

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	1
**FAI	255, FAP 592, FAI 270	ILLINOIS	CONTRACT NO. 76P71	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# PROPOSED HIGHWAY PLANS

VARIOUS ROUTES  
(FAI ROUTE 255 / FAP ROUTE 592 / FAI ROUTE 270)  
SECTION 60-8BP-1, 117BP-1, 60-5BP-1  
PROJECT NHPP-BGXS(032)  
BRIDGE PAINTING  
MADISON COUNTY

C-98-109-21

FAI 270 ADT	
2022 =	56,700 (ESTIMATED)
SU =	2.2%
MU =	16.0%
FUNCTIONAL CLASSIFICATION: INTERSTATE	

FAP 592 ADT	
2022 =	5,500 (ESTIMATED)
SU =	3.1%
MU =	2.4%
FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL	

FAP 586 ADT	
2022 =	5,700 (ESTIMATED)
SU =	4.0%
MU =	1.6%
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL	

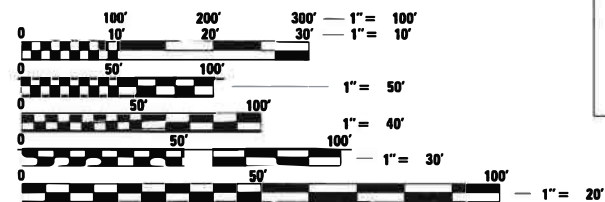


LOCATION #1  
SN 060-0184  
MAIN STREET  
OVER I-270  
LAT: 38.75693° N  
LONG: 89.97447° W

LOCATION #4  
SN 060-0221  
NB I-255 OVER  
IL 162 & MCT TRAIL  
LAT: 38.73307° N  
LONG: 90.03851° W

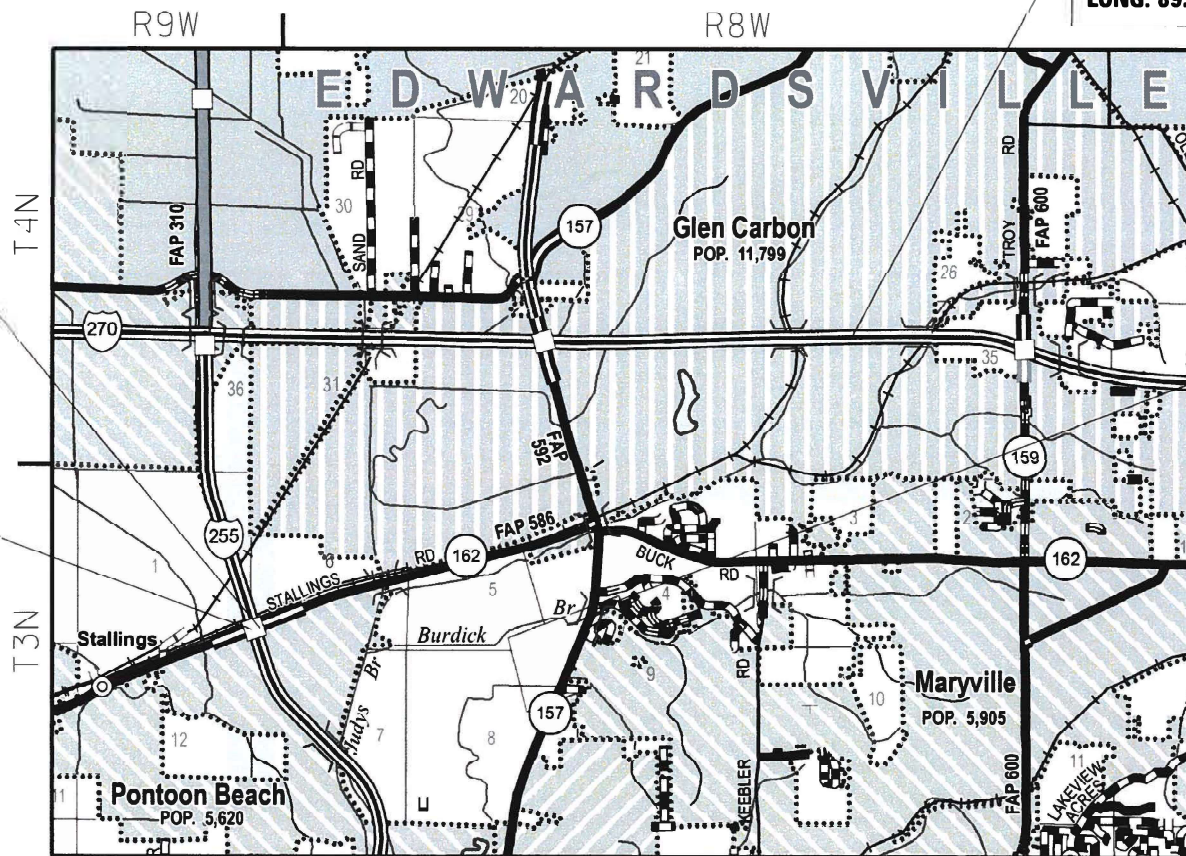
LOCATION #3  
SN 060-0220  
SB I-255 OVER  
IL 162 & MCT TRAIL  
LAT: 38.73299° N  
LONG: 90.03883° W

LOCATION #2  
SN 060-0088  
IL 157 OVER  
BURDICK CREEK  
LAT: 38.73375° N  
LONG: 90.00267° W



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811



LOCATION MAP  
NOT TO SCALE

GROSS LENGTH = 1,060.7 FT. = 0.201 MILE  
NET LENGTH = 1,060.7 FT. = 0.201 MILE

PROJECT ENGINEER: BILLIE OWEN  
PROJECT MANAGER: BRANDON HUMPHREYS

CONTRACT NO. 76P71

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 23, 2022

Steph Travis  
REGIONAL ENGINEER

May 13, 2022  
[Signature]  
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 2022  
[Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

1. COVER SHEET
2. INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, COMMITMENTS, & PERTINENT INFORMATION
- 3-4. SUMMARY OF QUANTITIES
- 5-6. TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)
7. TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)
- 8-10. TRAFFIC CONTROL AND PROTECTION, (SPECIAL)
11. BRIDGE PAINTING DETAILS - SN 060-0220 & SN 060-0221
12. BRIDGE PAINTING DETAILS - SN 060-0088
- 13-16. STRUCTURE DETAILS - LOCATION #1 (SN 060-0184)
- 17-20. STRUCTURE DETAILS - LOCATION #2 (SN 060-0088)
- 21-31. STRUCTURE DETAILS - LOCATION #3 (SN 060-0220) & LOCATION #4 (SN 060-0221)
32. LOCATION MAP SHEET

## HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

## GENERAL NOTES

1. THE UTILITIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
  - AMEREN ILLINOIS
  - AT&T ILLINOIS
  - CHARTER COMMUNICATIONS, INC
  - CONSOLIDATED COMMUNICATIONS
  - DEPARTMENT OF CENTRAL MANAGEMENT SERVICES
  - ENABLE MIDSTREAM PARTNERS
  - VILLAGE OF GLEN CARBON
  - ILLINOIS AMERICAN WATER COMPANY
  - LEVEL 3 COMMUNICATIONS, LLC
  - VILLAGE OF MARYVILLE
  - SOUTHWESTERN ELECTRIC COOPERATIVE, INC
  - WINDSTREAM KDL, INC
2. NO SURVEY WAS PERFORMED FOR THIS PROJECT AND THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.
3. THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING, INTELLIGENT TRANSPORTATION SYSTEMS (I.T.S.) UTILITIES, AND/OR ELECTRICAL CABLES ASSOCIATED WITH TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS. IF ANY OF THESE EXIST WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL BE DIRECTED TO DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

## GENERAL NOTES CONT.

4. SIX CHANGEABLE MESSAGE SIGNS SHALL BE REQUIRED FOR THIS PROJECT. THEY WILL BE REQUIRED TWO WEEKS PRIOR TO ANY LANE CLOSURE. LOCATIONS SHALL BE AT THE DIRECTION OF THE RESIDENT ENGINEER.
5. ALL DISTURBED EMBANKMENT AREAS SHALL BE SEEDED WITH CLASS 2A SEED, FERTILIZED AND MULCHED AS PER SECTION 250.04 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THE COST FOR PERFORMING THIS WORK SHALL BE CONSIDERED INCLUDED IN THE UNIT PRICE BID FOR THE ITEM OF WORK INITIATING THE DISTURBANCE.
6. THE SSPC-QP1 AND SSPC-QP2 CERTIFICATIONS WILL BE REQUIRED FOR THE BRIDGES.
7. FOR LOCATION 1 (SN 060-0184), CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL EXISTING STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING - SSPC-SP10. ALL EXISTING STEEL CLEANED PER NEAR WHITE BLAST CLEANING SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1-OZ/E/U. FOR LOCATION 1, THE COLOR OF THE FINAL FINISH COAT FOR ALL SURFACES SHALL BE GRAY (MUNSELL NO 5B 7/1).
8. FOR LOCATION 2 (SN 060-0088), CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL EXISTING STEEL WITHIN 10 FEET OF THE EXISTING DECK JOINTS (MEASURED ALONG THE BEAM) SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING - SSPC-SP10. ALL EXISTING STEEL CLEANED PER NEAR WHITE BLAST CLEANING SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1-OZ/E/U. FOR LOCATION 2, THE COLOR OF THE FINAL FINISH COAT FOR ALL SURFACES SHALL BE BROWN, FED STD 595C 30045.
9. FOR LOCATION 3 (SN 060-0220) AND LOCATION 4 (SN 060-0221), CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL EXISTING STEEL WITHIN 5 FEET OF THE EXISTING DECK JOINTS (MEASURED ALONG THE BEAM), THE EXTERIOR SURFACES AND BOTTOM OF THE BOTTOM FLANGES OF THE FASCIA BEAMS, AND OTHER AREAS AS SPECIFIED ON SHEET 11 OF THE PLAN SHEETS SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING - SSPC-SP10. ALL EXISTING STEEL CLEANED PER NEAR WHITE BLAST CLEANING SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1-OZ/E/U. FOR LOCATION 3 AND LOCATION 4, THE COLOR OF THE FINAL FINISH COAT FOR ALL SURFACES SHALL BE REDDISH BROWN (MUNSELL NO 2.5YR).
10. FOR LOCATION 1, A MINIMUM OF 2 AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE OPERATIONS AT THIS SITE. SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES."
11. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
12. THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND VEHICLES OFF OF TRAIL PAVEMENT.

## COMMITMENTS

NONE

## PERTINENT INFORMATION

1. SIGNAGE SHALL BE PLACED AT THE BICYCLE TRAIL ON BOTH SIDES OF THE BRIDGE STRUCTURE THAT THE BICYCLE TRAIL/ACCOMMODATION IS CLOSED DURING CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AT LEAST TWO WEEKS PRIOR TO PROCEEDING WITH THE WORK:

- MADISON COUNTY TRANSIT DISTRICT  
MARK STEYER, DIRECTOR OF ENGINEERING  
(618) 797-4600  
MSTEYER@MCT.ORG
- RIDE ILLINOIS  
DAVE SIMMONS, EXECUTIVE DIRECTOR  
(630) 978-0583  
DAVE@RIDEILLINOIS.GOV
- VILLAGE OF PONTOON BEACH  
HON. MICHAEL PAGANO, VILLAGE PRESIDENT  
(618) 931-6100, EXT. 4  
PAGANO21@OUTLOOK.COM
- CITY OF GRANITE CITY  
HON. MIKE PARKINSON, MAYOR  
(618) 452-6214  
MAYOR@GRANITECITY.IL.GOV

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES,  
COMMITMENTS, & PERTINENT INFORMATION**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	2
**FAI 255, FAP 592, FAI 270			CONTRACT NO. 76P71	
ILLINOIS   FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				BRIDGE	BRIDGE	BRIDGE	BRIDGE
				0047	0047	0047	0047
				S.N. 060-0184	S.N.060-0088	S.N. 060-0220	S.N. 060-0221
59200103	BRIDGE WASHING NO. 3	EACH	1			1	
59200104	BRIDGE WASHING NO. 4	EACH	1				1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	2	2	1	1
67100100	MOBILIZATION	L SUM	1	0.25	0.25	0.25	0.25
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	112	28	28	28	28
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	250		250		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2		2		
X5060602	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1		1		
X5060603	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1			1	
X5060604	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1				1
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1		1		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1			0.5	0.5
X7010805	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)	L SUM	1	1			

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: \_\_\_\_\_ SHEET 1 OF 2 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	3
**FAI 255, FAP 592, FAI 270			CONTRACT NO. 76P71	
ILLINOIS FED. AID PROJECT				

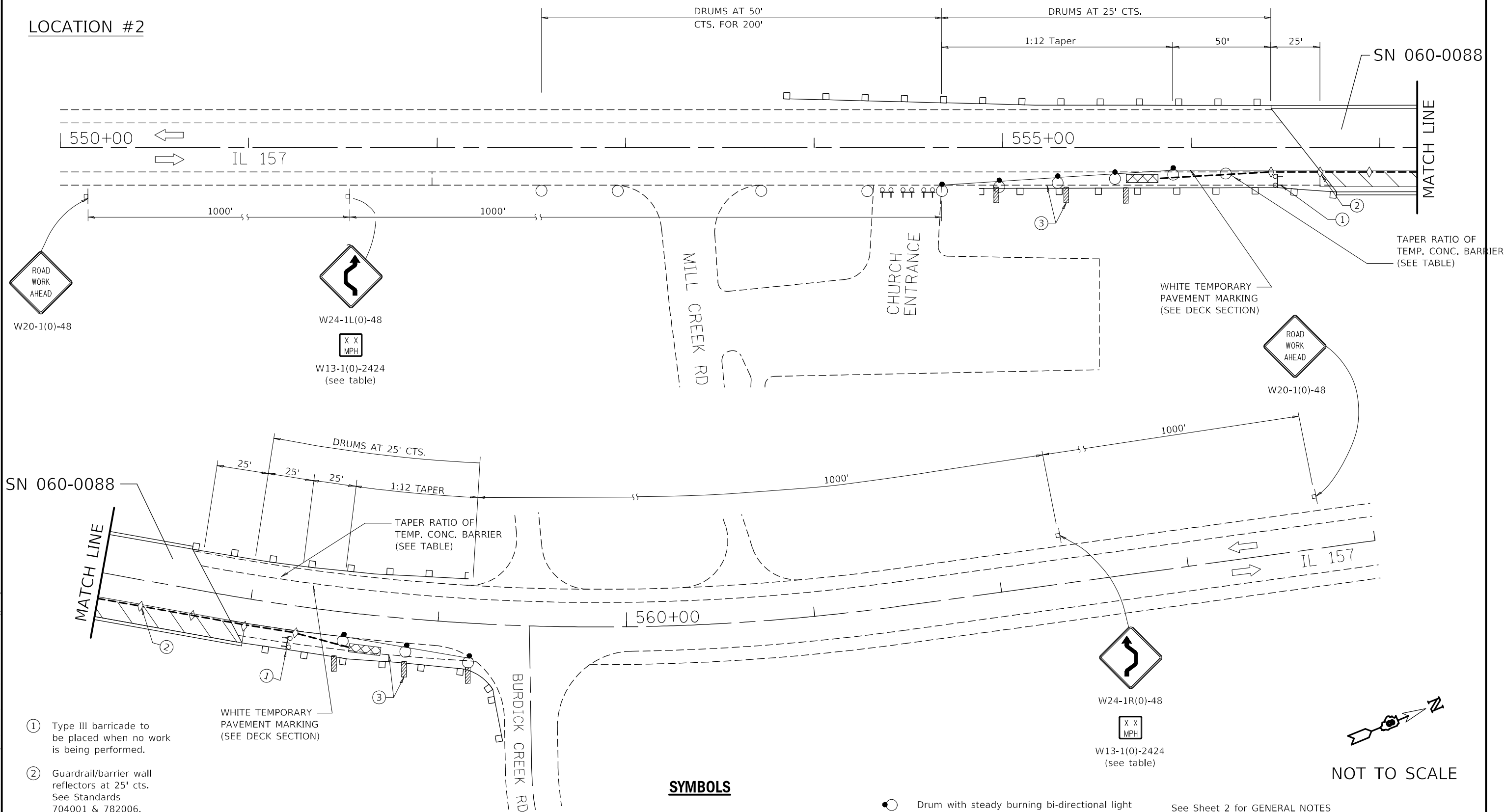
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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				BRIDGE	BRIDGE	BRIDGE	BRIDGE
				0047	0047	0047	0047
				S.N. 060-0184	S.N.060-0088	S.N. 060-0220	S.N. 060-0221
X9700021	MOBILE BARRIER TRAILER	L SUM	1	1			
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1			
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1			
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1		1		
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1			1	
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1				1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1			0.5	0.5

REV. - MS

USER NAME = bergmd PLOT SCALE = 40.0000' / in. PLOT DATE = 3/25/2022	DESIGNED - _____ DRAWN - _____ CHECKED - _____ DATE - _____	REVISED - _____ REVISED - _____ REVISED + _____ REVISED + _____	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b> SCALE: _____ SHEET 2 OF 2 SHEETS STA. _____ TO STA. _____	<b>**F.A. RTE.</b> ** 60-8BP-1, 117BP-1, 60-5BP-1 **FAI 255, FAP 592, FAI 270 ILLINOIS FED. AID PROJECT	<b>SECTION</b> COUNTY MADISON TOTAL SHEETS 32 SHEET NO. 4	<b>CONTRACT NO. 76P71</b>
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LOCATION #2



SN 060-0088

MATCH LINE

TAPER RATIO OF TEMP. CONC. BARRIER (SEE TABLE)

WHITE TEMPORARY PAVEMENT MARKING (SEE DECK SECTION)

ROAD WORK AHEAD  
W20-1(0)-48

W24-1L(0)-48  
W13-1(0)-2424 (see table)

W20-1(0)-48

W24-1R(0)-48  
W13-1(0)-2424 (see table)

- ① Type III barricade to be placed when no work is being performed.
- ② Guardrail/barrier wall reflectors at 25' cts. See Standards 704001 & 782006.
- ③ Vertical panels at 25' (7.6 m) cts. throughout lane shift. These devices may be omitted when the guardrail, w/markers, extends to at least this point on the taper.

WHITE TEMPORARY PAVEMENT MARKING (SEE DECK SECTION)

**SYMBOLS**

- Work area
- Temporary concrete barrier
- Type III barricade with flashing lights
- Impact attenuator
- Drum with steady burning bi-directional light
- Sign
- Double vertical panel (see detail)
- Crystal, bidirectional guardrail/barrier wall reflector
- Drum

NOT TO SCALE

See Sheet 2 for GENERAL NOTES

**2L, 2W, BRIDGE REPAIR WITH BARRIER**

(Sheet 1 of 2)

**DETAIL**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

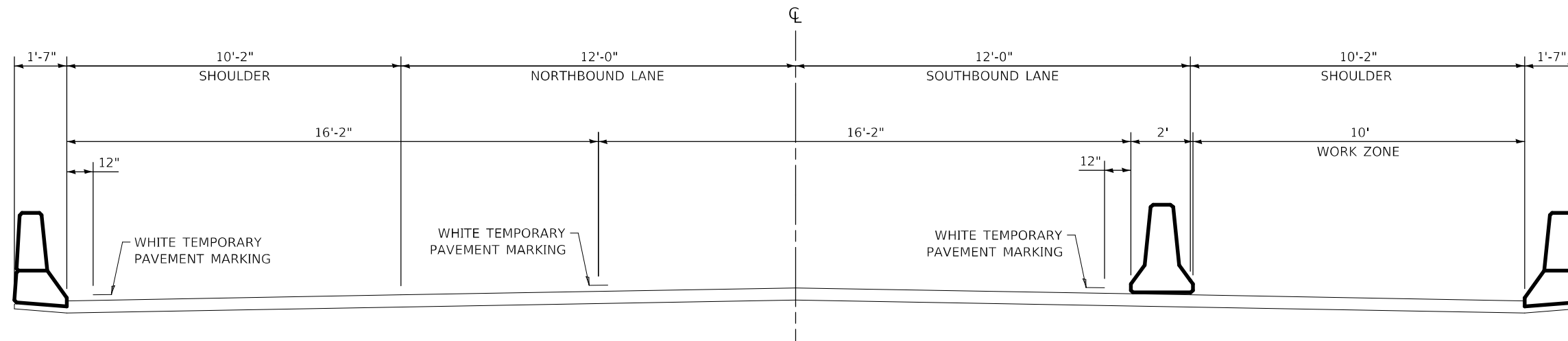
TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)

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SCALE: NTS SHEET 1 OF 2 SHEETS STA. 550+00 TO STA. 565+00

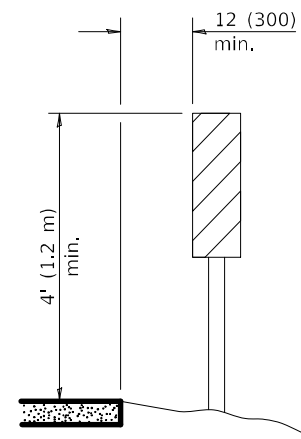
**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	5
**FAI 255, FAP 592, FAI 270				CONTRACT NO. 76P71

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**DECK SECTION - SN 060-0088**

(LOOKING NORTH)



**VERTICAL PANELS**

(Post mounted, one each side)

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 mph AND ABOVE	12:1

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph

**GENERAL NOTES**

This Standard is used where, at any time, any vehicle, equipment, workers, or their activities will encroach on one lane of a bridge. Traffic signals and a positive barrier are required.

Temporary concrete barrier shall be according to Standard 704001.

Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.

All dimensions are in inches unless otherwise shown.

**2L, 2W, BRIDGE REPAIR WITH BARRIER**

(Sheet 2 of 2)

**DETAIL**

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 CHECKED: ...  
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 PLOT DATE: 3/25/2022

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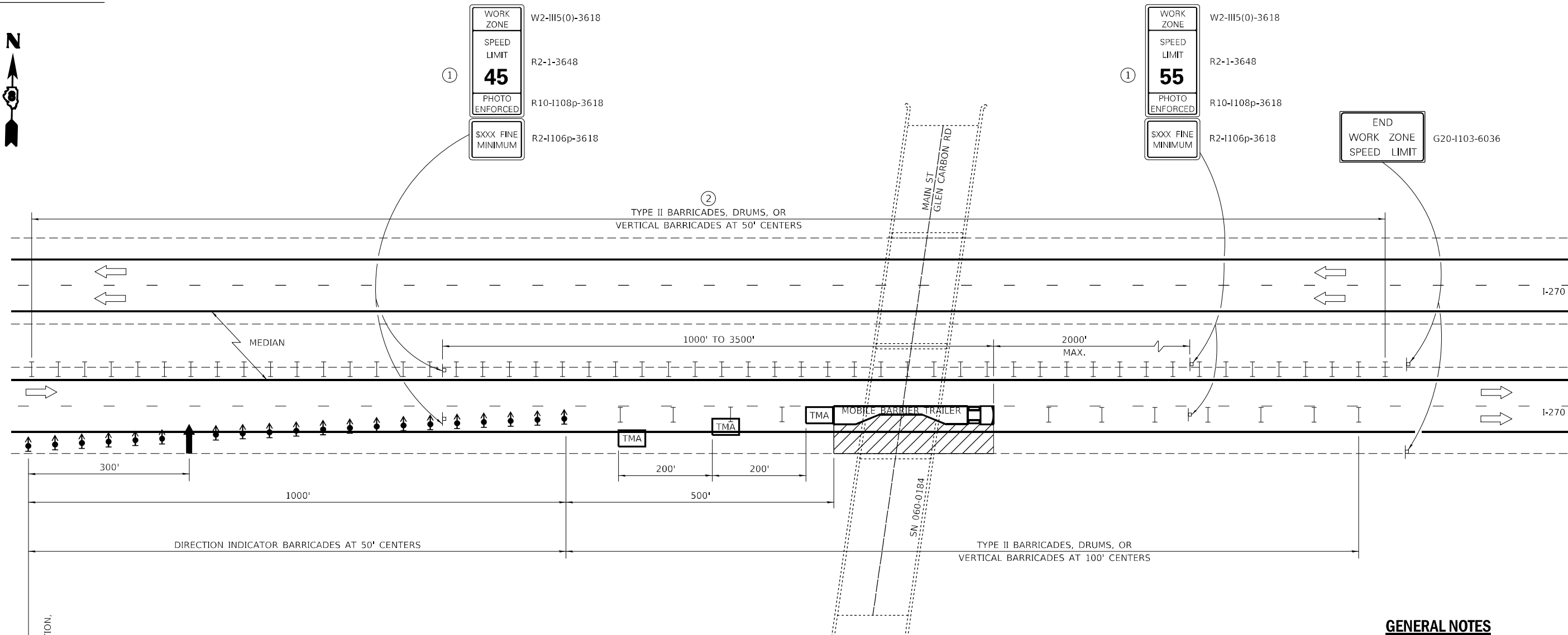
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)**

SCALE: NTS SHEET 2 OF 2 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	6
**FAI 255, FAP 592, FAI 270			CONTRACT NO. 76P71	
ILLINOIS FED. AID PROJECT				

LOCATION #1



**GENERAL NOTES**

THIS DETAIL IS USED WHERE AT ANY TIME ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES WILL ENCRANCH ON THE LANE ADJACENT TO THE SHOULDER, OR ON THE SHOULDER WITHIN 2' OF THE EDGE OF PAVEMENT.








THIS DETAIL MUST BE USED IN COMBINATION WITH STANDARD 701400.

THIS DETAIL ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE LEFT LANE. UNDER THESE CONDITIONS, THE SETUP WOULD BE A MIRROR IMAGE TO WHAT IS SHOWN.

A CHECK BARRICADE SHALL BE PLACED IN THE MIDDLE OF THE CLOSED LANE AND AT THE SHOULDER AT 1000' CENTERS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

**LEGEND**

-  ARROW BOARD
-  WORK AREA
-  TRUCK/TRAILER MOUNTED ATTENUATOR
-  SIGN
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE
-  MOBILE BARRIER TRAILER

- ① WORK ZONE SPEED LIMIT SIGNS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED SPACING BETWEEN THE SIGNS AND THE WORKERS IN EACH SEPARATE WORK ACTIVITY. WORK ZONE SPEED LIMIT 55 PHOTO ENFORCED SIGN SHALL BE OMITTED WHEN THE WORK AREA DICTATES PLACEMENT OF THE SIGN ARRAY WITHIN 500' OF THE END WORK ZONE SPEED LIMIT SIGN.
- ② TYPE II BARRICADES SHALL BE PLACED WHERE CABLE MEDIAN BARRIER IS TEMPORARILY REMOVED, WHEN ADJACENT LANE HAS BEEN OPENED TO TRAFFIC. PLACEMENT OF DEVICES ARE SUBJECT TO DISCRETION OF RESIDENT ENGINEER.

NOT TO SCALE

**LANE CLOSURE,  
FREEWAY / EXPRESSWAY  
DETAIL**

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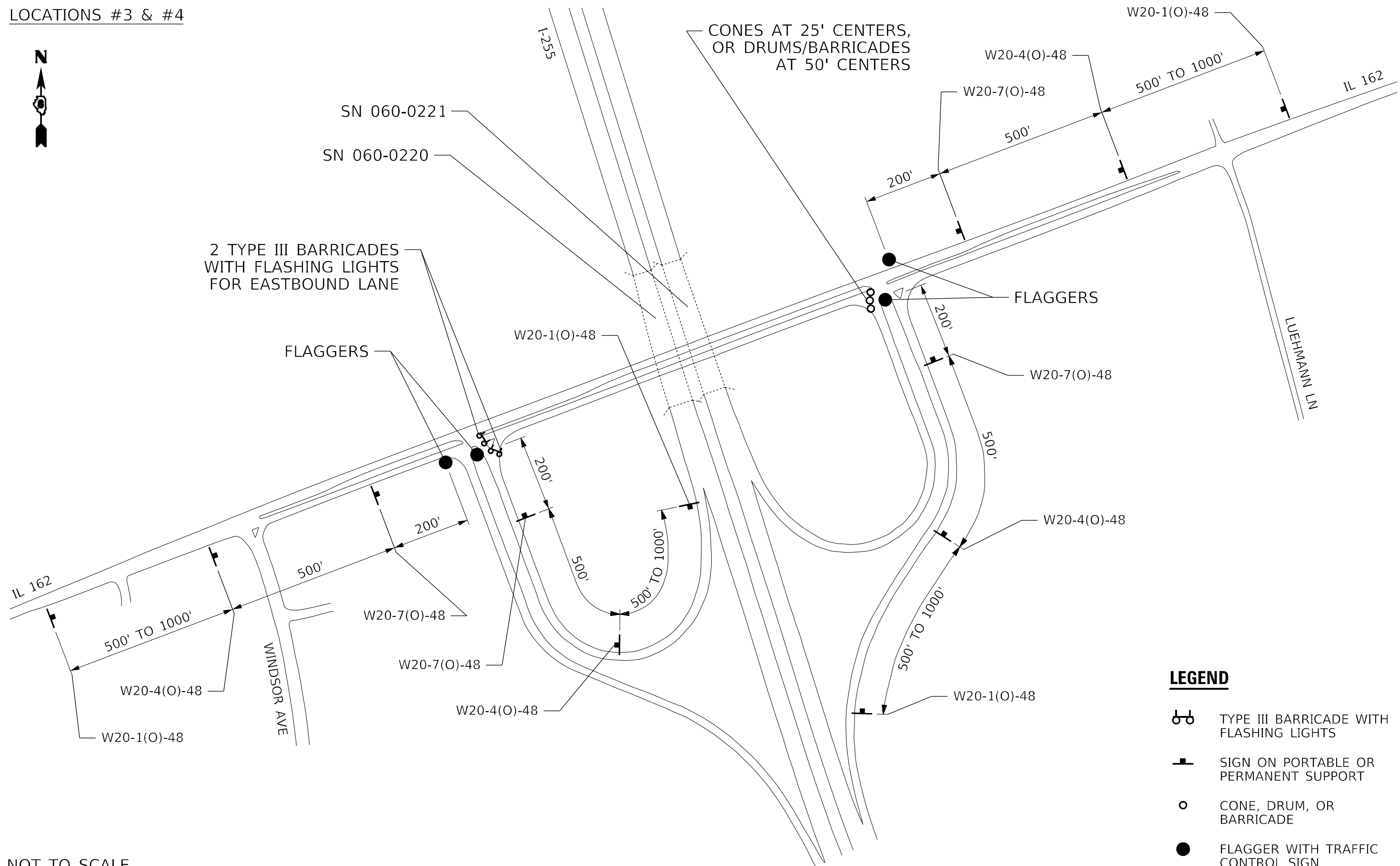
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)**

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	7
**FAI 255, FAP 592, FAI 270	CONTRACT NO. 76P71			
ILLINOIS FED. AID PROJECT				

SCALE: NTS    SHEET 1 OF 1 SHEETS    STA.    TO STA.





LOCATIONS #3 & #4



2 TYPE III BARRICADES WITH FLASHING LIGHTS FOR EASTBOUND LANE

CONES AT 25' CENTERS, OR DRUMS/BARRICADES AT 50' CENTERS

**LEGEND**

-  TYPE III BARRICADE WITH FLASHING LIGHTS
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  CONE, DRUM, OR BARRICADE
-  FLAGGER WITH TRAFFIC CONTROL SIGN

NOT TO SCALE

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	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/18/2022	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

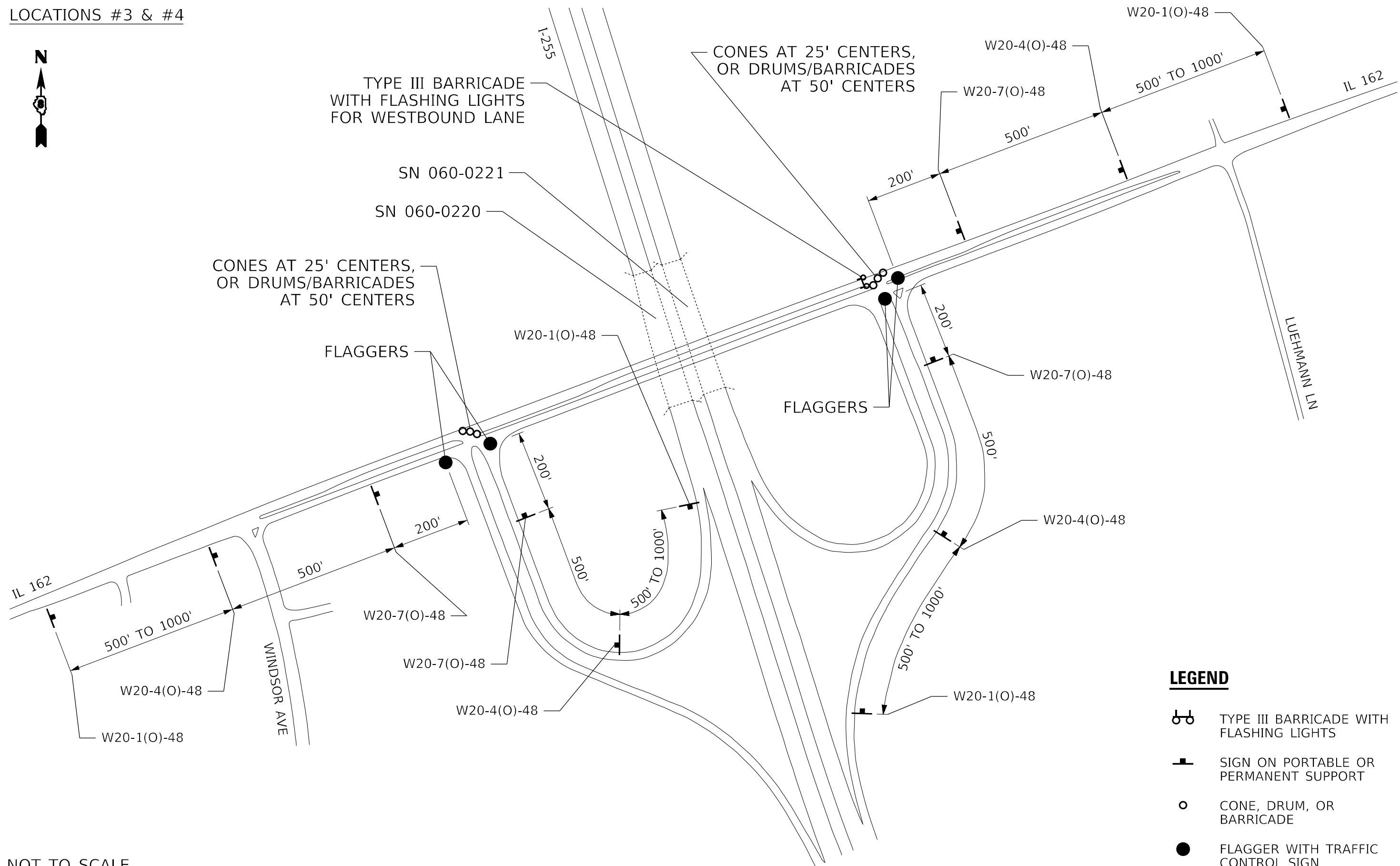
**TRAFFIC CONTROL AND PROTECTION, (SPECIAL)**  
**EASTBOUND LANE CLOSURE**

SCALE: NTS      SHEET 1 OF 2 SHEETS      STA.      TO STA.

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	8
**FAI 255, FAP 592, FAI 270		CONTRACT NO. 76P71		
ILLINOIS FED. AID PROJECT				



LOCATIONS #3 & #4







CONES AT 25' CENTERS,  
OR DRUMS/BARRICADES  
AT 50' CENTERS

CONES AT 25' CENTERS,  
OR DRUMS/BARRICADES  
AT 50' CENTERS

TYPE III BARRICADE  
WITH FLASHING LIGHTS  
FOR WESTBOUND LANE

**LEGEND**

-  TYPE III BARRICADE WITH FLASHING LIGHTS
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  CONE, DRUM, OR BARRICADE
-  FLAGGER WITH TRAFFIC CONTROL SIGN

NOT TO SCALE

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PLOT DATE = 3/18/2022	DATE -	REVISED -

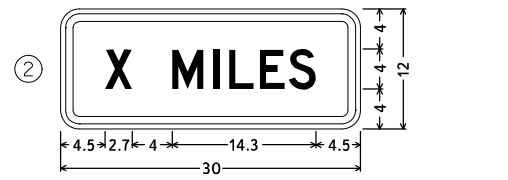
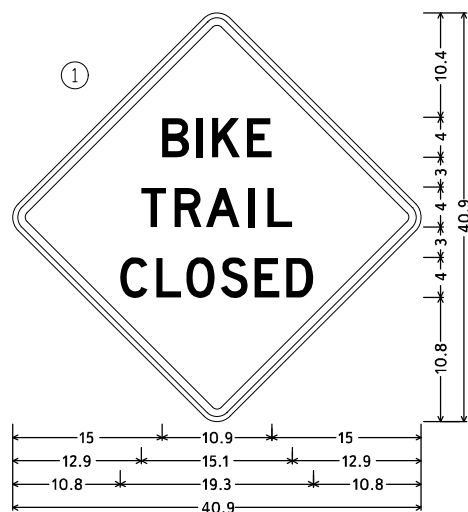
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION, (SPECIAL)  
WESTBOUND LANE CLOSURE**

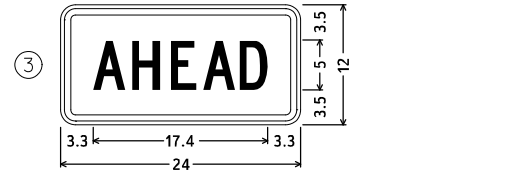
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**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	9
**FAI 255, FAP 592, FAI 270			CONTRACT NO. 76P71	
ILLINOIS FED. AID PROJECT				

**SIGNS FOR BIKE LANE CLOSURES**



1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange; "X MILES", D 2K;

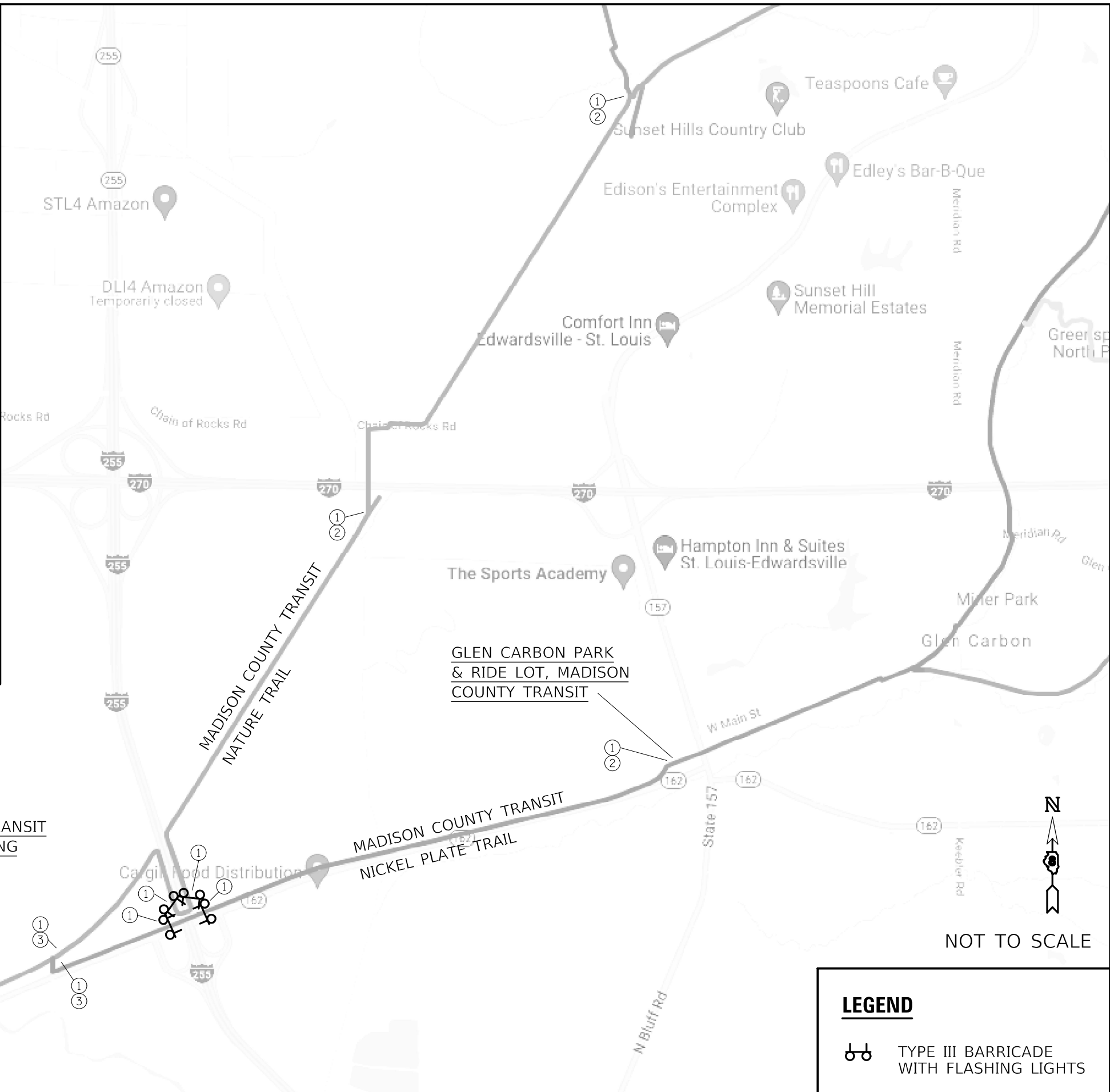


W16-9P\_24x12; 1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange; "AHEAD", C 2K specified length;

30.0" across sides 1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange; "BIKE", D 2K; "TRAIL", D 2K 136% spacing; "CLOSED", D 2K;

**NOTES FOR BIKE TRAIL CLOSURES**

1. ALL SIGNS SHALL BE CONTRACTOR PROVIDED.
2. THE CONTRACTOR SHALL NOTIFY THE TRAIL AGENCY TWO WEEKS PRIOR TO BIKE TRAIL CLOSURE. SEE PERTINENT INFORMATION FOR LIST OF CONTACTS.
3. THE MADISON COUNTY TRANSIT NATURE TRAIL AND NICKEL PLATE TRAIL SHALL NOT BE CLOSED SIMULTANEOUSLY.
4. BIKE TRAIL CLOSURE TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION, (SPECIAL).



**LEGEND**

TYPE III BARRICADE WITH FLASHING LIGHTS

NOT TO SCALE

MODEL: \\MODEL\MNF... FILE: \\MAILS... PROJECT: 0876971\CD\DATA\CAD\Sheet\0876971\_sht2.rvt

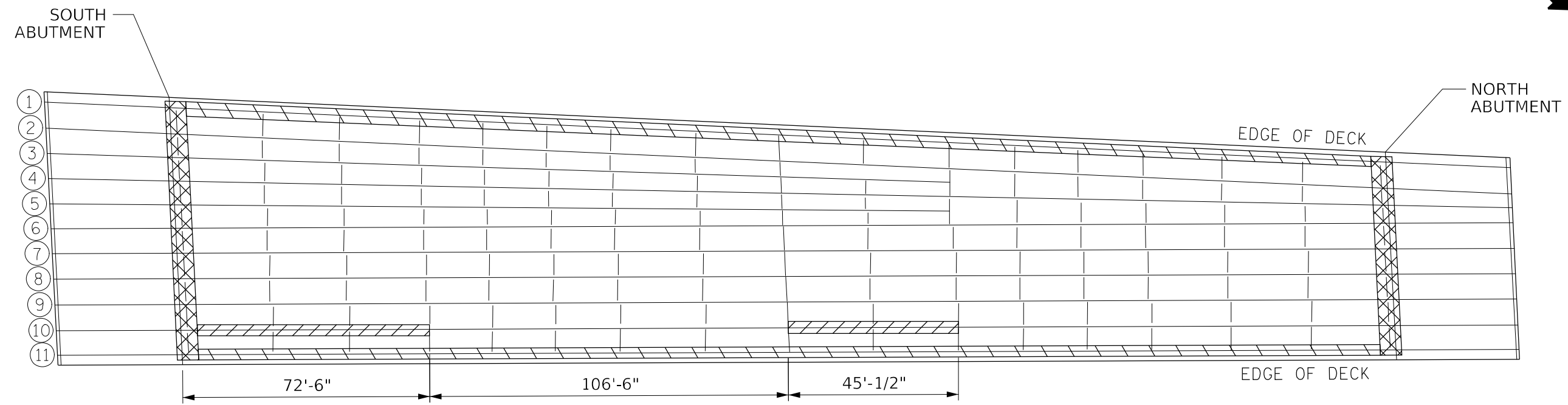
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PLOT DATE = 3/25/2022	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

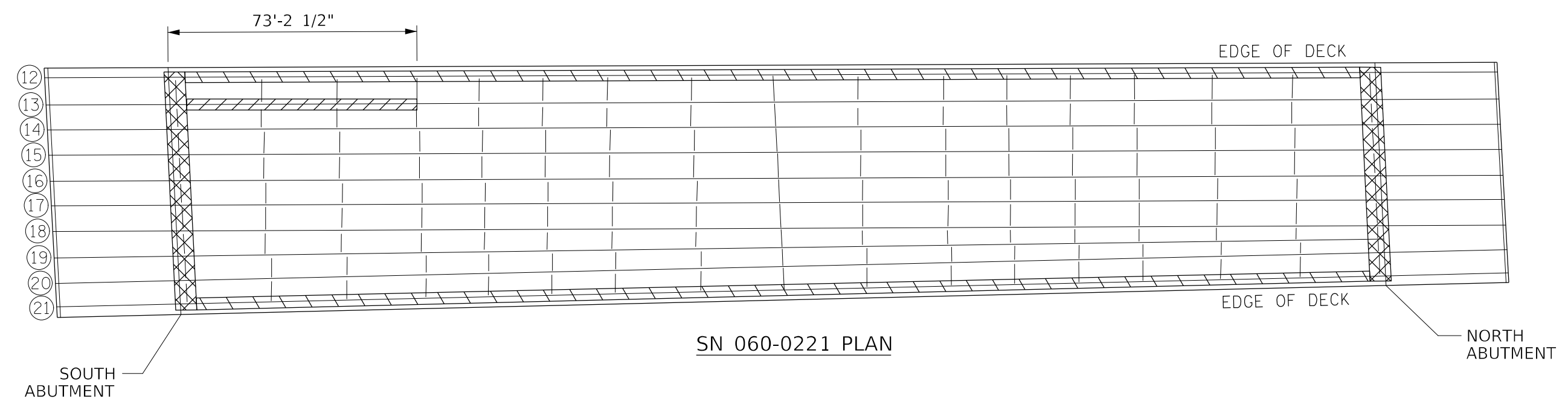
**TRAFFIC CONTROL AND PROTECTION, (SPECIAL)  
BIKE TRAIL CLOSURES**

**FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	10
**FAI 255, FAP 592, FAI 270	CONTRACT NO. 76P71			
ILLINOIS FED. AID PROJECT				

SCALE: NTS SHEET 1 OF 1 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_



SN 060-0220 PLAN



SN 060-0221 PLAN

**LEGEND**

- CLEANING AND PAINTING OF FULL BEAMS  
  
 CLEANING AND PAINTING OF FASCIA BEAMS
- CLEANING AND PAINTING OF BEAMS, BEARINGS, AND DIAPHRAGMS WITHIN 5 FEET OF ABUTMENT (AS MEASURED ALONG THE BEAM)

MODEL: Default  
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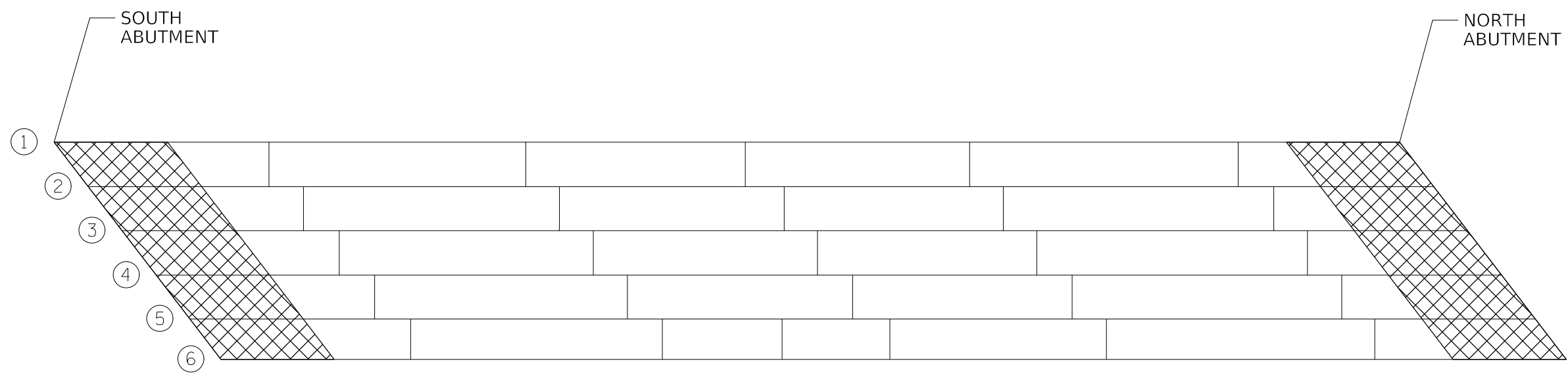
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PLOT DATE = 3/18/2022	DATE -	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BRIDGE PAINTING DETAIL -  
SN 060-0220 & SN 060-0221**

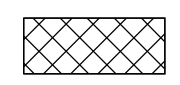
SCALE: NTS      SHEET 1 OF 1 SHEETS      STA.      TO STA.

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	11
**FAI 255, FAP 592, FAI 270			CONTRACT NO. 76P71	
ILLINOIS FED. AID PROJECT				



SN 060-0088 PLAN

**LEGEND**



CLEANING AND PAINTING OF BEAMS, BEARINGS, AND DIAPHRAGMS WITHIN 10 FEET OF ABUTMENT (AS MEASURED ALONG THE BEAM)

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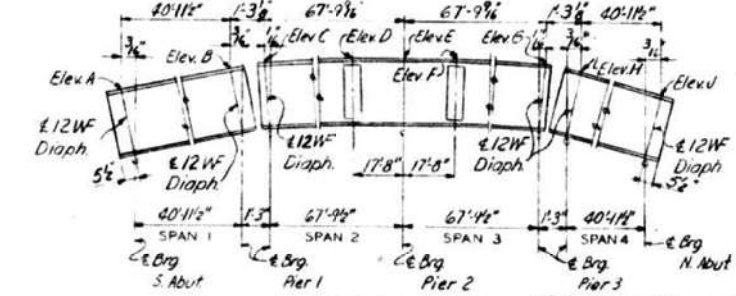
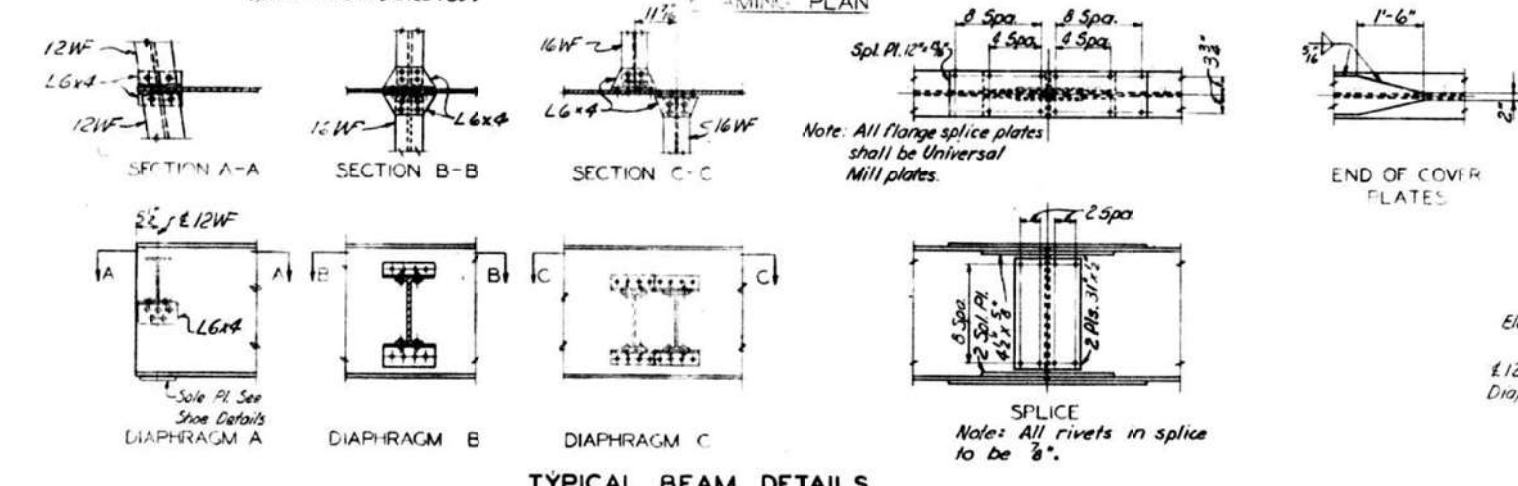
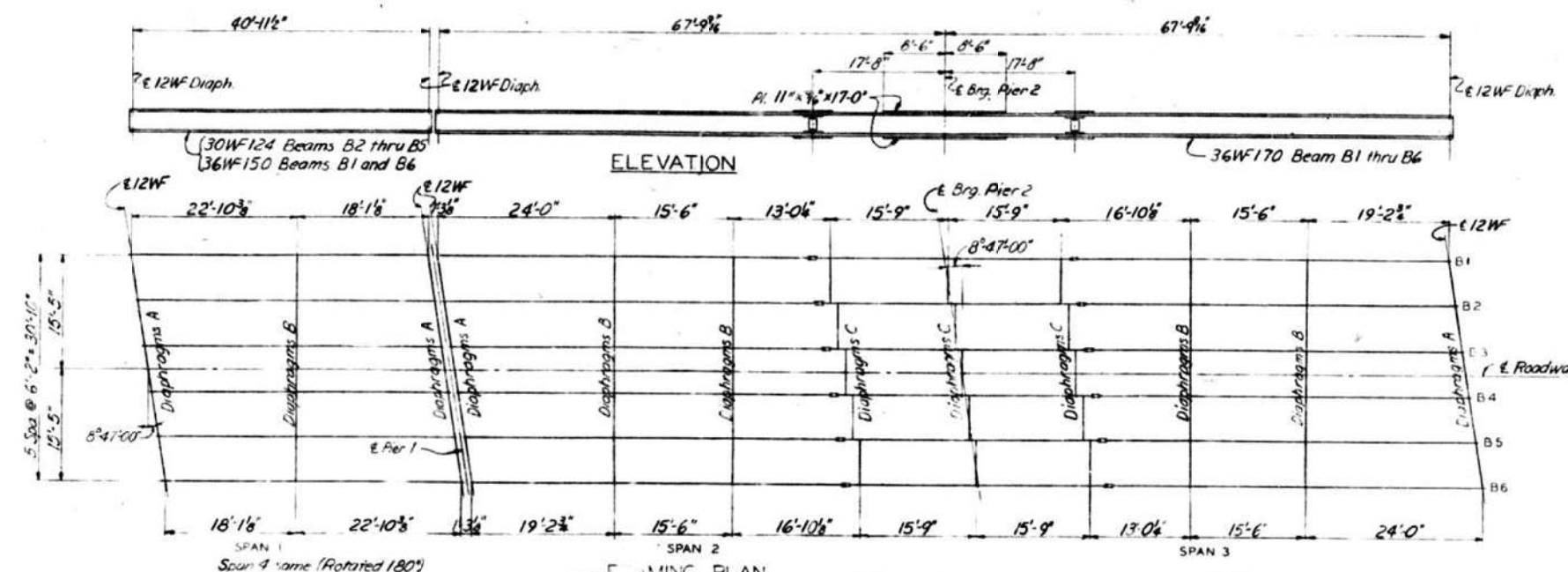
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE PAINTING DETAIL -**  
**SN 060-0088**

SCALE: NTS      SHEET 1    OF   1    SHEETS    STA.                    TO STA.

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	12
**FAI 255, FAP 592, FAI 270			CONTRACT NO. 76P71	
ILLINOIS   FED. AID PROJECT				

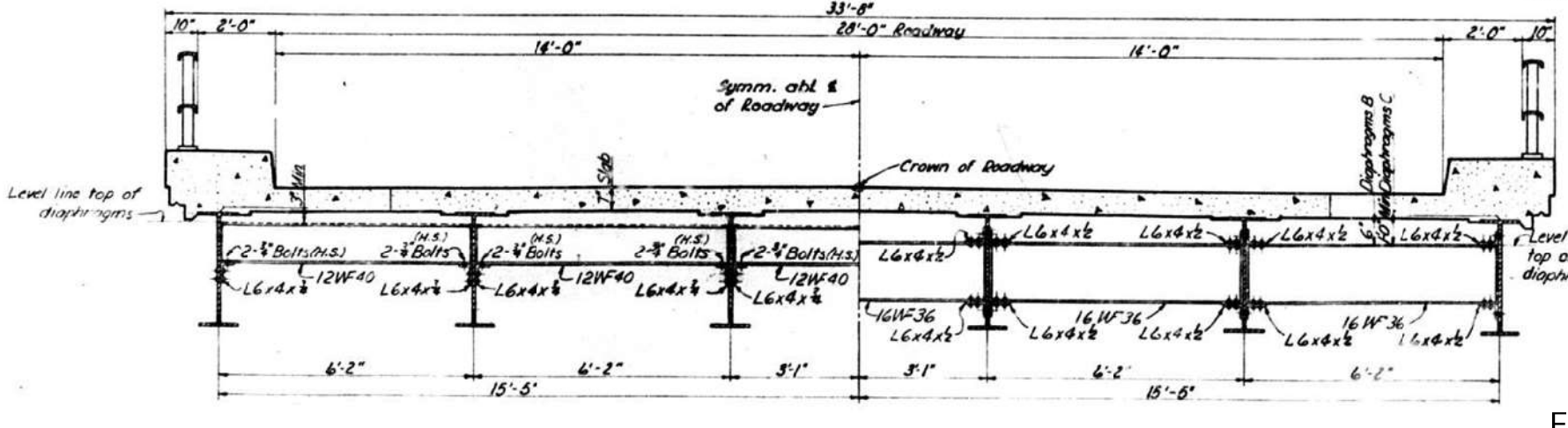




**NOTES**  
 All rivets are 3/4" unless otherwise noted.  
 3/8" bolts shall be H.S. bolts.  
 Longitudinal dimensions given are horizontal and are measured along top of WF beams.  
 Beams are not to be combed.

BEAM	TABLE OF ELEVATIONS									
	POINT									
	A	B	C	D	E	F	G	H	I	J
B1	54757	54778	54778	54791	54791	54791	54778	54778	54778	54778
B2	54767	54788	54788	54801	54801	54801	54788	54788	54788	54788
B3	54774	54795	54795	54808	54808	54808	54795	54795	54795	54795
B4	54774	54795	54795	54808	54808	54808	54795	54795	54795	54795
B5	54767	54788	54788	54801	54801	54801	54788	54788	54788	54788
B6	54757	54778	54778	54791	54791	54791	54778	54778	54778	54778

Note: Elevations given at top of WF beams are theoretical and do not include any corrections for dead load deflection.

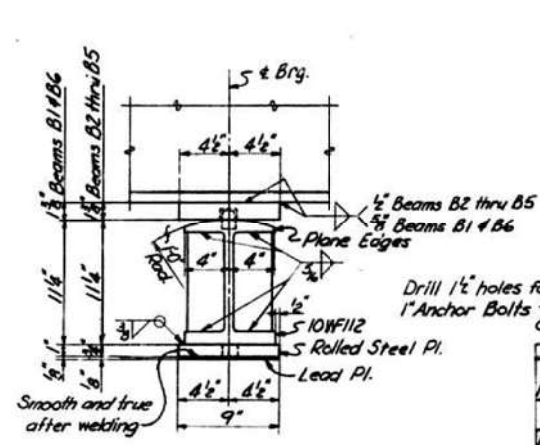


BEAM SPANS 1,2,3 & 4

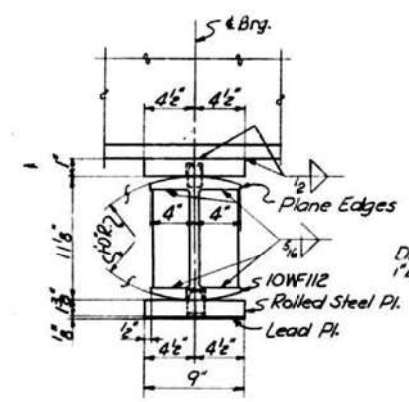
BRIDGE OVER - FAI-270 CARRYING RELOCATED C.H. RTE.-43  
 STATION - 664+43.70  
 F A I ROUTE - 270  
 SECTION - 60-5HB,  
 MADISON COUNTY, ILLINOIS

FOR INFORMATION ONLY

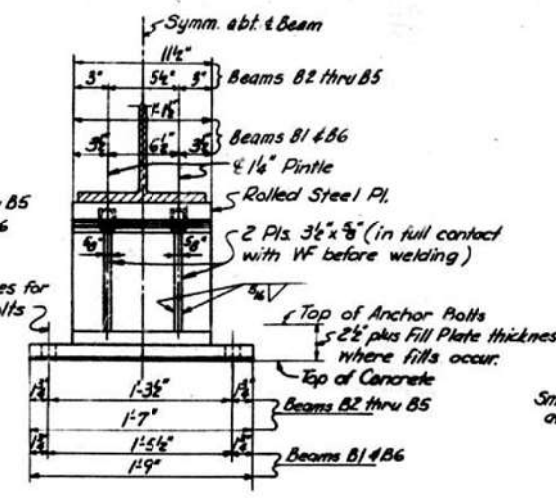
SCALE NONE  
 DRAWN: R.V. Putterlick, Dec. 1958  
 TRACED: W.J. Gaddis, Dec. 1958  
 CHECKED: W.J. Gaddis, Dec. 1958  
 SUPERVISOR & PARCEL INCH. ENGINEERS-ARCHITECTS ST. LOUIS, MO.



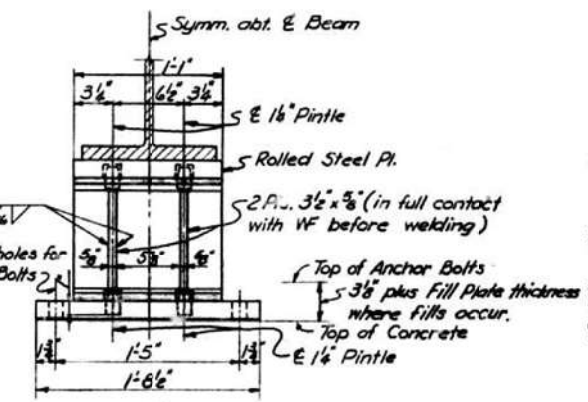
FIXED SHOE  
PIERS 1 & 3  
8 Reqd. - Beams B2 thru B5  
4 Reqd. - Beams B1 & B6  
Note: Fill Plates not shown.  
See Table of Fill Plates.



EXPANSION SHOE  
PIERS 1 & 3  
12 Reqd.  
Note: Fill Plates not shown.  
See Table of Fill Plates.



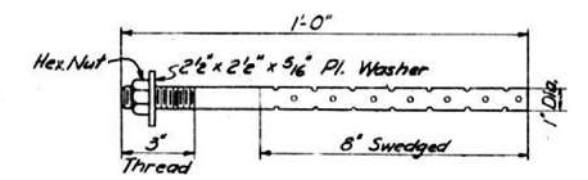
FIXED SHOE  
PIER 2  
6 Reqd.  
Note: Fill Plates not shown.  
See Table of Fill Plates.



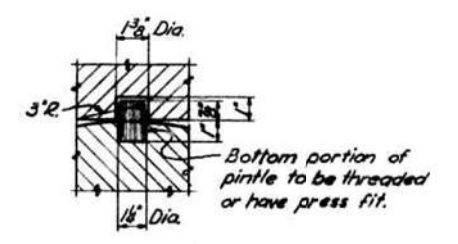
EXPANSION SHOE  
ABUTMENTS  
8, reqd. - Beams B2 thru B5  
4 Reqd. - Beams B1 & B6  
Note: Fill Plates not shown.  
See Table of Fill Plates.

Location	Fill Plate
South Abut. - Beams B3 & B4	9" x 7 3/8" x 1 1/2"
Pier 1 - Span 1 - Beams B1 & B6	9" x 7 3/8" x 1 1/2"
Pier 1 - Span 1 - Beams B3 & B4	9" x 7 3/8" x 1 1/2"
Pier 1 - Span 2 - Beams B3 & B4	9" x 7 3/8" x 1 1/2"
Pier 2 - Beams B3 & B4	10" x 7 3/8" x 1 1/2"
Pier 3 - Span 3 - Beams B3 & B4	9" x 7 3/8" x 1 1/2"
Pier 3 - Span 4 - Beams B1 & B6	9" x 7 3/8" x 1 1/2"
Pier 3 - Span 4 - Beams B3 & B4	9" x 7 3/8" x 1 1/2"
North Abut. - Beams B3 & B4	9" x 7 3/8" x 1 1/2"

Note: Do not scale this drawing. Follow dimensions.



ANCHOR BOLT  
(84 Required)



1/4" PINTLE  
(132 Required)  
Finish all over.

NOTES

Finish all surfaces marked X.  
All rollers, bearing plates, insert 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.  
Estimated weight = 11,824 lbs.

SHOES

BRIDGE OVER - F.A.I.-270 CARRYING RELOCATED C.H. RTE.-43  
STATION - 664 + 43:20  
F.A.I. ROUTE - 270  
SECTION - 60-5HB  
MADISON COUNTY, ILLINOIS

SCALE: NONE

DRAWN: P.J. Huber, Jan. 1959  
TRACED: W.J. Gaddis, Jan. 1959  
CHECKED: W.J. Gaddis, Jan. 1959

EVERSHUP & PARCEL, INC.  
ENGINEERS-ARCHITECTS  
ST. LOUIS, MO.

FOR INFORMATION ONLY

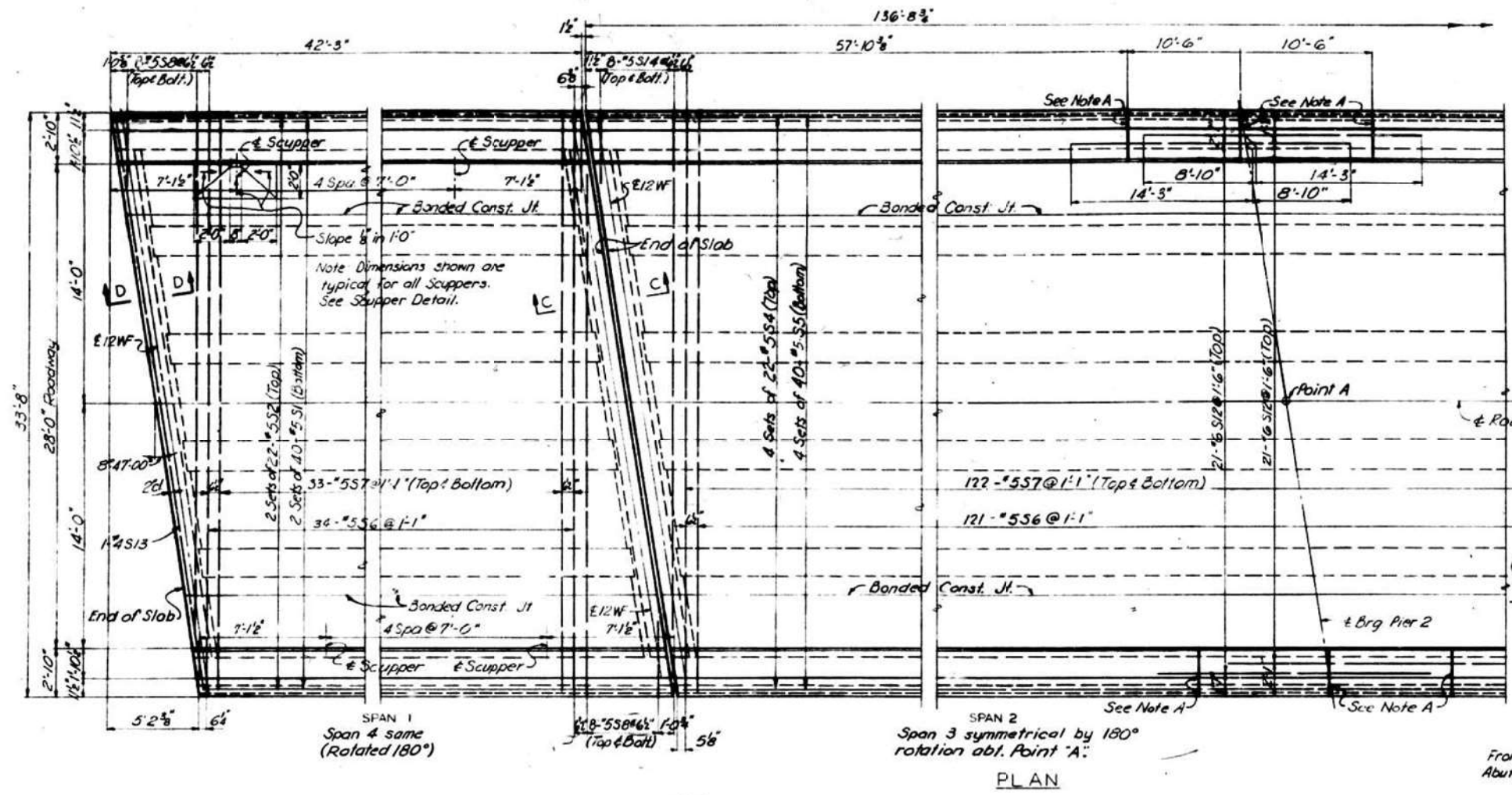
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS - LOCATION #1 (SN 060-0184)

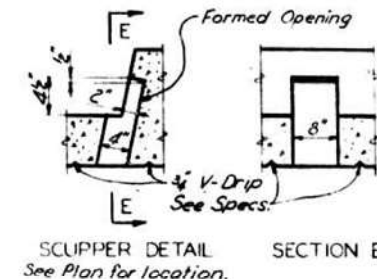
SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	15
**	F.A.I. 255, F.A.P. 592, F.A.I. 270	ILLINOIS	CONTRACT NO. 76P71	

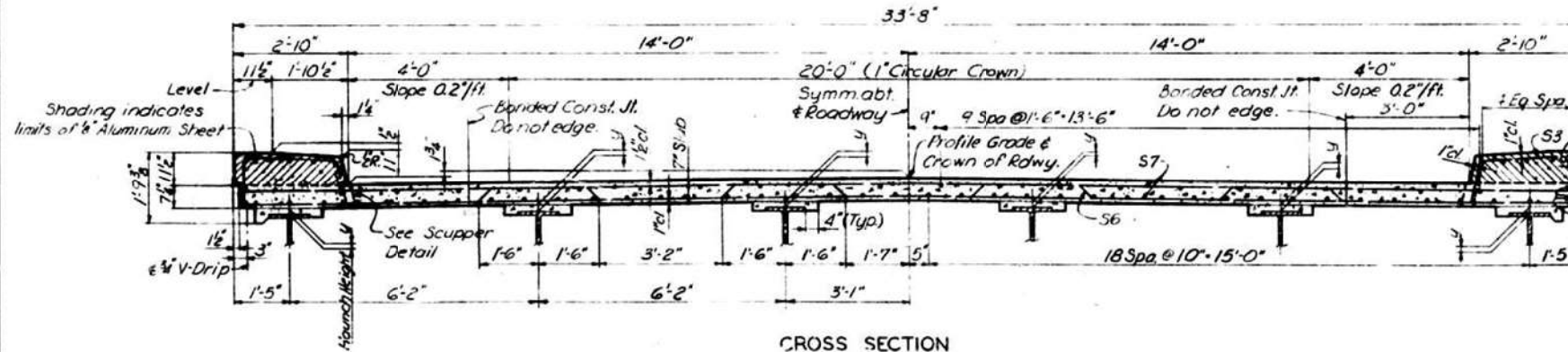
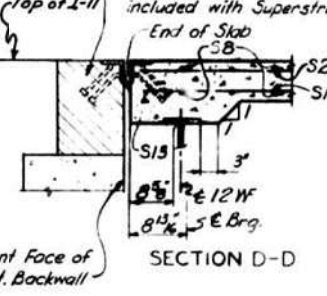
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1455-FB  
59 ST



Note A: 1/8" Aluminum Sheet (3003-H14) in Curb only. See Cross Section.

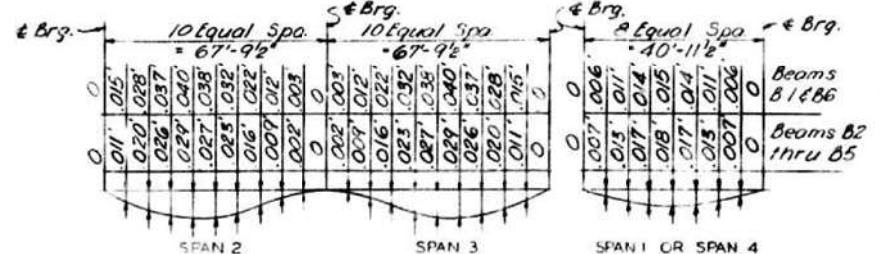
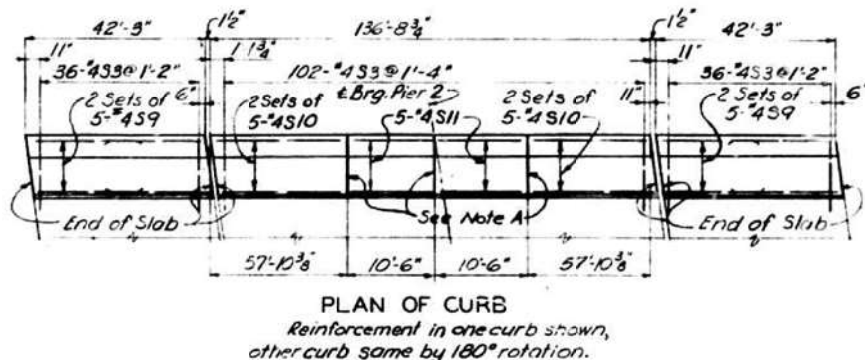


Shaded area to be poured after superstructure falsework has been removed. Quantity of Class X Concrete included with Superstructure.



**METHOD OF DETERMINING HAUNCH HEIGHT "Y"**  
 After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 feet. From these elevations, subtract the increment of deflection for these points, determined by the D.L. Deflection Diagram. The elevation so attained subtracted from the theoretical grade elevations, minus the slab thickness equals the haunch height above top of beam.

**NOTES**  
 All longitudinal dimensions shown on plan view are measured horizontally along top of W beams. For location of handrail post anchors, see Sheet 17. Transverse reinforcing may be bent or shifted slightly in field to clear scupper openings. For details of Expansion Joints, see Sheet 15. Transverse reinforcing may be cut in field to clear stools for Expansion Joints. Aluminum sheets will not be paid for separately, but the cost shall be included in the unit price bid per cu yd. of concrete.



FOR INFORMATION ONLY

SLAB DETAILS	
BRIDGE OVER - F.A. 1-270 CARRYING RELOCATED C.H. RTE. 43	
STATION - 684+43.70	SCALE: NONE
F.A.I. ROUTE - 270	
SECTION - 60-5H2	
MADISON COUNTY, ILLINOIS	
DRAWN - <i>El Carter, Oct. 1958</i>	OVERDRUP & PARCEL, INC. ENGINEERS-ARCHITECTS ST. LOUIS, MO.
TRACED - <i>W.J. Gaddis, Dec. 1958</i>	
CHECKED - <i>W.J. Gaddis, Dec. 1958</i>	

USER NAME = humphreysb	DESIGNED -	REVISED -
DESIGNED -	DRAWN -	REVISED -
DRAWN -	CHECKED -	REVISED -
CHECKED -	DATE -	REVISED -
DATE -		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS - LOCATION #1 (SN 060-0184)

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	16
**FAI 255, FAP 592, FAI 270	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 76P71	

1455-F.B.  
585644



B.M.: Temporary Benchmark 99 Southwest corner of bridge on ILL. Rte. 157 Top of South Abut.—Painted 'a' Elev. 453.83

Existing Structure: #060-0088 Built as S.B.I. Rte. 157, Sec. 117-B at Sta. 557+20 in 1933. The existing Superstructure shall be completely removed and replaced. The existing waterable measures 46'-8" and the length from Bk. to Bk. of existing abuts. is 122'-3 3/8". The existing pier caps are to be removed and replaced. The existing abutment caps are to remain, however, the seats must be built up to provide for grade change and super-elevation. Stage construction shall be used so as to maintain two way traffic during construction.

No Salvage

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60-117	117	MADISON	20	7
F.A. RT. 255	FAP 592	FBI 270		

GENERAL NOTES

Existing abutment to be demolished. Bk. to Bk. 122'-3 3/8" (M222) open hole 1/2" & unless otherwise noted. Estimated weight of structural steel = 70,000 lbs. (M222)

Full width of construction over the existing structure shall be maintained to the bottom flanges of beams or girders and to the top flanges for a distance equal to the depth of the beams or girders each way from the outer supports. Field welding of other members shall be permitted only when approved by the Engineer.

Anchor bolts shall be set before building abutments over seats.

The dimensions and details relative to existing structure have been taken from existing plans and are subject to normal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary 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.

Expansion bolts shall consist of galvanized expansion anchors, providing certified minimum stud load = 4,000 lbs., and 3/4" x 12" or 3/4" x 6" hooked bolts.

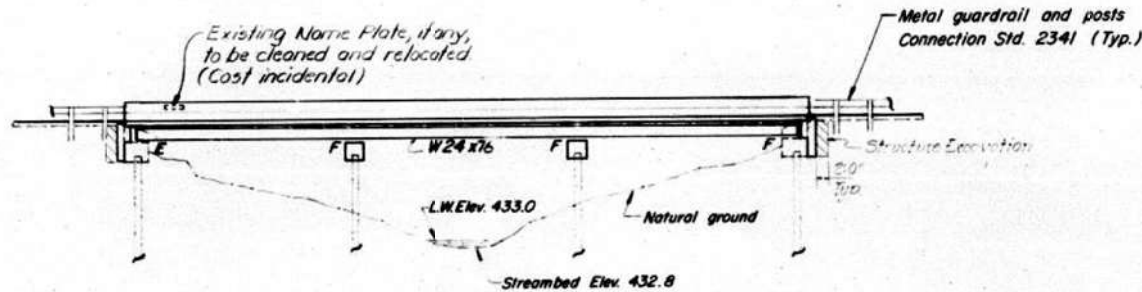
Working seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/4" inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. The 1/4" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type 1 Cast-In-Place Bearings, shims of the dimensions of top plate shall be provided and placed as detailed.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, ribs and all splice plate material of the wide flange beams.

All structural steel shall be AASHTO M222 unpainted.

All structural steel for a distance of three times the depth of the beams or girders, but not exceeding 30 feet, each way from deck joints shall be cleaned and given one coat of the best lead silico chromate primer and two coats of red oxide. Both coats to be applied in the shop with spot painting only in the field.

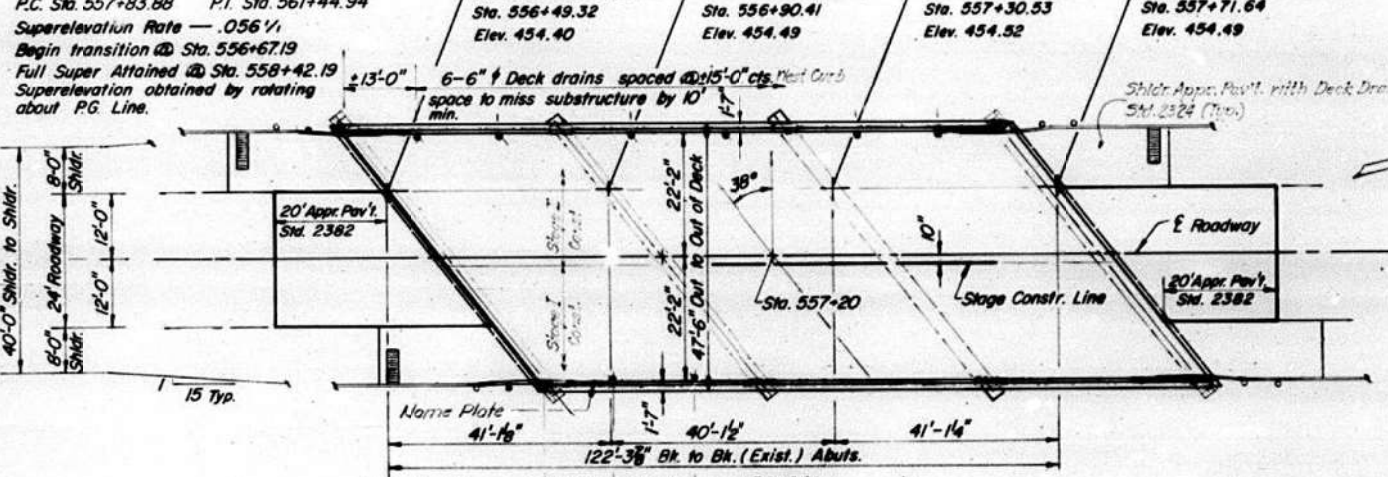
Reinforcement bars shall conform to the requirements of AASHTO M-31 or M53, Grade 60. All contact surfaces of joints for the diaphragms, shall be free of paint or loquer.



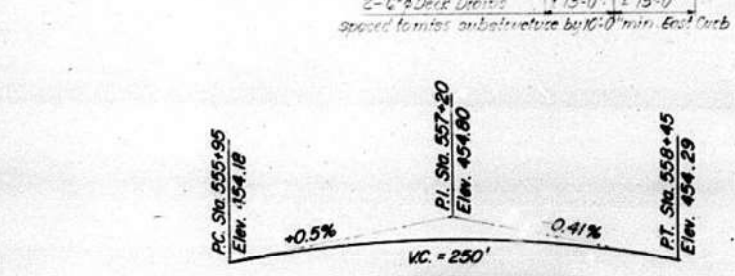
ELEVATION

Curve Data

PI. Sta.	559+65.87
Δ	17° 47' 45"
D	4° 55' 44"
T	181.99'
R	1162.46'
L	361.06'
E	14.16'



PLAN



PROFILE GRADE  
(along West edge of pavt.)

WATERWAY INFORMATION

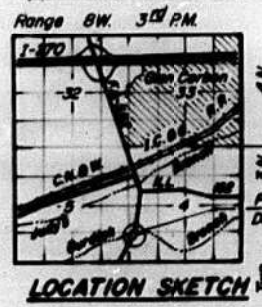
Drainage Area = 2.85 sq. mi. Low Grade Elev. = 453.9 @ Sta. 559+00									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	2983	518	518	446.5'	0.05	0.05	446.55	446.55
Base	100	3395	555	555	447.0	0.05	0.05	447.05	447.05
Overlapping									
Max. Calc.	500	4213		616	447.8		0.01		447.87

STATION 557+20  
REBUILT 198 BY  
STATE OF ILLINOIS  
F.A. RT. 592 SEC. 117 BR-1  
LOADING HS 20  
STR. NO. 060-0088

NAME PLATE  
(See Std. 2113)

TOTAL BILL OF MATERIAL

Item	Unit	Subst.	Qty	Wt.
Removal of Existing Superstructures	Each	1		1
Concrete (Structural)	Cu. Yd.	46.0		45.0
Floor Drains	Each	8		8
Protective Coat	Sq. Yd.	700		700
Class A Concrete	Cu. Yd.	105.3	85.4	250.7
Structural Steel	Lbs.			1
Reinforcement Bars	Pounds	17720	8260	25980
Reinforcement Bars (Epoxy Coated)	Pounds	26850		26850
Name Plates	Each	1		1
Neoprene Sealant (2")	Lin. Ft.	59		59
Temporary Bridge Rail	Lin. Ft.	124		124
Elastomeric Bearing Assembly, Type 1	Each	6		6
Stud Shear Connectors	Each	2646		2646
Expansion Bolts (3/4")	Each	276		276
Structure Elevation	Cu. Yd.	82		84



GENERAL PLAN  
ILL. Rte. 157 Over Burrick Branch  
F.A. Rte. 592 Section 117 BR-1  
MADISON COUNTY  
Proposed Bridge Deck Replacement Sta. 557+20.00

DESIGN STRESSES  
f<sub>c</sub> = 3,500 psi f<sub>y</sub> = 50,000 psi (M222) Structural  
f<sub>y</sub> = 60,000 psi (Reinforcement)  
\* Epoxy coated reinforcement bars shall be used in top layer of deck slab.  
LOADING HS 20-44  
Design Specifications: 1977 AASHTO; 1978, 1979, 1980 and 1981 Interim Specifications.  
Allow 25<sup>sq</sup>/ft. for future wearing surface.

DESIGNED: A. J. Brown  
CHECKED: Patrick M. Petro  
DRAWN: PMP  
CHECKED: PMP  
February 10, 1982  
EXAMINED: James J. Kayser  
APPROVED: [Signature]

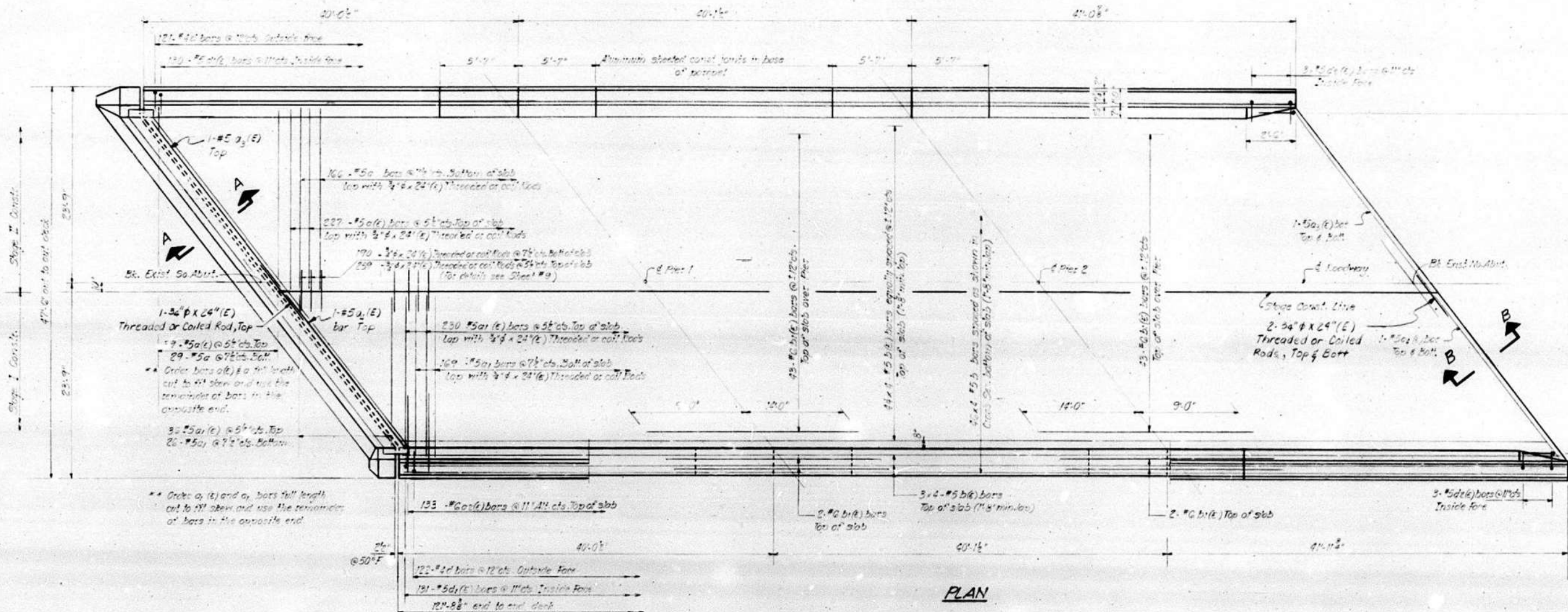
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS - LOCATION #2 (SN 060-0088)

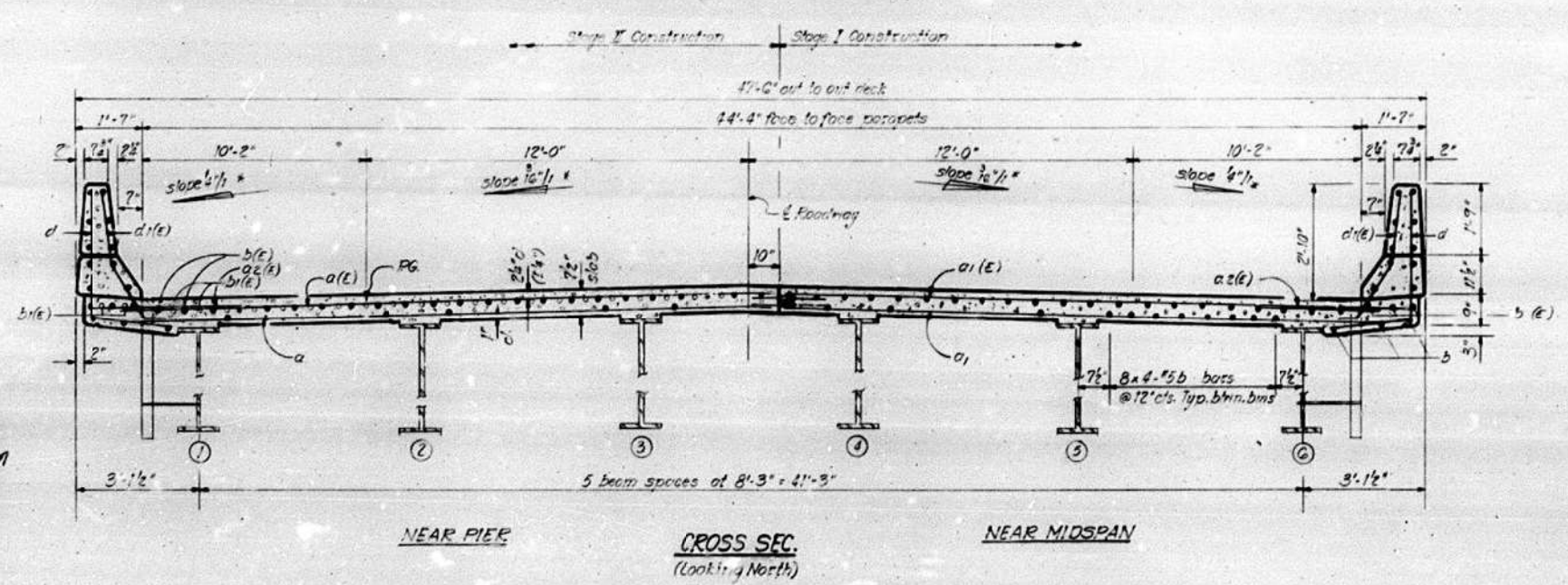
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PLOT SCALE = 40,0000 * 1/4"	DRAWN -	REVISIONS -	**	60-88P-1, 117BP-1, 60-58P-1	MADISON	32	17
PLOT DATE = 4/29/2022	CHECKED -	REVISIONS -	**FAI 255, FAP 592, FAI 270	CONTRACT NO. 76P71			
	DATE -	REVISIONS -	ILLINOIS FED. AID PROJECT				

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
592	117 BR-1	Madison	20	11
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



PLAN



CROSS SEC.  
(Looking North)

Notes:  
See sheet #6 for superstructure details and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.  
Bars indicated thus 4#4-#5 etc. indicates 4# lines of bars with 4 lengths per line.  
\* And varies due to superelevation.  
\*\* See Special Provisions for the procedure for epoxy coating of cut reinforcement bars.

DESIGNED *A. J. Brown*  
CHECKED *Patrick M. Atkins*  
DRAWN *S.V.K.*  
CHECKED *P.M.P.*

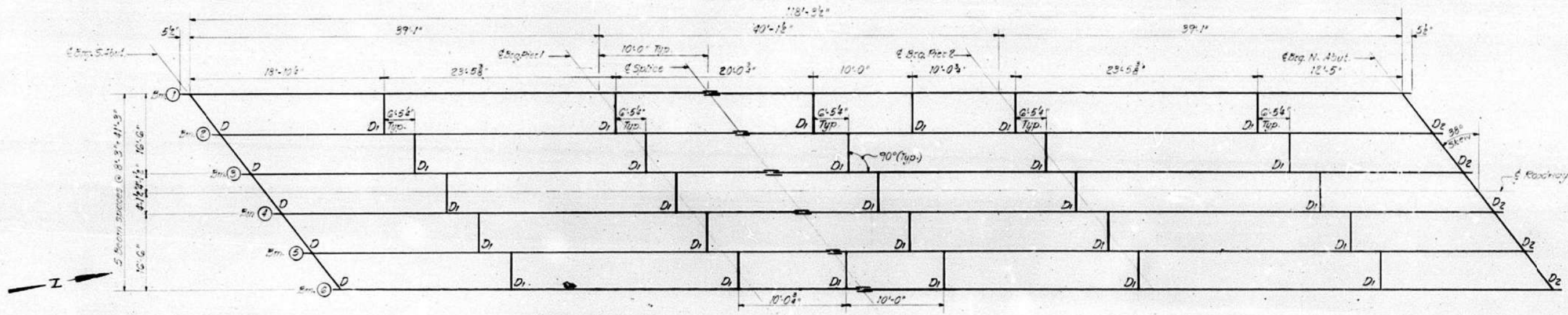
February 10, 2022  
EXAMINED *Jonathan J. Robinson*  
PASSED *Carl E. Hummer*  
APPROVED

**SUPERSTRUCTURE**  
**FA.RT.592 SEC.117 BR-1**  
**MADISON COUNTY**  
**STA. 557+20.00**

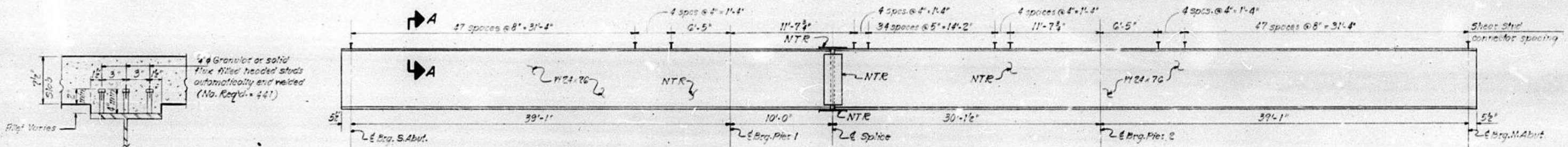
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USER NAME = humphreysb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE DETAILS - LOCATION #2 (SN 060-0088)	**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40,0000 "/> <td>CHECKED -</td> <td>REVISED -</td> <td>**</td> <td>60-8BP-1, 117BP-1, 60-5BP-1</td> <td>MADISON</td> <td>32</td> <td>18</td>	CHECKED -	REVISED -			**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	18	
PLOT DATE = 4/29/2022	DATE -	REVISED -			**FAI 255, FAP 592, FAI 270	CONTRACT NO. 76P71				
					ILLINOIS	FED. AID PROJECT				

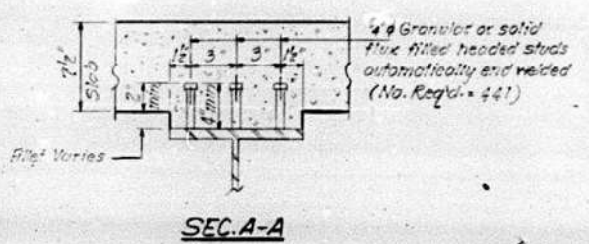




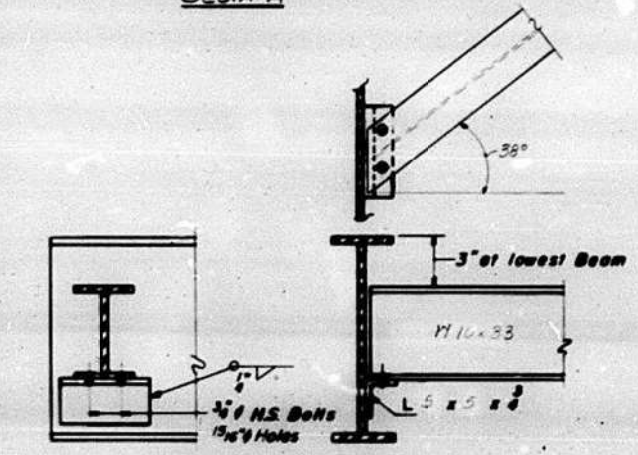
FRAMING PLAN



BEAM ELEVATION

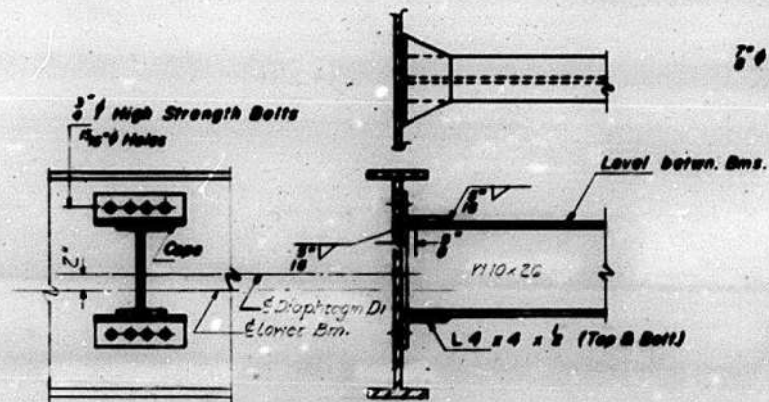


SEC. A-A



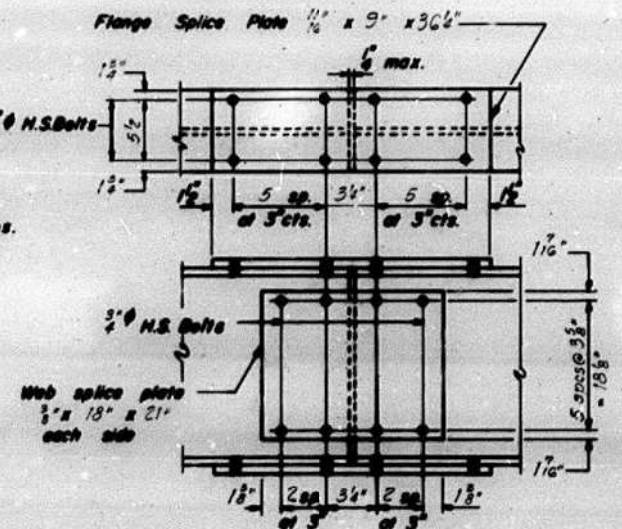
DIAPHRAGM D

Required: 5



DIAPHRAGM D1

Required: 27



SPlice

TOP OF BEAM ELEVATIONS  
(For fabrication only)

Loc.	Em. No.	Beam #1	Beam #2	Beam #3	Beam #4	Beam #5	Beam #6
8 Brq. So. Abut.	453.532	453.723	453.872	453.889	453.800	453.726	
8 Brq. Pier 1	453.518	453.752	453.960	454.072	454.110	454.169	
8 Splice	453.514	453.759	453.983	454.119	454.189	454.282	
8 Brq. Pier 2	453.503	453.782	454.050	454.260	454.429	454.623	
8 Brq. No. Abut.	453.489	453.811	454.137	454.442	454.739	455.067	

Note:  
The design Moment and Reaction Tables are on Sheet # 8.

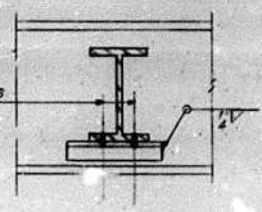
DESIGNED *A. L. Brown*  
CHECKED *Patrick M. Peters*  
DRAWN *S.V.V.*  
CHECKED *PMP*

EXAMINED *James A. Reiburn*  
PASSED *Carl E. Thompson*  
APPROVED \_\_\_\_\_  
DIRECTOR OF HIGHWAYS

February 10, 2022

Note: Two hardened washers shall be required over all 1 1/2" holes. All contact surfaces of joints shall be free of paint or lacquer.

3/4" H.S. Bolts  
1 1/2" Holes



DIAPHRAGM D2

Required: 5

I-2-D 8-30-80

STRUCTURAL STEEL  
F.A.R.T. 552 SEC. 117 BR-1  
MADISON COUNTY  
STA. 557+20.00

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USER NAME = humphreysb	DESIGNED -	REVISED -
PLOT SCALE = 40,0000 "/>		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS - LOCATION #2 (SN 060-0088)

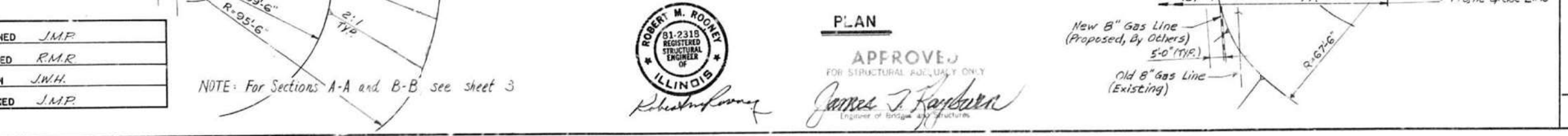
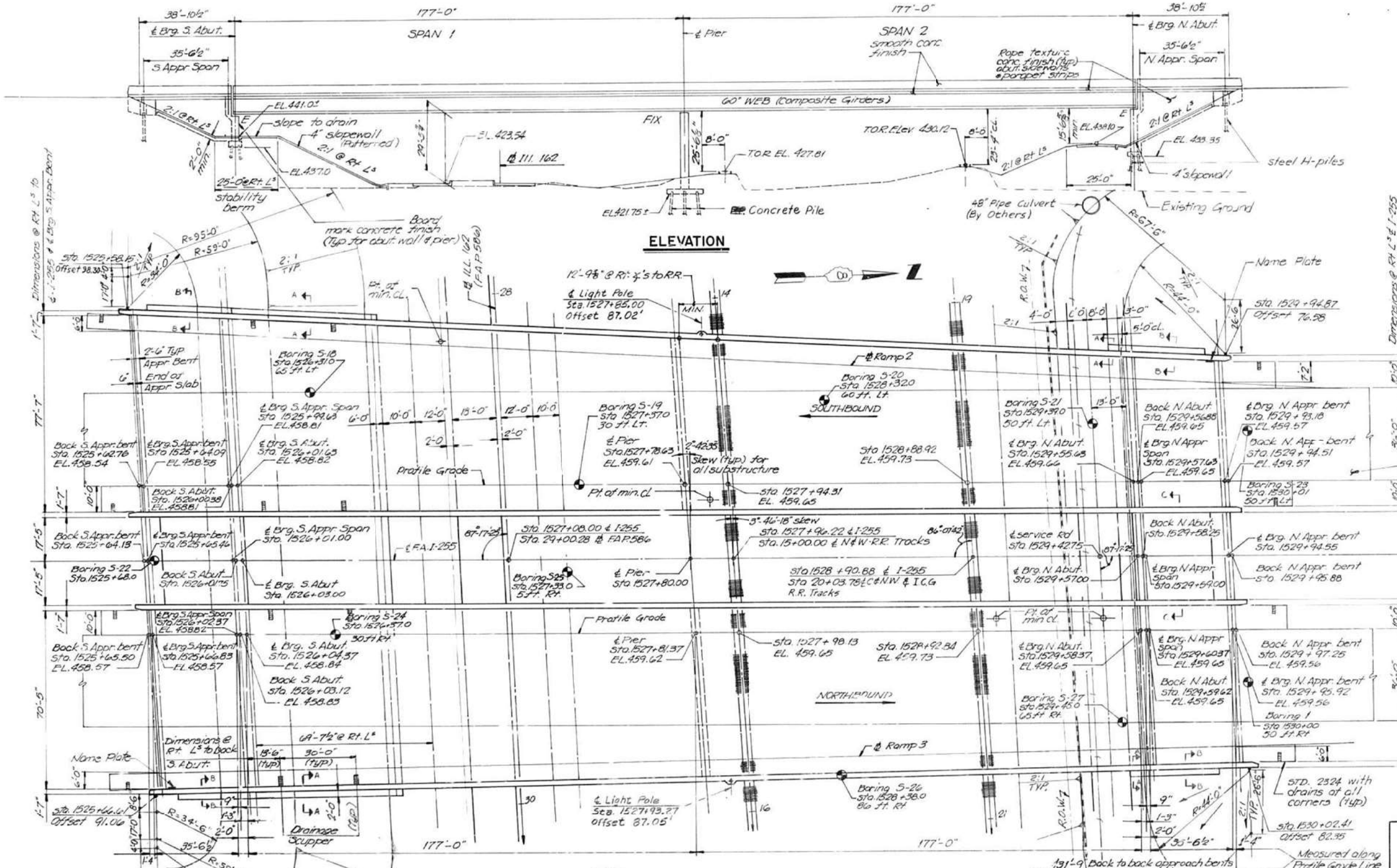
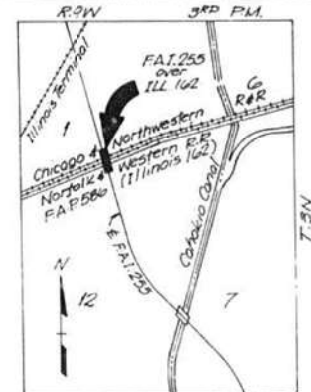
**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	20
**FAI 255, FAP 592, FAI 270	ILLINOIS		FED. AID PROJECT	

SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

B.M. : B.M.17 Spike in RRat  
 sta 30+20 (ILL 162) 53' LT  
 EL 423.51

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 255	60-8HVB	MADISON	52	16
F.A.				
FED. ROAD DIV. No. 7	ILLINOIS	PROJECT		



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

NOTE: For Sections A-A and B-B see sheet 3



APPROVED  
 FOR STRUCTURAL QUALITY ONLY  
 James J. Karpman  
 Engineer of Bridge and Structures

STATION 1527+08.00 F.A.I. 255  
 STATION 29+00.28 F.A.P. 586  
 BUILT 198- BY  
 STATE OF ILLINOIS  
 F.A.I. RT. 255 SEC. 60-8HVB  
 F.A. PROJ. ID-IDG-255-7(1921)  
 LOCATING HS20 & ALT.  
 \* STR. NO.

NAME PLATE  
 SEE STD 213  
 \* 960-0220 (Northbound)  
 \* 960-0221 (Southbound)  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
**GENERAL PLAN & ELEVATION**  
 F.A.I. 255 OVER  
 F.A.P. 586  
 SECTION 60-8HVB  
 MADISON COUNTY  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILL.

USER NAME = humphreysb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE DETAILS - LOCATION #3 (SN 060-0220) & LOCATION #4 (SN 060-0221)	**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 40,0000 "/>									

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 255	60-8HVB	MADISON	52	17
F.A.				
FED. ROAD DIV. No. 7 ILLINOIS PROJECT				

**FOR INFORMATION ONLY**

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8 inch adjusting shims of the dimensions of the bottom bearing plate shall be provided for each bearing in addition to all other plates or shims.

The Contractor shall drive 4 test piles in permanent locations: One (1) Steel HP 14x102 test pile at South Abut. - Southbound lanes, One (1) Steel HP 14x102 test pile at North Abut. - Northbound lanes, One (1) Concrete test pile at Northbound Pier and One Concrete test pile at Southbound Pier as directed by the Engineer before ordering the remainder of piles.

**BILL OF MATERIALS**

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd.	—	1151	1151
Drainage Scupper	Each	8	—	8
Protective Coat	Sq. Yd.	7081	—	7081
Class X Concrete	Cu. Yd.	1720.6	1335.6	3056.2
Precast Prestressed Concrete I-Beams 36"	Lin. Ft.	1,420	—	1,420
Structural Steel	Sum	1	—	1
Stud Shear Connectors	Each	13,200	—	13,200
Reinforcement Bars	Lb.	6,490	161,390	167,880
Reinf. bars (Epoxy Ctd.)	Lb.	448,100	920	449,020
concrete piles	Lin. Ft.	—	5,200	5,200
Steel Piles HP14x102	Lin. Ft.	—	17,575	17,575
Steel Piles HP14x117	Lin. Ft.	—	3297	3297
Test Pile Concrete	Each	—	2	2
Test Pile Steel HP14x102	Each	—	2	2
Slope Wall 4"	Sq. Yd.	—	1700	1700
Neoprene Expansion Jt.(2x)	Lin. Ft.	275	—	275
Name Plates	Each	2	—	2
Elastomeric Bearings (type I)	Each	40	—	40

**GENERAL NOTES**

**DESIGN SPECIFICATIONS:**

1983 A.A.S.H.T.O. & 1984 Interim Specifications

**DESIGN CRITERIA:**

Load Factor Design  
Live Load: HS 20-44 and alternate  
Allow 25 P.S.F. For Future wearing surface

**DESIGN STRESSES:**

Reinforced Concrete:  
f'c = 3,500 P.S.I.

Reinforcement:  
fy = 60,000 P.S.I.

**Structural Steel:**

fy = 50,000 P.S.I. (M222 Steel - Steel Plate thickness over 2")  
fy = 50,000 P.S.I. (M223 Steel - Main Girders, Splices and Bearing Stiffeners)  
fy = 36,000 P.S.I. (M183 Steel - Main Girders as noted, Cross Frames, Diaphragms and Connection Plates (Except as noted).

**PRESTRESSED CONCRETE:**

f'c = 5,000 P.S.I., f'ci = 4,000 P.S.I.  
f's = 270,000 P.S.I.  
f'si = 189,000 P.S.I.

Fasteners shall be high strength bolts. Bolts 7/8", Open holes 1 1/8". Unless otherwise noted.

Calculated weight of Structural Steel: M 223 (Grade 50) = 737,830 Lbs.  
M 183 = 1,126,120 Lbs.

The zinc-silicate and vinyl point system shall be used for shop and field painting of Structural Steel except where otherwise noted. Vinyl finish coat shall be dark brown. See special provisions.

See proposals for bearing data.

Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

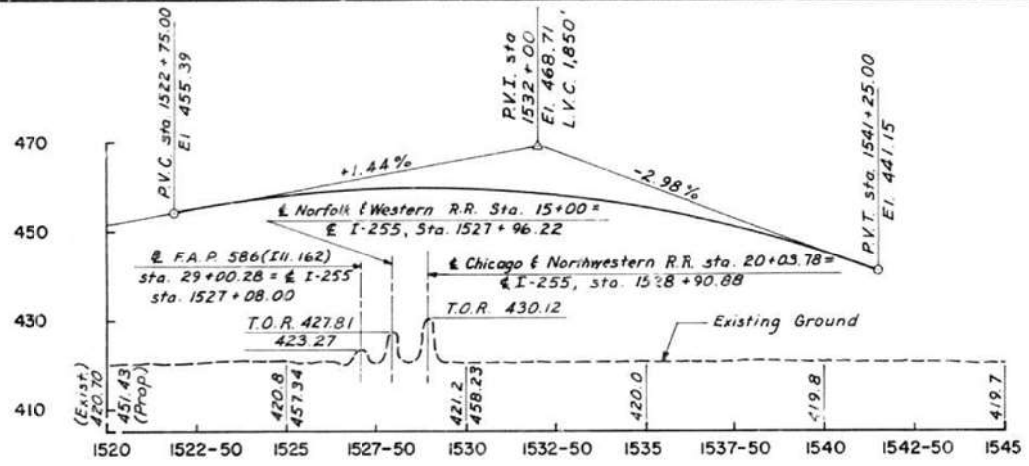
Anchor bolts shall be set before bolting diaphragms & bolting cross frames over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs, and all splice plate material of the steel girders or wide flange beams.

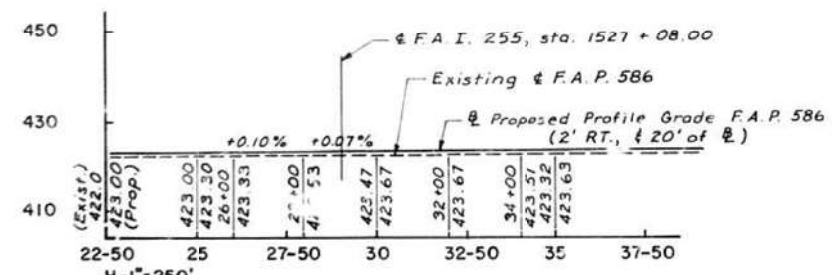
Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-53 Grade 60.

Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs per 100 sq ft.

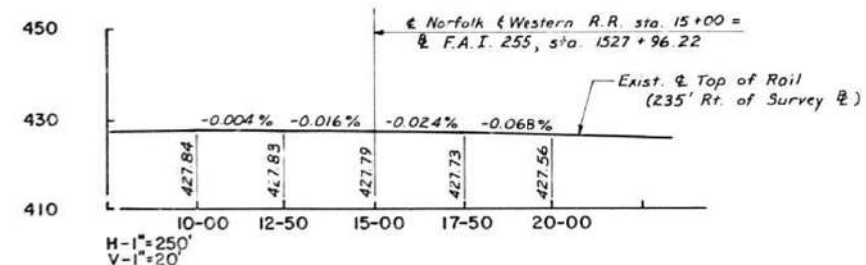
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.



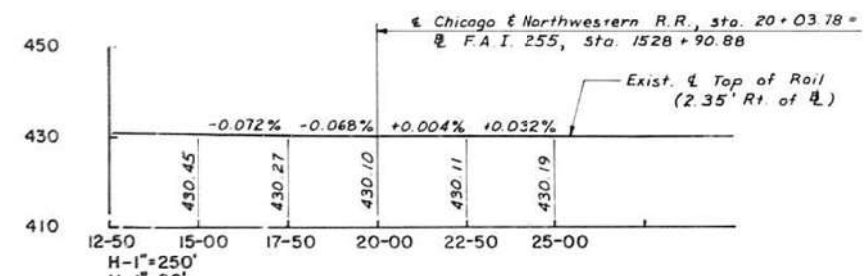
**PROFILE GRADE F.A.I. 255**



**PROFILE F.A.P. 586 (LOOKING NORTH)**



**PROFILE NORFOLK & WESTERN RAILROAD (LOOKING NORTH)**



**PROFILE CHICAGO & NORTHWESTERN RAILROAD (LOOKING NORTH)**

DESIGNED	J.M.P.
CHECKED	S.K.L.
DRAWN	A.J.B.
CHECKED	R.M.R.

USER NAME = humphreysb	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2022	DATE -	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**STRUCTURE DETAILS - LOCATION #3 (SN 060-0220) & LOCATION #4 (SN 060-0221)**

SCALE: SHEET 2 OF 11 SHEETS STA. TO STA.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**BRIDGE GENERAL NOTES**  
F.A.I. 255 OVER  
F.A.P. 586  
SECTION 60-8HVB  
MADISON COUNTY  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILL.

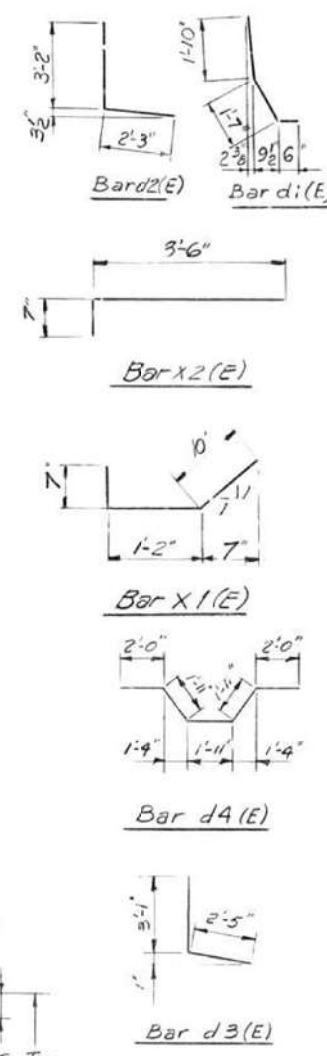
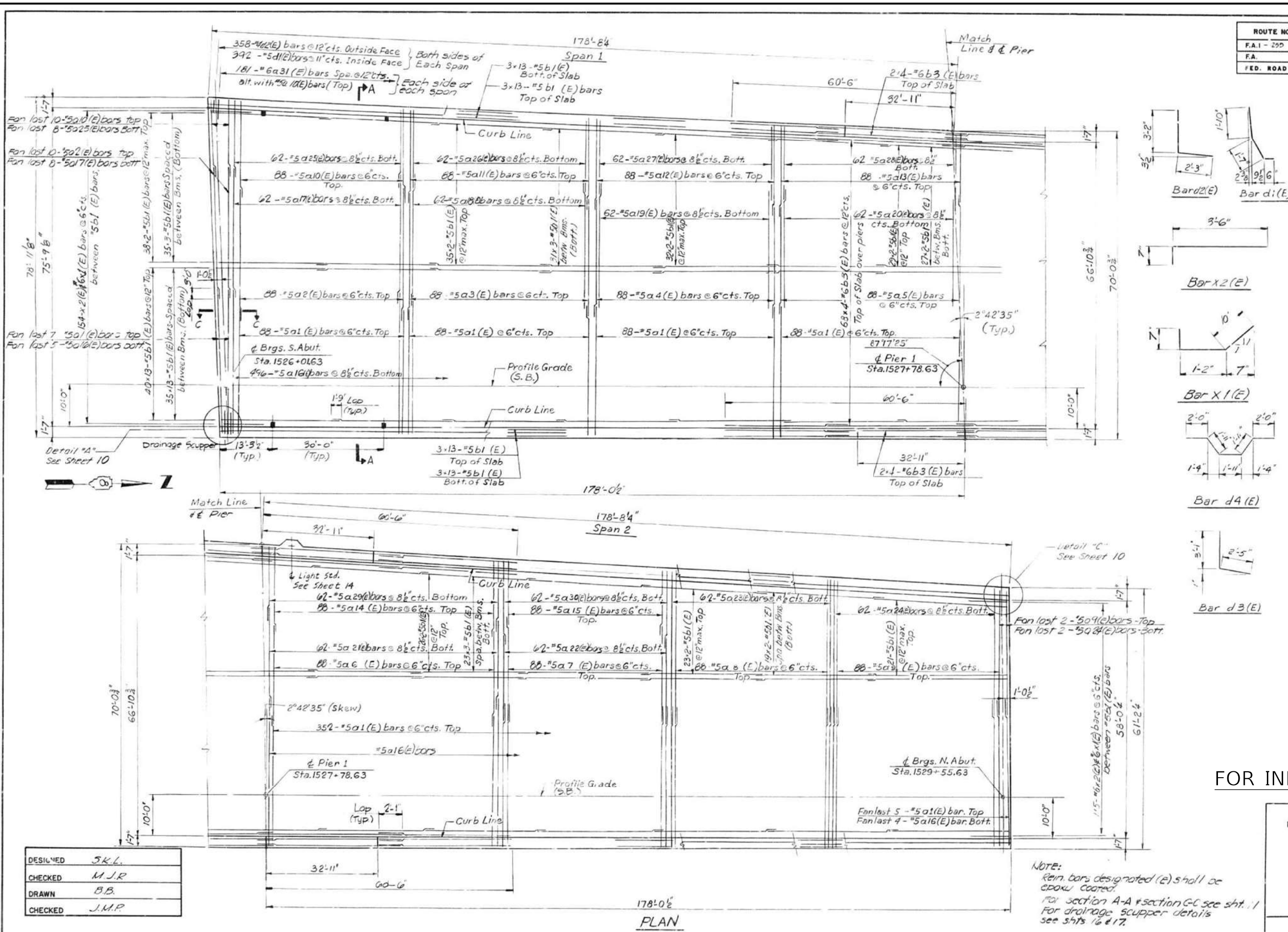
**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	22
**	F.A.I. 255, F.A.P. 586, F.A.I. 270	MADISON COUNTY		CONTRACT NO. 76P71

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 255	60-8HVB	MADISON	52	24
F.A.				
FED. ROAD DIV. No. 7	ILLINOIS PROJECT			

**BILL OF MATERIAL**

Bar	No	Size	Length	Shape
a1(E)	716	#5	29'-9"	
a2(E)	98	#5	31'-0"	
a3(E)	88	#5	29'-5"	
a4(E)	88	#5	27'-10"	
a5(E)	88	#5	26'-3"	
a6(E)	88	#5	25'-3"	
a7(E)	88	#5	24'-3"	
a8(E)	88	#5	38'-6"	
a9(E)	90	#5	36'-3"	
a10(E)	98	#5	24'-3"	
a11(E)	88	#5	23'-2"	
a12(E)	88	#5	22'-6"	
a13(E)	88	#5	21'-10"	
a14(E)	85	#5	20'-9"	
a15(E)	88	#5	19'-7"	
a16(E)	505	#5	33'-6"	
a17(E)	70	#5	31'-0"	
a18(E)	62	#5	24'-5"	
a19(E)	62	#5	27'-10"	
a20(E)	62	#5	26'-3"	
a21(E)	62	#5	25'-3"	
a22(E)	62	#5	24'-5"	
a23(E)	62	#5	33'-3"	
a24(E)	62	#5	30'-0"	
a25(E)	70	#5	19'-0"	
a26(E)	62	#5	18'-0"	
a27(E)	62	#5	17'-3"	
a28(E)	62	#5	16'-7"	
a29(E)	62	#5	15'-4"	
a30(E)	62	#5	14'-2"	
a31(E)	724	#6	4'-0"	
b1(E)	1880	#5	29'-3"	
b3(E)	288	#6	31'-10"	
b4(E)	32	#5	2'-0"	
d1(E)	784	#5	3'-11"	L
d2(E)	716	#4	5'-5"	L
d3(E)	3	#6	5'-6"	L
d4(E)	6	#6	9'-9"	L
x1(E)	269	#6	2'-7"	L
x2(E)	269	#6	4'-1"	L



DESIGNED	J.K.L.
CHECKED	M.J.R.
DRAWN	B.B.
CHECKED	J.M.R.

NOTE:  
 Rein. bars designated (e) shall be epoxy coated.  
 For section A-A & section G-C see sht. 11  
 For drainage scupper details see shts 16 & 17.

FOR INFORMATION ONLY

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
**DECK PLAN**  
**SOUTHBOUND**  
 F.A.I. 255 OVER  
 F.A.P. 586  
 SECTION 60-8HVB  
 MADISON COUNTY  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILL.

USER NAME =	humphreysb	DESIGNED -	REVISIONS
		DRAWN -	REVISIONS
		CHECKED -	REVISIONS
		DATE -	REVISIONS

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

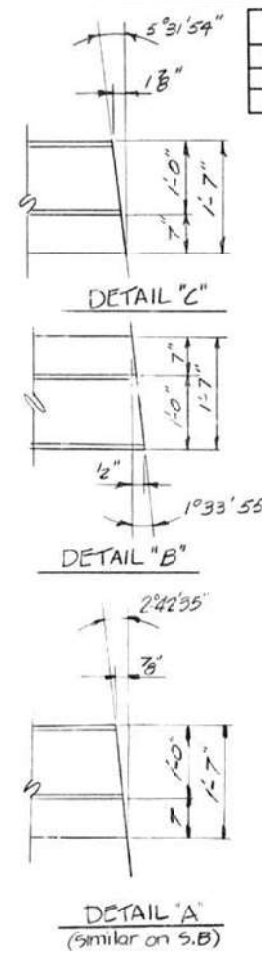
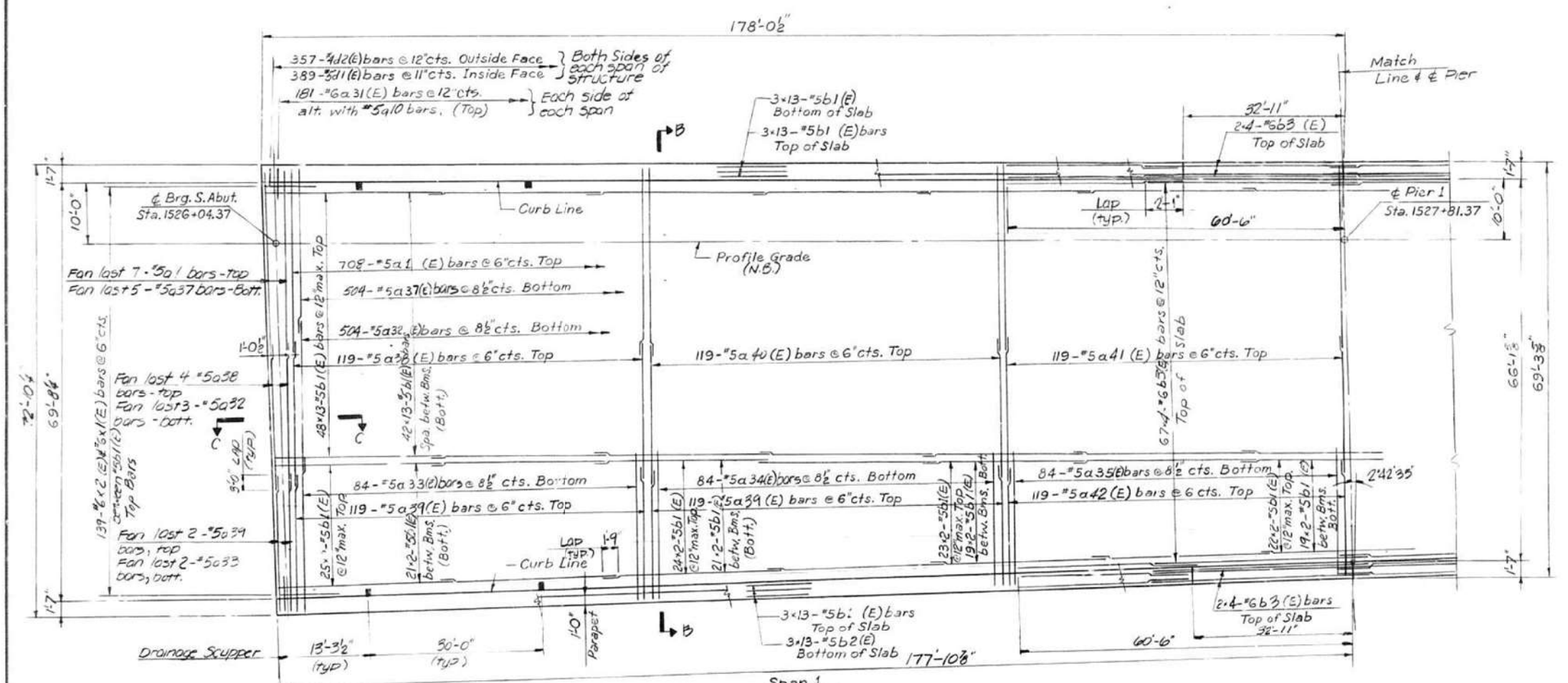
STRUCTURE DETAILS - LOCATION #3 (SN 060-0220)  
 & LOCATION #4 (SN 060-0221)

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	23
**F.A.I. 255, F.A.P. 592, F.A.I. 270	CONTRACT NO. 76P71			

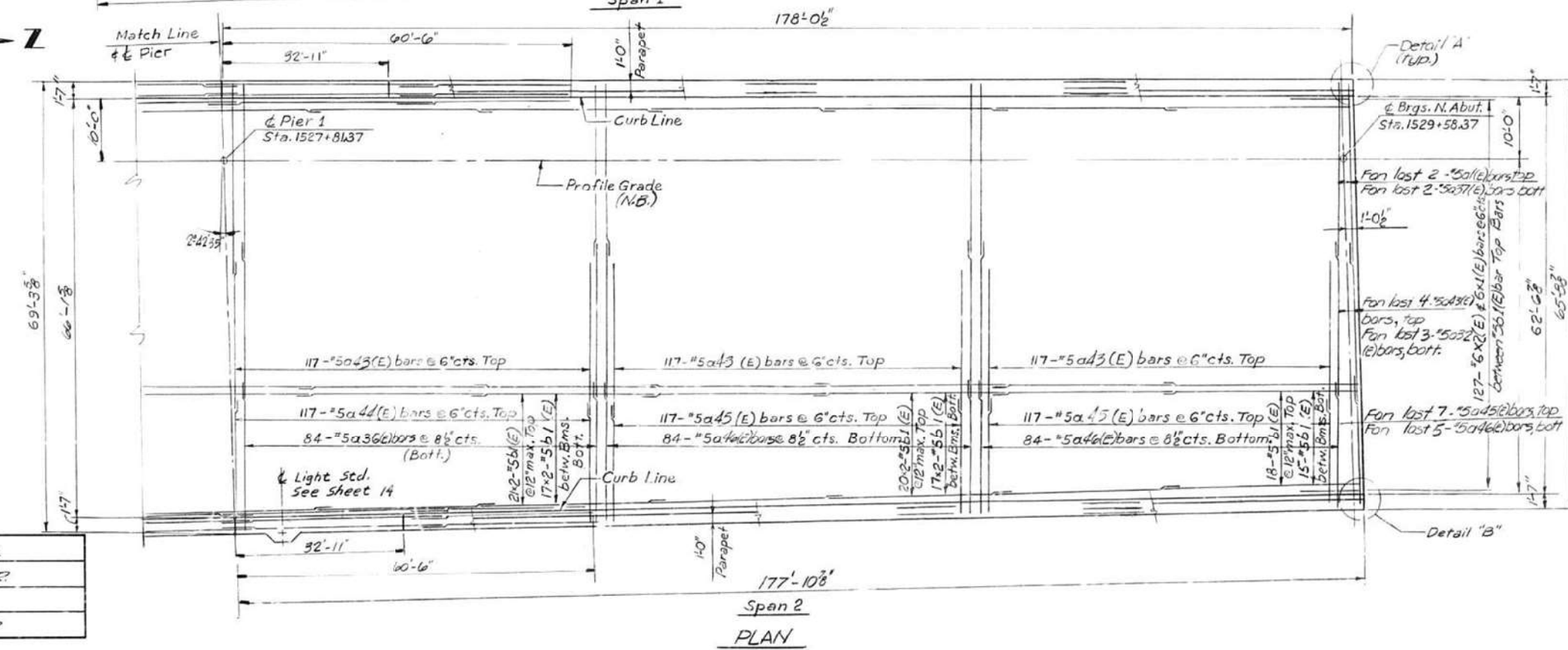
SCALE: SHEET 3 OF 11 SHEETS STA. TO STA.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-255	60-8HV8	MADISON	52	25
FED. ROAD DIV. No. 7 ILLINOIS PROJECT				



Bar	No	Size	Length	Shape
01(E)	717	#5	29'-9"	
09(E)	724	#6	4'-0"	
032(E)	510	#9	25'-9"	
033(E)	86	#5	24'-6"	
034(E)	84	#5	23'-4"	
035(E)	84	#5	22'-2"	
036(E)	84	#5	20'-11"	
037(E)	911	#5	26'-9"	
038(E)	123	#5	26'-11"	
039(E)	240	#5	22'-0"	
040(E)	119	#5	25'-9"	
041(E)	119	#5	25'-1"	
042(E)	119	#5	21'-7"	
043(E)	355	#5	24'-6"	
044(E)	117	#5	21'-0"	
045(E)	241	#5	19'-9"	
046(E)	173	#5	19'-8"	
b1(E)	1857	#5	20'-3"	
b3(E)	284	#6	31'-10"	
b4(E)	32	#5	2'-0"	
d1(E)	778	#5	3'-11"	
d2(E)	714	#4	5'-5"	
d3(E)	3	#6	6'-6"	
d4(E)	6	#6	9'-9"	
x2(E)	266	#6	4'-1"	
x1(E)	266	#6	3'-0"	



DESIGNED	J.K.L.
CHECKED	M.J.R.
DRAWN	B.B.
CHECKED	J.M.P.

FOR INFORMATION ONLY

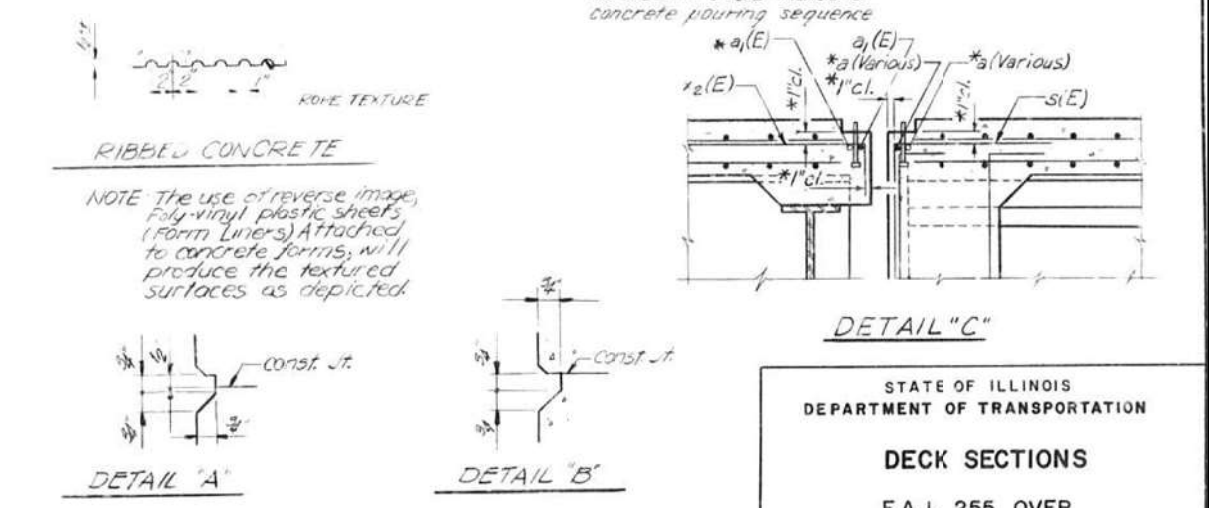
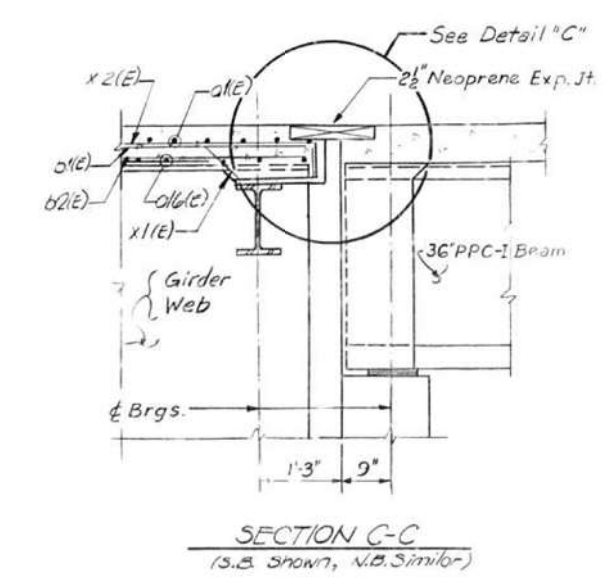
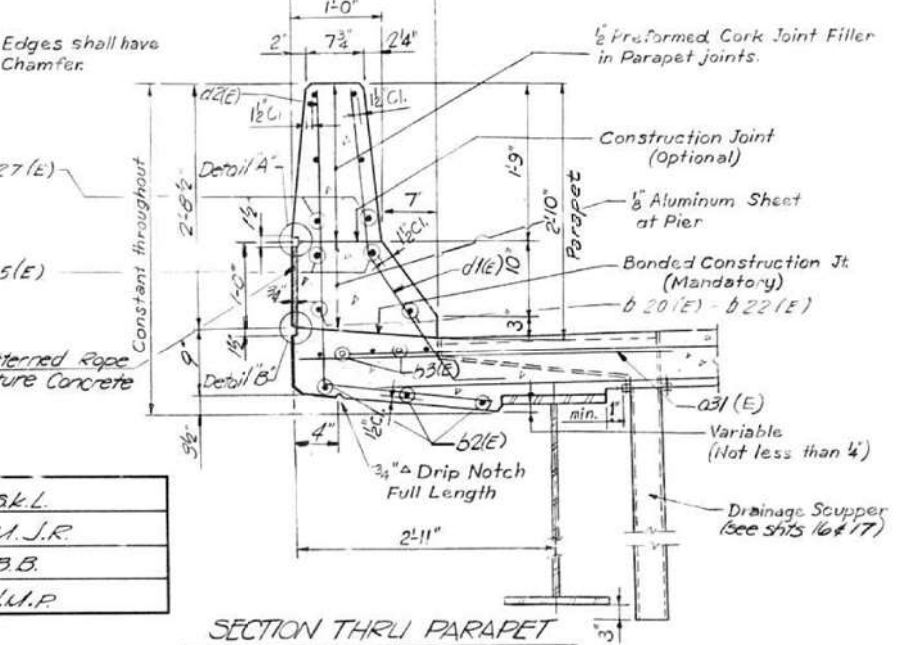
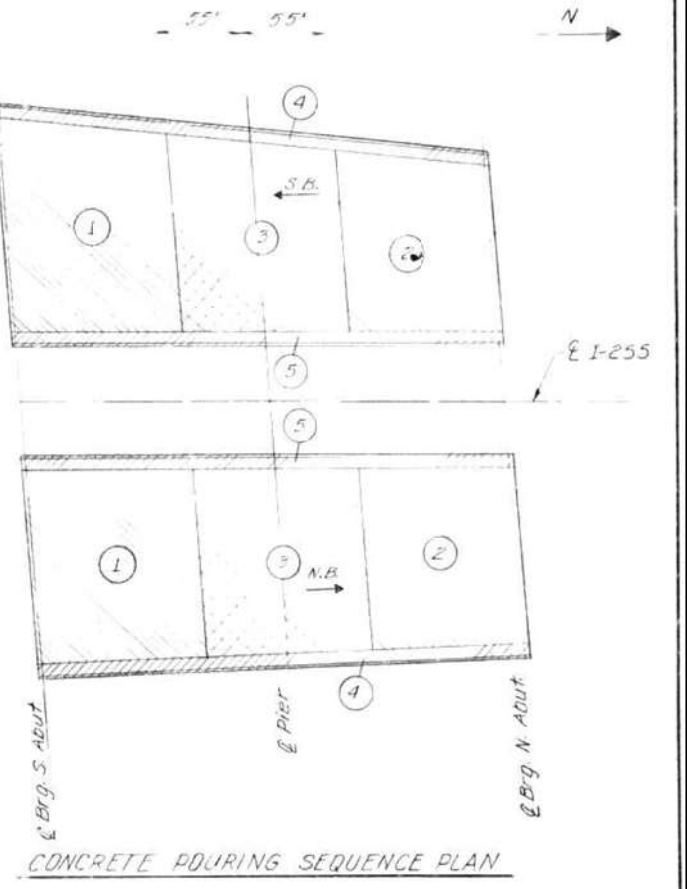
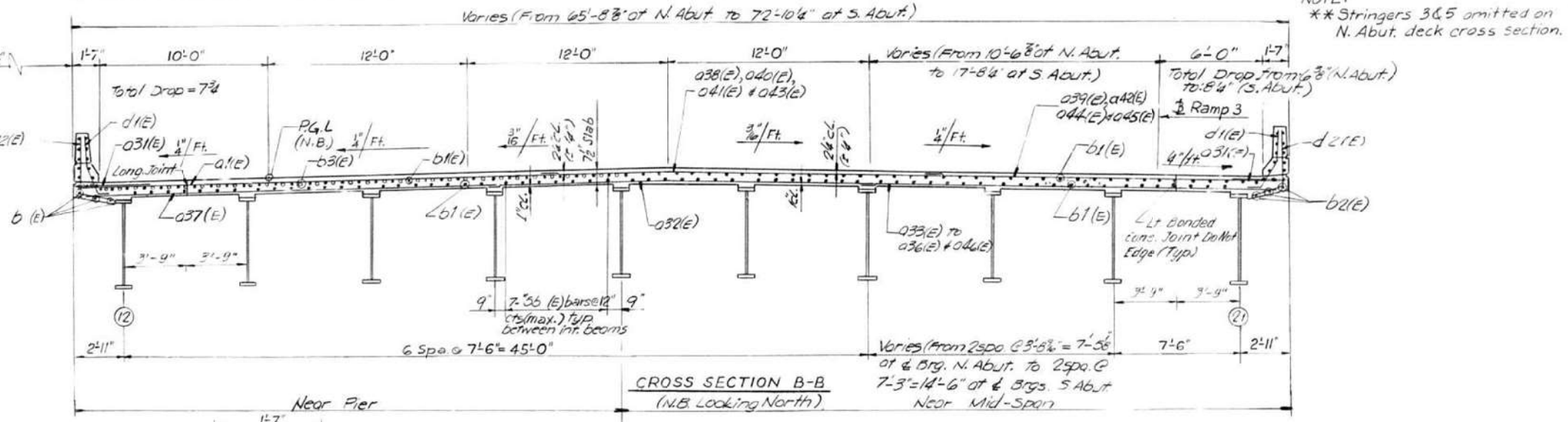
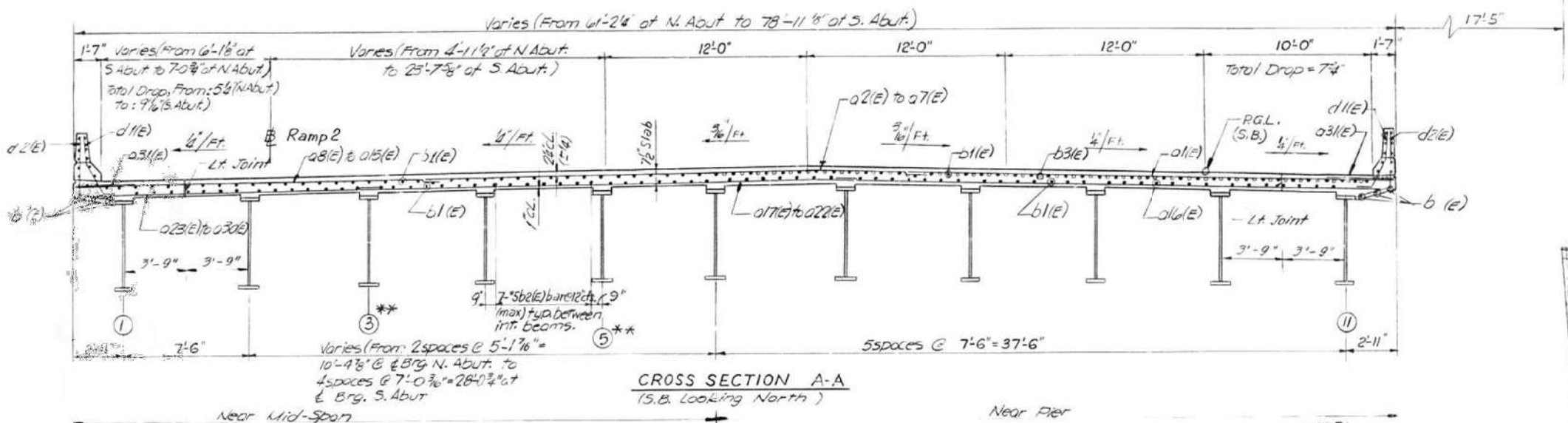
NOTE: Rein. Bar designated (E) shall be epoxy coated.  
 For bent bar detail see sht. 9  
 For section B-B section C-C see sht. 11.  
 For drainage SCUPPER details see shts. 16 & 17.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
**DECK PLAN**  
 NORTHBOUND  
 F.A.I. 255 OVER  
 F.A.P. 586  
 SECTION 60-8HV8  
 MADISON COUNTY  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILL.



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-255	60-84VB	MADISON	52	26
F.A.				
FED. ROAD DIV. No. 7	ILLINOIS	PROJECT		

FOR INFORMATION ONLY



DESIGNED	S.K.L.
CHECKED	M.J.R.
DRAWN	B.B.
CHECKED	J.M.P.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
<b>DECK SECTIONS</b>	
F.A.I. 255 OVER	
F.A.P. 586	
SECTION 60-84VB MADISON COUNTY	
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILL.	
1/10/96	

USER NAME = humphreysb	DESIGNED -	REVISED -
PLOT SCALE = 40,0000 1/16"	DRAWN -	REVISED -
PLOT DATE = 4/29/2022	CHECKED -	REVISED -
	DATE -	REVISED -

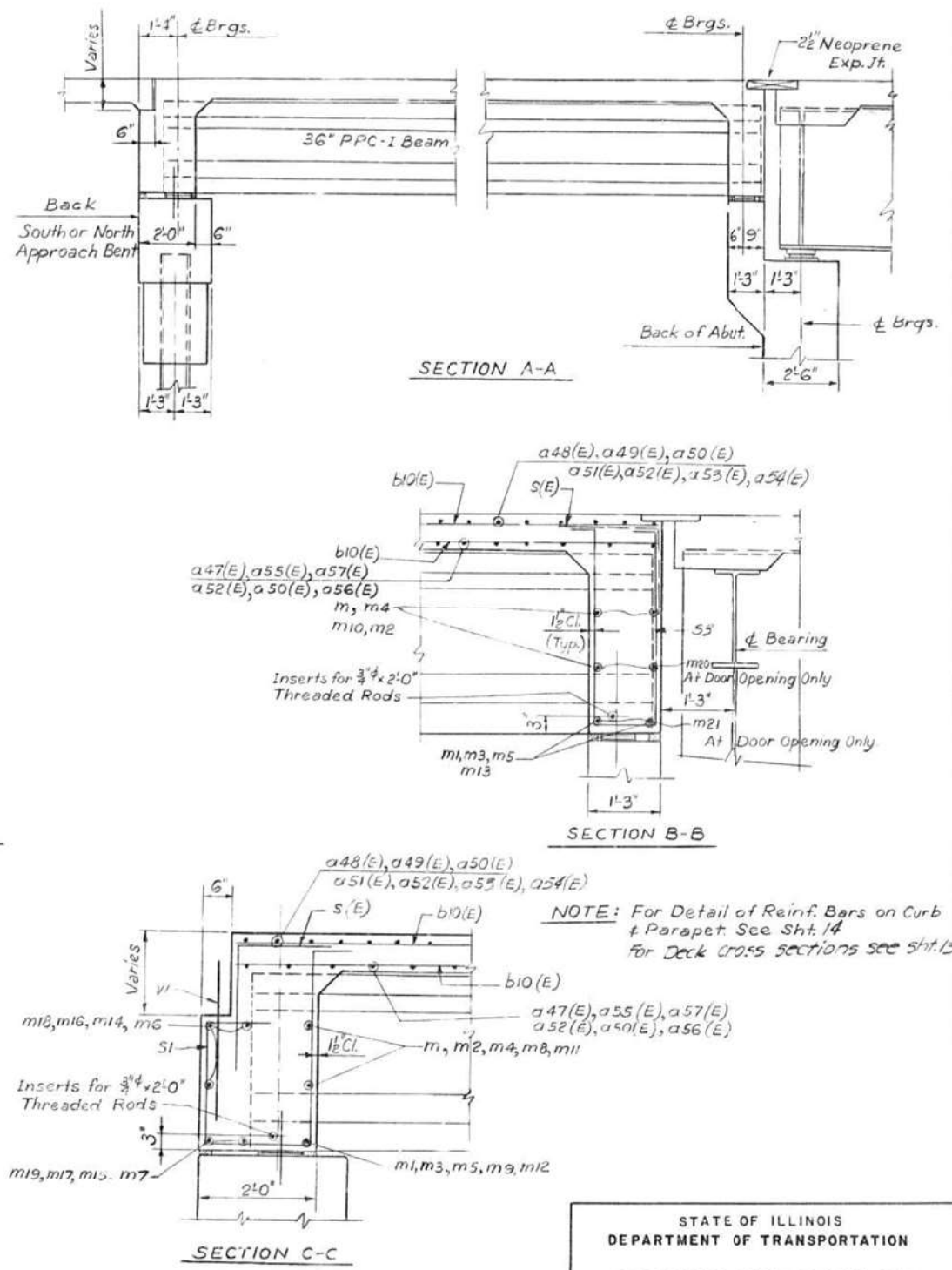
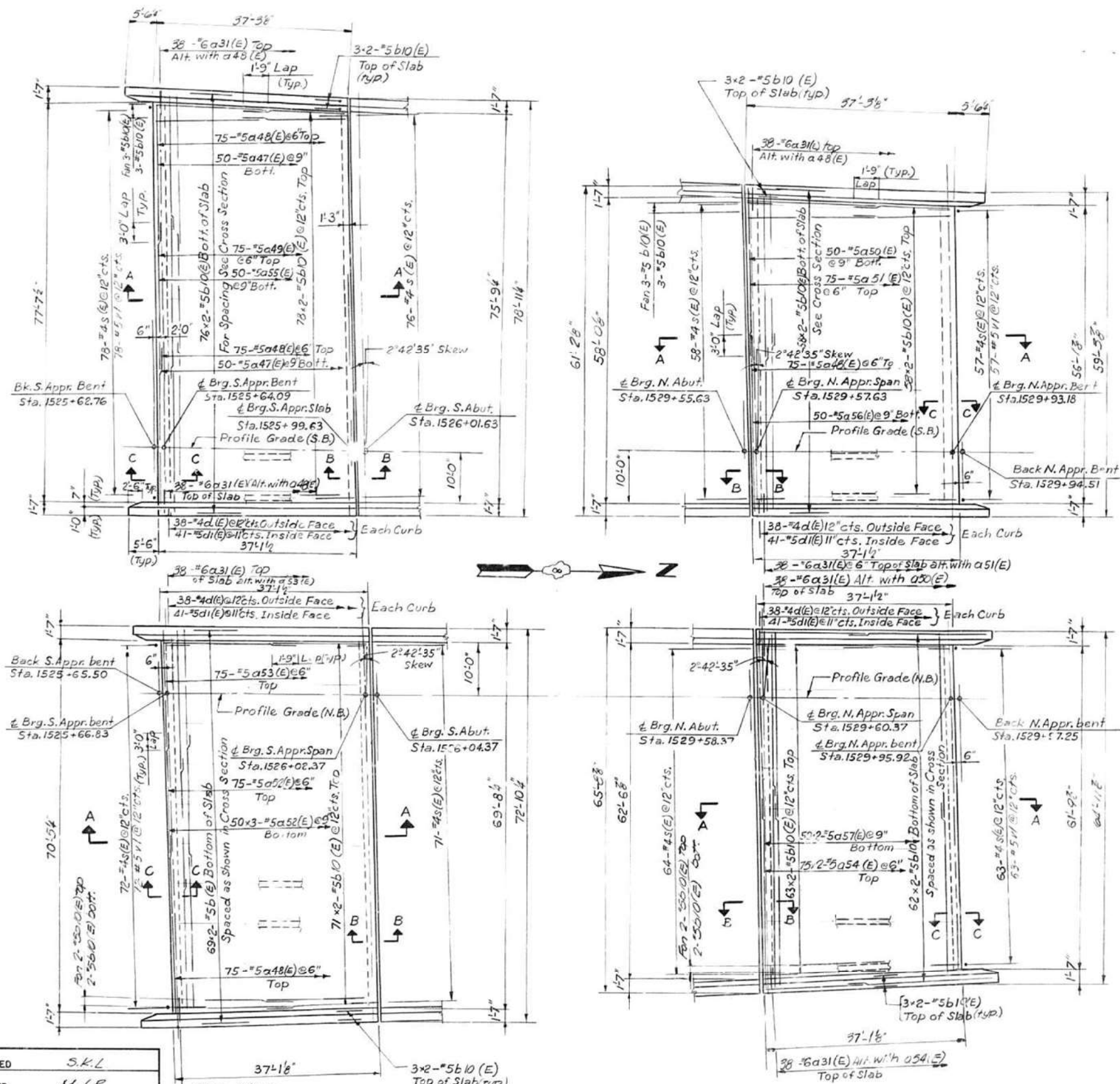
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
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STRUCTURE DETAILS - LOCATION #3 (SN 060-0220) & LOCATION #4 (SN 060-0221)	
SCALE:	SHEET 5 OF 11 SHEETS STA. TO STA.

Revised 3-20-86 J.W.G.	
**F.A. RTE.	SECTION COUNTY TOTAL SHEETS SHEET NO.
**	60-84VB-1, 117BP-1, 60-58P-1 MADISON 32 25
**	F.A.I. 255, F.A.P. 592, F.A.I. 270 MADISON CONTRACT NO. 76P71
ILLINOIS FED. AID PROJECT	

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-255	60-8HV8	MADISON	52	27
F.A.				
FED. ROAD DIV. No. 7	ILLINOIS	PROJECT		



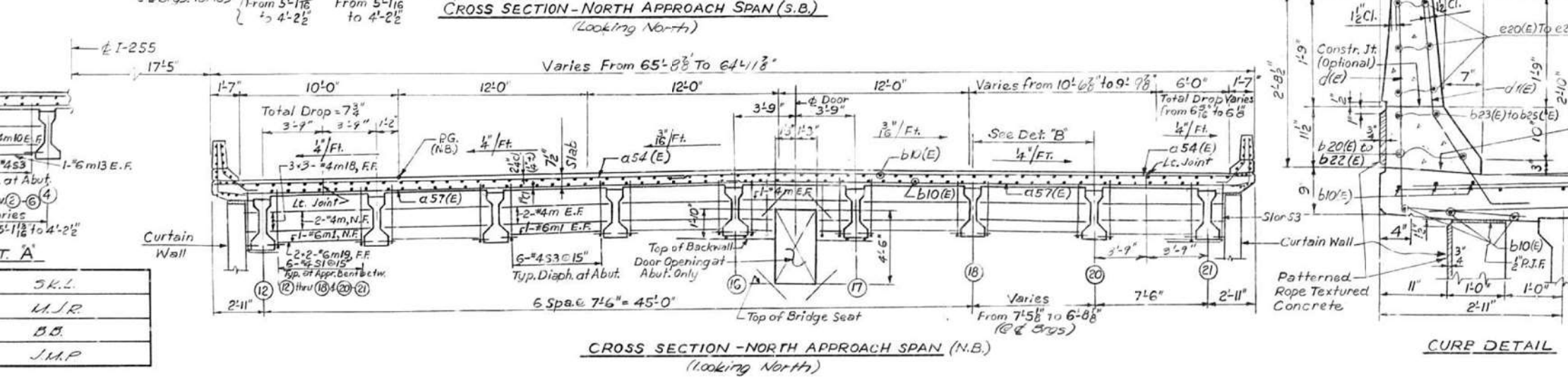
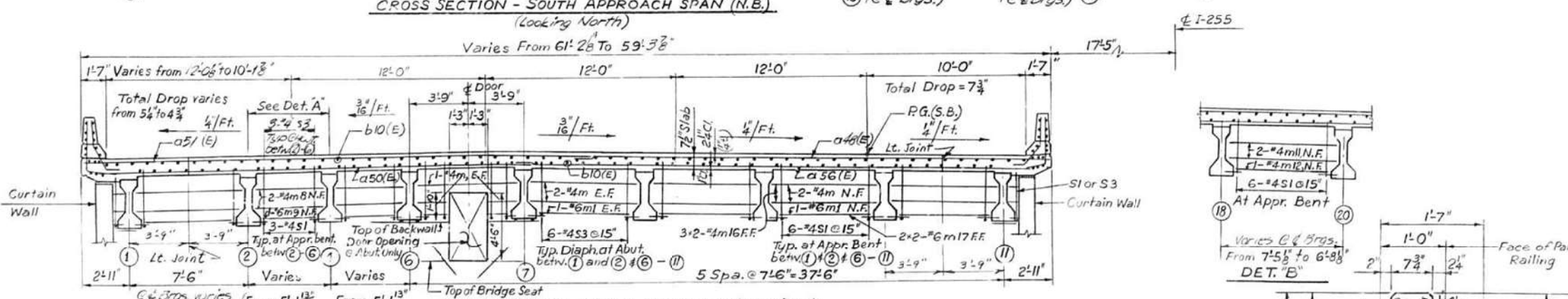
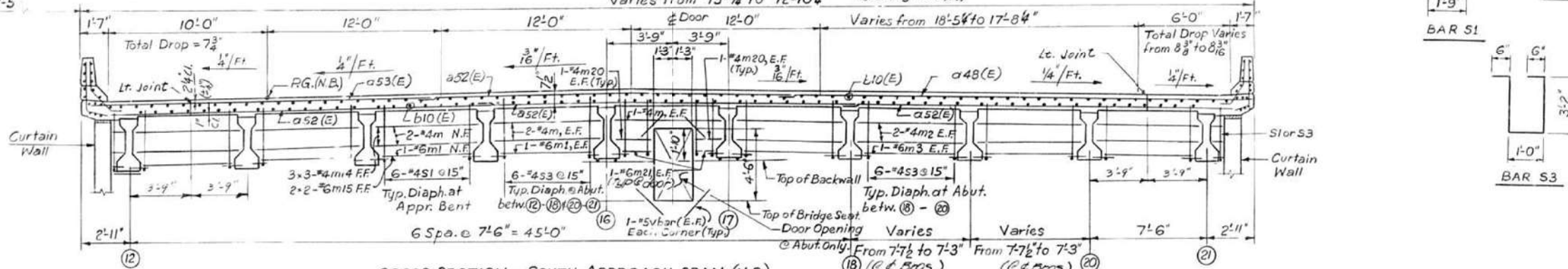
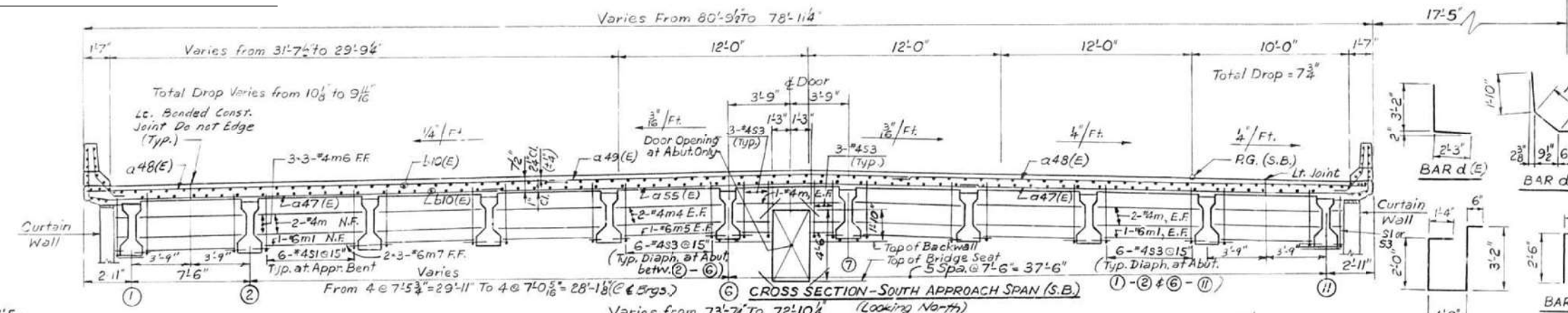
DESIGNED	S.K.L.
CHECKED	M.J.R.
DRAWN	B.B.
CHECKED	J.V.P.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**APPROACH SLAB DETAILS I**  
F.A.I. 255 OVER  
F.A.P. 586  
SECTION 60-8HV8  
MADISON COUNTY  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILL.

USER NAME	DESIGNED	REVISIONS	STRUCTURE DETAILS - LOCATION #3 (SN 060-0220) & LOCATION #4 (SN 060-0221)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
humphreysb	-	-	SCALE: SHEET 6 OF 11 SHEETS STA. TO STA.	**F.A. RTE.	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	26
	DRAWN	REVISIONS		**F.AI 255, FAP 592, FAI 270				
	CHECKED	REVISIONS						
	DATE	REVISIONS						

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 PLOT DATE: 4/29/2022  
 PLOT SCALE: = 40,0000 "/>

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.1-255	60-BHVB	MADISON	52	28
FED. ROAD DIV. No. 7 ILLINOIS PROJECT				



### BILL OF MATERIAL

Bar	South Bound S. Appr. Span	South Bound N. Appr. Span	North Bound S. Appr. Span	North Bound N. Appr. Span	Size	Length	Shape
a31(E)	76		70	76	#6	4'-0"	
a47(E)	100				#5	2'-9"	
a48(E)	150	75	75		#5	30'-6"	
a49(E)	75				#5	25'-6"	
a50(E)		50			#5	30'-0"	
a51(E)		75			#5	33'-11"	
a52(E)			225		#5	26'-5"	
a53(E)			75		#5	22'-9"	
a54(E)				150	#5	34'-7"	
a55(E)	56				#5	33'-0"	
a57(E)		50			#5	34'-0"	
a58(E)	320	244	292	100	#5	24'-4"	
a59(E)	76	76	76	76	#4	5'-5"	
b10(E)	82	82	82	82	#3	3'-11"	
b11(E)	124	119	143	127	#4	4'-9"	
b12(E)	62	44	56	30	#4	6'-9"	
b13(E)	62	44	56	30	#4	8'-4"	
b14(E)	8	8	8	8	#3	3'-10"	
b15(E)	78	57	72	63	#3	5'-0"	
b16(E)	42	34	44	40	#4	6'-9"	
b17(E)	20	16	21	19	#6	5'-9"	
b18(E)			8		#4	6'-6"	
b19(E)			4		#6	5'-6"	
b20(E)	16				#4	6'-3"	
b21(E)	8				#6	5'-3"	
b22(E)	9				#4	2'-3"	
b23(E)	6				#6	2'-8"	
b24(E)		4			#4	3'-4"	
b25(E)		2			#6	2'-4"	
b26(E)		8			#4	3'-6"	
b27(E)			2		#4	5'-10"	
b28(E)			1		#6	4'-10"	
b29(E)	4				#6	2'-5"	
b30(E)		9			#4	24'-11"	
b31(E)		2			#6	24'-11"	
b32(E)				9	#4	34'-11"	
b33(E)				6	#4	24'-5"	
b34(E)				4	#6	29'-8"	
b35(E)				9	#4	22'-0"	
b36(E)				4	#6	32'-7"	
b37(E)				4	#4	2'-0"	
b38(E)	4	4	4	4	#4	2'-0"	
b39(E)	4	4	4	4	#6	4'-6"	
Rein. Bars (Epoxy Coated)	Lbs					47,450	
Reinforcement Bars	Lbs					6,490	
Class X Concrete	Cu. Yds					525.9	

NOTE:  
 N.F. = Near Face  
 F.F. = Far Face  
 E.F. = Each Face

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
**APPROACH SLAB DETAILS II**  
 F.A.1. 255 OVER  
 F.A.P. 586  
 SECTION 60-8HVB  
 MADISON COUNTY  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILL.

MODEL: Default  
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 PLOT SCALE = 40,0000 ' / in.  
 PLOT DATE = 4/29/2022  
 USER NAME = humphreysb  
 DESIGNED - SKL  
 CHECKED - UJR  
 DRAWN - B.D.  
 CHECKED - J.M.P.

DESIGNED	SKL
CHECKED	UJR
DRAWN	B.D.
CHECKED	J.M.P.

USER NAME	= humphreysb
DESIGNED	-
DRAWN	-
PLOT SCALE	= 40,0000 ' / in.
PLOT DATE	= 4/29/2022

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

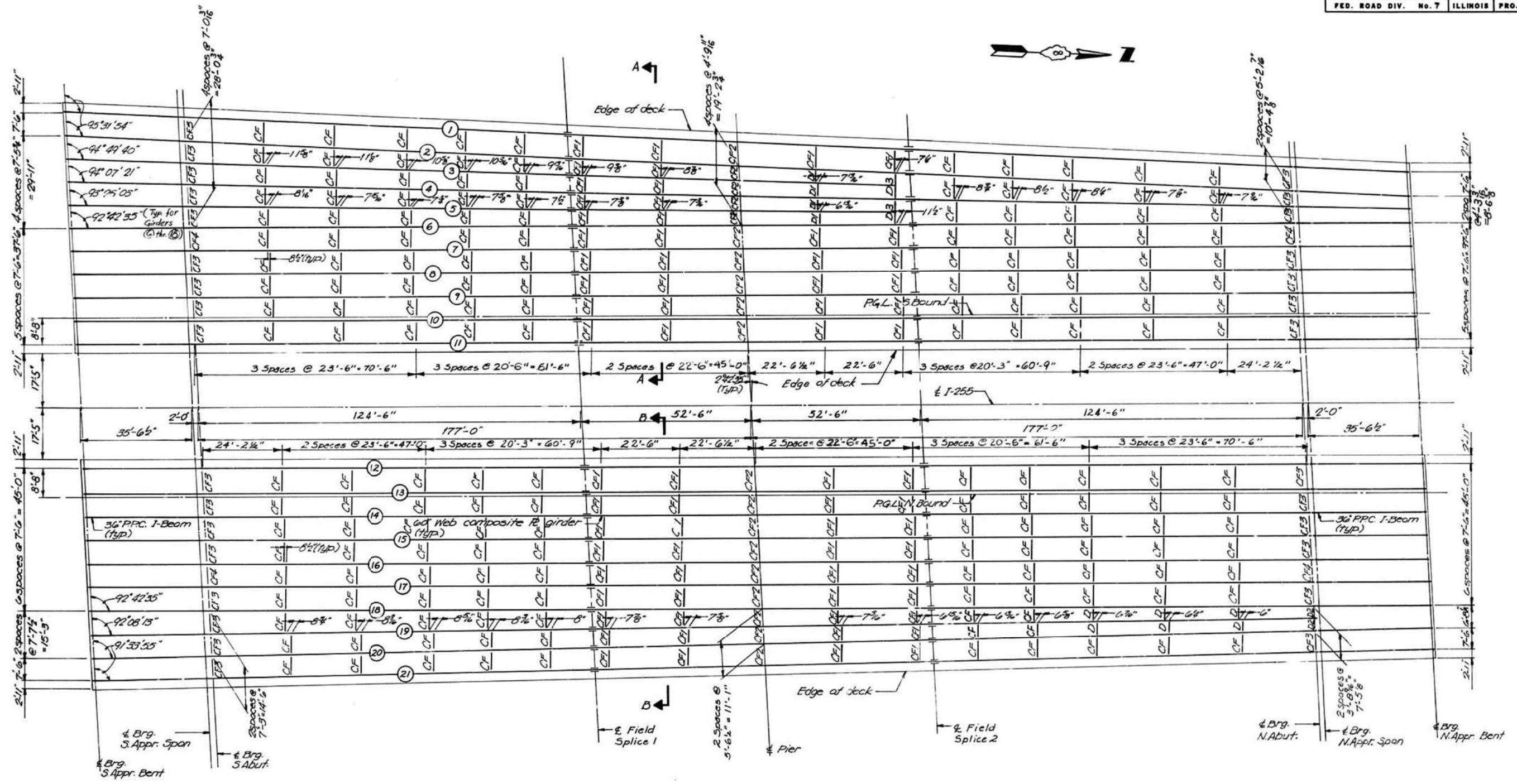
STRUCTURE DETAILS - LOCATION #3 (SN 060-0220)  
 & LOCATION #4 (SN 060-0221)

SCALE: SHEET 7 OF 11 SHEETS STA. TO STA.

**FA.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**FAI 255	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	27
**FAI 255	FAP 592, FAI 270	CONTRACT NO. 76P71		
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 255	60-BHVB	MADISON	52	34
FED. ROAD DIV. No. 7 ILLINOIS PROJECT				



FRAMING PLAN

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

NOTE:  
 All spacing dimensions  
 are given at right angles  
 For field splice details see sh. 22  
 For diaphragm details see sh. 21422

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**STEEL DETAILS I**

F.A. 255 OVER  
 F.A.P. 586  
 SECTION 60-BHVB  
 MADISON COUNTY

H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILL.

19-536

USER NAME	= humphreysb
PLOT SCALE	= 40,0000 */ in.
PLOT DATE	= 4/29/2022

DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS - LOCATION #3 (SN 060-0220)  
 & LOCATION #4 (SN 060-0221)

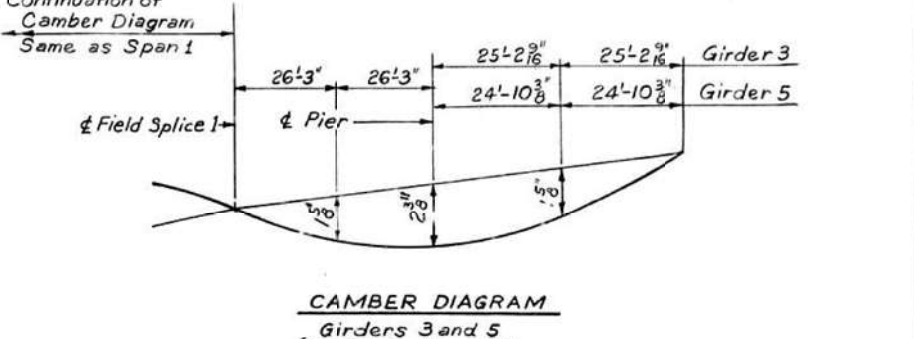
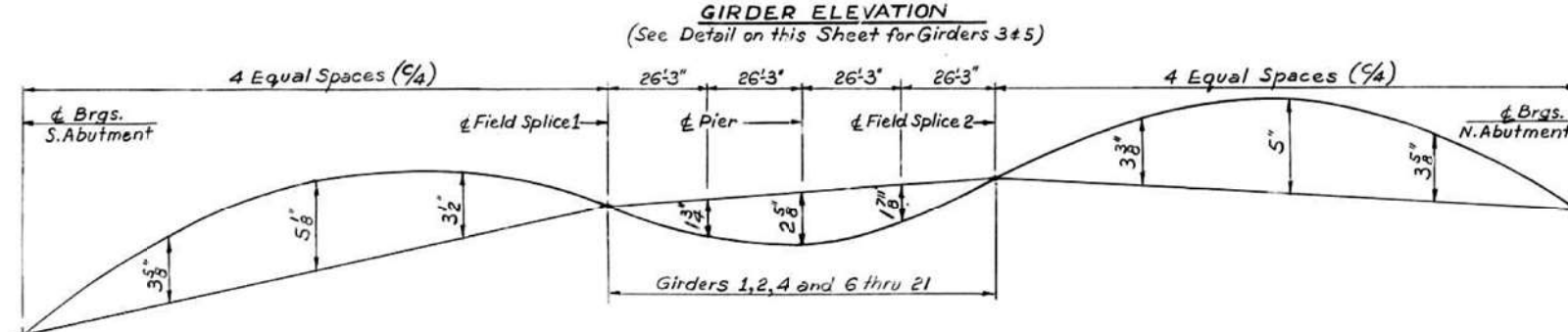
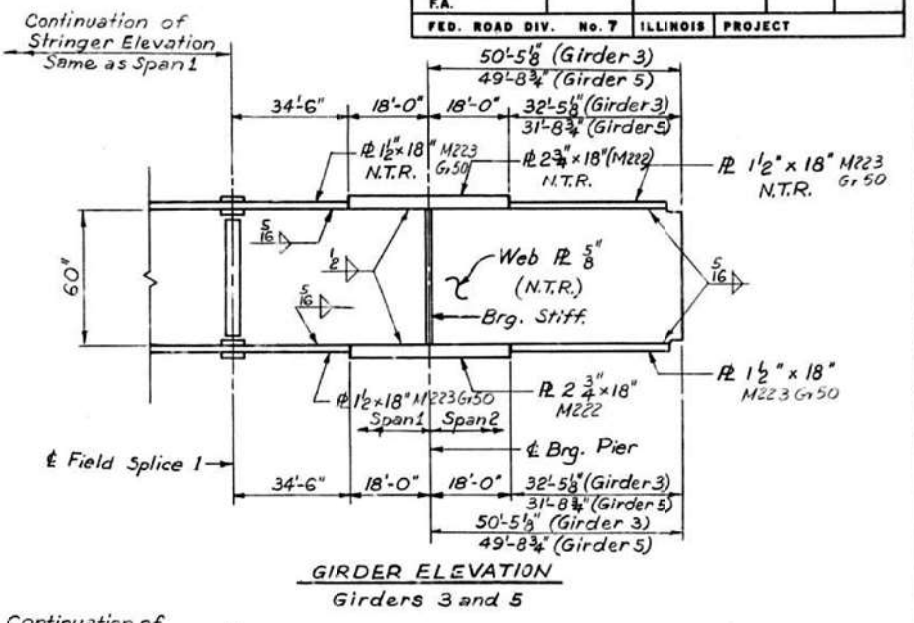
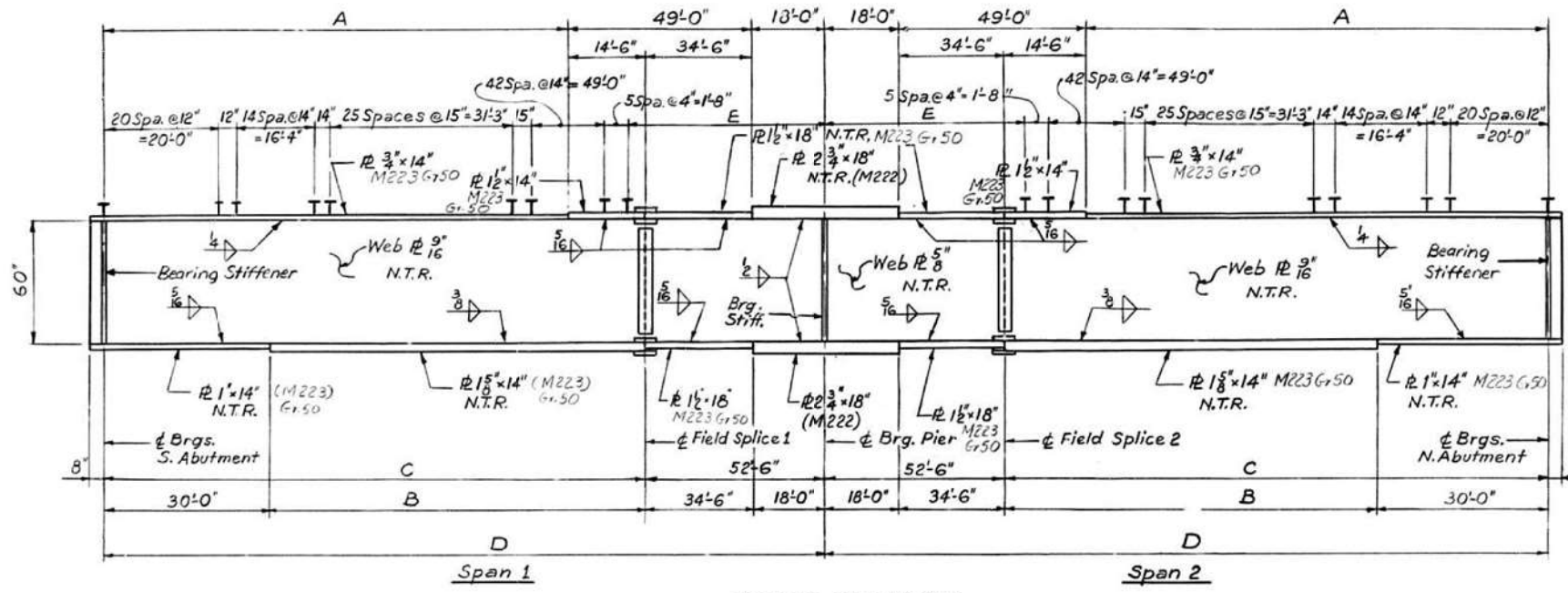
SCALE: SHEET 8 OF 11 SHEETS STA. TO STA.

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	28
**	F.A. 255, F.A.P. 592, F.A. 270	ILLINOIS	FED. AID PROJECT	

Model: Default  
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 Plot Date: 4/29/2022 10:08:21 AM  
 Plot Scale: 4000000/12000  
 User Name: humphreysb

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 255	60-8HVB	MADISON	52	35
F.A. FED. ROAD DIV. No. 7 ILLINOIS PROJECT				

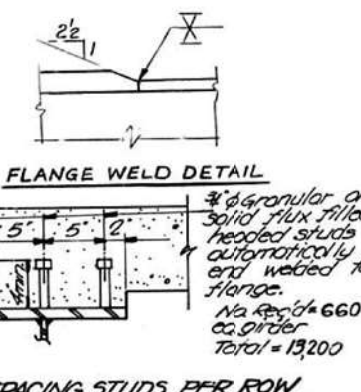


GIRDERS	DIMENSIONS				
	A	B	C	D	E
1 and 2	110'-7 3/8"	95'-1 1/8"	125'-1 1/8"	177'-7 3/8"	55'-11 3/8"
3	110'-5 1/4"	94'-11 1/4"	124'-11 1/4"	177'-5 1/4"	55'-9 1/4"
4	110'-3 3/16"	94'-9 3/16"	124'-9 3/16"	177'-3 3/16"	55'-7 1/16"
5	110'-1 7/16"	94'-7 7/16"	124'-7 7/16"	177'-1 7/16"	55'-5 1/16"
6-18	110'-0"	94'-6"	124'-6"	177'-0"	55'-4"
19	109'-11 3/8"	94'-5 3/8"	124'-5 3/8"	176'-11 3/8"	55'-3 3/8"
20+21	109'-10 7/16"	94'-4 7/16"	124'-4 7/16"	176'-10 7/16"	55'-2 7/16"

\*\* Dimensions shown on Table for Span 1 only, See Details on this Sheet for Span 2.

** TOP OF WEB ELEVATIONS					
LOCATION	€ S. Abut.	€ Splice 1	€ Pier	€ Splice 2	€ N. Abut.
1	457.71	458.57	458.53	458.96	458.94
2	457.87	458.73	458.69	459.11	459.09
3	458.01	458.85	458.79	*459.15	---
4	458.16	458.96	458.89	459.28	459.19
5	458.31	459.07	458.98	*459.31	---
6	458.42	459.16	459.05	459.42	459.27
7	458.46	459.19	459.09	459.45	459.31
8	458.34	459.08	458.97	459.34	459.19
9	458.20	458.93	458.83	459.19	459.04
10	458.05	458.78	458.67	459.03	458.88
11	457.89	458.62	458.52	458.88	458.73
12	457.90	458.63	458.52	458.88	458.72
13	458.06	458.78	458.68	459.04	458.88
14	458.22	458.94	458.84	459.19	459.03
15	458.37	459.09	458.98	459.34	459.18
16	458.49	459.21	459.10	459.46	459.30
17	458.46	459.18	459.07	459.42	459.26
18	458.34	459.06	458.95	459.31	459.14
19	458.19	458.93	458.84	459.20	459.07
20	458.04	458.81	458.72	459.10	458.99
21	457.89	458.66	458.57	458.94	458.83

GIRDER MOMENT TABLE		
	0.4 Span 1 & 0.6 Span 2	PIER
$I_s$	( $in^4$ ) 39,248.0	108,767.0
$I_c$	( $in^4$ ) 98,429.0	---
$S_c$	( $in^3$ ) 1,513.9	3,321.1
$S_c$	( $in^3$ ) 2,071.8	---
$Z$	( $in^3$ ) ---	---
$\Phi$	( $k/i$ ) 0.961	1.541
$M \Phi$	( $'k$ ) 1,715.9	6,352.9
$S \Phi$	( $k/i$ ) 0.320	---
$M_s \Phi$	( $'k$ ) 716.5	---
$M \Phi$	( $'k$ ) 1,750.9	2,121.9
$M IMP$	( $'k$ ) 289.9	351.3
$\frac{2}{3}(M \Phi + I)$	( $'k$ ) 3,401.3	4,122.0
$M_a$	( $'k$ ) 7,583.8	13,617.4
$M_u$	( $'k$ ) ---	---
$f_s \Phi$ Non Comp. (k.s.i)	13.60	22.95
$f_s \Phi$ Comp. (k.s.i)	4.15	---
$f_s \frac{2}{3}(M \Phi + I)$ (k.s.i)	19.70	14.89
$f_s$ (Overload) (k.s.i)	37.45	37.84
$f_s$ (Total) (k.s.i)	48.69	49.19
$VR$	( $k$ ) 65.6	---



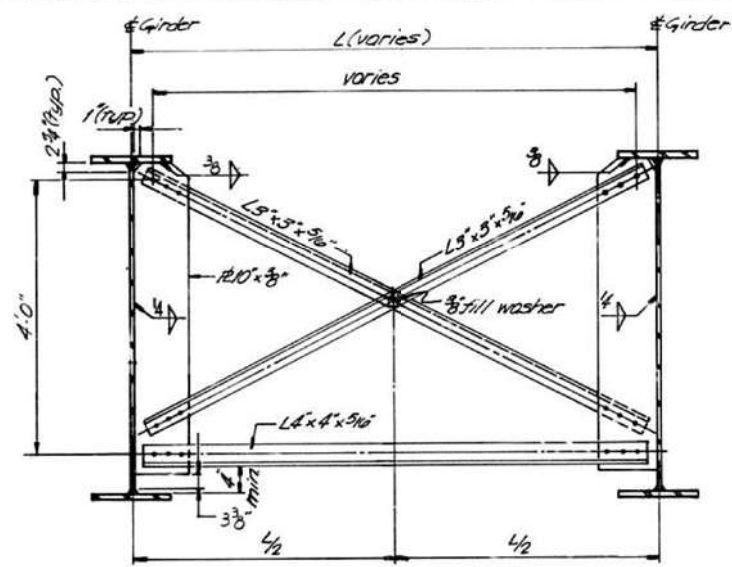
DESIGNED	R.W.C.
CHECKED	S.K.L.
DRAWN	D.B.
CHECKED	J.M.P.

GIRDER REACTION TABLE		
	S. & N. ABUT.	PIER
R $\Phi$	(k) 79.20	316.0
R $\Phi$	(k) 55.42	118.14
IMP	(k) 9.18	19.56
R Total (k)	143.80	453.70

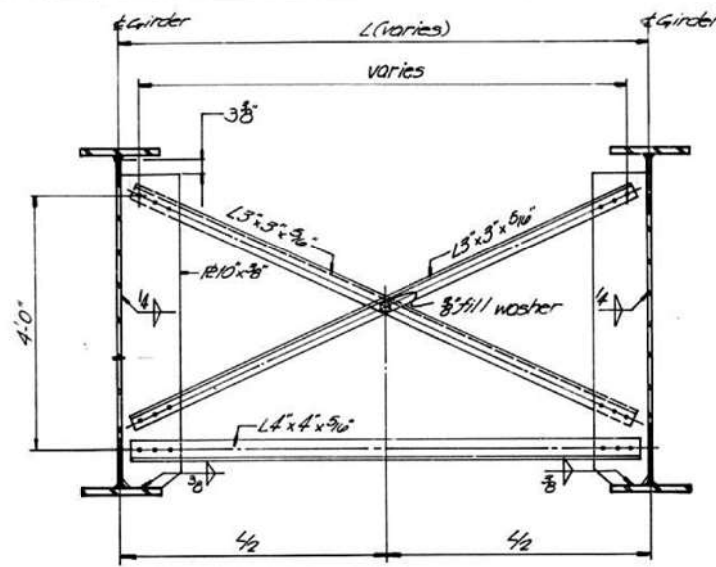
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 STEEL DETAILS II  
 F.A.I. 255 OVER  
 F.A.P. 586  
 SECTION 60-8HVB  
 MADISON COUNTY

H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILL. 200736

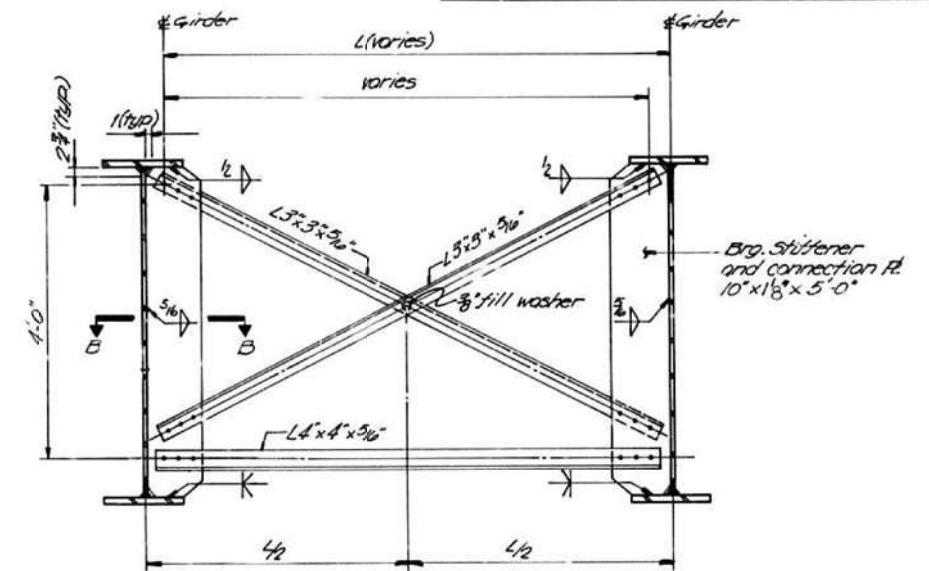
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 255	60-8HVB	MADISON	52	36
F.A.				
FED. ROAD DIV. NO. 7 ILLINOIS PROJECT				



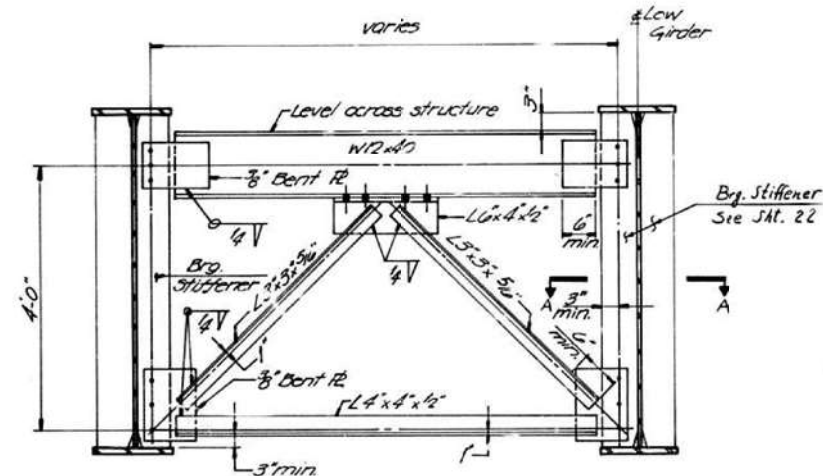
**TYPICAL INTERIOR CROSS FRAME CF**  
(174 - Req'd)



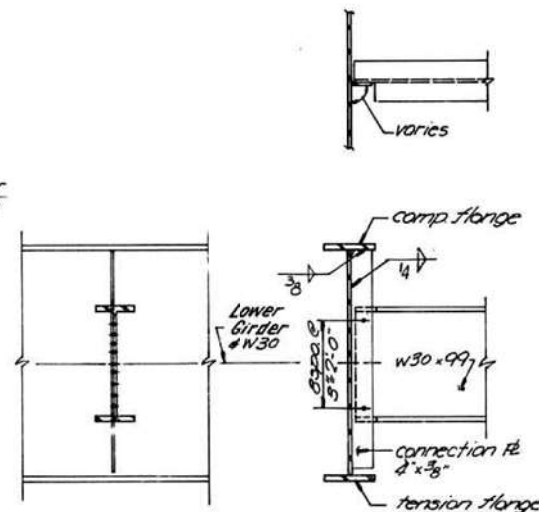
**TYPICAL INTERIOR CROSS FRAME CF-1**  
(68 - Req'd)



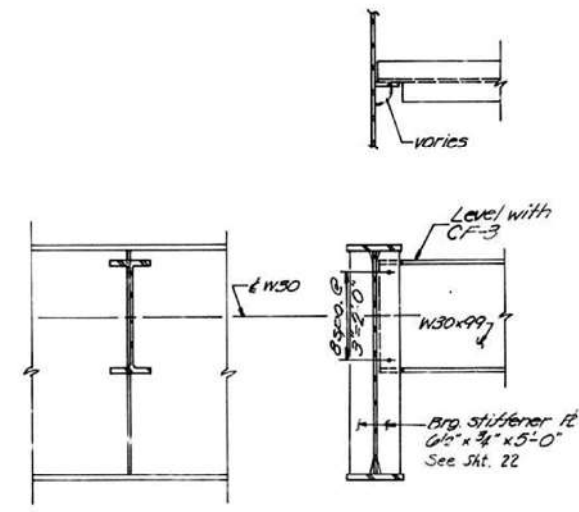
**TYPICAL PIER CROSS FRAME CF-2**  
(19 - Req'd)



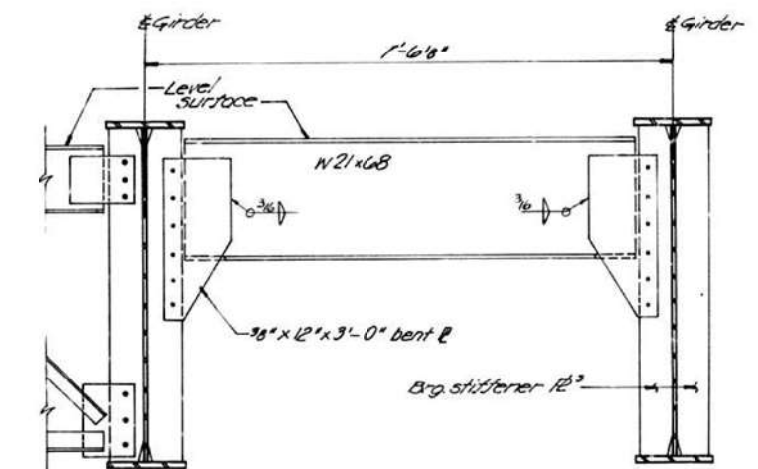
**TYPICAL END CROSS FRAME CF-3**  
(30 - Req'd)



**INTERIOR DIAPHRAGM D**  
(6 - Req'd)

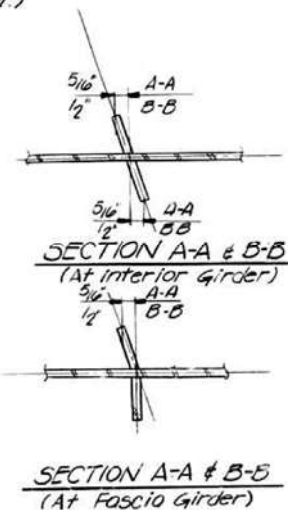


**END DIAPHRAGM D-2**  
(2 - Req'd)

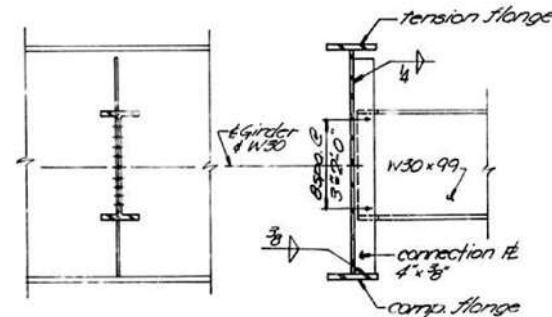


**DOOR CROSS FRAME CF-4**  
(4 - Req'd)

**NOTE:**  
Use 1 1/8" φ holes for all 3/8" φ bolts.  
Hardened washers shall be req'd over all holes.



**SECTION A-A & B-B**  
(At Fascia Girder)



**INTERIOR DIAPHRAGM D-1**  
(4 - Req'd)

DESIGNED	R.W.C.
CHECKED	S.K.L.
DRAWN	J.W.H.
CHECKED	J.M.P.

FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**STEEL DETAILS III**  
F.A.I. 255 OVER  
F.A.P. 586  
SECTION 60-8HVB  
MADISON COUNTY  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILL. 21 of 36

USER NAME	= humphreysb	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
PLOT SCALE	= 40,0000 * 1/ in.	CHECKED	-	REVISED	-
PLOT DATE	= 4/29/2022	DATE	-	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

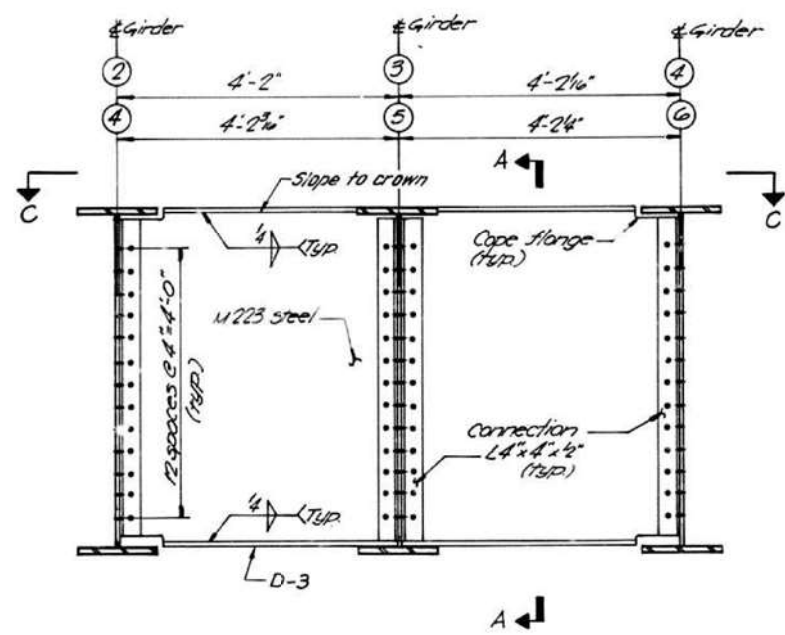
STRUCTURE DETAILS - LOCATION #3 (SN 060-0220)  
& LOCATION #4 (SN 060-0221)

SCALE: SHEET 10 OF 11 SHEETS STA. TO STA.

**F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	30
**FAI 255, FAP 592, FAI 270				CONTRACT NO. 76P71
ILLINOIS FED. AID PROJECT				

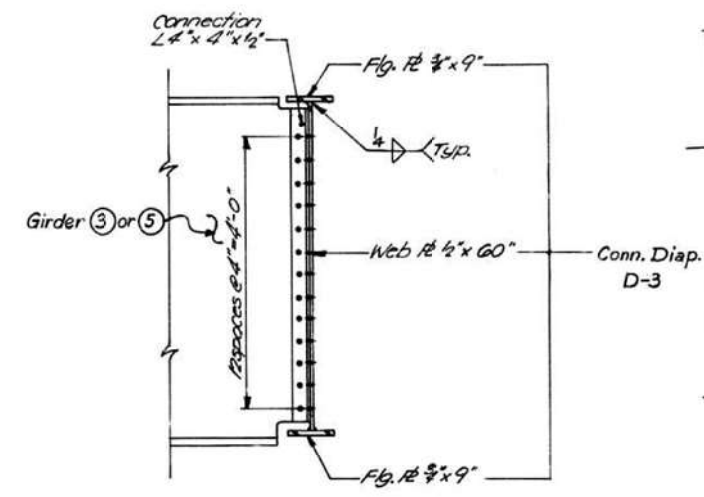
MODEL: Default  
 FILE: 3dmodel...  
 PROJECT: 10876971...  
 DRAWING: 10876971...  
 SHEET: 36 of 52

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 255	60-BHVB	MADISON	32	37
FED. ROAD DIV. No. 7 ILLINOIS PROJECT				

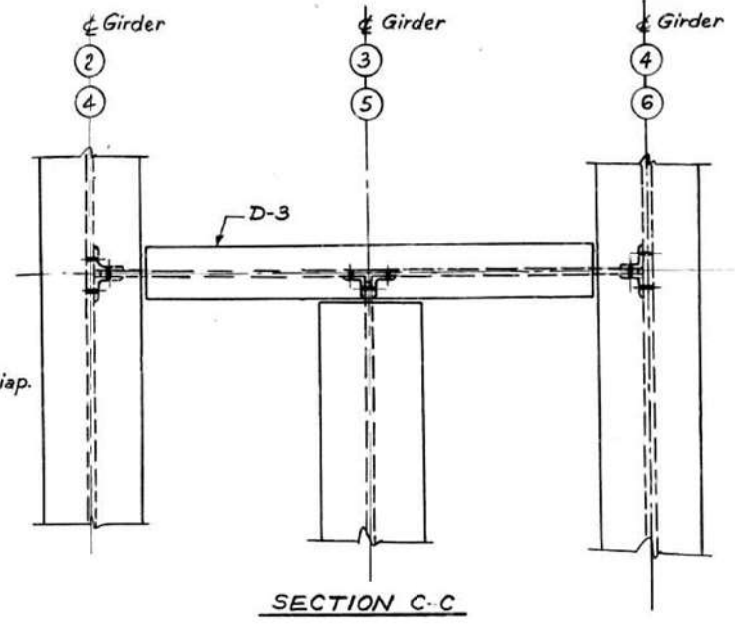


**STRINGER CONNECTION DIAPHRAGM D-3**

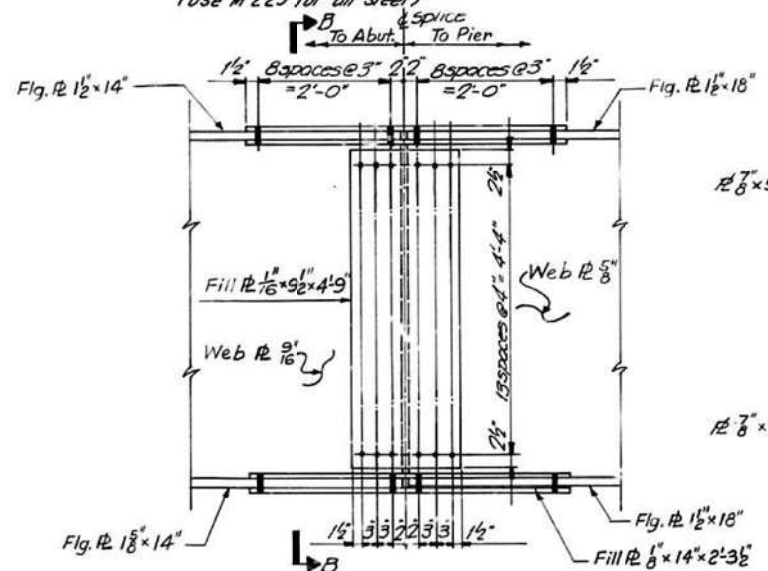
(2 - Req'd.)  
Use M 223 for all steel



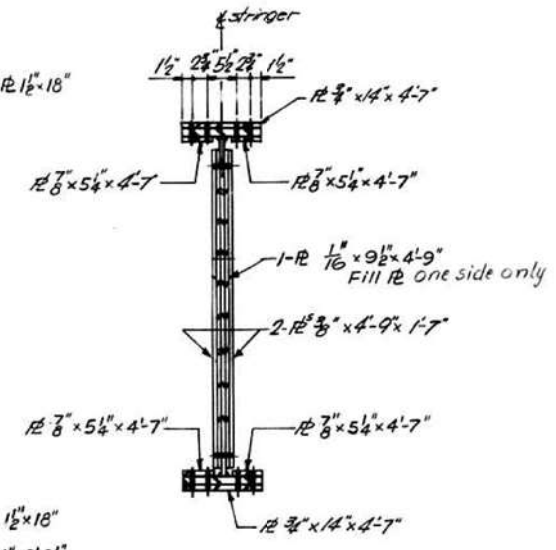
**SECTION A-A**



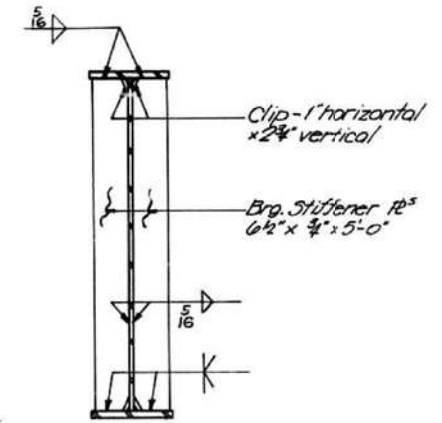
**SECTION C-C**



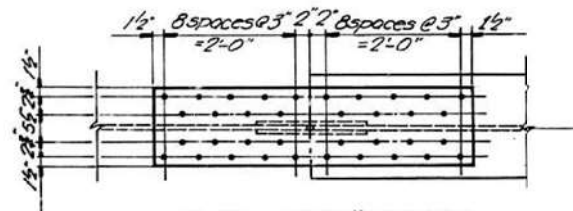
**ELEVATION**



**SECTION B-B**



**BEARING STIFFENER AT ABUTMENTS**



**PLAN - GIRDER SPLICE**

(40 - Req'd.)  
Use M 223 for all steel

\* All M223 Steel shall be G.50

Use 1 1/8"  $\phi$  holes for all 3/8"  $\phi$  bolts.  
Hardened washers shall be req'd over all holes.

DESIGNED	R.W.C.
CHECKED	S.K.L.
DRAWN	J.W.H.
CHECKED	J.M.P.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**STEEL DETAILS IV**  
F.A.I. 255 OVER  
F.A.P. 586  
SECTION 60-BHVB  
MADISON COUNTY

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILL.

FOR INFORMATION ONLY

USER NAME	DESIGNED	REVIS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
humphreysb	-	-	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	31
SCALE = 40,000 * 1/4" = 1"	CHECKED	REVIS	**FAI 255, FAP 592, FAI 270	CONTRACT NO. 76P71		
PLOT DATE = 4/29/2022	DATE	REVIS	ILLINOIS FED. AID PROJECT			

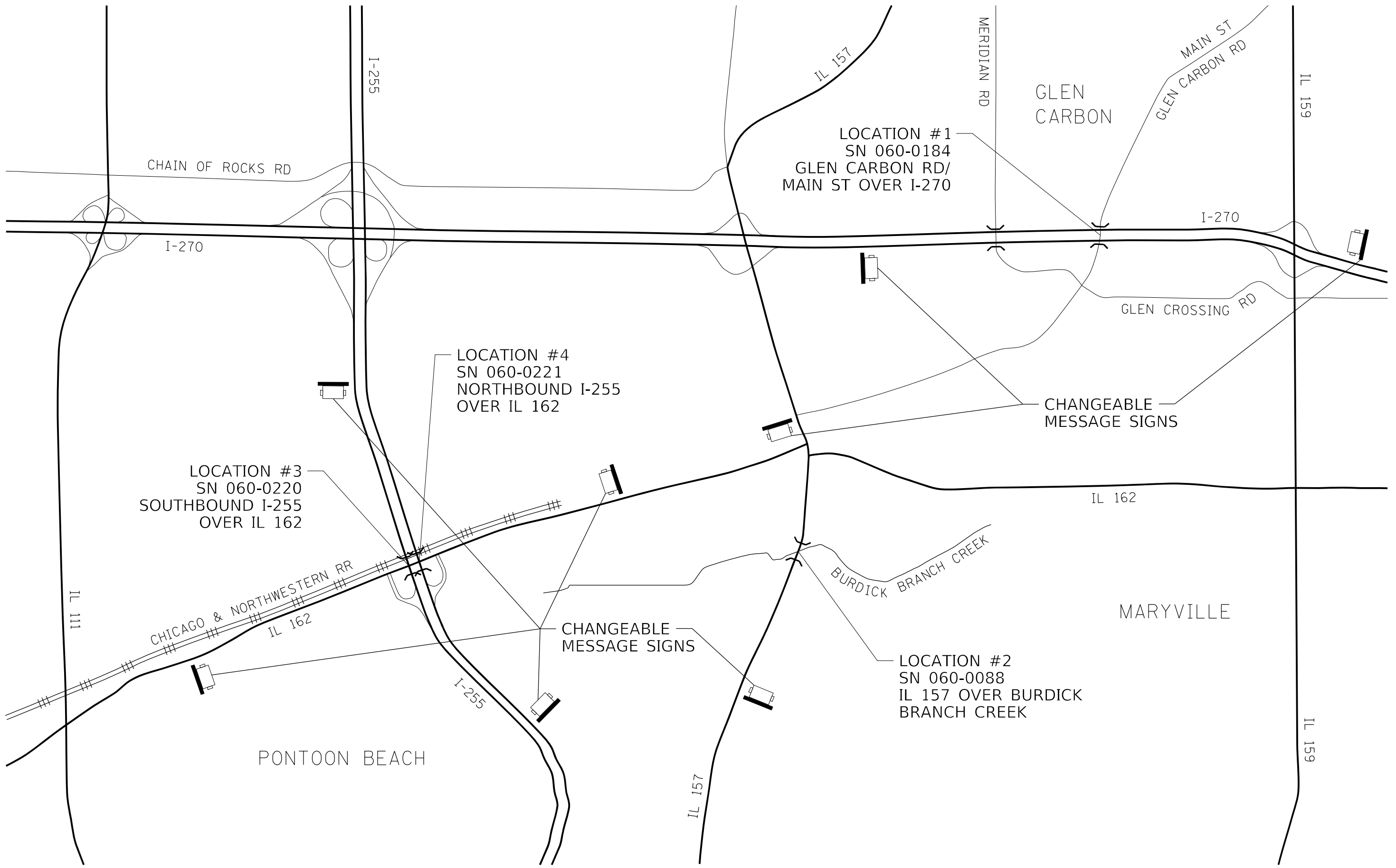
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS - LOCATION #3 (SN 060-0220)  
& LOCATION #4 (SN 060-0221)

SCALE: SHEET 11 OF 11 SHEETS STA. TO STA.

270136

MODEL: Default  
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USER NAME = humphreysb	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/18/2022	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP SHEET**

SCALE: NTS    SHEET 1 OF 1 SHEETS    STA.    TO STA.

**FA-RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	60-8BP-1, 117BP-1, 60-5BP-1	MADISON	32	32
**FAI 255, FAP 592, FAI 270		CONTRACT NO. 76P71		
ILLINOIS FED. AID PROJECT				