-1		Q25			9'-0		b17	4		15'-1	
Q6			12'-2		Q26	40		8'-2		b18	4		14'-9	
Q7			11'-4		Q27	4		5'-0		b19	12		5'-2	
Q8			10'-6		Q28	3		7'-0		b20	4		16'-4	
Q9			15'-11		b1	572		36'-0		b21	20		15'-8	
Q10			15'-1		b2	39		11'-6		b22	8		8'-8	
Q11			14'-2		b3	14	#5	17'-3		b23	12		16'-6	
Q12			13'-4		b4	116	#5	20'-0		b24	4		13'-6	
Q13	40		12'-6		b5	58	#5	21'-6		b25	8	#5	7'-7	
Q14	48		24'-1		b6	4	#5	5'-4		b26	6	#4	7'-7	
Q15	92		24'-6		b7	4		18'-8		b27	6		18'-6	
Q16	36	#6	32'-9		b8	4		13'-11		b28	48		30'-0	
Q17	40	#5	9'-7		b9	8		8'-11		b29	6		3'-8	
Q18			8'-9		b10	20		8'-0		b30	6		8'-11	
Q19			7'-11		b11	12		16'-8		b31	24		8'-0	
Q20	40	#5	7'-0		b12	8	#5	8'-9		b32	6		24'-9	
										b33	6		8'-4	
										b34	12		9'-8	
										b35	6		29'-0	
										b36	6		9'-1	
										b37	6		20'-0	
										b38	6		2'-11	
										b39	12		6'-8	
										b40	6		23'-7	
										b41	6		17'-8	
										d	369	#4	3'-9	
										S	1234	#5	2'-10	
										S16	3	#4	3'-1"	



PLAN

* Denotes Bars in Parapet.
Δ Denotes Bars in Top of Curb.
* over Piers

** Place 2-#5 bars on inside face at rail post.

ELEVATION – TOP OF SLAB ** (Elevations are not adjusted for dead load deflections)

Stgr. Pt	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
A	616.17	616.52	616.86	617.19	617.50	617.72	618.02	618.30	618.57	618.84	619.03	619.30	619.43	619.52	619.64	619.75	619.85	619.94	620.02	620.09	620.18	620.23	620.27	620.31	620.33	620.35	620.36
B	616.58	616.89	617.19	617.49	617.75	617.93	618.19	618.44	618.68	618.91	619.13	619.30	619.43	619.51	619.62	619.73	619.83	619.92	620.00	620.07	620.15	620.20	620.24	620.28	620.30	620.32	620.32
C	616.91	617.23	617.49	617.74	617.98	618.12	618.34	618.56	618.77	618.97	619.15	619.29	619.42	619.49	619.60	619.71	619.81	619.90	619.97	620.04	620.12	620.17	620.21	620.25	620.27	620.29	620.29
D	617.32	617.55	617.77	617.98	618.18	618.30	618.49	618.66	618.83	618.99	619.14	619.27	619.40	619.47	619.58	619.68	619.77	619.86	619.93	620.00	620.07	620.12	620.15	620.18	620.20	620.22	620.22
E	617.43	617.65	617.85	618.05	618.24	618.35	618.52	618.69	618.84	618.99	619.13	619.26	619.38	619.44	619.55	619.65	619.73	619.82	619.89	619.95	620.01	620.06	620.09	620.12	620.13	620.14	620.14
F	617.45	617.66	617.86	618.06	618.24	618.35	618.52	618.68	618.83	618.97	619.11	619.23	619.35	619.41	619.52	619.61	619.70	619.77	619.84	619.90	619.96	620.00	620.03	620.05	620.06	620.07	620.06
G	617.47	617.68	617.88	618.06	618.24	618.35	618.52	618.67	618.82	618.96	619.09	619.21	619.32	619.38	619.48	619.57	619.65	619.73	619.79	619.85	619.90	619.94	619.96	619.98	619.99	619.99	619.98

See Sheet No. 4 for Location of Points. ** Where curb is over stringer, elevation shown is that of the projection of top of slab along its cross slope.

TOP OF BEAM ELEVATIONS

Stgr. Pt	S Abut.	Pier 1	℄ Splice	Pier 2	℄ Splice	Pier 3	℄ Splice	N Abut.
A	615.50	617.05	617.43	618.85	619.05	619.51	619.58	619.69
B	615.91	617.26	617.59	618.94	619.03	619.46	619.55	619.65
C	616.30	617.45	617.73	618.82	619.01	619.43	619.52	619.62
D	616.65	617.63	617.87	618.80	618.98	619.40	619.46	619.55
E	616.76	617.68	617.90	618.77	618.95	619.34	619.40	619.47
F	616.78	617.66	617.89	618.74	618.92	619.29	619.34	619.39
G	616.80	617.64	617.87	618.71	618.89	619.23	619.25	619.29

These Elevs are at Top of Top Flange of Stgrs. exclusive of Deflections

BILL OF MATERIALS

Class "X" Concrete	Cu.Yd.	329.1
Reinforcement Bars	Lbs.	86,030
Structural Steel *	Lbs.	355,700

* Structural Steel includes Weight of Rockers, Bolsters Bearing Plates, Lead Plates, Pintles and Anchor Bolts. Estimated Wt. = 10,147 lbs.

BAR Q1

Note: For Parapet and parapet reinf. details at lamppost, see Sheet No 5

SLAB PLAN & CROSS SECTION
F.A. ROUTE 61 OVER F.A.I. ROUTE 80
F.A. ROUTE 61 STA. 66+24.16
F.A. ROUTE 61 PROJECT
SECTION 10-STR. 5 WILL COUNTY
Scale No Scale Date Nov. 30, 1961
– BLAUVELT ENGINEERING CO. –
CONSULTING ENGINEERS
PEORIA, ILL. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	J. P. S.
CHECKED	L. D.
DRAWN	J. J. N.
CHECKED	L. D.

AS AWARDED

12-21-62 Furnish 2-#5 bars at rail post. Revised quantity of Reinforcement from 85,450 lbs. to 86,030 lbs. J.J.N.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901B6-62R22-EXISTING43.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

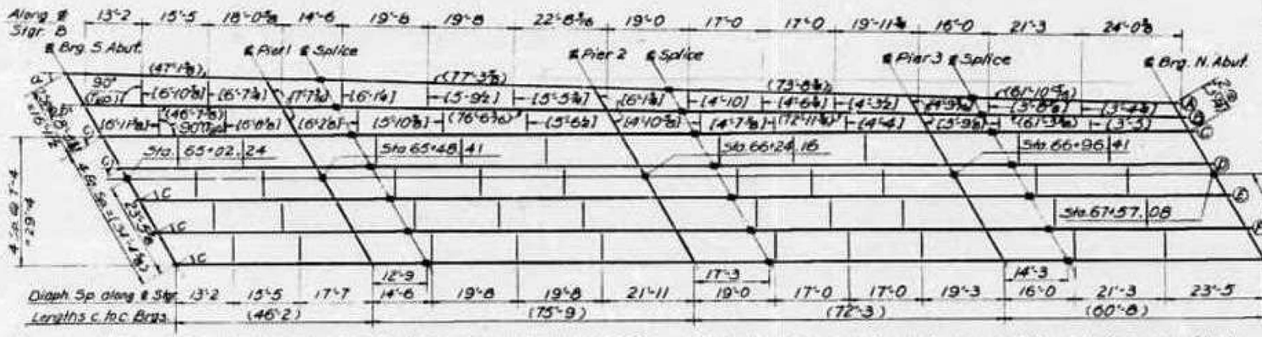
EXISTING BRIDGE PLANS

SHEET 43 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	863
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

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

SHEET NO. 4
12 SHEETS



Note: Δa = 33°-17'-30" Δb = 32°-23'-13" ΔC = 31°-27'-32" D-1, D-2 & D-3 Denote Abut, Pier & Inter. Diaph. Respectively
Number in ( ) is the distance c. to c. of Bearings along ℄ of Stgr.
Number in [ ] is the distance c. to c. of Stgrs. along ℄ of Diaph.

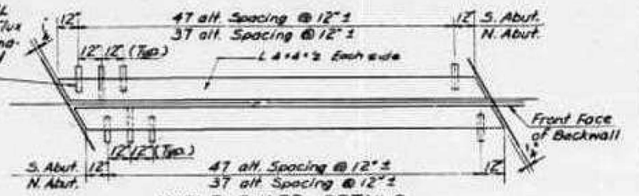
FRAMING PLAN

Stgr.	Section	Cor. R. ℄ L Dimension		
		Pier 1	Pier 2	Pier 3
A, C Thru G	36 WF 170	—	4'-6"	4'-0"
B	30 WF 135	4'-6"	4'-6"	—

Stgr. A	4@10'-0=40'-0 7/16	7@10'-0=70'-0	7 3/16	6@10'-0=60'-0	5@10'-0=50'-0	11'-10 9/16
Stgr. B	do	do	do	do	do	do
Stgr. C to G	do	do	do	do	do	do

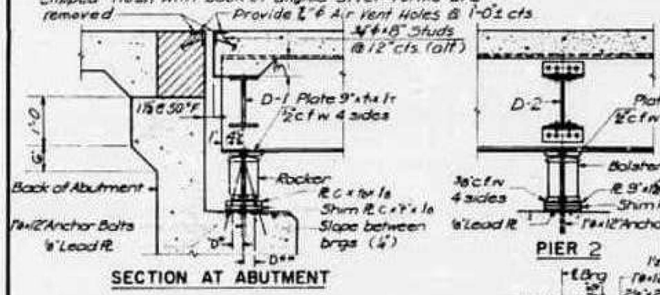
Location of Pts for Top of Slab Elev. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
a D c d e f g h i j K l
Location of Pts. for D.L. Deflection 4 Eq. Sp. 4 Eq. Sp. 4 Eq. Sp. 4 Eq. Sp.
℄ S. Abut. ℄ Pier 1 ℄ Pier 2 ℄ Pier 3 ℄ N. Abut.

DEAD LOAD DEFLECTION DIAGRAM

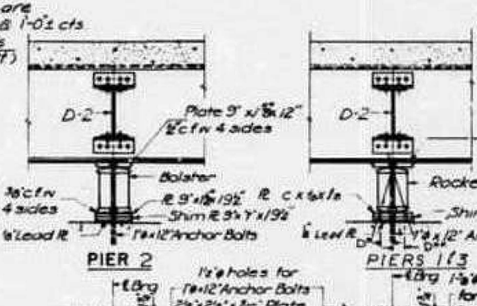


ANGLE GUARD DETAILS

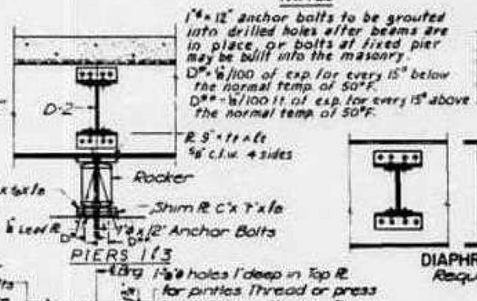
Angles shall be held securely in place while pouring concrete with ⅞"ϕ bolts in 15/16"ϕ holes set on gage line at 12" cts. All bolts shall be burned, sawed or clipped flush with back of angles after forms are removed.



SECTION AT ABUTMENT

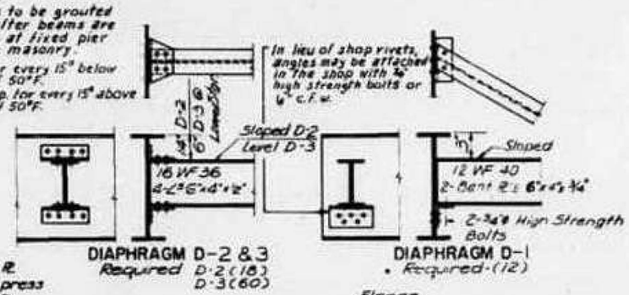


PIER 2



PIERS 1 & 3

NOTES
1"ϕ x 12" anchor bolts to be grouted into drilled holes after beams are in place, or bolts of fixed pier may be built into the masonry.
D* = ⅛/100 of exp. for every 15° below the normal temp. of 50°F.
D** = ⅛/100 ft. of exp. for every 15° above the normal temp. of 50°F.



DIAPHRAGM D-2 & 3
Required D-2 (18)
D-3 (60)

DIAPHRAGM D-1
• Required-(12)

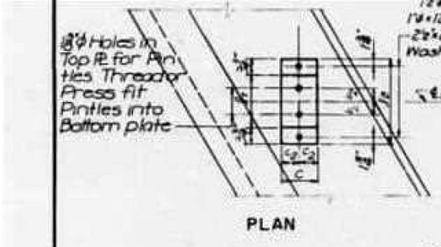
TABLE OF DEAD LOAD DEFLECTION

Stgr.	A	B	C to F	G
a	1/16"	1/16"	1/32"	1/16"
b	1/32"	1/16"	1/32"	3/32"
c	0	0	0	-3/32"
d	1/8"	11/32"	3/16"	15/32"
e	1/8"	17/32"	2"	27/32"
f	3/16"	11/32"	9/32"	1/8"
g	3/32"	3/32"	1/8"	3/32"
h	3/16"	7/32"	1/4"	11/32"
i	3/16"	5/32"	5/32"	3/16"
j	3/16"	3/32"	5/32"	7/32"
k	3/16"	7/32"	3/16"	1/16"
l	3/16"	3/16"	1/4"	11/32"

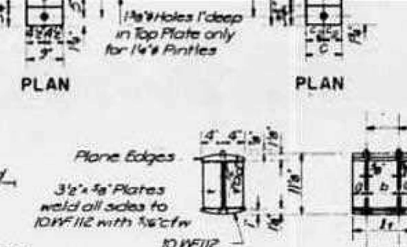
Note: (-) Indicates Upward Deflection
Deflections are due to weight of concrete

DIMENSIONS FOR BEARINGS

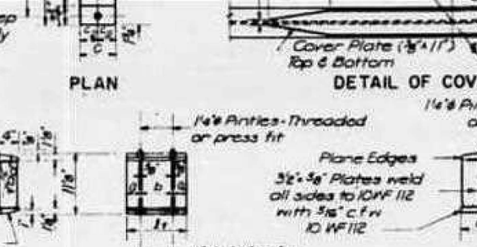
Stgr. / Dim.	Abut. 1 A-C-G	Abut. 1 B	Pier 1 A-C-G	Pier 1 B	Pier 3 A-C-G	Pier 3 B	Abut 2 A-C-G	Abut 2 B
a	3¼"	3¼"	3½"	3"	3"	3½"	3¾"	3¾"
b	6½"	6½"	6½"	6"	6"	6½"	6½"	6½"
c	9"	9"	9"	10"	10"	9"	9"	9"
f1	13"	13"	13½"	12"	12"	13½"	13"	13"
t1	1"	1"	1⅛"	1⅛"	1⅛"	1⅛"	1"	1"
le	20½"	20½"	21"	19½"	19½"	21"	20½"	20½"
te	1⅛"	1⅛"	1⅛"	2"	2"	1⅛"	1⅛"	1⅛"



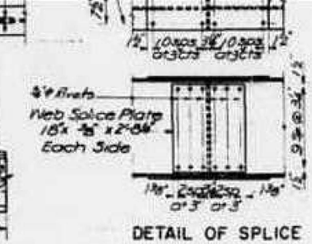
PLAN



PLAN



DETAIL OF COVER PLATES



DETAIL OF SPLICE

DETAIL OF PINTLE

DETAIL OF BEARING AT PIERS 1, 3 & ABUTMENTS

DETAIL OF BEARING AT PIER 2

DESIGNED	G. F.
CHECKED	J.P.S. & J.T.L.
DRAWN	H. H.
CHECKED	L. D.

*AS BUILT
SHIM (T) THICKNESS

Stgr.	A	B	C	D	E	F	G
Abut. 1	½	—	—	—	—	¼	½
Pier 1	—	—	—	—	½	½	½
Pier 2	½	½	—	—	½	½	—
Pier 3	—	—	—	¼	—	—	—
Abut. 2	—	—	—	—	—	—	—

* Rev. Shim thickness 9-28-65 L.W.

AS AWARDED
SHIM (T) THICKNESS

Stgr.	A	B	C	D	E	F	G
Abut. 1	—	—	—	—	—	¼	½
Pier 1	—	—	—	—	½	½	½
Pier 2	—	½	½	—	—	—	—
Pier 3	—	¼	½	—	½	—	—
Abut. 2	—	½	—	—	—	—	—

11-20-64 J.M.J. Rev. C.R. L dim. from 2'-6" Pier 1, 3'-6" Pier 2 & 2'-0"

FRAMING PLAN & STEEL DETAILS
FA ROUTE 61 OVER FAI ROUTE 80
F.A. ROUTE 61 STA. 66+24.16
F.A. ROUTE 61 SECTION 10-STR. 5 Scale NO SCALE
PROJECT WILL COUNTY Date Nov. 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 7:11.99616 '-" / In.	CHECKED -	REVISED -
PLOT DATE = 4/22/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

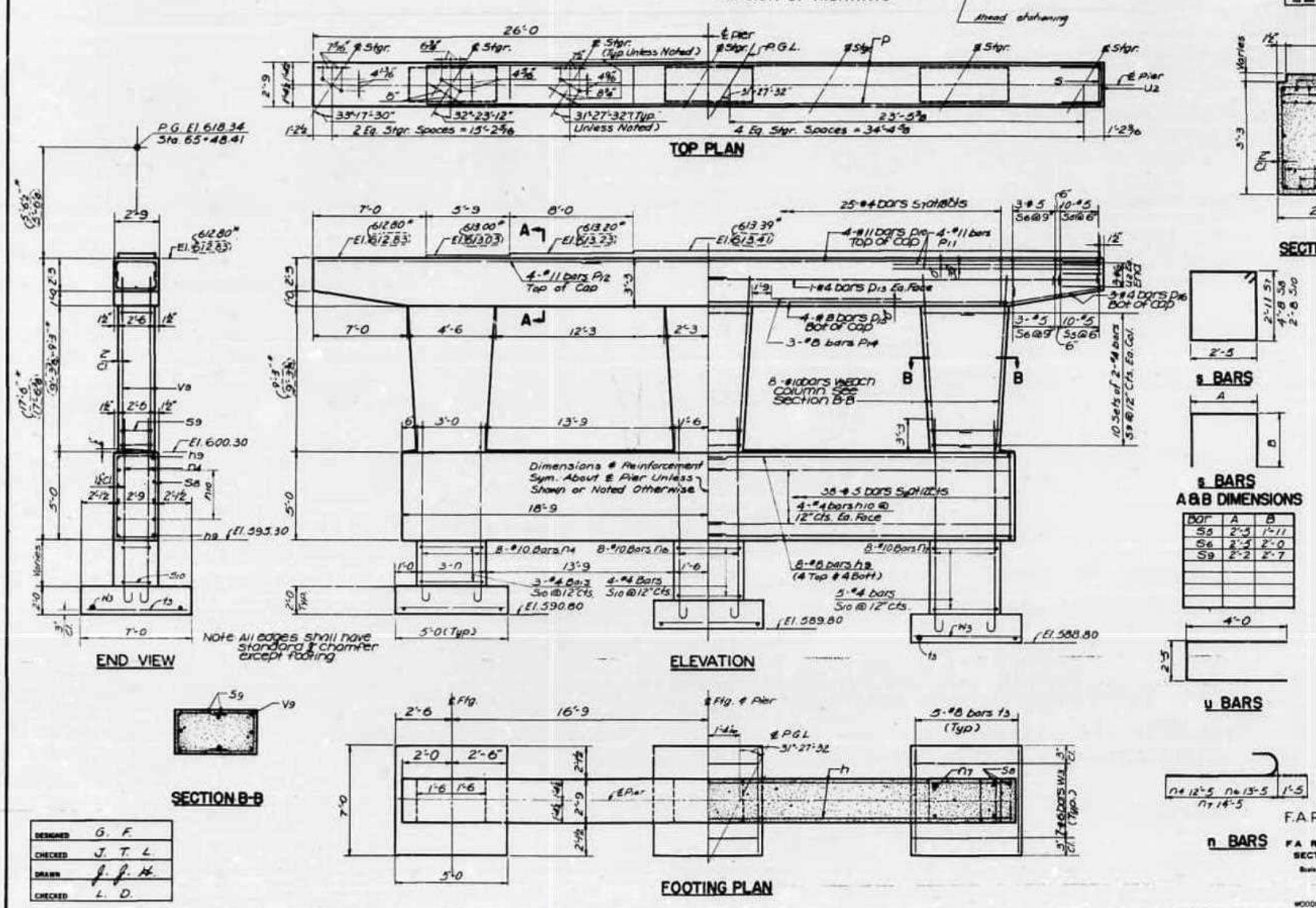
SHEET 44 OF 62 SHEETS

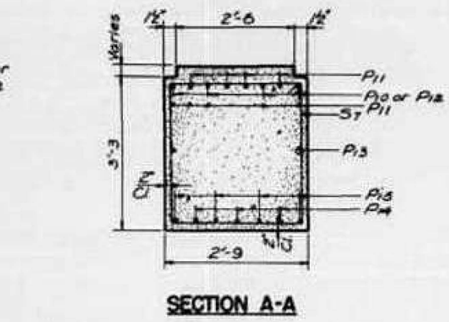
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	864
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2019/CH401140118002203-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing44.dgn

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

SHEET NO. 6
12 SHEETS





A&B DIMENSIONS

Bar	A	B
S5	2'-5	1'-11
S6	2'-5	2'-0
S9	2'-2	2'-7

PIER
BILL OF MATERIAL

Bar	No	Size	Lgth	Shape
h9	16	#8	19'-7	—
h10	16	#4	19'-1	—
n4	8	#10	13'-10	⌣
n6	8	#10	14'-10	⌣
n7	8	#10	15'-10	⌣
P10	4	#11	36'-0	—
P11	16	#11	12'-10	—
P12	4	#11	19'-3	—
P13	4	#4	26'-4	—
P14	6	#8	7'-9	—
P15	4	#8	36'-0	—
P16	6	#4	7'-3	—
S5	40	#5	6'-3	⊓
S6	12	#5	6'-5	⊓
S7	25	#4	11'-6	⊡
S8	38	#5	15'-0	⊡
S9	60	#4	7'-4	⊓
t3	15	#8	6'-6	—
S10	12	#4	11'-0	⊡
U2	6	#6	10'-5	⊏
V9	24	#10	12'-4	—
W3	21	#6	4'-6	—
Class X Concrete			Cu Yd	38.3
Reinf Bars			LB	8730
Rock Excavation			Cu Yds	4
Class A Excavation			Cu Yd	40

DESIGNED	G. F.
CHECKED	J. T. L.
DRAWN	J. J. H.
CHECKED	L. D.

PIER NO. 1
F.A. ROUTE 61 OVER F.A.I. ROUTE 80
F.A. ROUTE 61 STA. 66+24.16
F.A. ROUTE 61 PROJECT
SECTION 10 (STR. 5) WILL COUNTY
Scale: No Scale Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

* Rev. Pier Elevations & Height of Column 4-28-65 L.W.
As Awarded

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing45.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

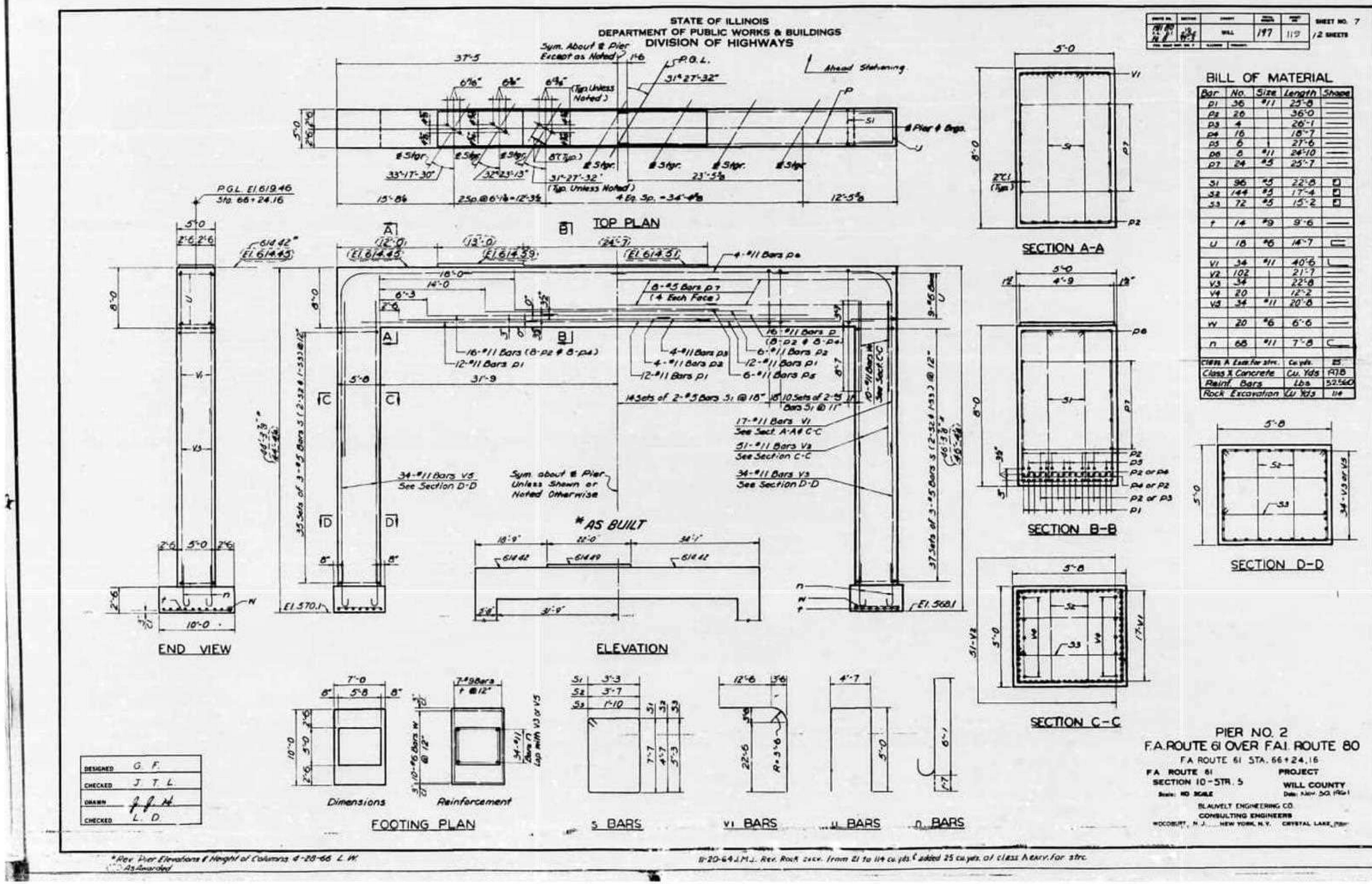
USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 45 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	865
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	



		WILL	197	119

SHEET NO. 7
12 SHEETS

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p1	36	#11	25'-8	
p2	26		36'-0	
p3	4		26'-1	
p4	16		18'-7	
p5	6		27'-6	
p6	8	#11	24'-10	
p7	24	#5	25'-7	
s1	96	#5	22'-8	
s2	144	#5	17'-4	
s3	72	#5	15'-2	
t	14	#9	9'-6	
u	18	#6	14'-7	
V1	34	#11	40'-6	
V2	102		21'-7	
V3	34		22'-8	
V4	20		12'-2	
V5	34	#11	20'-8	
w	20	#6	6'-6	
n	68	#11	7'-8	
Class A Exc. for strc.			Cu. yds.	25
Class X Concrete			Cu. Yds	197.8
Reinf. Bars			Lbs	52,560
Rock Excavation			Cu. Yds	114

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing46.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 46 OF 62 SHEETS

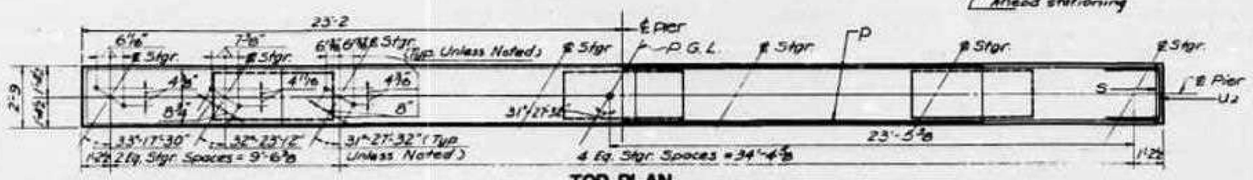
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	866
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

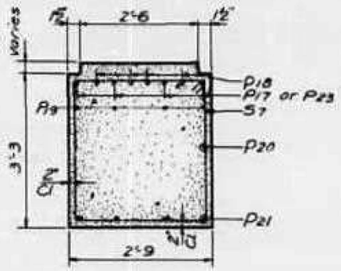
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

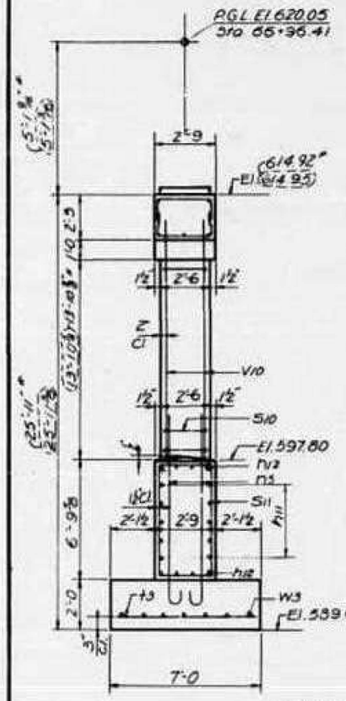
		WILL	197	120

SHEET NO. 8
12 SHEETS

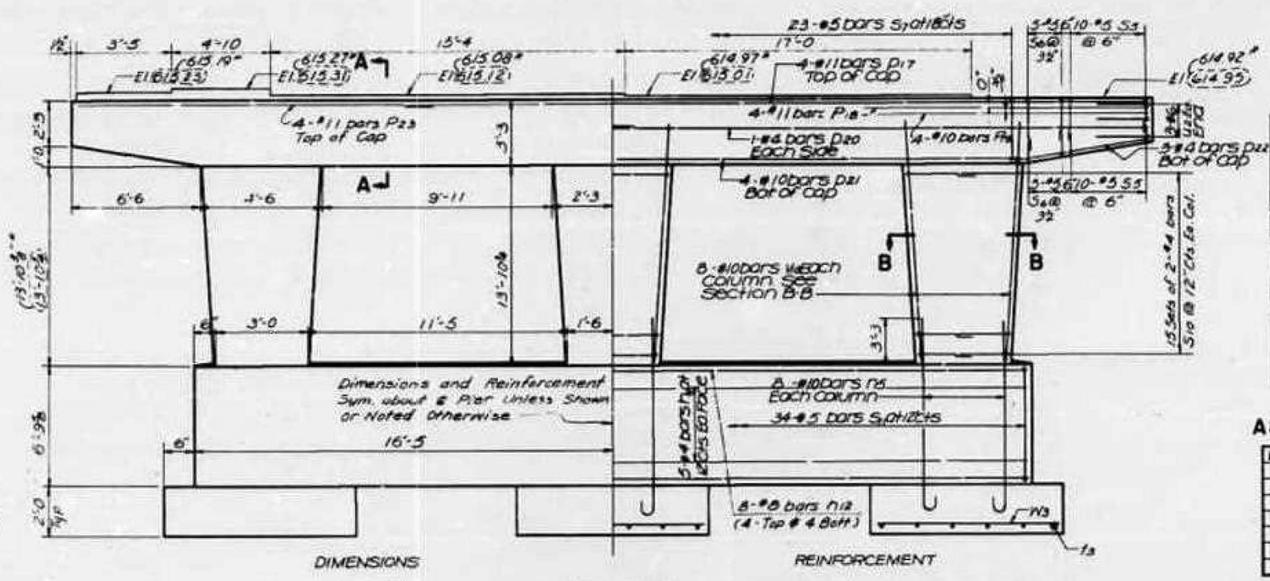
Ahead stationing

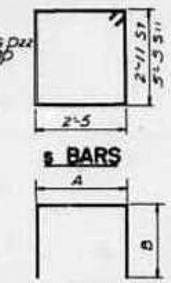






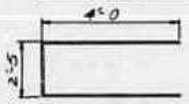
Note All edges shall have standard ¾ chamfer except footing

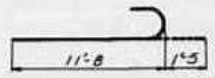




℄ BARS
A & B DIMENSIONS

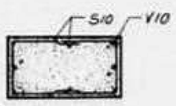
Bar	A	B
S5	2'-5	1'-11
S6	2'-5	2'-0
S10	2'-2	2'-7

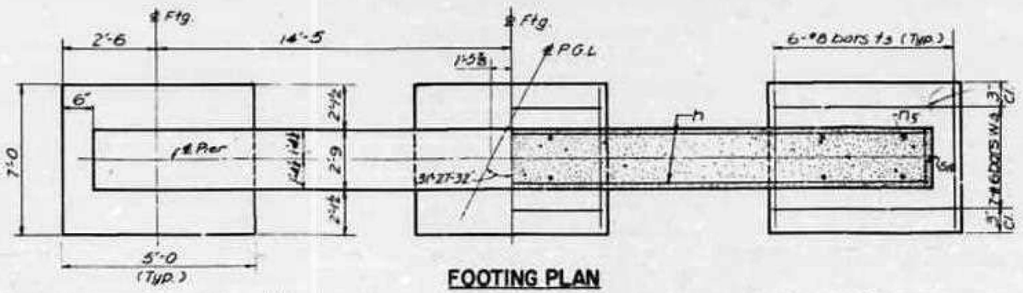




PIER
BILL OF MATERIAL

Bar	No.	Size	Lgth.	Shape
n11	10	#4	32'-6	—
n12	8	#8	32'-0	—
n5	24	#10	13'-1	⌒
P17	4	#11	31'-0	—
P18	8	#11	15'-4	—
P19	8	#10	11'-9	—
P20	4	#4	23'-6	—
P21	4	#10	33'-0	—
P22	6	#4	6'-9	—
P23	4	#11	17'-9	—
S5	40	#5	6'-3	□
S6	20	#5	6'-5	□
S7	23	#5	11'-8	□
S10	90	#4	7'-4	□
S11	34	#5	16'-8	□
T3	18	#8	6'-6	—
U2	6	#6	10'-5	⊂
V10	24	#10	17'-0	—
W3	21	#6	4'-6	—
Class X Concrete		Cu. Yds.	60.4	
Reinf. Bars		Lbs.	8,950	
Rock Excavation		Cu. Yds.	9	
Class A Excavation		Cu. Yd.	51	





DESIGNED	G. F.
CHECKED	J. T. L.
DRAWN	
CHECKED	L. D.

PIER NO. 3
F A ROUTE 61 OVER F A I ROUTE 80
F A ROUTE 61 STA 66+24.16
F A ROUTE 61 — PROJECT
SECTION 10 (STR. 5) — WILL COUNTY
Scale No Scale — Date Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
PASSAIC, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

* Rev. Pier Elevations & Height of Column 4-28-66 L.W.
(-) As Awarded

11-20-64 (11.) Rev. class A excv. from 40 to 51 cu. yds. & Rock excv. from 9 to 3 cu. yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw:\transystems-pw.bentley.com:transyscorp-pw1-hosted\Documents\Projects_2018\CH401\401180022\03-WSP\CAD\62R22-INT-4 (Center)\Sheets\Structural\Existing Bridge Plans\0990186-62R22-Existing47.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

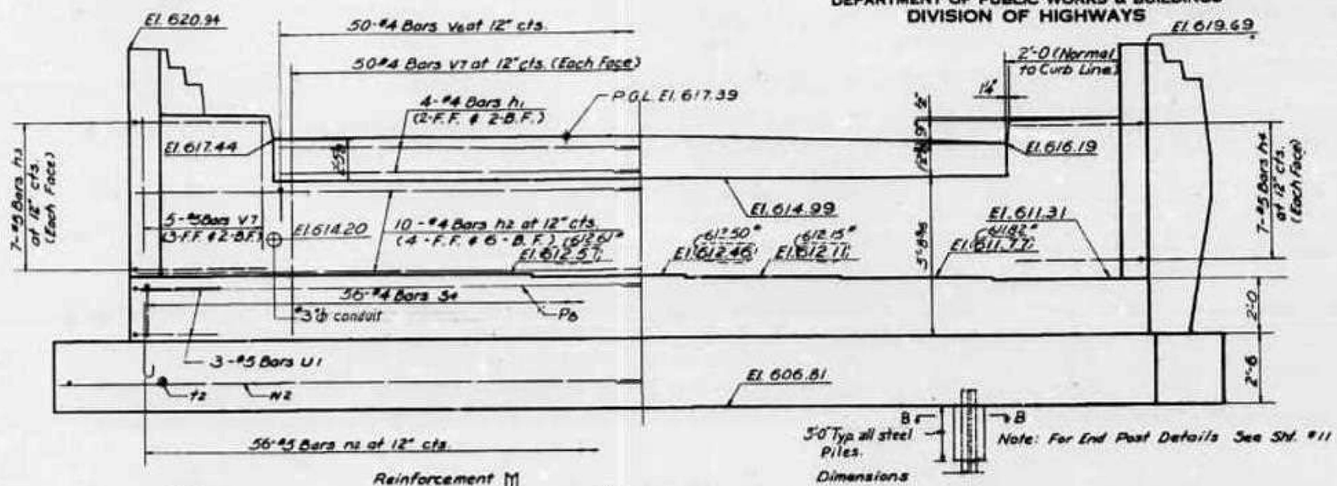
EXISTING BRIDGE PLANS

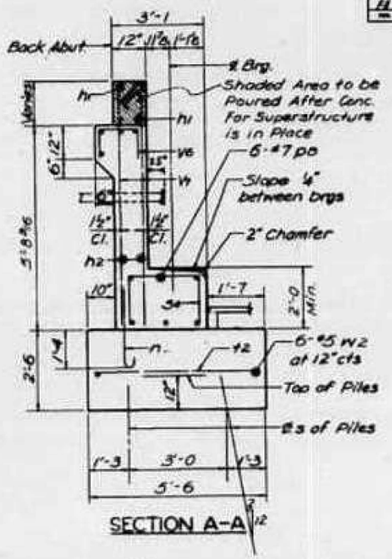
SHEET 47 OF 62 SHEETS

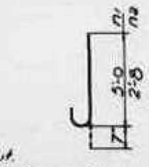
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	867
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

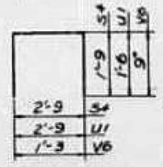
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

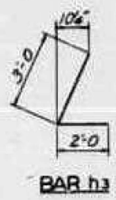
		WILL	199	121	SHEET NO. 9 12 SHEETS

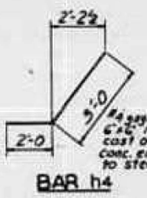


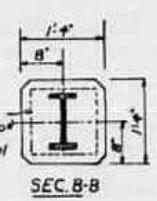












BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
h1	8	#4	24'-10	—
h2	20	#4	28'-1	—
h3	14	#5	5'-0	L
h4	14	#5	5'-0	—
n1	28	#5	5'-7	C
n2	56	#5	3'-3	C
t1	17	#5	4'-6	—
t2	56	#5	5'-0	—
U1	6	#5	5'-9	□
V6	50	#4	2'-9	□
V7	110	#4	6'-5	—
P8	12	#7	28'-4	—
S4	56	#4	6'-3	□
W1	10	#5	10'-4	—
W2	12	#5	28'-11	—

BILL OF MATERIAL

Item	Unit	Quan.
Class X Concrete	Cu. Yds	73.9
Reinforcement Bars	Lbs	3,960
Steel Piles (10BP42)	Lin. Ft	252
Test Pile (St 10BP42)	Each	1

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

PILE DATA

Type: Steel 10 BP 42
Capacity: Refusal
Est. Length: 18 Feet
No. Req'd: 13+1 Test Pile

DESIGNED	G. F. & F. F. W.
CHECKED	J. P. S. & L. D.
DRAWN	F. F. W.
CHECKED	L. D.

S ABUTMENT
F.A. ROUTE 61 OVER F.A.I. ROUTE 80
F.A. ROUTE 61 STA. 65+24.16
F.A. ROUTE 61 — PROJECT
SECTION 10 - STR. 5 — WILL COUNTY
Scale: No Scale. — Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

* Rev. Abut Elevations 4-28-66 L.W.
As Amended

11-20-64 J.M.J. Rev. class X conc. from 73.7 to 73.9 cu. yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09901866-62R22-Existing48.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '=' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

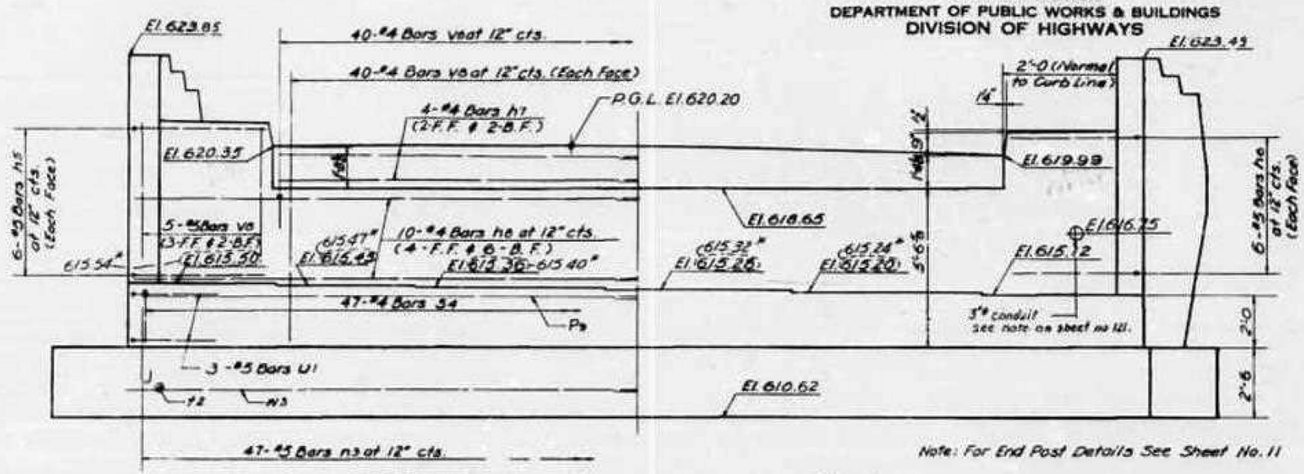
EXISTING BRIDGE PLANS

SHEET 48 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	868
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

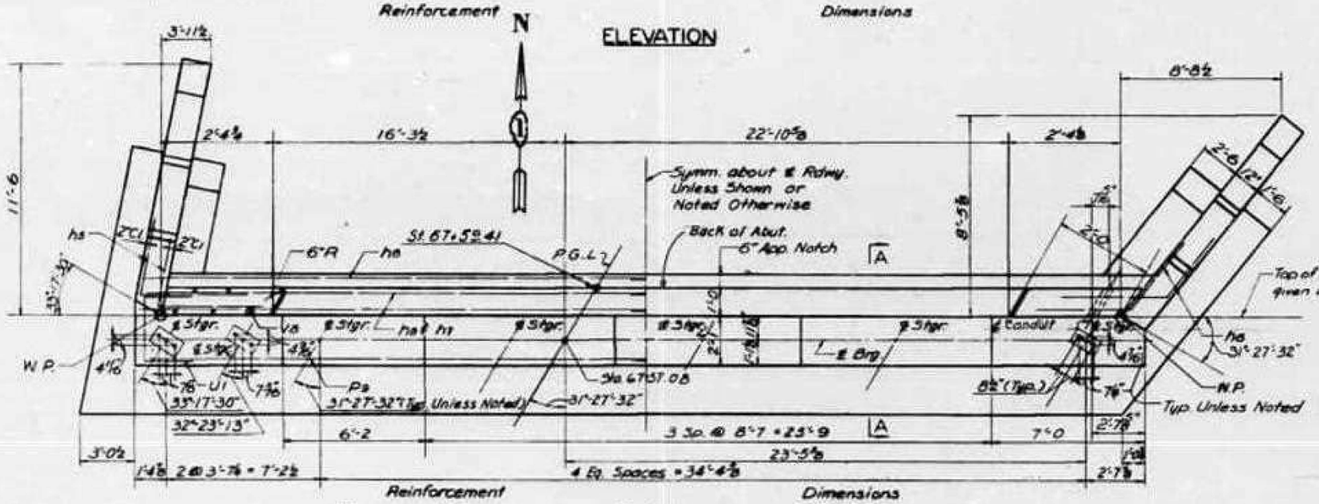
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

		WILL	197	122	SHEET NO. 10 /2 SHEETS

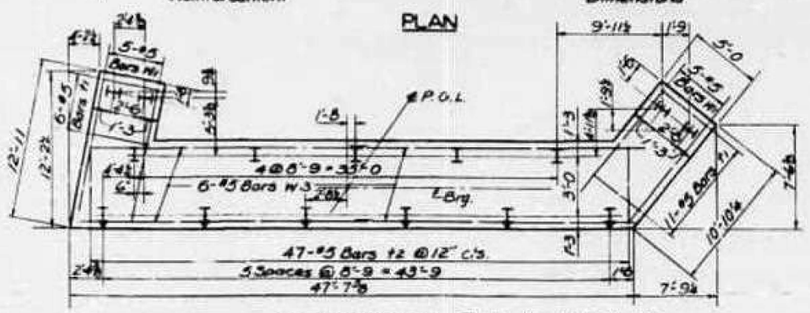


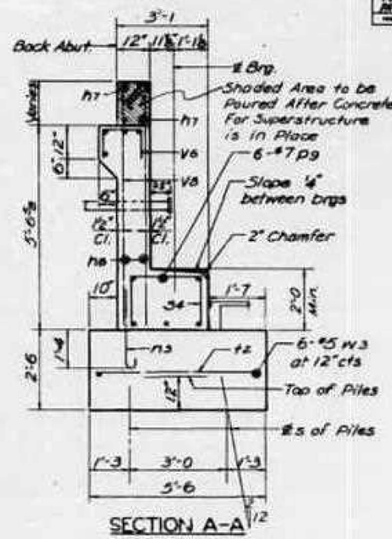
Reinforcement Dimensions

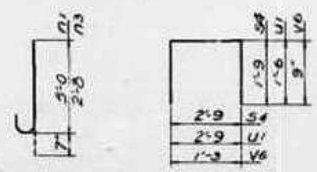
ELEVATION

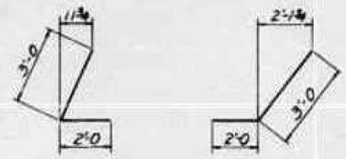


PLAN









BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
h5	12	#5	5'-0	L
h6	12	#5	5'-0	⌋
h7	8	#4	19'-11	—
h8	20	#4	23'-2	—
n1	28	#5	5'-7	C
n3	47	#5	3'-3	C
P9	12	#7	23'-5	—
S4	47	#4	6'-3	□
t1	17	#5	4'-6	—
t2	47	#5	5'-0	—
U1	6	#5	5'-9	□
V6	40	#4	2'-9	□
V8	90	#4	6'-7	—
W1	10	#5	10'-4	—
W3	12	#5	24'-1	—

BILL OF MATERIAL

Item	Unit	Quan.
Class X Concrete	Cu Yds	60.5
Reinforcement Bars	Lbs	3440
Steel Piles (10BP42)	Lin. Ft.	266
Test Pile (St. 10BP42)	Each	1

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

For All Steel Piles Encasement Details See Sheet No. 121.

PILE DATA

Type: Steel 10 BP42
Capacity: Refusal
Est. Length: 19 Feet
No. Req'd: 13 + 1 Test Pile

DESIGNED	G.F. & P.M.
CHECKED	J.P.S. & L.D.
DRAWN	P.P.M.
CHECKED	L.D.

N. ABUTMENT
F.A. ROUTE 61 OVER F.A.I. ROUTE 80
F.A. ROUTE 61 STA. 661+24.16
F.A. ROUTE 61 — PROJECT
SECTION 10 - STR. 5 — WILL COUNTY
Scale: No Scale — Date: Nov. 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
MOODBURT, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

* Rev. Abut Elevations 4-28-66 L.W.
As Awarded

11-30-64 M.J. Rev. class X Conc. in Bars 60.5 to 60.5 cu yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing49.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

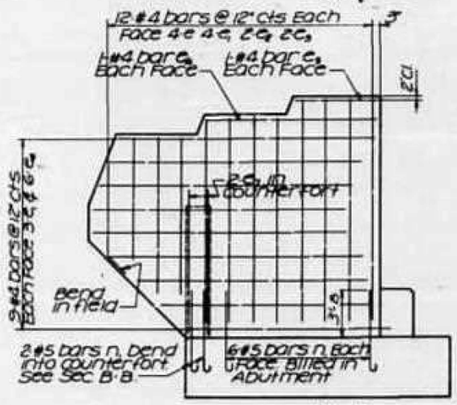
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

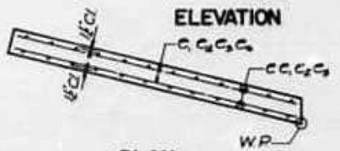
SHEET 49 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	869
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

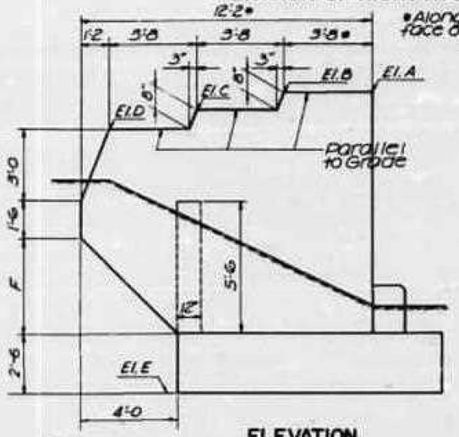
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



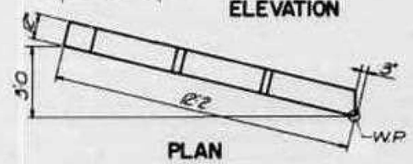
ELEVATION



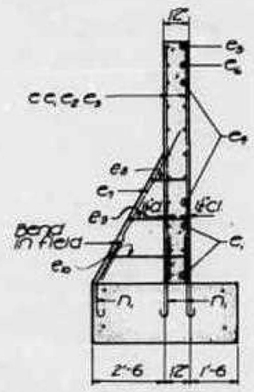
PLAN



ELEVATION



PLAN



SECTION B-B

Note: See Abut. Dwg. for Fig Reinforcement.

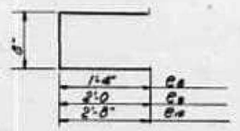
7/16/81	7/16*		WILL	197	123
11-8-81	11-7				

SHEET NO. 11
12 SHEETS

ONE END POST
BILL OF MATERIAL

Bar	No.	Size	Lgth	Shape
c	8	#4	9'-5	—
c1	14	#4	8'-6	—
c2	4	#4	6'-6	—
c3	4	#4	5'-0	—
c4	12	#4	10'-6	—
c5	2	#4	3'-6	—
c6	2	#4	7'-0	—
c7	2	#5	7'-0	—
c8	4	#4	3'-2"	—
c9	4	#4	4'-6"	—
c10	4	#4	5'-10"	—
* Reinforcement Bars			155	280
* Class X Concrete				
South Abut. 2 Posts Cu Yds.				8.8
North Abut 2 Posts Cu Yds.				8.7

*Included in Quantity on Sheets 9 and 10



BARS c8, c9, c10

END POST ELEVATIONS

End Post / Elev.	S. Abut. S.W.	S. Abut. S.E.	N. Abut. N.W.	N. Abut. N.E.
A	619.69	620.94	623.85	623.49
B	619.57	620.87	623.85	623.48
C	618.80	620.02	623.18	622.81
D	618.04	619.39	622.51	622.13
E	606.70	606.70	610.50	610.50
F	4'-7⅛	5'-9⅝"	5'-0⅛"	4'-7⅝"

DESIGNED	J.J.H.
CHECKED	L.D.
DRAWN	SEF & J.J.H.
CHECKED	L.D.

ABUTMENT DETAILS
F.A. ROUTE 61 OVER F.A.I. ROUTE 80
F.A. ROUTE 61 STA. 66+24.16
F.A. ROUTE 61 — PROJECT
SECTION 10-5TB.5 — WILL COUNTY
Scale: No Scale — Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

11-20-64 J.M.J. Rev. class x con. S. abut. from 8.6 to 8.8 (N. abut. from 8.5 to 8.7 cu. yds.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing50.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/ In.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 50 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	870
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

Bench Mark No 463 Top of "O" in "Open" fire hydrant NE corner Hunter St & Jasper St El 599.66

No Existing Structure

PVI Sta 66+66.17
El 623.82
VC 600'
MO 3.96'

+3.41 % -1.87 %

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

Design Stresses
Reinforced Concrete
fc = 3500 P.S.I.
fs = 20,000 P.S.I.
n = 10
fc = 1400 P.S.I (except footings)
fc = 1000 P.S.I (footings)
Vc = 90 (except footings)
Vc = 75 (footings)

Structural Steel
fs = 20000 P.S.I.
Max. Foundation Pressure
= 3 1/2 Tons/S.F.
Loading H S 20-44

						SHEET NO. 1
			WILL	197	12 C	10 SHEETS
				PROJECT U-184-(11)		

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36.

RIVETS SHALL BE 3/4" ϕ WITH 13/16" ϕ OPEN HOLES UNLESS NOTED.

CLASS X CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE USED IN PARAPETS AND END POSTS SHALL BE FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE AMERICAN WELDING SOCIETY.

ALL ROCKERS, ROLLERS, 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.

ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13 (d) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. THE 3/4" ϕ WELDED STUDS SHALL NOT BE PAINTED.

THE CONTRACTOR SHALL DRIVE TWO (2) TEST PILES IN PERMANENT LOCATIONS AS SHOWN ON THE PLANS, BEFORE ORDERING REMAINDER OF PILES.

NO ROCK LARGER THAN 3' SHALL BE PLACED IN FILLS IN THE AREA WHERE PILES ARE TO BE DRIVEN.

Excavation for backfill of structures in the embankments shall not be classified.

ALL STEEL BEARING PILES ARE TO BE DRIVEN TO REFUSAL.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

PROFILE F.A. ROUTE 61

Top of Berm El 614.8
Crown of Roadway
Exp. Fix. Exp. Exp.
4' Slopewall 2:1 @ Rt 15
See Detail A
Varies
15'0 Min Cl
El. -
4' Slopewall 2:1 @ Rt 15
See Detail A
Top of Berm El 613.1
El. 610.93
609.2
5' Creosoted Timber Piles Reqd. Length = 22' See special provisions
Creosoted Timber Piles. Estim. Reqd Length = 18'
El. 589.00
El. 589.20
Existing Ground Line
Steel Bearing Piles Typical at Abutments
Rock Line

ELEVATION

Bk. fill by the Bridge Contractor after abut. are in place. (Typ.)

STATION 69+15.64
BUILT ISC BY
STATE OF ILLINOIS
FA. RT. 61 SEC. 10(H&I)-1
FA. PROJ. U-184-(11)
LOADING HS-20

See Standard 2113-1

LETTERING FOR NAME PLATE

PVI Sta. 28+30.95
El 606.54
VC = 200'
M.O = 2.32'

+4.00 % -5.282 %

PROFILE RAMP DB

Note:
Approach slab to be constructed in accordance with Method II of Illinois Standard No. 1909-6

PG Ramp DB
10'0 16'0 10'0
Critical Point
R=400'
20' Typ. Limit of 4' Slopewall
℄ Brgs
SEC. B-B
R=45'
R=46'
R=12'
R=11'
R=13'
R=44'
89°49'18"
90°00'00" NP
Boring 1
Boring 2
Boring 3
Boring 4
PG FA Rte 61
Sta 69+15.54 FA Rte 61
Sta 27+20.35 Ramp DB
PT Sta 69+01.54
PC Sta 28+96.49
Scuppers 4 Eq. Spac
Name Plates
Back S. Abut Sta 68+64.67 PG El 619.65
℄ Pier No. 1 Sta 69+00.50 PG El 619.25
℄ Pier No. 2 Sta 69+45.50 PG El 618.58
Back N. Abut Sta 69+81.33 PG El 617.33
F.L El 598.28
F.L El 598.88
9'0 Berm
1'10 34'0 45'0 34'0 1'10
168' Back to Back Abuts
F.L. El.
F.L. El 592.0
F.L. El 592.5
● Denotes boring location

PLAN

Welded Wire Fabric
4' Slopewall
3' Curb
Each Edge 6" Wide
½" Pvf.
2'0" Rt @
Varies 6" to 9"

DETAIL A

Note:
Welded wire fabric in Slopewall shall be 6"x6" mesh #6 wires, 58 lbs/100'.
Cost of welded wire fabric shall be included in cost of 4" Slopewall.
Cost of cutoff wall shall be included in cost of 4" Slopewall.

2'0" 4" 6" Welded Wire Fabric

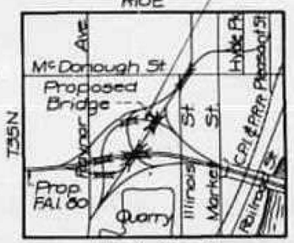
SECTION AA

BILL OF MATERIALS
Sec. 10 (Stn. 6)

Item	Unit	Super	Sub	Total
Class A Excavation for Structures	Cu. Yd.		120	120
Rock Excavation for Structures	Cu. Yd.		9	9
Class X Concrete	Cu. Yd.	105.7	170.0	275.7
Furnishing & Erecting Structural Steel	Lb.	69,900		69,900
Reinforcement Bars	Lb.	24,390	13,250	37,640
Fur. Creo. Piles 20.1 to 38 Feet	Lin. Ft.		110	110
Driving Timber Piles	Lin. Ft.		182	182
Furnishing Steel Piles 10BP42	Lin. Ft.		490	490
Test Pile Steel 10BP42	Each		2	2
Driving Steel Piles	Lin. Ft.		490	490
Name Plates	Each	1		1
Slopewall 4"	Sq. Yd.		291	291
Aluminum Handrail	Lin. Ft.	229		229
Protective Coat	Sq. Yd.	436		436
Furnishing Creosoted Piles up to 20 Ft	Lin. Ft.		72	72
Bridge Seat Sealant	Lump Sum		0.1	0.1

* Applied at abutments

Note: This route has been selected as a 15'-0" vertical clearance route.



SW¼ Sec 14

LOCATION PLAN

GENERAL PLAN & ELEVATION
F.A. ROUTE 61 OVER
RAMP DB

F.A. ROUTE 61 STA. 69+15.64
F.A. ROUTE 61 PROJECT U-184-(11)
SECTION 10(Stn 6) WILL COUNTY
Scale: NO SCALE Date: Nov. 30, 1981

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	R.D.L.
CHECKED	M.F.J.T.L.
DRAWN	S.E.F.
CHECKED	M.F.J.T.L.

Prepared and Recommended by
Blauvelt Engineering Co.
Structural Engineer #81-2251

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 51 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	871
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing51.dgn

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

SHEET NO. 2
18 SHEETS

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so attained subtracted from the theoretical grade elevations minus slab thickness equals fillet heights above top of beams.

CROSS-SECTION

CURB DETAIL

DETAILS OF 6" ALUMINUM SHEETS Used in Curb Joints (3003-H14)

DRAIN DETAIL

METHOD OF DETERMINING FILLET HEIGHT 't'

BILL OF REINFORCEMENT

Bar	No	Size	Length	Shape
a1	83	6	24'-1	
a2	86	6	12'-1	
a3	86	6	16'-0	
a4	12	6	10'-2	
a5	12	6	20'-0	
a6	12	6	16'-7	
a7	15	6	8'-3	
a8	15	6	19'-1	
a9	15	6	13'-8	
a10	20	6	8'-4	
a11	20	6	18'-2	
a12	20	6	14'-9	
a13	38	6	7'-5	
a14	39	6	17'-3	
a15	39	6	13'-10	
a16	12	6	12'-9	
a17	15	6	11'-10	
a18	20	6	10'-11	
a19	38	6	10'-0	
d1	190	3	29'-6	
d2	74	6	12'-2	
d3	24	4	28'-1	
d4	48	4	6'-1	
d5	12	4	3'-10	
d6	16	5	12'-0	
d7	32	5	15'-9	
d8	32	5	6'-1	
d1	144	4	5'-9	
s	524	5	2'-10	
s1	3	4	3'-7	

BARS a

BARS d, & s

BAR s1

PLAN

ELEVATIONS – TOP OF SLAB** Elevations are not adjusted for Dead Load Deflection.

Bar No	1	2	3	4	5	6	7	8	9	10	11
A	619.71	619.60	619.49	619.39	619.29	619.19	619.09	618.99	618.89	618.78	618.68
B	619.64	619.54	619.42	619.32	619.22	619.12	619.02	618.92	618.82	618.72	618.62
C	619.57	619.47	619.35	619.25	619.15	619.05	618.95	618.85	618.75	618.65	618.55
D	619.50	619.40	619.28	619.18	619.08	618.98	618.88	618.78	618.68	618.58	618.48
E	619.43	619.33	619.21	619.11	619.01	618.91	618.81	618.71	618.61	618.51	618.41

See Sheet No. 3 for Location of Points
** Where curb is over stringer. Elevation shown is that of the projection of top of slab along its cross slope.

DESIGNED	AME
CHECKED	JTL
DRAWN	AME
CHECKED	JTL

Class "X" Concrete	Cu. Yd.	105.7
Reinforcement Bars	Lbs.	24,370
Structural Steel *	Lbs.	4890

*Structural Steel includes weight of Rockers, Bolsters, Bearing Plates, Lead Plates, Pintles and Anchor Bolts.
Estimated Weight = 4890

BILL OF MATERIALS

Cost of furnishing and installing drains and aluminum sheets shall be incidental to the contract.

SLAB PLAN & CROSS-SECTION

FA ROUTE 61 OVER RAMP DB

FA RTE. 61 STA. 69+15.64

F.A. ROUTE 61 SECTION 10 (STR.,86) PROJECT WILL COUNTY
Scale NO Scale Date Nov. 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

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	DRAWN -	REVISED -	
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PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

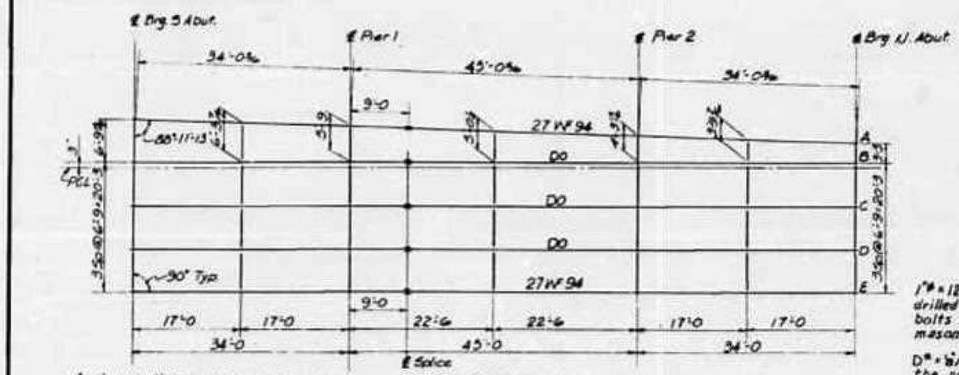
SHEET 52 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	872
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing52.dgn

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

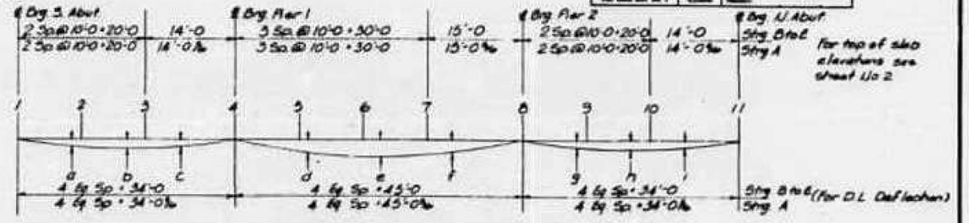
SHEET NO. 3
10 SHEETS



FRAMING PLAN

Angles shall be held securely in place while pouring concrete with ¾" bolts in ¾" holes set on gage line @ 12" c/s. All bolts shall be turned, sawed or clipped flush with back of angles after forms are removed.

Note:
All End Diaphragms Type D-1
All Intermediate Diaphragms Type D-2



For top of slab elevations see sheet No 2

DEAD LOAD DEFLECTION DIAGRAM

NOTES

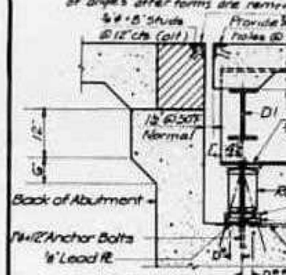
1"ϕ x 12" Anchor Bolts to be grouted into drilled holes after beams are in place, or bolts at fixed pier may be built into the masonry.

D" = ⅛"/100 ft. of expan. for every 15° below the normal temp. of 50°F.
D" = ⅛"/100 ft of expan. for every 15° above the normal temp. of 50°F.

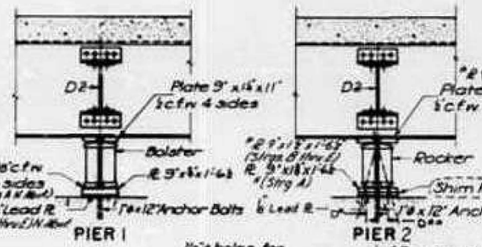
DEAD LOAD DEFLECTIONS* (inches)

Strg \ Pt.	a	b	c	d	e	f	g	h	i
A & E	3/32	1/8	3/32	5/32	1/4	5/32	3/32	1/8	3/32
B to D	1/16	3/32	3/32	3/32	1/16	3/32	3/32	3/32	1/16

* Due to the weight of slab only

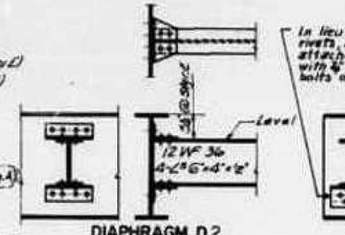


SECTION AT ABUTMENT

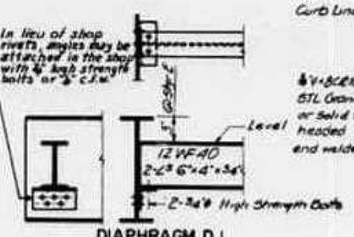


PIER 1

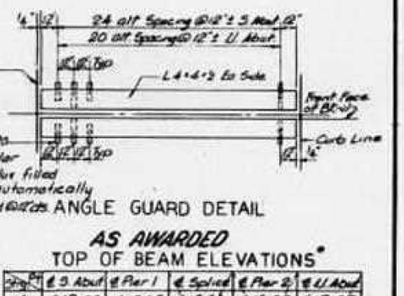
PIER 2



DIAPHRAGM D2
Required 20



DIAPHRAGM D1
Required 8



ANGLE GUARD DETAIL

AS AWARDED
TOP OF BEAM ELEVATIONS*

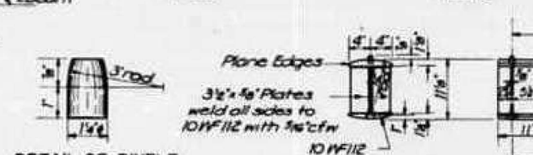
Stgr. \ Pt.	℄ S. Abut	℄ Pier 1	℄ Splice	℄ Pier 2	℄ N. Abut
A	619.08	618.68	618.55	618.00	617.37
B	619.01	618.62	618.50	617.95	617.33
C	618.98	618.59	618.43	617.88	617.26
D	618.87	618.48	618.34	617.81	617.19
E	618.80	618.41	618.29	617.74	617.12

* These elevations are at top of top flange of stringers exclusive of deflections, and splice plates and are for fabrication of structural steel.

AS BUILT*

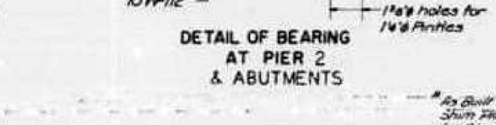
Stgr. \ Pt.			℄ Splice	℄ Pier 2	℄ N Abut
A			618.57	617.95	617.37
B			618.52	617.92	617.35
C			618.45	617.85	617.28
D			618.38	617.78	617.21
E			618.31	617.71	617.14



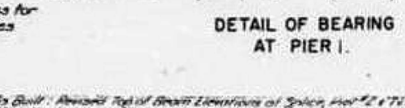




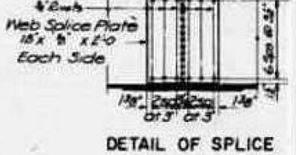
DETAIL OF PINTLE



DETAIL OF BEARING AT PIER 2 & ABUTMENTS



DETAIL OF BEARING AT PIER 1.



DETAIL OF SPLICE

DESIGNED	G.F.
CHECKED	L.D.
DRAWN	T.L.L.
CHECKED	J.T.L.

* As Built: Revised Top of Beam Elevations at Splice, Pier #2 & "N Abut" Added Shim Plates for Strgs. B thru E at N Abut. Revised Top of Bottom Brg. Rs. for Strgs. B thru E and removed Shim R for Strg. A at Pier #2. April 12, 1966 L.W.

FRAMING PLAN & STEEL DETAILS
F.A. ROUTE 61 OVER RAMP DB

F.A. ROUTE 61 STA. 69+15.64

F.A. ROUTE 61
SECTION 10 STR-6
Basis: NONE

PROJECT
WILL COUNTY
Date: Nov. 30, 1966

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

51, 52, 53

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WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 53 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	873
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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

SHEET NO. 5
105 SHEETS

TOP PLAN

SECTION A-A

S BARS

A & B DIMENSIONS

BOP	A	B
S_1	2'-2	1'-9
S_{1a}	2'-2	2'-3
S_2	2'-2	2'-6
S_{2a}	2'-2	2'-2
S_3	2'-2	3'-5

PIER I
BILL OF MATERIAL

BOP	NO.	SIZE	LGTH	SHAPE
h	4	#5	27'-10	—
h_1	2	#5	19'-7	—
h_2	30	#5	11'-4	—
n	32	#7	4'-10	⊓
p	8	#5	5'-9	—
p_1	2	#9	27'-10	—
p_2	2	#10	27'-10	—
S_1	12	#5	5'-8	⊏⊐
S_{1a}	16	#5	6'-8	⊏⊐
S_2	24	#5	7'-2	⊏⊐
S_{2a}	14	#5	6'-6	⊏⊐
S_3	14	#5	9'-0	⊓
t	18	#7	7'-6	—
U	6	#6	10'-2	⊏
V	24	#7	22'-8	—
V_1	8	#7	22'-1	—
W	6	#5	16'-9	—
Class X Concrete		Cu Yd	459	
Reinf. Bars		lbs	41,130	
Rock Excavation		Cu Yd	6	
Class A Exc.		Cu Yd	69	

Maximum rock pressure = 5½ Tons/S.F.

Footings shall extend 1' into sound rock.

u BARS

n BARS

END VIEW

Note
All edges shall have standard ¾ chamfers except footings.

ELEVATION

FOOTING PLAN

PIER I
F.A. ROUTE 61 OVER RAMP DB
F.A. ROUTE 61 STA. 69+15.64
F.A. ROUTE (61) PROJECT
SECTION (5T1-6) WILL COUNTY
Scale NONE Date Nov 30, 1962

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	G F
CHECKED	L D
DETAILED	T. L. L
CHECKED	J T L

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS	SHEET 54 OF 62 SHEETS
	DRAWN -	REVISED -			
PLOT SCALE = 7:11.99616 '=' / In.	CHECKED -	REVISED -			
PLOT DATE = 4/22/2025	DATE -	REVISED -			

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	874
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2019/CH401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing54.dgn

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

SHEET NO 6
10 SHEETS

TOP PLAN

ELEVATION

SECTION A-A

END VIEW

FOOTING PLAN

s BARS

n₁ BARS

u BARS

A & B DIMENSIONS

BOT	A	B
S₁	2'-2	1'-9
S₂	2'-2	2'-2
S₃	2'-2	2'-1
S₄	2'-2	2'-5
S₅	2'-2	3'-3

PIER 2
BILL OF MATERIAL

BOT	NO.	SIZE	LGTH	SHAPE
h₃	4	#5	26'-6	—
h₄	2	#5	18'-10	—
h₅	30	#5	10'-6	—
n₁	22	#6	4'-5	U
P	6	#5	8'-9	—
P₂	10	#10	26'-6	—
S₁	12	#5	5'-8	[
S₂	14	#5	6'-6	[
S₃	12	#5	6'-4	[
S₄	30	#5	7'-0	[
S₅	14	#5	8'-0	[
t	14	#7	7'-6	—
U	6	#6	10'-2	⊂
V₂	10	#6	21'-0	—
V₃	17	#6	21'-9	—
W₁	6	#5	13'-9	—
Class X Concrete		cu yd	41.6	
Reinf. Bars		lbs.	3970	
Class A Exc.		cu yd	57	

Maximum soil bearing pressure = 3 Tons/S.F.

DESIGNED	G F
CHECKED	L D
DRAWN	T L L
CHECKED	J T L

PIER 2
F.A. ROUTE 61 OVER RAMP DB
F.A. ROUTE 61 STA. 69+15.64
F.A. ROUTE 61 PROJECT
SECTION (STR-6) WILL COUNTY
Scale: NONE Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

FOR INFORMATION ONLY

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PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 55 OF 62 SHEETS

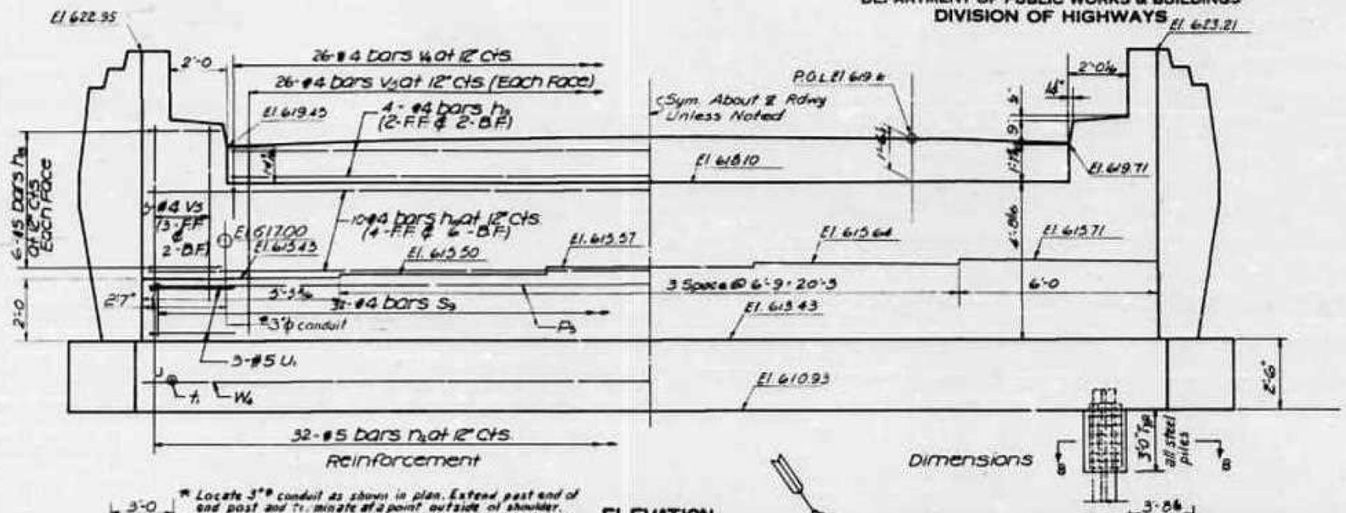
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	875
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing55.dgn

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

		WILL	197	131

SHEET NO 7
10 SHEETS



SOUTH **ABUTMENT**
BAR LIST

Bar	NO	Size	Lgth	Shape
h_9	4	#4	25-4	—
h_{10}	10	#4	31-4	—
h_8	24	#5	4'-9	⌐
n_3	32	#5	3'-3	⊃
n_2	28	#5	3'-11	⊃
P_3	6	#7	31-4	—
S_9	32	#4	5-11	⊓
t_1	33	#5	5'-0	—
t_2	24	#5	4'-6	—
U_1	6	#5	5-2	⊓
V_4	26	#4	2-9	⊓
V_5	62	#4	5-9	—
W_3	10	#5	10-8	—
W_4	6	#5	32-3	—

SOUTH **ABUTMENT**
BILL OF MATERIAL

Item	Unit	Quan.
Class X Concrete	CU YDS	431
Reinforcement Bars	LBS	2610
Steel Piles (Abut)	LIN FT	230
Test Pile 5ft Redrive	Each	1

Note: Bill of Material includes Reinforcement and Class X concrete for End Posts

DESIGNED	T. L. L.
CHECKED	J. J. H.
DRAWN	T. L. L.
CHECKED	J. T. L.

PILE DATA
Type: steel BBP36
Capacity: Refusal
Est. Length: 23 Feet
No. Req'd: 9+1 Test pile

SOUTH ABUTMENT
F.A. ROUTE 61 OVER RAMP DB
F.A. ROUTE 61 STA. 69+15.64
F.A. ROUTE 61 | PROJECT
SECTION 10 (STR.) | WILL COUNTY
Scale: NONE | Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

Rev. 0-25-64 Add'l Cl "X" conc. from 42.9 to 43.1 cu. yds. & 2 piles alt. 610'-6" to 5'-0"

FOR INFORMATION ONLY

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CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '* / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 56 OF 62 SHEETS

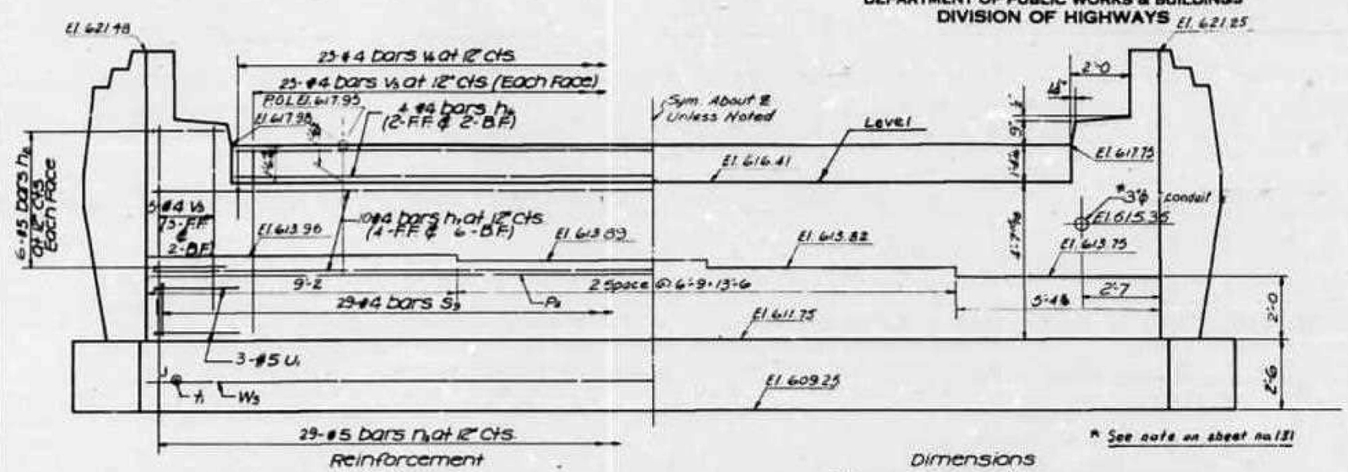
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	876
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:/transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/09018G-62R22-Existing56.dgn

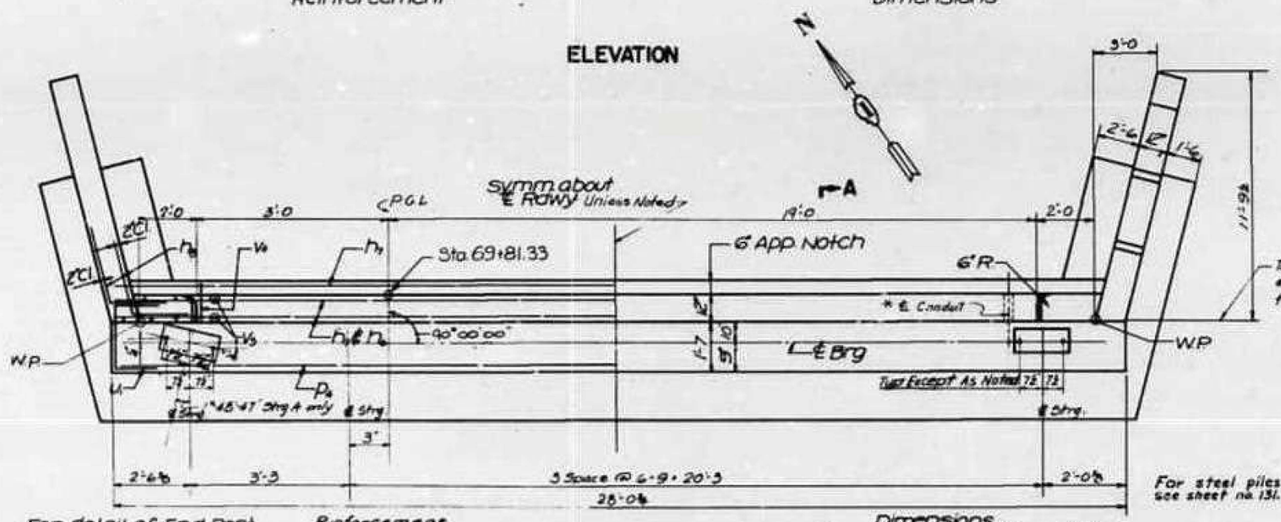
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

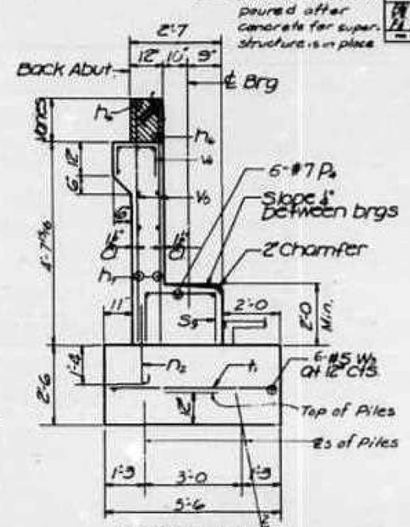
	10	WILL	199	182

SHEET NO. 8
10 SHEETS



ELEVATION

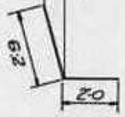




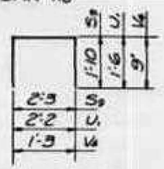
SECTION A-A



BAR h_8 & h_5



BAR h_6



BARS s_3, u_1 & v_4

NORTH ABUTMENT
BAR LIST

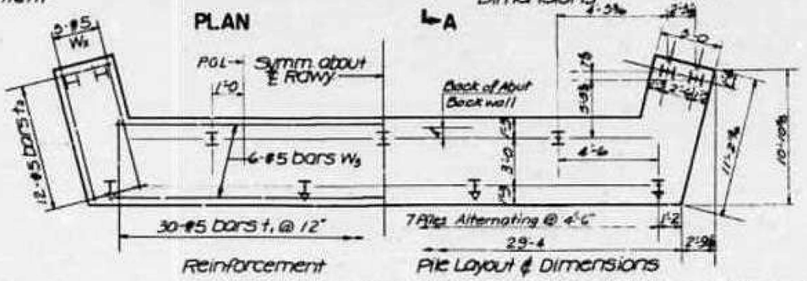
Bar	No.	Size	Lgth	Shape
h_8	4	#4	21'-8	—
h_7	10	#4	27'-8	—
h_6	24	#5	4'-9	⌊
h_5	29	#5	3'-9	⊐
h_3	28	#5	3'-11	⊐
P_6	6	#7	27'-8	—
S_3	29	#4	5'-11	⊓
t_1	30	#5	5'-0	—
t_2	24	#5	4'-6	—
U_1	6	#5	5'-2	⊓
V_4	23	#4	2'-9	⊓
V_3	56	#4	5'-9	—
W_4	10	#5	10'-8	—
W_3	6	#5	28'-10	—

NORTH ABUTMENT
BILL OF MATERIAL

Item	Unit	Quan.
Class X Concrete	cu. Yds.	39.4
Reinforcement Bars	lbs.	2,440
Steel Piles (HBP14)	Lin. Ft.	240
Test Pile 57'(HBP14)	Each	1

Note: Bill of Material includes Reinforcement and Class X concrete for End Posts.

PLAN



FOOTING PLAN Note: ▼ denotes battered Pile

PILE DATA

Type: Steel H BP 36
Capacity: Refusal
Est. Length: 24 Feet
No. Req'd: 9+1 Test Pile

DESIGNED	T. L. L.
CHECKED	R. R. W.
DRAWN	T. L. L.
CHECKED	J. T. L.

NORTH ABUTMENT
F.A. ROUTE 61 OVER RAMP DB
F.A. ROUTE 61 STA. 69+15.64
F.A. ROUTE 61 (S.T.-6) SECTION 10
PROJECT WILL COUNTY
Scale NONE
Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

11-25-64 J.T.L. Rev. class X conc. from 39.2 to 39.4 ℄ T piles alt. @ 5'-0" to alt. @ 4'-6"

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 57 OF 62 SHEETS

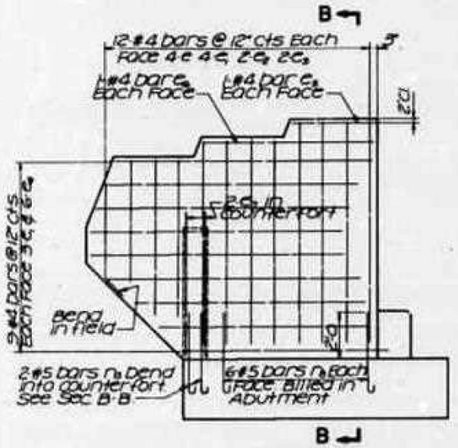
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	877
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystemscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing57.dgn

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

		WILL	199	133

SHEET NO. 9
10 SHEETS



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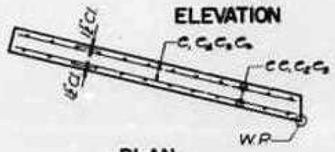
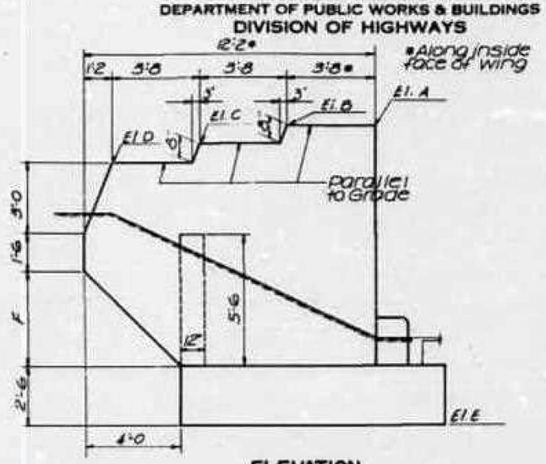


PLAN



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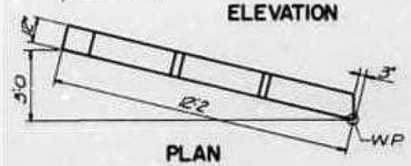
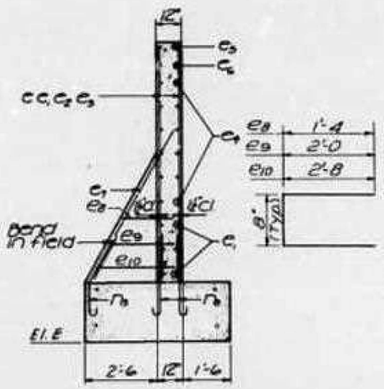


PLAN



SECTION B-B

ONE END POST BILL OF MATERIAL

Bar	No.	Size	Lgth	Shape
e	8	#4	9'-1	—
e1	14	#4	8'-4	—
e2	4	#4	6'-4	—
e3	4	#4	4'-10	—
e4	12	#4	10'-6	—
e5	2	#4	3'-6	—
e6	2	#4	7'-0	—
e7	2	#5	7'-0	—
e8	1	#4	3'-2	
e9	1	#4	4'-6	
e10	1	#4	5'-10	
* Reinforcement Bars			lbs	280
* Class X Concrete				
N. Abut. (2 End Posts)			Cu. Yds.	7.8
S. Abut. (2 End Posts)			Cu. Yds.	8.0

* Included in Quantity on Sheets 7 & 8

Abut.	Pt.	A	B	C	D	E	F
N. Abut.	U. Wall	623.21	623.24	622.60	621.36	610.93	4'-0 3/8
	S. Wall	622.95	622.99	622.36	621.73	610.93	3'-9 3/8
S. Abut.	U. Wall	621.48	621.41	620.68	619.95	609.25	3'-8 3/8
	S. Wall	621.25	621.18	620.45	619.72	609.25	3'-5 3/8

TABLE OF WINGWALL ELEVATIONS & DIMENSIONS

DESIGNED	T. L. L.
CHECKED	J. T. L.
DRAWN	T. L. L.
CHECKED	J. T. L.

ABUTMENT DETAILS
F.A. ROUTE 61 OVER RAMP DB
F.A. ROUTE 61 STA. 69+15.64
F.A. ROUTE 61 PROJECT
SECTION 10 (STF-6) WILL COUNTY
Scale NONE Date Nov 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

11-25-64 J.M.J. Rev. class x conc. ½" abut. from 7.8 to 8.0 cu. yds., N. abut. from 7.6 to 7.8 cu. yds. & Rev. all end post elev.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing58.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 ':" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 58 OF 62 SHEETS

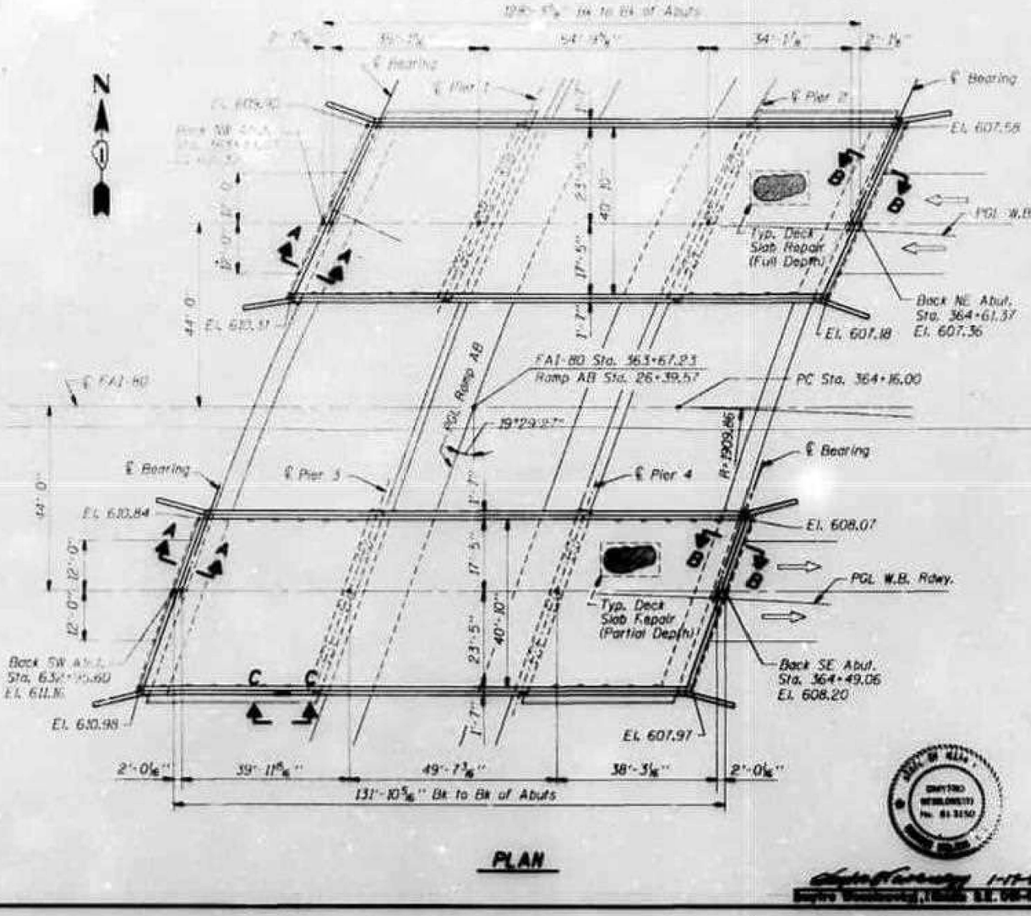
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	878
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

BENCH MARK TMB #17A

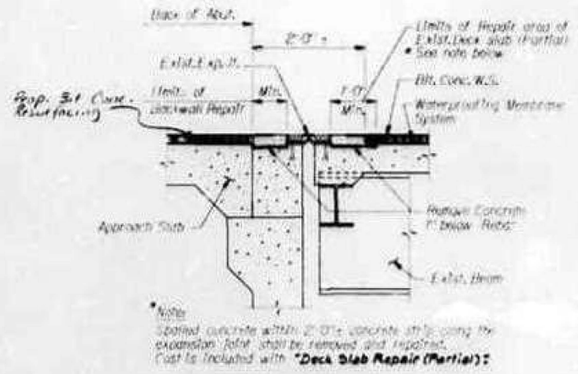
EXISTING PG FAI-80

EXISTING STRUCTURE DATA

ELEVATION



PLAN



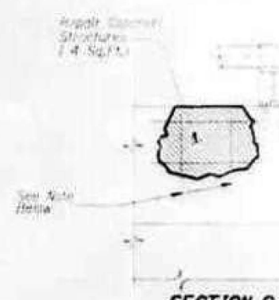
SECTION A-A
SECTION B-B (SIM.)

* SEC 99 (2&3) RS; 99-2 (B, VB, HB-4) & 99-3HB (1&2) BR
D-91-362-89

TOTAL BILL OF MATERIALS

Item	Unit	Total		
* Bituminous Concrete Removal (Deck)	Sq.Yd.	1200		
* Deck Slab Repair (Partial)	**	Sq.Yd.	50	
* Deck Slab Repair (Full Depth, Type 1)	**	Sq.Yd.	2	
* Deck Slab Repair (Full Depth, Type 2)	**	Sq.Yd.	2	
* Waterproofing Membrane System		Sq.Yd.	1200	
Bituminous Concrete Surface (Special) Mix "F", Class II, Type 1		Ton	300	
* Repair Concrete Structures	**	Sq.Ft.	2	4
* Protective Shield	**	Sq.Ft.	2	
Deck Drain Extension		Each	4	

* See Special Provisions
** Quantities and actual location and depth of repair areas are to be determined in the field and approved by the Engineer



SECTION C-C

Note:
Existing Rebars shall be straightened, cleaned and incorporated into new concrete.

APPROVED
Ralph E. Anderson

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of AASHTO M-31, M 42 or M 53 Grade 60.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

DESIGN SPECIFICATIONS

AASHTO 1989 Standard Specifications For Highway Bridges, 1990 and 1991 Interims.
Standard Specifications for Road and Bridge Construction, State of Illinois adopted July 01,1988 and Supplemental Specifications and Recurring Special Provisions adopted December 2, 1991

DESIGN STRESSES

Reinforced Concrete f'_c = 3,500 psi
Reinforcement f_y = 60,000 psi

CONSTRUCTION NOTES:

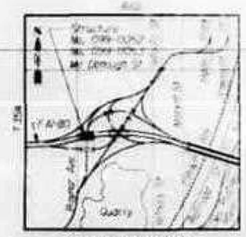
1. Remove Bituminous Concrete surface and Waterproofing Membrane System from the bridge deck.
2. Repair spalled and unsound areas of concrete in the bridge deck and elsewhere as shown on the plans.
3. Install a Waterproofing Membrane System on the bridge deck and provide Bituminous Concrete surface for the bridge deck.
4. Extend existing drain pipes to discharge below the bottom flange of beam (If Required).
5. All construction on the bridges shall be completed in two construction stages. See sheet 2 of 2 for details.

INDEX OF SHEETS

Sheet No.	Title
1.	GENERAL PLAN AND ELEVATION
2.	Stage Construction Details

℄ FAI-80 CURVE DATA (ARC DEF)

P.I. STA	371+20.58
Δ	40° 30' 00"
D	3° 00' 00"
R	1909.86'
T	704.88'
L	1350.00'
E	125.82'
P.C. STA	364+16.00
P.T. STA	377+66.00



LOCATION MAP

NO.	DATE	DESCRIPTION
		REVISIONS

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
FAI-80 OVER CENTER ST. RAMP AB
F.A. ROUTE I-80 SECTION
STA. 363+67.23
STRUCTURE NO. 099-0052 & 099-0053
WILL COUNTY

Designed by
FLUOR DANIEL

Job No. 136700 Chicago, Illinois

DRAWN: CAM/DLB APPROVED:
DESIGNED: PDP SCALE: NONE
CHECKED: J.B. DATE:

FOR INFORMATION ONLY

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FILE NAME: pw://transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Existing Bridge Plans/0990186-62R22-Existing59.dgn

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

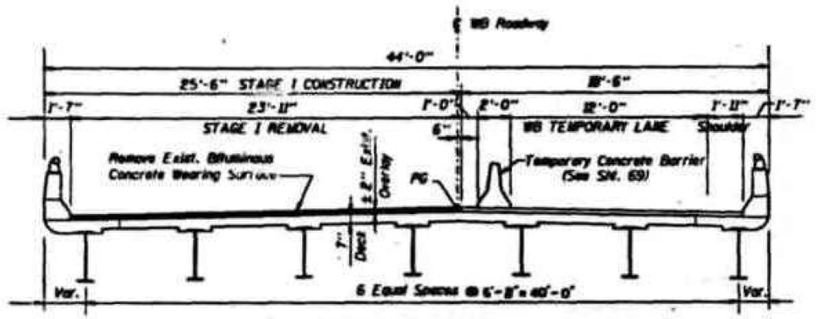
EXISTING BRIDGE PLANS

SHEET 59 OF 62 SHEETS

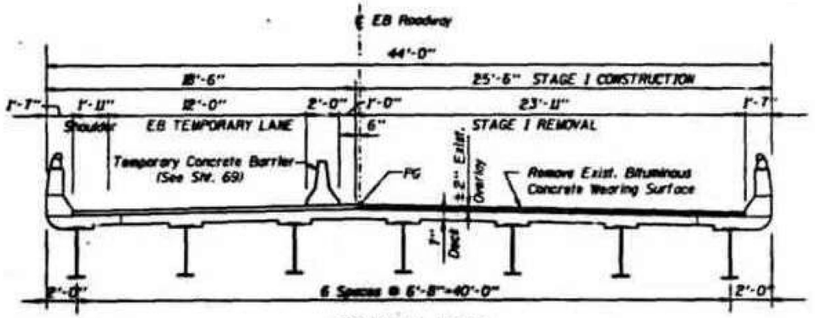
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	879
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

* SEC 99 (2&3) RS; 99-2 (B, VB, HB-4)
& 99-346 (B,2) BR
D-91-362-89

Sheet No. 2 of 2



STAGE I (W.B.)



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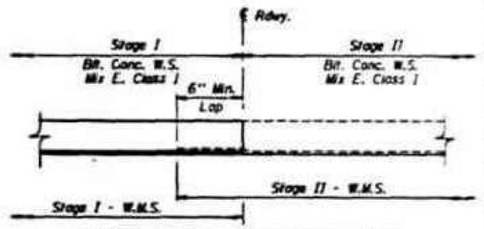
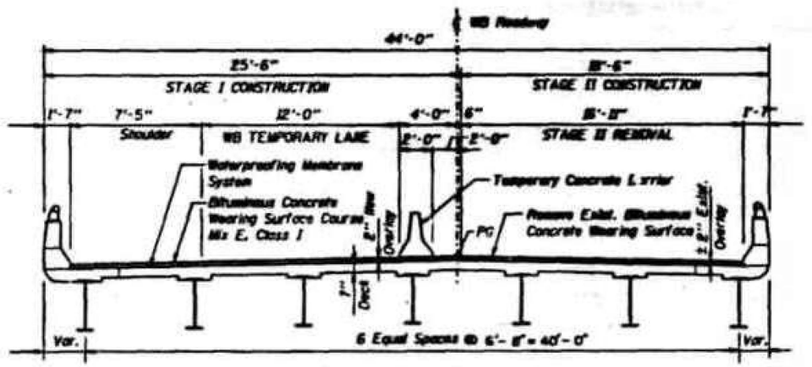
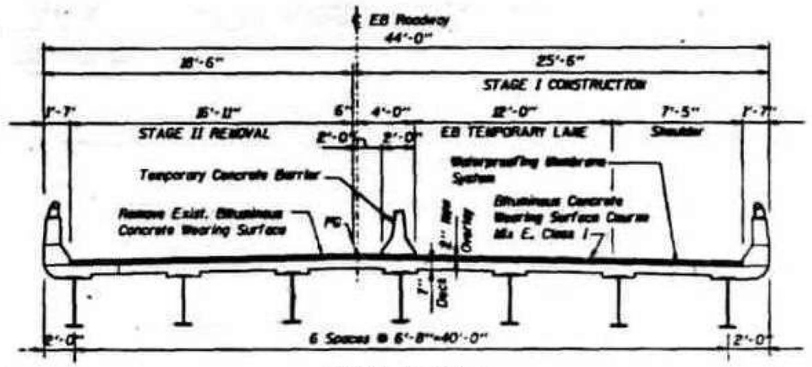


WATERPROOFING MEMBRANE SYSTEM (6" LAP)

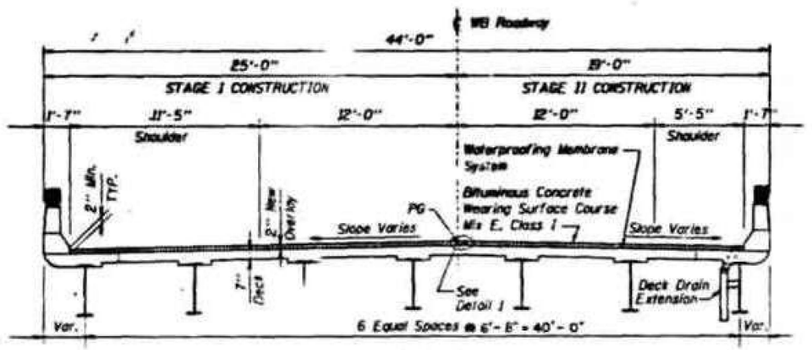
DETAIL 1
DETAIL 2 (SIMILAR)



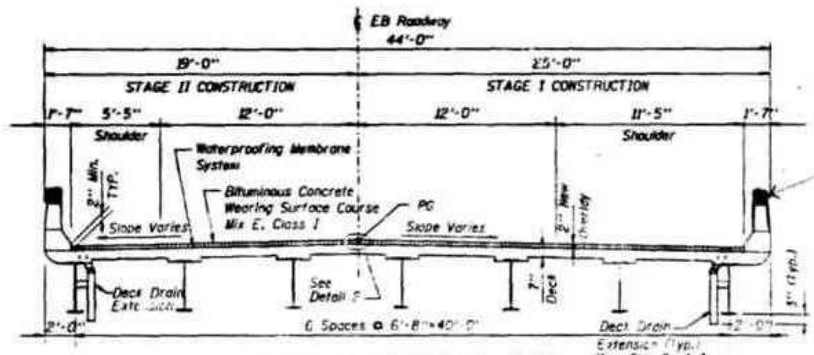
STAGE II (W.B.)



STAGE II (E.B.)



FINAL CROSS SECTION (W.B.)



FINAL CROSS SECTION (E.B.)

LEGEND:

Removal of Exist. Bit. Concrete Wearing Surface

New Bituminous Concrete Wearing Surface

WEST BOUND ROAD - STAGE CONSTRUCTION

EAST BOUND ROAD - STAGE CONSTRUCTION

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
FAI-80 OVER CENTER ST., RT.
F.A. ROUTE I-80 SECTION
STRUCTURE NO. 099-0052 & 099-0053

Designed by
FLUOR DANIEL

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
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PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 60 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	880
		CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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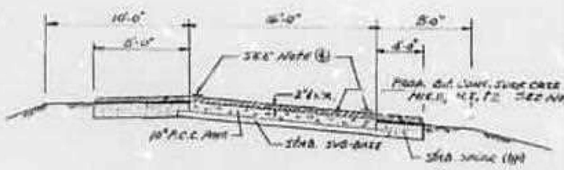
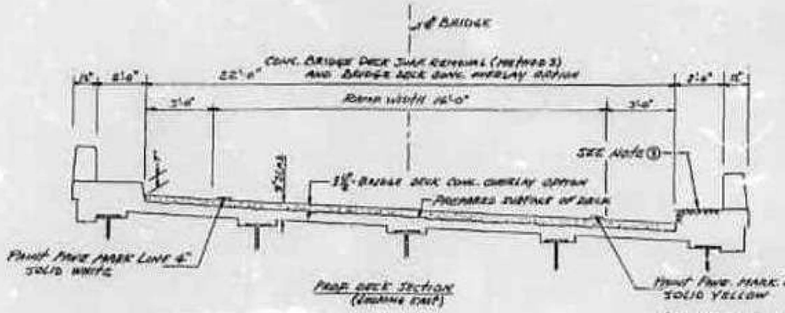
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80	WILL	16	4

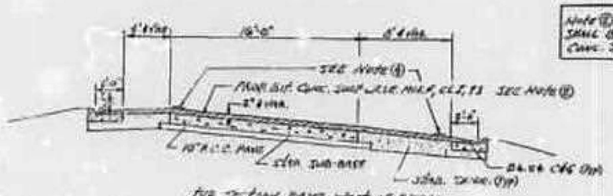
FAI PRT 80
FAI 99-3RE-3



TYP. SECTION ABUT. - EAST OF BRIDGE
(LOOKING EAST)



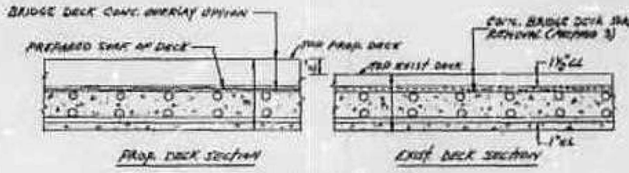
Note ③: REPAIR DETERIORATED CURB & SAFETY WALK - REARMED CONC. REPAIR (DEPTH EQUAL TO OR LESS THAN 6") VARIOUS LOCATIONS ON N. & S. SAFETY WALK.



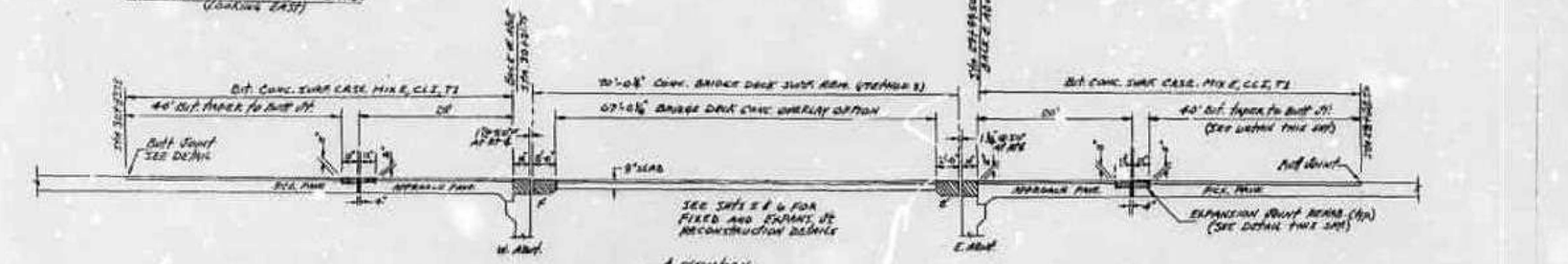
TYP. SECTION RAMP - WEST OF BRIDGE
(LOOKING EAST)

Note ①: Bit. MAT. (PRIME COAT) & AGG. (TRIPE COAT) SHALL BE CONSIDERED INCIDENTAL TO THE BIT. CONC. SURF. CRSE. MIXD., CL I, T 1.

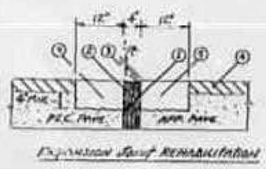
NOTE ②: PAINT PAVE. MARKING LINE STRIPING ON BRIDGE IS TYPICAL FOR FULL LENGTH OF IMPROVEMENT



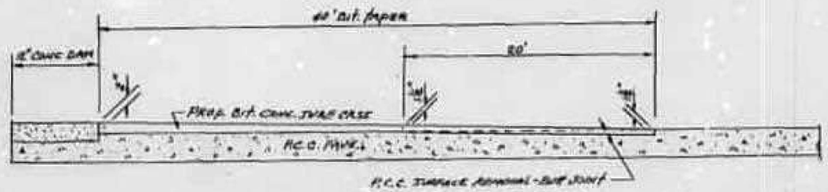
PARTIAL DECK SECTIONS



E ELEVATION



EXPANSION JOINT REHABILITATION



DETAIL: 40' TAPER TO SURF. JOINT

LEGEND

① FULL DEPTH SAWCUT (ON P.C.C. PAVE SIDE)
② PREFORM JOINT FILLER
③ HOT POURED JOINT SEALER
④ BIT. CONCRETE SURFACE
⑤ CONCRETE BASE (CL. SI CONC.)

NOTE: AFTER FULL DEPTH SAWCUT REMOVE EXIST. CONC. AND JOINT FILLER & CONSTRUCT BIT. CONC. BASE INCL. JOINT FILLER AND SEAL WITH HOT POURED JOINT SEALER. THE HOT POURED JOINT SEALER & JOINT FILLER SHALL BE IN ACCORD. WITH THE REQUIREMENTS OF ART. 720.03 AND 720.02 OF THE STANDARD SPECIFICATIONS. ALL WORK SHALL BE COMPLETED AS SPECIFIED IN THE SPECIAL PROVISION "EXPANSION JOINT REHABILITATION"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND E ELEVATION

FAI 80, SEC. 99-3RE-3I, WILL Co.

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

FOR INFORMATION ONLY

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '/" / In.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 61 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	881
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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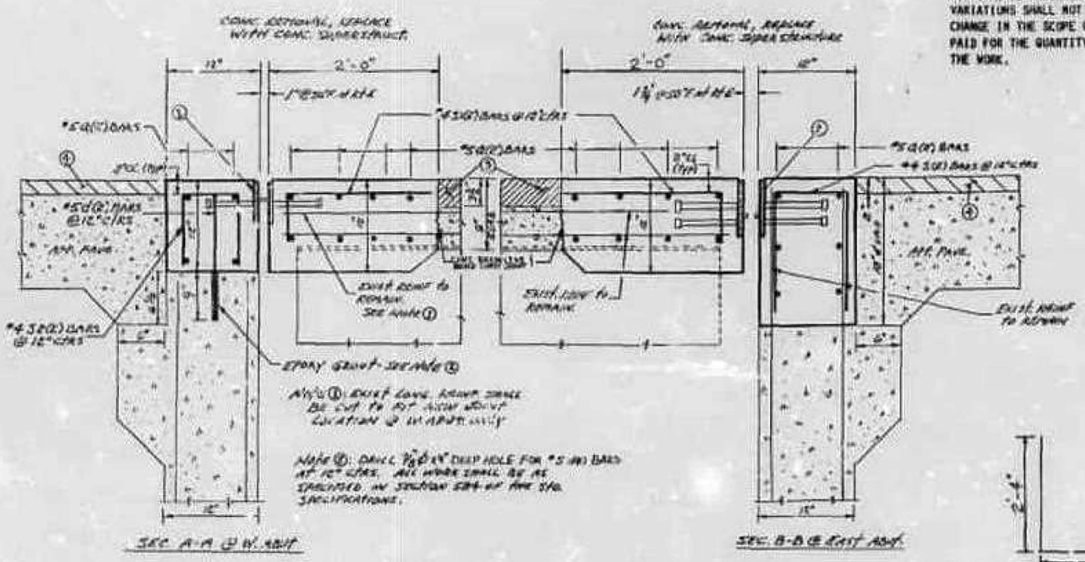
4	WM	WILL	78	5

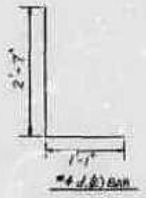
FAI 80
WM 99-3NB-3I

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



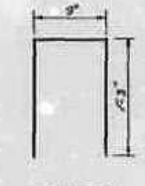
LEGEND

① 1/4" x 3" PLT. WITH 7/8" Ø x 6" STUDS - PREFORM. JOINT SEAL 1 1/4" (SEE SHT. 8)
② 3/4" x 3" PLT. WITH 7/8" Ø x 8" STUDS - PREFORM. JOINT SEAL 2 1/2" (SEE SHT. 8)
③ BRIDGE DECK CONCRETE OVERLAY OPTION (SEE SUP. SPEC. CHECK SHT. ITEM 17)
④ CLASS. CONC. SUPERSTRUCTURE, MIX E, CL E, 7.5







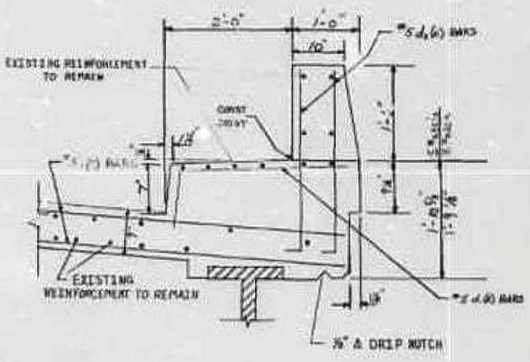


BILL OF MATERIALS

BAR	SIZE	NO. REQ'D	LENGTH	SHAPE
H(W)	#5	26	28'-0"	—
G(E)	#5	24	2'-0"	⌐
S(E)	#4	32	3'-3"	⊓
S(W)	#4	48	2'-2"	⌐
S(E)	#4	64	6'-3"	⊓
d(E)	#4	8	3'-8"	⌐
d(E)	#5	24	2'-10"	⌐

REINF. BARS (E) - 1058 LBS
CONCRETE REMOVAL - 7.4 C.Y.
CONC. SUPERSTRUCTURE - 7.5 C.Y.
FURNISH & ERECT STRUCT. STEEL - 1780 LBS.
PREFORM. JOINT SEAL 1" - 30 FT.
PREFORM. JOINT SEAL 2 1/2" - 30 FT.

(E) INDICATES EPOXY COATED



CURB DETAIL

NOTE: EXIST. CONC. REINF. SHALL REMAIN IN PLACE & FREE. REINF. IN THE CONC. REMOVAL AREAS SHALL BE REMOVED. FOR REMOVAL OF EXIST. ST. ANGLES AND SPANS AT THE EXPANSION JOINT, E. ABUT, SHALL BE INCIDENTAL TO CONC. REMOVAL.

ALL REINF. BARS IN THE CONC. REMOVAL AREAS SPECIFIED TO REMAIN IN PLACE SHALL BE THOROUGHLY CLEANED OF OLD CONC. & DUST PRIOR TO PLACING NEW CONCRETE.

NOTE: SEE PLAN SHT. 6 FOR SEC. A-A & B-B
SEE SHEET 8 & 16 FOR CONCRETE REMOVAL AT JOINT REPAIRS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS: FIXED AND EXPANSION JOINT RECONSTRUCTION

FAI 80, SEC. 99-3NB-3I, WILL Co

SCALE: VERT. / HORIZ.
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WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USCP702533	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 7:11.99616 '-" / in.	CHECKED -	REVISED -	
PLOT DATE = 4/22/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET 62 OF 62 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	882
		CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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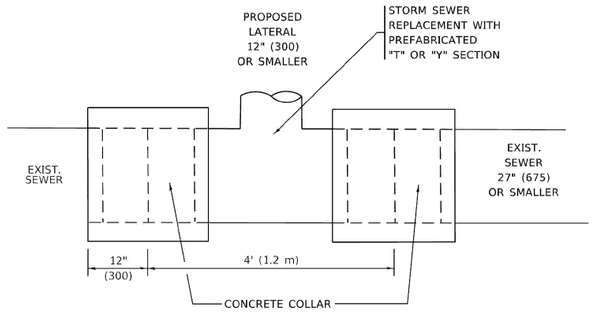
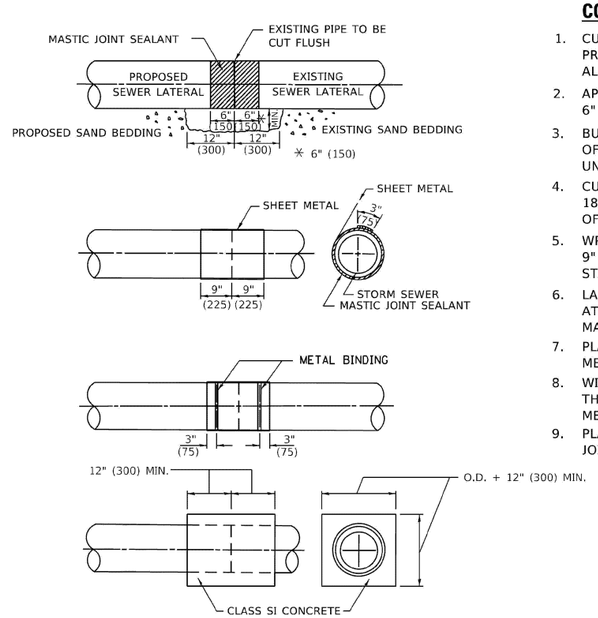


DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER

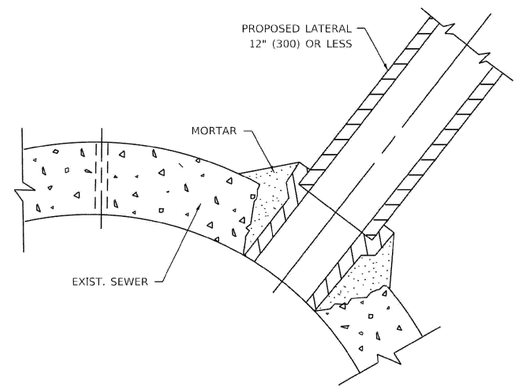


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERANCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

NOTES:

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.

II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
- A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
- B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

1. CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

2. CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

1. TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

2. REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

3. TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

4. CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

* ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = Lawrence.DeManche	DESIGNED - M. DE YONG	REVISED - R. SHAH 09-09-94	
	DRAWN -	REVISED - R. SHAH 10-25-94	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. SHAH 06-12-96	
PLOT DATE = 11/18/2022	DATE - 07-25-90	REVISED - K. SMITH 11-18-22	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	883
	BD500-01 (BD-07)	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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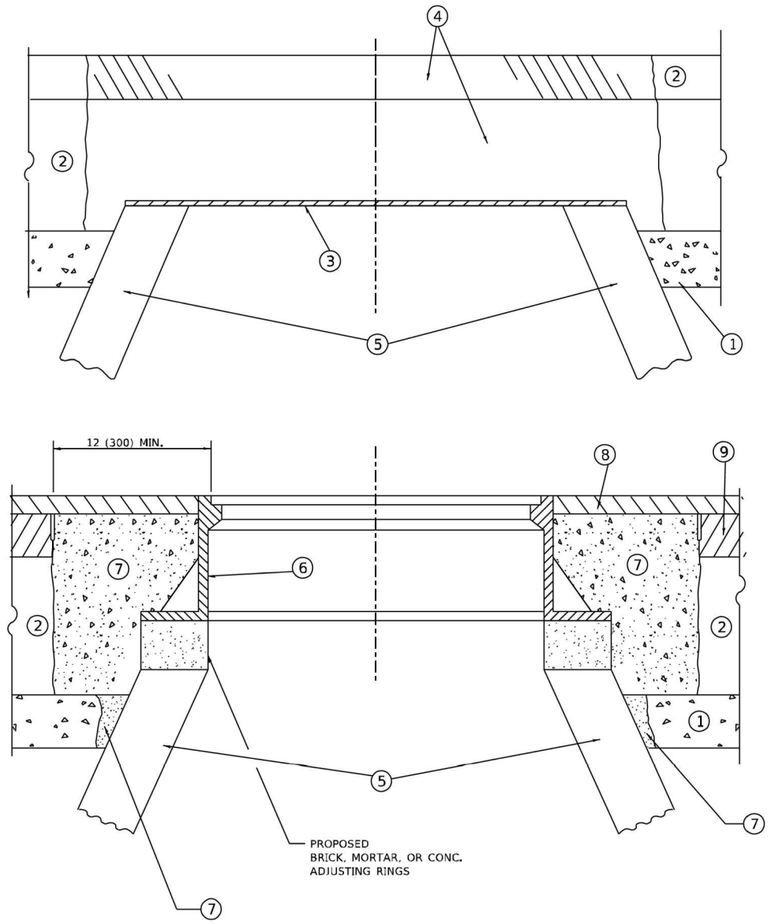

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

NOTES

1. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
2. IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.
3. CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.
4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
D) BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

STAGE 2 (AFTER PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT
3. 36 (900) DIAMETER METAL PLATE
4. PROPOSED CRUSHED STONE AND HMA SURFACE MIX
5. EXISTING STRUCTURE
6. FRAME AND LID (SEE NOTES)
7. CLASS PP-2* CONCRETE
8. PROPOSED HMA SURFACE COURSE
9. PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT

1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."
2. THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
4. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

MODEL: Default
FILE NAME: w:\dist\std22x34\bd08.dgn

USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 03-09-11
	DRAWN -	REVISED - R. BORO 12-06-11
PLOT SCALE = 100.0000 ' / In.	CHECKED -	REVISED - K. SMITH 11-18-22
PLOT DATE = 9/15/2023	DATE - 10-25-94	REVISED - K. SMITH 09-15-23

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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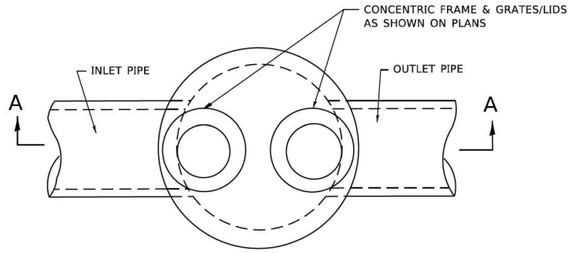
	ILLINOIS FED. AID PROJECT			



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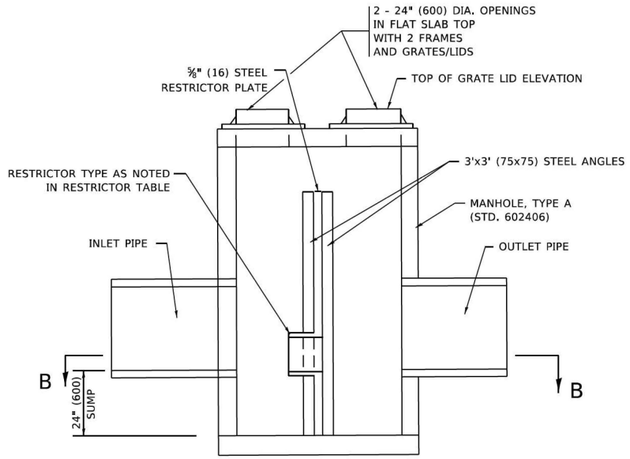
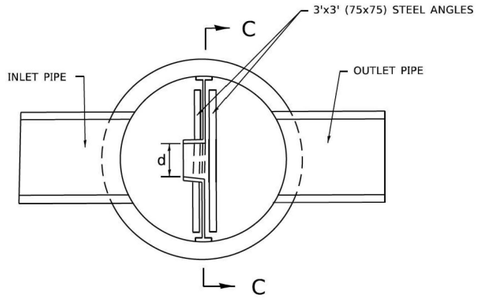


SECTION A–A



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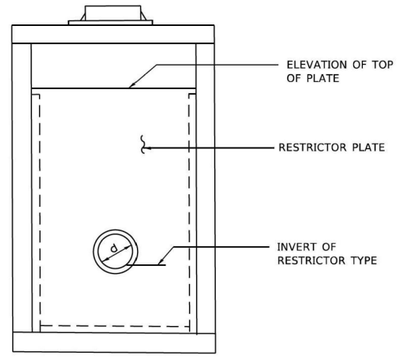
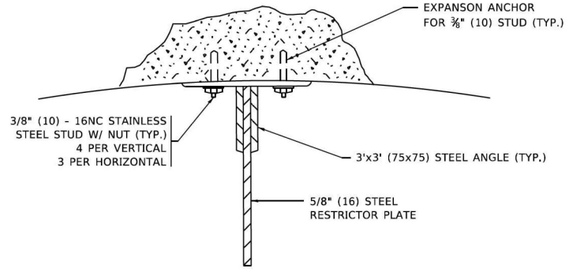


SECTION C–C



ANGLE FASTENER DETAIL

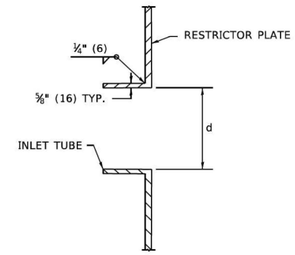
NOTES:

1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.

BASIS OF PAYMENT:

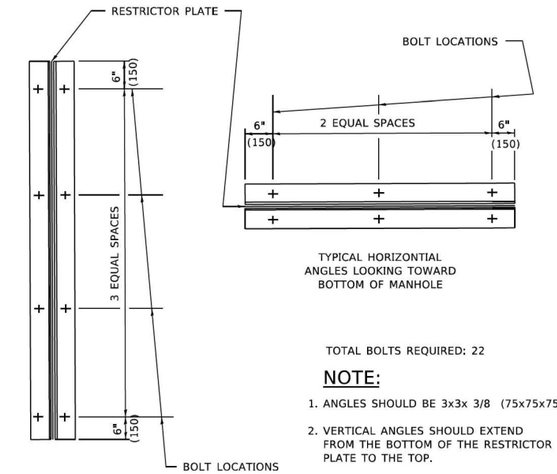
1. TO BE PAID FOR AS "MANHOLES ,TYPE A, 6 FT. (1,8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH

2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.



INLET TUBE DETAIL

STATION AND OFFSET	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW



TYPICAL VERTICAL ANGLES
LOOKING TOWARD MANHOLE WALL

TYPICAL HORIZONTIAL
ANGLES LOOKING TOWARD
BOTTOM OF MANHOLE

TOTAL BOLTS REQUIRED: 22

NOTE:

1. ANGLES SHOULD BE 3x3x 3/8 (75x75x75)
2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
3. HORIZONTIAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: ½ TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-½ DIA.	LENGTH: 2-½ DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR
AND SQUARE ORIFICES

STEEL ANGLE BOLTING DETAILS

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	DRAWN -	REVISED - E. GOMEZ 08-28-00	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - M. GOMEZ 01-08-01	
PLOT DATE = 2/2/2022	DATE - 09-09-94	REVISED - K. SMITH 02-01-22	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANHOLE WITH RESTRICTOR PLATE

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

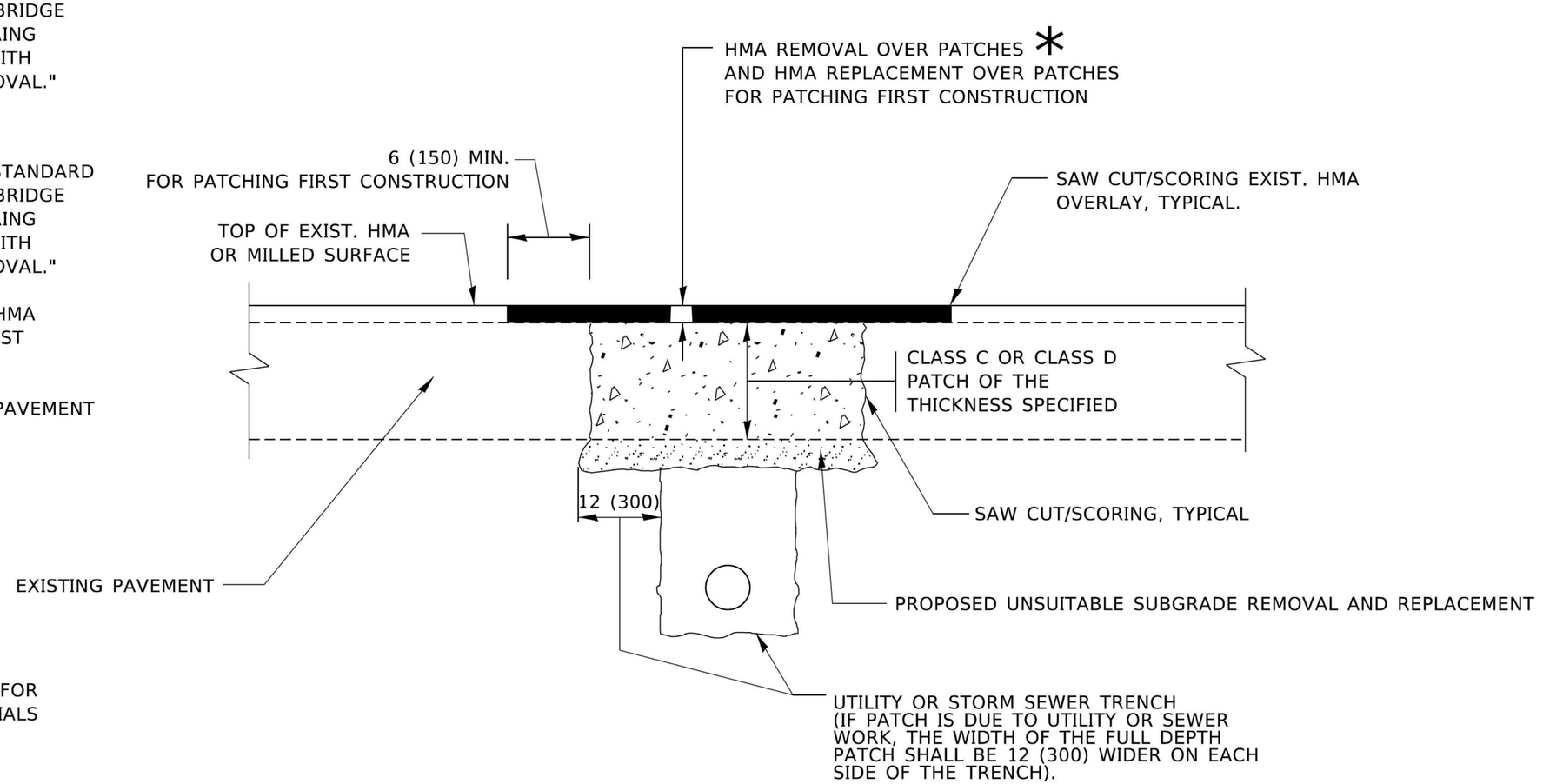
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	884
	BD600–04 (BD–12)	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

METHOD OF MEASUREMENT

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

BASIS OF PAYMENT

1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
2. SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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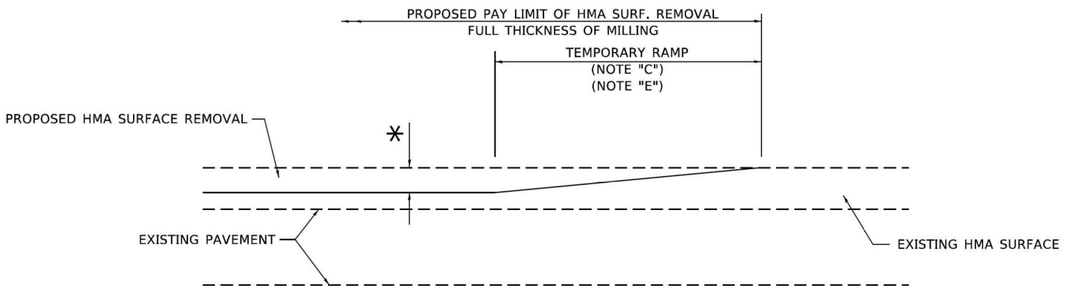
USER NAME = Lawrence,DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - R. BORO 09-04-07	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - K. ENG 10-27-08	
PLOT DATE = 11/18/2022	DATE - 10-25-94	REVISED - K. SMITH 11-18-22	

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

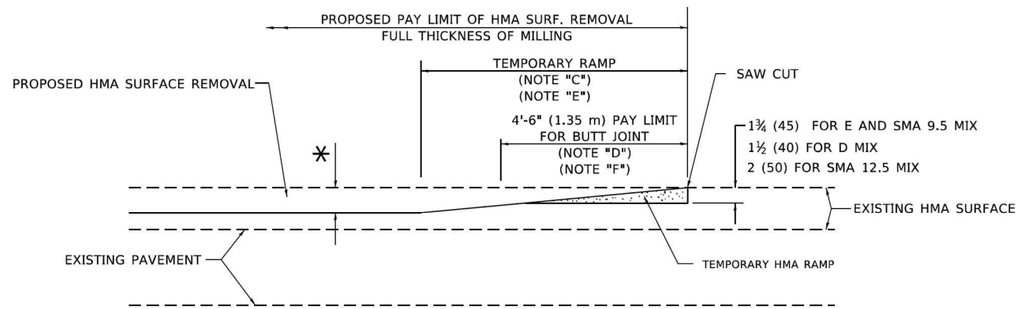
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	885
	BD400-04 (BD-22)	CONTRACT NO. 62R22		
		ILLINOIS FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

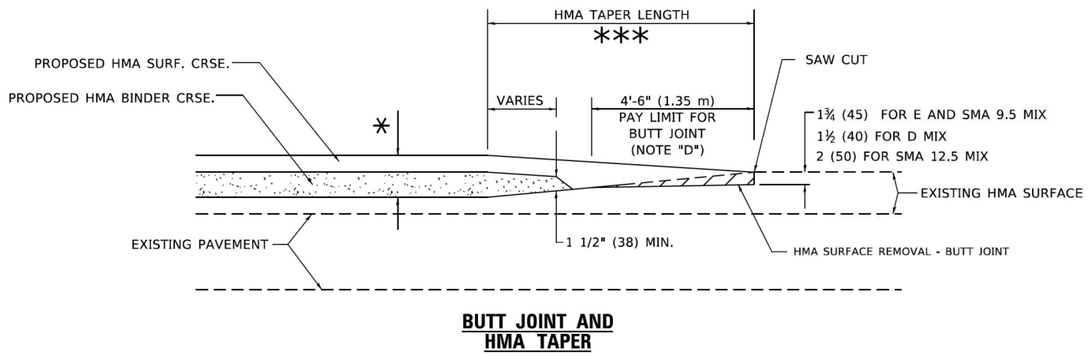


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

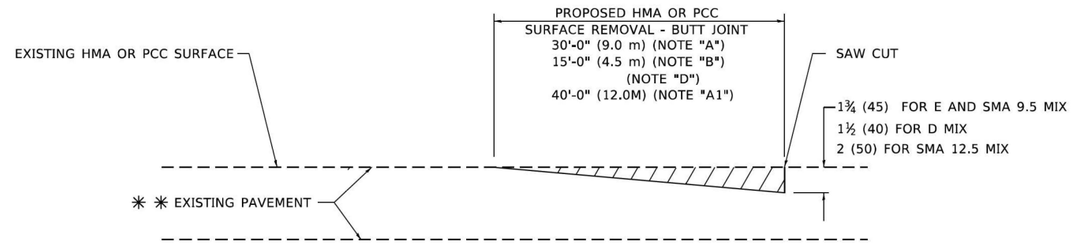
OPTION 2

TYPICAL TEMPORARY RAMP

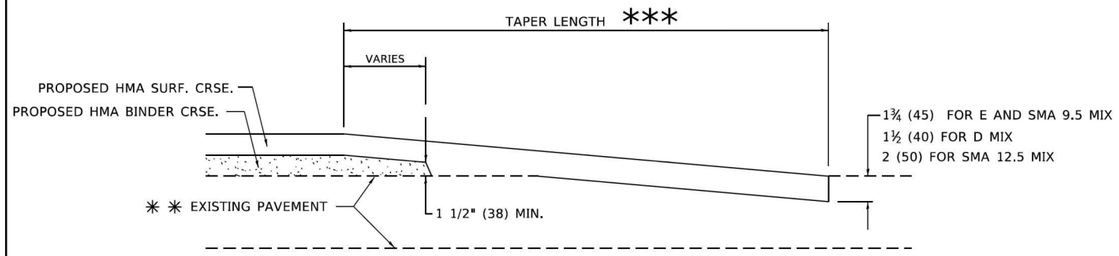


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

GENERAL NOTES

A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.

A1. INTERSTATES

B. MINOR SIDE ROADS.

C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E. TAPER THE TEMP. RAMP AT A RATE OF 3' - 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT

1. THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

2. THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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USER NAME = Lawrence.DeManche	DESIGNED - M. DE YONG	REVISED - A. ABBAS 03-21-97	
	DRAWN -	REVISED - M. GOMEZ 04-06-01	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. BORO 01-01-07	
PLOT DATE = 11/18/2022	DATE - 06-13-90	REVISED - K. SMITH 11-18-22	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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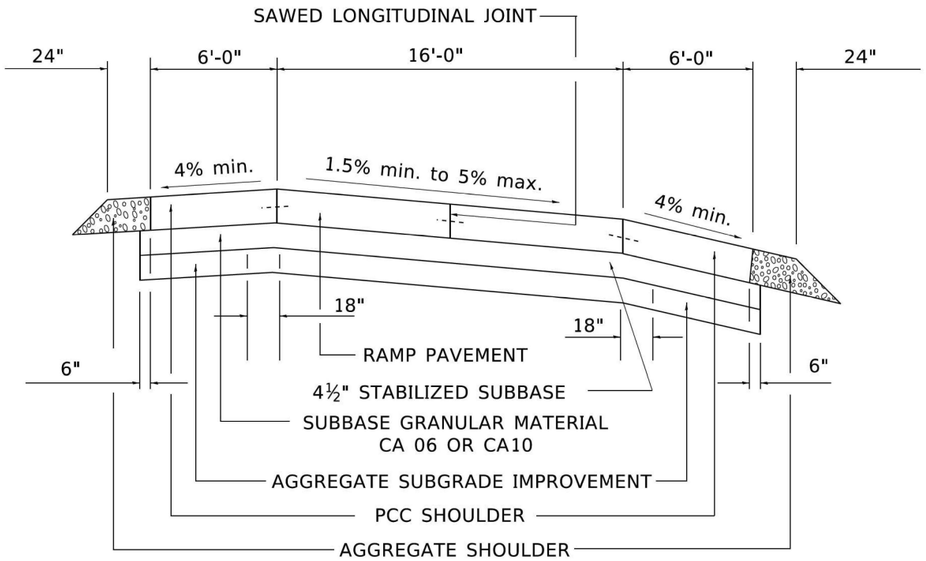
	BD400-05 BD-32	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			



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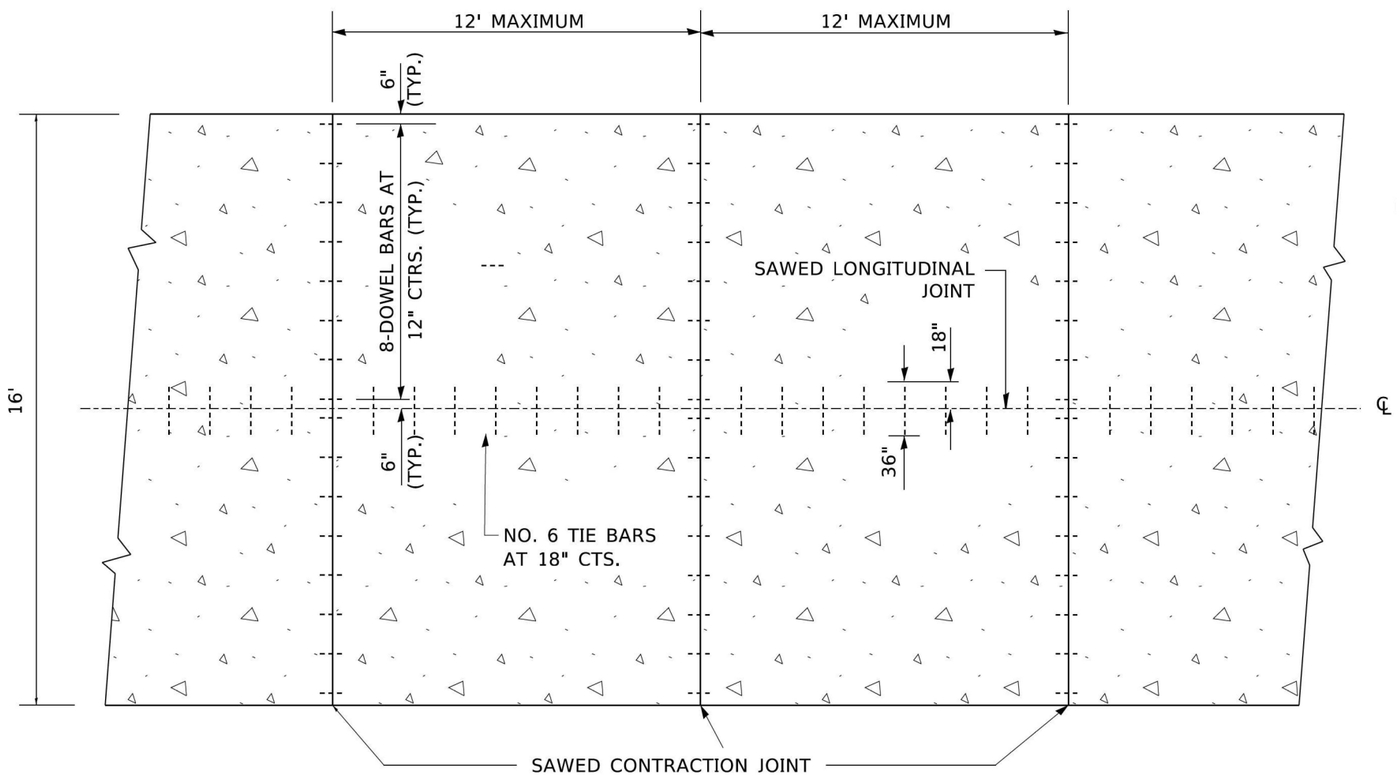
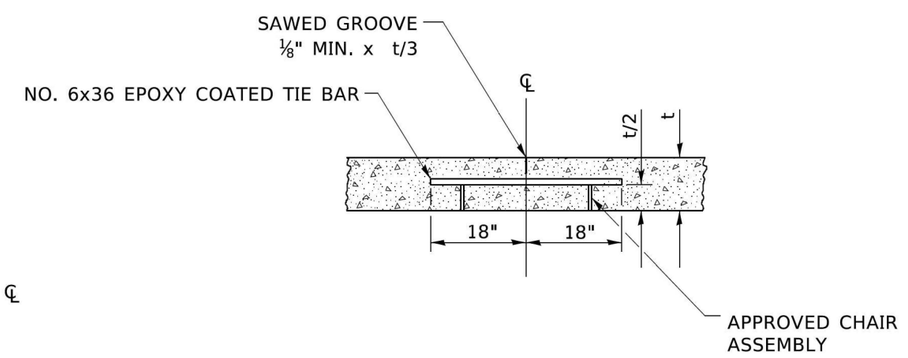


PLAN

NOTES:

1. CENTERLINE JOINT REMAINS IN THE CENTER WHEN RAMP TRANSITIONS TO TWO (2) RAMPS AT 12'.
2. ALL BARS TO BE EPOXY COATED.



SAWED LONGITUDINAL JOINT

ALL DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE NOTED

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	DRAWN - TOM MATOUSEK	REVISED --	
PLOT SCALE = 50.0000 ' / in.	CHECKED - A. ABBAS	REVISED --	
PLOT DATE = 3/27/2019	DATE - 10-18-02	REVISED --	

DETAIL FOR CENTERLINE SAW CUT 16' AND VARIABLE JOINTED PCC PAVEMENT FOR RAMPS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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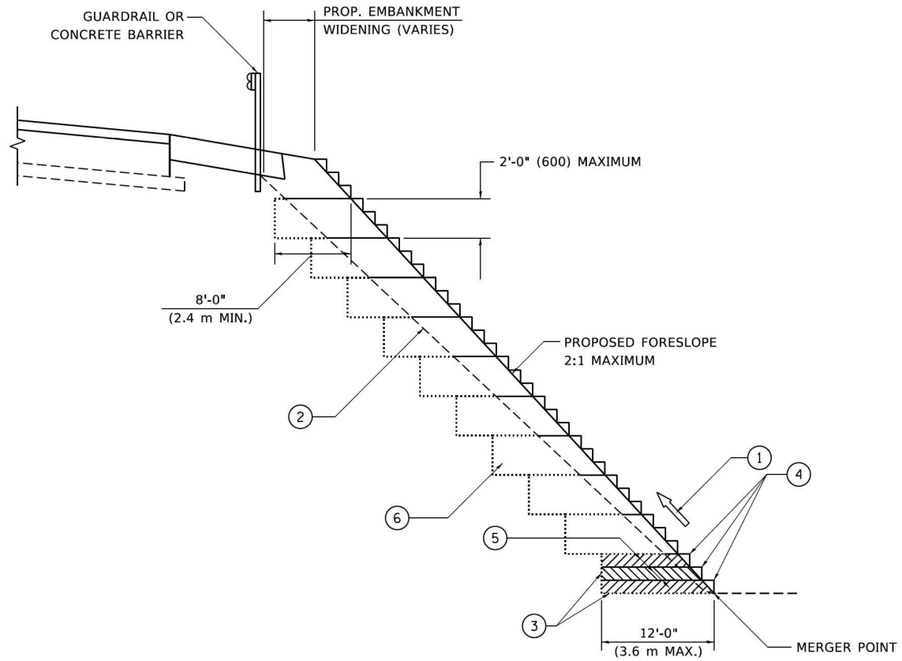

TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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PLOT SCALE = 50.0000 ' / In.	CHECKED -	S.E.B.	REVISED -
PLOT DATE = 3/27/2019	DATE -	06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT WIDENING

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	887
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	ILLINOIS FED. AID PROJECT			

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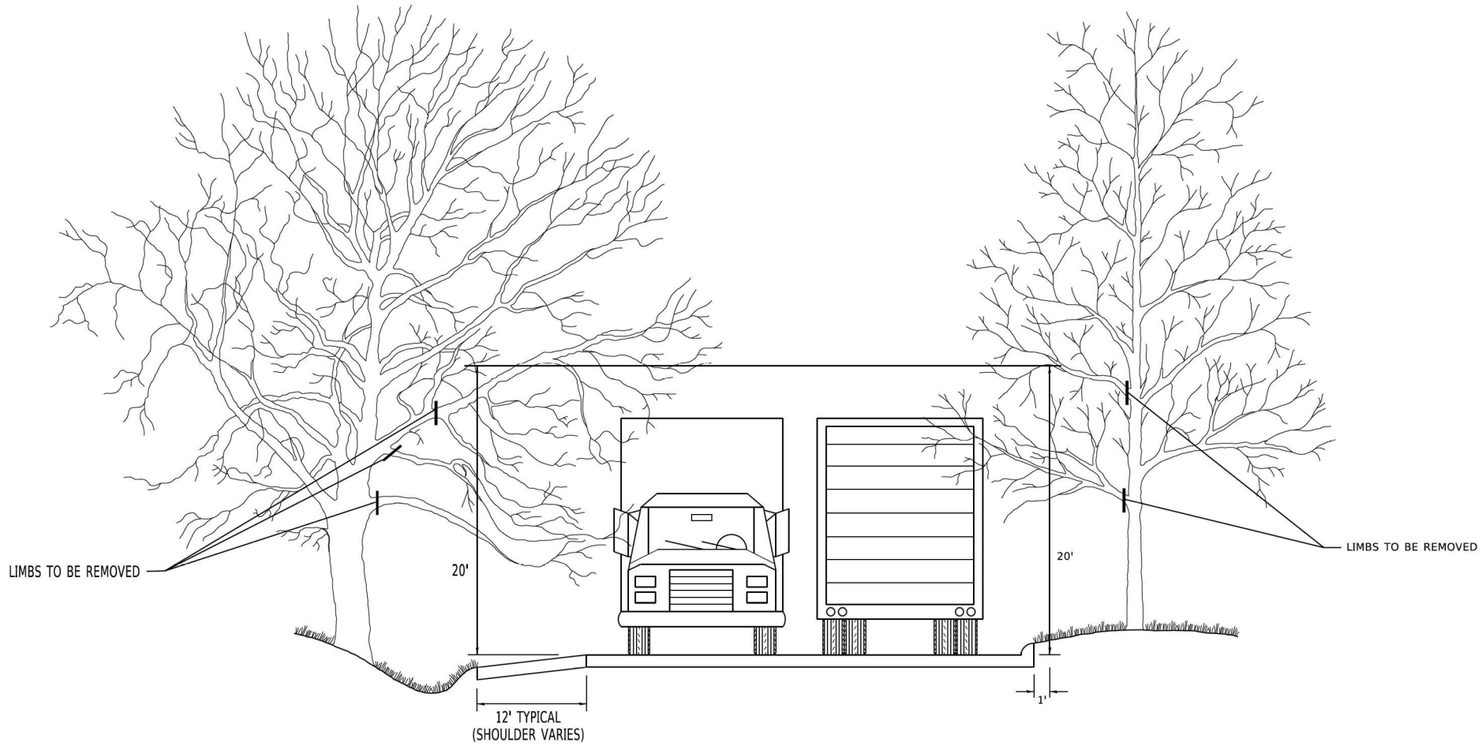

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	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/11/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	888
	BM-20	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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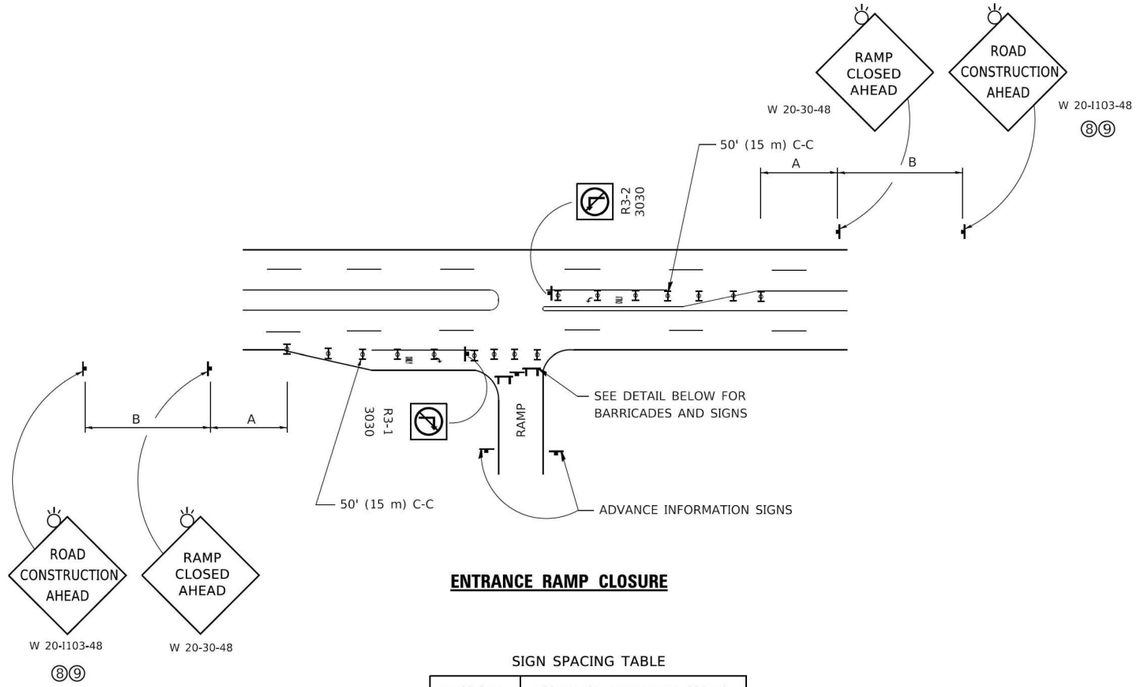
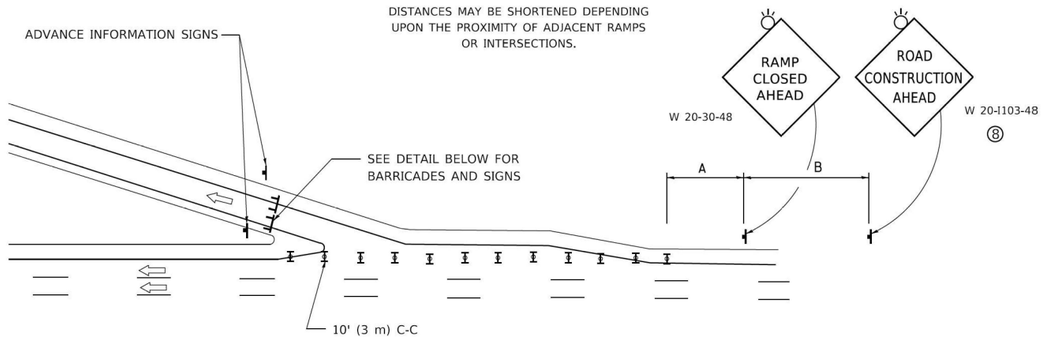


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

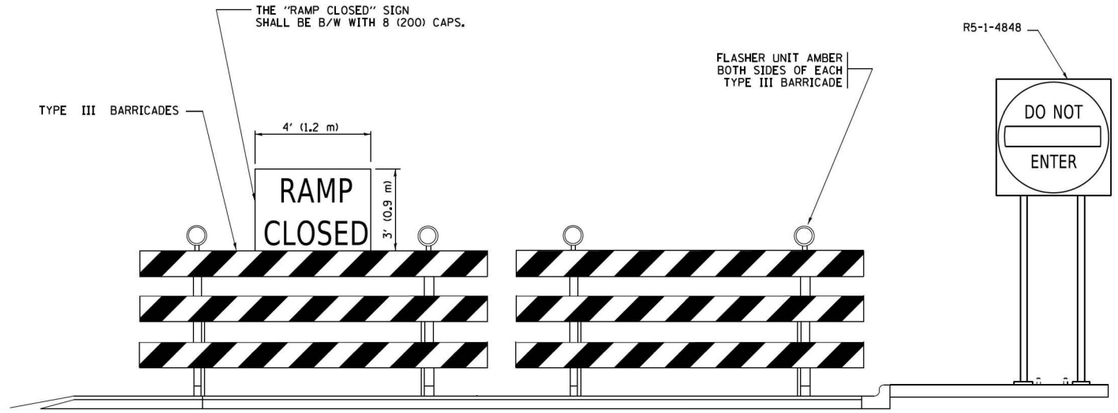


EXIT RAMP CLOSURE

SYMBOLS

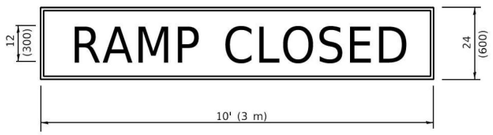
TYPE II BARRICADE OR DRUM

TYPE III BARRICADE WITH 2 FLASHING LIGHTS



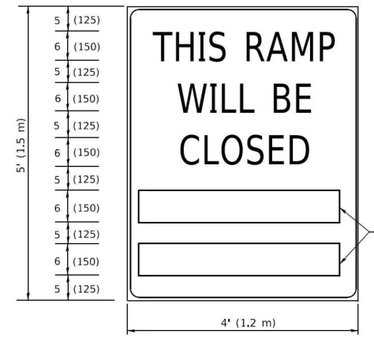
DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY
E MOD FONT
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE BACKGROUND

½ (12) BORDER

E MOD FONT

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

1. CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
2. VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
3. A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEEDED BY A W20-7 FLAGGER WARNING SIGN.
4. ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
5. THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
7. THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH
8. ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
9. ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = footemj	DESIGNED - D.W.S.	REVISED - S.P.B._01-07	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**ENTRANCE_AND_EXIT_RAMP CLOSURE_DETAILS**	
	DRAWN -	REVISED - S.P.B._12-09			
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - M.D._06-13		SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.
PLOT DATE = 3/4/2019	DATE - 02-83	REVISED - M.D._01-18			

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	889
	TC-08	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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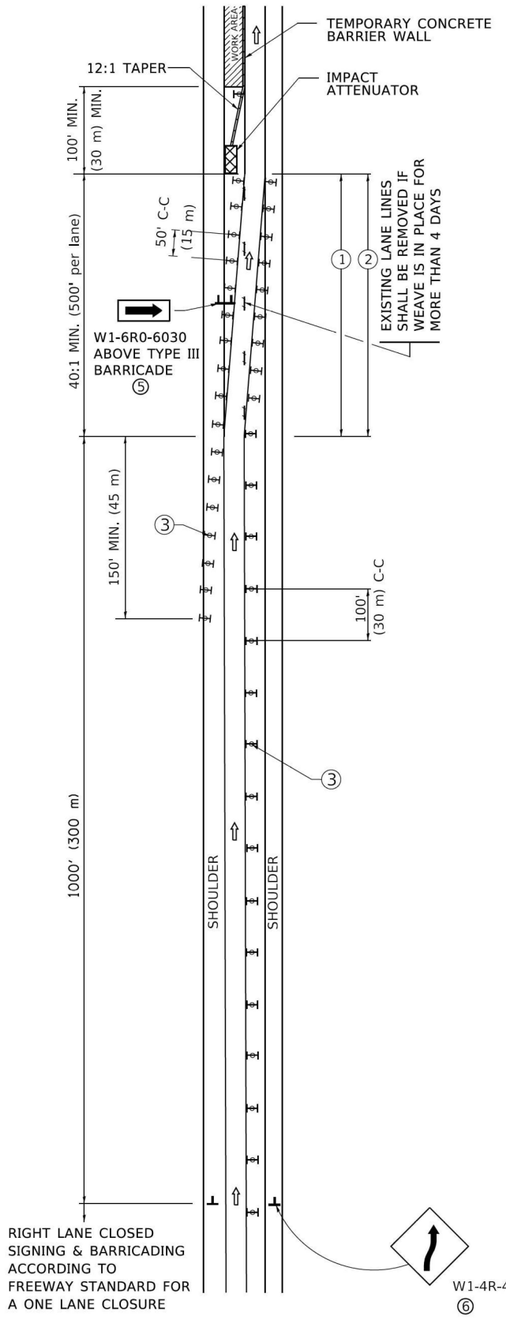
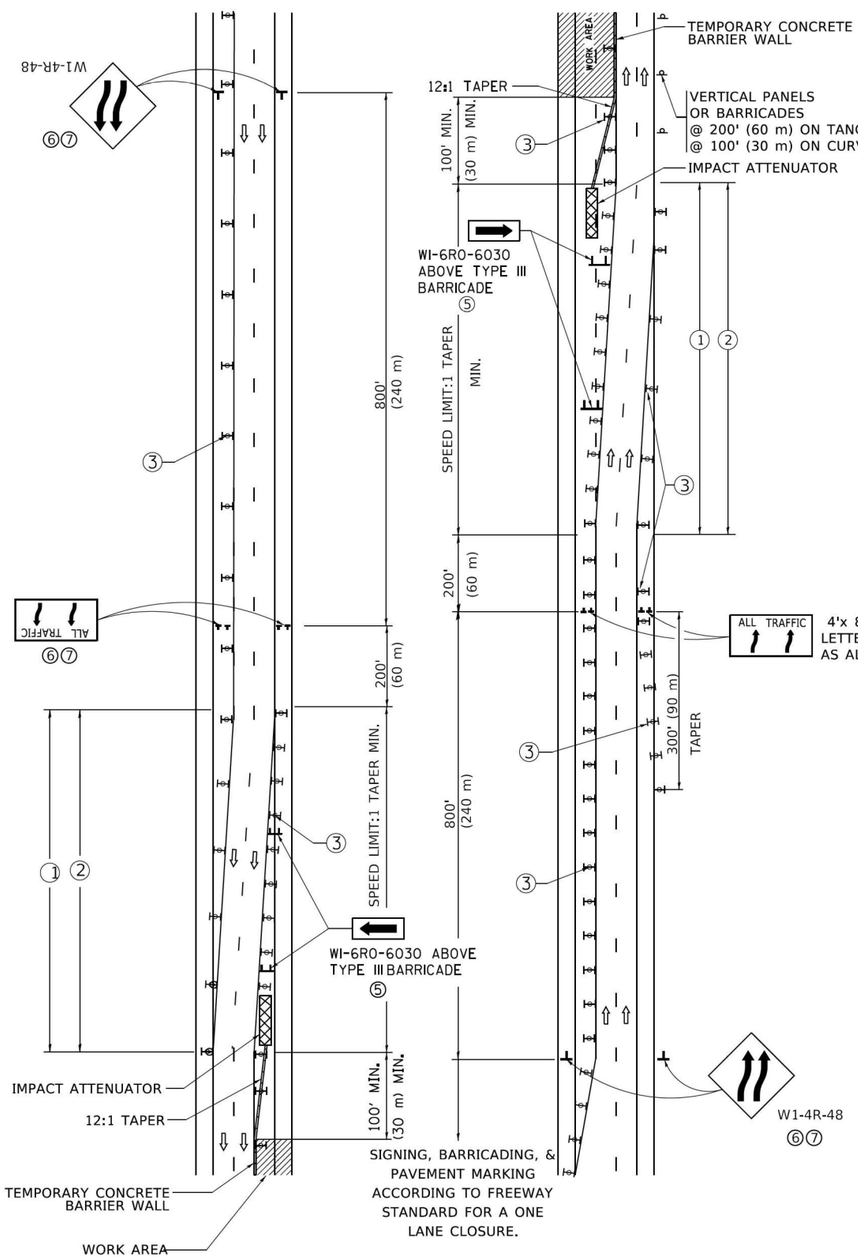
tc08.dgn 3/4/2019 10:22:32 AM User=footemj

SINGLE LANE WEAVE



MULTI–LANE WEAVE



ALL TRAFFIC 4'x 8' (1.2 m x 2.4 m); 1 (25) BORDER; 10 (250) CAPITAL LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS.

GENERAL NOTES:

① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.

② CONTINOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.

③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.

④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.

⑤ TYPE III BARRICADES MAY BE OMMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.

⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER WALL
- IMPACT ATTENUATOR
- W24-1-48 ⑦

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

USER NAME = footemj	DESIGNED - D.W.S.	REVISED - J.A.F. 02-06
	DRAWN -	REVISED - S.P.B. 01-07
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - S.P.B. 12-09
PLOT DATE = 3/4/2019	DATE - 02-87	REVISED - M.D. 06-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI–LANE WEAVE

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	890
	TC-09	CONTRACT NO. 62R22		
	ILLINOIS	FED. AID PROJECT		

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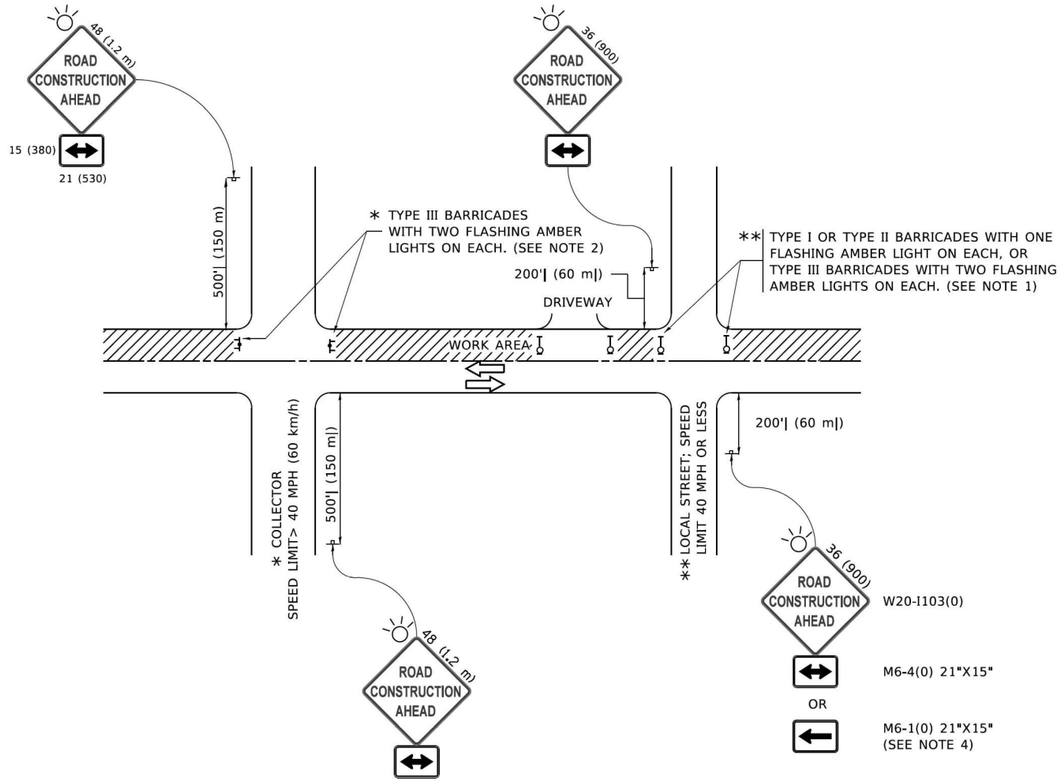

NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96	
	DRAWN -	REVISED - T. RAMMACHER 01-06-00	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13	
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	891
	TC-10	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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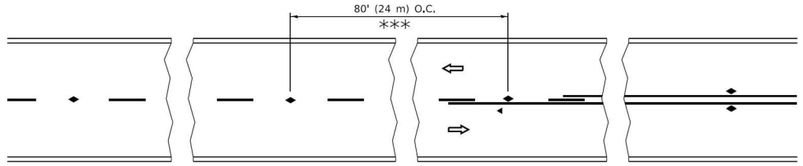
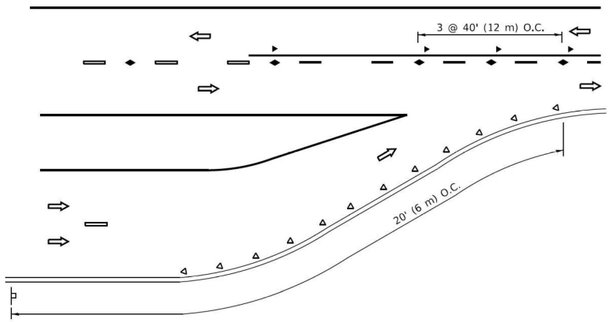


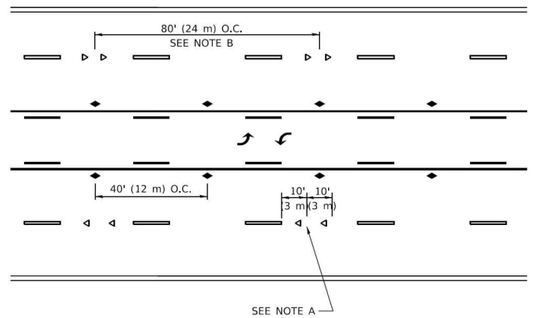
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO–LANE/TWO–WAY

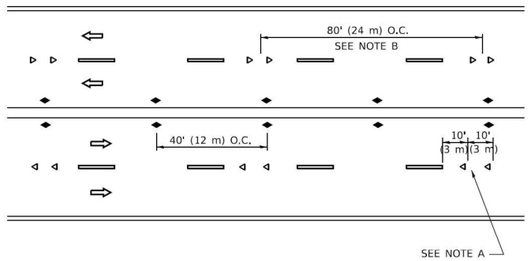
SEE FIGURE 3B-14 MUTCD



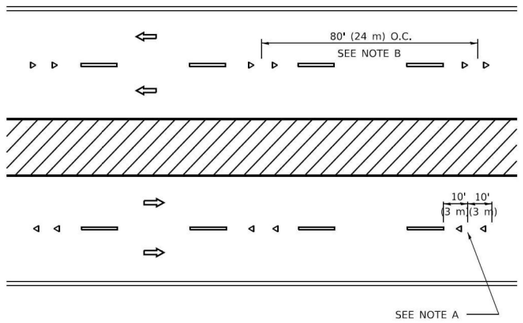
LANE REDUCTION TRANSITION



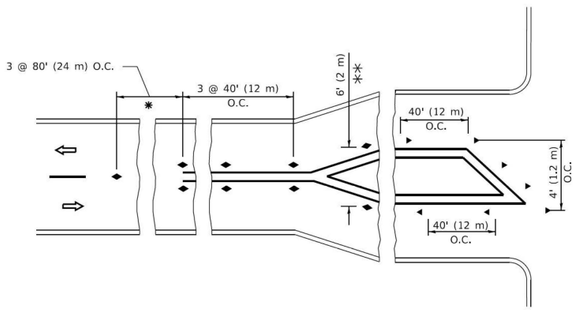
TWO–WAY LEFT TURN

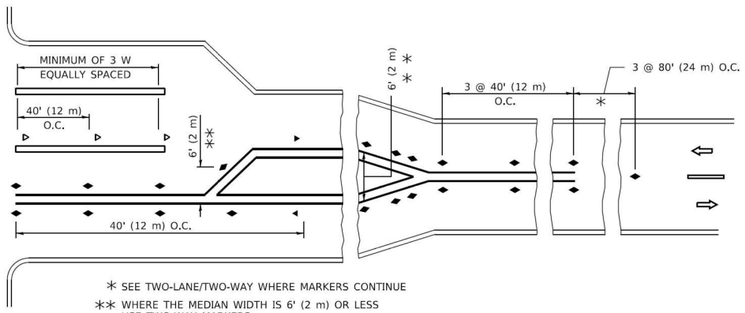


MULTI–LANE/UNDIVIDED



MULTI–LANE/DIVIDED





* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

TURN LANES

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

All dimensions are in inches (millimeters) unless otherwise shown.

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PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 09-09-09	
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 07-01-13	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW–PLOW RESISTANT)

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TC-11	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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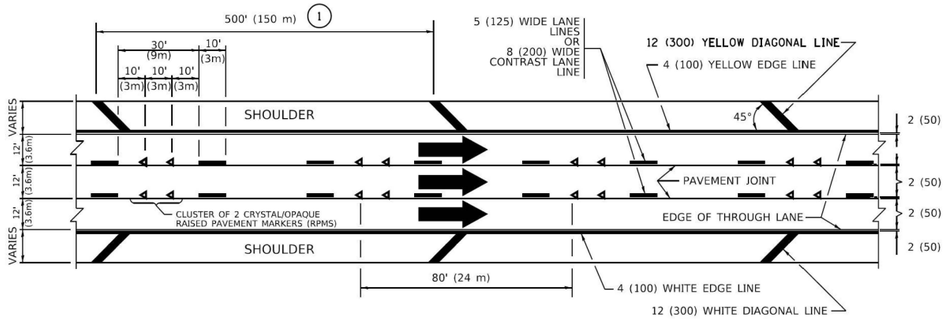
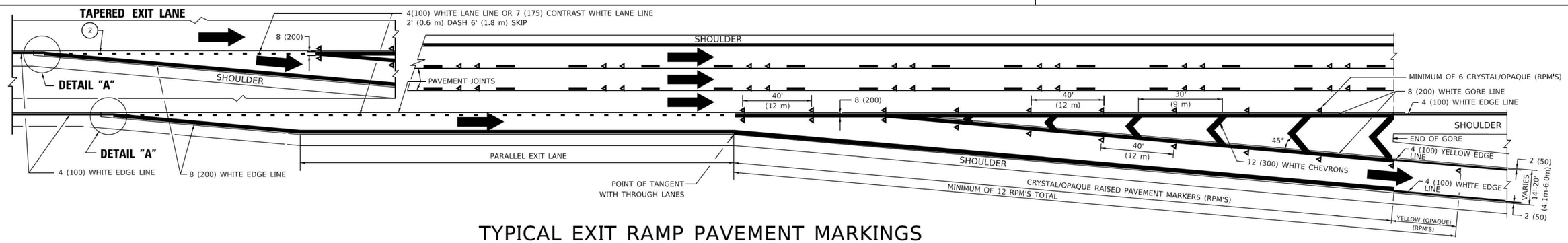


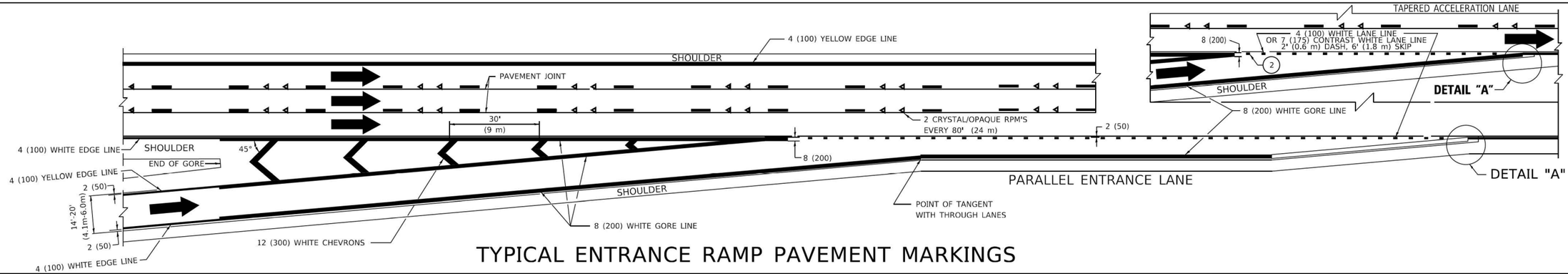
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

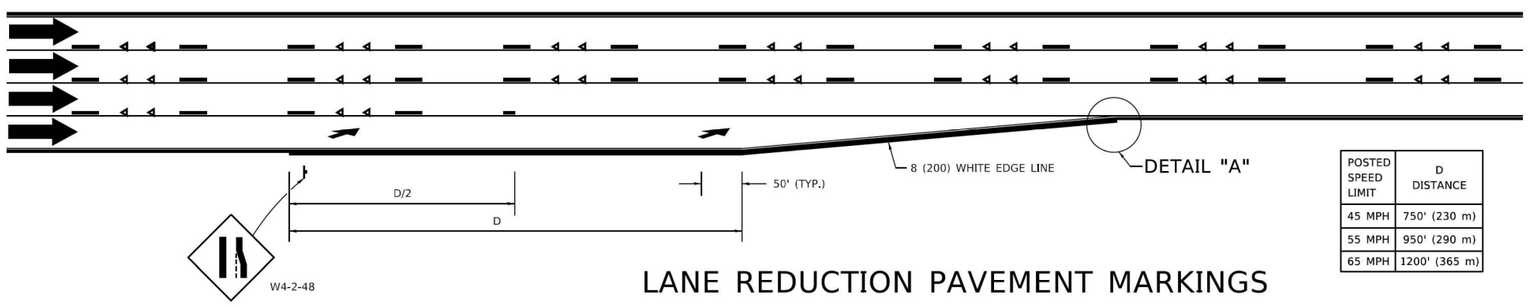
1. THERMOPLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON HMA PAVEMENTS.
2. POLYUREA OR MODIFIED URETHANE PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON PCC PAVEMENTS.
3. PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE D, INLAID OR GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON HMA PAVEMENTS.
4. CONTRAST PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE B, GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON PCC PAVEMENT.



TYPICAL EXIT RAMP PAVEMENT MARKINGS

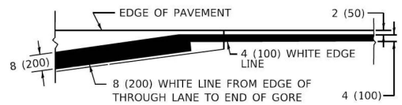


TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



POSTED SPEED LIMIT	D DISTANCE
45 MPH	750' (230 m)
55 MPH	950' (290 m)
65 MPH	1200' (365 m)

LANE REDUCTION PAVEMENT MARKINGS



DETAIL "A"

NOTES:

1. THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
2. 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

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	DRAWN -	REVISED - M.D. 05-13	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - M.D. 09-17	
PLOT DATE = 11/18/2022	DATE - 01-90	REVISED - K. SMITH 11-18-22	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI–LANE FREEWAY
PAVEMENT MARKING DETAILS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TC–12	CONTRACT NO. 62R22		
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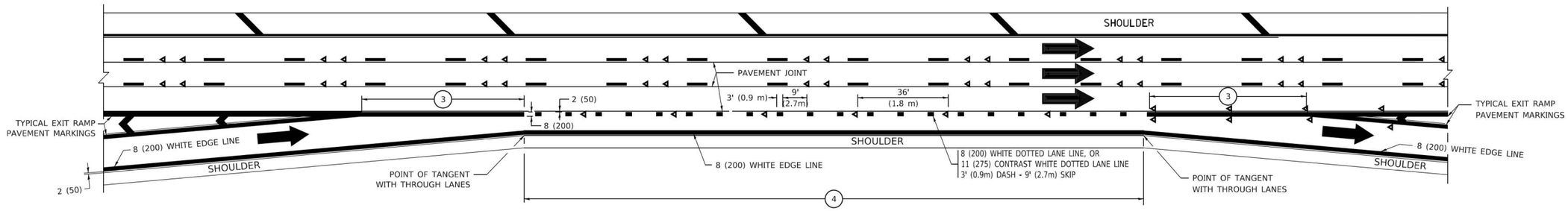
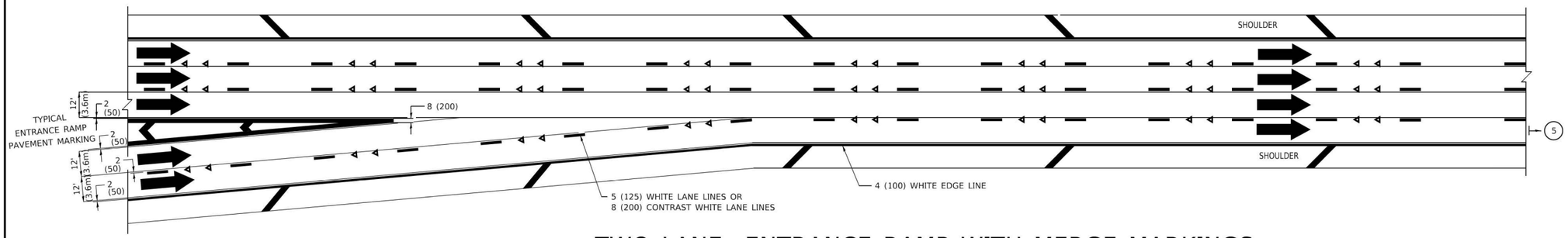
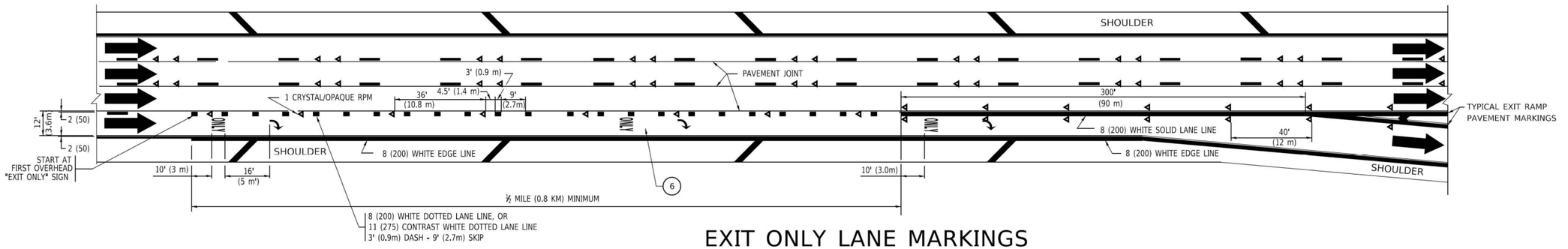


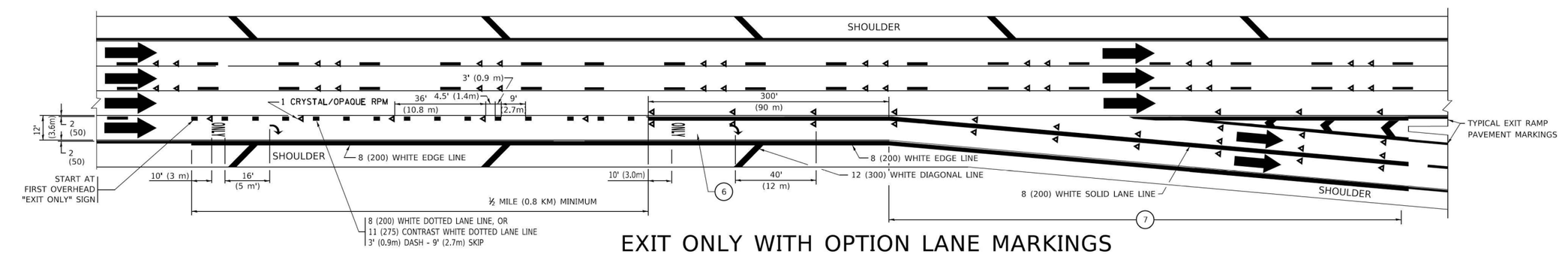
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

NOTES:

3. OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
4. 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
5. FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
6. ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED..
7. CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

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	DRAWN -	REVISED - S.P.B. 01-07	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - S.P.B. 01-10	
PLOT DATE = 3/4/2019	DATE - 01-90	REVISED - M.D. 09-17	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI–LANE FREEWAY
PAVEMENT MARKING DETAILS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TC–12	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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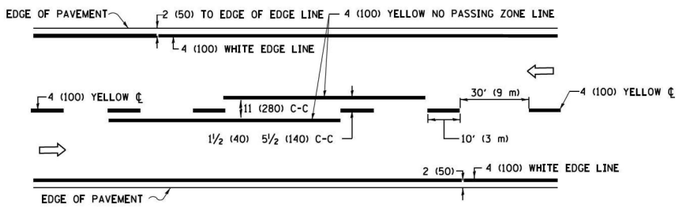
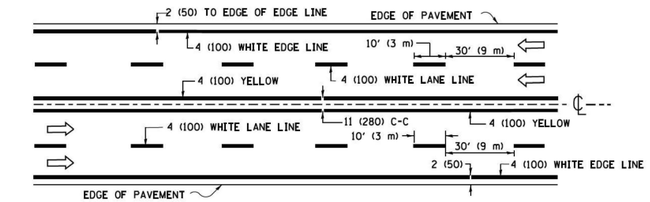
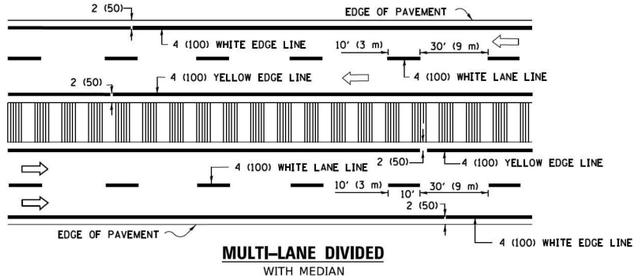


2–LANE ROADWAY

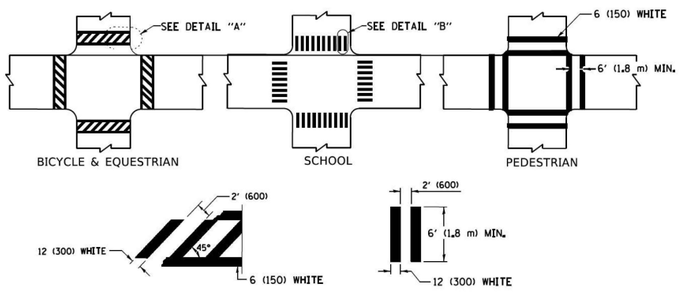


MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

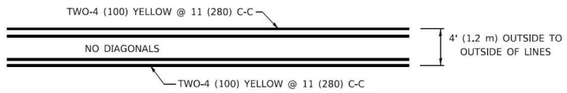
TYPICAL LANE AND EDGE LINE MARKING



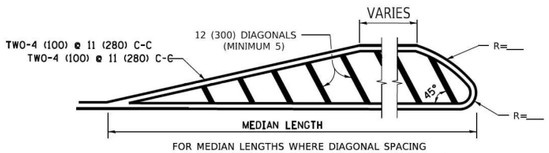
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



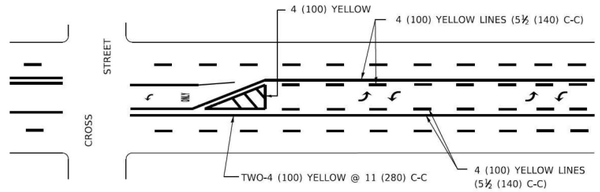
4' (1.2 m) WIDE MEDIANS ONLY



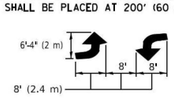
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

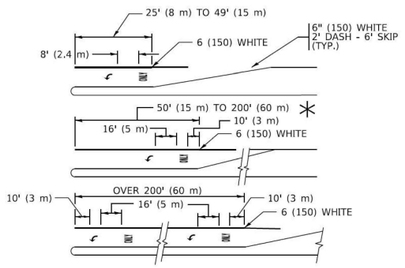


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

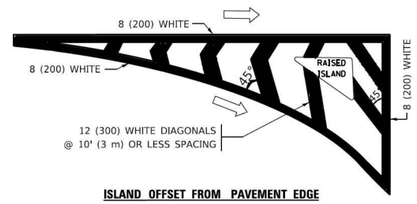


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) **ONLY** AREA = 20.8 SQ. FT. (1.9 m²)

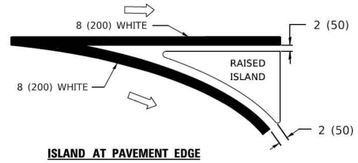
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

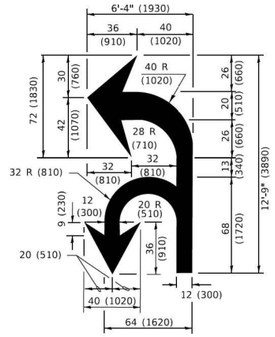


ISLAND OFFSET FROM PAVEMENT EDGE

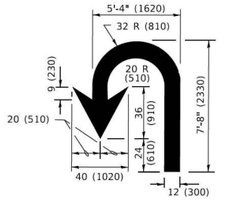


ISLAND AT PAVEMENT EDGE

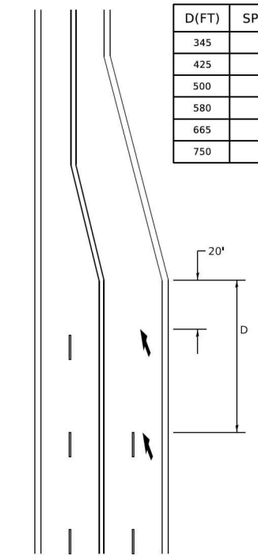
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2,4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2,4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m² EACH "X"=54.0 SQ. FT. (5.0 m²
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

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	DRAWN -	REVISED - C. JUCIUS 07-01-13	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15	
PLOT DATE = 3/4/2019	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16	

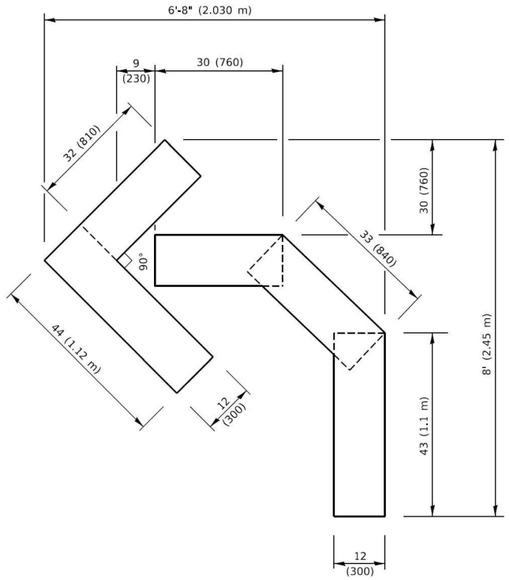
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

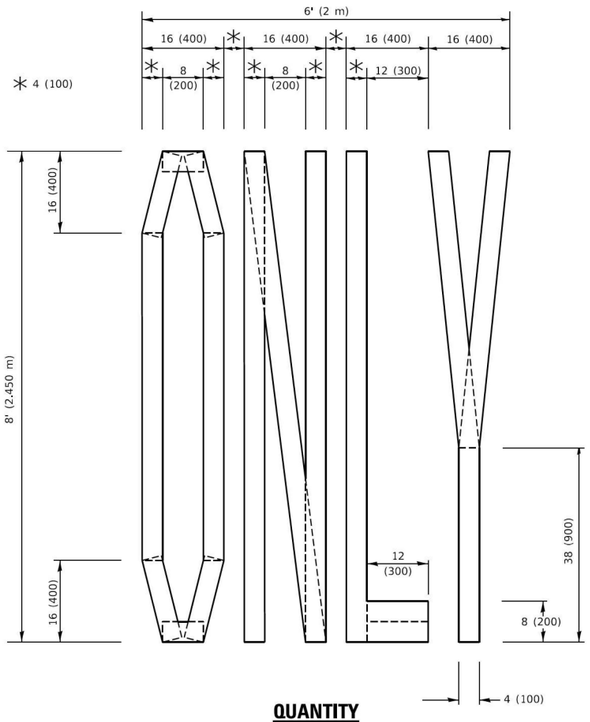
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	895
	TC–13	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

tc13.dgn 3/4/2019 10:34:37 AM User=footemj



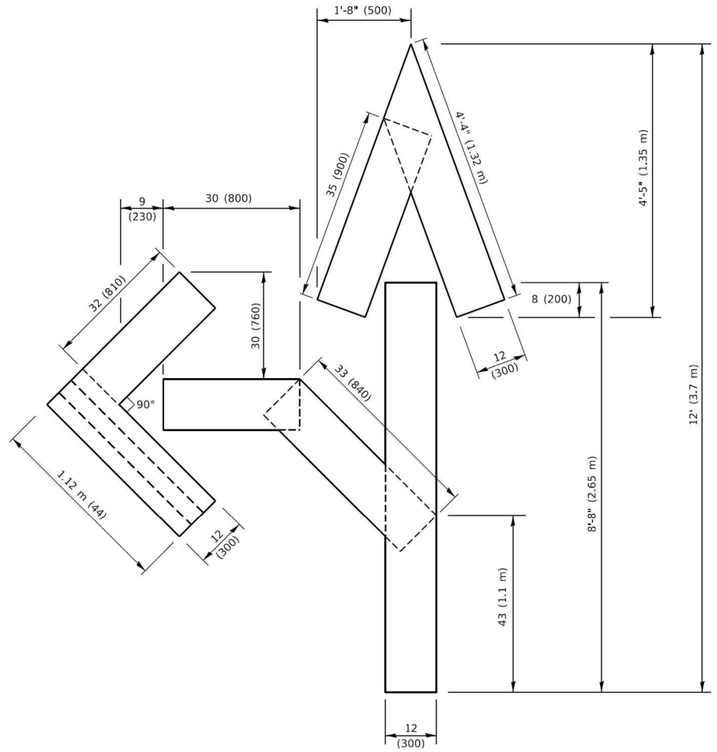
QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.41 sq. m)



QUANTITY

4 (100) LINE = 64.1 ft. (19.5 m)
21.4 sq. ft. (1.99 sq. m)

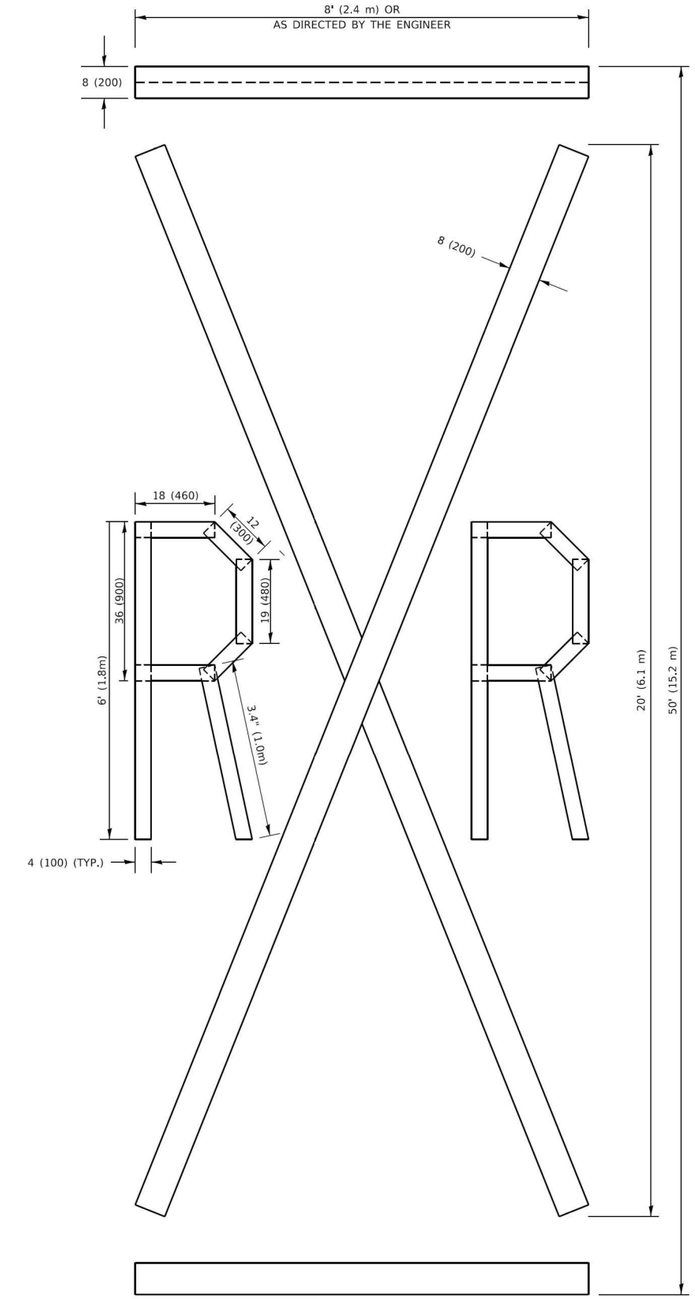


QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m)
27.5 sq. ft. (2.53 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



QUANTITY

4 (100) LINE = 225.9 ft. (68.9 m)
75.3 sq. ft. (6.99 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-02-98	
	DRAWN -	REVISED - E. GOMEZ 08-28-00	
PLOT SCALE = 50.0068 ' / in.	CHECKED -	REVISED - E. GOMEZ 08-28-00	
PLOT DATE = 3/4/2019	DATE - 09-18-94	REVISED - A. SCHUETZE 09-15-16	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	896
	TC-16	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

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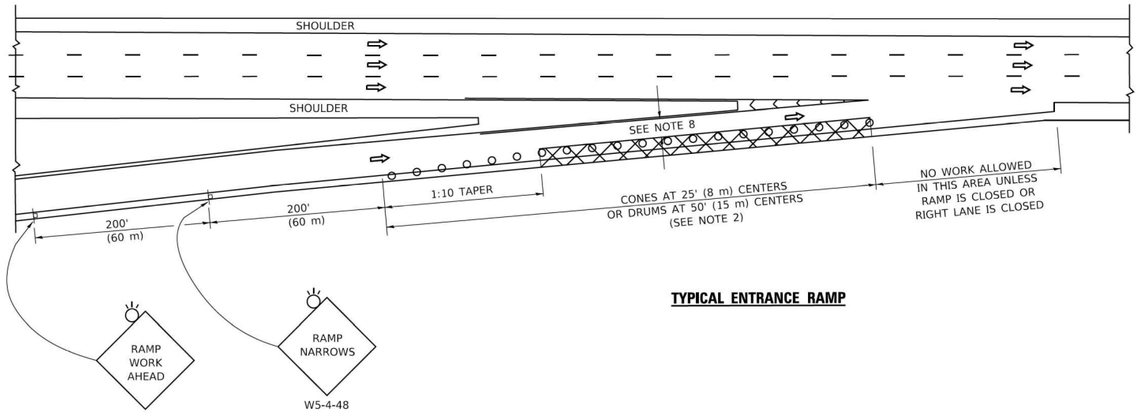
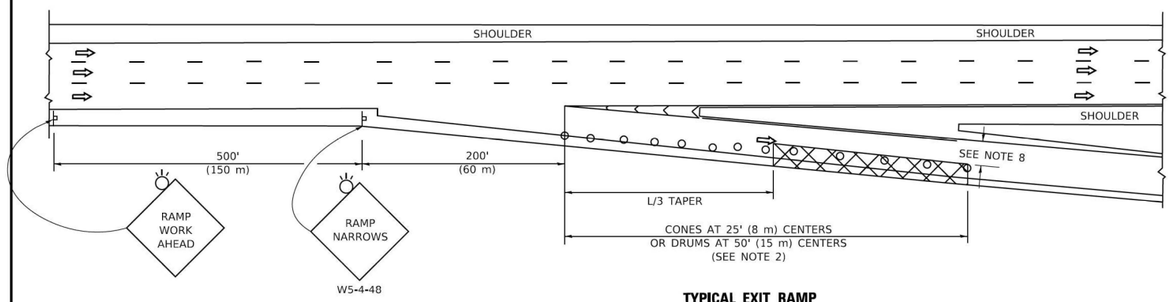
tc16.dgn 3/4/2019 10:37:35 AM User=footemj

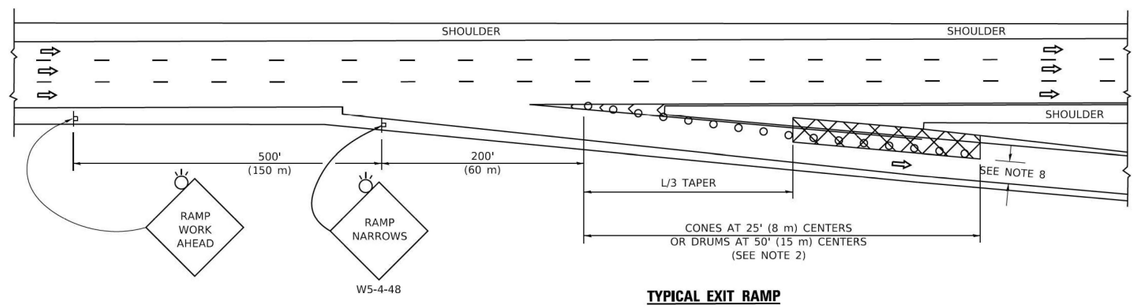
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP

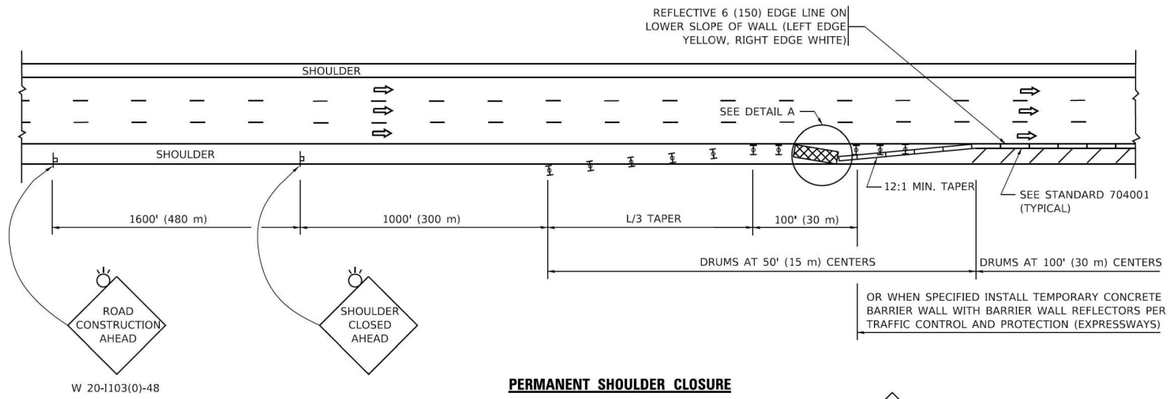


TYPICAL EXIT RAMP

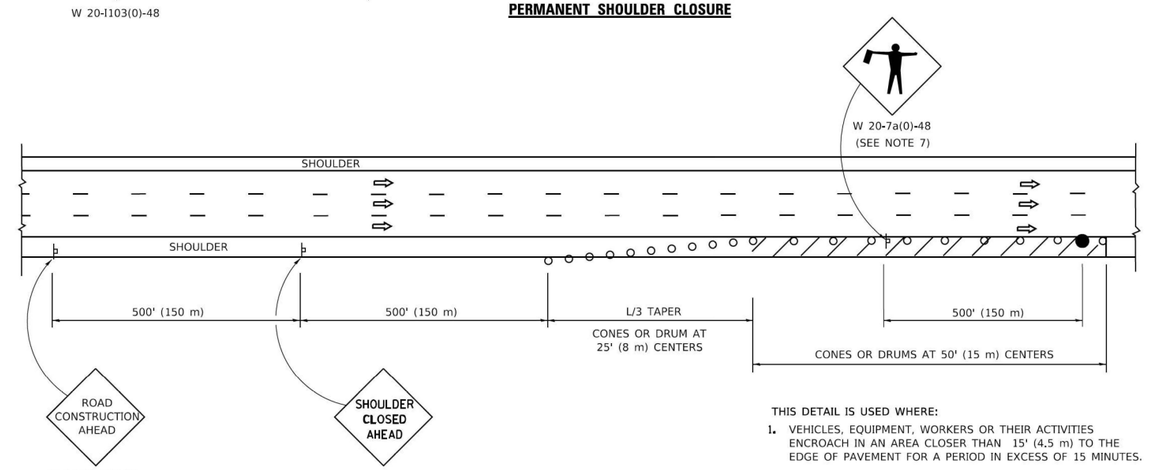


TYPICAL EXIT RAMP

SHOULDER CLOSURE DETAILS



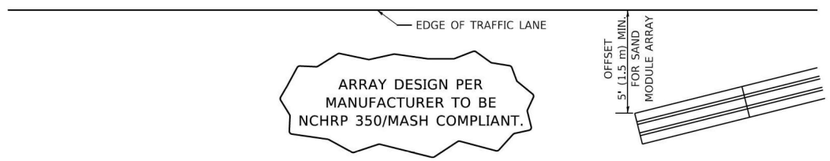
PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES:

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS	
45 mph (80 km/h) OR GREATER:	METRIC	ENGLISH
	L=0.65(W)(S)	L=(W)(S)

W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTICLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.

   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION
   16' MIN. WIDTH CURVE SECTION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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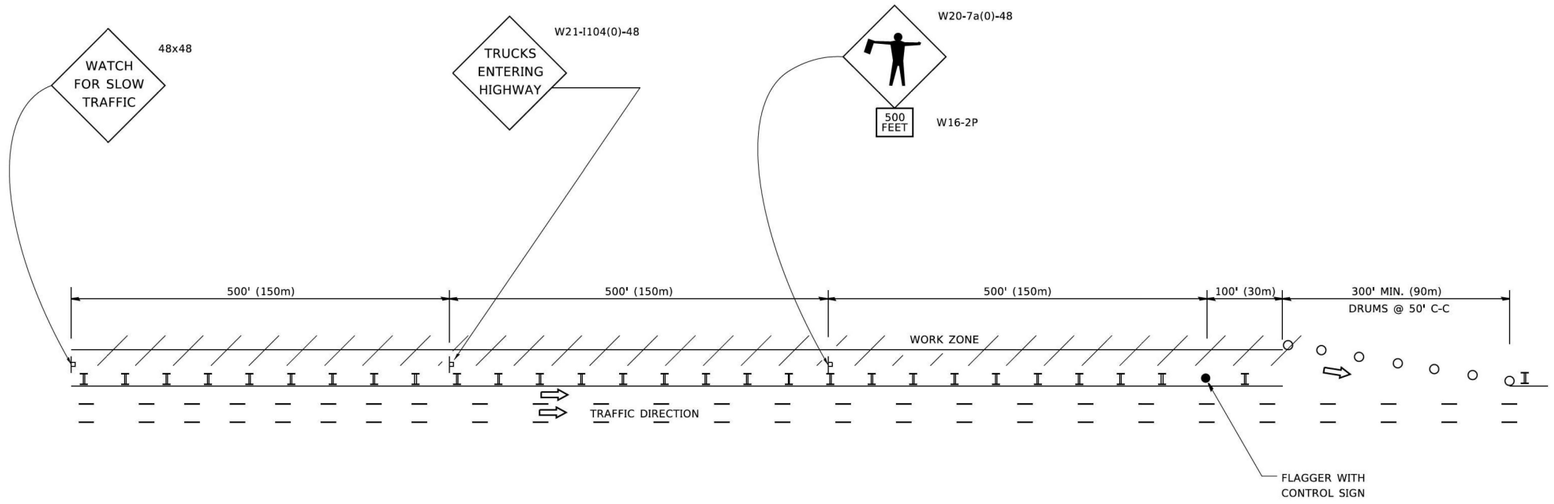
USER NAME = footemj	DESIGNED -	REVISED - S.P.B. 01-07	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES**	
	DRAWN - D.W.S.	REVISED - S.P.B. 12-09			
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - M.D. 06-13			
PLOT DATE = 3/4/2019	DATE - 11-96	REVISED - M.D. 01-18		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	897
	TC-17	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

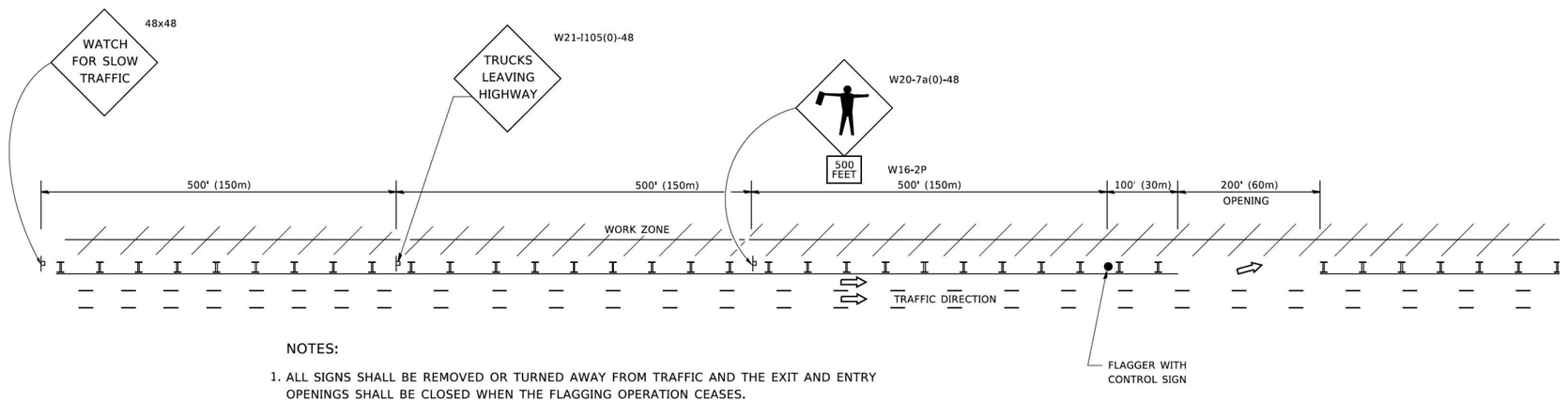
tc17.dgn 3/4/2019 10:41:43 AM User=footemj

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMPS.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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	DRAWN -	REVISED -	S.P.B. 01-07
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	S.P.B. 12-09
PLOT DATE = 3/4/2019	DATE -	REVISED -	M.D.06-13

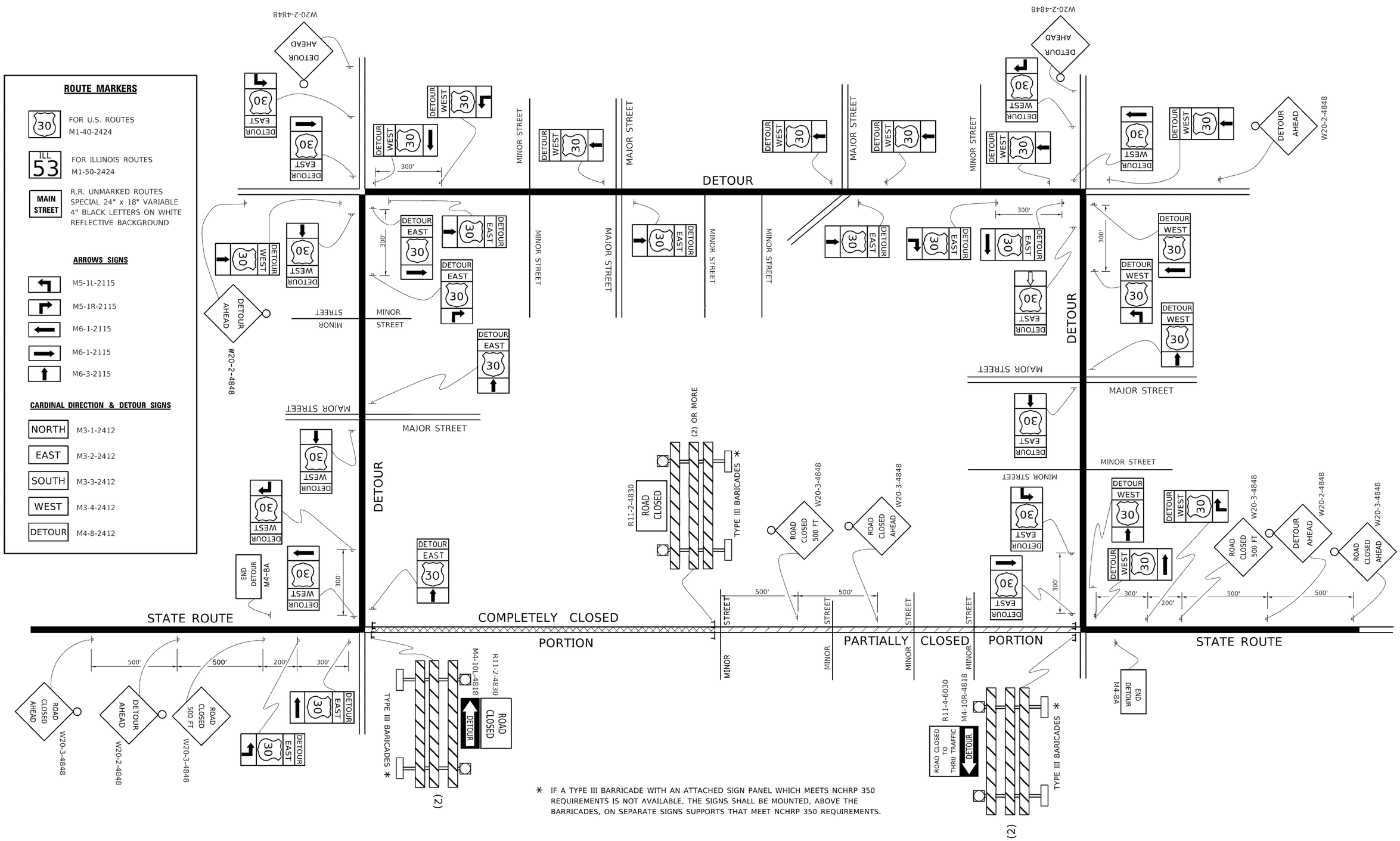
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FREEWAY /EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS /EXPRESSWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	898
	TC–18	CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

tc18.dgn 3/4/2019 10:44:51 AM User=footemj



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

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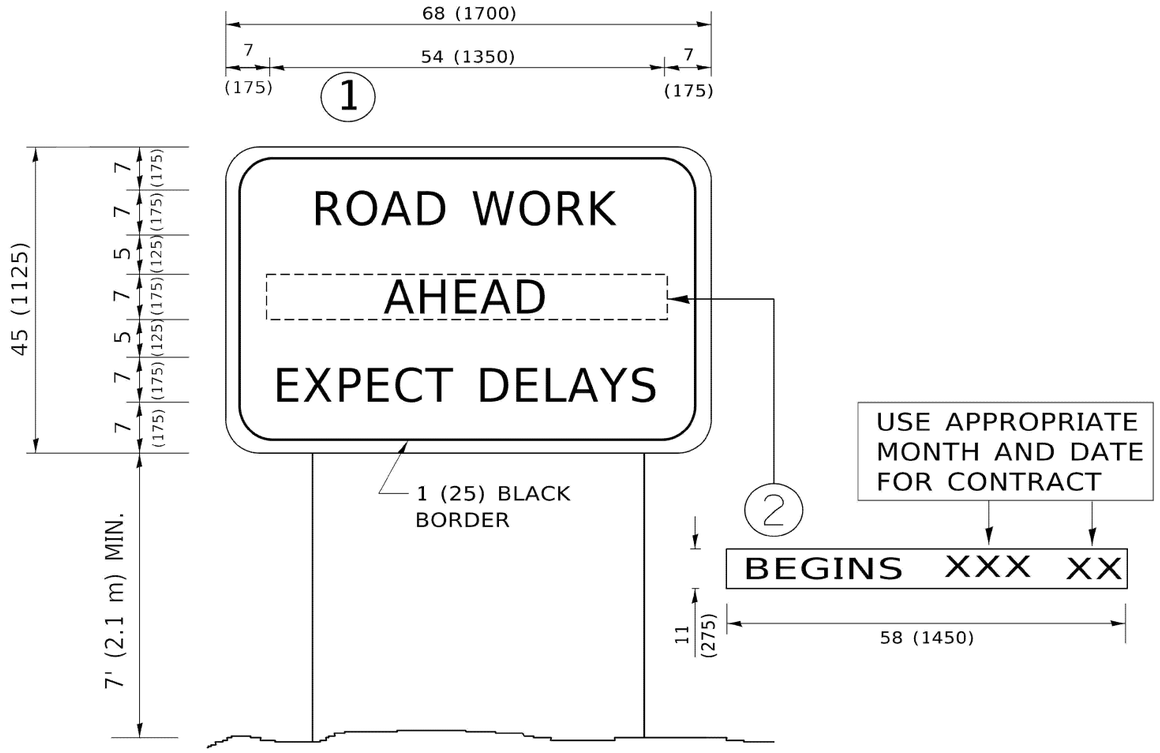
	DRAWN -	REVISED - R. BORO 09-14-09			TC-21		CONTRACT NO. 62R22		
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -					ILLINOIS	FED. AID PROJECT	
PLOT DATE = 3/4/2019	DATE -	REVISED -		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.					

tc21.dgn 3/4/2019 10:46:33 AM User=footemj



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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USER NAME = footemj	DESIGNED -	REVISED -	R. MIRS 09-15-97
	DRAWN -	REVISED -	R. MIRS 12-11-97
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	T. RAMMACHER 02-02-99
PLOT DATE = 3/4/2019	DATE -	REVISED -	C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	900
	TC-22	CONTRACT NO. 62R22		
	ILLINOIS FED. AID PROJECT			

tc22.dgn 3/4/2019 10:48:10 AM User=footemj