04-25-2025 LETTING ITEM 050

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	108	1
	ILLINOIS	CONTRACT NO. 62X40		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAI ROUTE 57 : I-57
AT VARIOUS LOCATIONS
SECTION (068-2323.3-CF) BR, I 24
BRIDGE REPAIRS (SUBSTRUCTURE REPAIRS)
COOK COUNTY

C-91-028-25

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED IN THE CITY OF CHICAGO AND THE VILLAGE OF CALUMET PARK

TRAFFIC DATA

I-57
ADT (2023): 140,600
POSTED SPEED LIMIT: 55 MPH

LOCATION 1: SN 016-2028
I-57 AT WENTWORTH AVE

LOCATION 2: SN 016-0071
I-57 AT UP RAILROAD

LOCATION 3: SN 016-0070
I-57 AT RR BIKE PATH

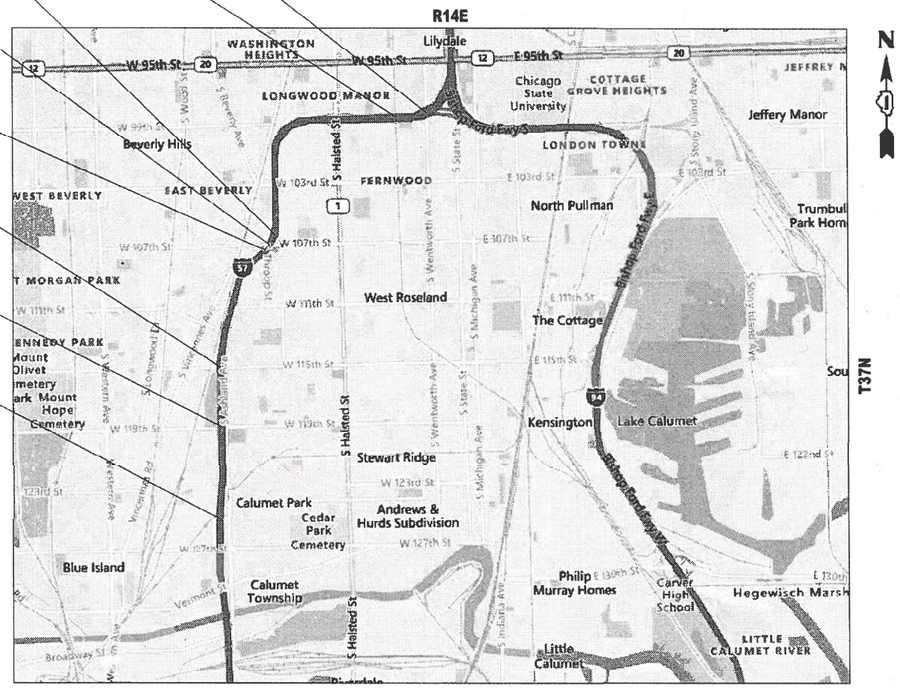
LOCATION 4: SN 016-2031
I-57 AT 107TH STREET

LOCATION 5: SN 016-2032
I-57 AT THROOP STREET

LOCATION 6: SN 016-2037
I-57 AT 115TH STREET

LOCATION 7: SN 016-0904
I-57 AT 119TH STREET

LOCATION 8: SN 016-2034
I-57 AT 125TH STREET



CHICAGO & CALUMET TOWNSHIP

D-91-026-25



LOCATION OF SECTION INDICATED THUS: -

C.U.A.N,
CHICAGO UTILITY ALERT NETWROK
1-312-744-7000

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Jan 29th 20 25
REGIONAL ENGINEER

March 21 20 25
ENGINEER OF DESIGN AND ENVIRONMENT

March 21 20 25
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PROJECT ENGINEER: RODRIGO LEDEZMA (847) 705-4580
PROJECT MANAGER: J. ALAIN MIDY (847) 221-3056

CONTRACT NO. 62X40

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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2	INDEX OF SHEETS, HIGHWAY STATE STANDARDS & GENERAL NOTES
3	SUMMARY OF QUANTITIES
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19 - 24	SUGGESTED MAINTENANCE OF TRAFFIC STAGE II
25 - 34	LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
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99	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE LANE AND MULTI-LANE WEAVE (TC-09)
100	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
101	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
102 - 103	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS (TC-12)
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HIGHWAY STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
630001-13	STEEL PLATE BEAM GUARDRAIL
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701400-12	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS > 45 MPH
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701446-11	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701901-10	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL & BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

1. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
2. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
3. THE RESIDENT ENGINEER SHALL CONTACT REGINA COOPER AREA TRAFFIC FIELD ENGINEER, AT REGINA.COOPER2@ILLINOIS.GOV, A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS
4. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE EXPRESSWAYS TRAFFIC CONTROL SUPERVISOR CARLOS MUNOZ AT CARLOS.MUNOZ@ILLINOIS.GOV OR 847-705-4155 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK
5. THE CONTRACTOR SHALL REQUEST AND GAIN APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT WWW.IDOTLCS.COM AT LEAST 24 HOURS IN ADVANCE OF ALL DAILY LANE, RAMP AND SHOULDER CLOSURES AND 7 DAYS IN ADVANCE OF ALL PERMANENT AND WEEKEND CLOSURES ON ALL FREEWAYS AND/OR EXPRESSWAYS. THIS ADVANCE NOTIFICATION IS CALCULATED BASED ON WORKWEEK OF MONDAY THROUGH FRIDAY AND SHALL NOT INCLUDE WEEKENDS AND HOLIDAYS.
6. ALL PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE IMPROVEMENT ACCORDING TO DISTRICT 1 TYPICAL PAVEMENT MARKING.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
8. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED THROUGHOUT THE IMPROVEMENT ACCORDING TO THE DISTRICT STANDARDS AS NOTED IN THE DETAIL.
9. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THAT NO DEBRIS WILL ENDANGER OR INTERFERE WITH TRAFFIC ON THE ROADWAY (or THE RAILROAD) BENEATH THE BRIDGE ACCORDING TO ARTICLE 107.09 (or 107.12) OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPROPRIATE PAY ITEM INVOLVED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
10. ANY WORK DONE BY THE CONTRACTOR ON THE UNDERPASS LIGHTING SYSTEM WILL REQUIRE A TRANSFER OF MAINTENANCE OF THE EFFECTED CIRCUITS TO THE CONTRACTOR. ALTERNATELY, THE CONTRACTOR CAN AVOID A MAINTENANCE TRANSFER BY HIRING THE DEPARTMENT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC) TO RELOCATE THE CONDUIT
11. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, HIGHWAY STATE STANDARDS AND GENERAL NOTES

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

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	2
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

	Code No.	Item	Unit	Total Quantity	TYPE CODE URBAN ROADWAY 100% STATE	URBAN	URBAN	URBAN	URBAN	URBAN
	63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	26	26					
	67100100	MOBILIZATION	L SUM	1	1					
	70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1					
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	800	800					
	70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	1928	1928					
	70307140	TEMPORARY PAVEMENT MARKING - LINE 8" - TYPE IV TAPE	FOOT	208	208					
	70307160	TEMPORARY PAVEMENT MARKING - LINE 12"- TYPE IV TAPE	FOOT	37	37					
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1287.5	1287.5					
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	725	725					
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4					
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2					
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	329	329					
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	808	808					
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	268	268					
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	898	898					
	X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12					
	X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1					
	X7013820	TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS	CAL DA	35	35					
	X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	10	10					
	X7830052	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT	EACH	10	10					
	X8211002	PROTECT AND MAINTAIN EXISTING UNDERPASS LUMINAIRE	L SUM	1	1					
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	4636	4636					

SUMMARY OF QUANTITIES

Code No.	Item	Unit	Total Quantity	TYPE CODE URBAN ROADWAY 100% STATE	URBAN	URBAN	URBAN	URBAN	URBAN
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1					
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	11	11					

*** SPECIALTY ITEMS**

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	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
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F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	3
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

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REV-SEP

MAINTENANCE OF TRAFFIC GENERAL NOTES

1. THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY IMPROVE OR MODIFY THE TRAFFIC CONTROL PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER.
3. MAINTENANCE OF TRAFFIC GENERAL NOTES DO NOT OVERRIDE THE ALLOWABLE CLOSURE HOURS IN THE SPECIAL PROVISIONS. BARRIER WALL LONG TERM CLOSURES, FOR THE DURATION OF THE PROJECT, ARE ONLY ALLOWED IN THE SHOULDERS. DAILY NIGHT CLOSURES OF THROUGH LANES ARE ALLOWED ACCORDING TO THE ALLOWABLE HOURS.
4. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
5. THE CONTRACTOR SHALL PROVIDE, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR TRAFFIC CONTROL AND PROTECTION.
6. THE TRAFFIC CONTROL SUPERVISOR SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS.
7. THE CONTRACTOR SHALL CONTACT THE IDOT D1 EXPRESSWAY UNIT SUPERVISOR AT (847) 705-4151 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

SUGGESTED STAGES OF CONSTRUCTION SEQUENCE

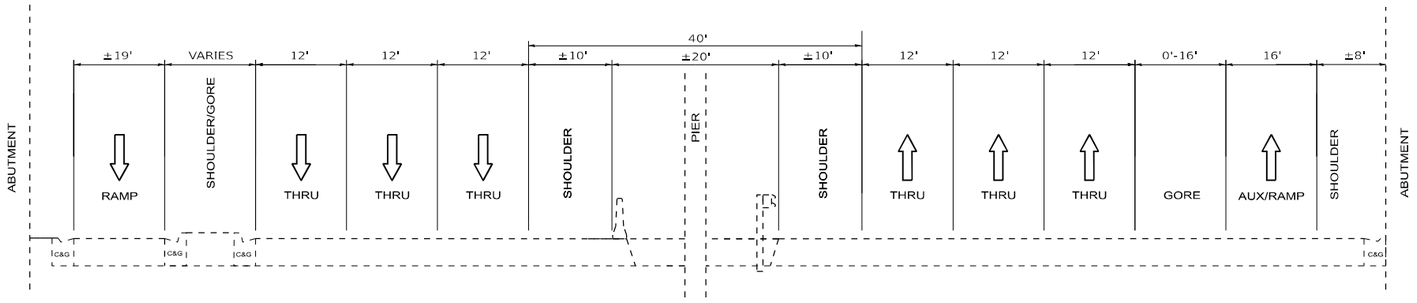
STAGE I
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT PROPOSED IMPROVEMENTS ALONG THE NORTHBOUND & EAST SIDE OF THE ROAD, INCLUDING ALL INCIDENTAL AND RELATED WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

POST-STAGE
INSTALL PERMANENT PAVEMENT MARKINGS AND REFLECTORS, PERFORM CLEAN UP AND COMPLETE PUNCH LIST ITEMS.

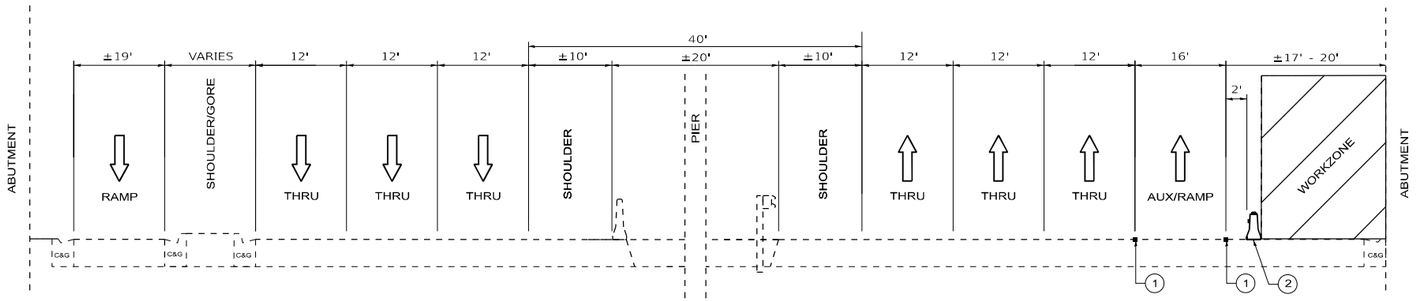
LEGEND

(1) PROP. TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE

(2) PROP. TEMPORARY CONCRETE BARRIER WITH TYPE C REFLECTORS PER HWY STD 704001 & 782006



EXISTING TYPICAL SECTION
I–57 AT 125TH STREET
(LOOKING NORTH)



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION
I-57 AT 125TH STREET

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

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323,3-CF) BR, I 24	COOK	106	4
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

SUGGESTED STAGES OF CONSTRUCTION SEQUENCE

STAGE I
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT PROPOSED IMPROVEMENTS ALONG THE NORTHBOUND & EAST SIDE OF THE ROAD, INCLUDING ALL INCIDENTAL AND RELATED WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

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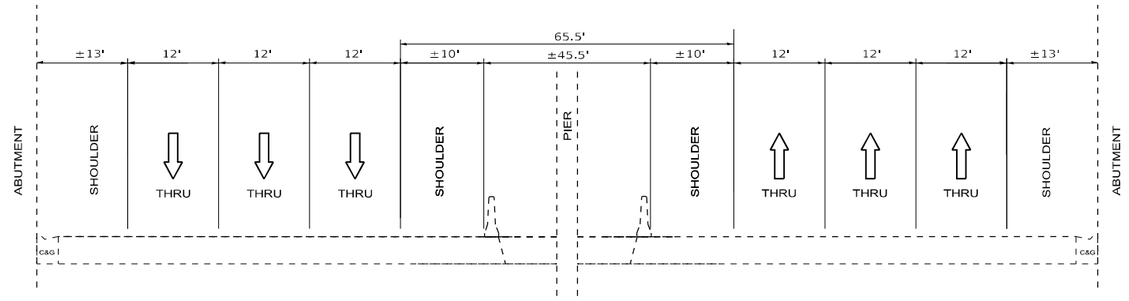
LEGEND

(1) PROP. TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE

(2) PROP. TEMPORARY CONCRETE BARRIER WITH TYPE C REFLECTORS PER HWY STD 704001 & 782006



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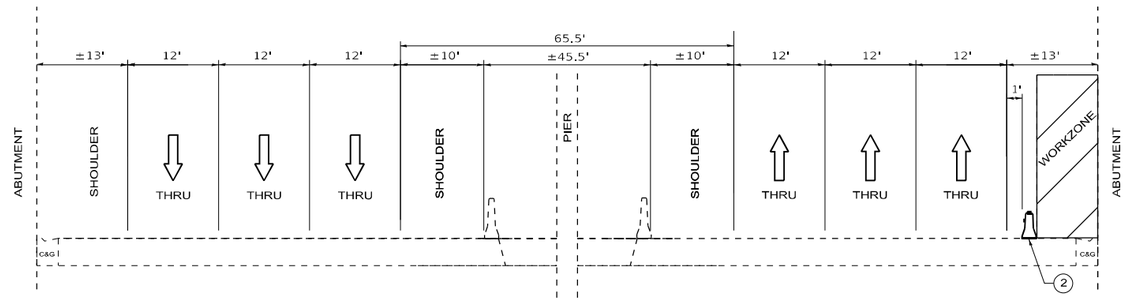

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION
I-57 AT 119TH STREET

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	5
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

SUGGESTED STAGES OF CONSTRUCTION SEQUENCE

STAGE I
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT PROPOSED IMPROVEMENTS ALONG THE NORTHBOUND & EAST SIDE OF THE ROAD, INCLUDING ALL INCIDENTAL AND RELATED WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

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LEGEND

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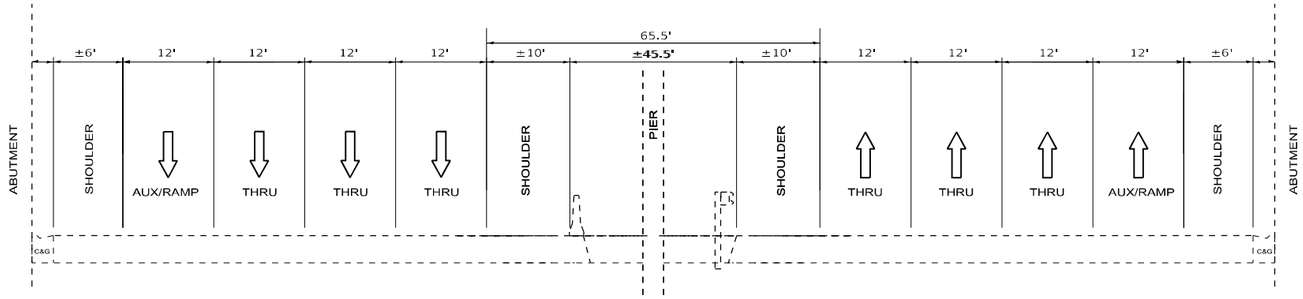
(2) PROP. TEMPORARY CONCRETE BARRIER WITH TYPE C REFLECTORS PER HWY STD 704001 & 782006



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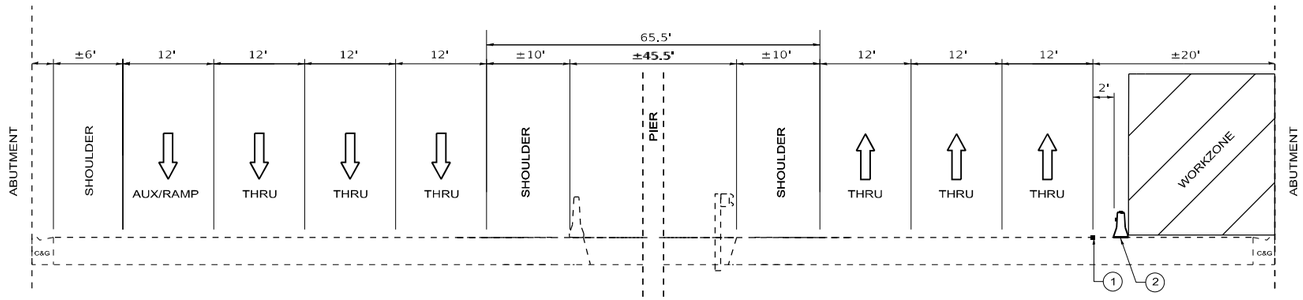

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PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION
I-57 AT 115TH STREET

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

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	6
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

SUGGESTED STAGES OF CONSTRUCTION SEQUENCE

STAGE I
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT PROPOSED IMPROVEMENTS ALONG THE NORTHBOUND & EAST SIDE OF THE ROAD, INCLUDING ALL INCIDENTAL AND RELATED WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

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LEGEND

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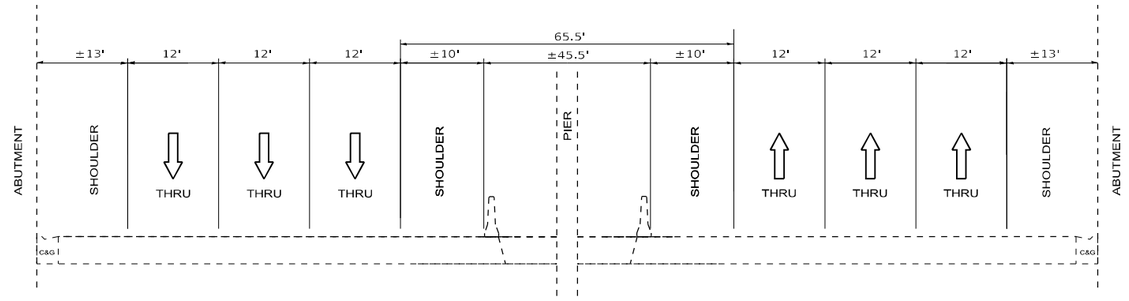
2. PROP. TEMPORARY CONCRETE BARRIER WITH TYPE C REFLECTORS PER HWY STD 704001 & 782006



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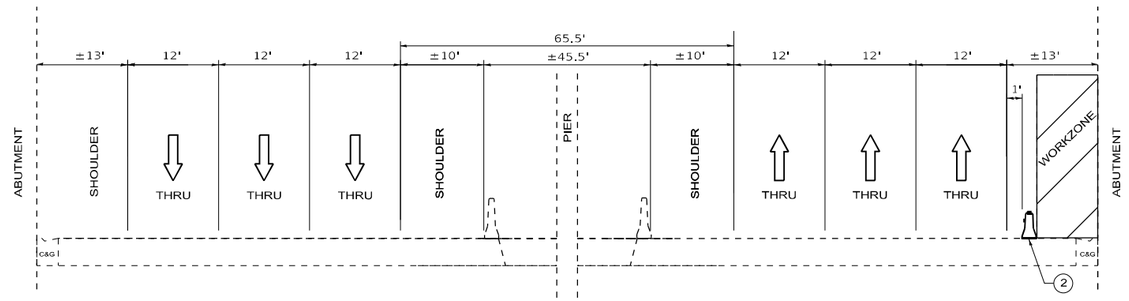

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I–57 AT THROOP STREET
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	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

SUGGESTED MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION
I-57 AT THROOP STREET

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

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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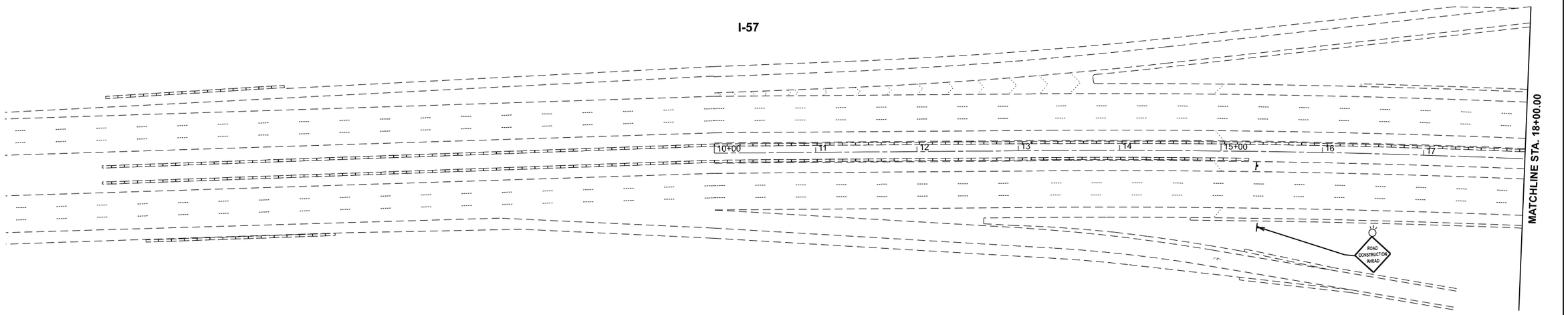
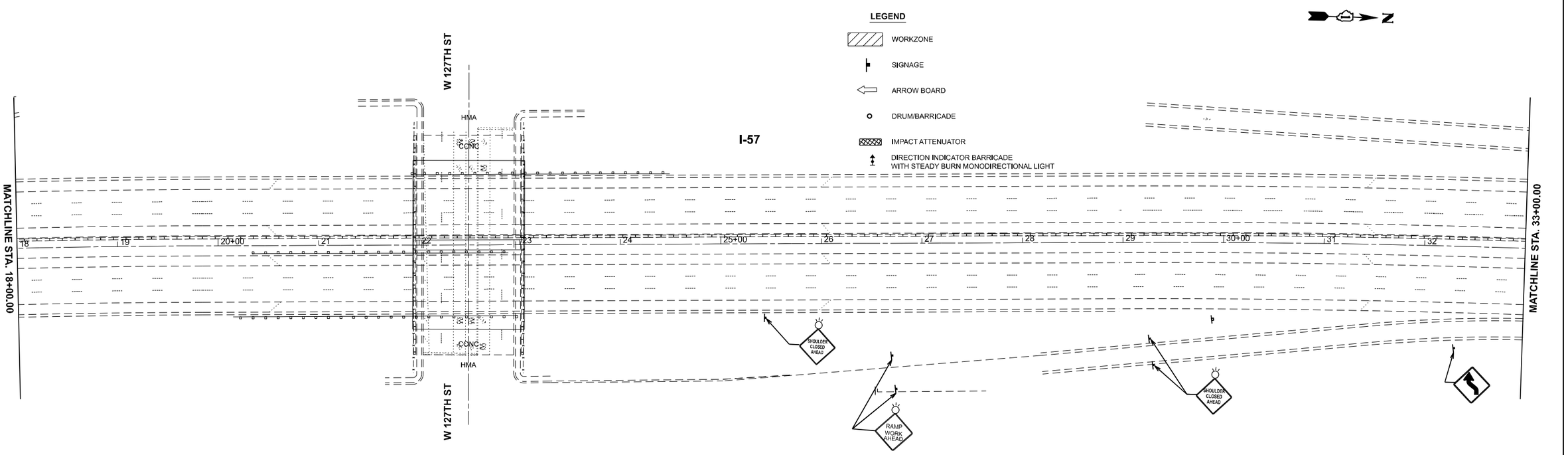
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		





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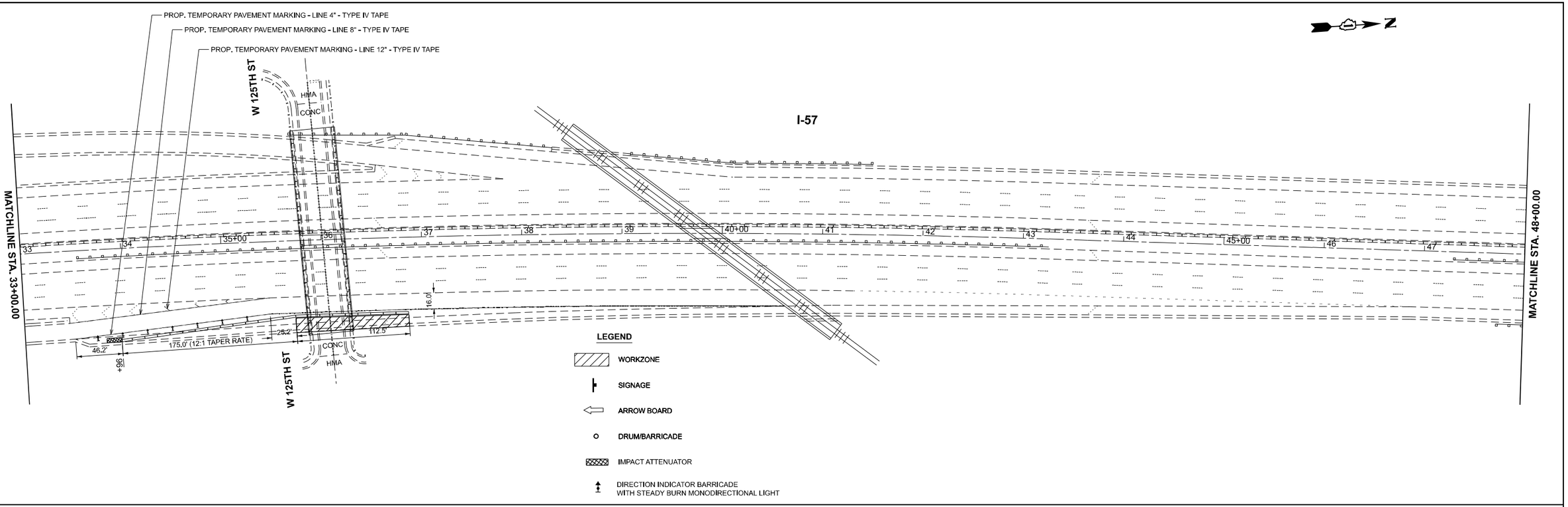
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/20/2025	DATE -	REVISED -	

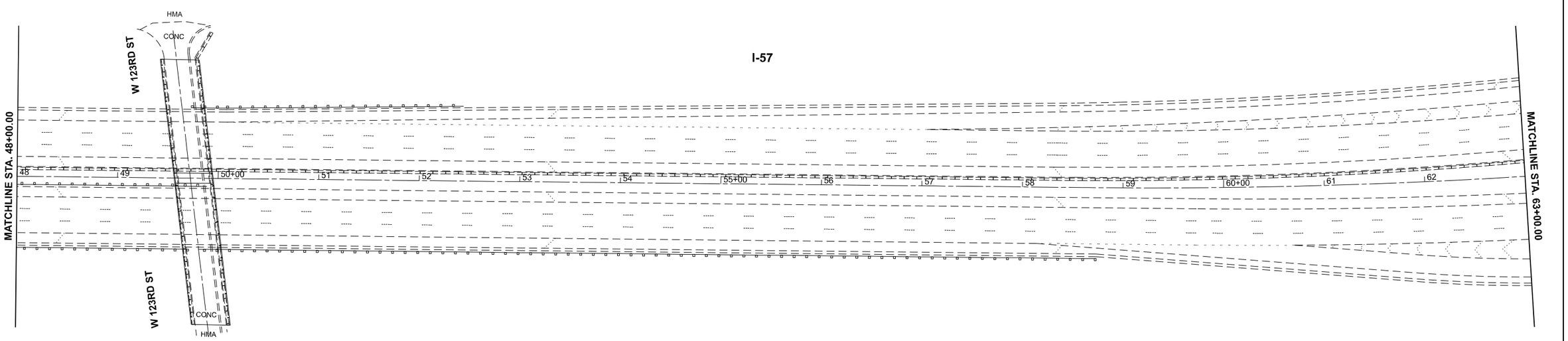
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 1 OF 11 SHEETS | STA. 3+00.00 | TO STA. 33+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	8
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		





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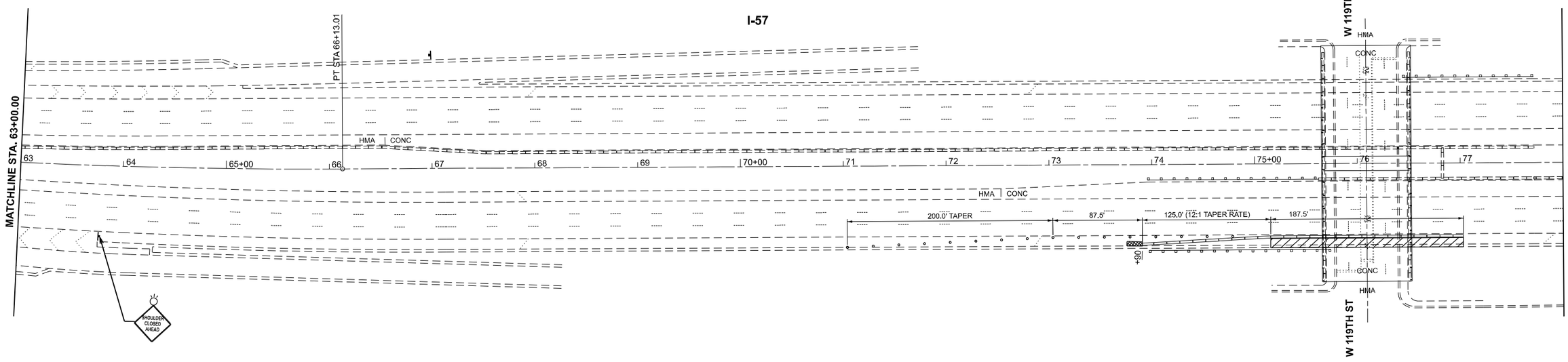
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/20/2025	DATE -	REVISED -	

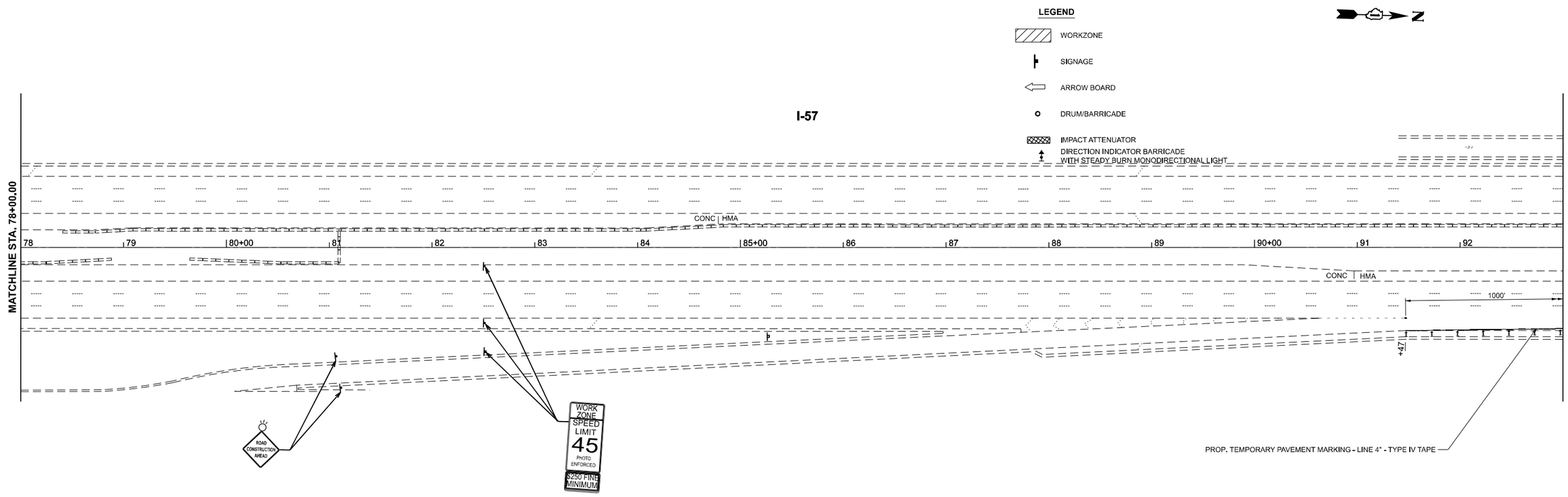
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 2 OF 11 SHEETS | STA. 33+00.00 | TO STA. 63+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	9
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			





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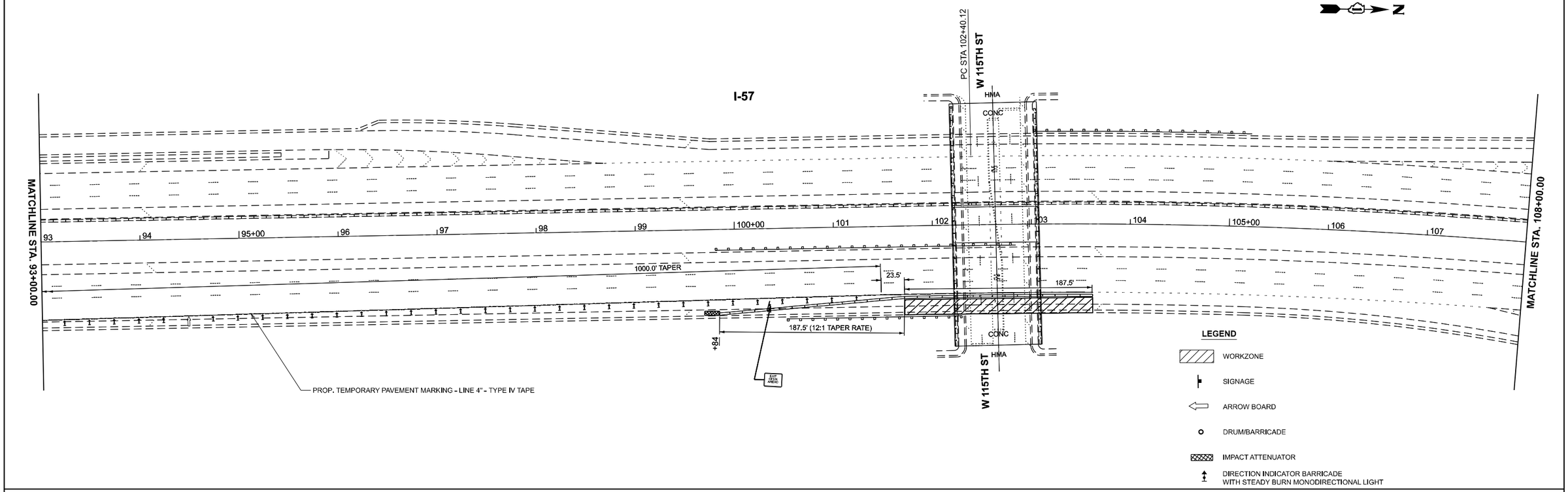
USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/6/2025	DATE -	REVISED -

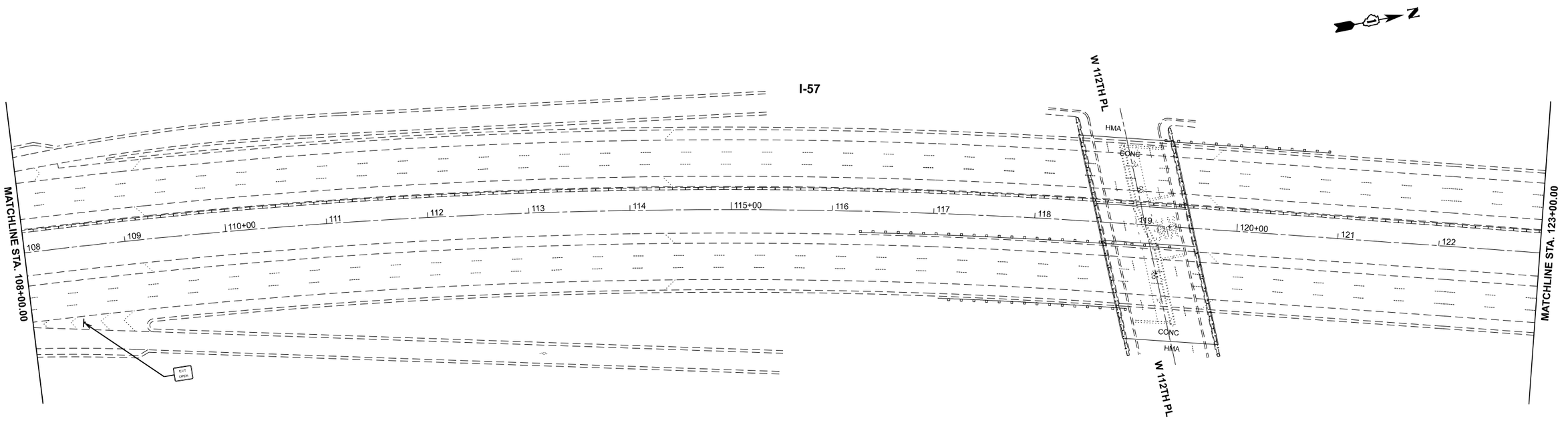
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 3 OF 11 SHEETS | STA. 63+00.00 | TO STA. 93+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	10
		CONTRACT NO. 62X40		
	ILLINOIS | FED. AID PROJECT			





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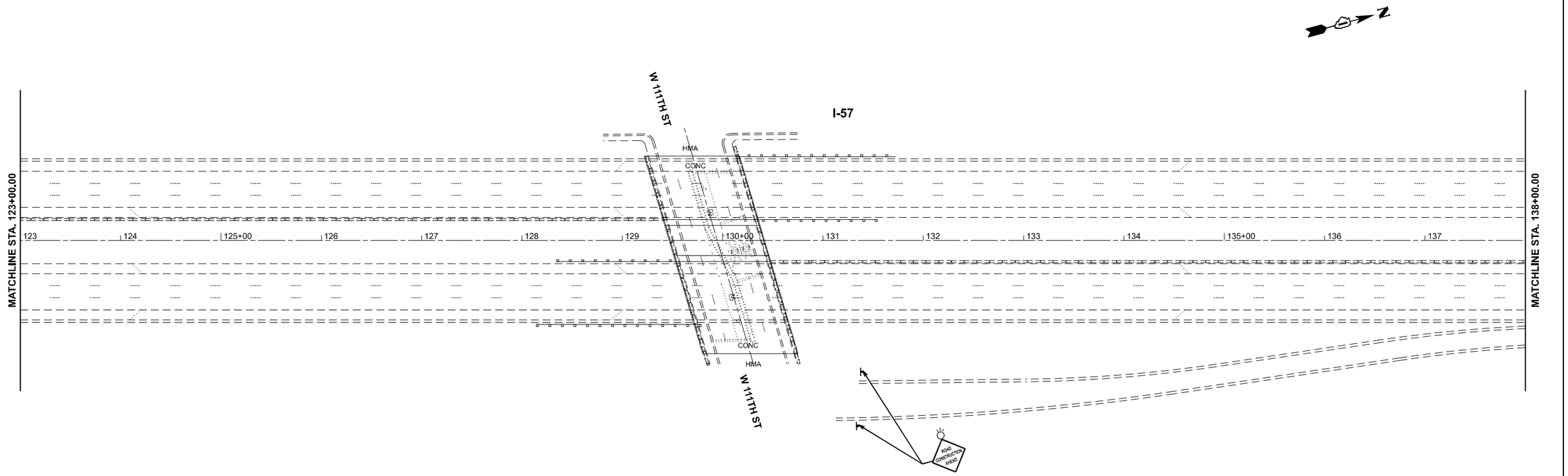
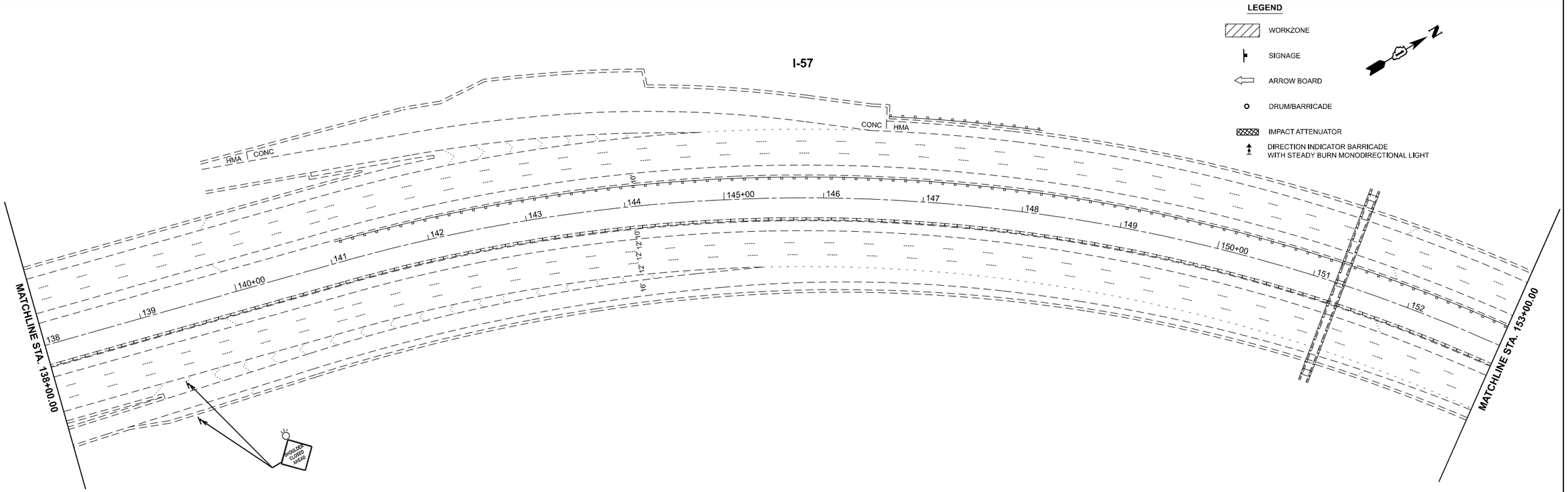
USER NAME = ivan.diaz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/6/2025	DATE -	REVISED -	

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 4 OF 11 SHEETS | STA. 93+00.00 | TO STA. 123+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	11
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			





MODEL: I57_E - Rdwy Plan 9 [Sheet]
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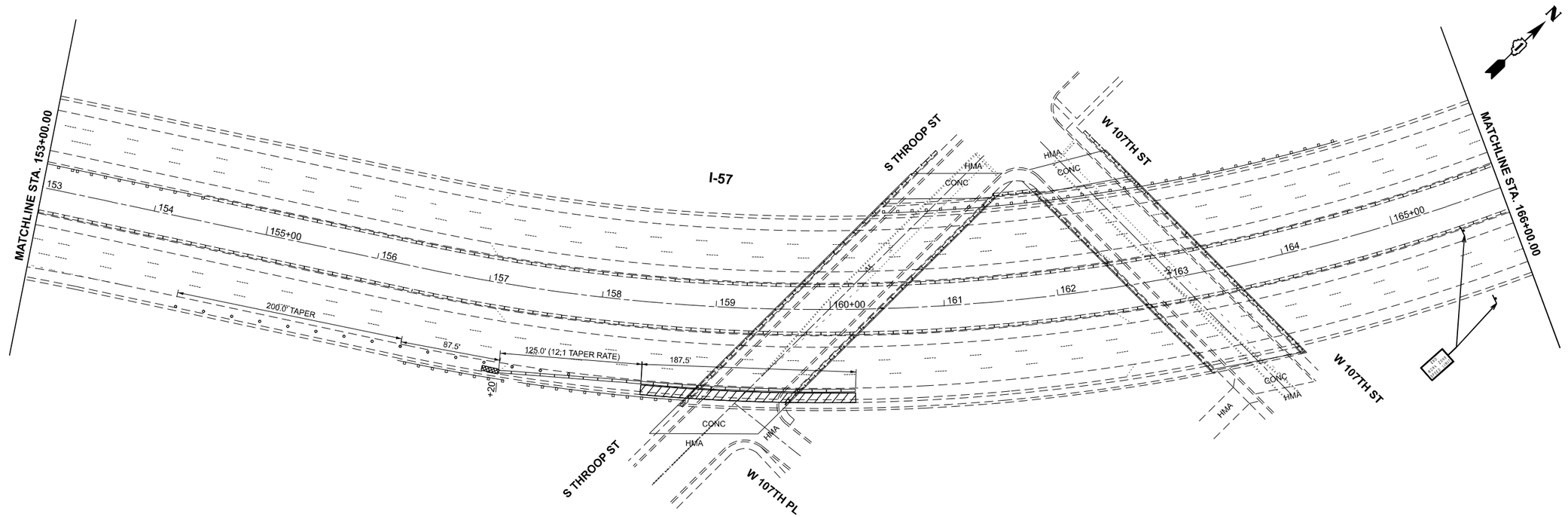
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/6/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

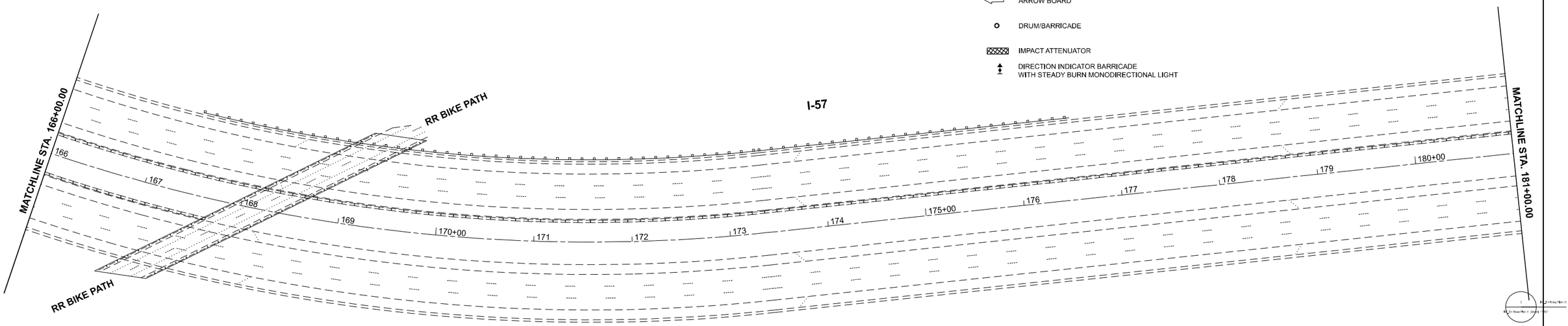
SCALE: 1"=50' | SHEET 5 OF 11 SHEETS | STA. 123+00.00 | TO STA. 153+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	12
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



LEGEND

- WORKZONE
- SIGNAGE
- ARROW BOARD
- DRUM/BARRICADE
- IMPACT ATTENUATOR
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



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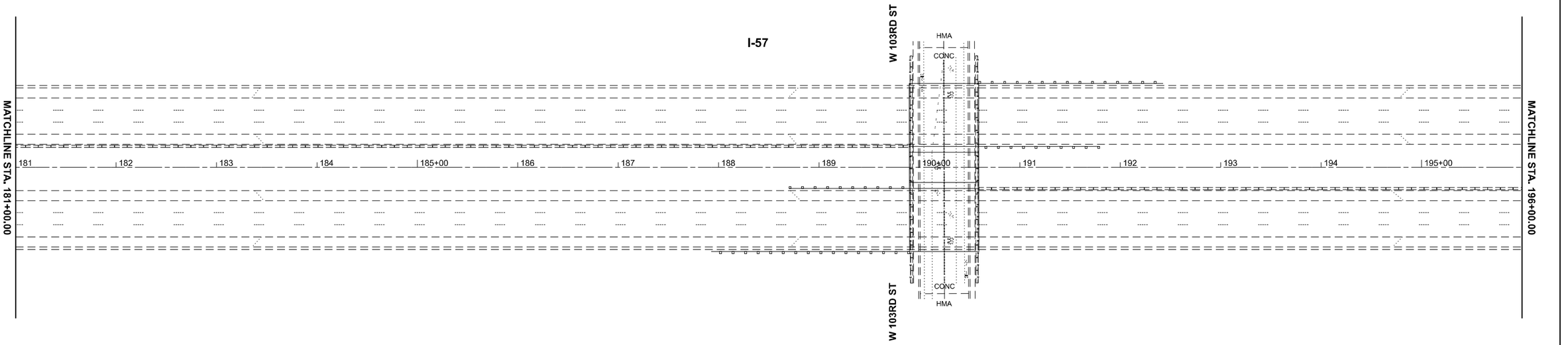
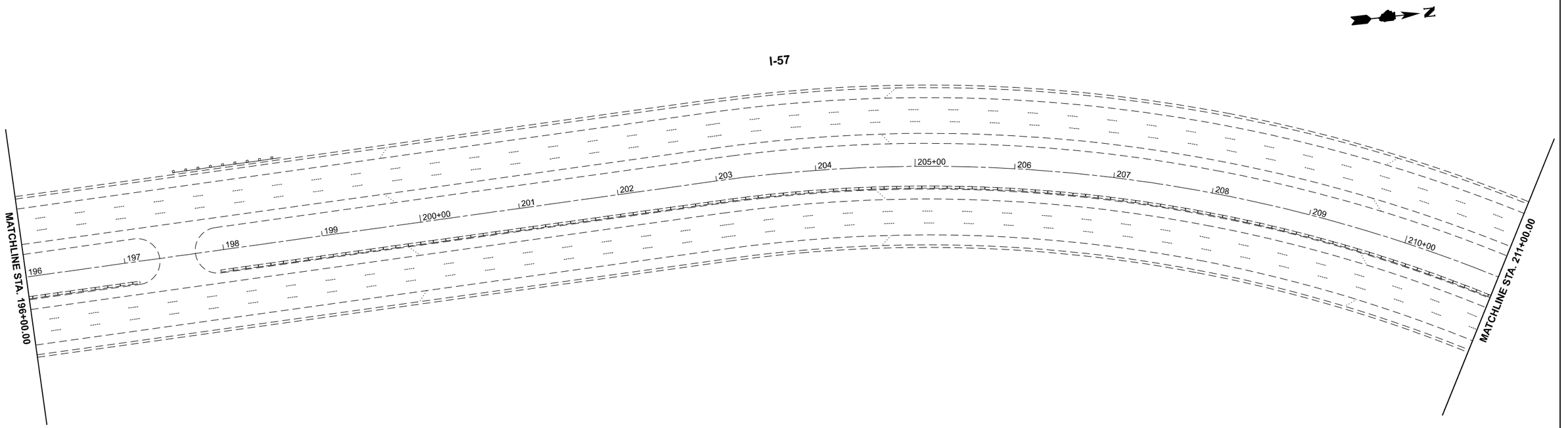
USER NAME = ivan.diaz	DESIGNED -	REVISED -	**STATE OF ILLINOIS**
	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
	CHECKED -	REVISED -	
PLOT DATE = 2/20/2025	DATE -	REVISED -	

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 6 OF 11 SHEETS | STA. 153+00.00 | TO STA. 181+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	13
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			





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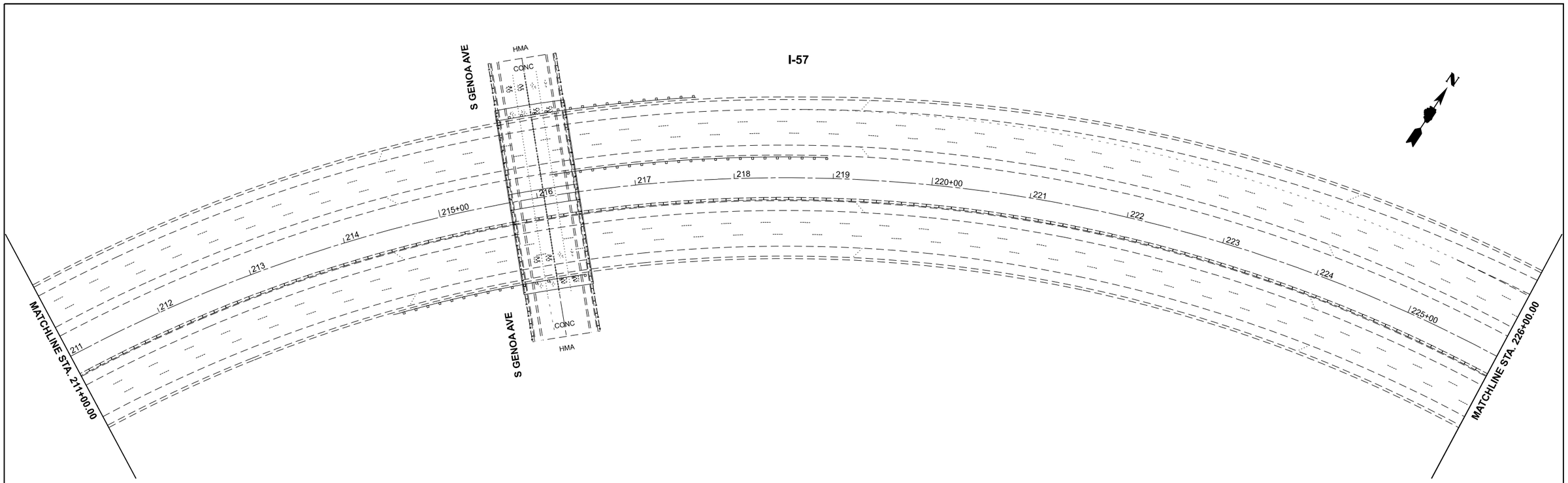
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

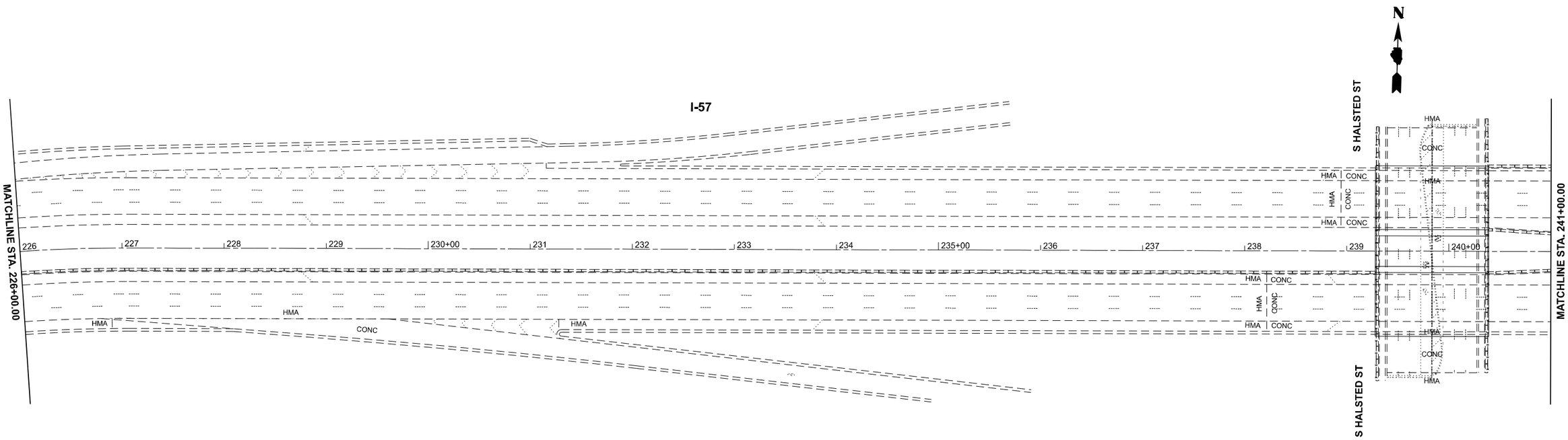
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 7 OF 11 SHEETS | STA. 181+00.00 | TO STA. 211+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	14
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		





MODEL: I57_E - Rdwy Plan 15 [Sheet]
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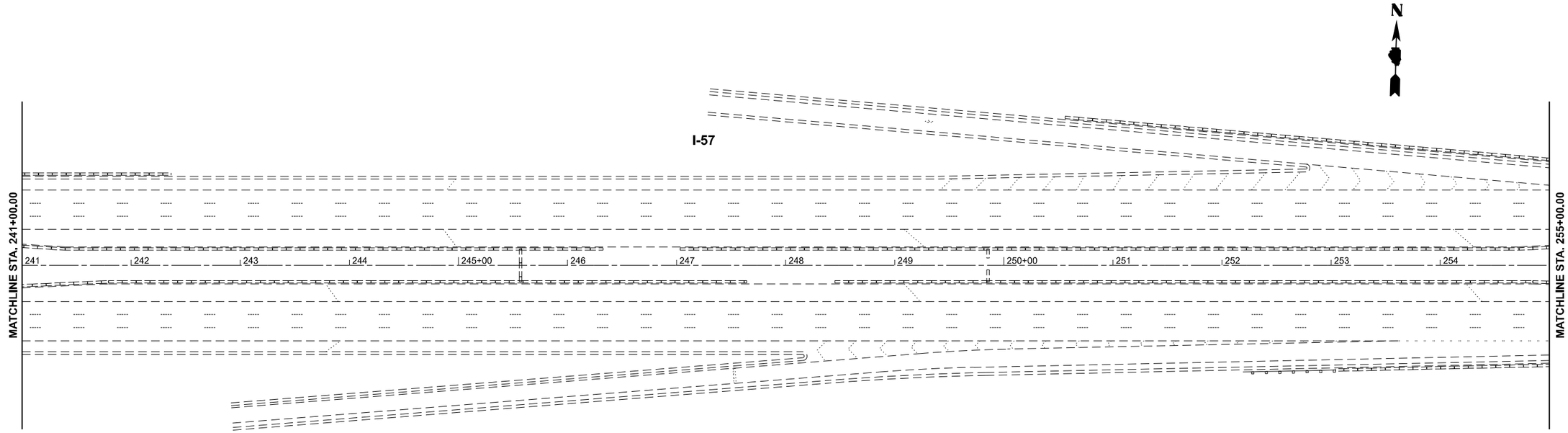
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

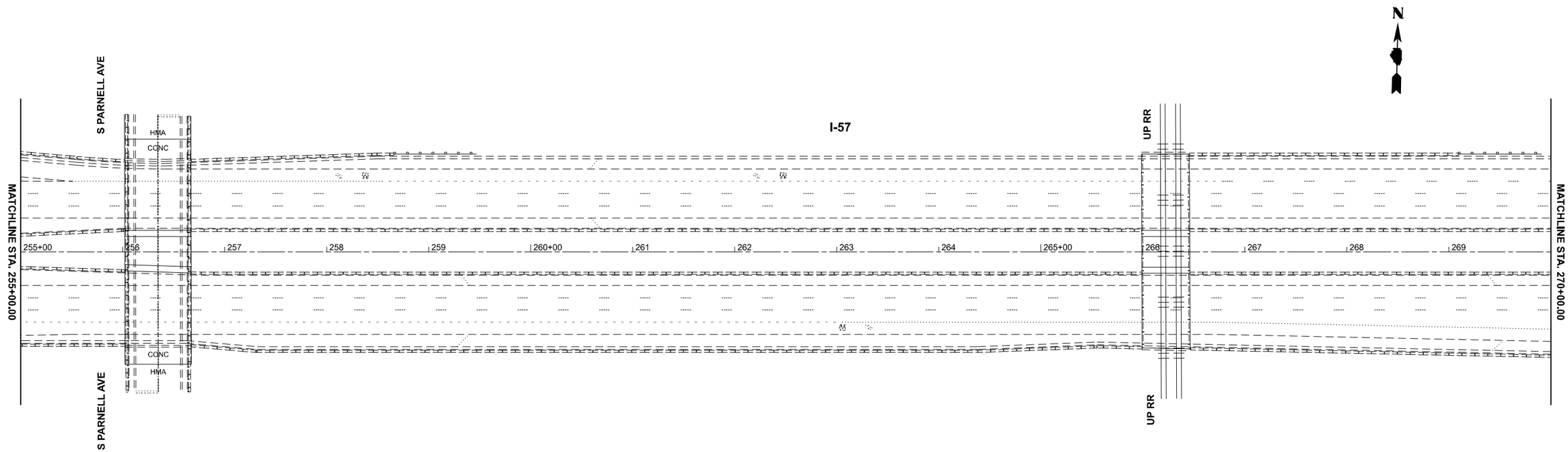
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 8 OF 11 SHEETS | STA. 211+00.00 | TO STA. 241+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	15
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			





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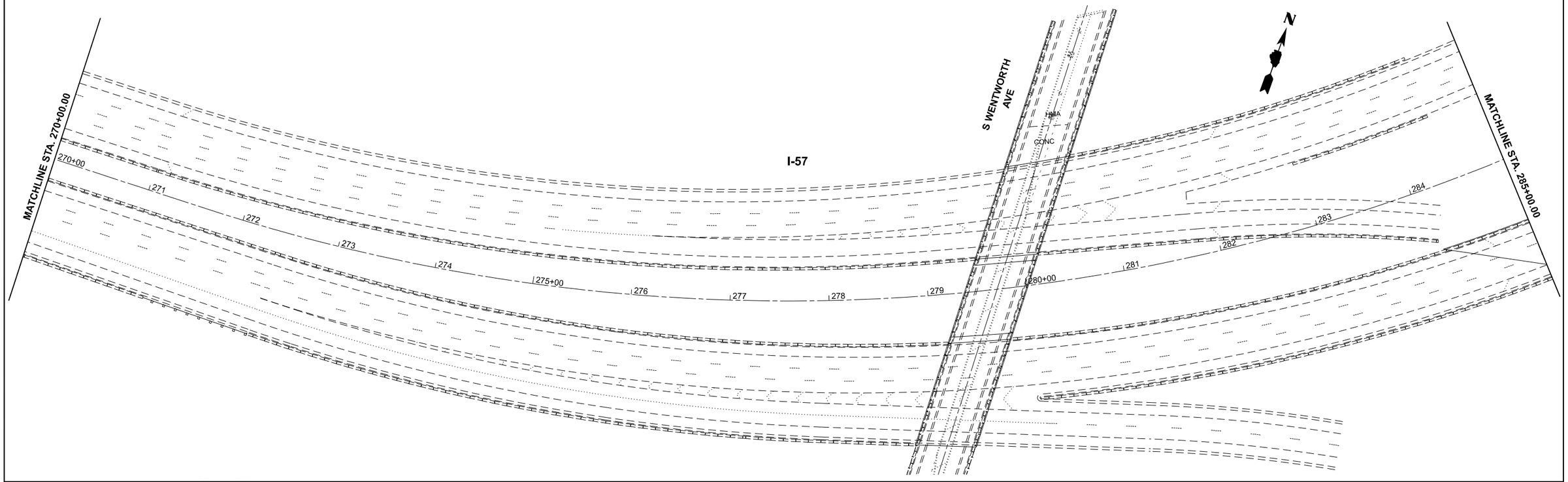
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

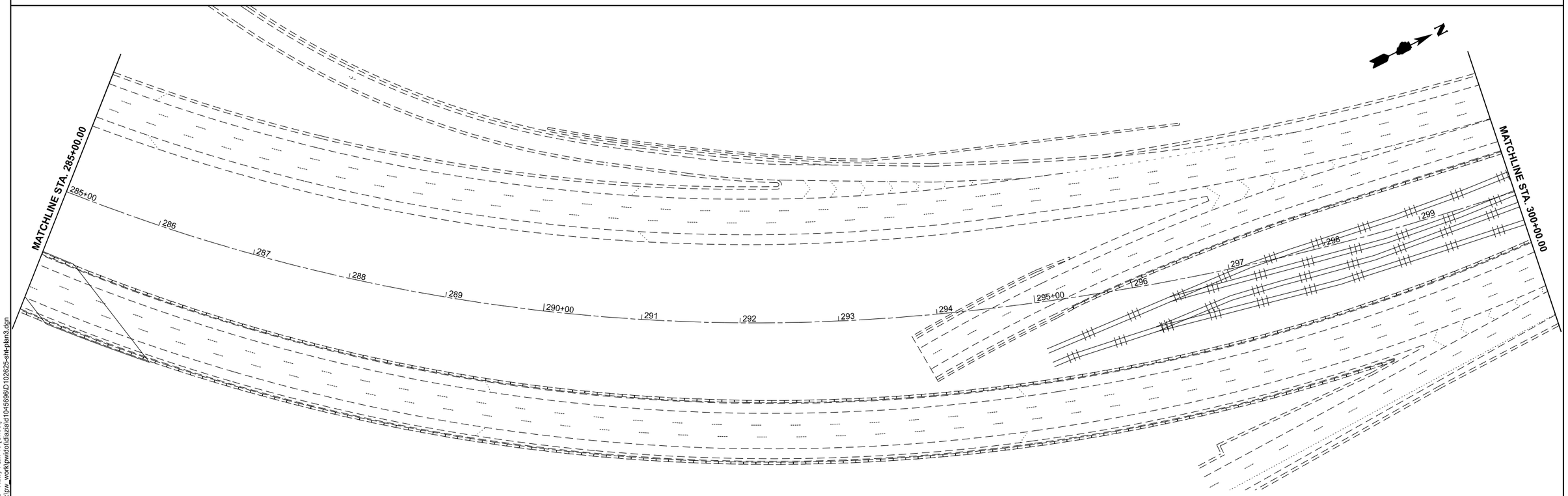
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 9 OF 11 SHEETS | STA. 241+00.00 | TO STA. 270+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	16
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			





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USER NAME = ivan.diaz	DESIGNED -	REVISED -
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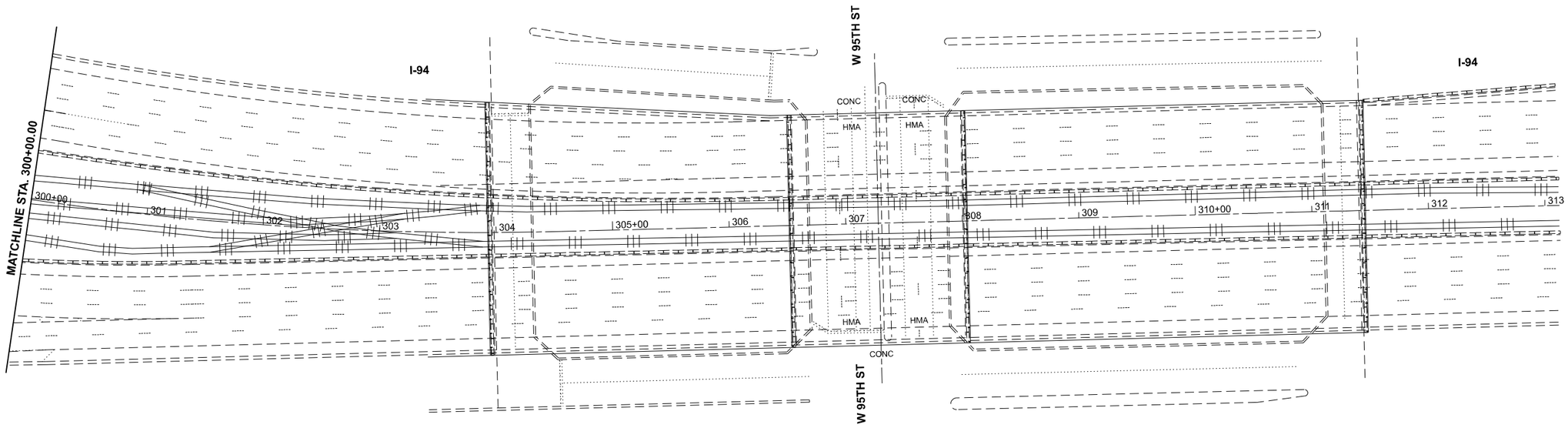
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

SCALE: 1"=50' | SHEET 10 OF 11 SHEETS | STA. 270+00.00 | TO STA. 300+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	17
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



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USER NAME = Ivan.Diaz	DESIGNED -	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/4/2025	DATE -	REVISED -	

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE I PLAN

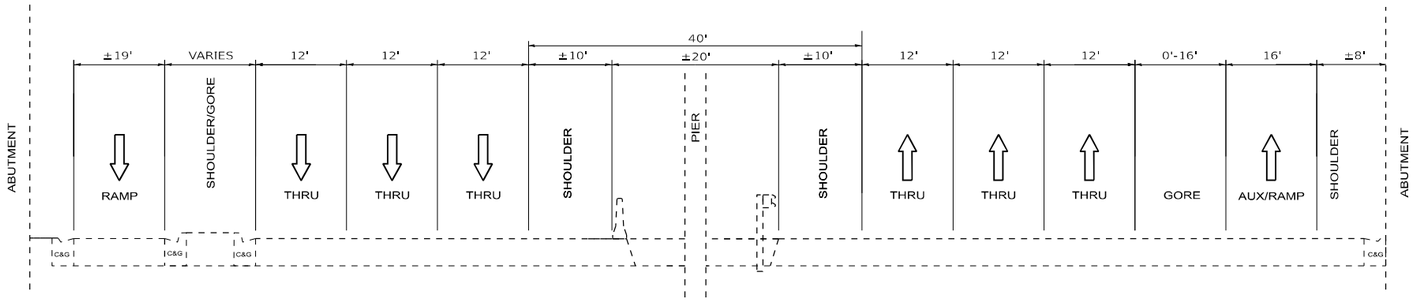
SCALE: 1"=50' | SHEET 11 OF 11 SHEETS | STA. 300+00.00 | TO STA. 315+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	18
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

SUGGESTED STAGES OF CONSTRUCTION SEQUENCE

STAGE II
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT PROPOSED IMPROVEMENTS ALONG THE NORTHBOUND & WEST SIDE OF THE ROAD / MEDIAN, INCLUDING ALL INCIDENTAL AND RELATED WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

POST-STAGE
INSTALL PERMANENT PAVEMENT MARKINGS AND REFLECTORS, PERFORM CLEAN UP AND COMPLETE PUNCH LIST ITEMS.

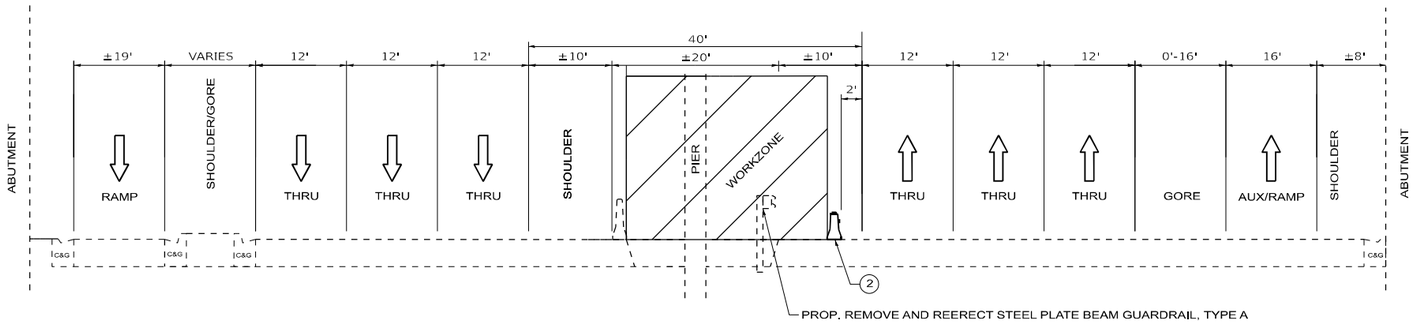


EXISTING TYPICAL SECTION
I–57 AT 125TH STREET
(LOOKING NORTH)

LEGEND

(1) PROP. TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE

(2) PROP. TEMPORARY CONCRETE BARRIER WITH TYPE C REFLECTORS PER HWY STD 704001 & 782006



STAGING II TYPICAL SECTION
I–57 AT 125TH STREET
(LOOKING NORTH)

MODEL: STAGE 2 TYP SEC 125TH [Sheet]
FILE NAME: c:\pw_work\pwidotdiazia\d10456969\D102625-sht-plan2.dgn

USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC STAGE II TYPICAL SECTION
I-57 AT 125TH STREET

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

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	19
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

SUGGESTED STAGES OF CONSTRUCTION SEQUENCE

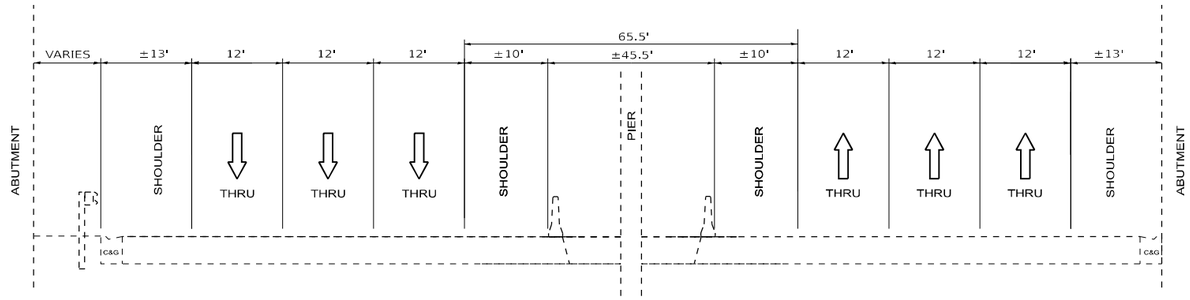
STAGE II
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT PROPOSED IMPROVEMENTS ALONG THE SOUTHBOUND & WEST SIDE OF THE ROAD, INCLUDING ALL INCIDENTAL AND RELATED WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

POST-STAGE
INSTALL PERMANENT PAVEMENT MARKINGS AND REFLECTORS, PERFORM CLEAN UP AND COMPLETE PUNCH LIST ITEMS.

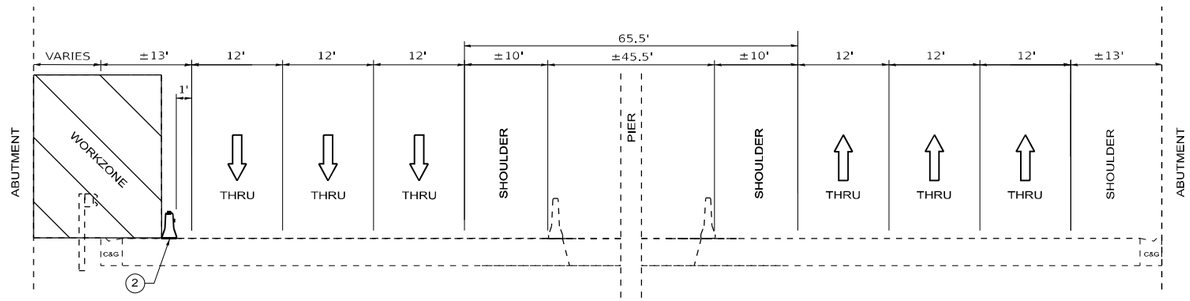
LEGEND

(1) PROP. TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE

(2) PROP. TEMPORARY CONCRETE BARRIER WITH TYPE C REFLECTORS PER HWY STD 704001 & 782006



EXISTING TYPICAL SECTION
I–57 AT THROOP ST /107TH ST
(LOOKING NORTH)



STAGING II TYPICAL SECTION
I–57 AT THROOP ST /107TH ST
(LOOKING NORTH)

MODEL: STAGE 2 TYP SEC [Sheet]
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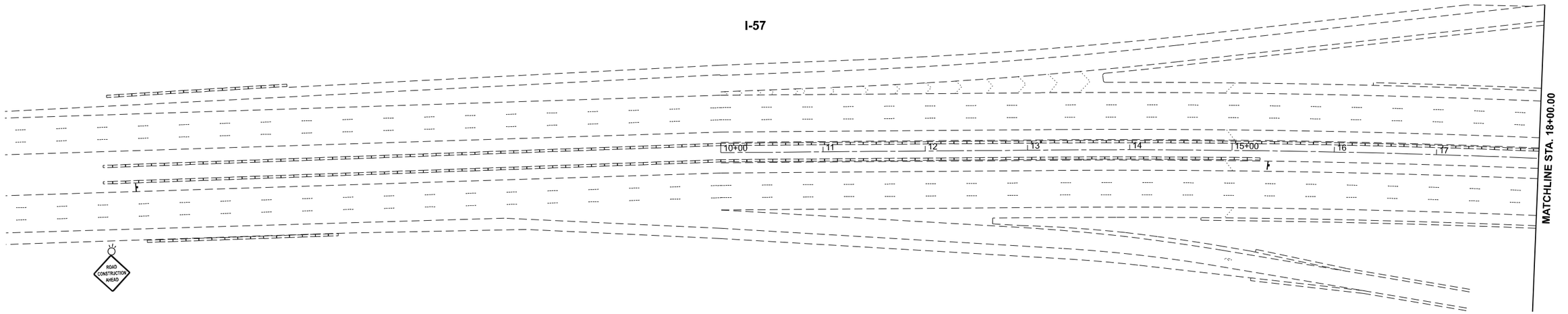
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

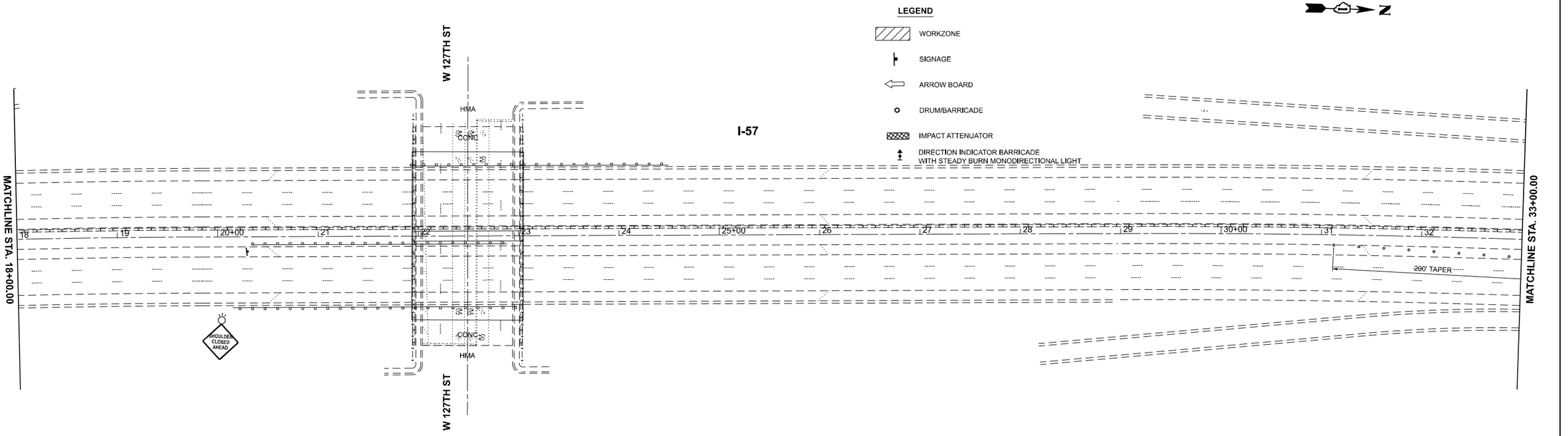
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC STAGE II TYPICAL SECTION
I-57 AT THROOP ST / 107TH ST

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

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	20
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			





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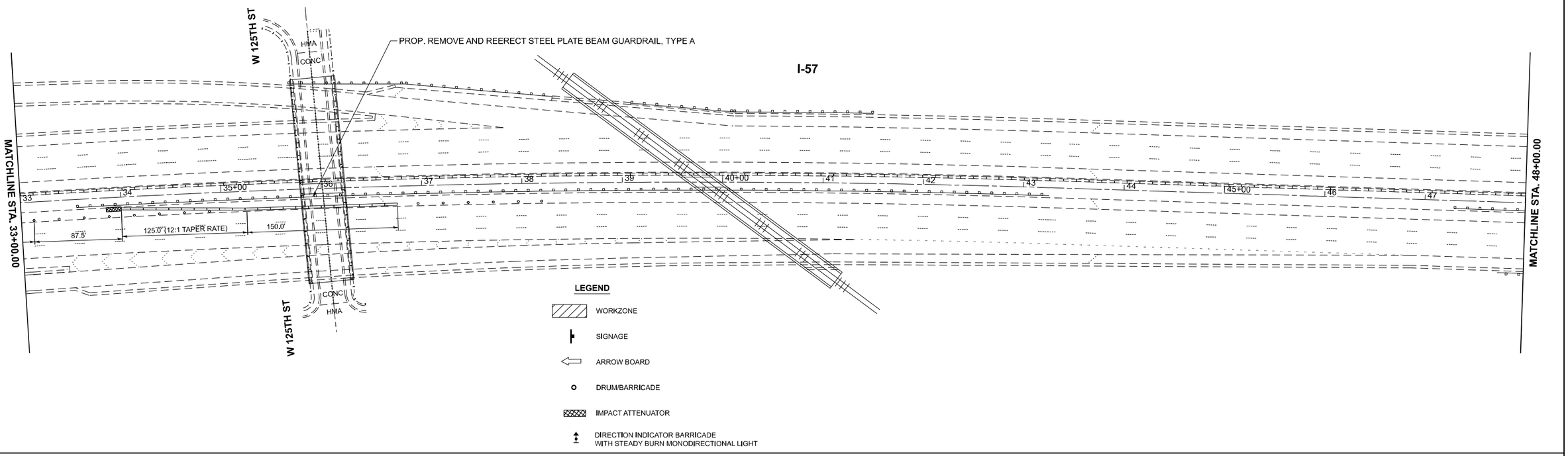
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/20/2025	DATE -	REVISED -	

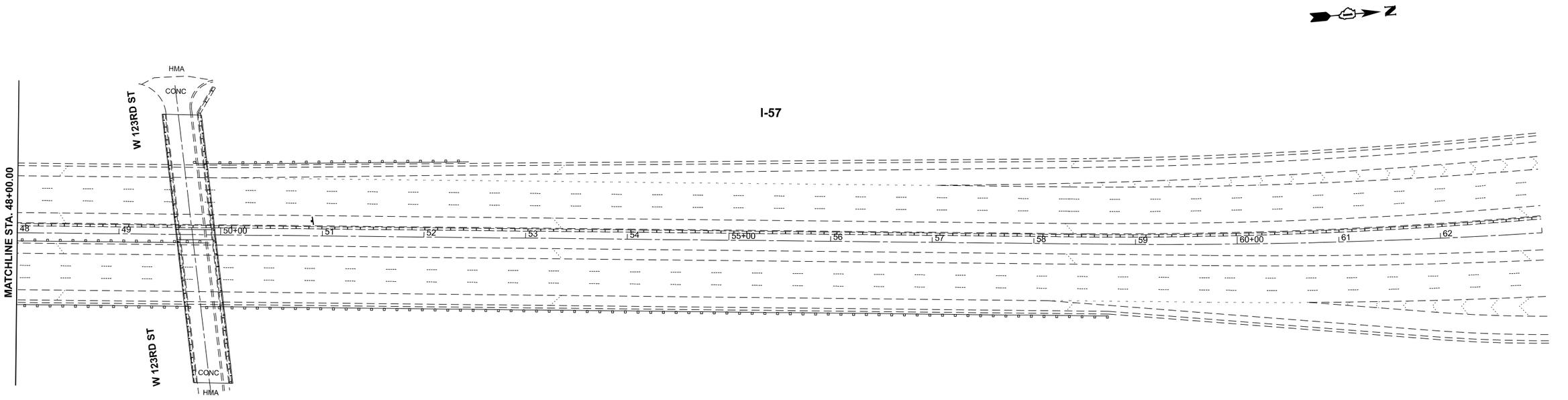
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE II PLAN

SCALE: 1"=50' | SHEET A003 OF 6 SHEETS | STA. 3+00.00 | TO STA. 33+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	21
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		





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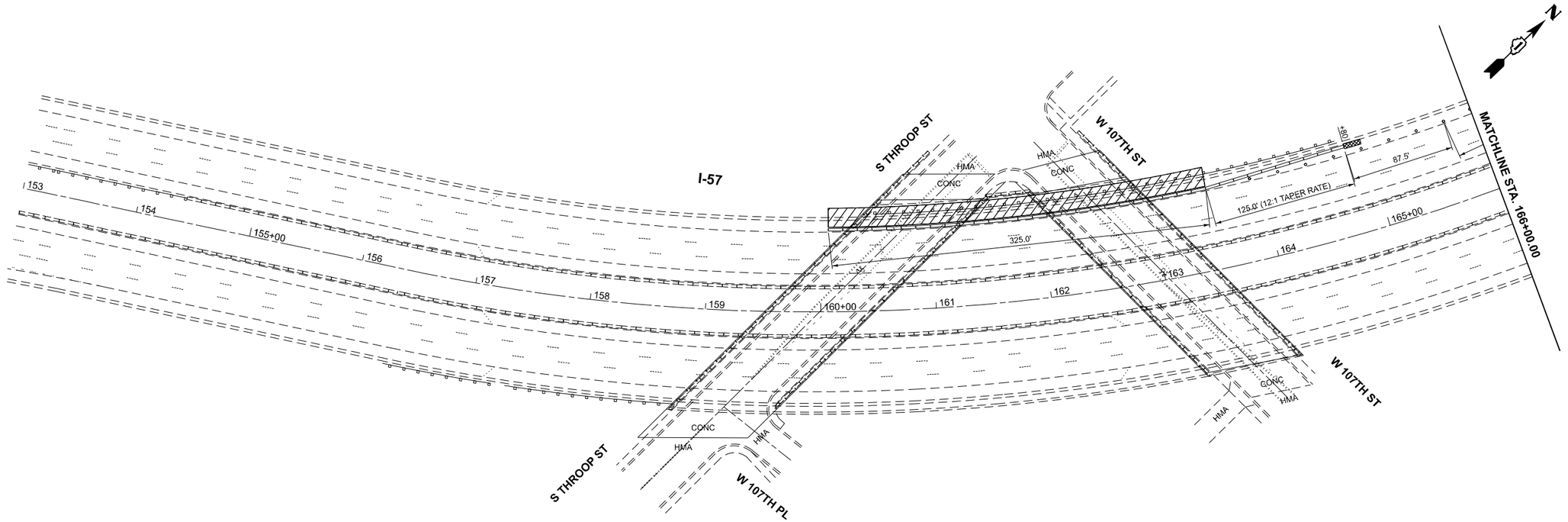
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/20/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE II PLAN

SCALE: 1"=50' | SHEET A004 OF 6 SHEETS | STA. 33+00.00 | TO STA. 63+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	22
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



LEGEND

- WORKZONE
- SIGNAGE
- ARROW BOARD
- DRUM/BARRICADE
- IMPACT ATTENUATOR
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT

SHOULDER CLOSED AHEAD

N

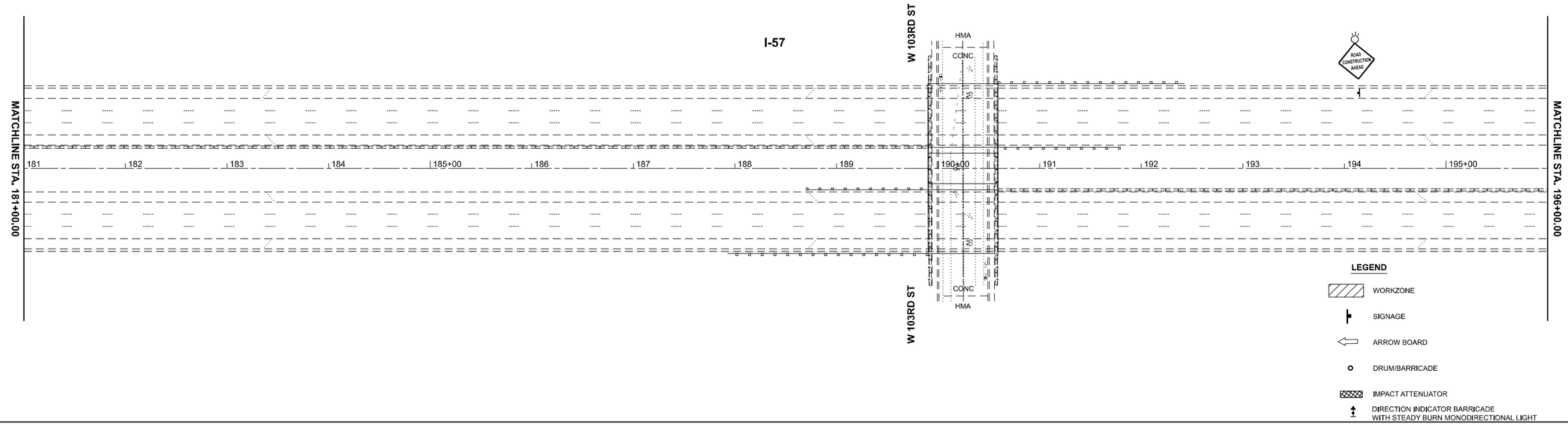
MODEL: I57_E - Rdwy Plan 11 [Sheet]
FILE NAME: c:\pw_work\pwidotdiazia\d10456969\D102625-sht-plan2.dgn

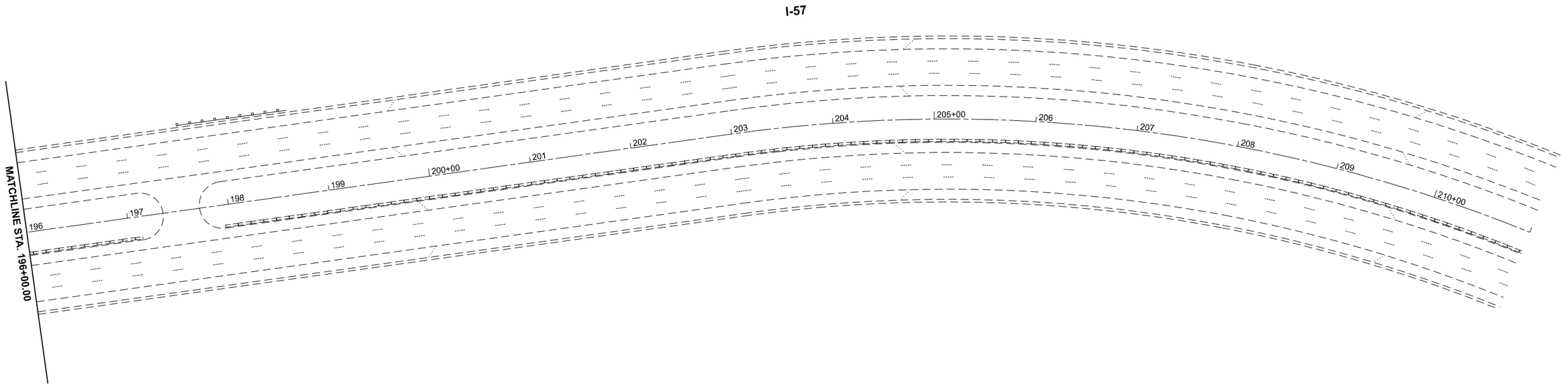
USER NAME = ivan.diaz	DESIGNED -	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/20/2025	DATE -	REVISED -	

I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE II PLAN

SCALE: 1"=50' | SHEET A005 OF 6 SHEETS | STA. 153+00.00 | TO STA. 181+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	23
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			





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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/20/2025	DATE -	REVISED -	

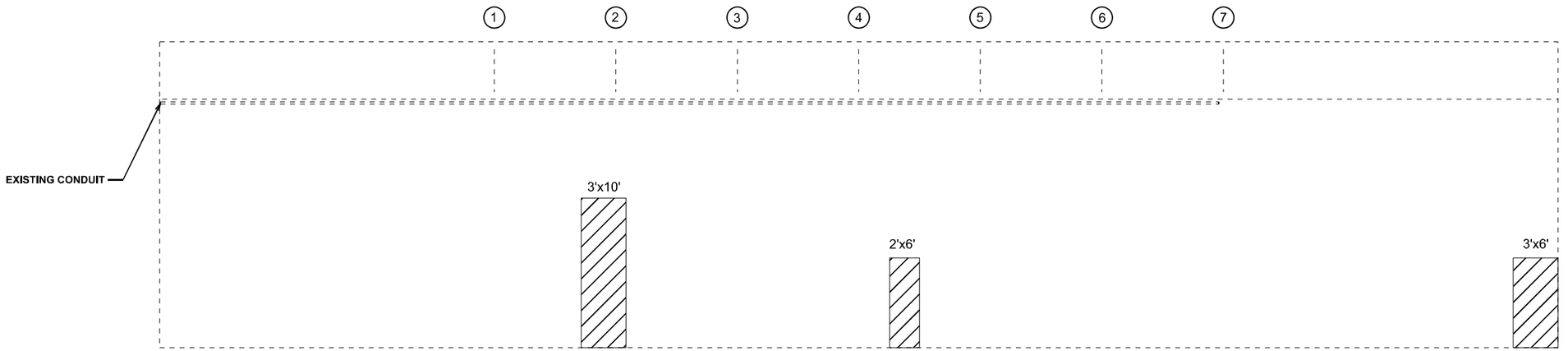
I-57
SUGGESTED MAINTENANCE OF TRAFFIC STAGE II PLAN

SCALE: 1"=50' | SHEET A006 OF 6 SHEETS | STA. 181+00.00 | TO STA. 211+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	24
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	60
TEMPORARY SHORING AND CRIBBING	EACH	0

TOTAL BILL OF MATERIALS (SN 016-2028)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	733
TEMPORARY SHORING AND CRIBBING	EACH	0

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

Jayme F. Schiff

MODEL: SN 016-2028 1
FILE NAME: c:\pw_work\pwidot\diazia\d1045696\D102625-sht-details.dgn

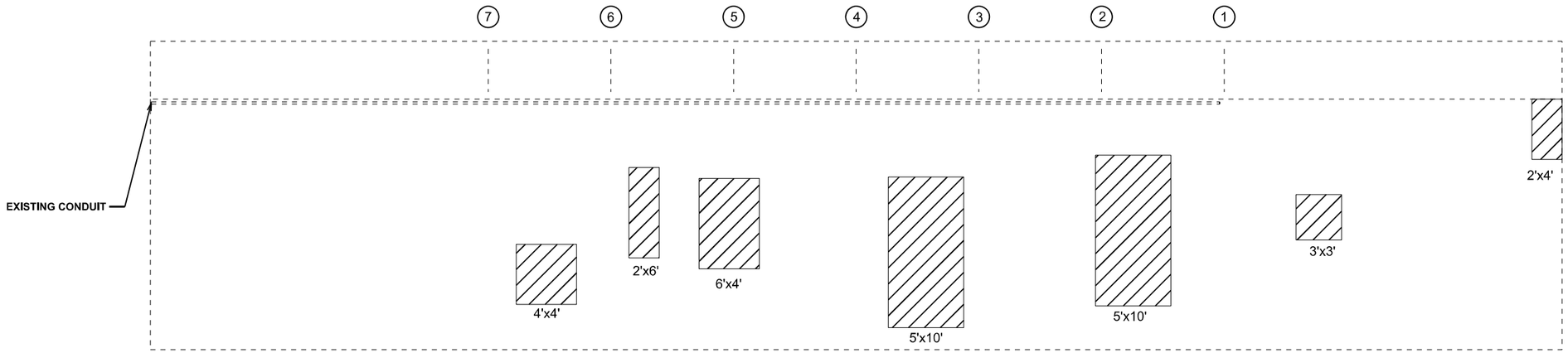
USER NAME = Ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
NORTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 6 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	25
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	169
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2028 2
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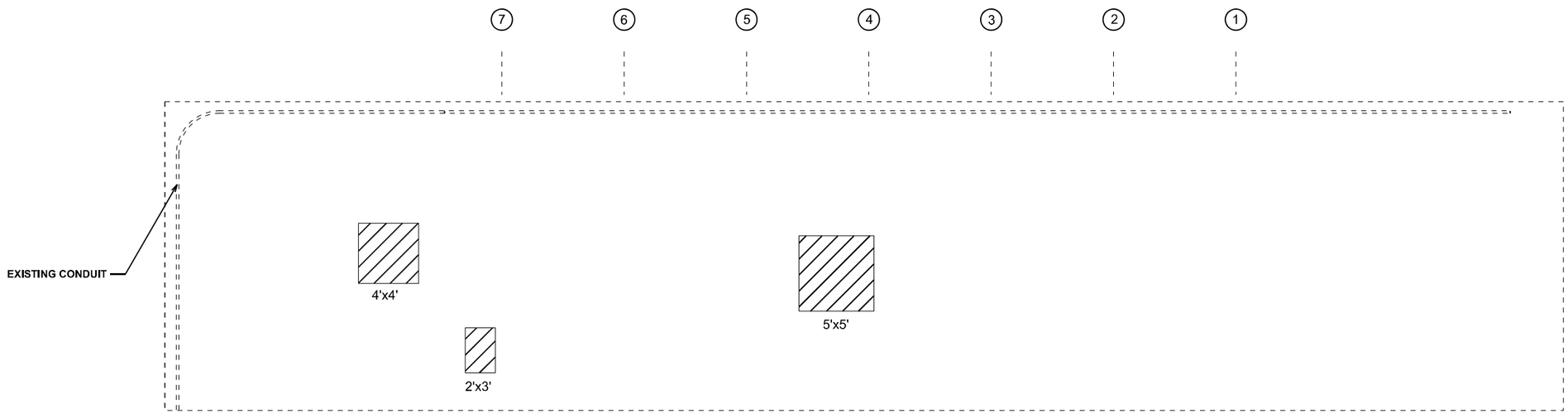
USER NAME = Ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
SOUTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 6 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	26
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	47
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2028 3
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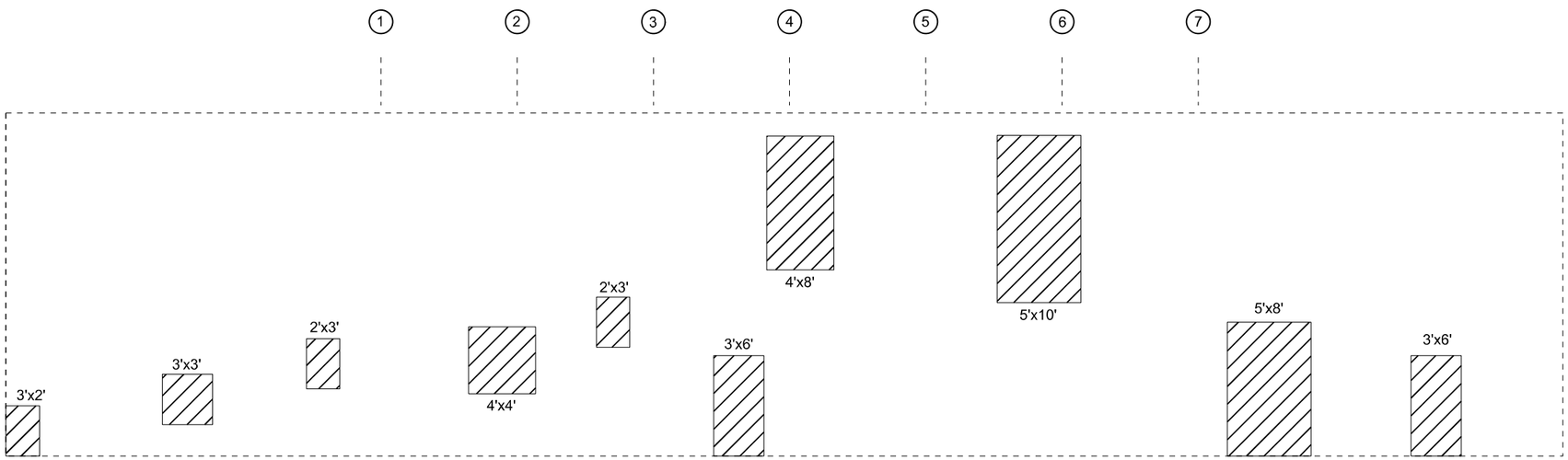
USER NAME = Ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
PIER 1 NORTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 6 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	27
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	201
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2028 4
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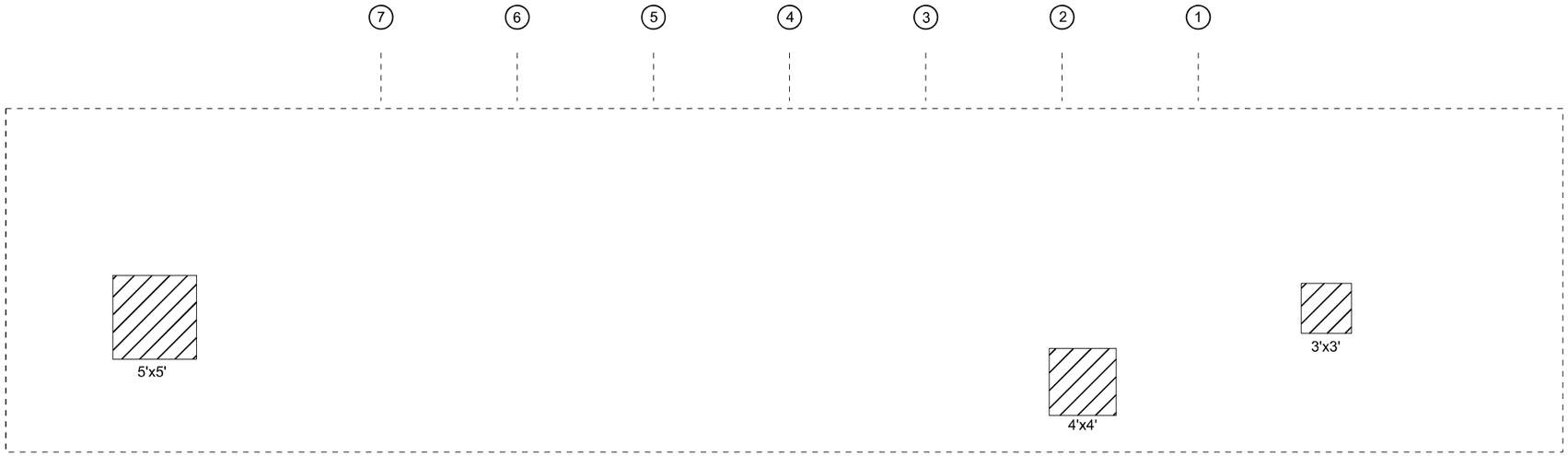
USER NAME = Ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
PIER 1 SOUTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 6 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	28
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	50
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2028 5
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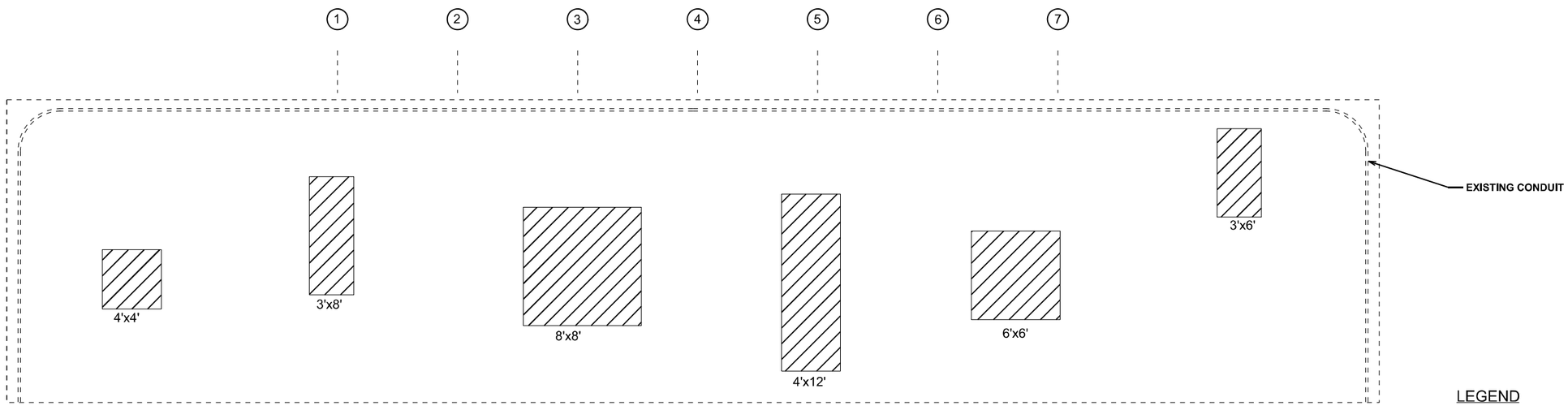
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
PIER 2 NORTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 6 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	29
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	206
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2028 6
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
PIER 2 SOUTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 6 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	30
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

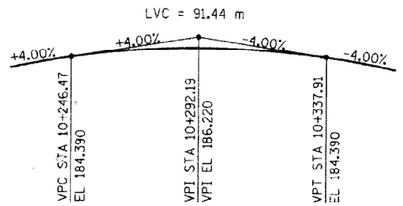
FOR INFORMATION ONLY

BENCH MARK TBM 2: CUT TRIANGLE ON NW CORNER OF NORTH END OF EAST PARAPET WALL AT NORTH END OF BRIDGE RAILING. ELEV 183.208 m.

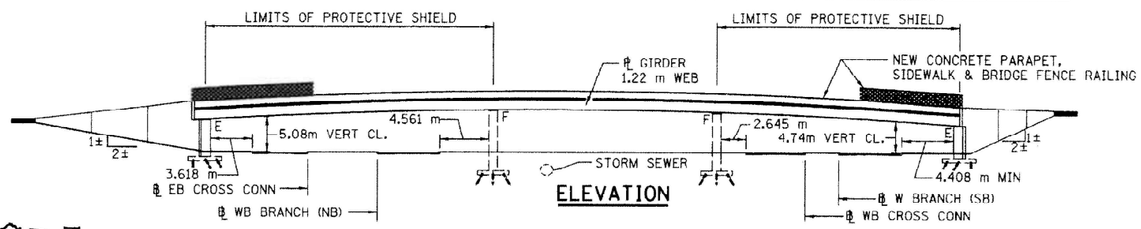
EXISTING STRUCTURE: S.N. 016-2028 BUILT UNDER SECTION 2328.38 OF ROUTE FAI 57 IN 1960 AT STA 10+302.702. THE SUPERSTRUCTURE CONSISTS OF POST-TENSIONED CONCRETE TEE-BEAMS WHICH FORM A 25.30m WIDE DECK, 95.018m BACK TO BACK ABUTMENTS VIA 3-SIMPLE SPANS OF 35.173m, 27.810m AND 30.359m. THE EXISTING CONCRETE SUPERSTRUCTURE IS TO BE REMOVED AND REPLACED USING STAGE CONSTRUCTION. TRAFFIC SHALL BE MAINTAINED DURING RECONSTRUCTION.

NO SALVAGE VALUE

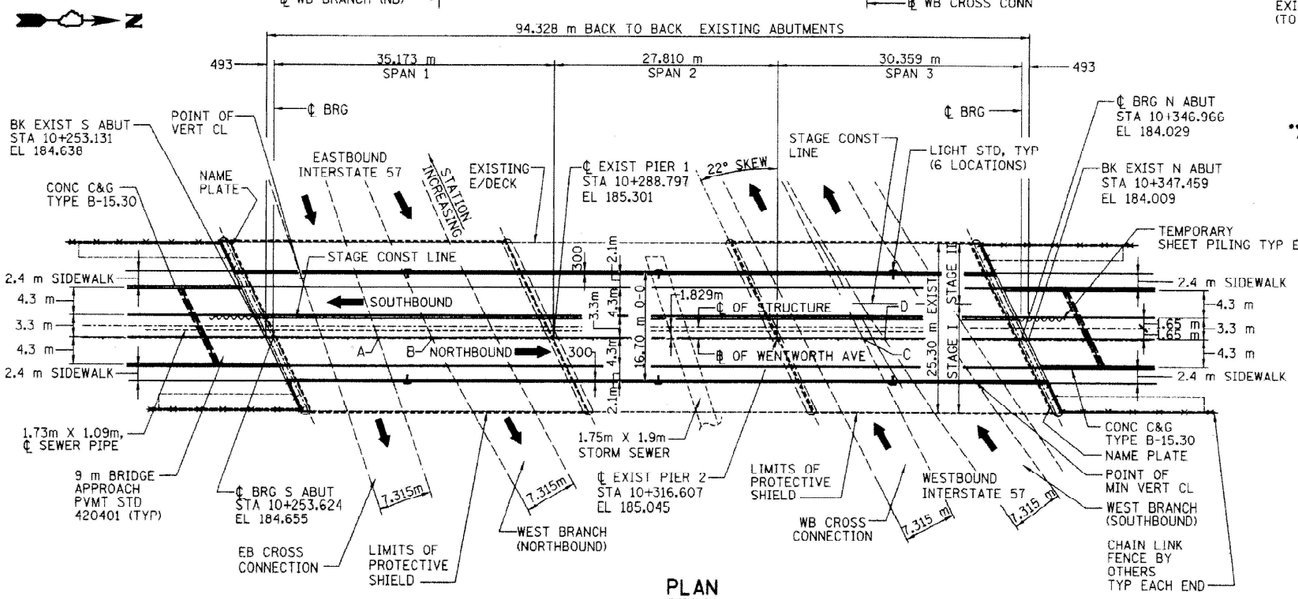
ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.



PROFILE GRADE (℄ WENTWORTH AVE)

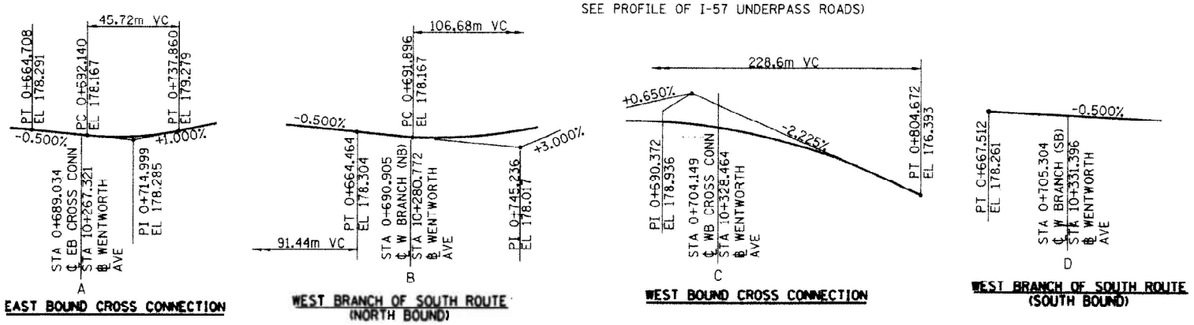


ELEVATION



PLAN

(FOR POINTS A THRU D STA EQUATIONS SEE PROFILE OF I-57 UNDERPASS ROADS)



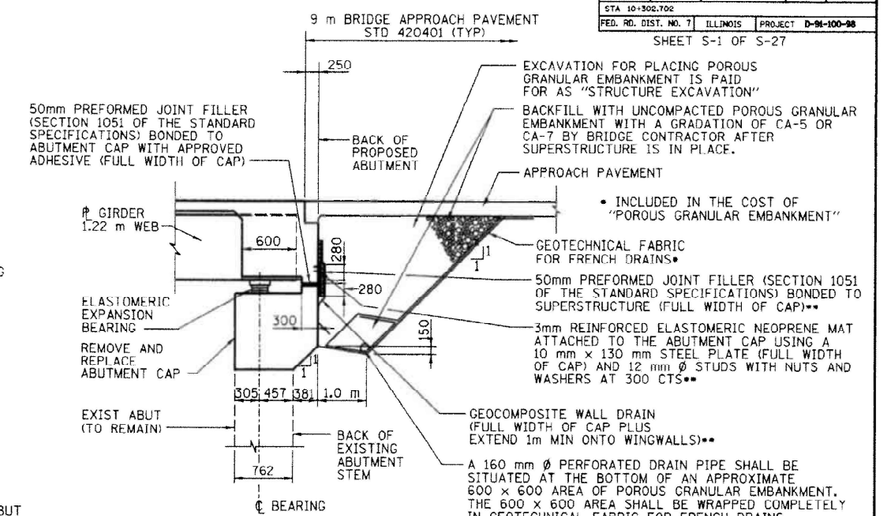
EAST BOUND CROSS CONNECTION

WEST BRANCH OF SOUTH ROUTE (NORTH BOUND)

WEST BOUND CROSS CONNECTION

WEST BRANCH OF SOUTH ROUTE (SOUTH BOUND)

PROFILES OF UNDERPASS ROADS (I-57)



••INCLUDED IN THE COST OF "CONCRETE SUPERSTRUCTURE"

SEMI-INTEGRAL ABUTMENT SECTION

(ALL DIMENSIONS TAKEN AT RIGHT ANGLES)

DESIGN SPECIFICATIONS:

1996 AASHTO, WITH 1997, 1998 & 1999 INTERIMS.

DESIGN LOADING: MS 18

FUTURE WEARING SURFACE = 2.4 kN/m²
LATERAL EARTH PRESSURE = 6.3 kN/m² EQUIVALENT FLUID WEIGHT
EARTH MASS = 1900 Kg/m³

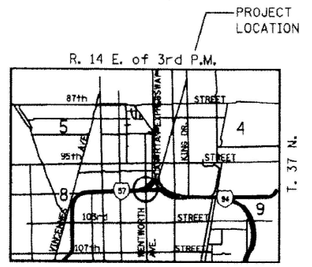
DESIGN STRESSES:

NEW:
CONCRETE, f'c = 24MPa
REINF., fy = 400MPa
STRUCTURAL STEEL, fy = 345 MPa (M 270M GRADE 345),
fy = 250 MPa (M 270M GRADE 250)

EXISTING:
CONCRETE, fc = 8MPa
REINF., fs = 138MPa

SEISMIC DATA:

SEISMIC PERFORMANCE CATEGORY (SPC) = A
SEISMIC ACCELERATION COEFFICIENT (A) = 0.037 g
SITE COEFFICIENT (S) = 1.5



LOCATION SKETCH

WENTWORTH AVE OVER FAI ROUTE 57

GENERAL PLAN AND ELEVATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	2323.38	COOK	88	41
STA 10+302.702				
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT D-91-100-98		

SHEET S-1 OF S-27

REVISIONS			STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	DRAWN BY DATE PCB 01-01
No.	DATE	INITIALS		CHECKED BY DATE CMW 01-01
1				BOOK NUMBER
2			WENTWORTH AVE SECTION 2323.38	
3			SN 016-2028	
4			STA 10+302.72 COOK COUNTY	PROJECT No. 4421-1
5				
6				
7				
8				
9				
10				

MARK L. CHASTAIN & ASSOCIATES, LLP
STRUCTURAL ENGINEERS
0009 W. 95TH MAIN AVENUE SUITE 504 CHICAGO, ILLINOIS 60621
773-714-0000 FAX 773-714-0055

SHEET No. 41

USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A001 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	31
		CONTRACT NO. 62X40		
		ILLINOIS FED. AID PROJECT		

MODEL: SN 016-2028 1 [Sheet]
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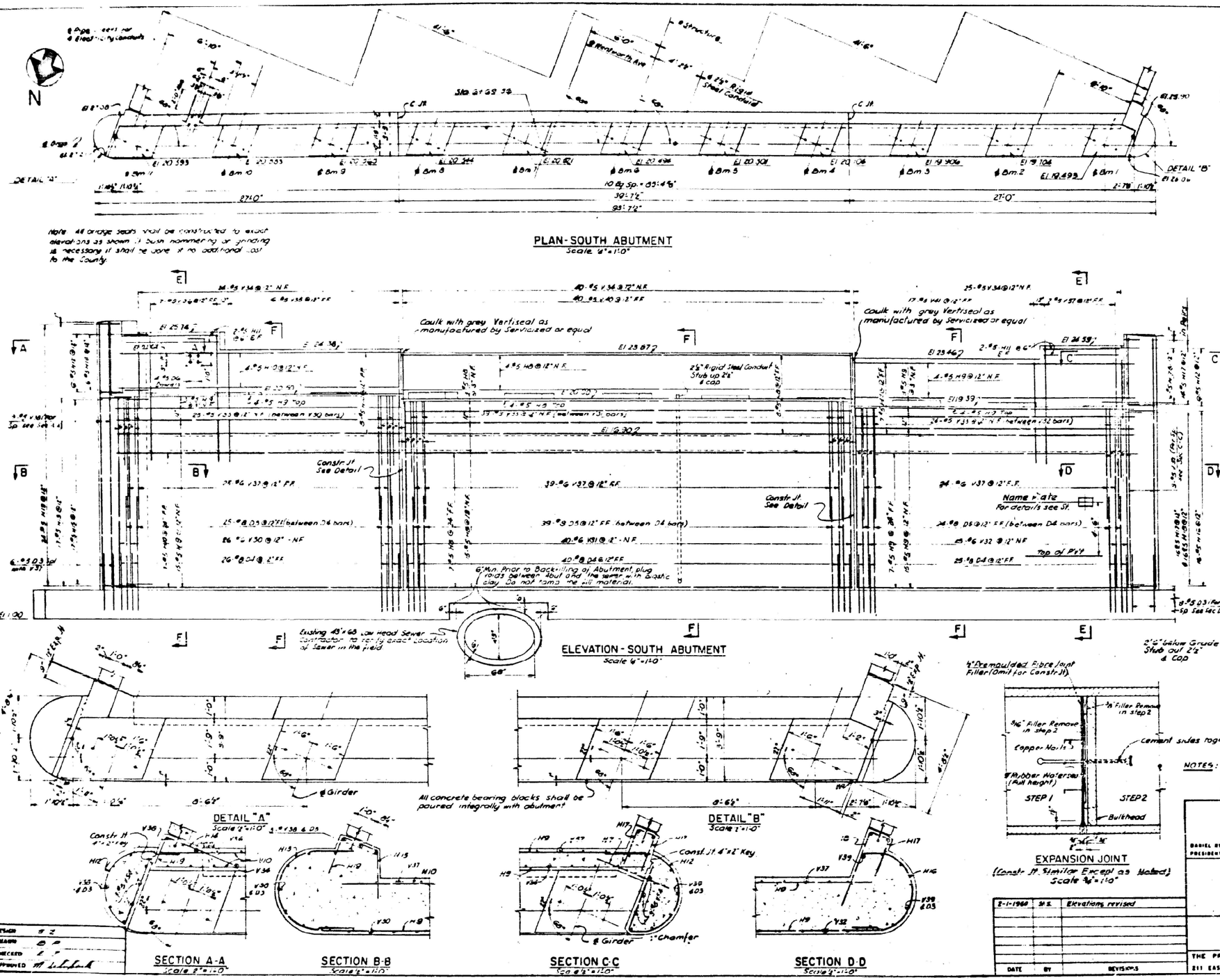

NOTES:
1. For Bar List see Sheet #24
2. Do not pour backwall until completion of prestressing operations on all beams at the Abutments
3. For Bill of Materials see sheet #20
4. For Excavation Payment Diagram see Sheet #16

DEPARTMENT OF HIGHWAYS
OF THE
COUNTY OF COOK

DANIEL RYAN
PRESIDENT BOARD OF COMMISSIONERS

WILLIAM J. McGINNIS
SUPERINTENDENT OF HIGHWAYS

WENTWORTH AVE GRADE SEPARATION

SOUTH INTERCHANGE

SOUTH ABUTMENT - MAINWALLS

SECTION 068 2323.3 CF
DRAWING NO 15

THE PRELOAD CO INC
211 EAST 37 STREET

CONSULTING ENGINEERS
NEW YORK 16 N.Y.

DATE 1959

DATE	BY	REVISIONS
2-1-1960	M.S.	Elevations revised

DETAILED T.Z.
DESIGNED E.P.
CHECKED L.F.
APPROVED M. Lichtveld

5R-246-

USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A002 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	32
		CONTRACT NO. 62X40		
		ILLINOIS | FED. AID PROJECT		

MODEL: SN 016-2028 2 [Sheet]
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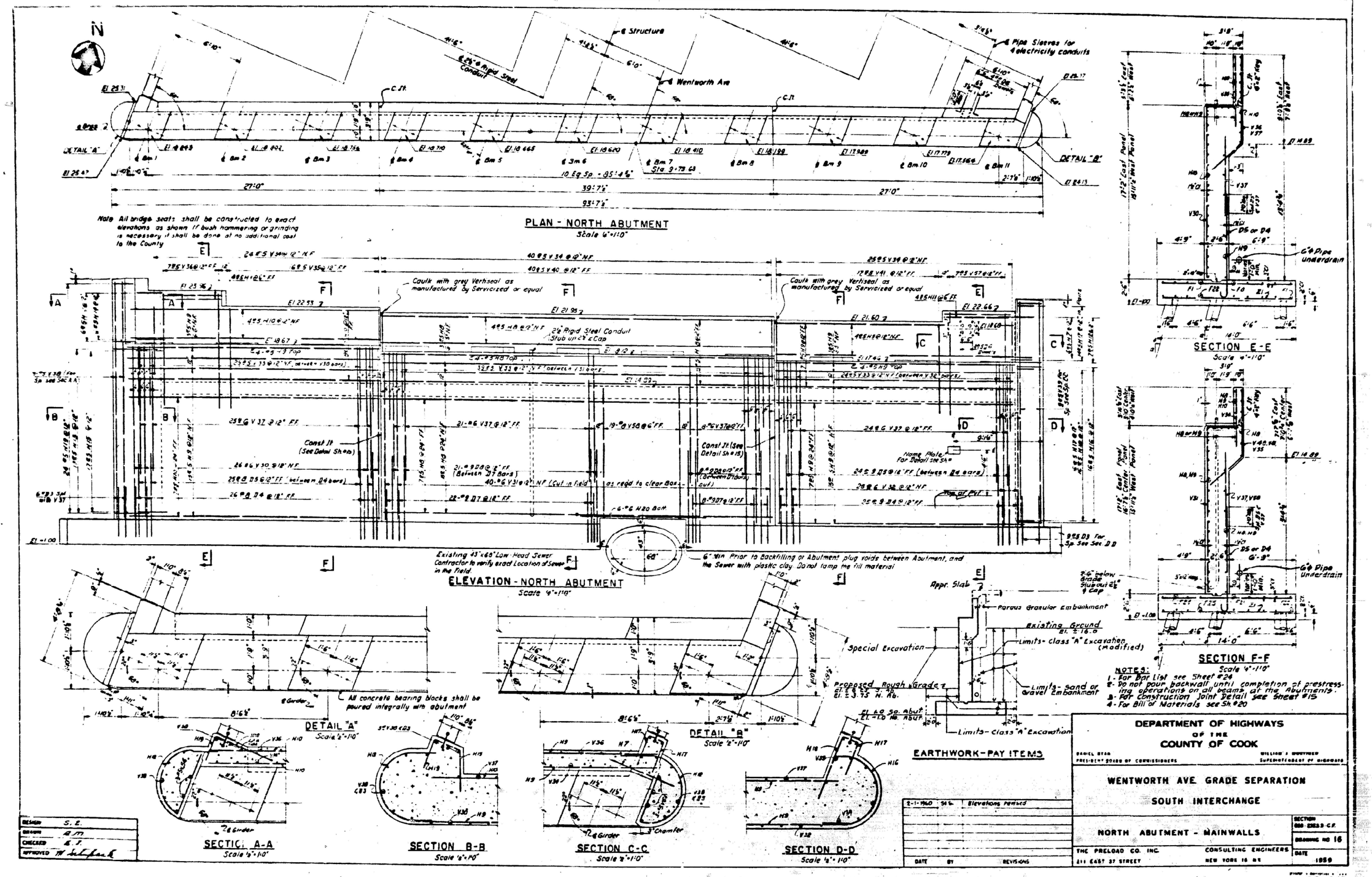
FOR INFORMATION ONLY



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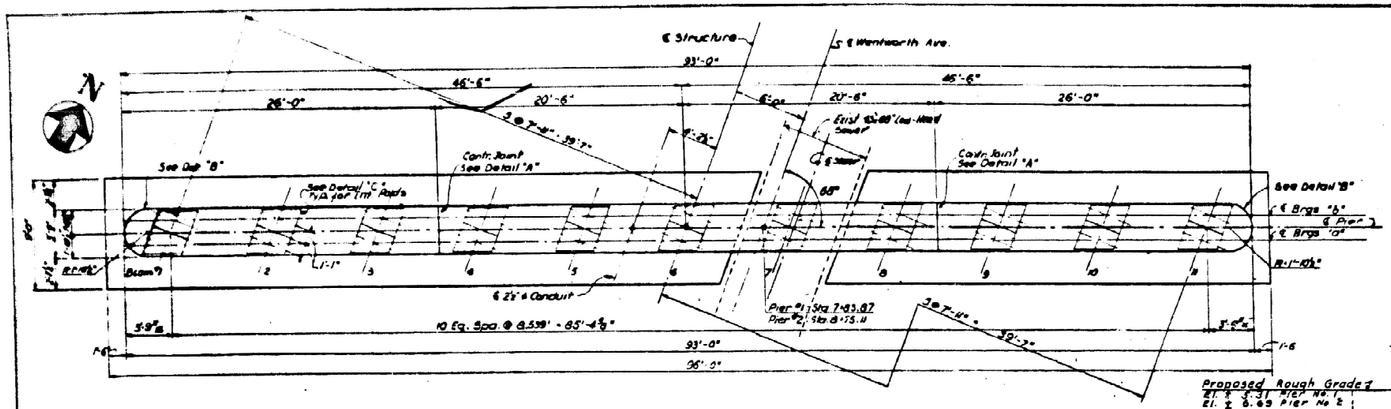
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
EXISTING STRUCTURE DETAILS

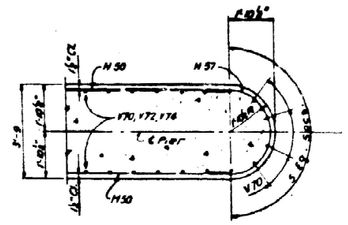
SCALE: | SHEET A003 OF 4 SHEETS | STA. | TO STA.

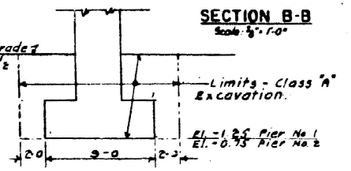
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	33
		CONTRACT NO. 62X40		
		ILLINOIS	FED. AID PROJECT	

FOR INFORMATION ONLY



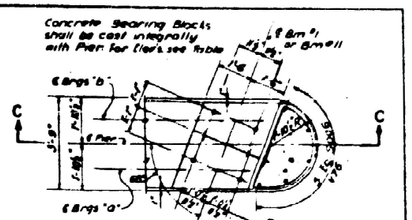
PLAN
Scale: 1/16"=1'-0"



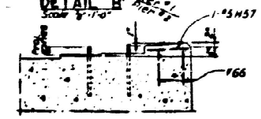


SECTION B-B
Scale: 1/8"=1'-0"

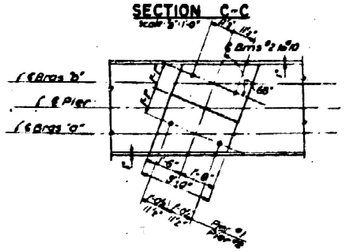
CLASS "A" EXCAVATION



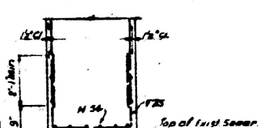
DETAIL "B"
Scale: 3"=1'-0"



SECTION C-C
Scale: 3"=1'-0"



DETAIL C
Scale: 3"=1'-0"



SECTION D-D
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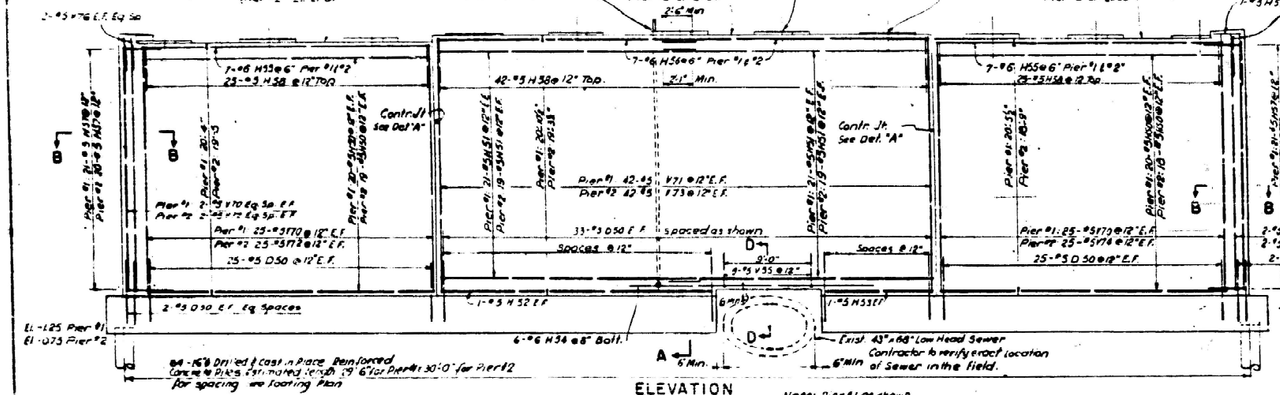
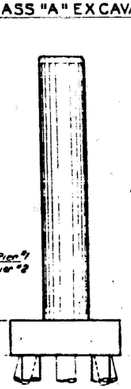
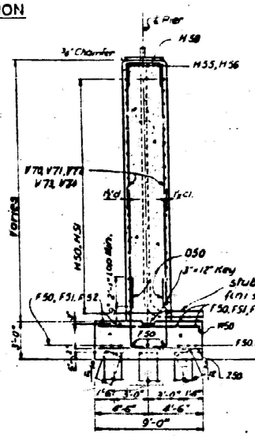


ELEVATION
Scale: 3/16"=1'-0"

Note: Pier #1 as shown
Pier #2 similar & as noted



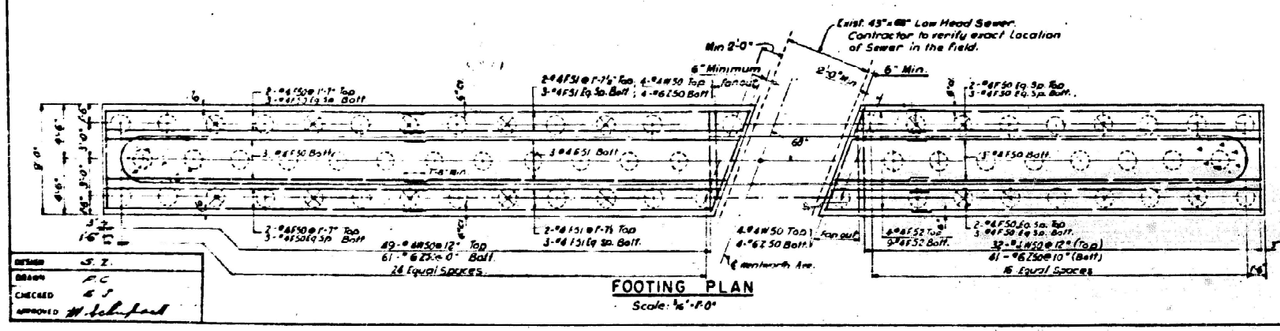
END VIEW
Scale: 1/4"=1'-0"



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

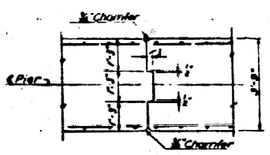
PAD ELEVATIONS

		Beam #1	Beam #2	Beam #3	Beam #4	Beam #5	Beam #6	Beam #7	Beam #8	Beam #9	Beam #10	Beam #11
Pier #1	℄ Brgs "a"	22.170	22.282	22.384	22.496	22.784	22.880	22.809	22.734	22.659	22.381	22.296
	℄ Brgs "b"	22.188	22.297	22.397	22.636	22.795	22.889	22.816	22.738	22.660	22.382	22.293
Pier #2	℄ Brgs "a"	21.806	21.839	21.865	21.889	21.910	21.928	21.780	21.627	21.473	21.317	21.151
	℄ Brgs "b"	21.769	21.802	22.024	22.045	22.065	22.082	21.931	21.777	21.621	21.264	21.098



FOOTING PLAN
Scale: 3/16"=1'-0"

⊗ 16"ø Battered Pile



DETAIL "A" (Contr. Jt.)
Scale: 3/8"=1'-0"

NOTES
1. Pier 1 - South Pier
   Pier 2 - North Pier
2. For Bar List see Sh. #24
3. For Pile Details see Sh. #23

DEPARTMENT OF HIGHWAYS OF THE COUNTY OF COOK

DANIEL RYAN, PRESIDENT BOARD OF COMMISSIONERS — WILLIAM J. BOSTWICK, SUPERINTENDENT OF HIGHWAYS

WENTWORTH AVE. GRADE SEPARATION

SOUTH INTERCHANGE

PIERS

SECTION: (068-2323.3-CF) BR, I 24
DRAWING NO. 21

FW. PRELOAD CO. INC. — CONSULTING ENGINEERS
211 EAST 37 STREET — NEW YORK 16, N.Y.
DATE 1959

DATE	BY	REVISIONS

SR-252-S

DETAILED S. Z.
DRAWN P. C.
CHECKED E. F.
APPROVED W. Schifferdecker

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

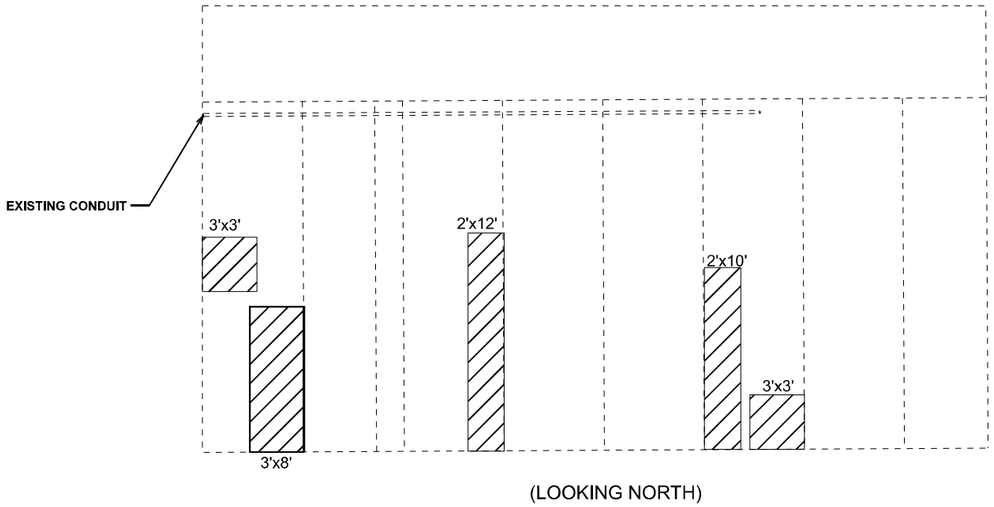
LOCATION 1: SN 016-2028 I-57 AT WENTWORTH AVE
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A004 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	34
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	86
TEMPORARY SHORING AND CRIBBING	EACH	0

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

TOTAL BILL OF MATERIALS (SN 016-0071)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	553
TEMPORARY SHORING AND CRIBBING	EACH	0

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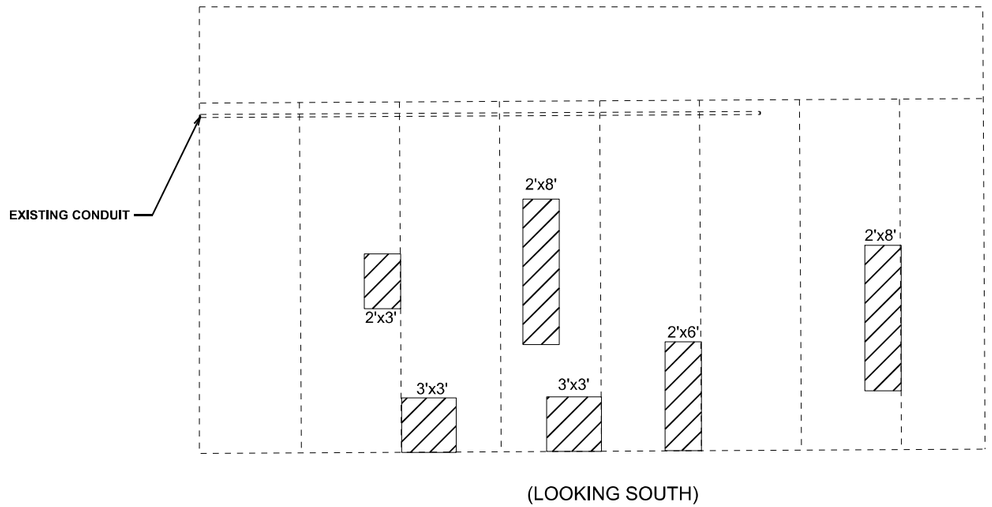
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
NORTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 5 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	35
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	68
TEMPORARY SHORING AND CRIBBING	EACH	0

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
SOUTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 5 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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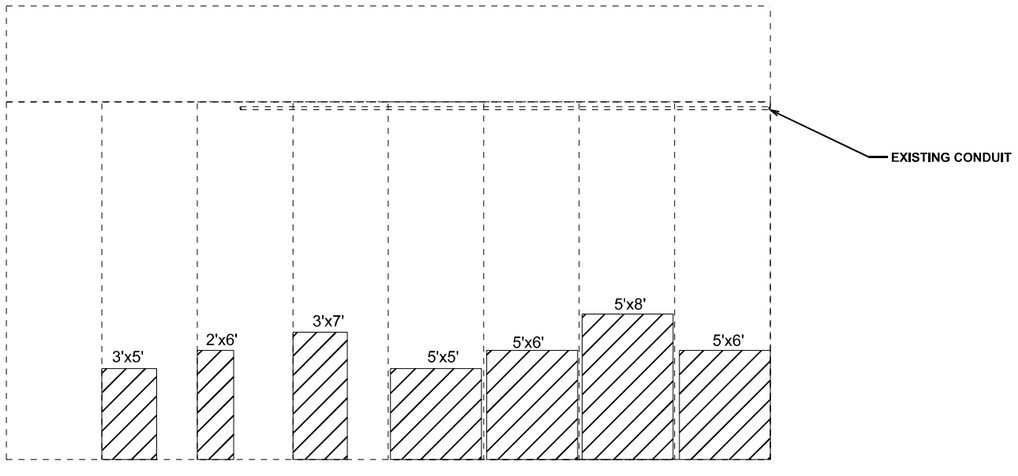
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	173
TEMPORARY SHORING AND CRIBBING	EACH	0

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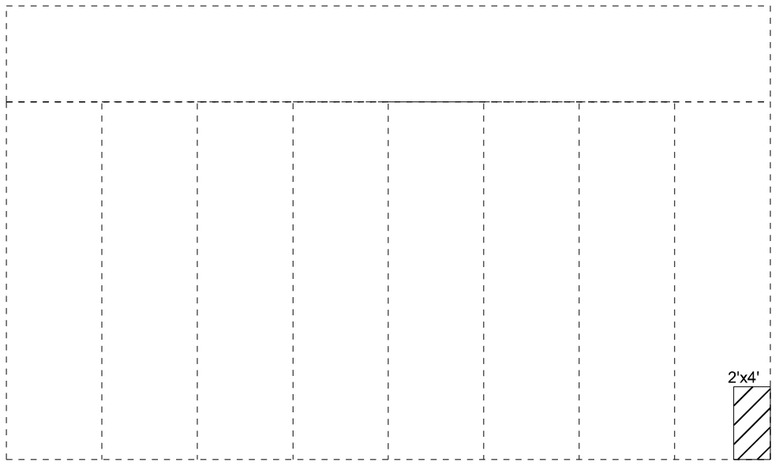
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
PIER 1 SOUTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 5 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	37
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	8
TEMPORARY SHORING AND CRIBBING	EACH	0

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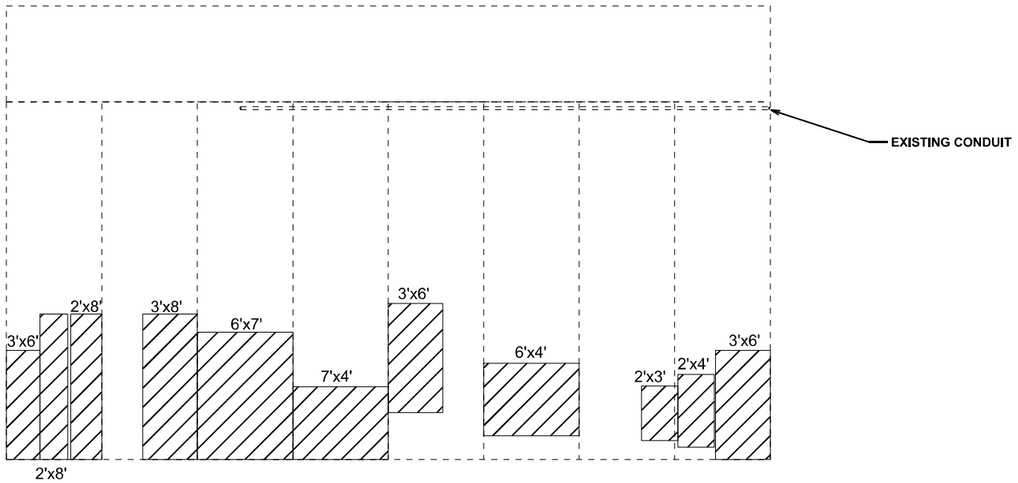
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
PIER 1 NORTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 5 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	38
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	218
TEMPORARY SHORING AND CRIBBING	EACH	0

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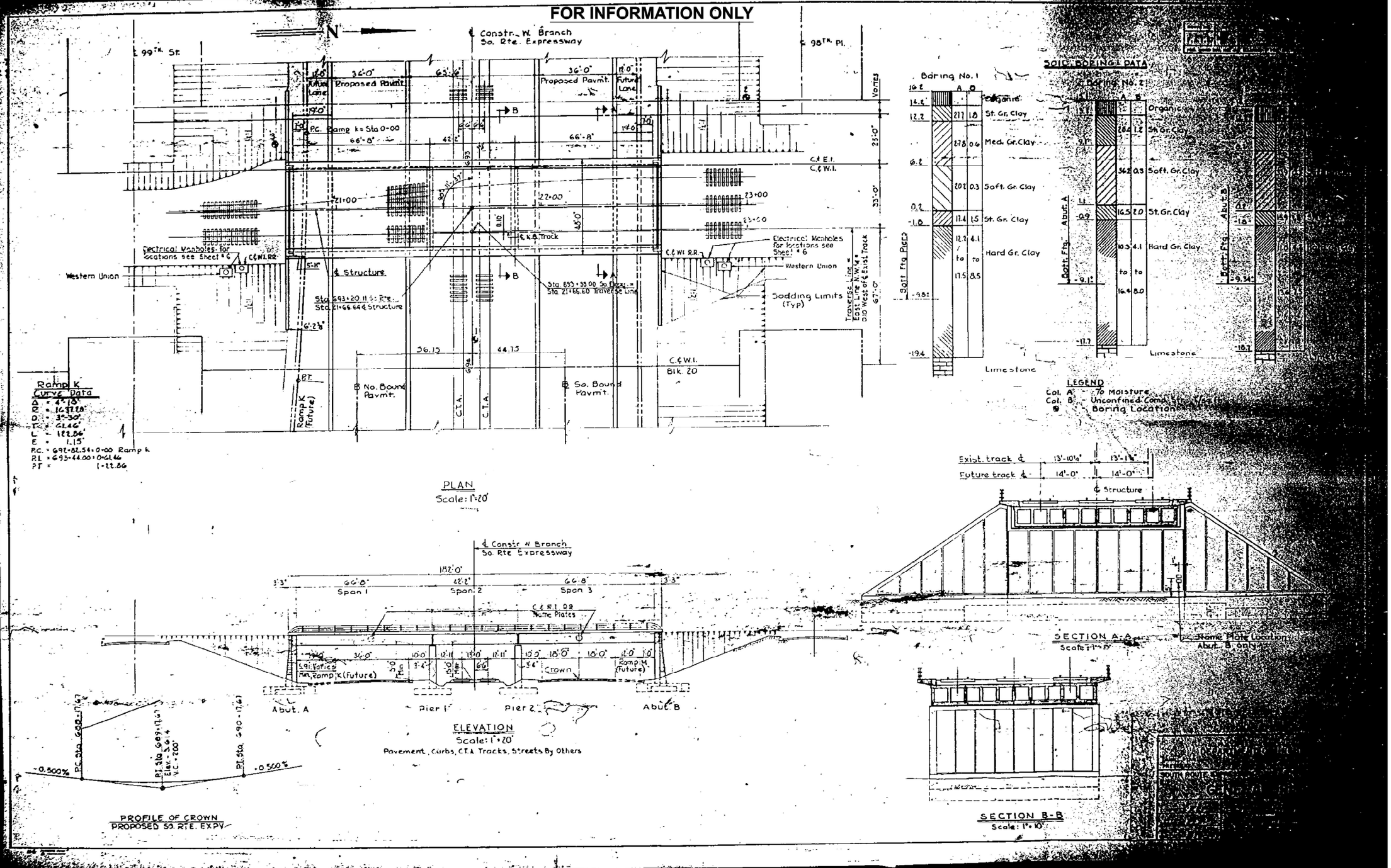
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
PIER 2 NORTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 5 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	39
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A001 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 62X40		
		ILLINOIS	FED. AID PROJECT	

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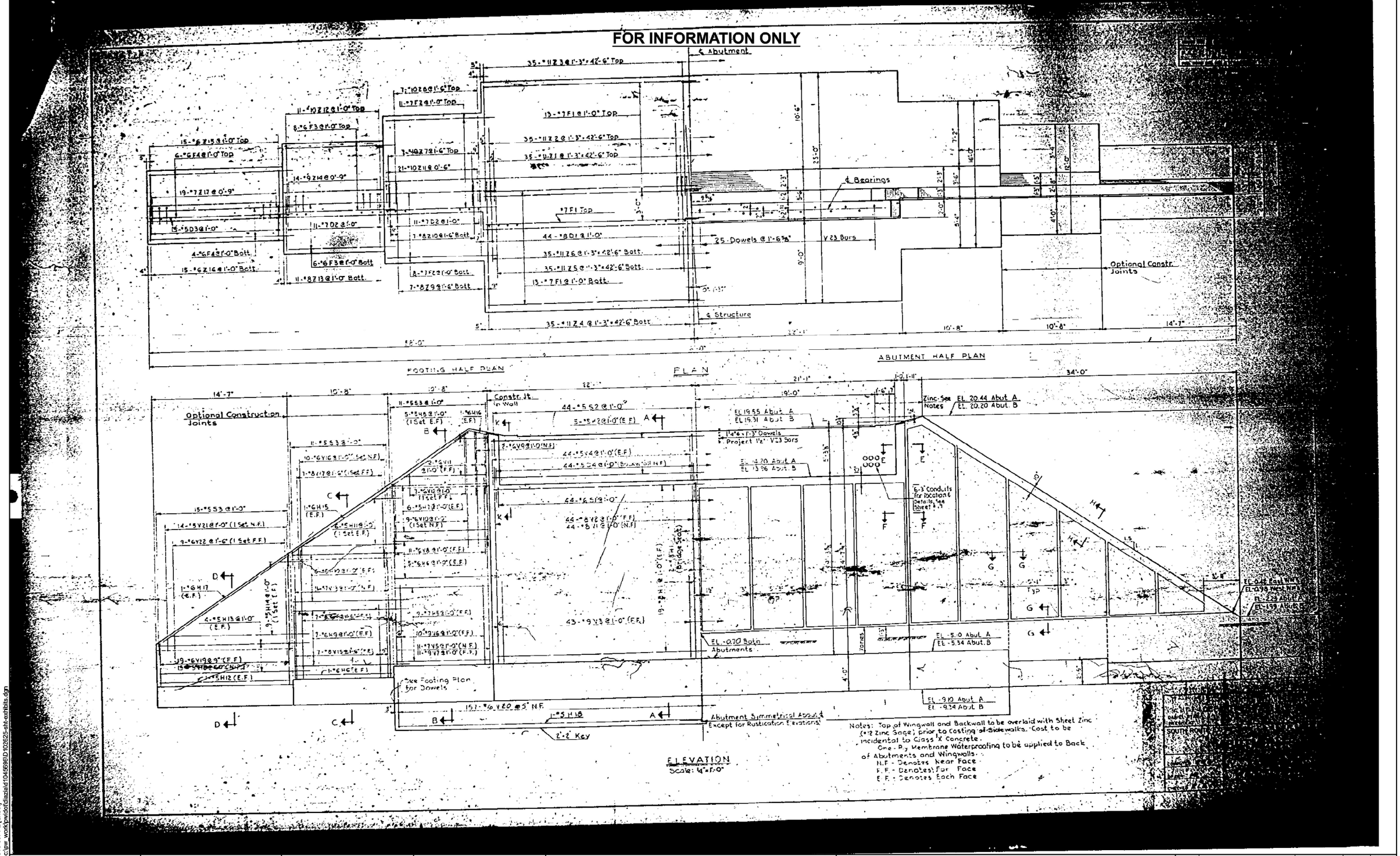

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A002 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	41
		CONTRACT NO. 62X40		
		ILLINOIS	FED. AID PROJECT	

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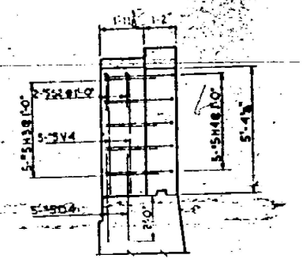

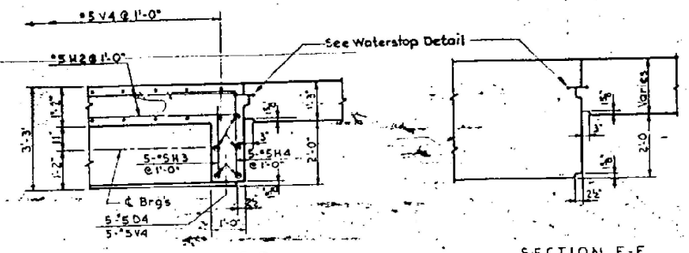

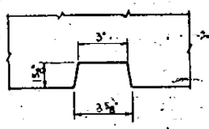



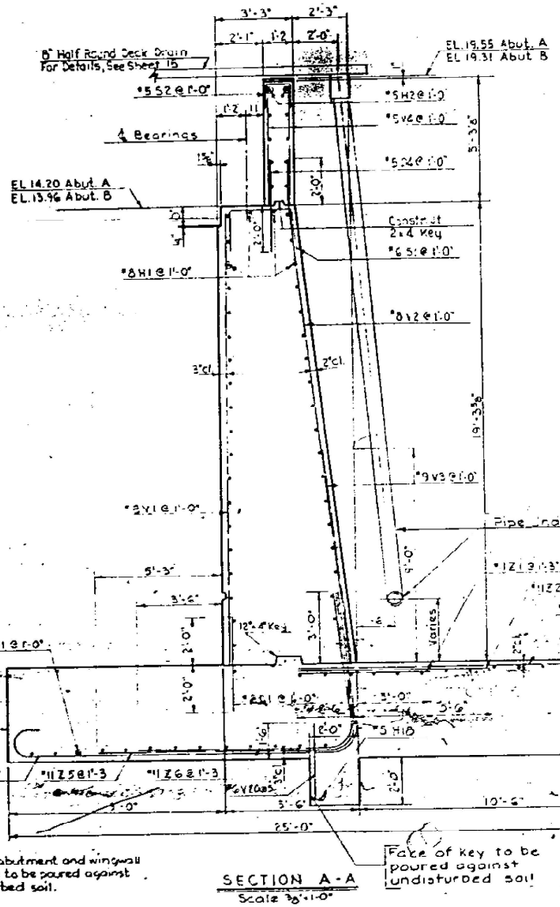

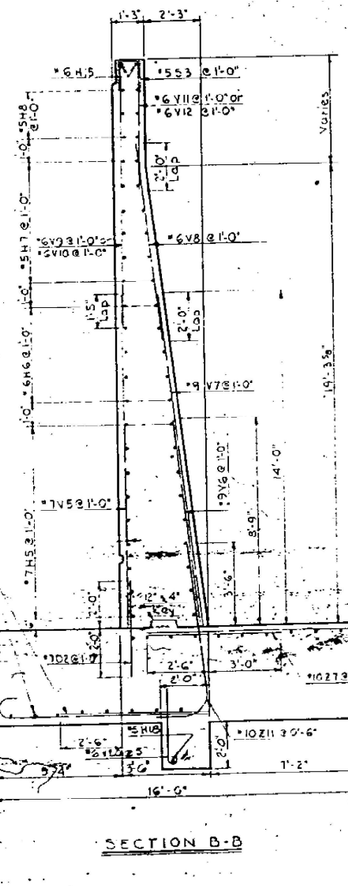

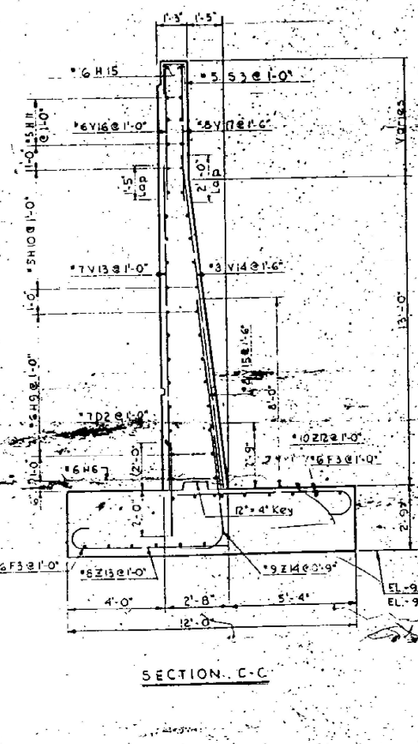

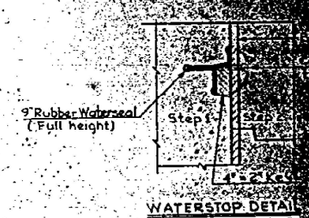

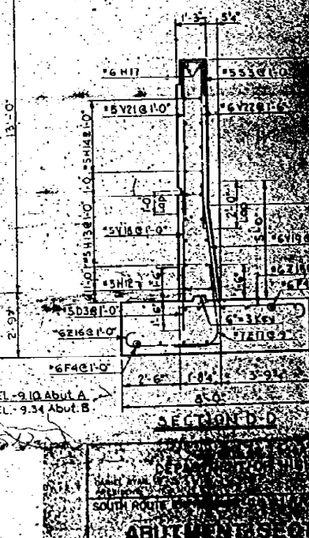

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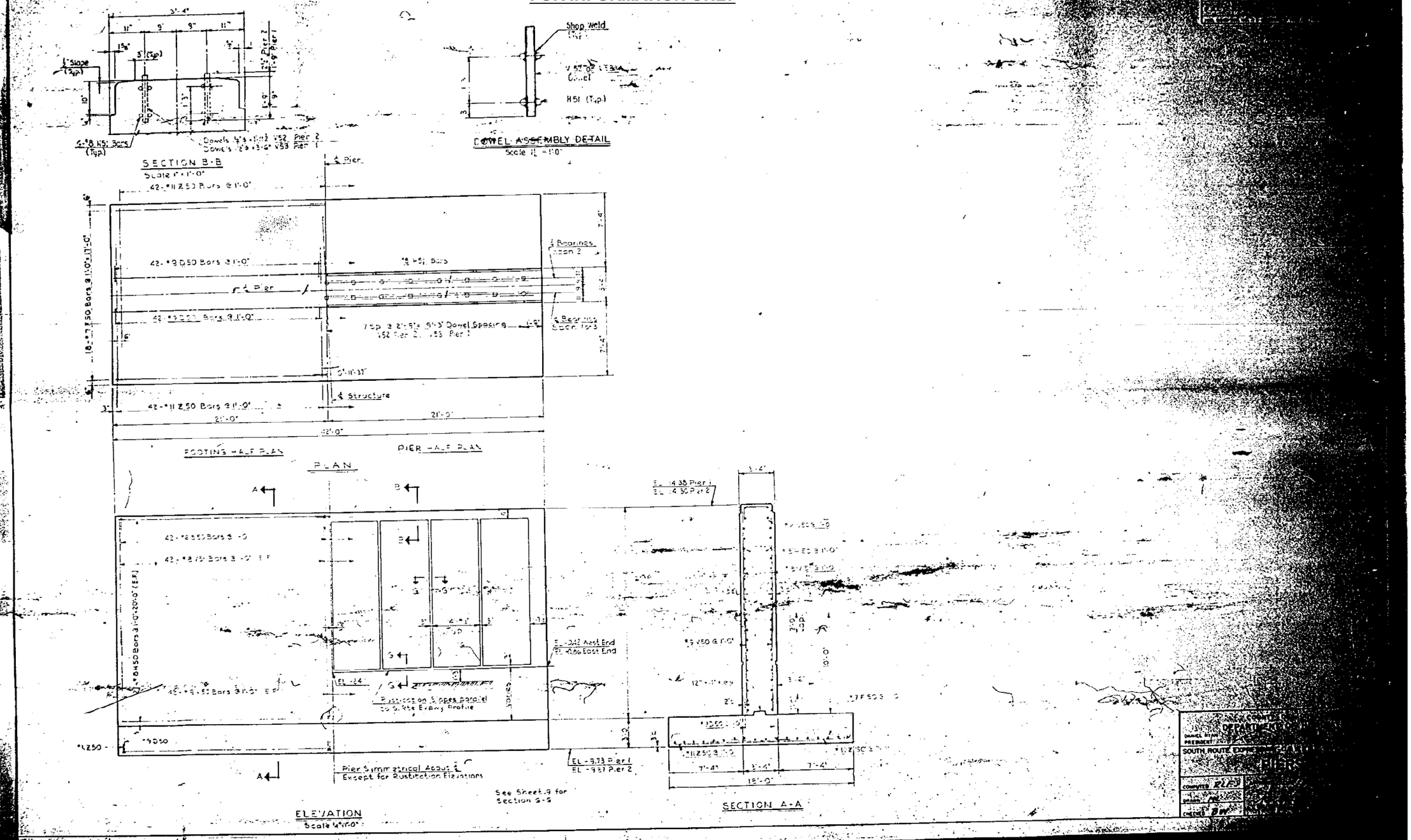
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A003 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	42
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



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USER NAME = ivan.diaz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

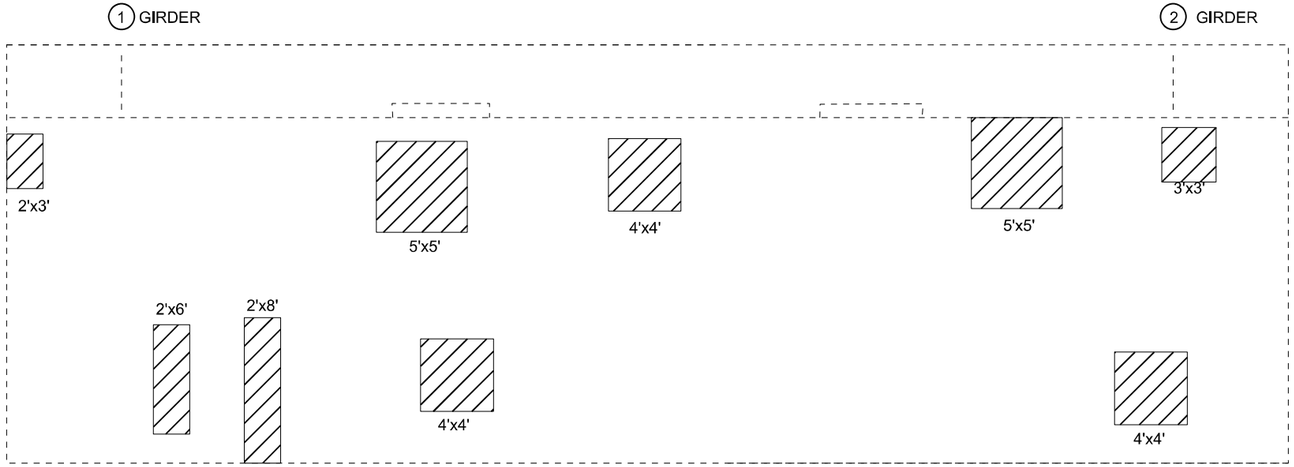
LOCATION 2: SN 016-0071 I-57 AT UP RAILROAD
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A004 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	43
		CONTRACT NO. 62X40		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	141
TEMPORARY SHORING AND CRIBBING	EACH	0

TOTAL BILL OF MATERIALS (SN 016-0070)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	998
TEMPORARY SHORING AND CRIBBING	EACH	0

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

Jayme F. Schiff

MODEL: SN 016-0070 1
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	DRAWN -	REVISED -	
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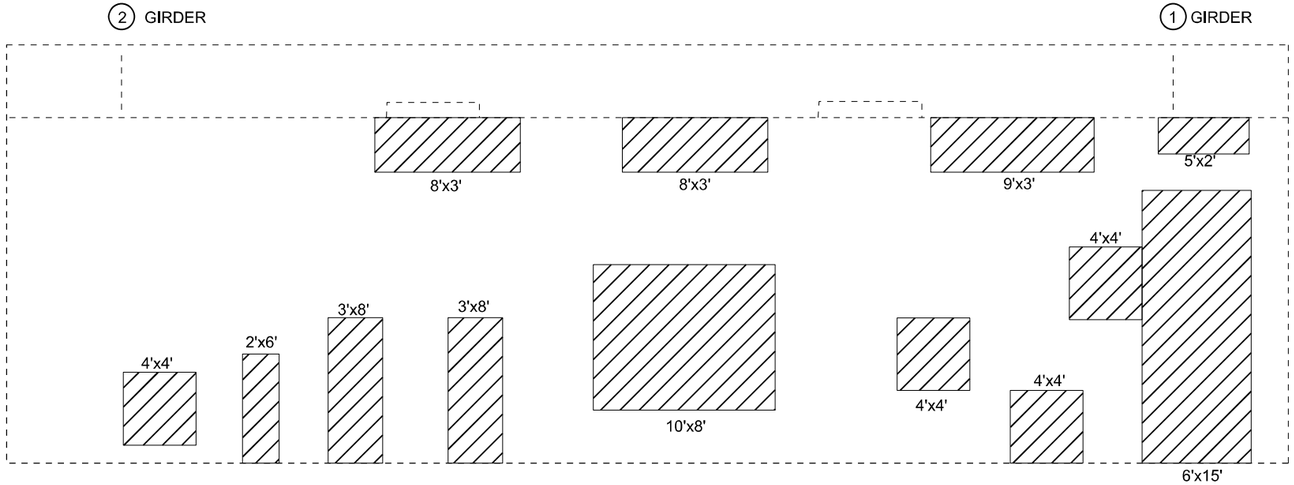
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
NORTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323,3-CF) BR, I 24	COOK	106	44
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	379
TEMPORARY SHORING AND CRIBBING	EACH	0

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
SOUTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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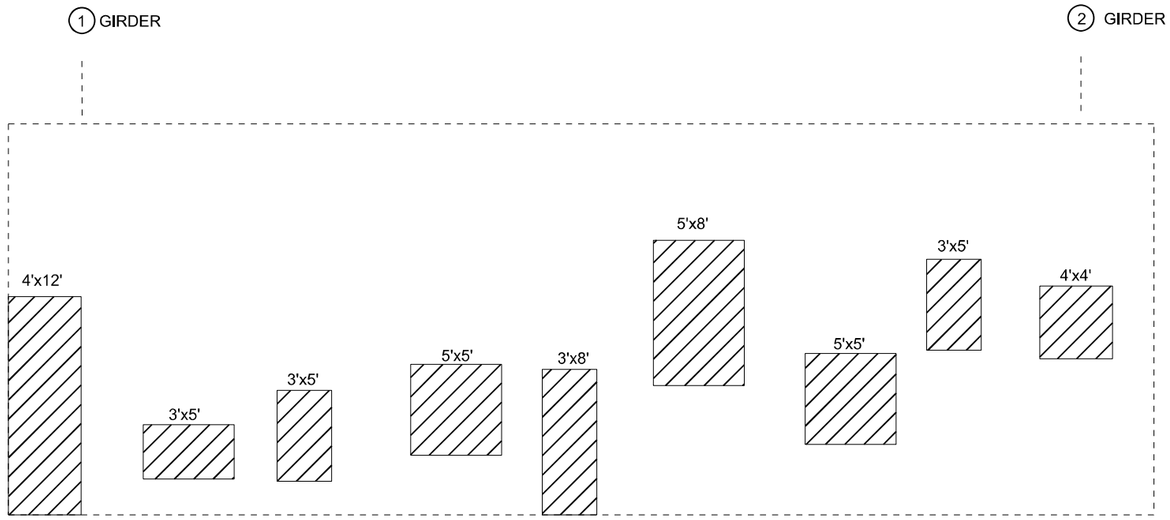
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	223
TEMPORARY SHORING AND CRIBBING	EACH	0

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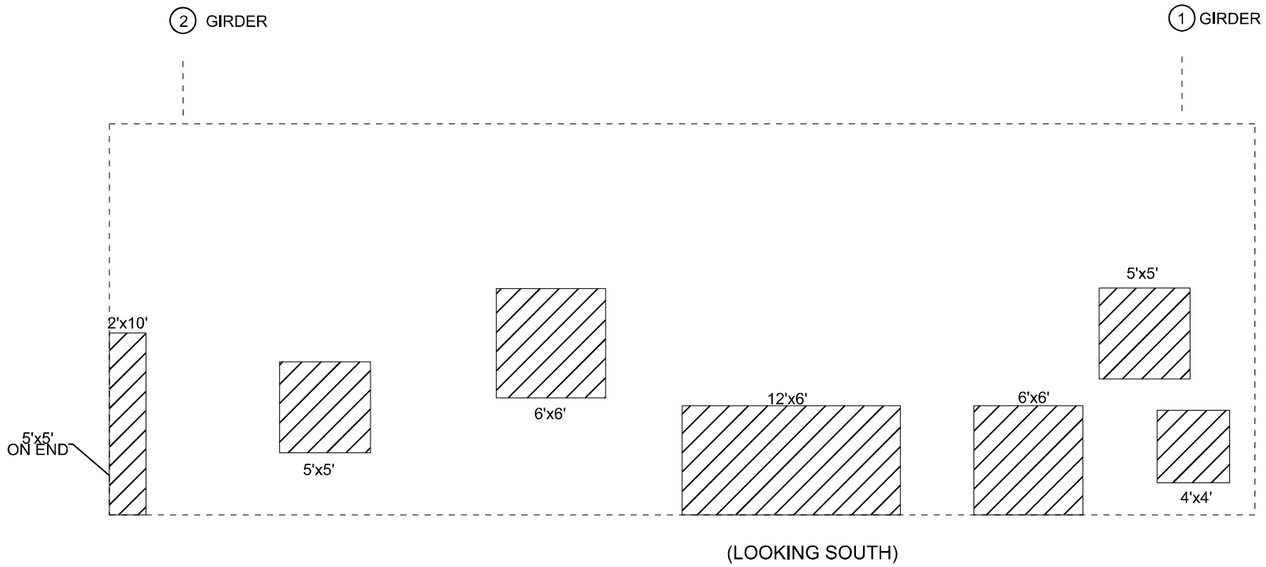
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
PIER 1 SOUTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	46
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	255
TEMPORARY SHORING AND CRIBBING	EACH	0

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	DRAWN -	REVISED -
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PLOT DATE = 2/5/2025	DATE -	REVISED -

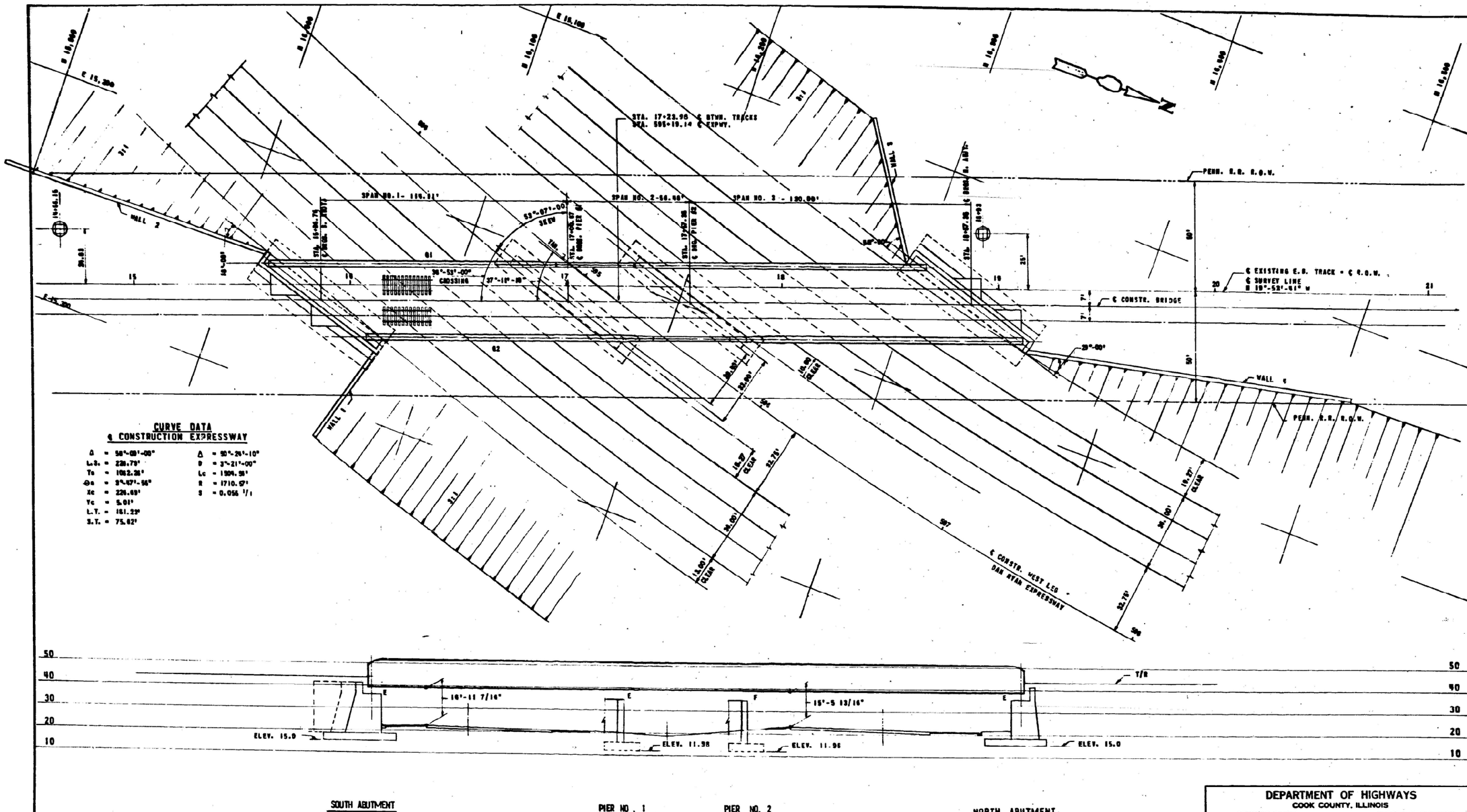
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
PIER 2 NORTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	47
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DAN RYAN EXPRESSWAY - WEST LEG
PENNSYLVANIA R.R. BRIDGE
PLAN AND ELEVATION

REVISIONS		
DATE	BY	DESCRIPTION
11/22/65	LDB	PIER FTG. ELEV.

COMPUTED
DRAWN E.M.
CHECKED L.D.B.
PROJECT IG-57-1-(121)357
SCALE 1" = 20'-0"
APPROVED [signature]
APPROVED [signature] 5 1965 CHIEF ENGINEER

Federal Aid Interstate	County Highway Route No.	Sheet No.	Total Sheets	Drawing No.
57	068-2323.3 C.F.	2	-	

MODEL: SN 016-0070 1 [Sheet]
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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

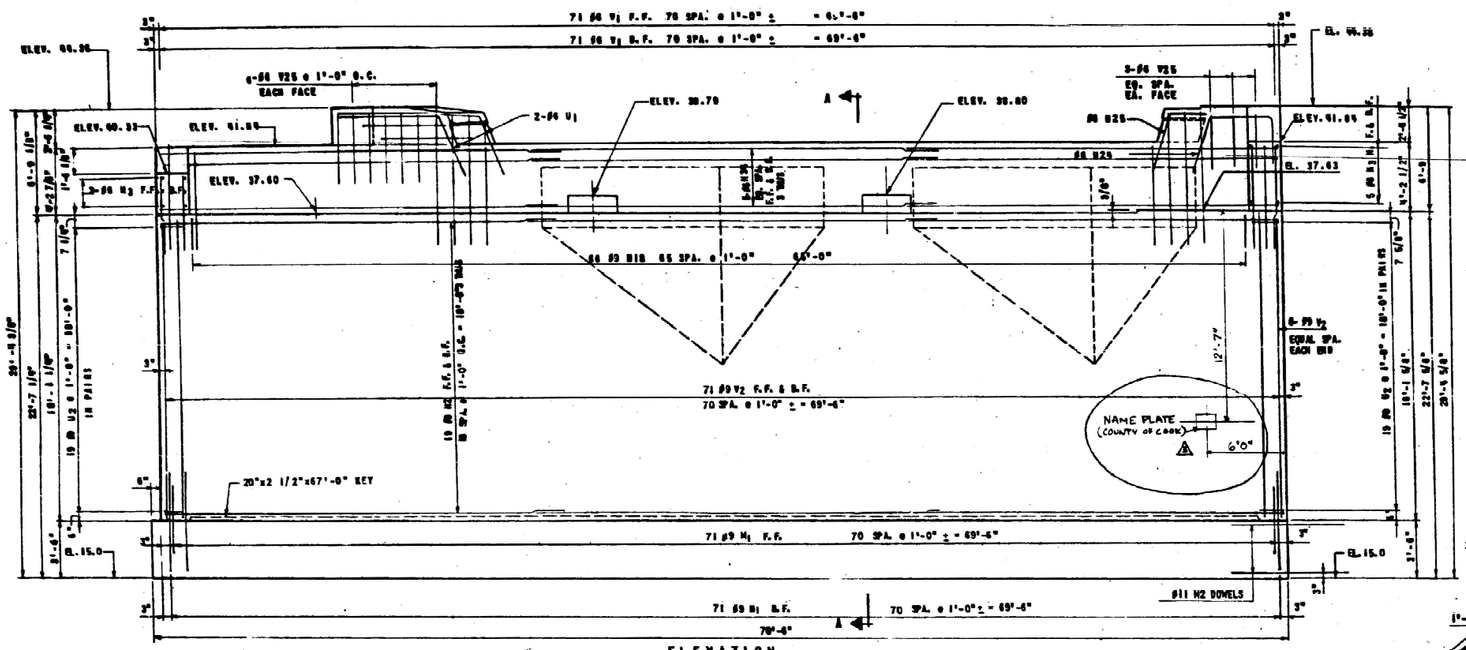
LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
EXISTING STRCUTURE DETAILS

SCALE: SHEET A001 OF 5 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	48

CONTRACT NO. 62X40
ILLINOIS FED. AID PROJECT

FOR INFORMATION ONLY



CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS		
DATE	BY	DESCRIPTION
11/22/05	LDB	ANCHOR BOLT LOCATION
4/17/06	JS	DIMENSIONS
5/16/06	JS	NAME PLATE LOCATION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS — ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DAN RYAN EXPRESSWAY - WEST LEG
PENNSYLVANIA R.R. BRIDGE
SOUTH ABUTMENT PLAN AND ELEVATION

COMPUTED
DRAWN J.J.
CHECKED L.V.B.
PROJECT IG-57-7-(121) 357
SCALE 1/8" = 1'-0"
APPROVED for P.E.P.

APPROVED	Federal Aid Interstate	County Highway Route No.	Sheet No.	Total Sheets	Drawing No.
	57	068-2323.3 C.F.	13		

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

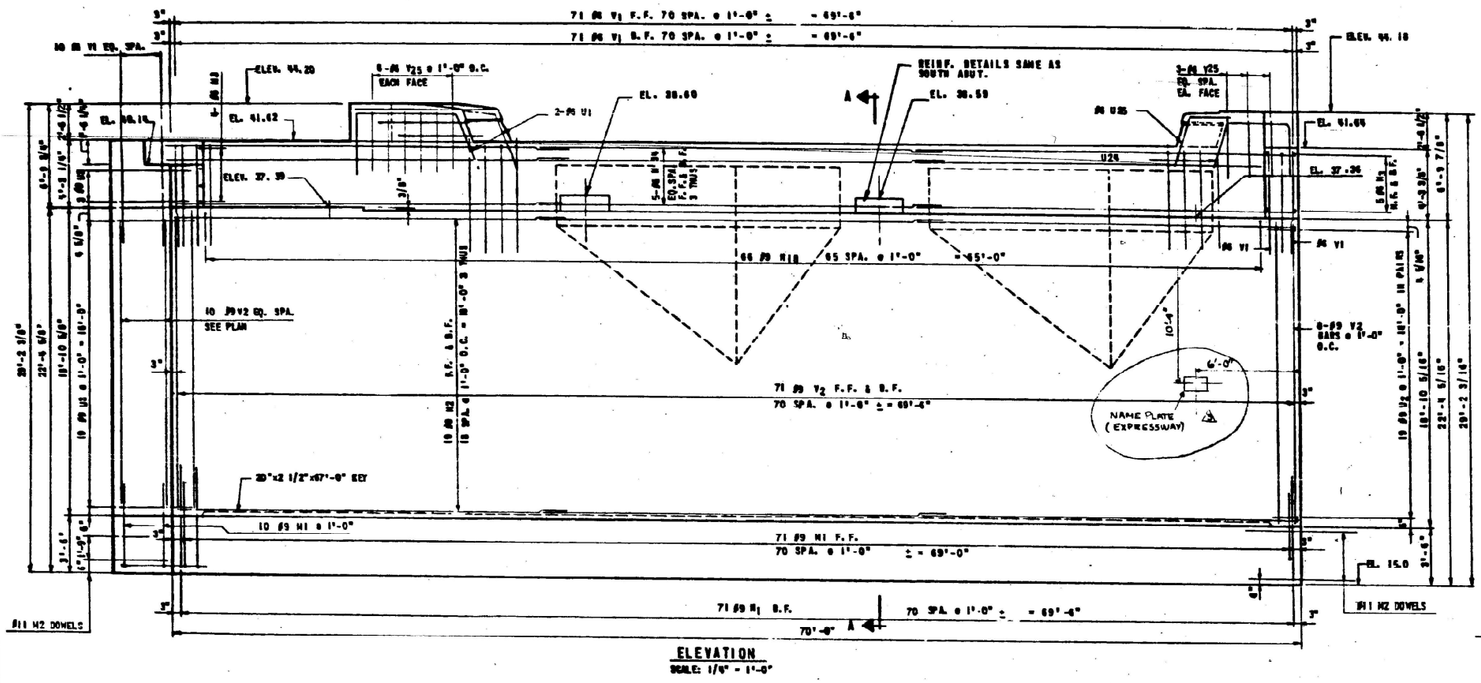
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
EXISTING STRCUTURE DETAILS

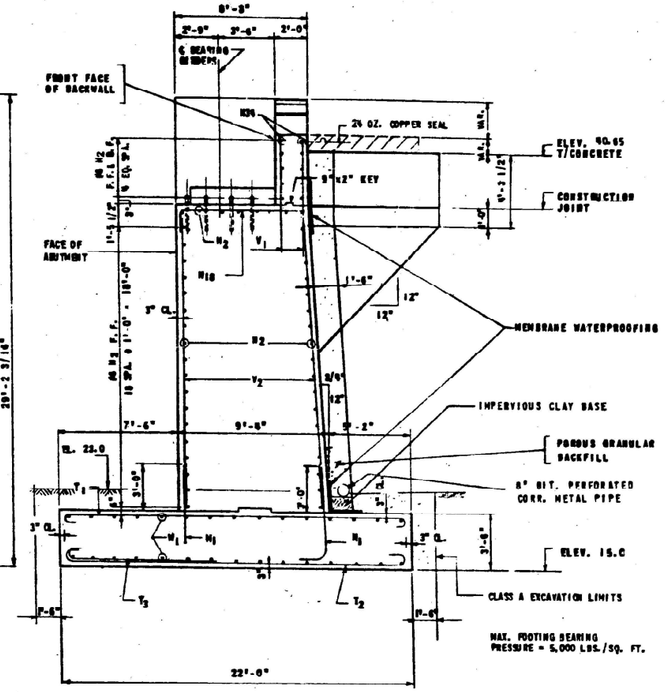
SCALE: | SHEET A002 OF 5 SHEETS | STA. | TO STA.

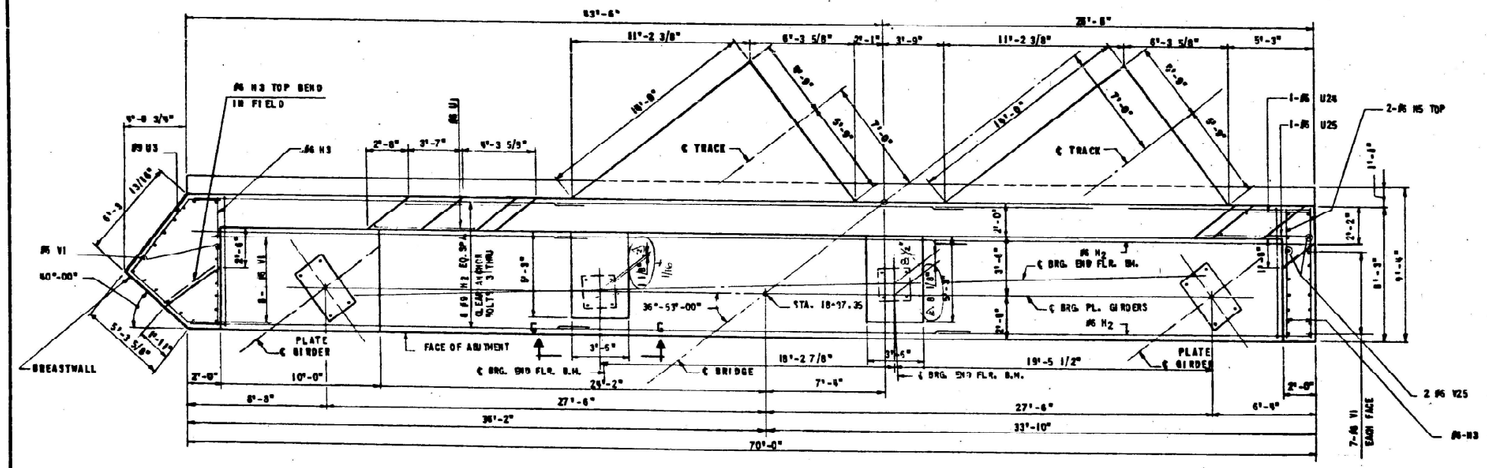
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	49
		CONTRACT NO. 62X40		
	ILLINOIS | FED. AID PROJECT			

FOR INFORMATION ONLY



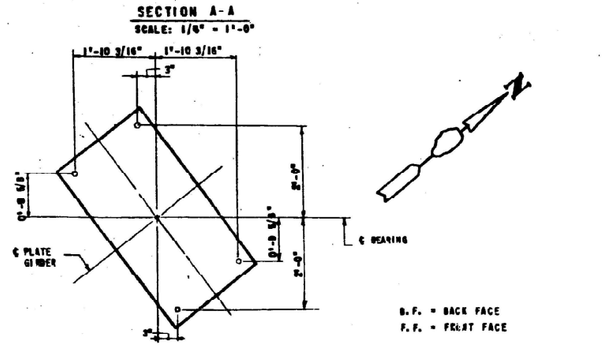
ELEVATION
SCALE: 1/8" = 1'-0"





PLAN OF NORTH ABUTMENT
SCALE: 1/8" = 1'-0"

NOTE: FOR SECTION G-G SEE S. ABUT.



SECTION A-A
SCALE: 1/8" = 1'-0"

B.F. = BACK FACE
F.F. = FRONT FACE

ANCHOR BOLT LOCATION
SCALE: 3/8" = 1'-0"

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS

	DATE	BY	DESCRIPTION
3	11/22/65	LDB	FOOTING DOWELS
2	11/66	J.S.	DIMENSION
1	4/14/66	J.S.	NAME PLATE LOCATION

DEPARTMENT OF HIGHWAYS
COUNTY OF COOK, ILLINOIS

SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DAN RYAN EXPRESSWAY : WEST LEG
PENNSYLVANIA R.R. BRIDGE
NORTH ABUTMENT PLAN AND ELEVATION

COMPUTED ____ PROJECT IG-57-7-(12) 357
DRAWN J.J. SCALE 1/8" = 1'-0"
CHECKED L.D.B. APPROVED

APPROVED ____ ENGINEER

Federal Aid Interstate	Cook Highway Route No.	Sheet No.	Total Sheets	Revised No.
57	068-2323.3 C.F.	15		

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PLOT DATE = 2/5/2025	DATE -	REVISED -

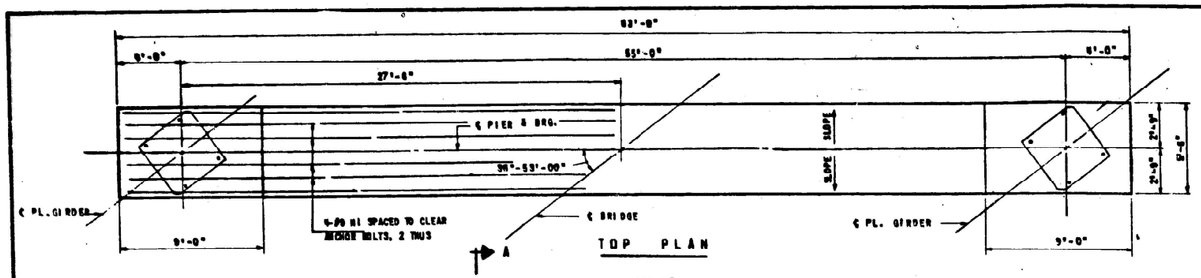
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
EXISTING STRCUTURE DETAILS

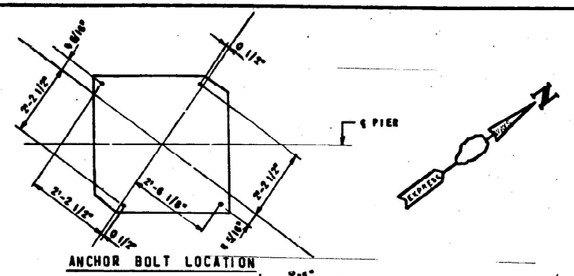
SCALE: | SHEET A003 OF 5 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	50
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

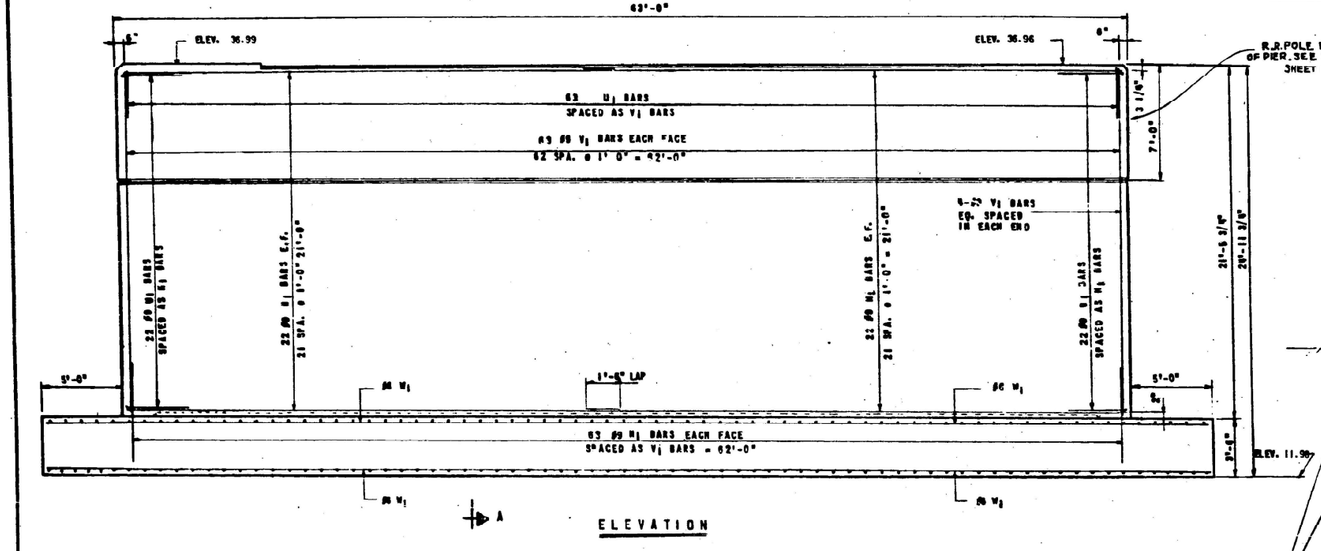
FOR INFORMATION ONLY



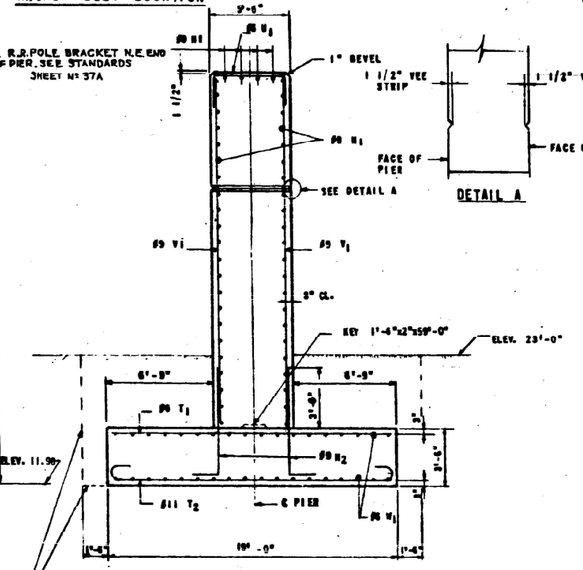
TOP PLAN



BILL OF REINFORCEMENT				
BAR	NO.	SIZE	LENGTH	SHAPE
U_1	96	9	33'-0"	
H_1	134	9	8'-2"	
T_1	73	6	18'-6"	
T_2	88	11	22'-2"	
U_1	107	9	8'-0"	
V_1	134	8	21'-9"	
W_1	70	6	37'-0"	
W2	36	7	8'-0"	

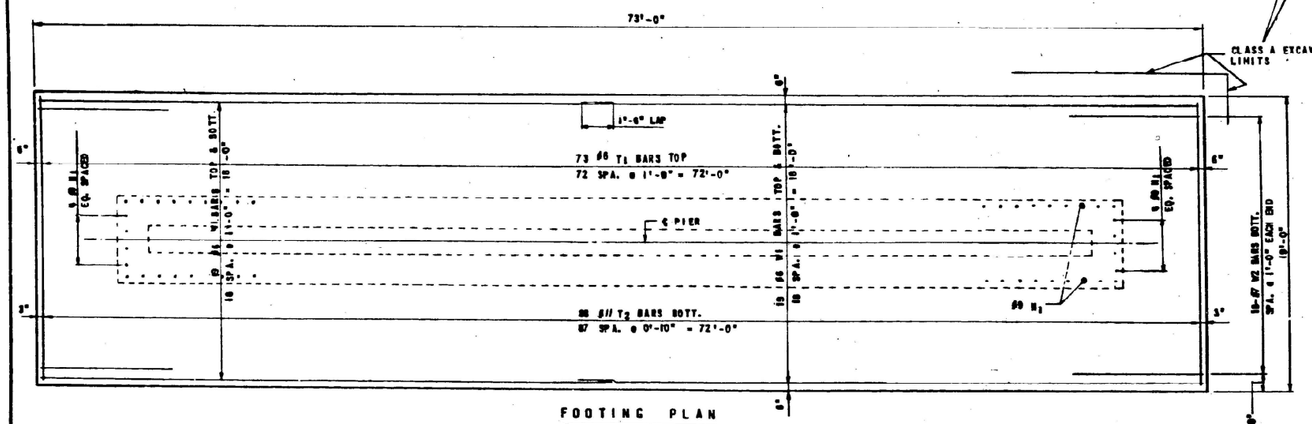


ELEVATION

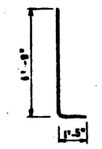


SECTION A-A

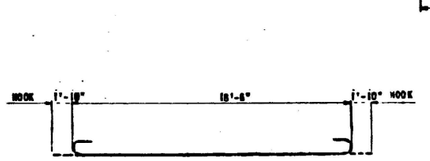
DETAIL A



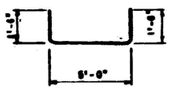
FOOTING PLAN



N_1 BAR



T_2 BAR



U_1 BAR

E.F. = EACH FACE

NOTE:

MAX. FOOTING BEARING PRESS = 5,000 LB/SQ. FT.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS		
DATE	BY	DESCRIPTION
11/22/65	LDS	ELEVATIONS & ANCHOR BOLTS
3-25-66	D.S.	R.R. POLE BRACKET

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DAN RYAN EXPRESSWAY - WEST LEG
PENNSYLVANIA R.R. BRIDGE
PIER NO. 1

COMPUTED
DRAWN J.K.
CHECKED L.B.B.
PROJECT I0-57-7-(121)357
SCALE 1/4" = 1'-0"
APPROVED W. Kozak Bk Assist.

Approved Maurice J. Gray Bk
Hugo G. Stead Bridge Engineer

Federal Aid Number	Control Number Route No.	Sheet No.	Total Sheets	Structure No.
57	068-2323.3 C.F.	18	-	- - - -

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

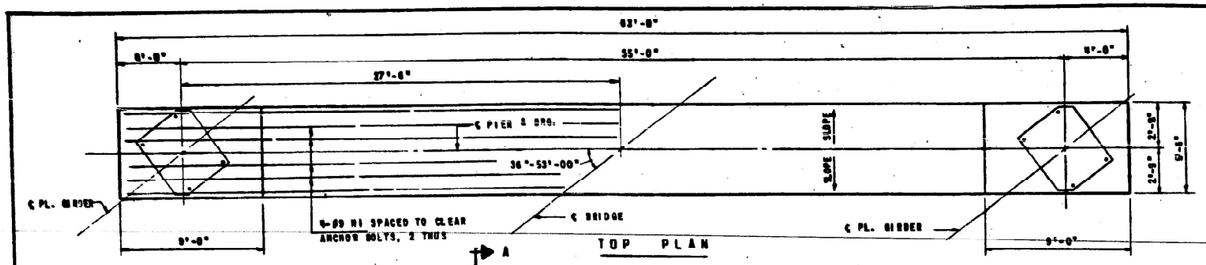
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

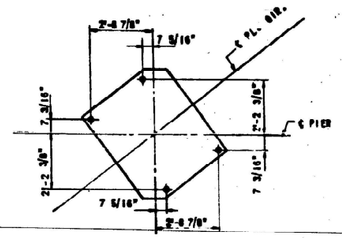
LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
EXISTING STRCUTURE DETAILS

SCALE: | SHEET A004 OF 5 SHEETS | STA. | TO STA.

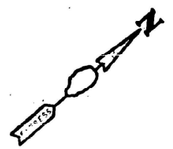
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	51
		CONTRACT NO. 62X40		
	ILLINOIS | FED. AID PROJECT			

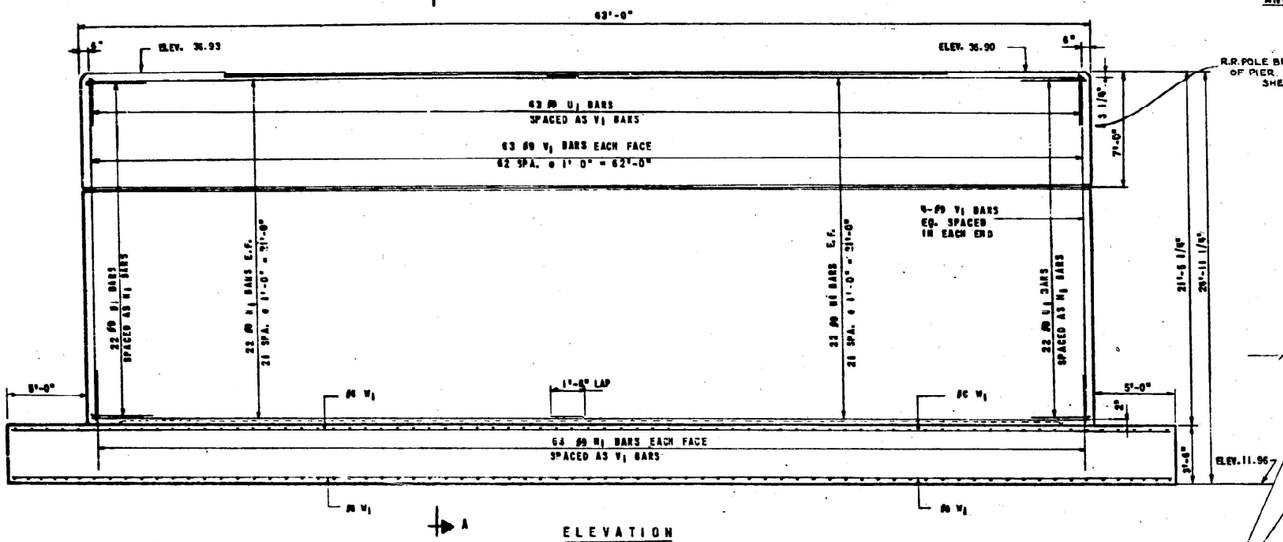
FOR INFORMATION ONLY

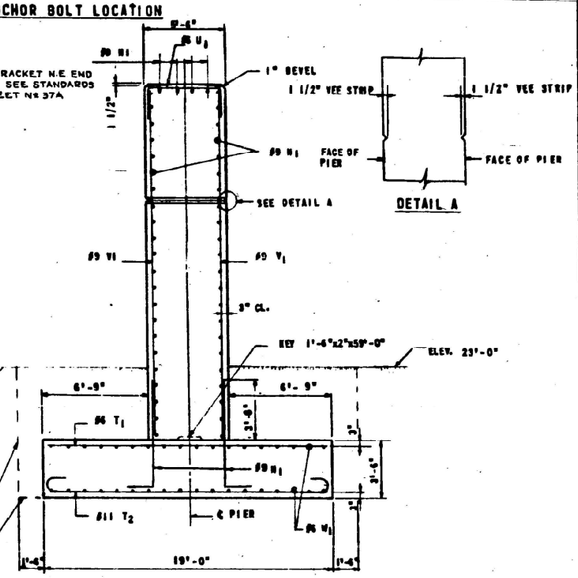




ANCHOR BOLT LOCATION





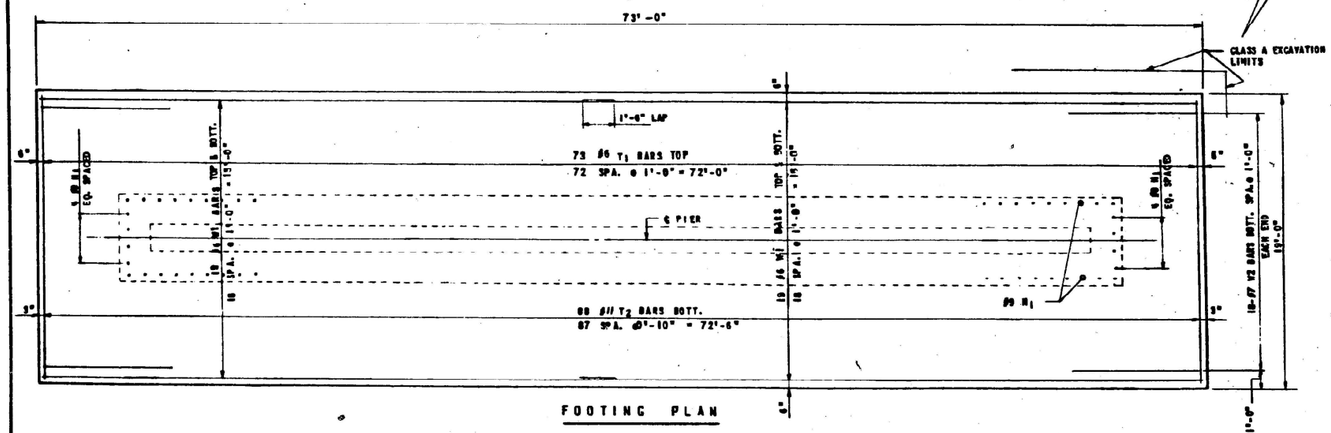


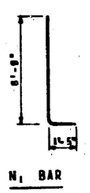
DETAIL A

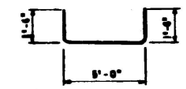
SECTION A-A

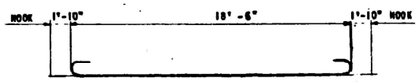
BILL OF REINFORCEMENT

BAR	NO.	SIZE	LENGTH	SHAPE
N_1	96	9	33'-0"	
N_1	130	9	8'-2"	
T_1	73	6	18'-6"	
T_2	88	11	22'-2"	
U_1	127	9	8'-0"	
V_1	126	9	21'-0"	
W_1	76	6	37'-0"	
W_2	36	7	8'-0"	









E.F. = EACH FACE

NOTE:
MAX. FOOTING BEARING PRESS = 5,000 LB/SQ. FT.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DAN RYAN EXPRESSWAY - WEST LEG
PENNSYLVANIA R.R. BRIDGE
PIER NO. 2

COMPUTED
DRAWN J.K.
CHECKED L.D.R.
PROJECT IG-57-7-(121)357
SCALE 1/8" = 1'-0"
APPROVED

APPROVED
CHIEF ENGINEER

Federal Aid Interstate	County Highway Route No.	Sheet No.	Total Sheets	Drawing No.
57	068-2121.3 C.F.	19		

REVISIONS

DATE	BY	DESCRIPTION
11/22/65	LDR	ELEVATIONS & ANCHOR BOLTS
3-25-66	D.S.	R.R. POLE BRACKET

MODEL: SN 016-0070 5 [Sheet]
FILE NAME: c:\pw_work\pwidot\diaziaid1045696\D102625-sht-exhbits.dgn

USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

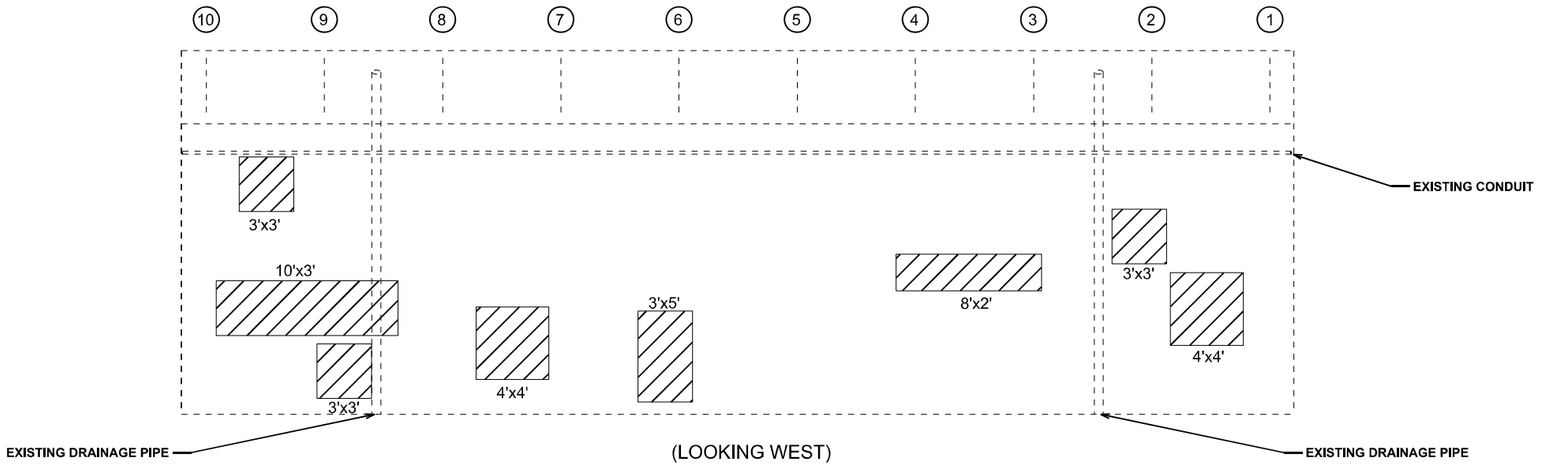
LOCATION 3: SN 016-0070 I-57 AT RR BIKE PATH
EXISTING STRCUTURE DETAILS

SCALE: | SHEET A005 OF 5 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	52
		CONTRACT NO. 62X40		
	ILLINOIS | FED. AID PROJECT			

GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING WEST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	120
TEMPORARY SHORING AND CRIBBING	EACH	0

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

TOTAL BILL OF MATERIALS (SN 016-2031)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	246
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2031 1
FILE NAME: c:\pw_work\pwidotdiazia\d10456969\D102625-sht-details.dgn

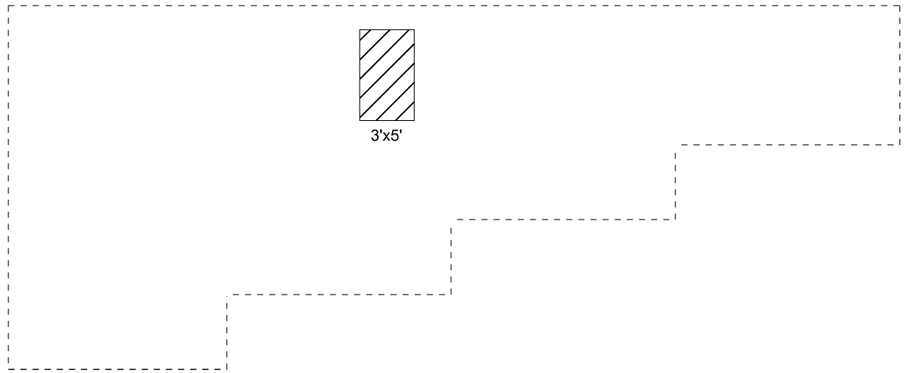
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 4: SN 016-2031 I-57 AT 107TH STREET
WEST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 3 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	53
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	15
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2031 2
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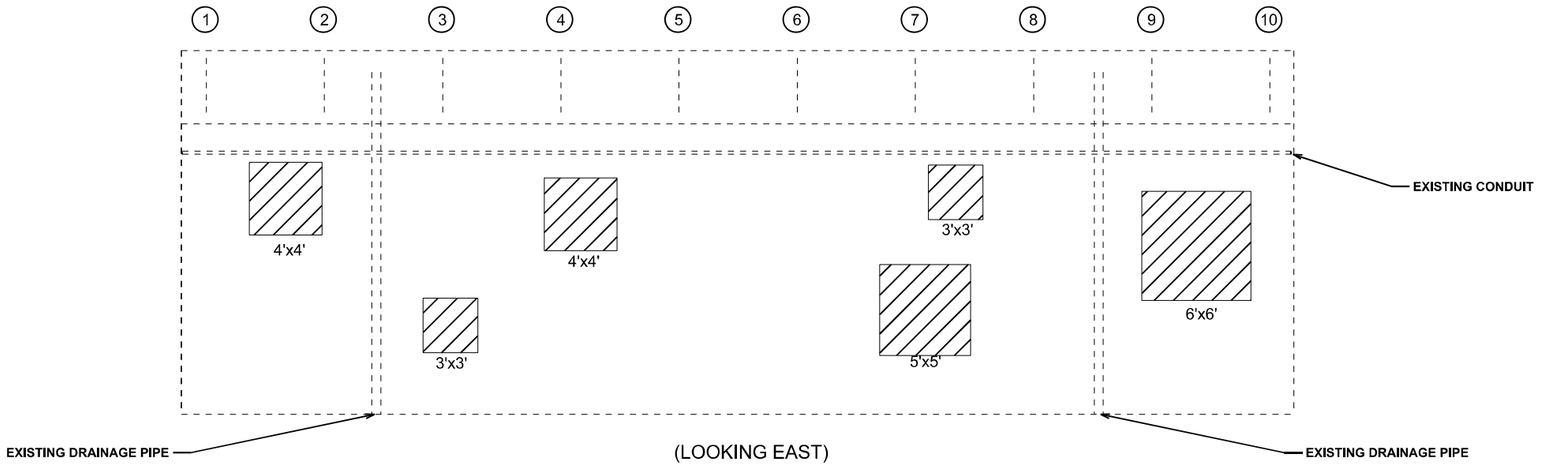
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

LOCATION 4: SN 016-2031 I-57 AT 107TH STREET
NORTHWEST WINGWALL PROPOSED REPAIRS

SCALE: | SHEET OF 3 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	54
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING EAST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	111
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2031 3
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

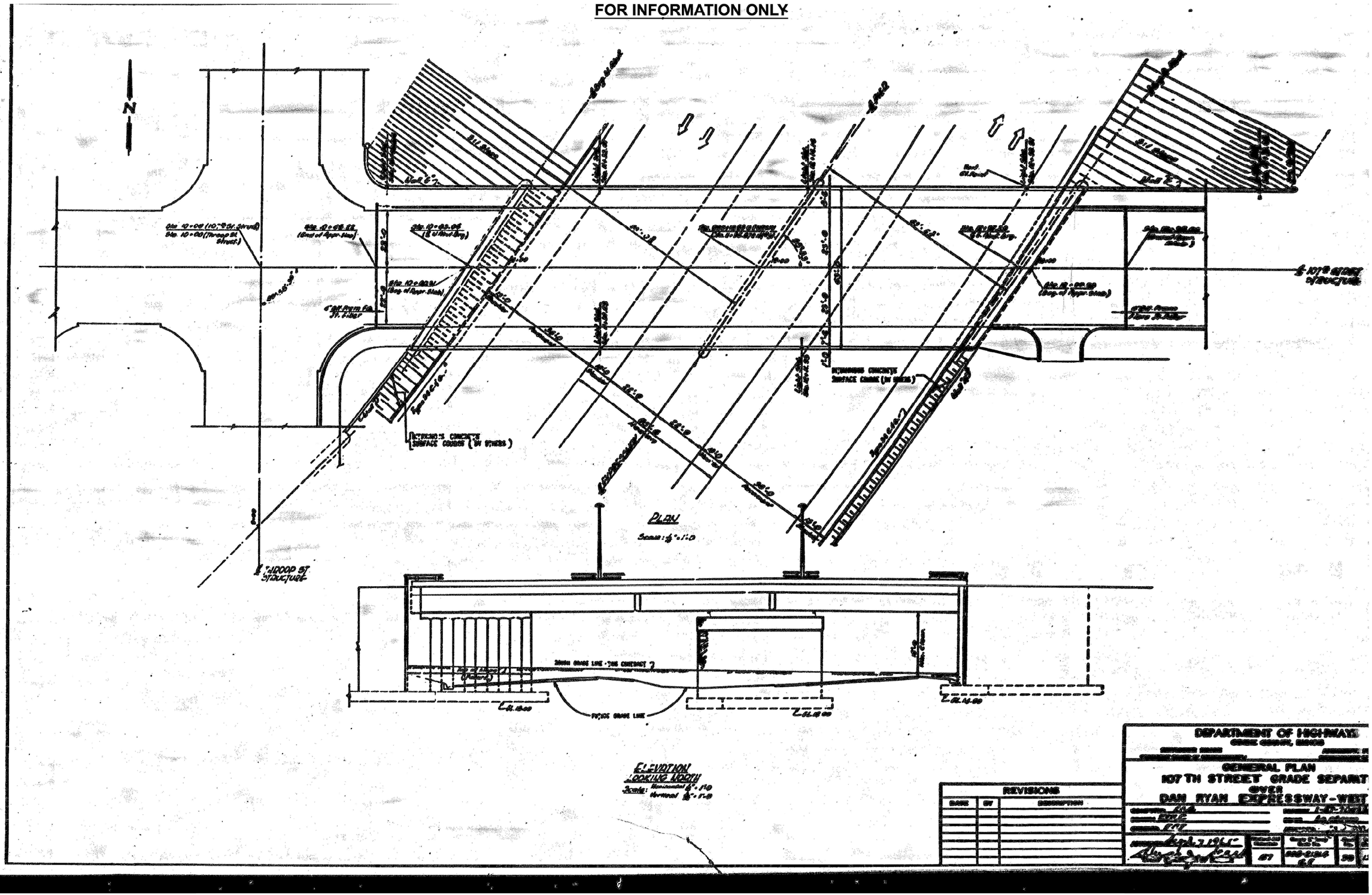
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 4: SN 016-2031 I-57 AT 107TH STREET
EAST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 3 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	55
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 4: SN 016-2031 I-57 AT 107TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A001 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	56
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

MODEL: SN 016-2031 1 [Sheet]
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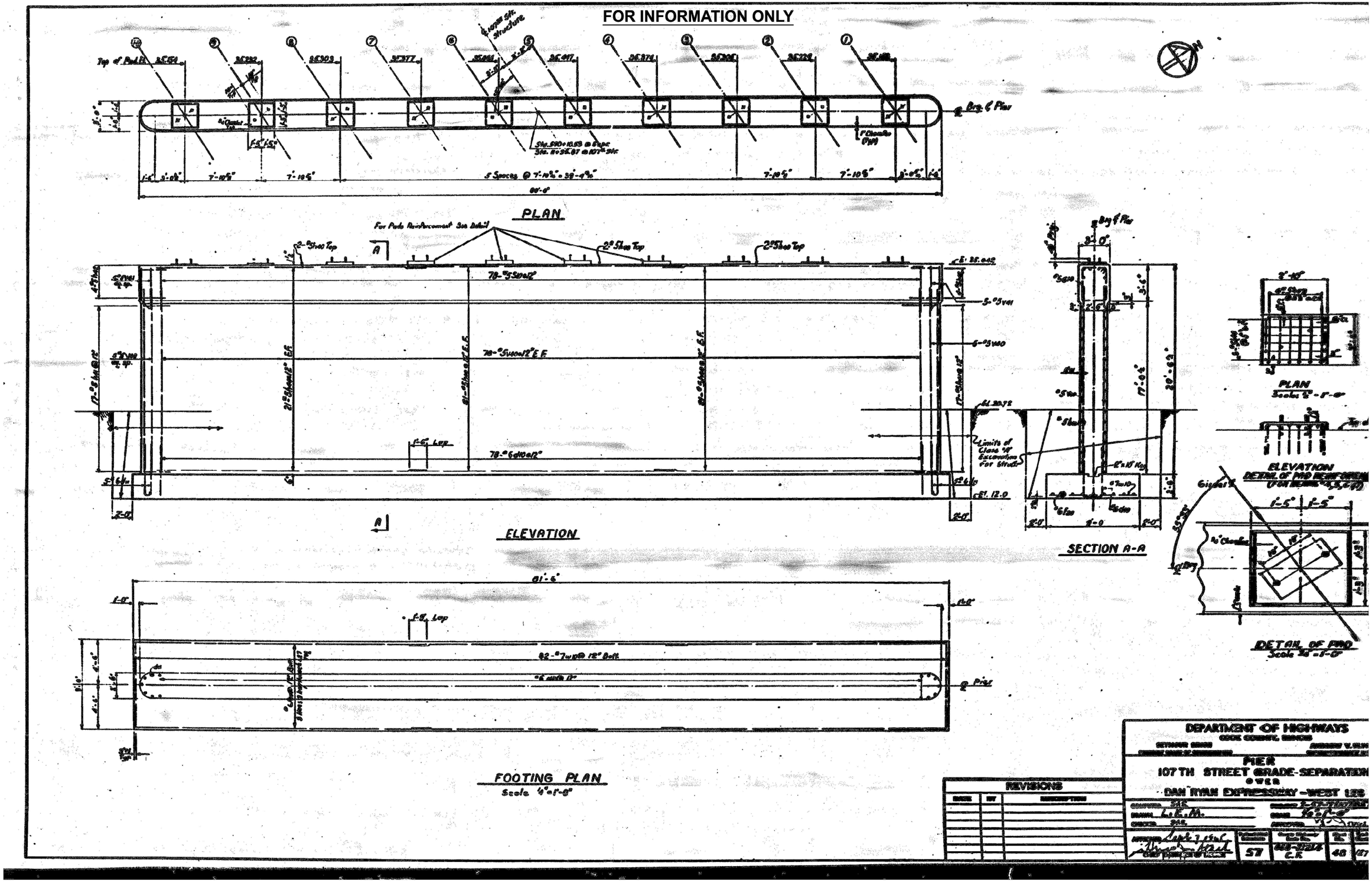
FOR INFORMATION ONLY



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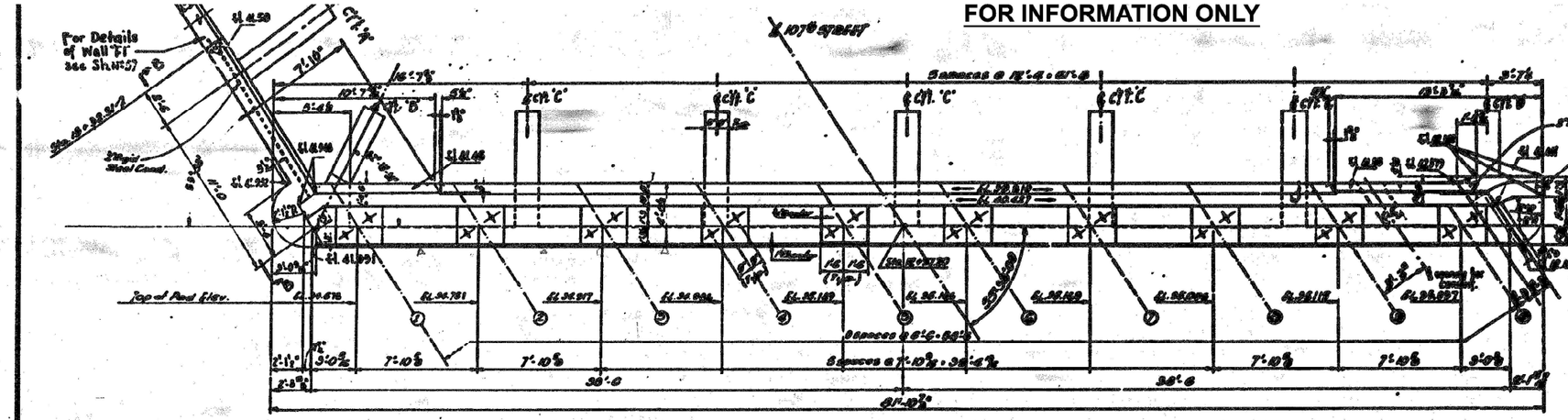
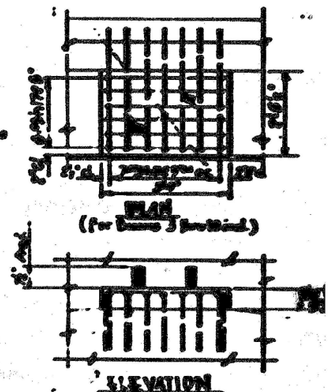
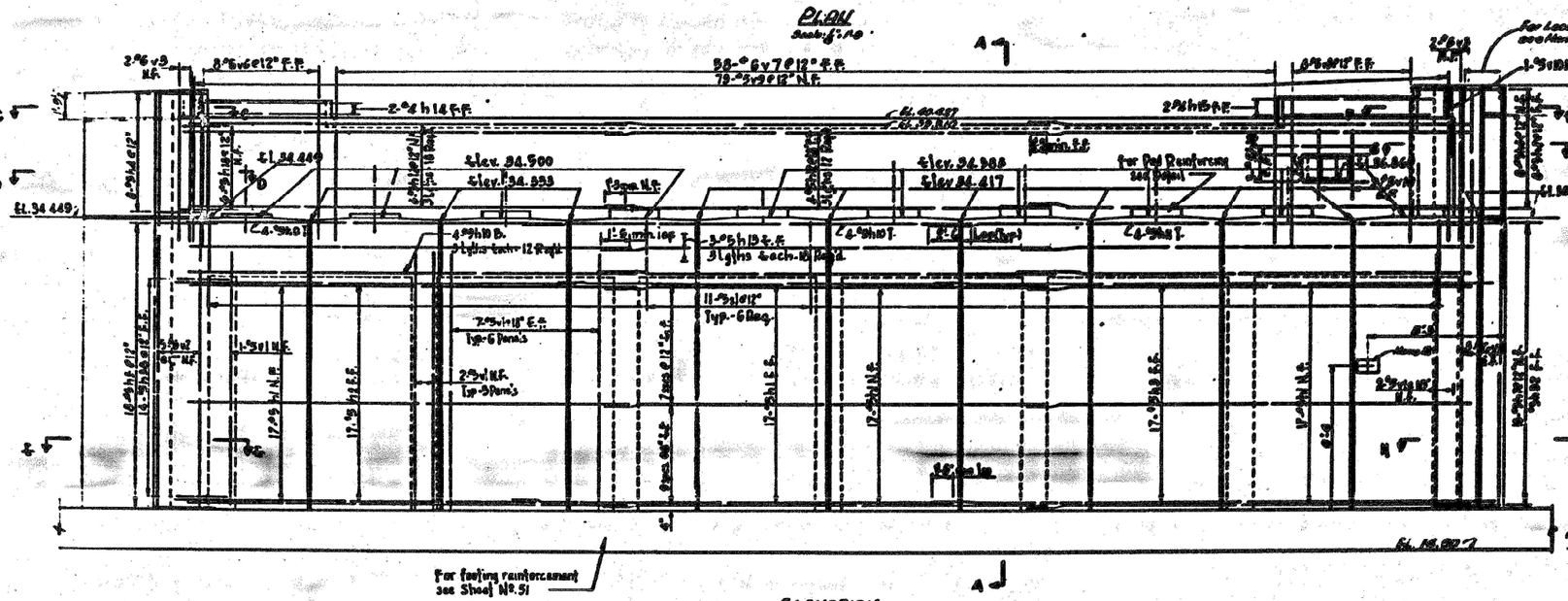
USER NAME = ivan.diaz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION 4: SN 016-2031 I-57 AT 107TH STREET EXISTING STRUCTURE DETAILS	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -			57	(068-2323.3-CF) BR. I 24	COOK	106	57
	CHECKED -	REVISED -					CONTRACT NO. 62X40		
PLOT DATE = 2/5/2025	DATE -	REVISED -		SCALE: SHEET A002 OF 4 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

FOR INFORMATION ONLY





PLAN
Scale: ¼"=1'-0"



ELEVATION
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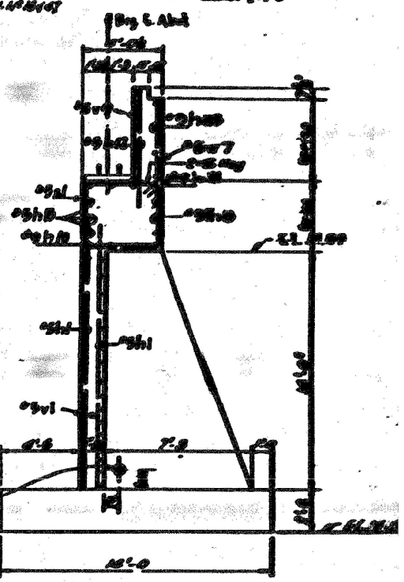


SECTION A-A

NOTE:
For Elevation B-B see Sht. No. 59
For Sections not shown see Sht. No. 59
For Abutment Details see Sht. No. 56 & 57
For Counterforts Details see Sht. No. 59
For Location of Pipe Sleeves in C'id see Sht. No. 60 & 64
For Footing Details see Sht. No. 51
For Details of Name Plate see Sht. No. 63
For Bituminous Details see Sht. No. 59
For Details of Joint see Sht. No. 58
For Location of Rigid Steel Conduits see Sht. No. 60
For Bill of Material see Sht. No. 52
For "Bridge Seat Sealant" see Special Provision.

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS

EAST ABUTMENT DETAILS
107 TH STREET GRADE SEPARATI

DAN RYAN EXPRESSWAY WEST LE

DESIGNED - A.A.T.
DRAWN - A.A.C. - D.W.S.
CHECKED -
DATE Sept. 7, 1971

107		

MODEL: SN 016-2031 3 [Sheet]
FILE NAME: c:\pw_work\pwidot\diazia\d1045696\D102625-sht-exhbits.dgn

USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

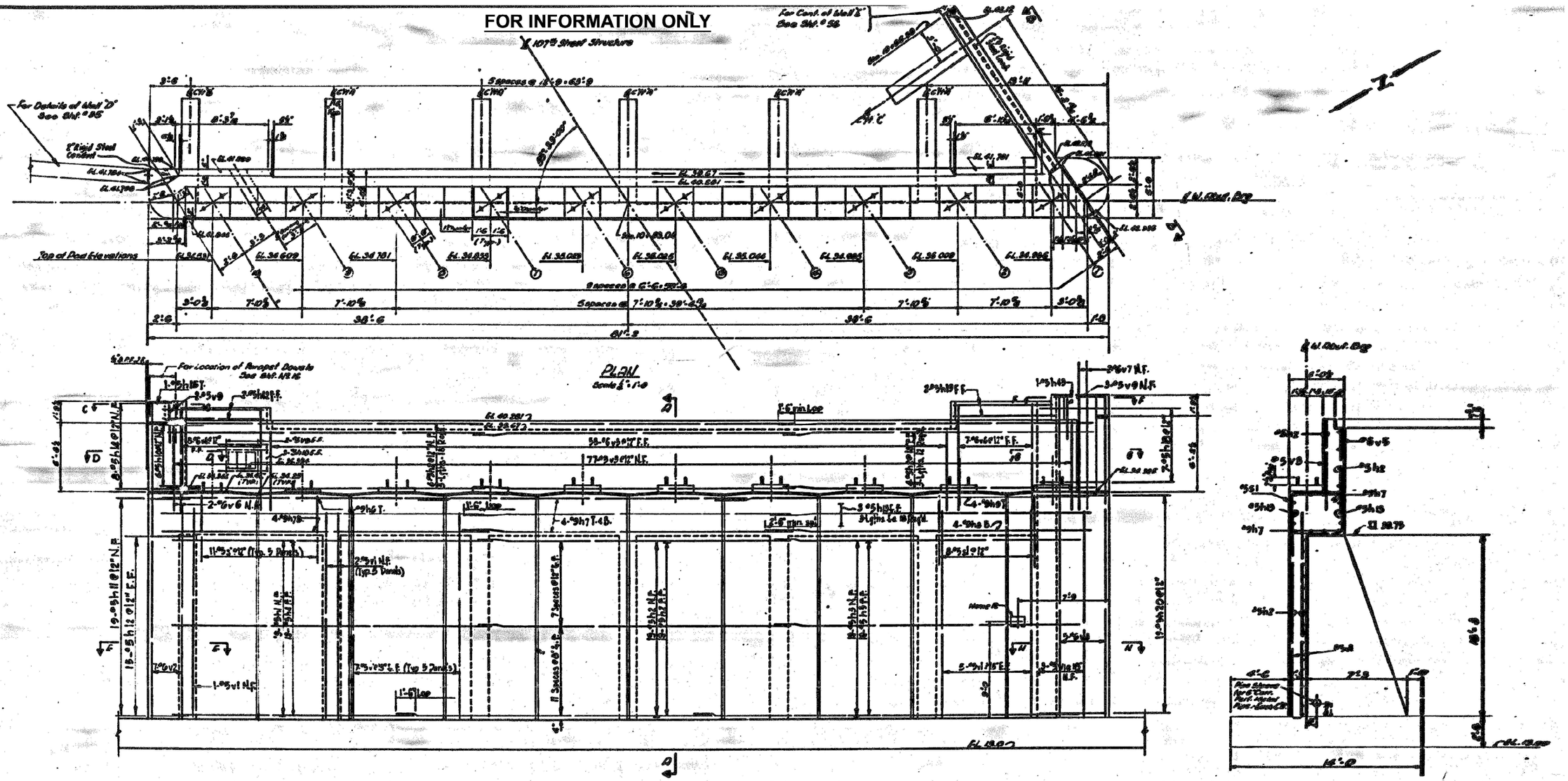
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 4: SN 016-2031 I-57 AT 107TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A003 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	58
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



NOTE:

For Pad Reinforcing for Beams 1 thru 7 inclusive see Detail, East Abutment Sht. # 79
For Elevation B-B see Sht. # 54
For Sections not shown see Sht. # 54
For Handrail Details see Sht. # 47 & 77

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

WEST ABUTMENT DETAILS
107 TH STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY WEST LEG

DESIGNED - S.F.B.					
DRAWN - D.M.S.					
CHECKED -					
DATE -					
	97	000	58	127	

USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 4: SN 016-2031 I-57 AT 107TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A004 OF 4 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	59
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

MODEL: SN 016-2031 4 [Sheet]
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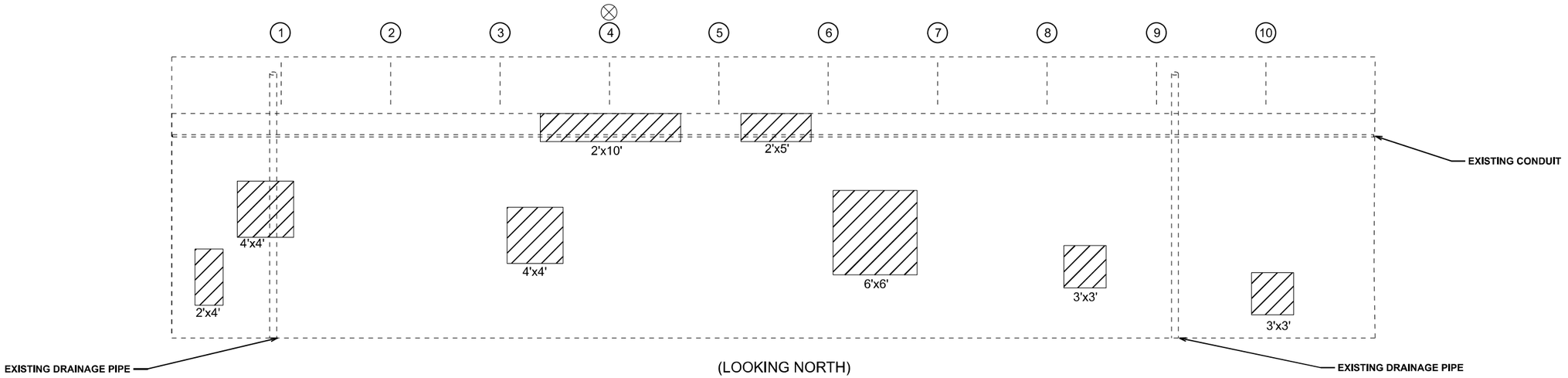
GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	124
TEMPORARY SHORING AND CRIBBING	EACH	1

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

INTERIOR GIRDER REACTION TABLE				
		S. Abut	Pier	N. Abut
RD	(k)	48.2	206.8	62.8
RL	(k)	43.2	75.4	43.4
Imp.	(k)	8.8	9.9	8.3
R (Total)	(k)	100.2	292.1	114.5

TOTAL BILL OF MATERIALS (SN 016-2032)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	441
TEMPORARY SHORING AND CRIBBING	EACH	2

MODEL: SN 016-2032 1
FILE NAME: c:\pw_work\pwidotdiaza\d1045696ID102625-sht-details.dgn

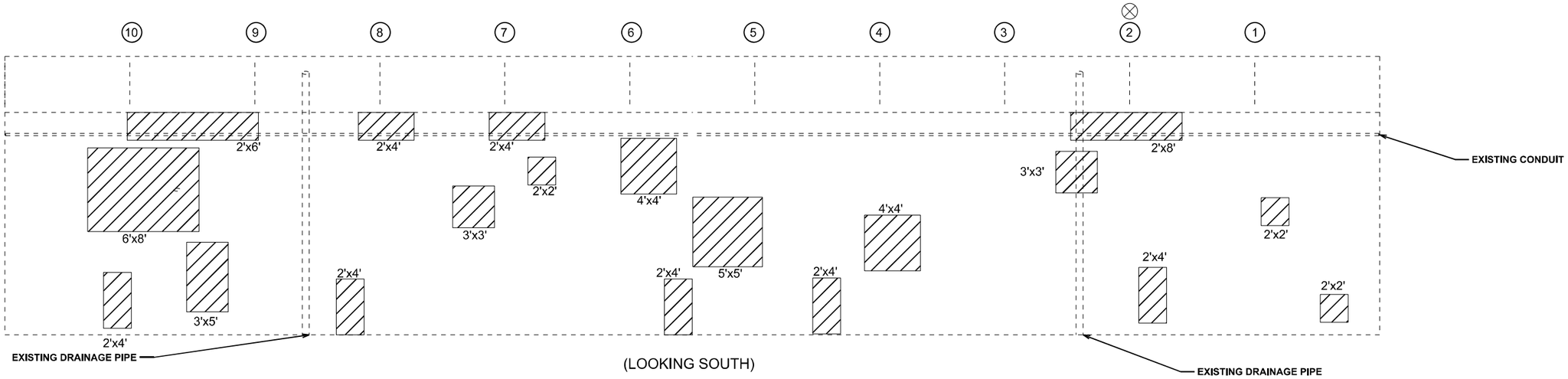
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 5: SN 016-2032 I-57 AT THROOP ST
NORTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 3 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	60
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING SOUTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	234
TEMPORARY SHORING AND CRIBBING	EACH	1

MODEL: SN 016-2032 2
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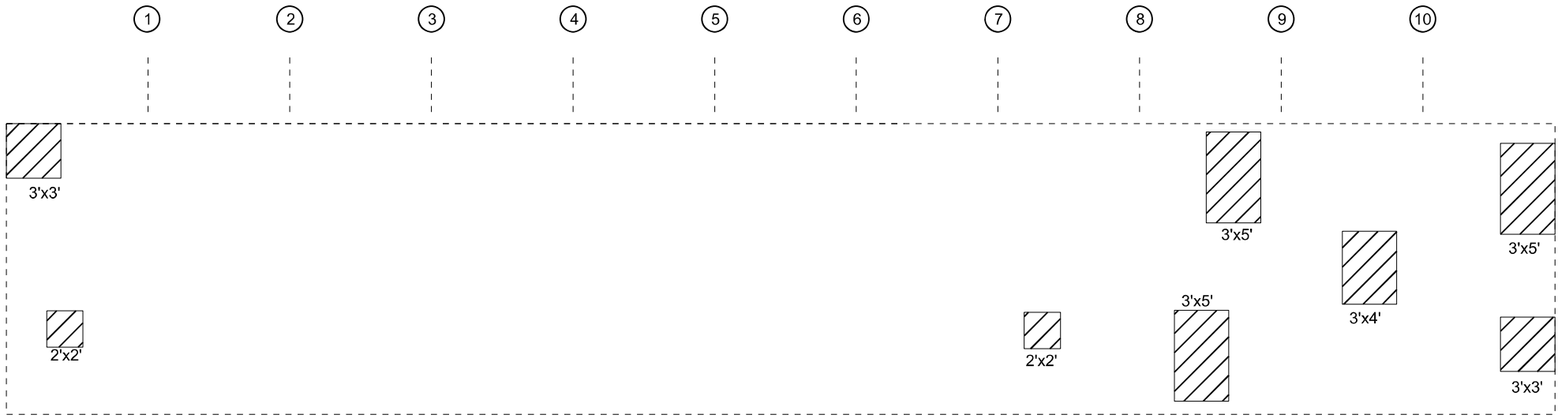
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 5: SN 016-2032 I-57 AT THROOP ST
SOUTH ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 3 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	61
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING NORTH)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	83
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2032 3
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

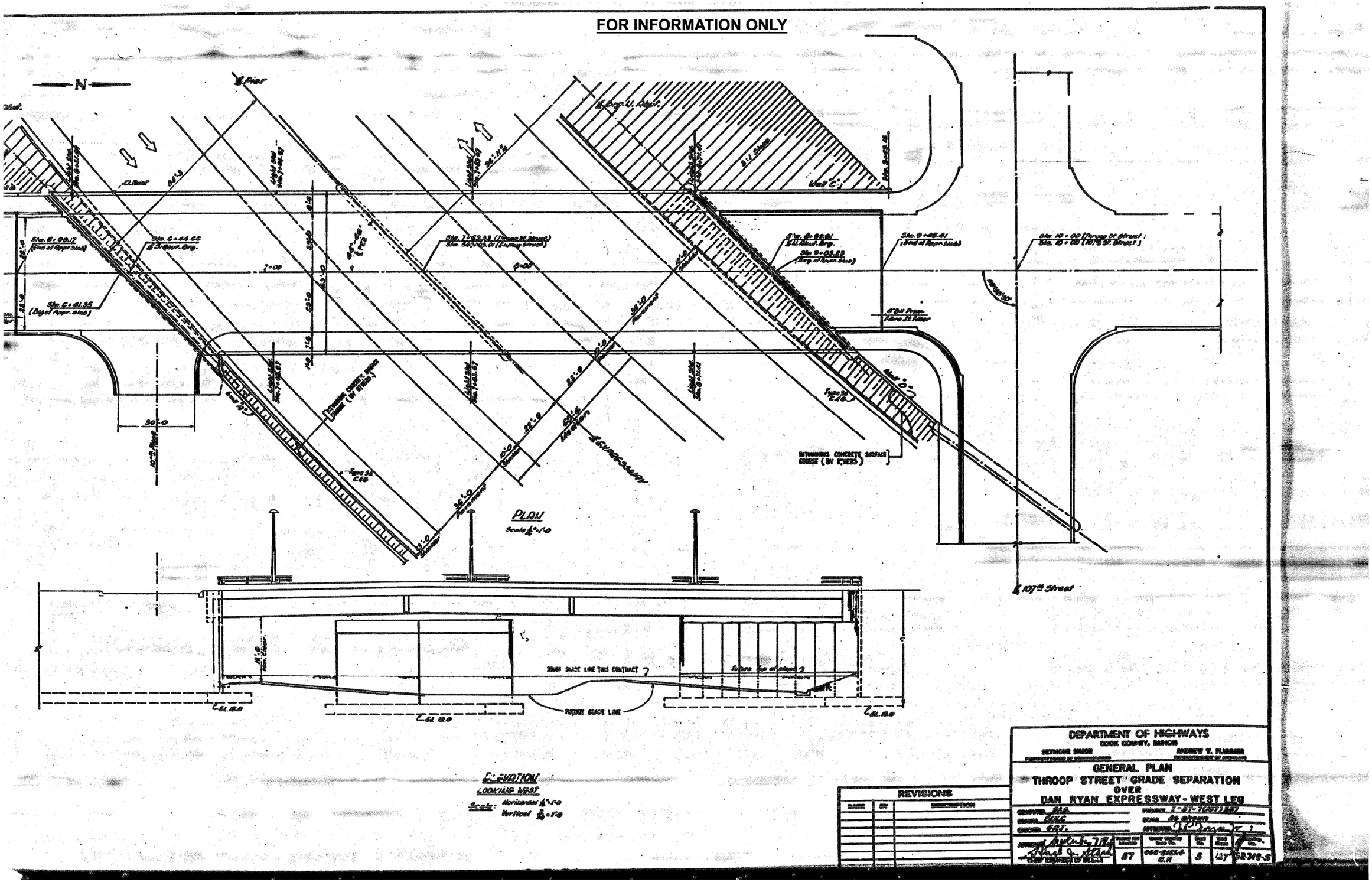
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 5: SN 016-2032 I-57 AT THROOP ST
PIER SOUTH FACE PROPOSED REPAIRS

SCALE: | SHEET OF 3 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	62
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



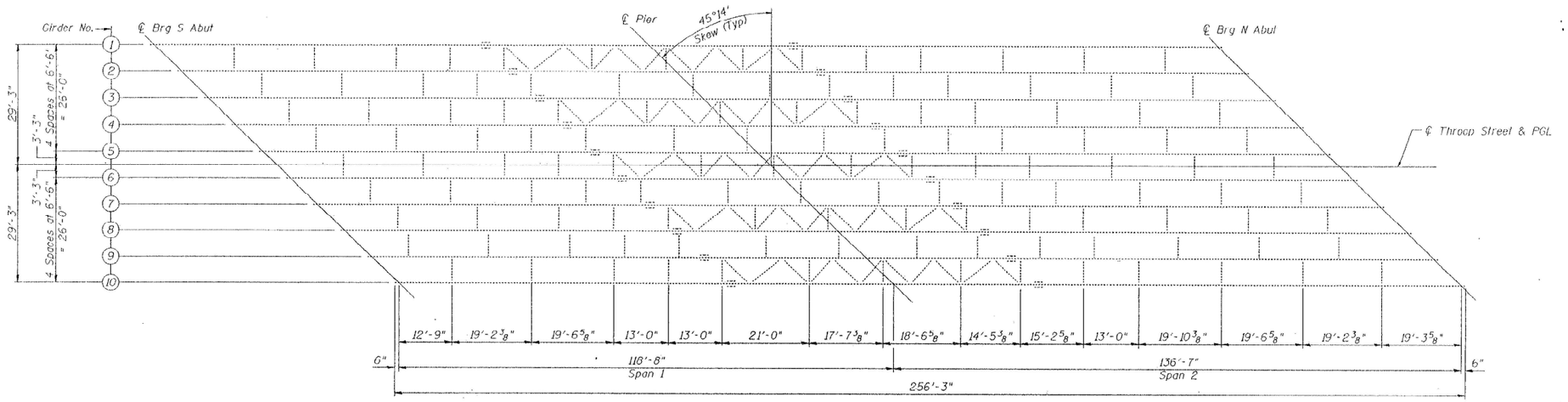
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	★	COOK	117	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 14
31 SHEETS

★ 2121-4B



PLAN

EXISTING INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in^4)	28219	61393	31358
Ic (n)	(in^4)	65621		76666
Ic (3n)	(in^4)	47936		54595
Ss	(in^3)	1178	2117	1435
Sc (n)	(in^3)	1498		1824
Sc (3n)	(in^3)	1391		1694
wℓ	(k/ft.)	.83	1.36	.85
Mℓ	('k)	582	2871	1047
swℓ	(k/ft.)	.41		.41
Msℓ	('k)	345		572
Mℓ	('k)	908	1055	1062
M (Imp)	('k)	186	138	203
S_3[M$_\ell$+M(Imp)]	('k)	1823	1988	2108
Ma	('k)	3575	6317	4845
Mu	('k)	4474		5339
fsℓ non-comp	(k.s.i.)	5.9	16.3	8.8
fsℓ (comp)	(k.s.i.)	3.0		4.1
fs S_3(ℓ+Imp)	(k.s.i.)	14.6	11.3	13.9
fs (Overload)	(k.s.i.)	23.5	27.6	26.8
fs (Total)	(k.s.i.)		35.9	
VR	(k)	57.6		55.6

INTERIOR GIRDER REACTION TABLE				
		S Abut	Pier	N Abut
Rw	(k)	48.2	206.8	62.8
Rℓ	(k)	43.2	75.4	43.4
Imp.	(k)	8.8	9.9	8.3
R (Total)	(k)	100.2	292.1	114.5

Notes:

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

$Ic_{(n)}$ and $Sc_{(n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$Ic_{(3n)}$ and $Sc_{(3n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment) = 1.3[Mw + Msw + S_3(Mℓ + M(Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to Mw + Msw + S_3(Mℓ + M(Imp)).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[Mw + Msw + S_3(Mℓ + M(Imp))].

DESIGNED	NDR
CHECKED	DSE
DRAWN	RD
CHECKED	NDR
DATE	OCT 20, 2003

Illinois Firm Registration No.: 184.008113
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

FRAMING PLAN AND DESIGN DATA
THROOP STREET OVER
FAI 57 (DAN RYAN-WEST LEG)
FAI RTE 57 SECTION 2121-4B
COOK COUNTY
STA 7+63.33
STRUCTURE NO 016-2032

MODEL: 016-2032 5 [Sheet]
FILE NAME: c:\pw_work\pw\dotdiazia\d1045696\D102625-slit-exhibits.dgn

USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 5: SN 016-2032 I-57 AT THROOP ST
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A002 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	64
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

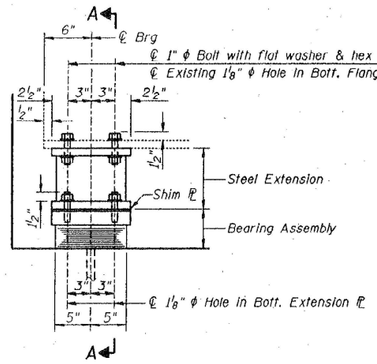
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

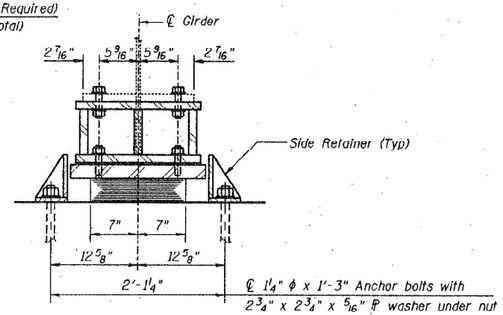
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	★	COOK	117	49
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 15
31 SHEETS

★2121-4B



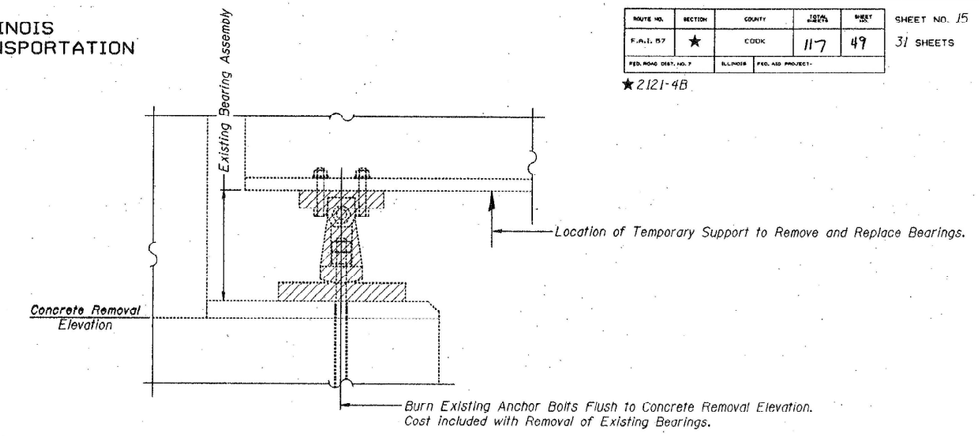
ELEVATION AT ABUT.



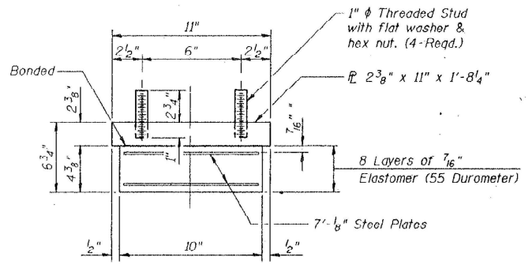
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

Notes:
See Sheet 29 for Anchor Bolt installation.

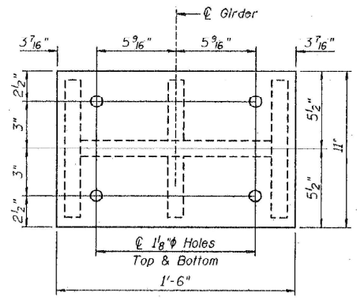


EXISTING BEARING REMOVAL DETAIL

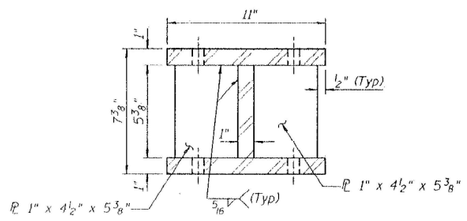


BEARING ASSEMBLY

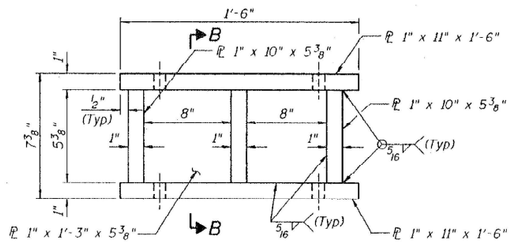
Note:
Shim plates shall not be placed under Bearing Assembly.



PLAN STEEL EXTENSION



SECTION B-B

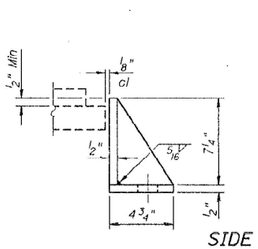


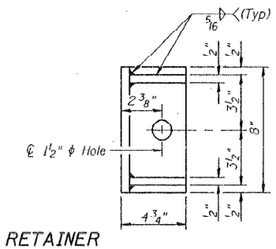
ELEVATION STEEL EXTENSION

JACKING AND CRIBBING PROCEDURE

1. The Contractor shall submit for approval by the Engineer, plans for Jacking and Cribbing prior to commencing repair of the abutments or any work at the bearings.
2. Jacking and removing existing bearings shall be done after existing deck removal is completed and before a new deck is poured.
3. Jacking shall be limited to a maximum differential of ⅛" transversely between adjacent beams and ¼" longitudinally between adjacent supports to remove and install new bearings.
4. The girders at the abutments shall be supported by cribbing prior to removal of existing bearings. The cost of removal of existing bearings at abutments is included with Removal of Existing Bearings.
5. The maximum dead load reaction with deck removed (per bearing) at each abutment is 12 kips. Minimum jack capacity at the abutments is 24 kips (per bearing).
6. The new bearings shall be in place and the jacks shall be lowered before the new concrete deck is poured.
7. The bottom flange area of existing beams shall be cleaned as specified by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures" prior to installing top bearing plate.

Note:
Prior to ordering any material the contractor shall verify in the field all bearing height and shim thickness dimensions.





SIDE RETAINER

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

DESIGNED	KFA
CHECKED	NDR
DRAWN	RD
CHECKED	NDR
DATE	OCT 20, 2003

Illinois Firm Registration No.: 184-005513
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

BEARINGS
THROOP STREET OVER
FAI 57 (DAN RYAN-WEST LEG)
FAI RTE 57 SECTION 2121-4B
COOK COUNTY
STA 7+63.33
STRUCTURE NO 016-2032

MODEL: 016-2032 6 [Sheet]
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

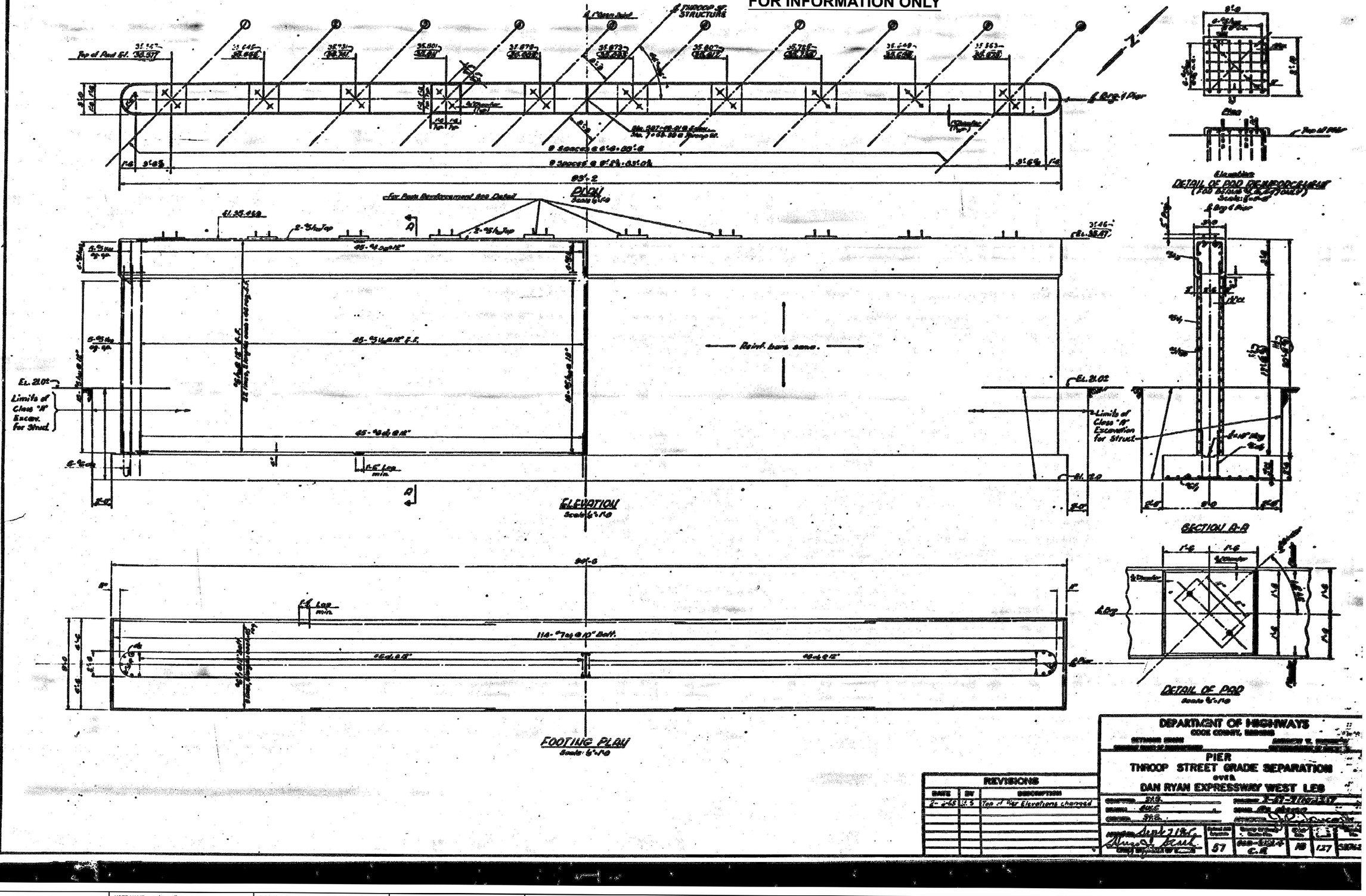
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 5: SN 016-2032 I-57 AT THROOP ST
EXISTING STRUCTURE DETAILS

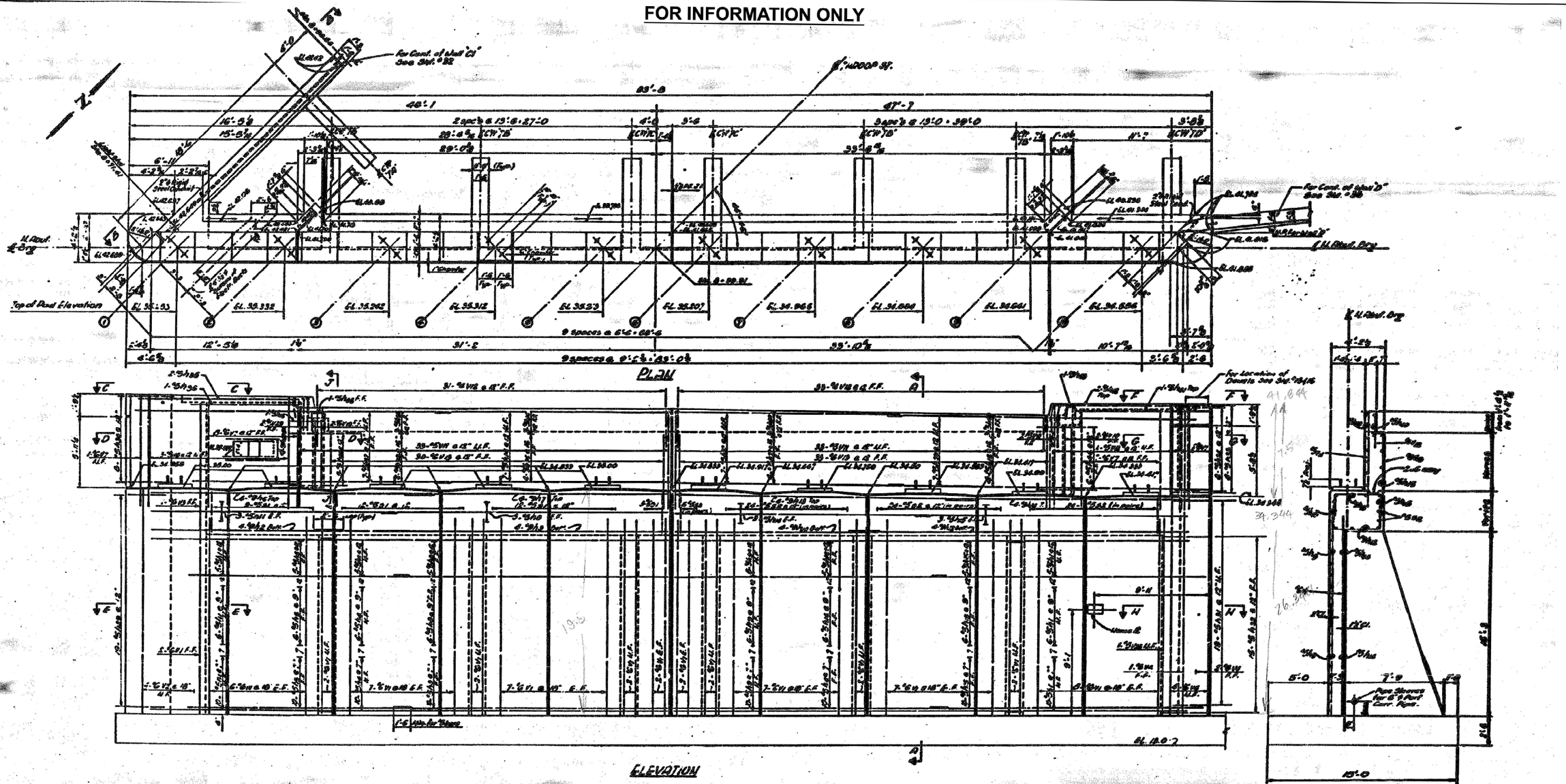
SCALE: | SHEET A003 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	65
		CONTRACT NO. 62X40		
		ILLINOIS FED. AID PROJECT		

FOR INFORMATION ONLY



FOR INFORMATION ONLY



REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

NORTH ABUTMENT DETAILS
THROOP STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY WEST LEG

CONTRACT	62X40	ORDER	2-62-7 (057) 057
DRAWN	BLAC	SCALE	1/4"=1'-0"
CHECKED	SLS	ATTENDED	

Virginia Lusk 7/17/25 — CHIEF ENGINEER OF DESIGN
Virginia Grant — DIRECTOR OF HIGHWAYS

DESIGN STRESS	STRUCTURE NO.	SHEET NO.	SHEETS
57	016-2032	19	187

USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 5: SN 016-2032 I-57 AT THROOP ST
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A005 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	67
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

MODEL: SN 016-2032 3 [Sheet]
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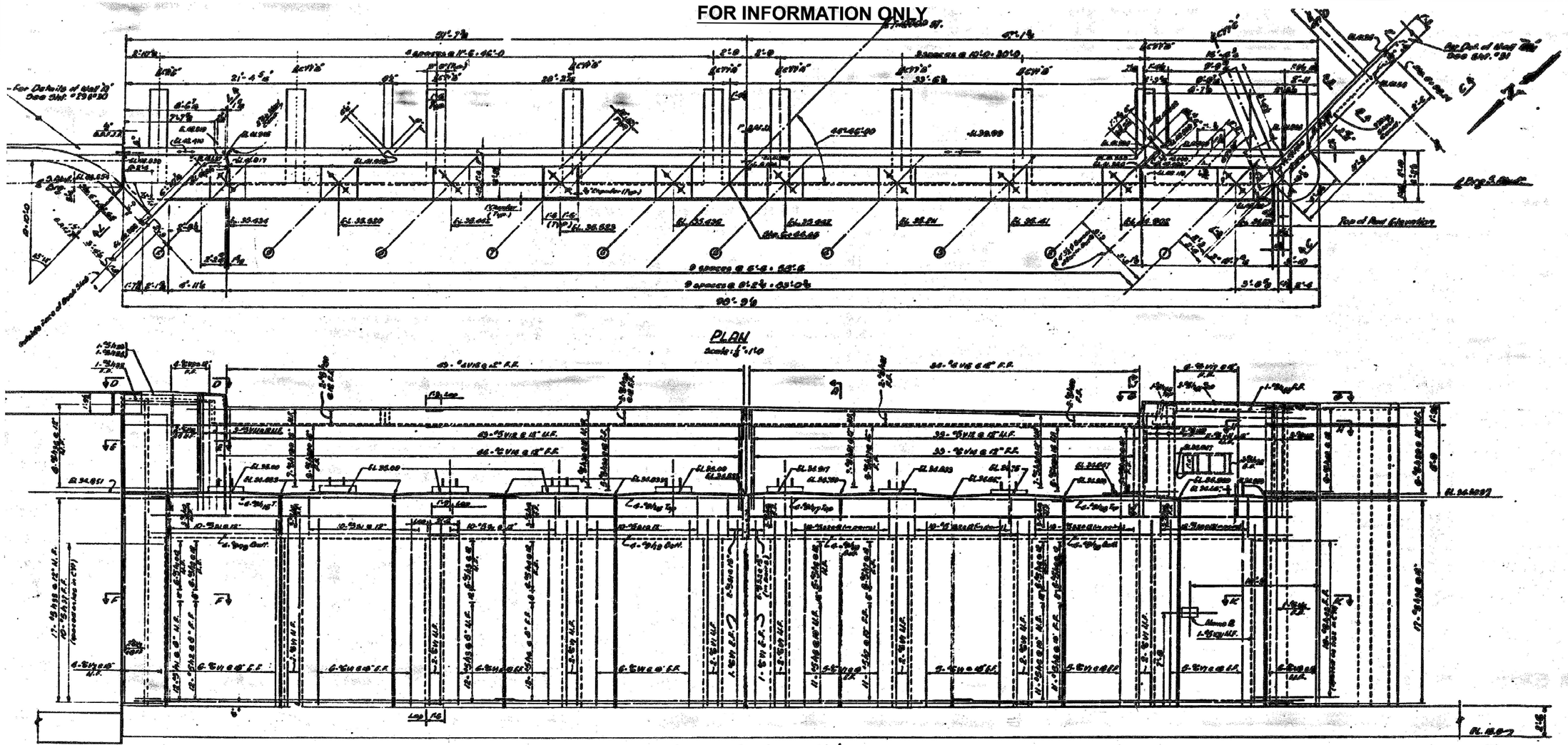
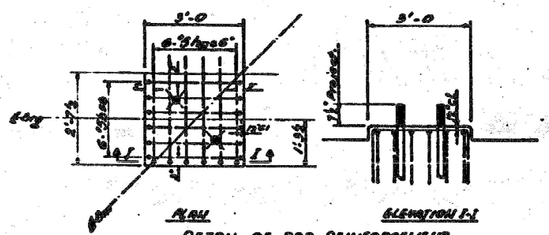
FOR INFORMATION ONLY



PLAN
Scale: 1"=1'-0



PLAN ELEVATION I-I

DETAIL OF PAD REINFORCEMENT
BMS "9 thru "10 INC.
Scale: 1"=1'-0

ELEVATION
Scale 1"=1'-0

NOTES:
For Elevation C-C see Std. Ill. 86
For Sections not shown see Std. Ill. 86
For Counterforts Details see Std. Ill. 86
For Footing Details see Std. Ill. 87
For Handrail Details see Std. Ill. 85, Ill. 117
For Location of Pipe Sleeves in C"Ws see Std. Ill. 686 64
For Details of Lenne Plate see Std. Ill. 68
For Reinforcing Details see Std. Ill. 89
For Details of Joints see Std. Ill. 65
For Location & Details of Rigid Steel Conduit see Std. Ill. 686 65
For Bill of Material see Std. Ill. 88.
For "Bridge Seal Sealant" see Special Provision.

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SOUTH ABUTMENT DETAILS
THROOP STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY WEST LEG

REVISIONS		
DATE	BY	DESCRIPTION

Approved 2 Mar	57	068-2323.3-CF	108	68	SR-7686

MODEL: SN 016-2032 4 [Sheet]
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

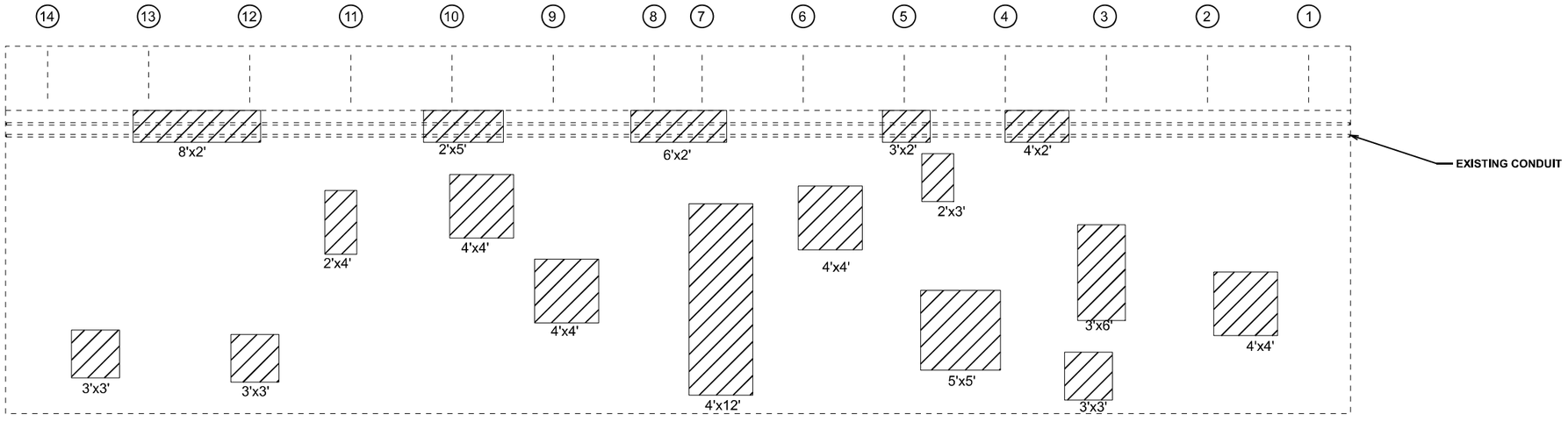
LOCATION 5: SN 016-2032 I-57 AT THROOP ST
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A006 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	108	68
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING WEST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	248
TEMPORARY SHORING AND CRIBBING	EACH	0

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

Jayme F. Schiff

INTERIOR BEAM REACTION TABLE			
		Abut.	Pier
RQ	(kN)	193	659
RL	(kN)	181	247
Imp.	(kN)	42	57
R (Total)	(kN)	416	963

TOTAL BILL OF MATERIALS (SN 016-2037)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	604
TEMPORARY SHORING AND CRIBBING	EACH	2

MODEL: SN 016-2037 1
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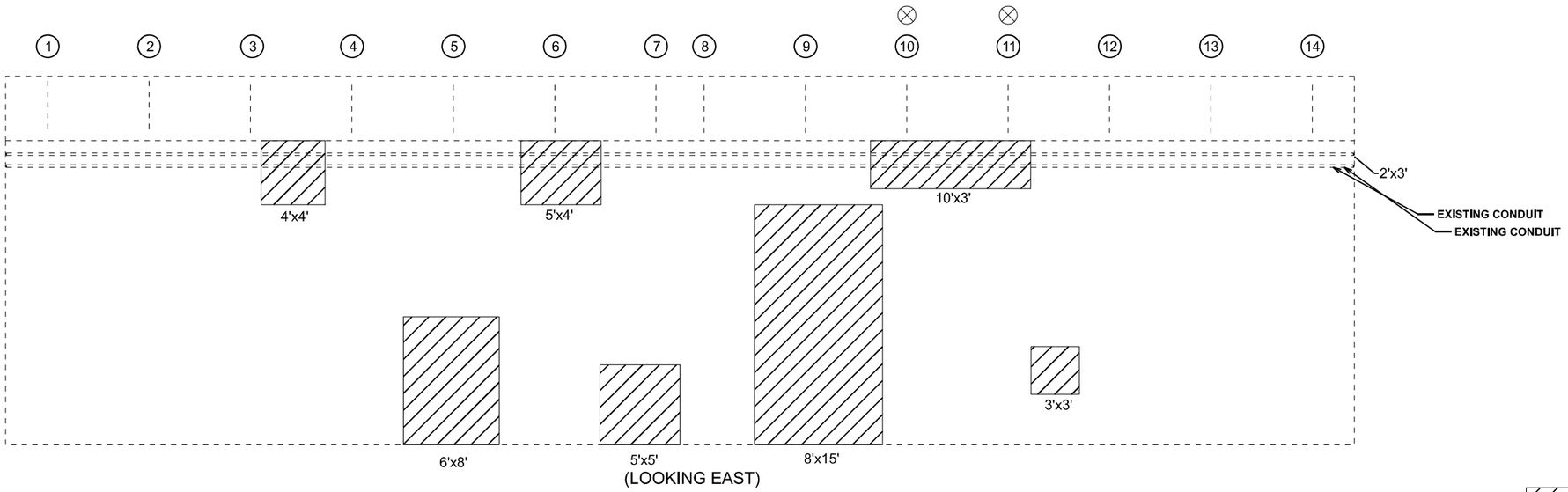
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
WEST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	69
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING EAST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	274
TEMPORARY SHORING AND CRIBBING	EACH	2

MODEL: SN 016-2037 2
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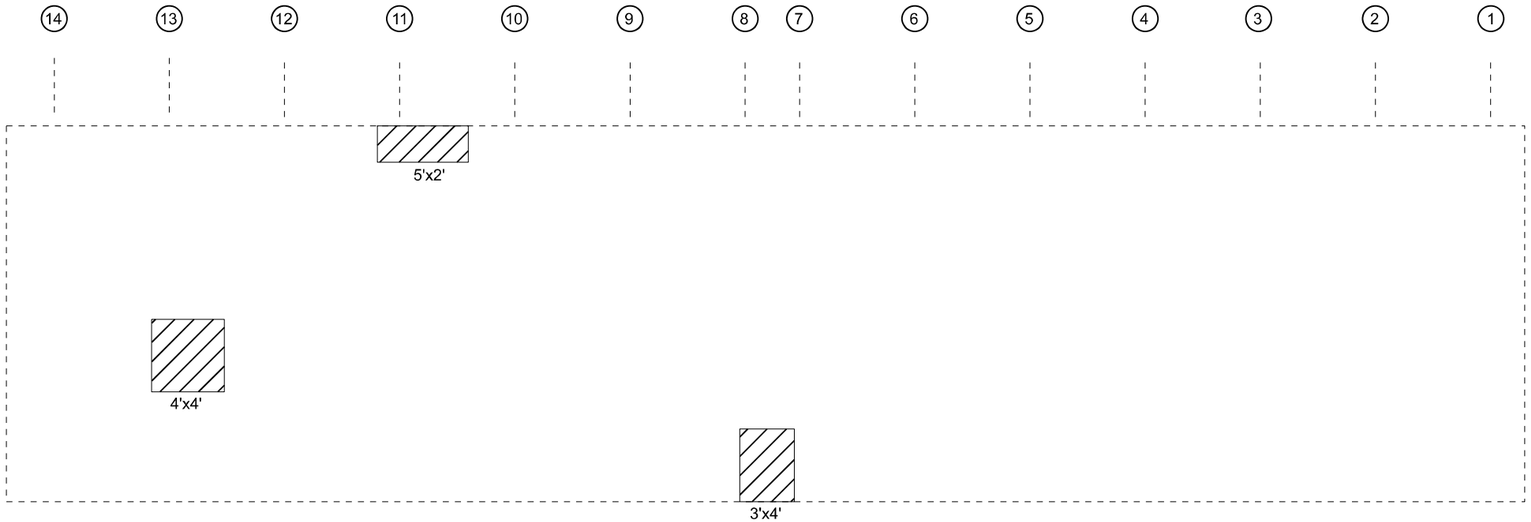
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
EAST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	70
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING WEST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	38
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2037 3
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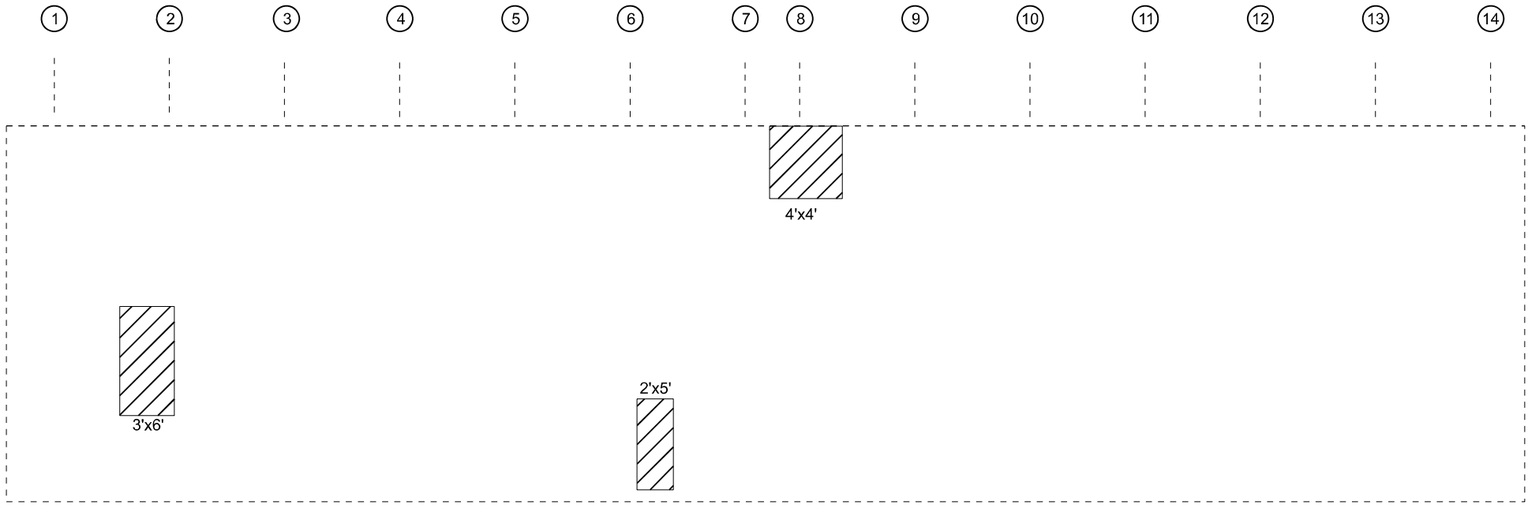
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
PIER EAST FACE PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323,3-CF) BR, I 24	COOK	106	71
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING EAST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	44
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-2037 4
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

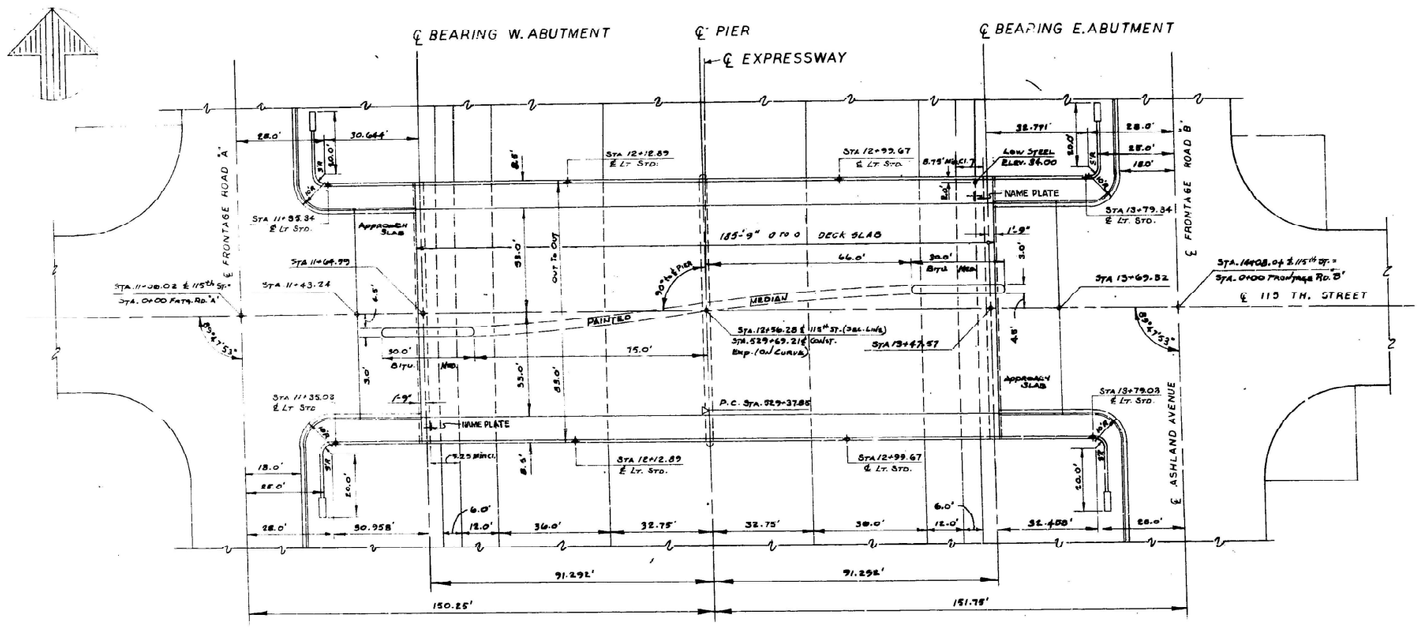
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
PIER WEST FACE PROPOSED REPAIRS

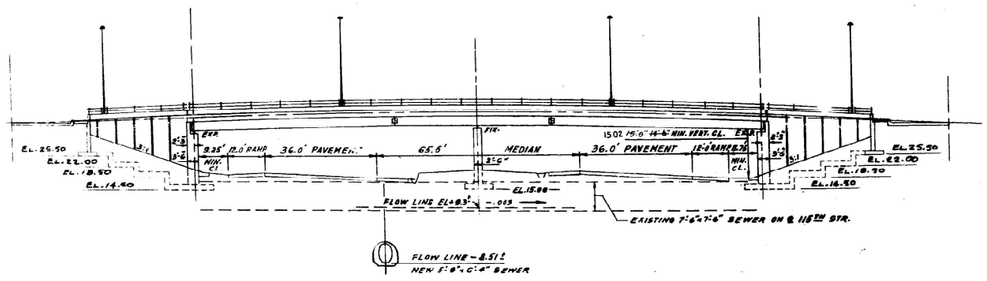
SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	72
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



PLAN



ELEVATION

DESIGN DATA

L.L.	HS 20 44
Future Load	2½" Bitu. Wear. Surf.
Structural Steel	20,000 PSI
Reinforcement Bars	20,000 PSI
Earth Pressure	40# Fluid
Concrete (With Earth Pressure)	1,000 PSI
Concrete (Without Earth Pressure)	1,400 PSI
	n = 10
Maximum Soil Pressure	5.0 kips P.S.F.
Soil Pressure at Pier	5.0 kips P.S.F.
Design Speed	30 MPH
Traffic Classification	1,000 N

GENERAL NOTES

Class X Concrete Shall Be Used Throughout For Cast-In-Place Concrete Including The Parapet Walls Supporting The Hand Rail. All Exposed Edges Shall Have ¾" Chamfer Except As Noted On The Plans.

The Concrete Deck Slab Shall Be Placed In One Continuous Operation Between Expansion Joints Shown On The Plans And Additional Joints As Approved By The Engineer And As Specified In The Special Provisions.

Finishing Of The Deck Slab Shall Be As Specified In The Standard Specifications. Permanent Forms Will Not Be Permitted In Forming Concrete Deck Slabs. Exposed Concrete Surfaces Shall Have A Rubbed Finish In Accordance With Art. 52.13 Of The Standard Specifications.

The Part Of The Abutments And Retaining Walls That Are In Contact With Earth Or Embankment Material, Shall Be Covered With Waterproofing In Accordance With Art. 51.21 Of The Standard Specifications.

The Contractor Shall Adequately Support, Brace, And Protect Bituminous Preformed Fibre Joint Filler During Construction So That It Does Not Become Torn And Distorted. The Contractor's Method Of Supporting, Bracing And Protecting The Bituminous Preformed Fibre Joint Filler Shall Be Approved By The Engineer.

The Rubber Water Seal Shall Be Spliced As Recommended By The Manufacturer.

All Bridge Seats Shall Be Constructed To Exact Elevations Shown. If Burn Hammering Or Grinding Is Necessary, It Shall Be Done At No Additional Cost To The County.

All Reinforcement Bars Shall Conform To A.S.T.M. A305-53T As Amended To Date And Shall Comply With A.S.T.M. A15 Specifications. Minimum Lap For All Reinforcement Bars Shall Be 20 Bar Diameters Unless Noted.

The Cost Of The Rubbed Finish, The Waterproofing, Copper And Rubber Water Seals, Bituminous Preformed Fibre Joint Filler, The Sealing Compound, Ground Mica And Copper Nails Shall Be Included In The Bid Price For Class X Concrete.

All Bridge Seats Shall Receive A Protective Overlay Of Bridge Seat Sealant (See Special Provisions).

A Protective Surface Treatment For The Concrete Deck, Curbs, Sidewalks And Approach Slabs Will Be Paid For At The Contract Unit Price Per Square Yard For Protective Coat (See Supplemental Specification 52.14A).

For Protective Requirements For 7'-6"x7'-6" Sewer See Special Provisions.

This Route Has Been Selected As A 14'-6" Vertical Clearance Route.

Coarse Aggregate Which Is To Be Used In Parapets And End Posts Must Be Absolutely Free Of Chert, Flint, Limonite, Lignite And Soft Sandstone.

REVISIONS

DATE	BY	DESCRIPTION
6-20-65	C.R.	REVISE VERTICAL CLEARANCE TO 19'0"
7-8-65	C.R.	REVISE VERTICAL CLEARANCE TO 18.92
7-19-65	C.R.	SHOW LOCATION OF NAME PLATE. REV. L.L. LOADING, DESIGNATION
8-11-65	C.R.C.	Added Note to General Notes
8-19-65	T.A.	Changed Foundation Steps
8-31-65	R.W.S.	CHANGED NOTES

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON, President Board of Commissioners
ANDREW V. PLUNKER, Superintendent of Highways

GENERAL PLAN
115TH STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY (WEST LEG)

COMPUTED G. S. M. | PROJECT T-57-7(103)357
DRAWN THOMAS G. COLE | SCALE 1"=20'
CHECKED H.G. | APPROVED

APPROVED _____ CHIEF ENGINEER OF DESIGN

Federal Aid Interstate	County Highway Route No.	Sheet No.	Total Sheets	Drawing No.
57	068-1919.2	3	53	SR-1

MODEL: SN 016-2037 1 [Sheet]
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

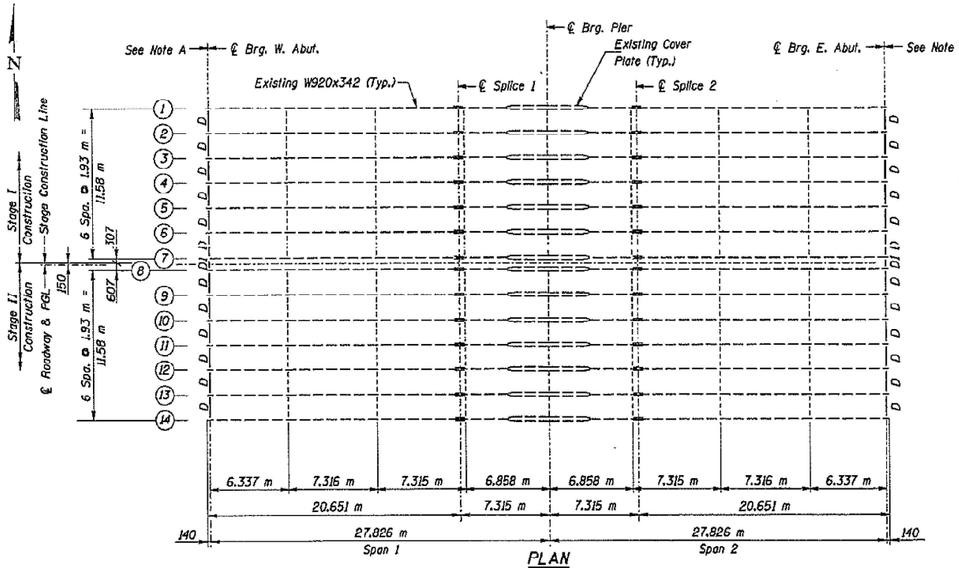
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
EXISTING STRUCTURE DETAILS

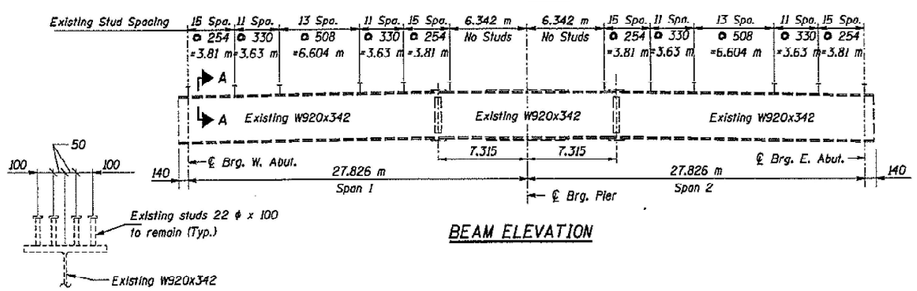
SCALE: | SHEET A001 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	73
		CONTRACT NO. 62X40		
		ILLINOIS | FED. AID PROJECT		

FOR INFORMATION ONLY

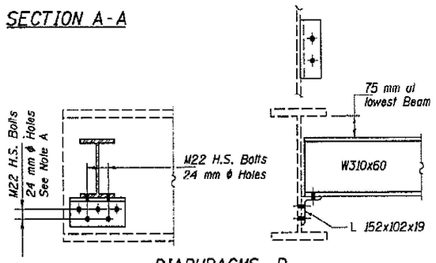


PLAN



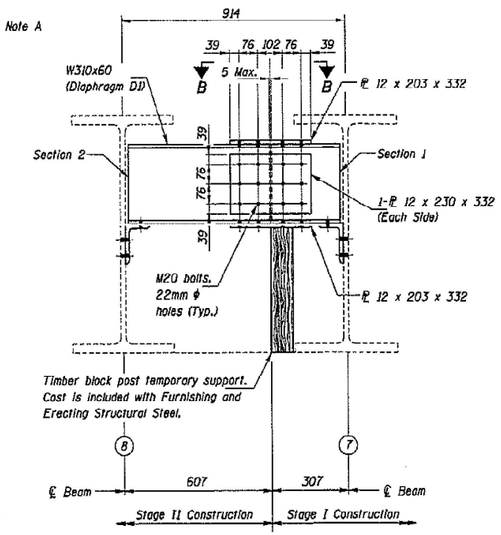
BEAM ELEVATION

SECTION A-A

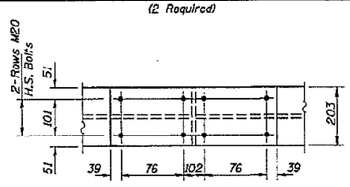


DIAPHRAGMS D
(24 Required)

Note A:
Remove existing 22 mm ϕ rivets or bolts and replace with M22 H.S. Bolts with 24 mm ϕ holes. Place bolts finger tight until after placement of Stage II Concrete, then tighten according to Specifications. Cost of existing diaphragm removal, including connection hardware to existing beams, is included with Structural Steel Removal. Cost of fabricating new connection angles to match existing bolt holes in beam webs is included with Furnishing and Erecting Structural Steel.



DIAPHRAGM DI AT STAGE CONSTRUCTION LINE
(2 Required)



VIEW B-B

DIAPHRAGM DI CONSTRUCTION SEQUENCE

1. Order Diaphragm DI in two sections as shown.
2. Attach Section 1 to Beam 7 along with top flange splice plate.
3. Place timber block posts between Section 1 of diaphragm and abutment bearing seat.
4. Attach Section 2 of diaphragm to Section 1 and Beam 8 during Stage II Construction.
5. Attach web splice plates to Sections 1 and 2 of diaphragms.
6. Remove timber block posts.
7. Attach bottom flange splice plate to Sections 1 and 2.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1584	*	COOK	119	85
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 512
S23 SHEETS

* 068-1919.2-CF CONTRACT 60371

INTERIOR BEAM MOMENT TABLE			
		0.4 Sp. 1 & 2	Pier 1
Is	(10^6 mm⁴)	6250	9948
Ic (n)	(10^6 mm⁴)	17440	——
Ic (3n)	(10^6 mm⁴)	11950	——
Ss	(10^3 mm³)	13710	20800
Sc (n)	(10^3 mm³)	21290	——
Sc (3n)	(10^3 mm³)	18590	——
Z	(10^3 mm³)	——	23170
D	(kN/m)	14.4	18.8
MD	(kN·m)	730	1907
sw	(kN/m)	4.34	——
MsD	(kN·m)	251	——
ML	(kN·m)	903	625
M (Imp)	(kN·m)	209	144
$5/3[ML+M(Imp)]$	(kN·m)	1854	1282
Ma	(kN·m)	3584	4145
Mu	(kN·m)	5988	5767
fsD non-comp	(MPa)	53.2	91.7
fsD (comp)	(MPa)	13.5	——
$fs=5/3(L+Imp)$	(MPa)	87.1	61.6
fs (Overload)	(MPa)	154	153
fs (Total)	(MPa)	——	——
VR	(kN)	240	——

** Compact, braced Section

INTERIOR BEAM REACTION TABLE			
		Abut.	Pier
RD	(kN)	193	659
RL	(kN)	181	247
Imp.	(kN)	42	57
R (Total)	(kN)	416	963

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3[MD + MsD + 5/3(ML + Mimp)].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to MD + MsD + 5/3(ML + Mimp).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[MD + MsD + 5/3(ML + Mimp)].

Notes:
Two hardened washers shall be required over all oversize holes for diaphragms.
All dimensions are in millimeters (mm) except as noted.

EXISTING TOP OF BEAM ELEVATIONS														
LOCATION	BEAM													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
℄ Brg. W. Abut.	188.201	188.213	188.230	188.252	188.266	188.298	188.305	188.306	188.277	188.262	188.244	188.231	188.200	188.195
℄ Splice 1	188.450	188.439	188.459	188.477	188.514	188.526	188.671	188.662	188.543	188.517	188.498	188.474	188.430	188.432
℄ Pier 1	188.441	188.439	188.459	188.477	188.495	188.516	188.527	188.527	188.523	188.497	188.468	188.455	188.430	188.432
℄ Splice 2	188.431	188.439	188.459	188.477	188.476	188.507	188.383	188.393	188.504	188.478	188.440	188.436	188.430	188.432
℄ Brg. E. Abut.	187.953	187.950	187.971	187.984	188.020	188.043	188.077	188.066	188.035	188.021	188.003	187.984	187.962	187.951

COLLINS ENGINEERS
123 North Wacker Drive Suite 300 Chicago, IL 60606 (312) 704-2500 www.collinsengr.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-001593

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
115 TH. STREET OVER FAI 57
FAU RTE. 1584 SEC. 068-1919.2-CF
COOK COUNTY
STATION 2+382.915
STRUCTURE NO. 016-2037

FRAMING PLAN

DRAWN BY KAC
CHECKED BY JMH/DGS DATE: JANUARY 16, 2009

25040007

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	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

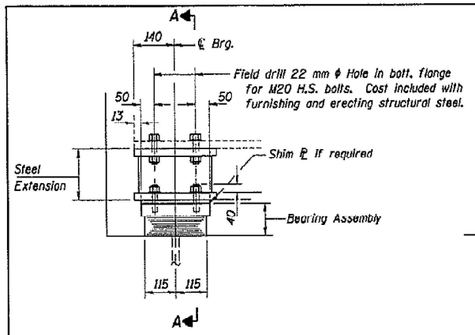
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
EXISTING STRUCTURE DETAILS

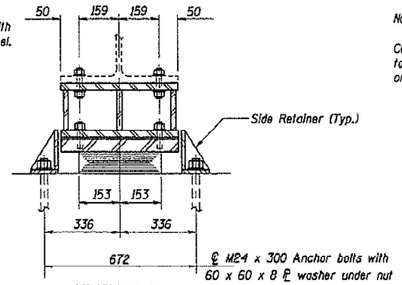
SCALE: | SHEET A002 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	74
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY

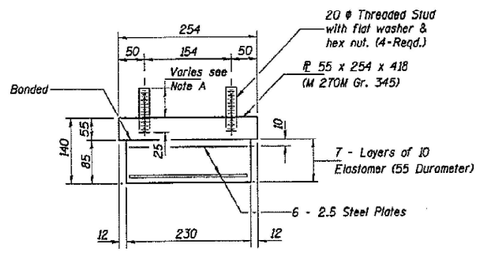


ELEVATION AT ABUT.



SECTION A-A

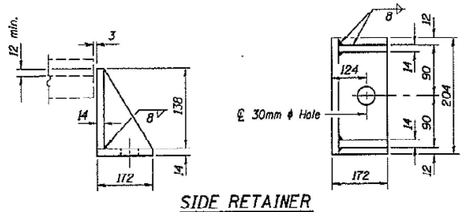
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Notes:
Shim plates shall be the same length and width of the new elastomeric bearing top plate.
Shim plates shall not be placed under Bearing Assembly.

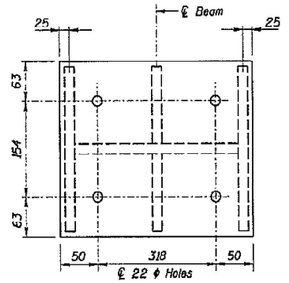
Note A:
Height of stud = 72 minimum plus shim plate thickness



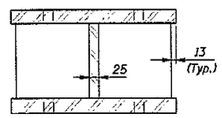
SIDE RETAINER

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

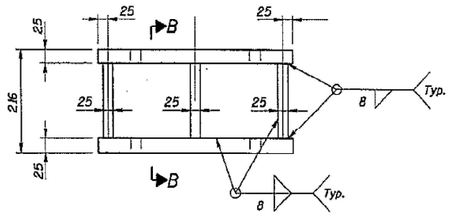
Notes:
Existing top bearing plate welded to existing beam at abutments must be removed. Contractor must exercise caution as not to damage bottom flange. Existing top plate to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange.
See Sheet S20 of S23 for Anchor Bolt installation.
All dimensions are in millimeters (mm) except as noted.



PLAN STEEL EXTENSION



SECTION B-B

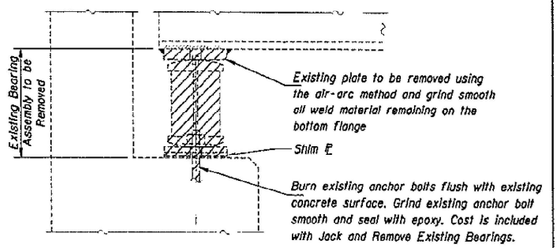


ELEVATION STEEL EXTENSION

Note:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

NAME NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1584	*	COOK	119	86
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT*	

SHEET NO. S13
S23 SHEETS
* 068-1919.2-CF
CONTRACT 60371



EXISTING ABUTMENT BEARING REMOVAL DETAIL
Contractor must exercise caution as not to damage bottom flange.

PROCEDURE FOR JACKING EXISTING SUPERSTRUCTURE:

1. The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
2. Jack and remove bearings shall be done after removal of existing deck is complete.
3. The maximum differential lift between beams at any one substructure unit shall be limited to 7 mm ($\frac{1}{4}$"). If simultaneous jacking of all beams at a substructure unit is utilized, then the maximum total lift shall be limited to 19 mm ($\frac{3}{4}$").
4. The maximum reaction per bearing is 48.6 kN at the abutments. Minimum jack capacity at the abutments is 97.2 kN.
5. The new bearings shall be in place and the jacks lowered before the new concrete deck is poured.

TABLE OF SHIM PLATES

LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7	BEAM 8	BEAM 9	BEAM 10	BEAM 11	BEAM 12	BEAM 13	BEAM 14
East Abutment	11	8	10	4	21	24	39	28	16	22	23	23	20	9
West Abutment	10	22	20	23	18	30	18	19	9	14	15	21	9	4

The shim plate thicknesses have been determined from elevations on As-Built drawings and are subject to nominal construction variations. It is the Contractor's responsibility to verify the shim plate thicknesses required for each bearing location and make the necessary approved adjustments prior to ordering materials. Any variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity of shim plates furnished at the unit bid price for Furnishing and Erecting Structural Steel.

COLLINS ENGINEERS
123 North Wacker Drive Suite 200 Chicago, IL 60606 (312) 704-9500 www.collinsengr.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-002393

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
115 TH. STREET OVER FAI 57
FAU RTE. 1584 SEC. 068-1919.2-CF
COOK COUNTY
STATION 2+382.915
STRUCTURE NO. 016-2037

BEARING DETAILS

DRAWN BY KAC
CHECKED BY WDK/DGS DATE: JANUARY 16, 2009

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PLOT DATE = 2/5/2025	DATE -	REVISED -

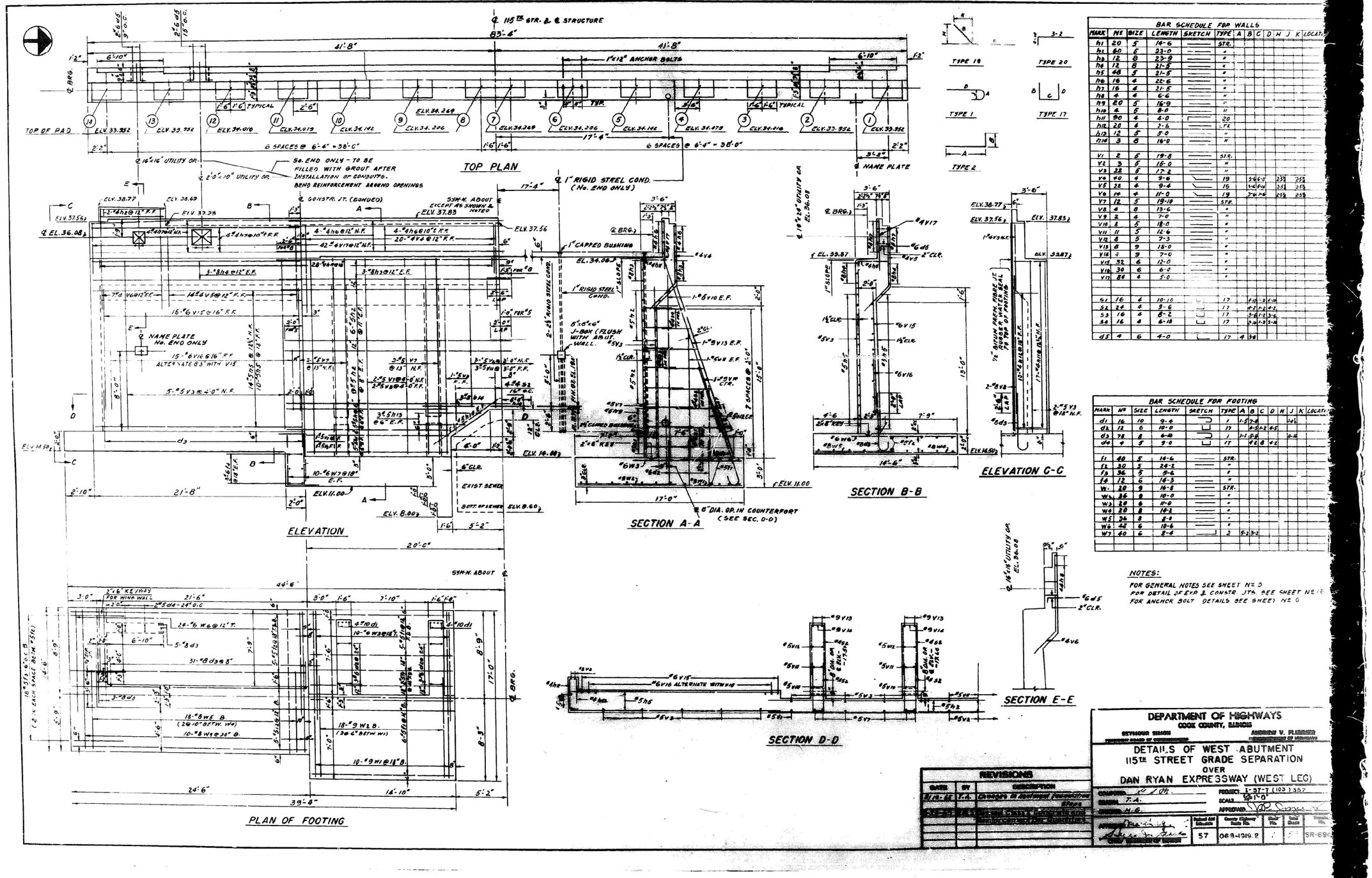
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A003 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	75
		CONTRACT NO. 62X40		
		ILLINOIS	FED. AID PROJECT	

FOR INFORMATION ONLY



BAR SCHEDULE FOR WALLS

MARK	NE	SIZE	LENGTH	SKETCH	TYPE	A	B	C	D	W	J	K	LOCATI.
h1	20	5	16-6		STR.								
h2	60	6	23-0		"								
h3	12	8	23-9		"								
h4	12	8	21-5		"								
h5	48	5	21-5		"								
h6	16	4	22-6		"								
h7	16	4	21-5		"								
h8	4	4	6-6		"								
h9	20	5	16-9		"								
h10	4	5	8-0		"								
h11	90	4	4-0		20								
h12	20	4	2-6		LTR.								
h13	12	5	2-0		"								
h14	3	8	18-0		"								
V1	2	5	19-8		STR.								
V2	3	5	16-0		"								
V3	22	5	17-2		"								
V4	90	4	9-6		19	3-6	6-4			2'-3"	2'-3"		
V5	8	4	9-4		19	3-4	6-4			2'-3"	2'-3"		
V6	14	4	11-0		19	3-6	7-6			2'-3"	2'-3"		
V7	12	5	19-10		STR.								
V8	4	8	13-6		"								
V9	2	4	7-0		"								
V10	8	5	18-0		"								
V11	11	5	12-6		"								
V12	8	5	7-3		"								
V13	8	9	18-0		"								
V14	4	9	7-0		"								
V15	32	6	12-0		"								
V16	30	6	6-0		"								
V17	84	4	5-0		"								
S1	16	6	10-10		17	1'-10"							
S2	24	4	9-6		17	4'-1"	4'-2"						
S3	16	4	8-2		17	3'-6"	4'-2"						
S4	16	4	6-10		17	2'-9"	3'-8"						
d5	4	6	4-0		17	4	3'8						

BAR SCHEDULE FOR FOOTING

MARK	NE	SIZE	LENGTH	SKETCH	TYPE	A	B	C	D	H	J	K	LOCATI.
d1	16	10	9-6		1	1'-8"	7'-8"						W1
d2	12	5	10-0		17	2'-8"	3'-2"	6'-5"					
d3	78	8	6-10		1	1'-8"	5'-0"						W-E
d4	4	5	9-0		17	4'-6"	4'-6"						
f1	40	5	14-6		STR.								
f2	30	5	26-2		"								
f3	36	5	5-6		"								
f4	12	6	14-3		"								
W1	20	9	16-8		STR.								
W2	26	8	10-0		"								
W3	20	6	11-0		"								
W4	20	8	16-2		"								
W5	26	8	8-8		"								
W6	44	6	18-6		"								
W7	40	6	8-4		2	5'-3"	3'-2"						

NOTES:

FOR GENERAL NOTES SEE SHEET No. 2
FOR DETAIL OF EXP. & CONSTR. JTS. SEE SHEET No. 16
FOR ANCHOR BOLT DETAILS SEE SHEET No. 6

REVISIONS

DATE	BY	DESCRIPTION
8/16/24	F.A.	Changes in Abutment Foundation Piles

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, DIRECTOR OF HIGHWAYS — ANDREW V. PLUMMER, ASSISTANT DIRECTOR OF HIGHWAYS

DETAILS OF WEST ABUTMENT
115TH STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY (WEST LEG)

DESIGNED F.A. — DRAWN H.G. — CHECKED — PROJECT I-57-7 (103) 352 — SCALE 1"=1'-0" — APPROVED

Federal Aid Route No.	County Highway Route No.	Sheet No.	Total Sheets	Sheet No.
57	068-1319.2		57	SR-69

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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

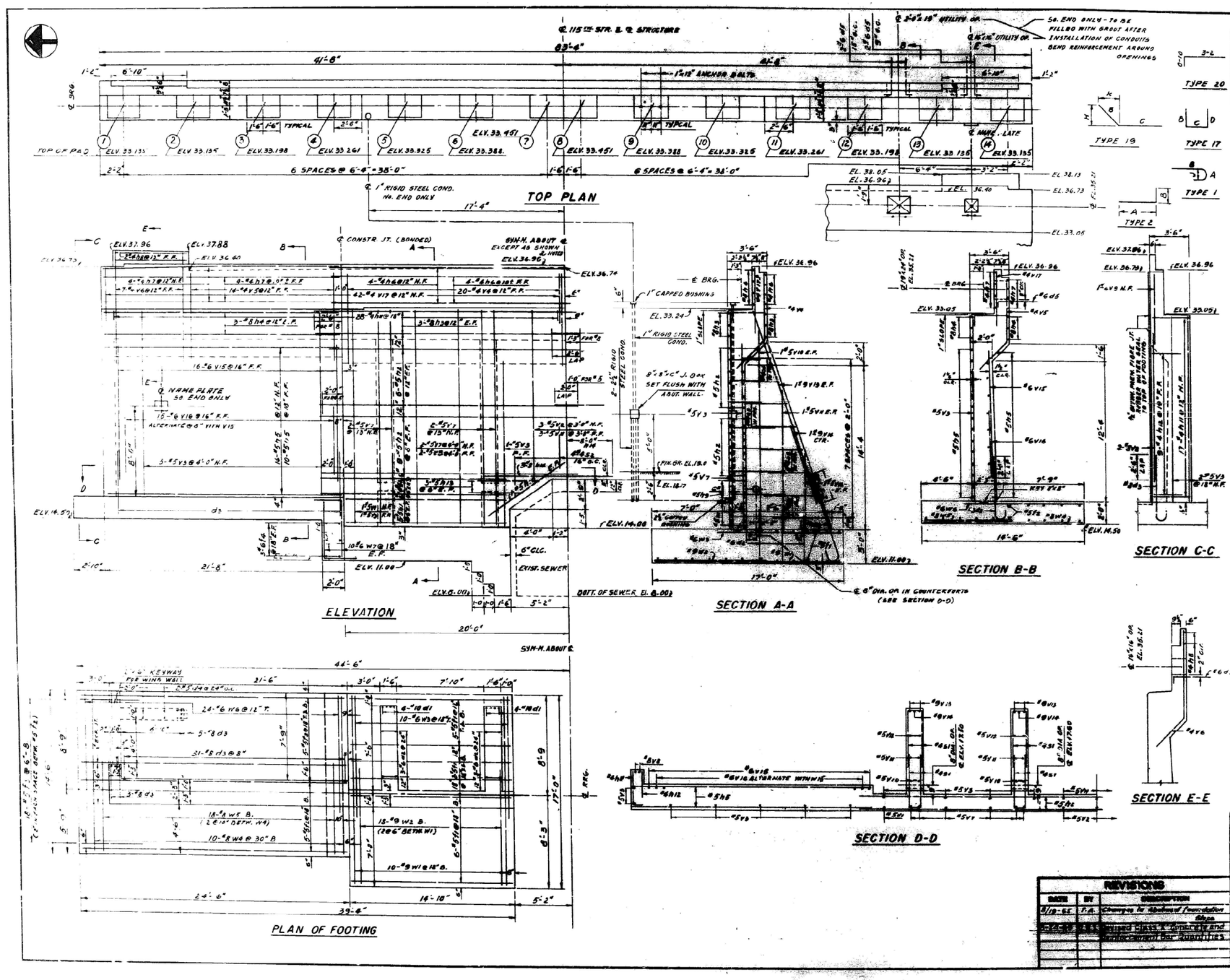
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A004 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	76
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



BAR SCHEDULE FOR WALLS

MARK	NO	SIZE	LENGTH	SKETCH	TYPE	A	B	C	D	J	K	LOCATION
h1	20	5	14-6		STR.							
h2	60	5	33-0		"							
h3	18	8	23-8		"							
h4	12	6	21-5		"							
h5	68	5	21-5		"							
h6	10	4	22-6		"							
h7	16	6	21-5		"							
h8	4	4	6-6		"							
h9	10	5	16-9		"							
h10	6	5	8-3		"							
h11	80	4	1-0		20							
h12	18	4	2-6		STR.							
h13	12	5	5-0		"							
h14	3	6	16-0		"							
V1	2	5	18-10		STR.							
V2	3	5	16-9		"							
V3	22	5	16-4		"							
V4	40	4	9-4		19							
V5	28	4	9-2		19	3-6	5-6	1-8		2-2	2-2	
V6	14	4	10-9		19	3-6	7-3			2-2	2-2	
V7	12	5	19-0		STR.							
V8	4	5	18-10		"							
V9	2	4	7-0		"							
V10	8	5	17-6		"							
V11	11	5	11-10		"							
V12	8	5	6-7		"							
V13	8	9	17-6		"							
V14	4	9	7-0		"							
V15	32	5	11-6		"							
V16	30	6	6-0		"							
V17	84	4	5-0		"							
S1	16	4	10-10		17	4-6	1-2	6-6				
S2	24	4	9-6		17	9-6	1-2	9-2				
S3	16	4	8-2		17	3-8	1-2	3-6				
S4	14	4	6-10		17	2-8	1-2	2-10				
d5	4	6	4-8		17	4	5-8					

BAR SCHEDULE FOR FOOTING

MARK	NO	SIZE	LENGTH	SKETCH	TYPE	A	B	C	D	J	K	LOCATION
d1	16	10	9-4		1	1-5	7-8					
d2	12	8	10-8		17	2-5	1-2	6-5				
d3	78	8	6-14		1	1-4	5-8					
d4	2	5	5-0		17	2-6	2-5					
f1	68	5	14-6		STR.							
f2	30	5	26-2		"							
f3	36	5	5-6		"							
f4	12	6	16-3		"							
W1	20	9	16-8		STR.							
W2	36	9	18-0		"							
W3	20	6	17-9		"							
W4	20	4	14-2		"							
W5	36	8	8-8		"							
W6	68	6	18-6		"							
W7	40	6	8-4		2	5-6	3-2					

NOTES:
FOR GENERAL NOTES SEE SHEET NO. [illegible]
FOR DETAIL OF EXP. JT. CONSTR. JT. SEE SHEET NO. [illegible]
FOR ANCHOR BOLT DETAILS SEE SHEET NO. [illegible]

REVISIONS		
DATE	BY	DESCRIPTION
6/19-65	F.A.	Changes to thickness of foundation slopes
[illegible]	[illegible]	Revised notes & dimensions of end reinforcement bar [illegible]

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS
ANDREW Y. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DETAILS OF EAST ABUTMENT
115TH STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY (WEST LEG)

COMPUTED [illegible] PROJECT [illegible]
DRAWN F.A. SCALE 1/4"=1'-0"
CHECKED H.C. APPROVED [illegible]

APPROVED May 29 19 65
Chief Engineer of Design

Federal Aid Number	County Highway Name, Title	Sheet Number	Total Sheets
57	068-1919	[illegible]	8

MODEL: SN 016-2037 3 [Sheet]
FILE NAME: c:\pw_work\pw\dot\diazia\d1045696\D102625-sht-exhibits.dgn

USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

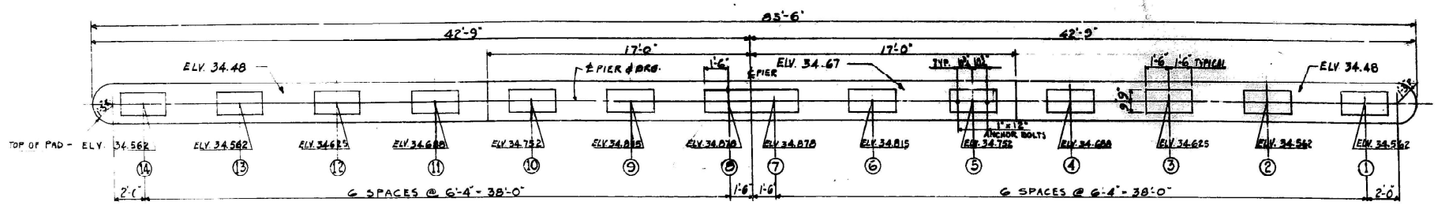
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 6: SN 016-2037 I-57 AT 115TH STREET
EXISTING STRUCTURE DETAILS

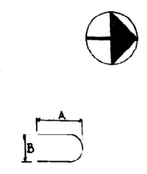
SCALE: | SHEET A005 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	77
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



TOP PLAN

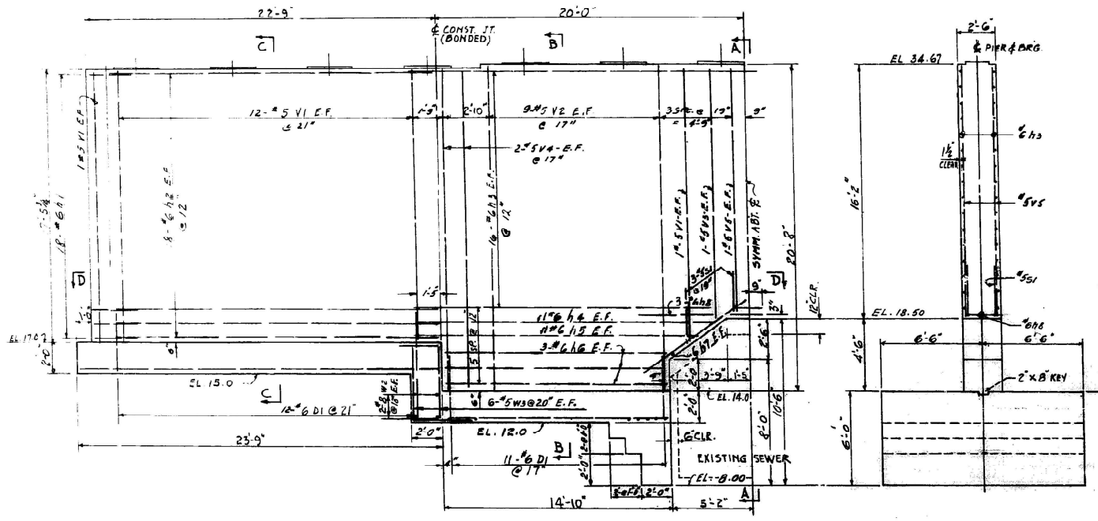


TYPE S11

TYPE S10

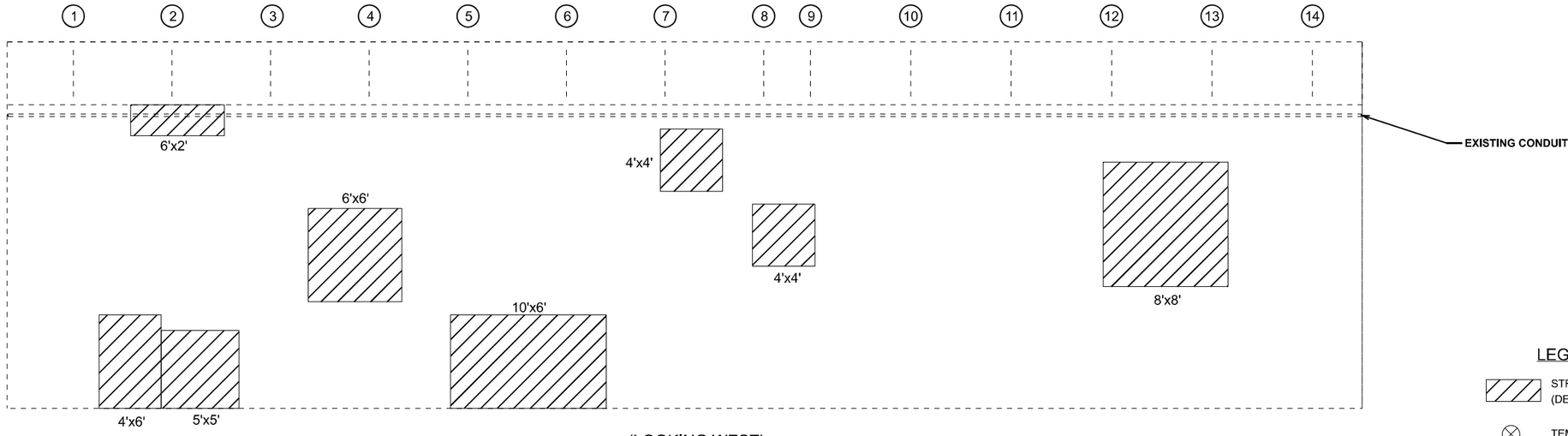
BAR SCHEDULE										
MARK	NO	SIZE	LENGTH	SKETCH	TYPE	A	D	C	D	LOCATION
h1	36	#6	7'-3"		S11	3'-0	6-3			PIER
h2	72	"	21'-3"		STR					"
h3	64	"	22'-6"		"					"
h4	4	"	19'-9"		"					"
h5	4	"	18'-6"		"					"
h6	12	"	14'-6"		"					"
h7	6	"	8'-0"		"					"
h8	3	6	16'-0"		"					"
V1	52	#5	17'-4"		STR					PIER
V2	36	"	20'-6"		"					"
V3	4	"	16'-4"		"					"
V4	8	"	20'-4"		"					"
V5	4	"	15'-9"		"					"
D1	46	#6	10'-0"		S10	3'-11	2-1	3-11		FOOTING
W1	64	#9	12-9		STR					"
W2	56	#8	8'-9		"					"
W3	24	#5	8'-5		2	4-9	3-8			"
f1	20	#5	12-6		STR					"
f2	12	#5	23'-6"		"					"
S1	6	5	8'-9"		S10	3'-4	2-1	3-4		WALL

BILL OF MATERIAL
CLASS "X" CONCRETE - - - - 222.5 CU YDS.
REINFORCEMENT STEEL - - - 18,100 LBS.



GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING WEST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	253
TEMPORARY SHORING AND CRIBBING	EACH	0

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

INTERIOR BEAM REACTION TABLE			
		Abut.	Pier
RP	(kN)	165	563
RL	(kN)	183	234
Imp.	(kN)	45	57
R (Total)	(kN)	393	854

TOTAL BILL OF MATERIALS (SN 016-0904)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	737
TEMPORARY SHORING AND CRIBBING	EACH	4

MODEL: SN 016-0904 1
FILE NAME: c:\pw_work\pwidot\diaziad1045699\D1026225-sht-details.dgn

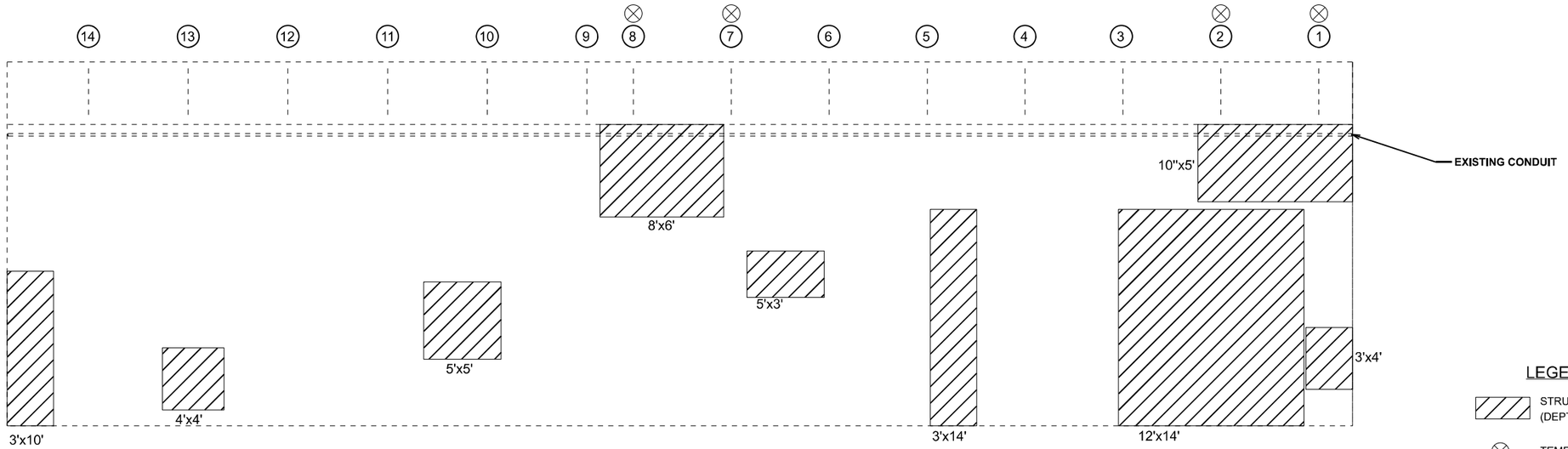
USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
WEST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	79
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING EAST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	406
TEMPORARY SHORING AND CRIBBING	EACH	4

MODEL: SN 016-0904 2
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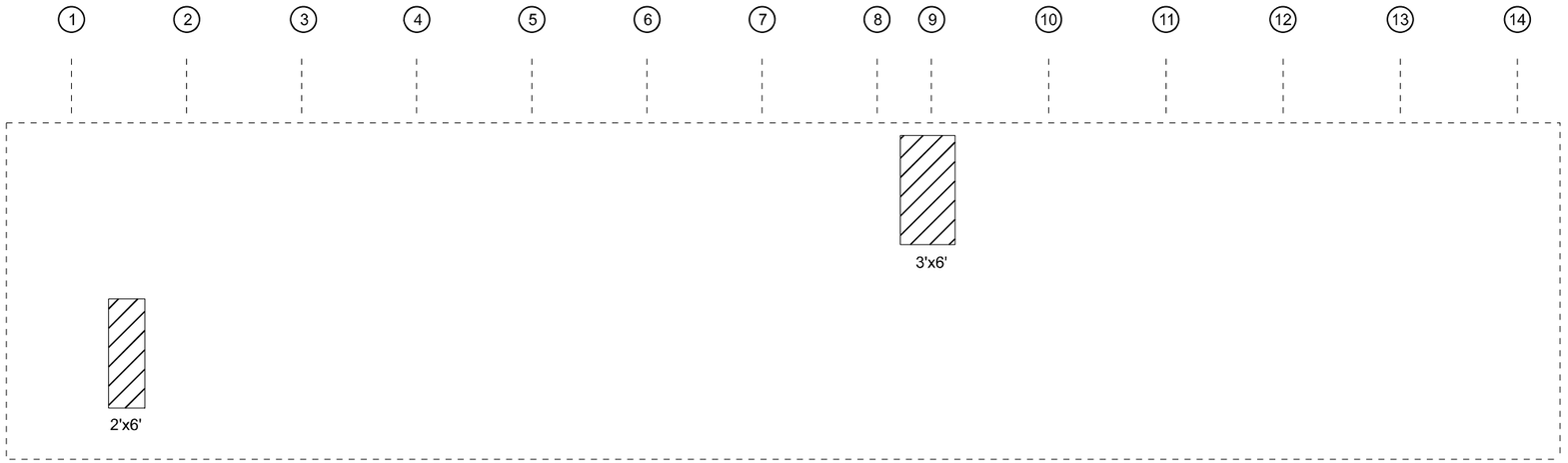
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
EAST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	80
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING WEST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	30
TEMPORARY SHORING AND CRIBBING	EACH	0

MODEL: SN 016-0904 3
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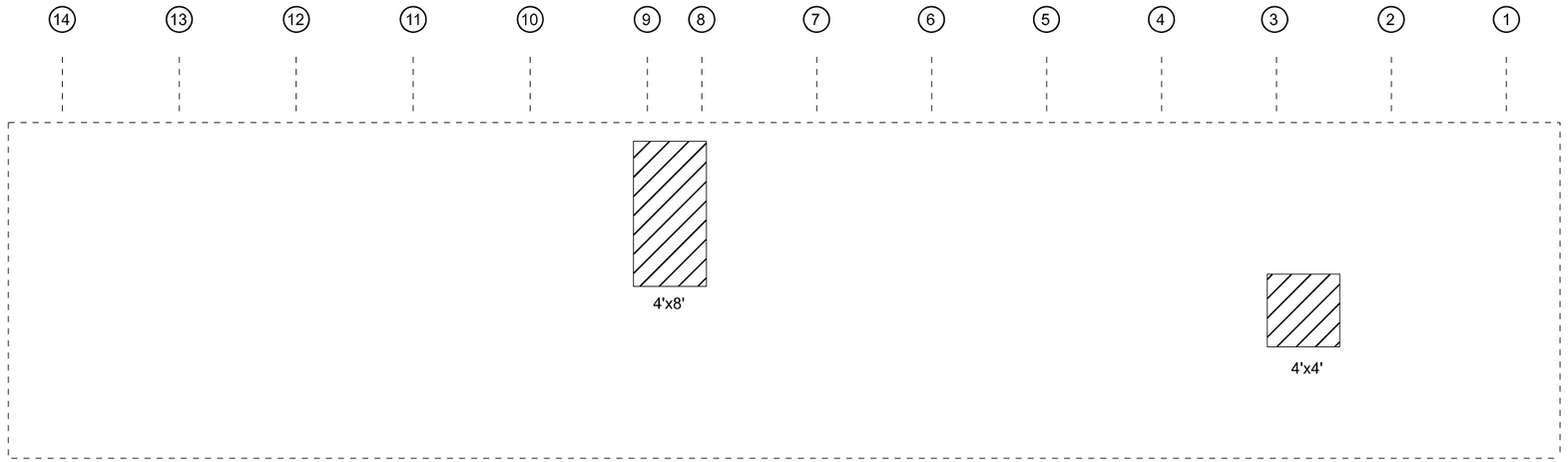
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
PIER EAST FACE PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	81
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING EAST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	48
TEMPORARY SHORING AND CRIBBING	EACH	0

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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

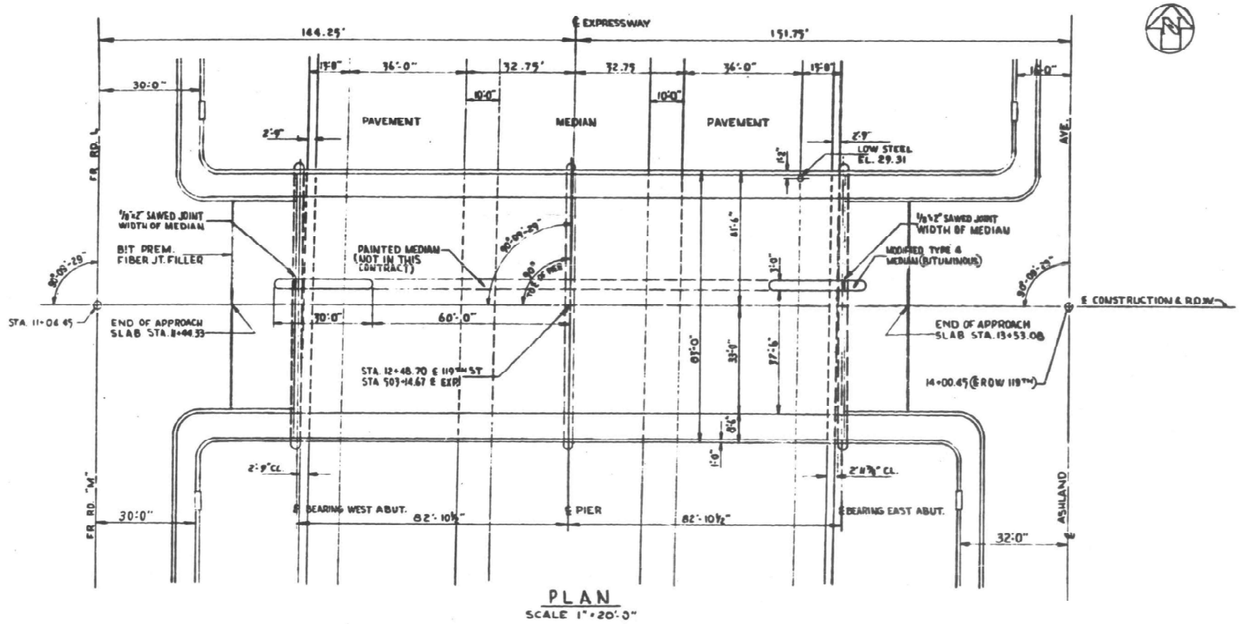
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
PIER WEST FACE PROPOSED REPAIRS

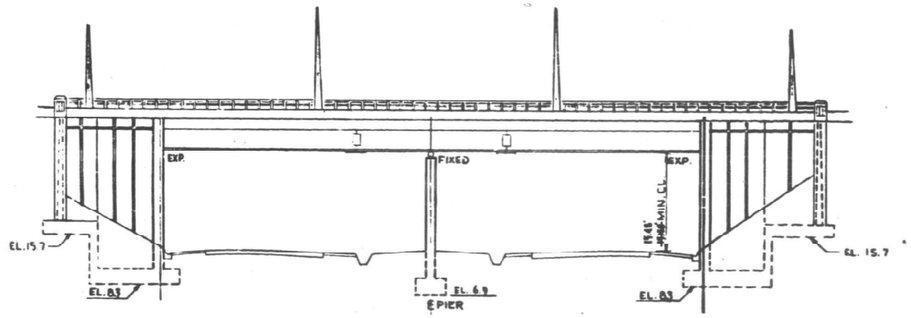
SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	82
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



PLAN
SCALE 1"=20'-0"



ELEVATION
SCALE HORIZ. 1"=20'
VERT. 1"=10'

DESIGN DATA

DESIGN LOADS	
LIVE LOAD AASHO H S 20-44	
EARTH PRESSURE	40# FLUID
DESIGN STRESSES	
STRUCTURAL STEEL	20,000#/in²
REINFORCEMENT BARS	20,000#/in²
CONCRETE WITHOUT EARTH PRESSURE	1,400#/in²
CONCRETE WITH EARTH PRESSURE	1000#/in²
MAXIMUM FOOTING PRESSURE	5000#/sq.ft.
TRAFFIC CLASSIFICATION	810 T
DESIGN SPEED	30 MPH
HANDRAIL	AASHO INTERIM SPEC.

GENERAL NOTES

CLASS X CONCRETE SHALL BE USED THROUGHOUT FOR CAST-IN-PLACE CONCRETE INCLUDING HANDRAIL PARAPET IN CONFORMANCE WITH ART. 52.7 OF STANDARD SPECIFICATIONS. ALL EXPOSED EDGES SHALL HAVE ¾" CHAMFER EXCEPT AS NOTED ON PLANS.

THE CONCRETE DECK SLAB SHALL BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN EXPANSION JOINTS SHOWN ON PLANS & ADDITIONAL JOINTS AS APPROVED BY THE ENGINEER & AS SPECIFIED IN THE SPECIAL PROVISIONS. FINISHING OF THE DECK SLAB SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING CONCRETE DECK SLAB.

EXPOSED CONCRETE SURFACES SHALL HAVE A RUBBED FINISH IN ACCORDANCE WITH ART. 52.13 OF THE STANDARD SPECIFICATIONS.

AFTER THE CONCRETE IS CURED & FINISHED & THE SURFACES ARE CLEAN & DRY, THE EXPOSED SURFACES OF THE DECK SLABS, APPROACH SLABS, CURBS, SIDEWALKS & PARAPET WALLS SHALL BE GIVEN A PROTECTIVE COAT (SEE SUPPLEMENTAL SPECIFICATIONS)

THE PART OF THE ABUTMENTS & RETAINING WALLS THAT ARE IN CONTACT WITH EARTH OR EMBANKMENT MATERIAL, SHALL BE COVERED WITH WATERPROOFING IN ACCORDANCE WITH ART. 51.21 OF STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL ADEQUATELY, SUPPORT, BRACE, & PROTECT BITUMINOUS PREMOULDED FIBRE JOINT FILLER DURING CONSTRUCTION SO THAT IT DOES NOT BECOME TORN & DISTORTED. THE CONTRACTORS METHOD OF SUPPORTING, BRACING & PROTECTING THE BITUMINOUS PREMOULDED FIBRE JOINT FILLER SHALL BE APPROVED BY THE ENGINEER.

THE RUBBER WATER SEAL SHALL BE SPLICED AS RECOMMENDED BY THE MANUFACTURER.

ALL REINFORCEMENT BARS SHALL CONFORM TO A.S.T.M. A305-53T AS AMENDED TO DATE & SHALL COMPLY WITH A.S.T.M A15 SPECIFICATIONS. MINIMUM LAP FOR ALL REINFORCEMENT BARS SHALL BE 20 BAR DIAMETERS UNLESS NOTED.

THE COST OF THE RUBBED FINISH, THE WATERPROOFING, COPPER WATER SEAL, RUBBER WATER SEAL, BITUMINOUS PREMOULDED FIBRE JOINT FILLER, THE SEALING COMPOUND, GROUND MICA & COPPER NAILS SHALL BE INCLUDED IN THE BID PRICE FOR CLASS X CONCRETE.

BILL OF MATERIAL

MODIFIED TYPE 4 MEDIAN (BITUMINOUS)	60 LIN FT

REVISIONS		
DATE	BY	DESCRIPTION
11-2-05	C.R.	ADDED JOINT TO MEDIAN

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS — ANDREW V. PLUNKER, DEPARTMENT OF HIGHWAYS

GENERAL PLAN
119TH ST GRADE SEPARATION OVER DAN RYAN EXPRESSWAY-WEST LEG

COMPUTED: [illegible] — PROJECT: I-57-7 (104) 356
DRAWN: C.R. — SCALE: AS SHOWN
CHECKED: C.R. — APPROVED: [illegible]

APPROVED: [illegible] CHIEF ENGINEER OF DIVISION

Federal Aid Number	County Highway Route No.	Sheet No.	Total Sheets	Sheet No.
57	068-1819.11	3	82	725

USER NAME = ivan.diaz	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
EXISTING STRUCTURE DETAILS

SCALE: — SHEET A001 OF 5 SHEETS — STA. — TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	83
		CONTRACT NO. 62X40		
	ILLINOIS | FED. AID PROJECT			

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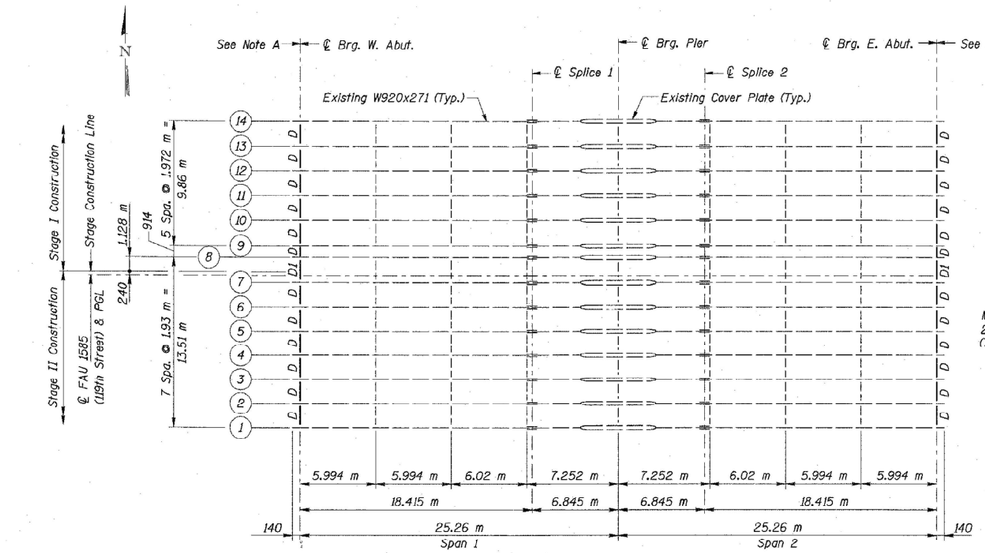
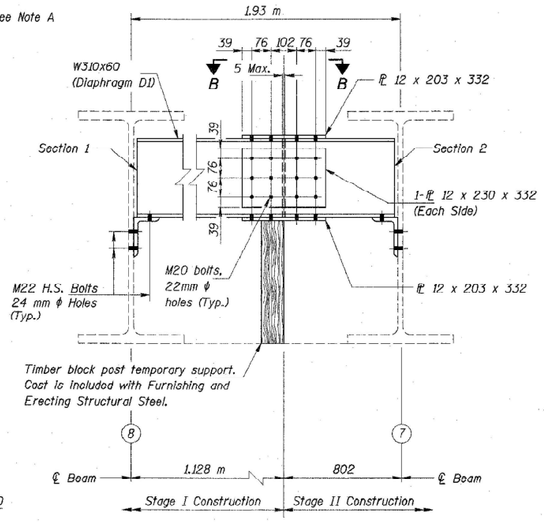
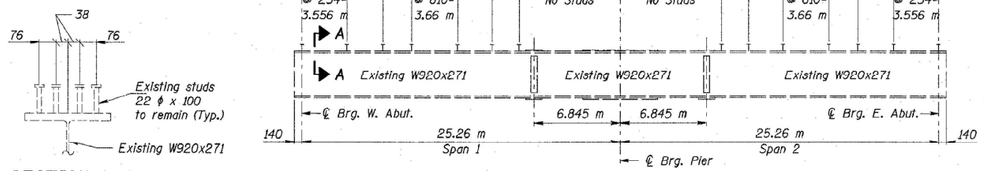


PLAN



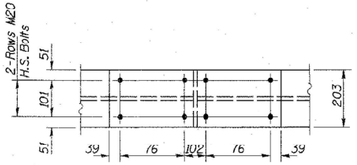
DIAPHRAGM D1 AT STAGE CONSTRUCTION LINE

(2 Required)



BEAM ELEVATION

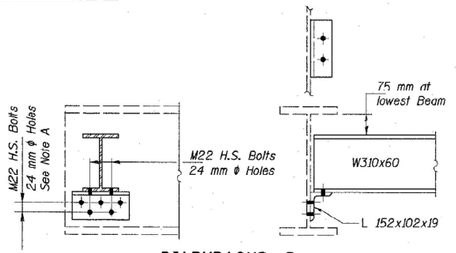
SECTION A-A



VIEW B-B

DIAPHRAGM D1 CONSTRUCTION SEQUENCE

1. Order Diaphragm D1 in two sections as shown.
2. Attach Section 1 to Beam 8 along with top flange splice plate.
3. Place timber block posts between Section 1 of diaphragm and abutment bearing seat.
4. Attach Section 2 of diaphragm to Section 1 and Beam 7 during Stage II Construction.
5. Attach web splice plates to Sections 1 and 2 of diaphragms.
6. Remove timber block posts.
7. Attach bottom flange splice plate to Sections 1 and 2.



DIAPHRAGMS D

(24 Required)

Note A:
Remove existing 22 mm ϕ rivets or bolts and replace with M22 H.S. Bolts with 24 mm ϕ holes. Cost of existing diaphragm removal, including connection hardware to existing beams, is included with Structural Steel Removal. Cost of fabricating new connection angles to match existing bolt holes in beam webs, is included with Furnishing and Erecting Structural Steel.

EXISTING TOP OF BEAM ELEVATIONS														
LOCATION	BEAM													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
℄ Brg. W. Abut.	186.431	186.431	186.447	186.467	186.489	186.506	186.527	186.497	186.498	186.527	186.510	186.487	186.477	186.467
℄ Splice 1	186.533	186.529	186.546	186.566	186.592	186.607	186.627	186.622	186.622	186.629	186.610	186.585	186.569	186.569
℄ Pier 1	186.532	186.528	186.546	186.565	186.590	186.607	186.626	186.621	186.621	186.628	186.610	186.585	186.568	186.568
℄ Splice 2	186.530	186.527	186.545	186.563	186.587	186.607	186.623	186.618	186.619	186.627	186.609	186.585	186.567	186.567
℄ Brg. E. Abut.	186.515	186.523	186.538	186.561	186.582	186.547	186.547	186.582	186.562	186.543	186.518	186.497	186.479	186.478

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RTE. 57	*	COOK	124	90
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:-		

SHEET NO. S13
S24 SHEETS

• 068-1819.1-CF CONTRACT 60372

INTERIOR BEAM MOMENT TABLE			
		0.4 Sp. 1 & 2	Pier 1
Is	(10^6 mm⁴)	4,720	7,496
Ic (n)	(10^6 mm⁴)	14,800	———
Ic (3n)	(10^6 mm⁴)	10,150	———
Ss	(10^3 mm³)	10,230	15,500
Sc (n)	(10^3 mm³)	17,070	———
Sc (3n)	(10^3 mm³)	14,870	———
Z	(10^3 mm³)	———	17,632
D	(kN/m)	13.37	17.69
M℄	(kN·m)	559	1,463
s℄	(kN/m)	4.32	———
Ms℄	(kN·m)	210	———
ML	(kN·m)	824	524
M (Imp)	(kN·m)	200	127
$\frac{5}{3}$(ML+M(Imp))	(kN·m)	1,707	1,085
Ma	(kN·m)	3,223	3,315
** Mu	(kN·m)	4,577	———
fs℄ non-comp	(MPa)	55	94
fs℄ (comp)	(MPa)	14.2	———
$fs\frac{5}{3}$(L+Imp)	(MPa)	100	70
fs (Overload)	(MPa)	169.2	164
*** fs (Total)	(MPa)		213
VR	(kN)	244	———

** Compact, braced Section
*** Non-Compact Section

INTERIOR BEAM REACTION TABLE			
		Abut.	Pier
H℄	(kN)	165	563
RL	(kN)	183	234
Imp.	(kN)	45	57
R (Total)	(kN)	393	854

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3(M℄ + Ms℄ + $\frac{5}{3}$(ML + Mimp)).

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M℄ + Ms℄ + $\frac{5}{3}$(ML + Mimp).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3(M℄ + Ms℄ + $\frac{5}{3}$(ML + Mimp)).

Notes: Two hardened washers shall be required over all oversize holes for diaphragms.
All dimensions are in millimeters (mm) except as noted.

COLLINS ENGINEERS, INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL. 60606
(312)704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
119 TH. STREET OVER FAI 57
FAU RTE. 1585 SEC. 068-1819.1-CF
COOK COUNTY
STATION 1+380.604
STRUCTURE NO. 016-0904

FRAMING PLAN

DRAWN BY KAC
CHECKED BY MDK/DGS DATE

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MODEL: 016-0904 4 [Sheet]
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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

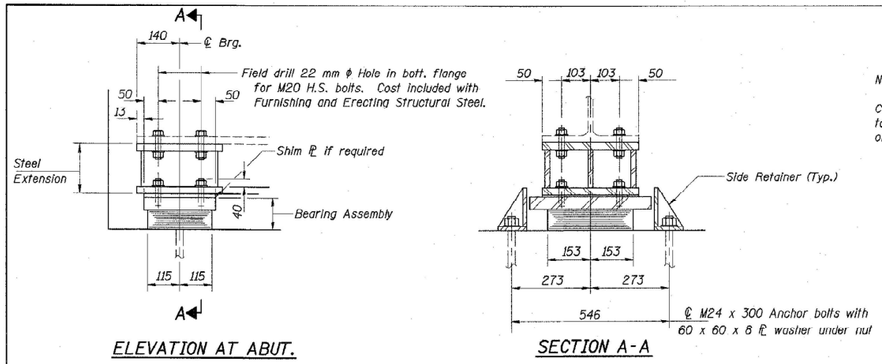
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A002 OF 5 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	84
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

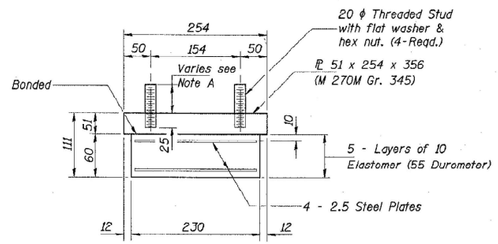
FOR INFORMATION ONLY



ELEVATION AT ABUT.

SECTION A-A

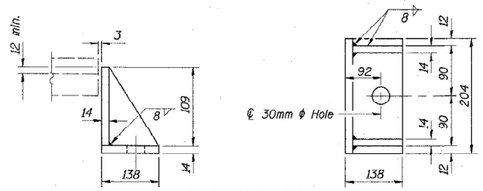
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Notes:
Shim plates shall be the same length and width of the new elastomeric bearing top plate.
Shim plates shall not be placed under Bearing Assembly.

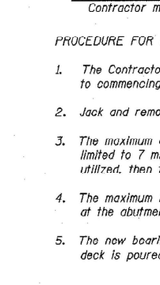
Note A:
Height of stud = 76 minimum plus shim plate thickness



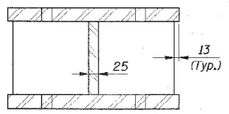
SIDE RETAINER

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

Notes:
Existing top bearing plate welded to existing beam at abutments must be removed. Contractor must exercise caution as not to damage bottom flange. Existing top plate to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange.
See Sheet S22 of S24 for Anchor Bolt installation.
All dimensions are in millimeters (mm) except as noted.



PLAN STEEL EXTENSION

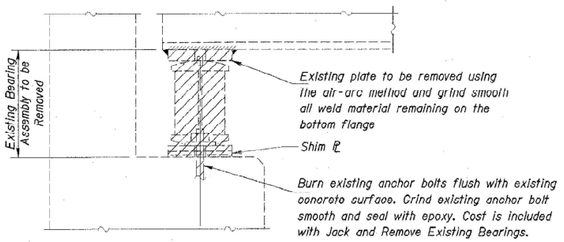


SECTION B-B

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RTE. 57	*	COOK	124	91
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S14
S24 SHEETS

* 068-1819.1-CF CONTRACT 60372

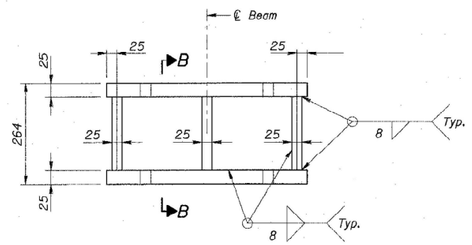


EXISTING ABUTMENT BEARING REMOVAL DETAIL

Contractor must exercise caution as not to damage bottom flange.

PROCEDURE FOR JACKING EXISTING SUPERSTRUCTURE:

1. The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
2. Jack and remove bearings shall be done after removal of existing deck is complete.
3. The maximum differential lift between beams at any one substructure unit shall be limited to 7 mm ($\frac{1}{4}$"). If simultaneous jacking of all beams at a substructure unit is utilized, then the maximum total lift shall be limited to 19 mm ($\frac{3}{4}$").
4. The maximum reaction per bearing is 48.6 kN at the abutments. Minimum jack capacity at the abutments is 97.2 kN.
5. The new bearings shall be in place and the jacks lowered before the new concrete deck is poured.



ELEVATION STEEL EXTENSION

Note:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

TABLE OF SHIM PLATES

LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7	BEAM 8	BEAM 9	BEAM 10	BEAM 11	BEAM 12	BEAM 13	BEAM 14
West Abutment	6	——	——	5	1	——	1	8	5	6	10	——	7	7
East Abutment	35	40	43	41	34	——	——	29	9	——	——	——	——	——

The shim plate thicknesses have been determined from As-Built conditions and are subject to nominal construction variations. It is the Contractor's responsibility to verify the shim plate thicknesses required for each bearing location and make the necessary approved adjustments prior to ordering materials. Any variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity of shim plates furnished at the unit bid price for Furnishing and Erecting Structural Steel.

COLLINS ENGINEERS, INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL. 60606
(312)704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184 000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
119 TH. STREET OVER FAI 57
FAU RTE. 1585 SEC. 068-1819.1-CF
COOK COUNTY
STATION 1+380.604
STRUCTURE NO. 016 0904

BEARING DETAILS

DRAWN BY KAC
CHECKED BY MDK/DGS DATE

29760012

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

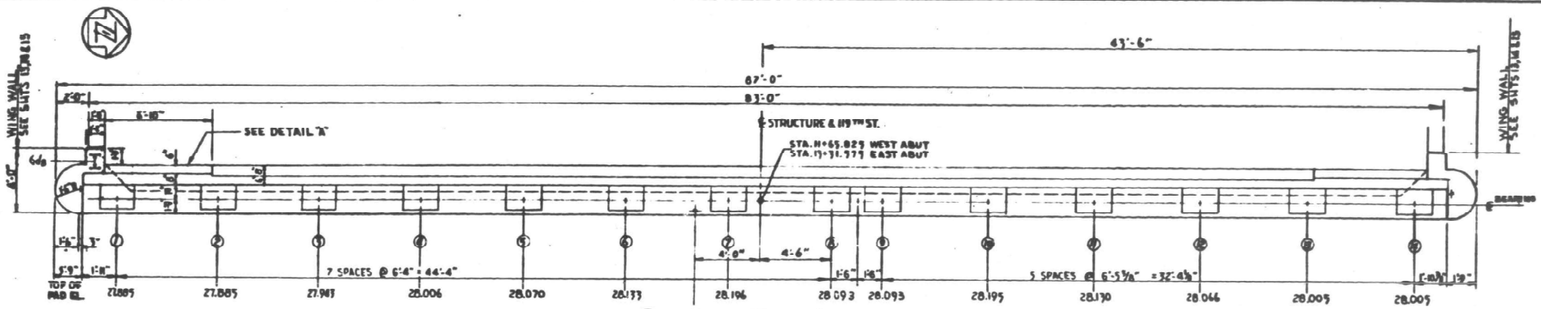
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
EXISTING STRUCTURE DETAILS

SCALE: SHEET A003 OF 5 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	85
		CONTRACT NO. 62X40		
		ILLINOIS FED. AID PROJECT		

FOR INFORMATION ONLY

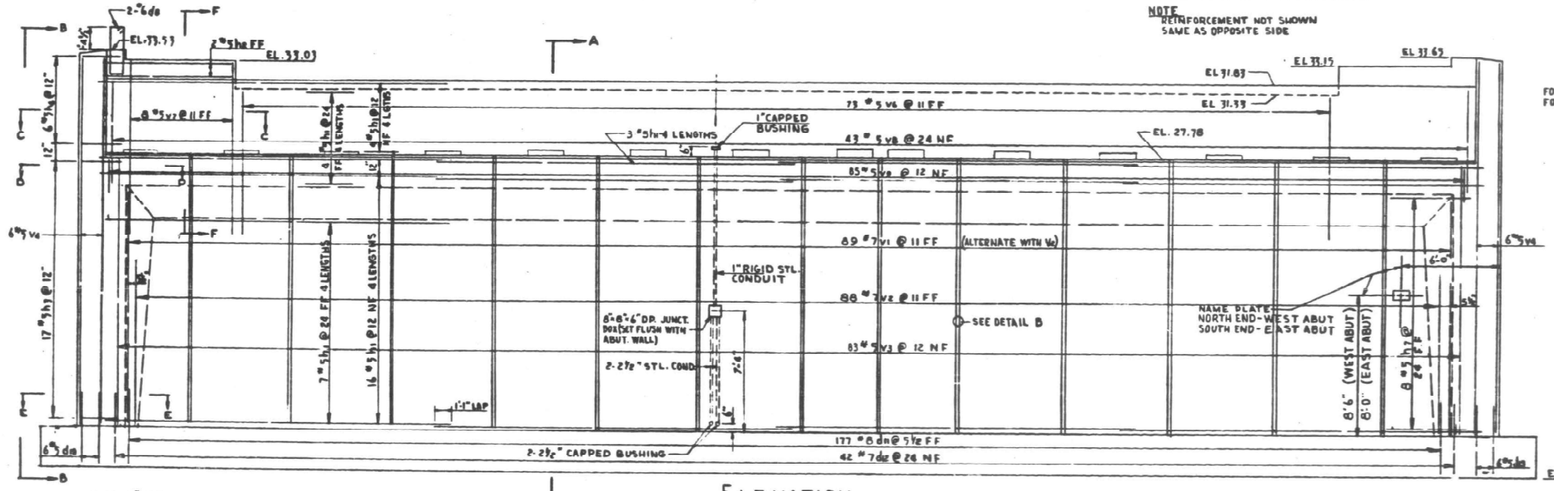


TOP PLAN-WEST ABUTMENT

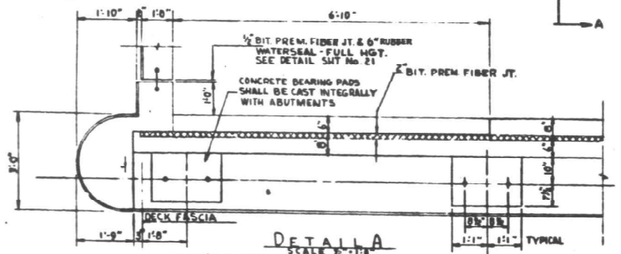
EAST ABUTMENT-OPPOSITE HAND (SAME EXCEPT AS NOTED)

NOTE
ALL BRIDGE SEATS SHALL BE CONSTRUCTED TO THE EXACT ELEVATION SHOWN. IF BUSH-HAMMERING OR GRINDING IS NECESSARY, IT SHALL BE DONE AT NO ADDITIONAL COST TO THE COUNTY.

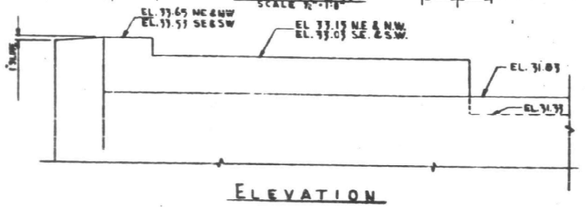
NOTE
REINFORCEMENT NOT SHOWN SAME AS OPPOSITE SIDE



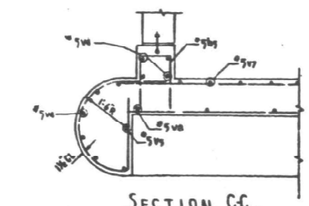
ELEVATION
SCALE 1/4"=1'-0"



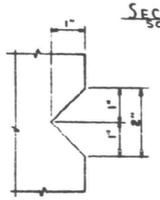
DETAIL A
SCALE 1"=1'-0"



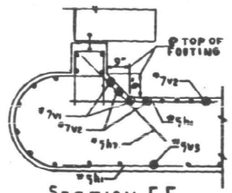
ELEVATION



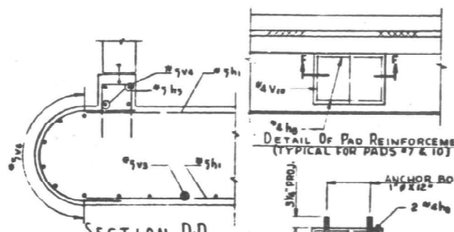
SECTION C-C
SCALE 1/2"=1'-0"



DETAIL B



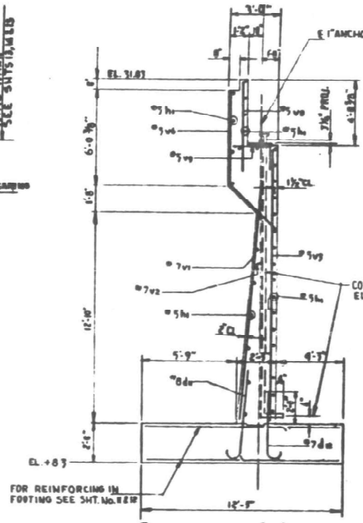
SECTION F-F
SCALE 1/2"=1'-0"



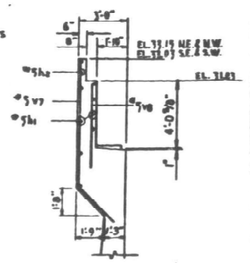
SECTION D-D
SCALE 1/2"=1'-0"

SECTION F-F
SCALE 1/2"=1'-0"

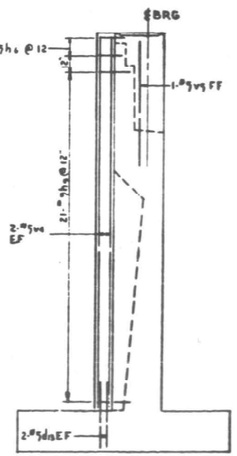
DETAIL OF PAD REINFORCEMENT (TYPICAL FOR PADS #7 & 10)



SECTION A-A
SCALE 1/8"=1'-0"



SECTION F-F



ELEVATION BB
SCALE 1/4"=1'-0"

NOTES
SEE SHEET No 11 & 12 FOR FOOTING DETAILS.
SEE SHEET No 11 FOR BILL OF MATERIALS & BAR SCHEDULE.
SEE SHEET Nos 13 & 14 FOR WING WALL DETAILS.
SEE SHEET No 21 FOR DETAILS OF EXPANSION JOINT.
FOR HANDRAIL LOCATION & DETAILS SEE SHEET Nos 8 & 9
FOR LOCATION OF UNDERDRAINS SEE SHEET No 18

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUNKER, SUPERINTENDENT OF HIGHWAYS

ABUTMENT
119TH ST GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY WEST-LEG

COMPUTED
DRAWN
CHECKED
PROJECT I-57-7(104) 2356
SCALE AS SHOWN
APPROVED

APPROVED
CHIEF ENGINEER OF DIVISION

Federal Aid Number	Section Number	Sheet No.	Total Sheets	Sheet No.
57	068-1819	10	82	732-S

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

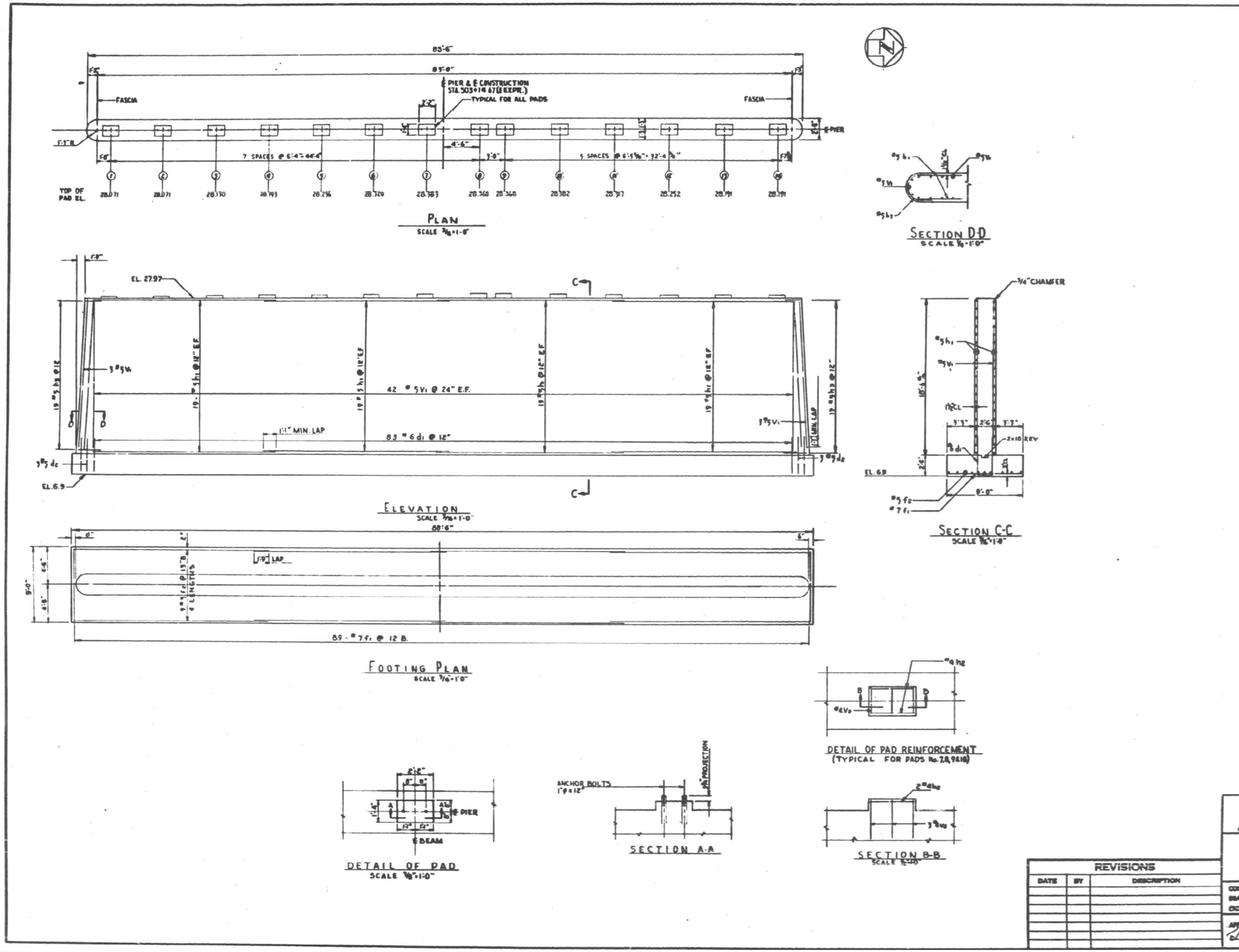
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A004 OF 5 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	86
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY



BAR SCHEDULE

MARK	NO	SIZE	LENGTH	SKETCH	TYPE	A	B	C	D		R
d1	83	6	11'-1"		S-10		4'-5"	2'-3"	4'-5"		
d2	6	5	5'-0"		2	9"	4'-5"				
h1	152	5	22'-0"	—							
h2	8	4	1'-11"	—							
h3	38	5	8'-1"		10		1'-3½"	5'-6½"	1'-3"		1'-1½"
f1	89	7	8'-6"	—							
f2	36	5	27'-4"	—							
V1	90	5	17'-7"	—							
V2	12	4	4'-5"		S10		1'-8"	1'-1"	1'-8"		

BILL OF MATERIAL

CLASS X CONCRETE	222.0	CU. YDS
REINFORCEMENT BARS	9261	LBS

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON — PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. FLUBBER — DEPARTMENT OF HIGHWAYS

PIER
119TH ST GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY WEST LEG

COMPUTED [signature] PROJECT I-57-7(104)
DRAWN [signature] SCALE AS SHOWN
CHECKED L.E. APPROVED [signature]
APPROVED [signature] 1967
CHIEF ENGINEER OF HIGHWAYS

Federal Aid Interstate	County Division Route No.	Sheet No.	Total Sheets	Drawing No.
57	068-10[illegible]	17	82	739 S

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	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

LOCATION 7: SN 016-0904 I-57 AT 119TH STREET
EXISTING STRUCTURE DETAILS

SCALE: SHEET A005 OF 5 SHEETS STA. TO STA.

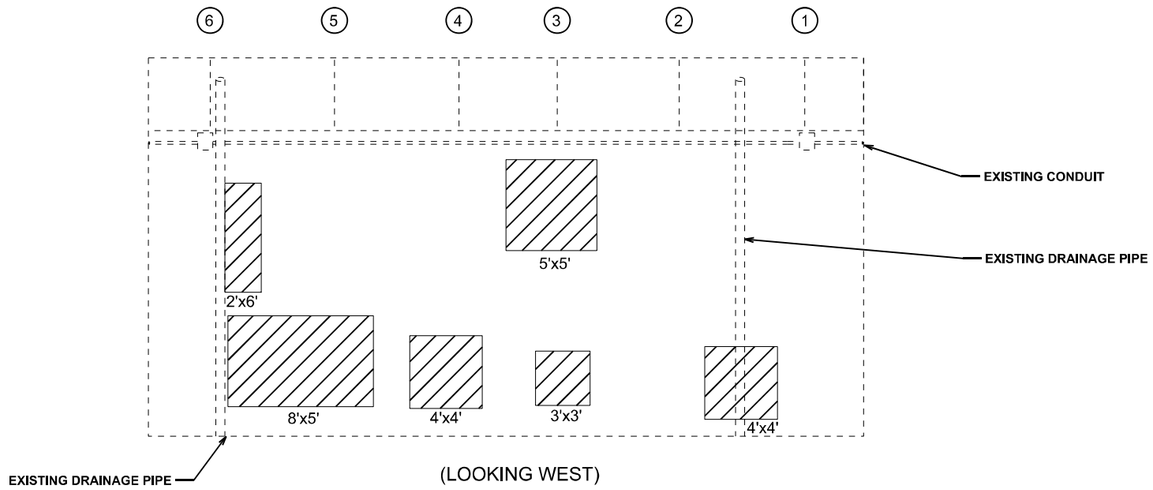
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	87

CONTRACT NO. 62X40

ILLINOIS FED. AID PROJECT

GENERAL NOTE

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND 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 OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



(LOOKING WEST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

LICENSED STRUCTURAL ENGINEER
JAYME F. SCHIFF
081-005540
STATE OF ILLINOIS

EXPIRES 11-30-2026

Jayme F. Schiff

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	118
TEMPORARY SHORING AND CRIBBING	EACH	0

INTERIOR GIRDER REACTION TABLE				
		W.Abut	Pier	E.Abut
R_D	(kN)	280.2	870.4	207.0
R_L	(kN)	204.5	308.8	195.5
R_I	(kN)	43.7	68.3	44.8
R (Total)	(kN)	528.4	1,247.6	447.3

TOTAL BILL OF MATERIALS (SN 016-2034)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	324
TEMPORARY SHORING AND CRIBBING	EACH	3

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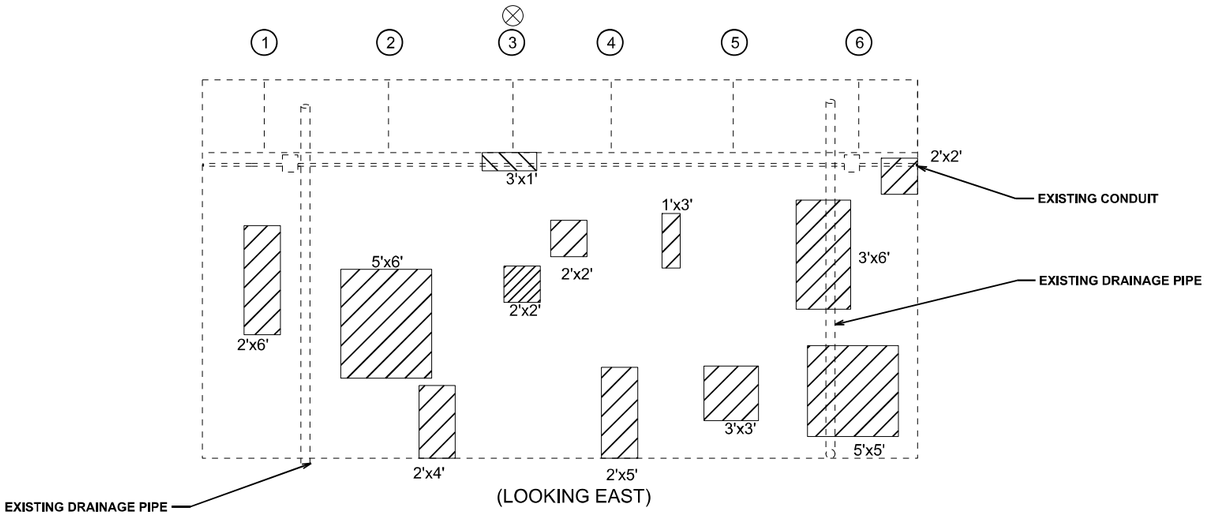
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
WEST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	88
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		



(LOOKING EAST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	130
TEMPORARY SHORING AND CRIBBING	EACH	1

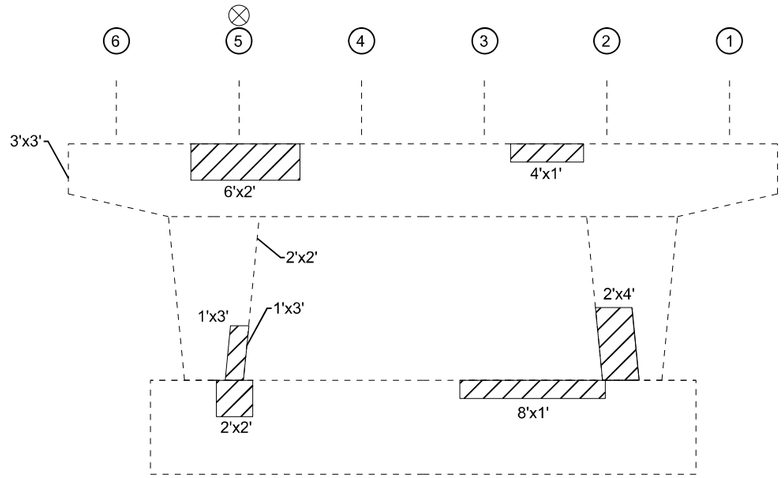
MODEL: SN 016-2034 2
FILE NAME: c:\pw_work\pwidot\diazia\d1045696\D102625-sht-details.dgn

USER NAME = ivan.diaz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
EAST ABUTMENT PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	89
		CONTRACT NO. 62X40		
		ILLINOIS FED. AID PROJECT		



(LOOKING WEST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	55
TEMPORARY SHORING AND CRIBBING	EACH	1

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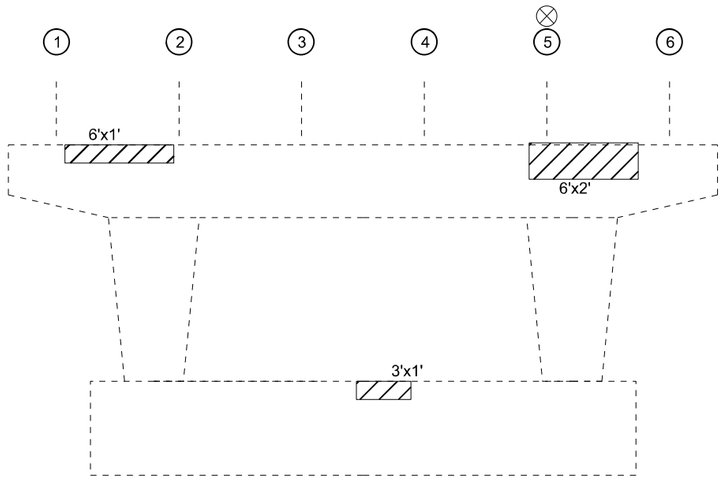
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
PIER EAST FACE PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	90
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



(LOOKING EAST)

LEGEND

STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES)

TEMPORARY SHORING AND CRIBBING

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	21
TEMPORARY SHORING AND CRIBBING	EACH	1

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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/20/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
PIER WEST FACE PROPOSED REPAIRS

SCALE: | SHEET OF 4 SHEETS | STA. 0+00.00 | TO STA. 0+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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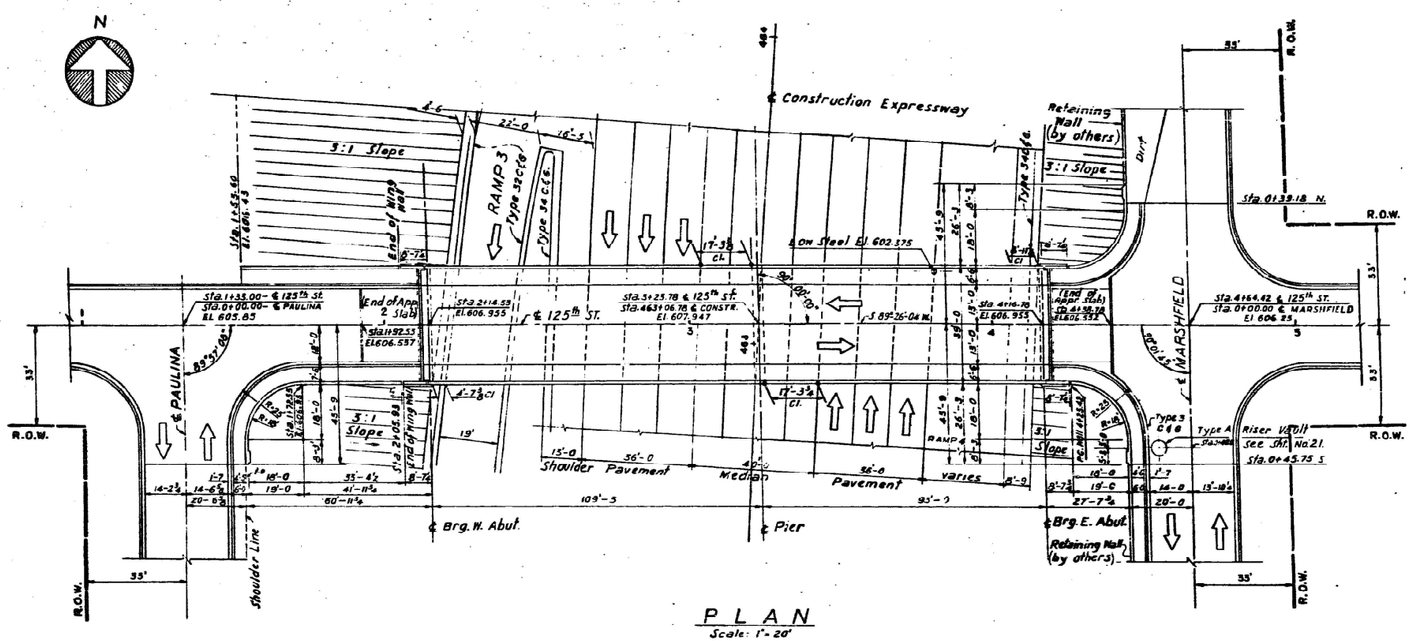
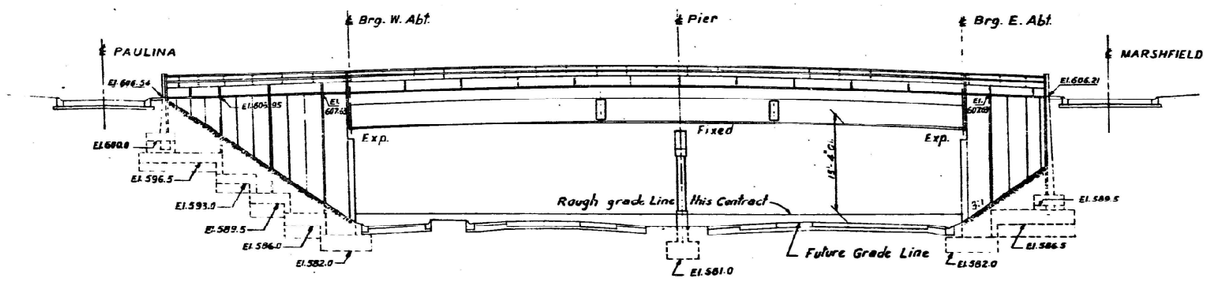
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY





ELEVATION
Scales: Vert. 1"-10'—Hor. 1"- 20'

DESIGN DATA

LOADING:

Live Load — H20-44 & Alternate
Future Load — 3" of Bituminous Wearing Surface

SPECIFICATIONS:

DESIGN — A.A.S.H.O. Specifications for Highway Bridges, 1961 and as amended to date.

CONSTRUCTION & MATERIALS — Standard Specifications for Road & Bridge Construction of the State of Illinois, 1958
Supplemental Specifications, 1964

WELDING — A.W.S. STANDARD SPECIFICATIONS for Welded Highway and Railway Bridges, 1963 and Addenda of March, 1965.

ALLOWABLE STRESSES:

fs	Structural Steel (A.S.T.M.-A36)	20,000 p.s.i.
fs	Low Alloy Structural Steel (A.S.T.M.-A441) 3/4" to 1-1/2"	24,000 p.s.i.
fs	Low Alloy Structural Steel (A.S.T.M.-A441) 1-1/2" to 4"	22,000 p.s.i.
fc	Flexural Compressive Stress of Concrete	1,400 p.s.i.
fs	Reinforcement Bars	20,000 p.s.i.
fc	Compressive Stress of Concrete with Earth Pressure	1,000 p.s.i.
	Equivalent Fluid Pressure	40 p.s.f.
n=	10	

SUPERSTRUCTURE:

All girders are designed as 2-span continuous plate girders with Composite action in the positive moment area.
Maximum Live Load deflection = L/1200.
Shear connectors shall be automatically welded studs.

FOUNDATION:

Piers are supported on Spread Footings. Max. Soil Pressure and abutments & piers = 5,000 p.s.f.
Step-up walls = 3,000 p.s.f.

GENERAL NOTES

CONCRETE:

Class "X" Concrete shall be used throughout. The concrete deck slab shall be placed in one continuous operation from expansion joint to expansion joint between construction joints shown on the plans. Finishing of the Deck Slab shall be as specified in the Article 51.19 of the Standard Specifications.

After concrete is cured, finished and the surfaces are clean and dry, the exposed surfaces of the deck slab, approach slabs, curbs, sidewalks and parapet walls shall be given a protective coat. See Supplemental Specifications Article 52.14A.

Permanent forms will not be permitted in forming concrete deck slabs. All concrete shall be chamfered 3/4" unless otherwise shown or noted on plans.

Handrail Parapet Wall Concrete shall be free from chert, flint, limonite, lignite, and soft sandstone.

Exposed surfaces of the abutment walls and retaining walls shall be given rubbed finish in accordance with Article 52.13 of the Standard Specifications.

The part of the Abutments and Retaining Walls that are in contact with earth or embankment material shall be covered with waterproofing in accordance with Article 51.21 of the Standard Specifications.

The cost of rubbed finish, waterproofing, rubber waterseals and the bituminous premoulded fibre joint fillers shall be included in the contract unit bid price for Class "X" Concrete.

The Contractor shall adequately support, brace and protect bituminous premoulded fibre joint filler during construction, so that it does not become torn and distorted. The Contractors method of supporting, bracing and protecting the bituminous premoulded fibre joint filler shall be approved by the Engineer. The rubber watersesl shall be spliced as recommended by the manufacturer.

For "Bridge Seat Sealant" see Special Provisions.

STRUCTURAL STEEL:

All structural steel shall conform to the requirements of A.S.T.M.-A36 except as otherwise shown or noted.

Welding shall be in accordance with current Specifications for Welded Highway and Railway Bridges of the American Welding Society and as noted on the Plans and in the Special Provisions.

The Bridge Seats shall be constructed to the exact Elevations shown. If a hand hammering or grinding is necessary this work shall be done at no additional cost to the County.

REINFORCEMENT BARS:

All Reinforcement Bars shall conform to A.S.T.M. A 305-56T as amended to date and shall comply with A.S.T.M. A15-56T Specification.
Reinforcement Bars shall be delivered, tagged and bundled in conformance with Supplemental Specifications. Top of Seam Reinforcement bars shall be spaced by Shop Detailer to Clear anchor bolts.
Reinforcement bars shall comply with Article 39 of the State Standard Specifications.

TRAFFIC:

Traffic Classification	1690 T
Design Speed	30 mph

REVISIONS

DATE	BY	DESCRIPTION
2.4.66	J.T.	Added horiz. Clearance

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS — ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

GENERAL PLAN
125TH STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY- WEST LEG

COMPUTED: J. Pavlina — PROJECT: I-57-7(125)355
DRAWN: W.L. SZUMANSKI — SCALE: AS NOTED
CHECKED: J. Pavlina — APPROVED: [illegible]

APPROVED	Federal Aid Number	County Highway Route No.	Sheet No.	Total Sheets	Drawing No.
January 3 1966	57	068-1815.3	3	71	S-R 811-S

USER NAME = ivan.diaz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A001 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	92
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

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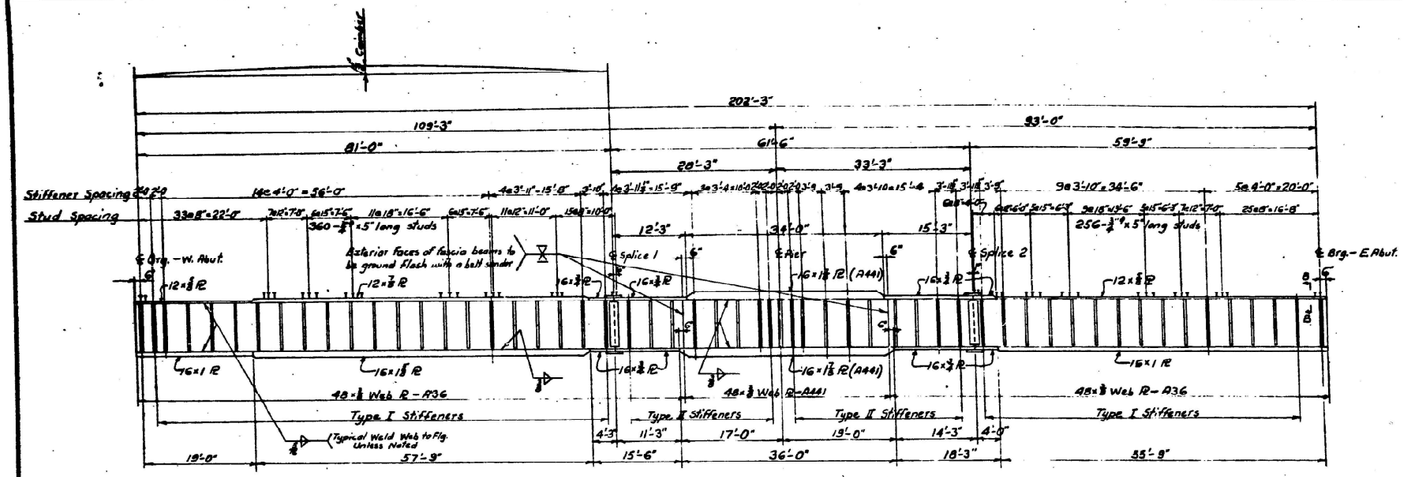
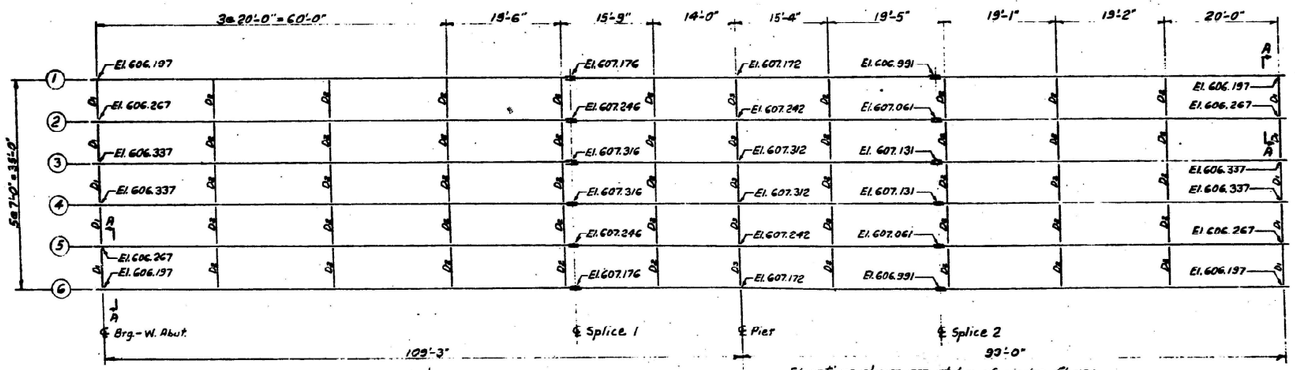
FOR INFORMATION ONLY



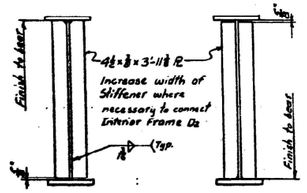
ELEVATION OF PLATE GIRDER



Elevations shown are at top of girder flange.

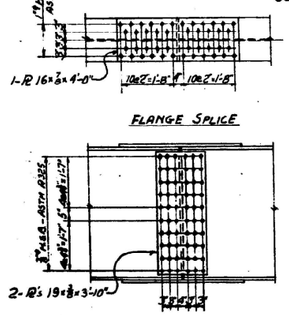
FRAMING PLAN

Scale: 3/32" = 1'-0"



TYPE I TYPE II

INTERMEDIATE STIFFENERS



FLANGE SPLICE

FIELD SPLICE DETAIL

NOTES

Structural Steel shall be Carbon Steel A36, except Low Alloy Steel A441 shall be used as shown. All Structural Steel shall conform to A.S.T.M. Specifications amended to date. All bolts shall be 7/8" High Strength Bolts (A.S.T.M. A325) with 15/16" open holes, except bolts for flange splices of girders shall be 1" High Strength Bolts (A.S.T.M. A325) with 1 1/16" open holes.

Flange splices of girders shall have holes sub-punched 13/16" and reamed to 15/16". Web splices of girders shall have holes sub-punched 7/8" and reamed to 15/16". Before any reming is done, girders of a continuous unit shall be assembled in their proper position with or without the bracing in place. Match mark and leave assembled for inspection.

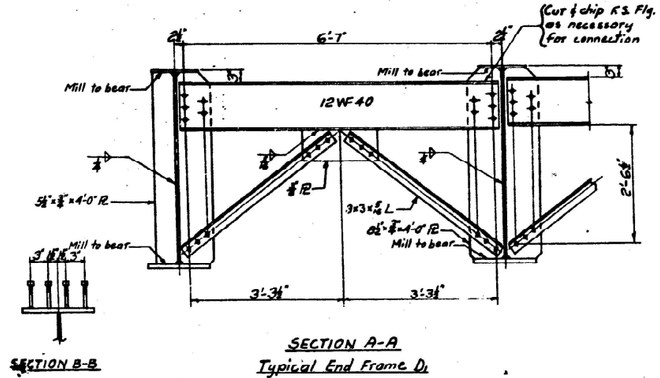
Welding shall conform to the Specifications of the American Welding Society for Highway and Railway Bridges 1963 amended to date.

Contact surfaces of shop welded structural steel shall be not painted. See specifications concerning inaccessible surfaces. Top of girders that are to have concrete poured in contact with them shall be not painted, except such surfaces over pier shall be painted for a distance of 5 feet each way from the centerline of bearing.

Structural steel shall be inspected by the Illinois Division of Highways before painting. The structural steel shall be given one shop coat of red lead paint and two Field coats of aluminum paint, except fascia girders. See Special Provisions "Green Paint for Bridges."

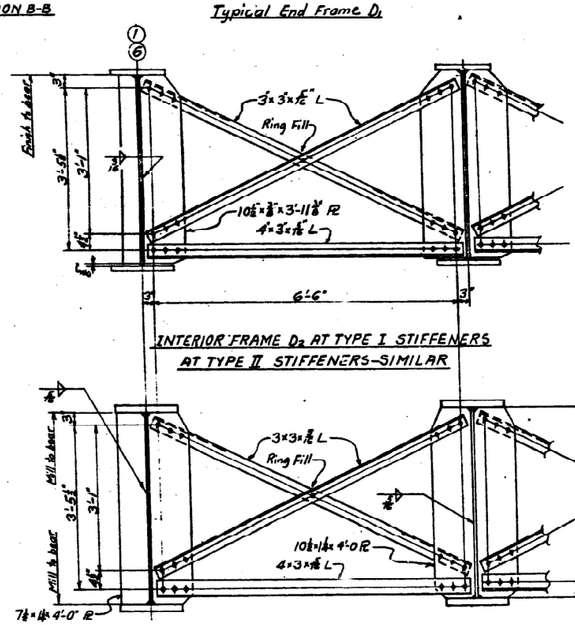
The weight of studs is not included in the weight of structural steel.

For General Notes see Sht. #3.



SECTION A-A

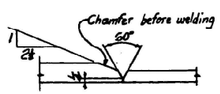
Typical End Frame D1



INTERIOR FRAME D2 AT TYPE I STIFFENERS

AT TYPE II STIFFENERS - SIMILAR

PIER FRAME D3



FLANGE SHOP SPLICE

For transition of widths in flange see AWS D2.0-63

Weight of Structural Steel on this sheet:

Carbon Steel A36 ------ 204.075 lbs.

Low Alloy Steel A441 ------ 56730 "

Total number of 3/4" x 5" long shear studs required --- 3696

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS

COOK COUNTY, ILLINOIS

SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS — ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DETAILS OF STRUCTURAL STEEL

125TH STREET GRADE SEPARATION

OVER

DAN RYAN EXPRESSWAY - WEST LEG

COMPUTED: B. Pavlovsky — PROJECT: I-57-7(125)355

DRAWN: A. Pakalnistis — SCALE: As noted

CHECKED: S.S. — APPROVED: [signature]

APPROVED	Federal Aid Interstate	County Sec. State No.	Sheet No.	Total Sheets	Drawing No.
[signature] Engineer of Bridges	57	068-1813	5	7.1	S-R 813-S

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

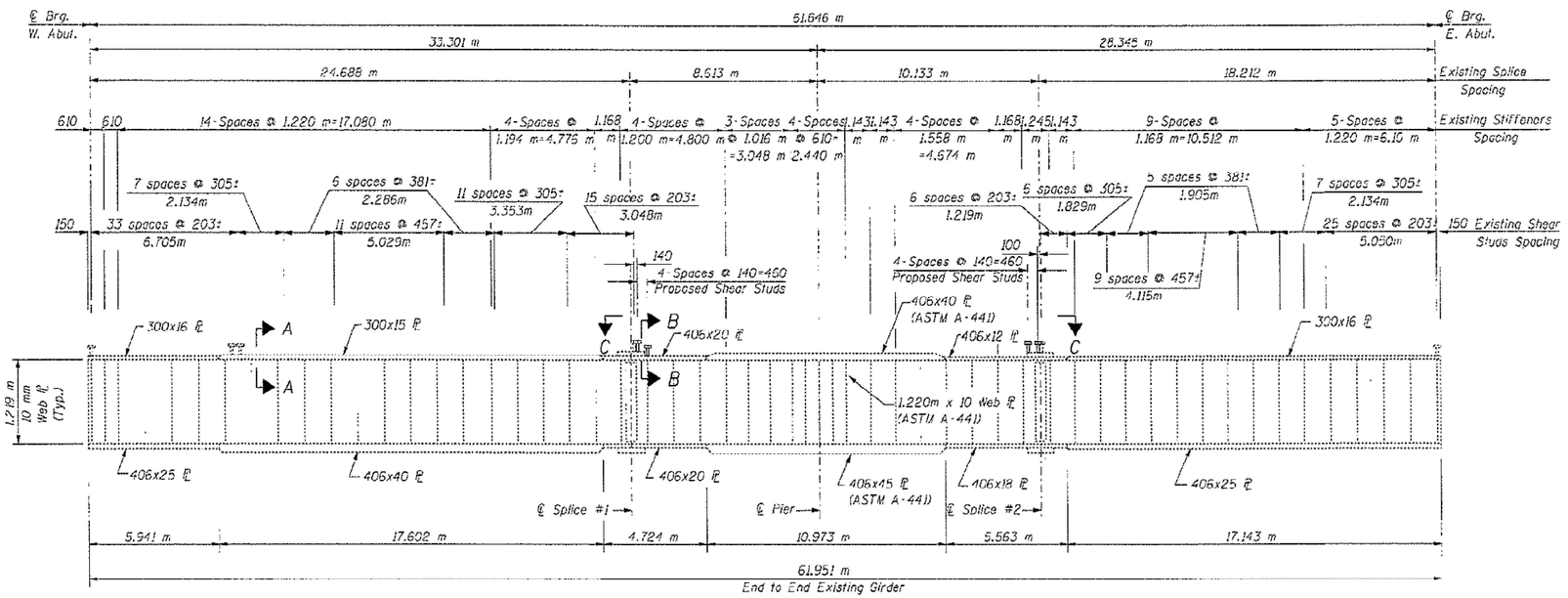
LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A002 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	93
		CONTRACT NO. 62X40		
	ILLINOIS | FED. AID PROJECT			

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



EXISTING GIRDER ELEVATION

All steel ASTM A36 unless otherwise noted

INTERIOR GIRDER MOMENT TABLE				
		0.49 Sp #1	Pier	0.60 Sp. #2
Is	(10^6 mm⁴)	9,560	16,976	6,841
Ic (n)	(10^6 mm⁴)	28,195		20,809
Ic (3n)	(10^6 mm⁴)	19,535		14,869
Ss	(10^3 mm³)	20,340	25,839	13,493
Sc (n)	(10^3 mm³)	27,724		19,285
Sc (3n)	(10^3 mm³)	25,603		17,765
Z	(10^3 mm³)			
wD	(kN/m)	12.8	14.0	12.2
MD	(kN·m)	988	2,880	486
sD	(kN/m)	8.89		8.89
MsD	(kN·m)	764		440
wL	(kN·m)	1,137	909	959
M (Imp)	(kN·m)	243	201	220
5_3(ML+M(Imp))	(kN·m)	2,300	1,850	1,965
Ma	(kN·m)	5,267	6,148	3,758
Mu	(kN·m)	6,539		4,548
fsD non-comp	(MPa)	49	111	36
fsD (comp)	(MPa)	30		25
fs5_3(ML+M(Imp))	(MPa)	83	72	102
fs (Overload)	(MPa)	161	183	163
** fs (Total)	(MPa)		238	
VR	(kN)	236		221

* Compact Section.
** Braced Non-Compact Section.

INTERIOR GIRDER REACTION TABLE				
		W.Abut	Pier	E.Abut
RD	(kN)	280.2	870.4	207.0
RL	(kN)	204.5	308.8	195.5
RI	(kN)	43.7	68.3	44.8
R (Total)	(kN)	528.4	1,247.6	447.3

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

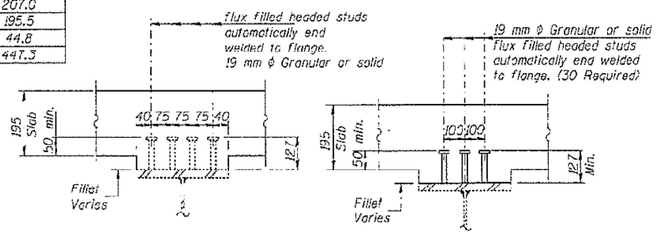
Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)= 1.3(MD + MsD + 5_3(ML + M(Imp)).

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

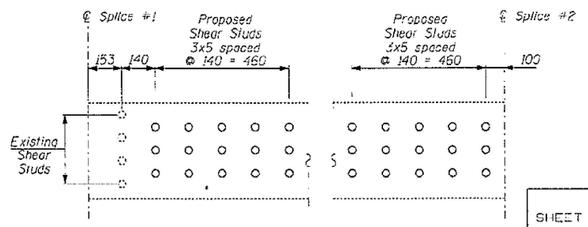
fs (Overload) is the sum of the stresses due to MD + MsD + 5_3(ML + M(Imp)).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3(MD + MsD + 5_3(ML + M(Imp)).



SECTION A-A

SECTION B-B



SECTION C-C
(Typical All Beams)

EXISTING GIRDER ELEVATION & DETAILS
STRUCTURE NO. 016-2034

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

SHEET NO. S-15	F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818,38-R	COOK	58	39
			CONTRACT NO. 60862		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

USER NAME = ivan.diaz	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**LOCATION 8: SN 016-2034 I-57 AT 125TH STREET EXISTING STRUCTURE DETAILS**	
	DRAWN -	REVISED -			
	CHECKED -	REVISED -			
PLOT DATE = 2/5/2025	DATE -	REVISED -		SCALE:	SHEET A003 OF 6 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	94
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

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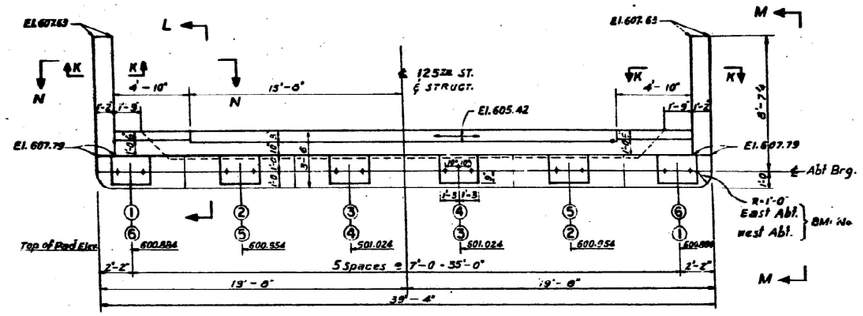
FOR INFORMATION ONLY

EAST ABT. N

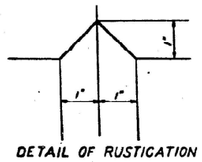
WEST ABT. N



TOP PLAN

BILL OF MATERIAL

CLASS "K" CONCRETE	194.4 cu.yds
REINFORCEMENT BARS	17005 LBS
8"x8"x6" "J" BOX	2 EACH
2½" ϕ RIGID STEEL CONDUIT	32 LIN.FT.
1" ϕ RIGID STEEL CONDUIT	18 LIN.FT.

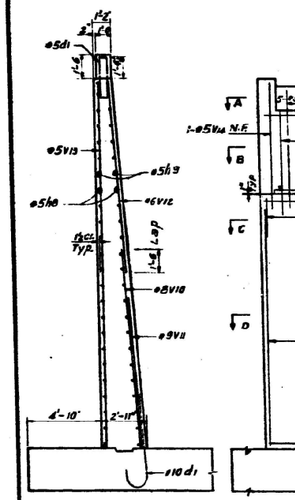


DETAIL OF RUSTICATION

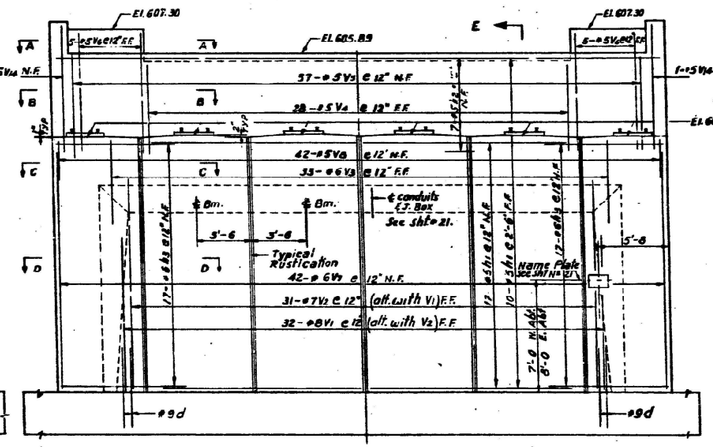
REINFORCEMENT BAR LIST

TYPE 1 · TYPE T2 · TYPE 11 · TYPE 12 · TYPE 20

Mark	To bl	Weight Each	Total Weight	Size	Length	Sketch	Type	A	B	C	D	K	R	Location
h1	54	27	27	#5	26'-6"		Str.							Abut. Stem
h2	12	6	6	#5	39'-0"		Str.							Parapet Wall
h3	68	34	34	#6	18'-6"		11		3'-4"	1'-6	7'-10		0-10	Corners of Abut.
h4	32	16	16	#6	6'-0"		Str.							Abut. Stem
h5	68	34	34	#6	4'-0"		Str.							" "
h6	32	16	16	#6	6'-6"		12		4'-0	2'-6				" "
h7	32	16	16	#6	18'-6"		11	0'-8	7'-10					Parapet Wall
h8	136	68	68	#5	5'-8"		Str.							Wing Wall
h9	64	32	32	#5	7'-5"		Str.							" "
h10	8	4	4	#5	5'-8"		Str.							Sidewalk Seat
v1	64	32	32	#8	10'-0"		Str.							Abt. Stem
v2	62	31	31	#7	13'-6"		Str.							" "
v3	66	33	33	#6	6'-9"		12		4'-0	2'-9		1'-8½		Seat of Abut.
v4	38	28	28	#5	7'-3"		20		1'-2	6'-1				Parapet of Abut.
v5	78	37	37	#5	6'-6"		Str.							" "
v6	20	10	10	#5	8'-0"		Str.							Parapet Wall
v7	84	42	42	#6	15'-0"		Str.							Abut. Stem
v8	84	42	42	#5	15'-6"		20		2'-6	3'-2				" "
v9	8	4	4	#8	15'-0"		Str.							" "
v10	24	12	12	#8	12'-6"		Str.							Wing Wall
v11	20	10	10	#9	9'-6"		Str.							" "
v12	24	12	12	#6	12'-6"		Str.							" "
v13	16	8	8	#5	23'-6"		Str.							" "
v14	4	2	2	#5	8'-6"		Str.							Parapet of Abut.
d1	32	16	16	#5	6'-3"		T2	6	2'-3½	8	2'-3½	E=6		Wing Wall
d2	8	4	4	#5	2'-9"		20		4	2'-5				Wing Wall



SECTION K-K



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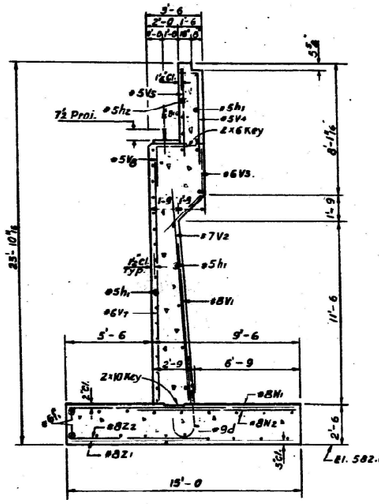

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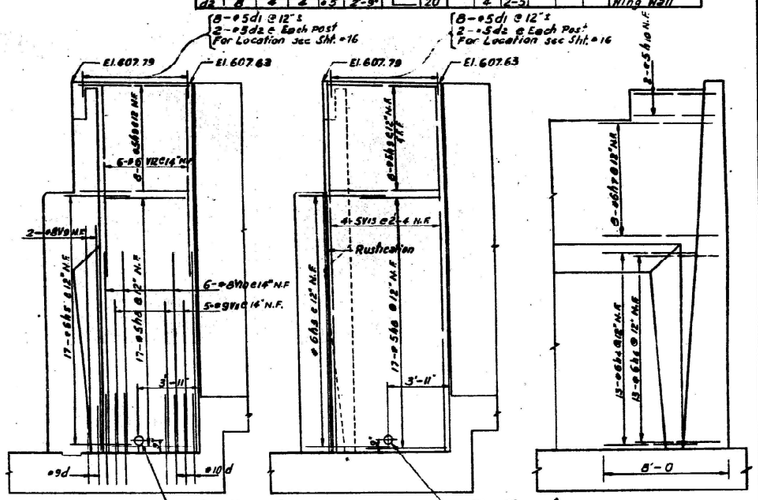
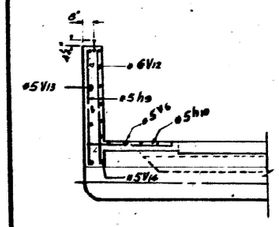


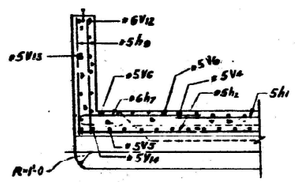
SECTION L-L (For F.F Reinf. See Sec. M-M)

SECTION M-M (For F.F Reinf. see Sec. L-L)

SECTION N-N



SECTION A-A



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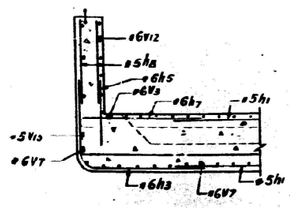
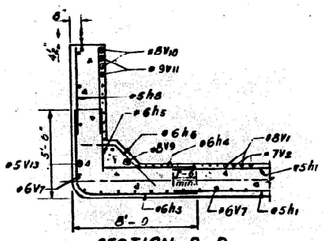


SECTION C-C



SECTION D-D

Notes

For Rfg. Details see Sht.# 8 & 9.
For Handrail Details see Sht.#16.
For Details of Name Plate see Sht.#21.
For Details of Joint see Sht.#21.
For location of Conduit and J-Box in Abt. Wall see Sht.#21.

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DETAILS OF ABUTMENTS 125TH STREET GRADE SEPARATION OVER DAN RYAN EXPRESSWAY - WEST LEG

COMPUTED: W. L. SZUMANSKI
DRAWN: W. L. SZUMANSKI
CHECKED: S.L.S.
PROJECT: I-57-7(125)555
SCALE: 1/4" = 1'-0"
APPROVED: [signature] 3/19/76
CHIEF ENGINEER OF HIGHWAYS

Federal Aid Number	County Section No.	Sheet No.	Total Sheets	Drawing No.
57	068-1818.3	10.	71	S-R 818-5

MODEL: SN 016-2034 2 [Sheet]
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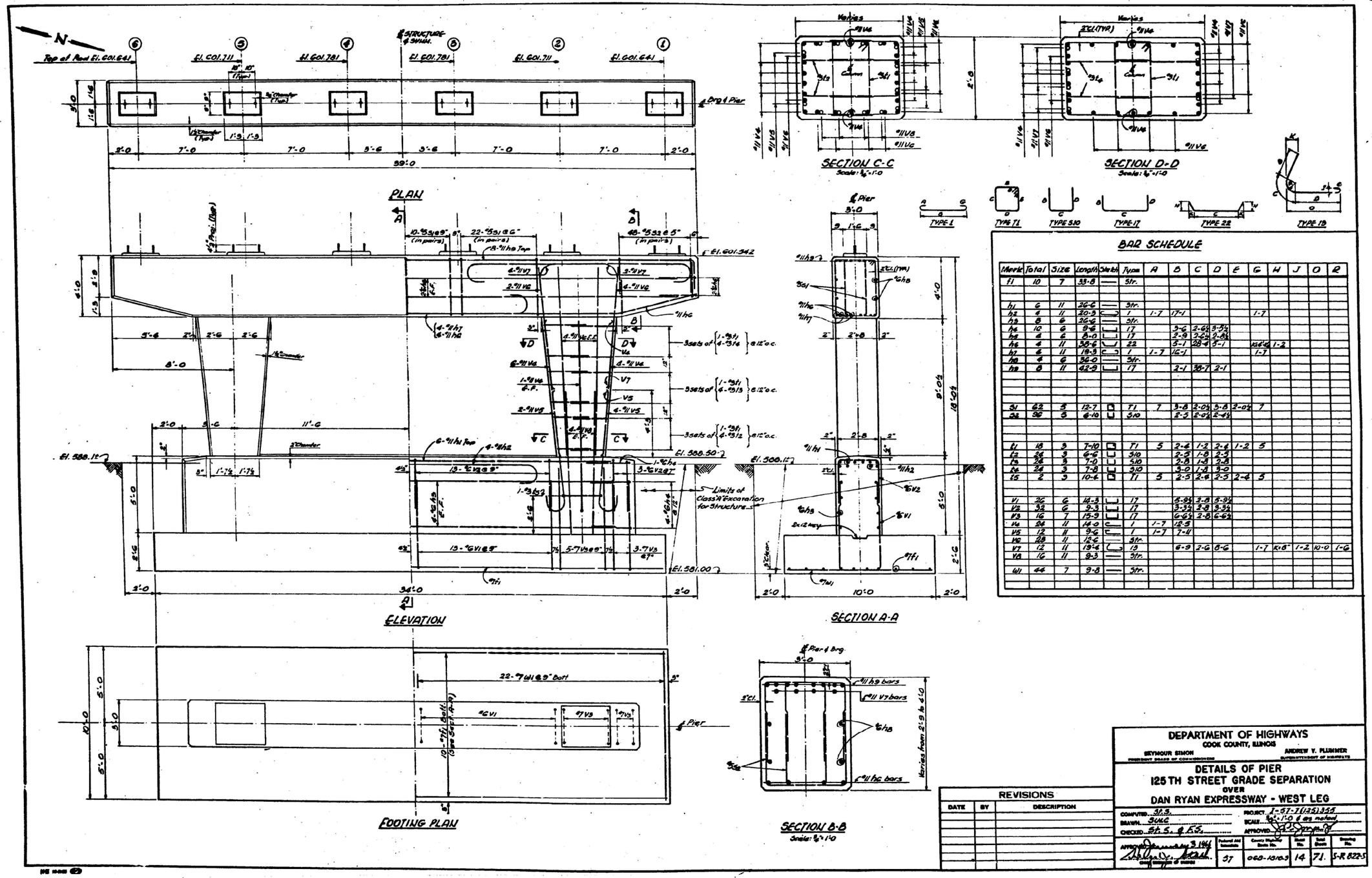
USER NAME = ivan.diaz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
EXISTING STRUCTURE DETAILS
SCALE: | SHEET A004 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	95
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



BAR SCHEDULE

Mark	Total	Size	Length	Sketch	Type	A	B	C	D	E	G	H	J	O	R
F1	10	7	33-8	—	Str.										
H1	6	11	26-6	—	Str.										
H2	4	11	20-3	C	1	1-7	17-1				1-7				
H3	8	6	26-6	—	Str.										
H4	10	6	9-6	L	17		3-6	2-6	3-3½						
H5	4	6	8-0	L	17		2-9	2-6	2-6						
H6	4	11	30-6	L	22		5-1	20-4	5-1		#6@6	1-2			
H7	6	11	19-3	C	1	1-7	16-1				1-7				
H8	4	6	36-0	—	Str.										
H9	8	11	42-9	L	17		2-1	38-7	2-1						
S1	62	5	12-7	CD	T1	7	3-8	2-0½	3-8	2-0½	7				
S2	96	5	6-10	CD	S10		2-5	2-0½	2-4½						
V1	18	5	7-10	CD	T1	5	2-6	1-2	2-6	1-2	5				
V2	24	5	6-0	CD	S10		2-5	1-8	2-5						
V3	24	5	7-0	CD	S10		2-5	1-9	2-5						
V4	24	5	7-8	CD	S10		3-0	1-9	3-0						
V5	2	5	10-6	CD	T1	5	2-5	2-6	2-5	2-6	5				
W1	26	6	14-3	L	17		5-3½	3-8	5-3½						
W2	32	6	9-3	L	17		3-3½	2-9	3-3½						
W3	16	7	15-9	L	17		6-6½	2-8	6-6½						
W4	24	11	14-0	C	1	1-7	12-5								
W5	12	11	9-6	C	1	1-7	7-11								
W6	28	11	12-6	—	Str.										
V7	12	11	19-6	C	13		6-9	2-6	6-6		1-7	K-6	1-2	10-0	1-6
V8	16	11	9-3	—	Str.										
W1	44	7	9-8	—	Str.										

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
SEYMOUR SIMON, PRESIDENT, BOARD OF COMMISSIONERS — ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DETAILS OF PIER
125TH STREET GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY - WEST LEG

COMPUTED S.P.S. — PROJECT I-57-7(125)355
DRAWN SULC — SCALE ½"=1'-0 & as noted
CHECKED S.P.S. & E.S. — APPROVED

APPROVED January 3 1964
Chief Engineer of Highways

Federal Aid Number	County Highway Route No.	Sheet No.	Total Sheets	Drawing No.
57	060-1310-3	14	71	S-R 822-5

MODEL: SN 016-2034 3 [Sheet]
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

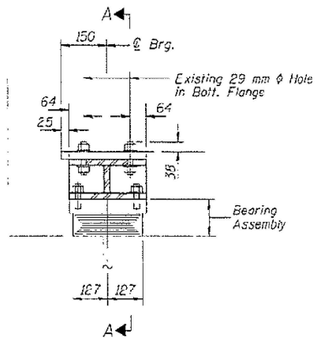
LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
EXISTING STRUCTURE DETAILS

SCALE: — SHEET A005 OF 6 SHEETS — STA. — TO STA.

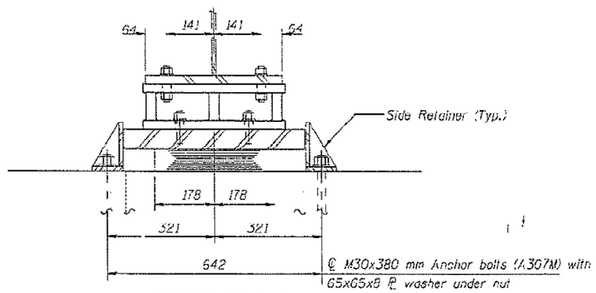
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	96
		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

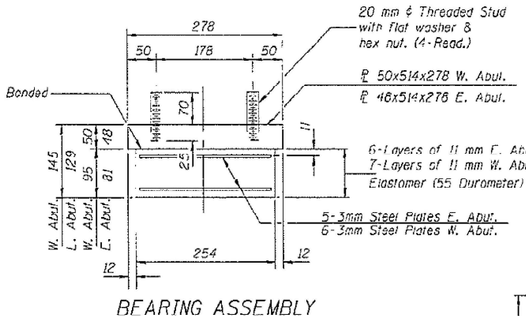


ELEVATION AT ABUT.



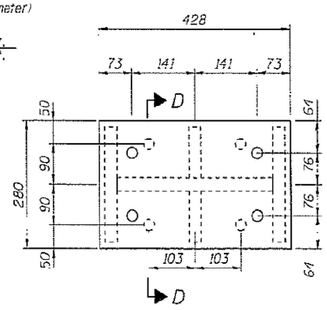
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

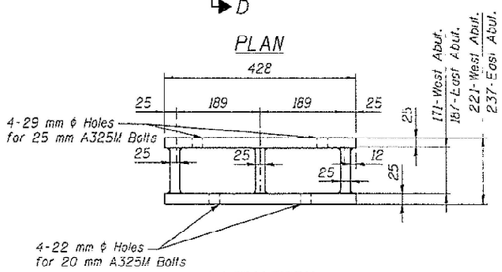


BEARING ASSEMBLY

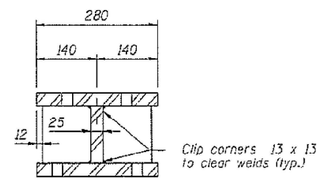
Note: Shim plates shall not be placed under Bearing Assembly.



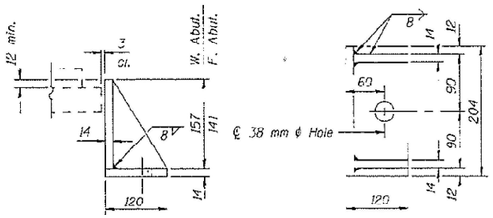
PLAN



ELEVATION



SECTION D-D

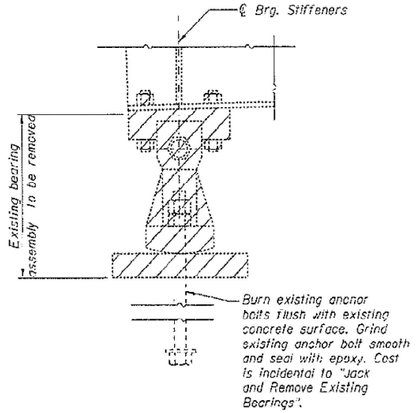


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES:

The overall depth dimension for the new bearing steel extension shall match the total depth of the replaced existing bearings. The contractor shall field verify depth dimensions for all bearings and existing holes in bottom flanges.
Anchor bolts shall be ASTM F1554M all-thread (or an Engineer-approved alternate material). ASTM A307M Grade C anchor bolts may be used in lieu of ASTM F1554M Grade 750. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554M.
Anchor bolts for side retainers may be installed in holes drilled before or after members are in place. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Weight of steel extensions included with Furnishing and Erecting Structural Steel.



EXISTING BEARING REMOVAL DETAIL

JACKING AND CRIBBING NOTES:

1. The work shall be done in accordance with the special provision "Jack and Remove Existing Bearings".
2. The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
3. The maximum reaction per bearing is 60 kN at the abutment. Minimum jack capacity is 120kN.
4. The new bearings shall be in place and the jacks lowered before the new concrete deck is poured.
5. A synchronous lifting system should be used to control and equalize individual jack pressures to insure that the superstructure is lifted uniformly without exceeding the above stated relative elevation differentials.
6. The diaphragms should not be used as load carrying members in the jacking and cribbing system.
7. The jack should be centered under the web and a steel plate should be placed between the top of the jack and the bottom flange of the beam. When web stiffeners bearing on the bottom flange do not exist directly over the location of the jack under a steel beam, hardwood timbers should be installed tightly between the top and bottom flange to prevent flange rotation. Steel stiffening angles should be attached to the web of the beam when the beam web thickness is not adequate to carry the jacking load. Steel plates should be placed under jacks bearing directly on the existing substructure to distribute the jacking load and prevent damage to the existing concrete.

EXPANSION STEEL EXTENSION AT ABUTMENTS

DESIGNED	EKM
CHECKED	SCD
DRAWN	RD
CHECKED	EKM

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

ELASTOMERIC BEARING ASSEMBLY TYPE I
STRUCTURE NO. 016-2034

SHEET NO. 5-16	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5-26 SHEETS	57	1818.3B-R	COOK	58	40
			CONTRACT NO. 60862		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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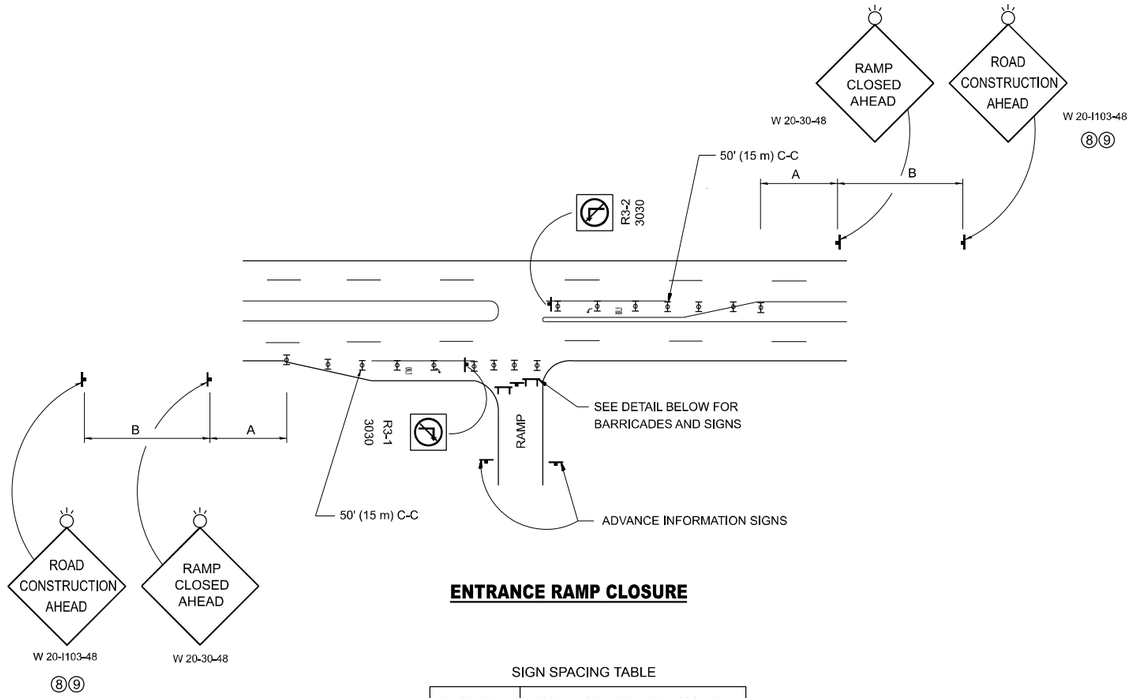
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 2/5/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 8: SN 016-2034 I-57 AT 125TH STREET
EXISTING STRUCTURE DETAILS

SCALE: | SHEET A006 OF 6 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	97
		CONTRACT NO. 62X40		
	ILLINOIS	FED. AID PROJECT		

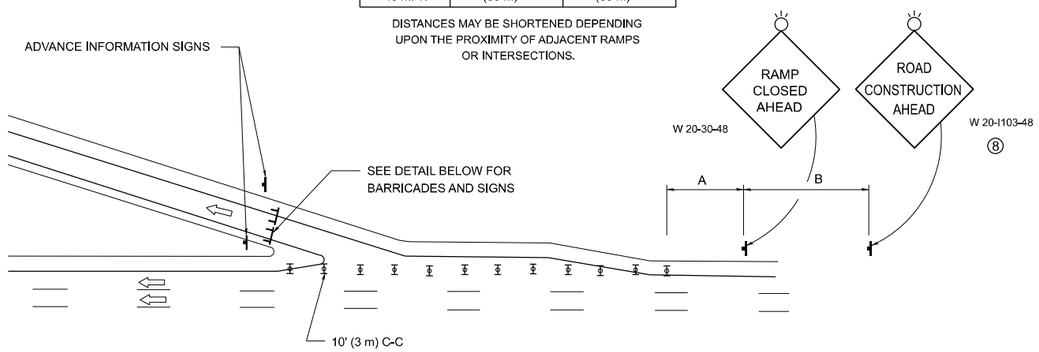


ENTRANCE RAMP CLOSURE

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.

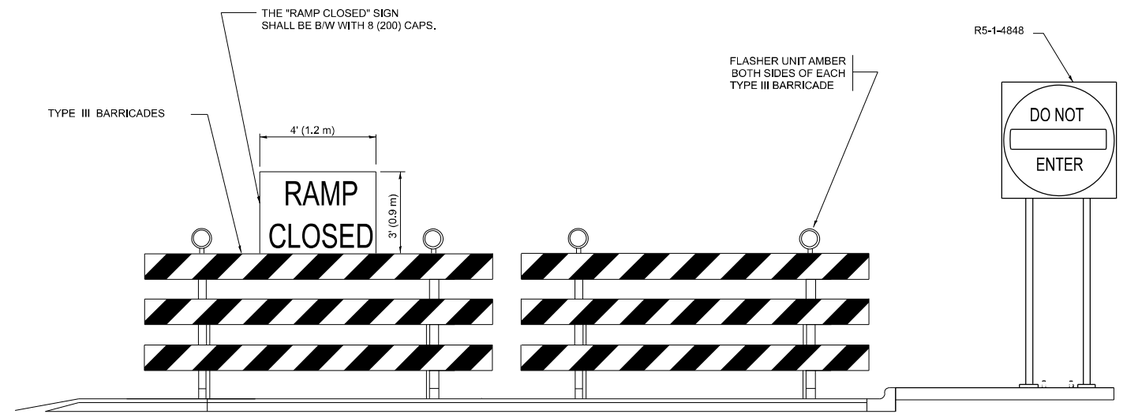


EXIT RAMP CLOSURE

SYMBOLS

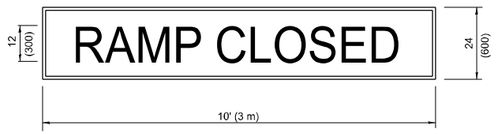
TYPE II BARRICADE OR DRUM

TYPE III BARRICADE WITH 2 FLASHING LIGHTS



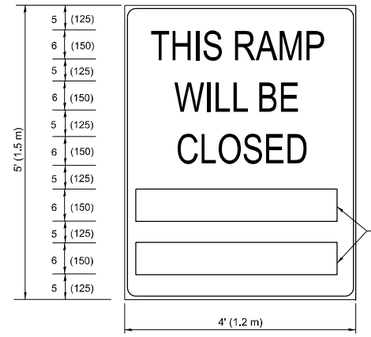
DETAIL FOR REQUIRED BARRICADES & SIGNS

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.

MODEL: 8 [Sheet]
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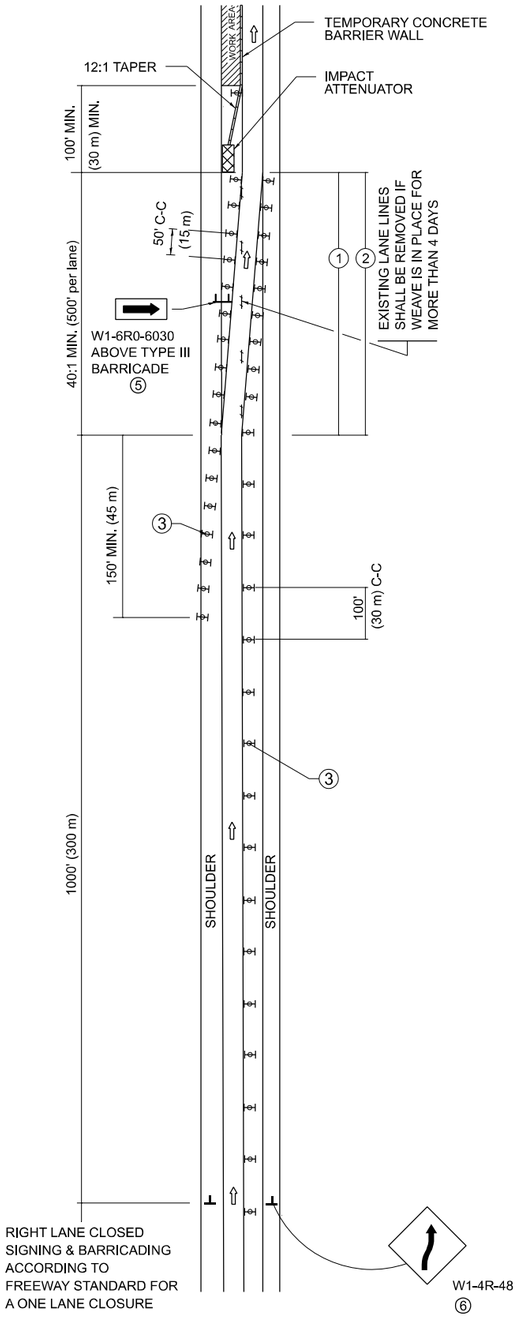
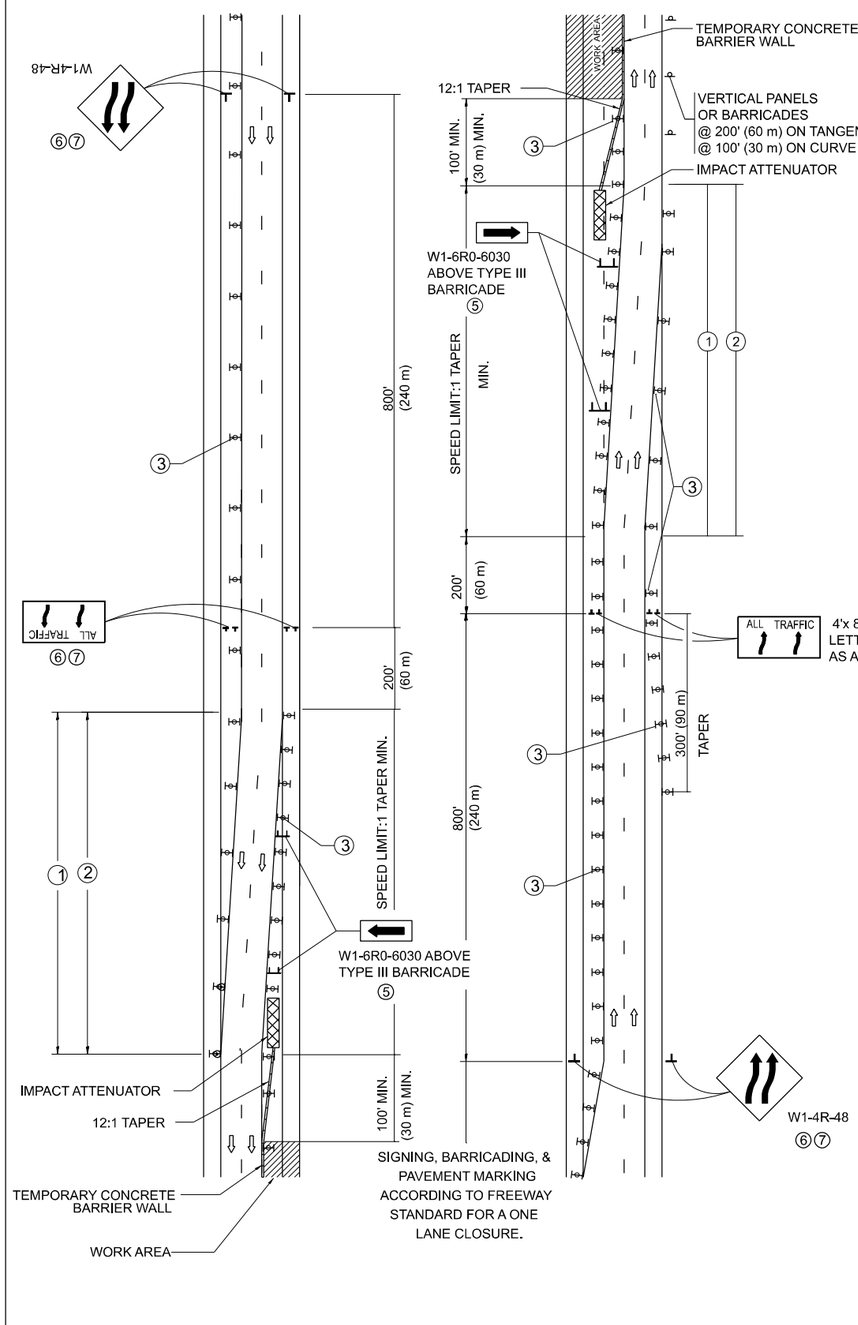
USER NAME = Ivan.Diaz	DESIGNED - D.W.S.	REVISED - S.P.B._12-09	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**ENTRANCE AND EXIT_RAMP CLOSURE DETAILS**	
	DRAWN -	REVISED - M.D._06-13			
	CHECKED -	REVISED - M.D._01-18			
PLOT DATE = 2/4/2025	DATE - 02-83	REVISED - D.S._05-24		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	98
	TC-08	CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

SINGLE LANE WEAVE



MULTI-LANE WEAVE



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.

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.

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

MODEL: 9 [Sheet]
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USER NAME = ivan.diaz	DESIGNED - D.W.S.	REVISED - J.A.F. 02-06	
	DRAWN -	REVISED - S.P.B. 01-07	
	CHECKED -	REVISED - S.P.B. 12-09	
PLOT DATE = 2/5/2025	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.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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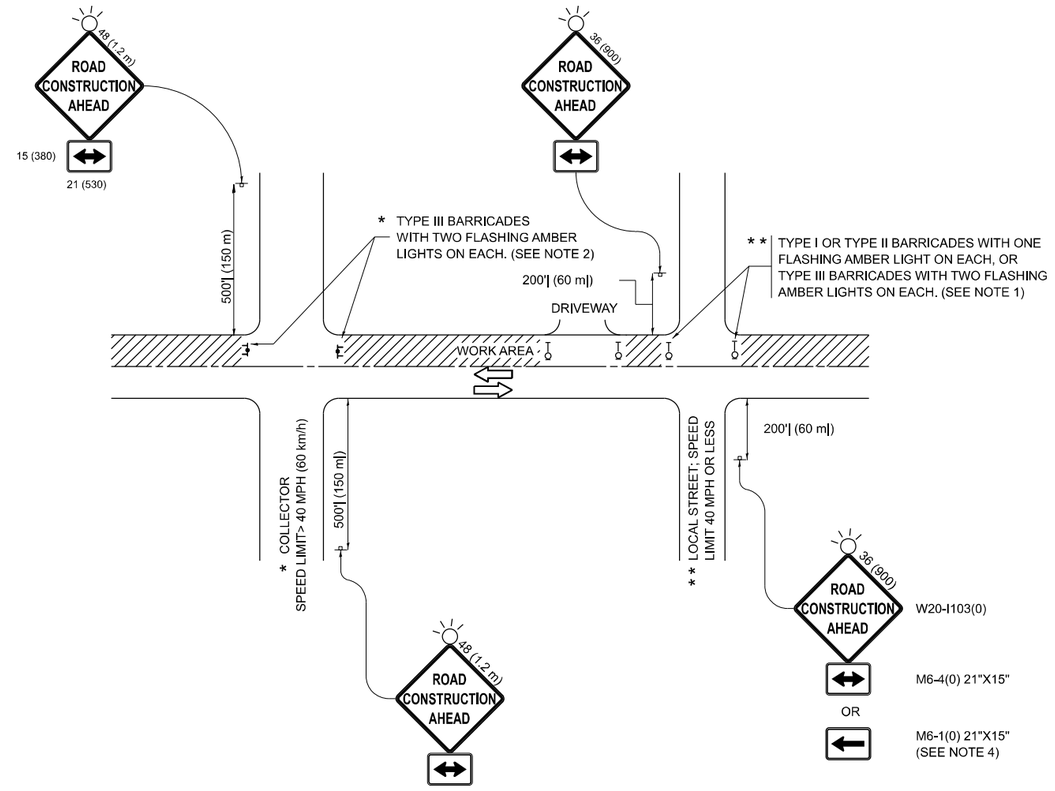
	TC-09	CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



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.

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	DRAWN -	REVISED - A. SCHUETZE 07-01-13	
	CHECKED -	REVISED - A. SCHUETZE 09-15-06	
PLOT DATE = 2/5/2025	DATE - 06-89	REVISED - D. SENDERAK 05-03-24	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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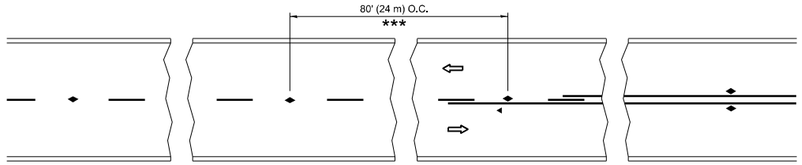
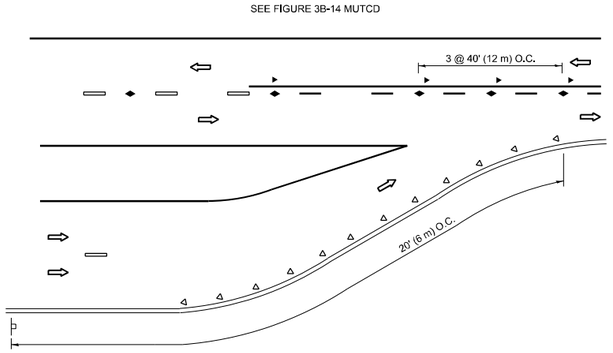
	TC-10	CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

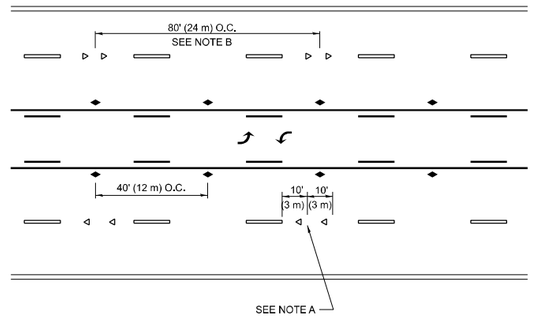


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

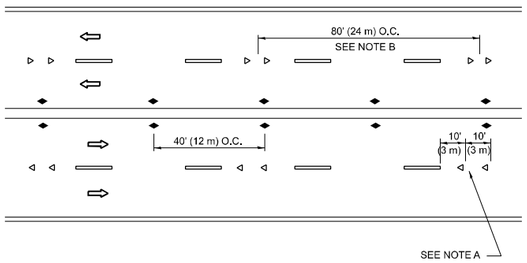
TWO-LANE/TWO-WAY



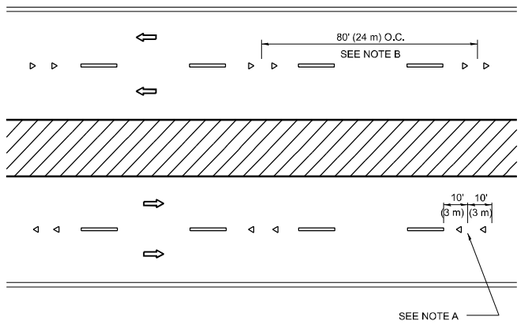
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

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

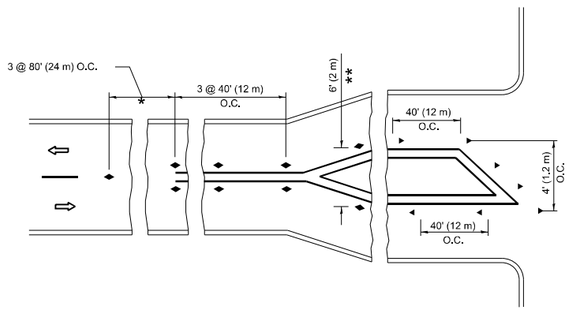
LANE MARKER NOTES

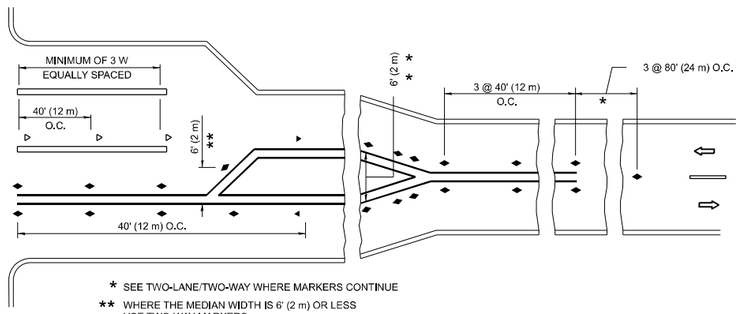
A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

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.





* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

TURN LANES

All dimensions are in inches (millimeters) unless otherwise shown.

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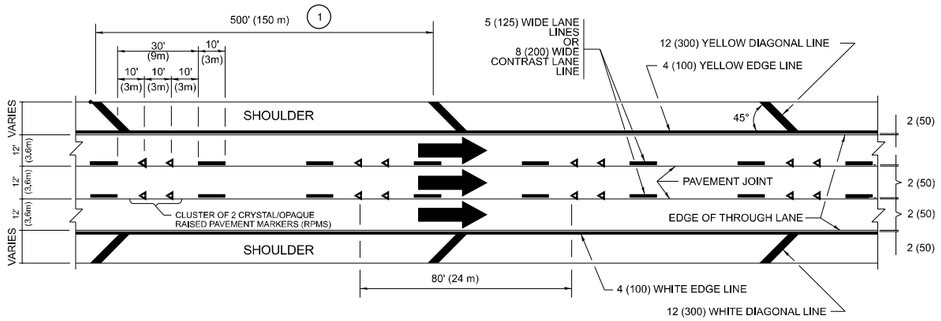
USER NAME = ivan.diaz	DESIGNED -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	
	DRAWN -	REVISED - T. RAMMACHER 01-06-00			
	CHECKED -	REVISED - C. JUCIUS 09-09-09			
PLOT DATE = 2/5/2025	DATE -	REVISED - C. JUCIUS 07-01-13		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.	

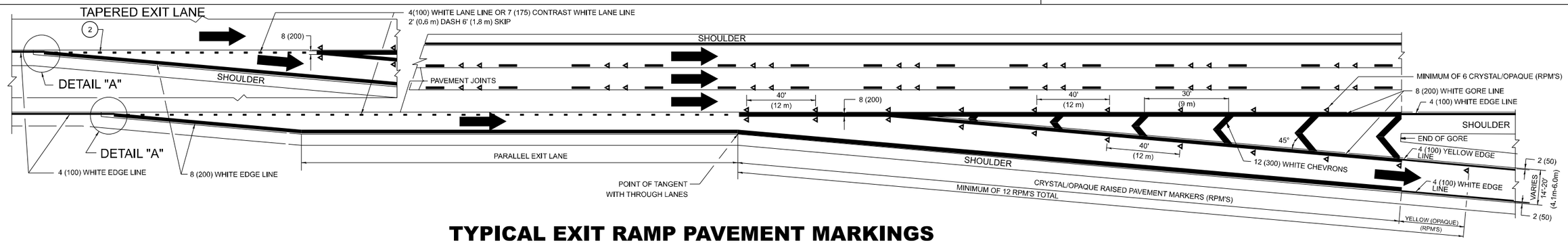
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323,3-CF) BR, I 24	COOK	106	101
TC-11		CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			



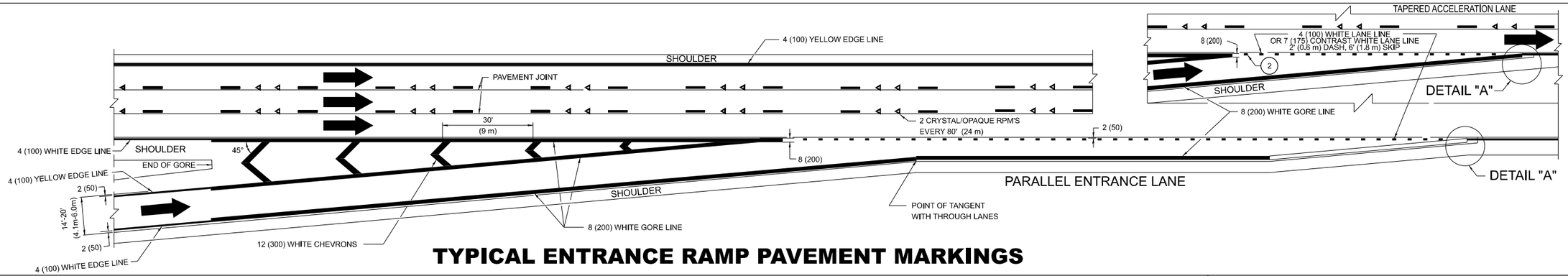
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

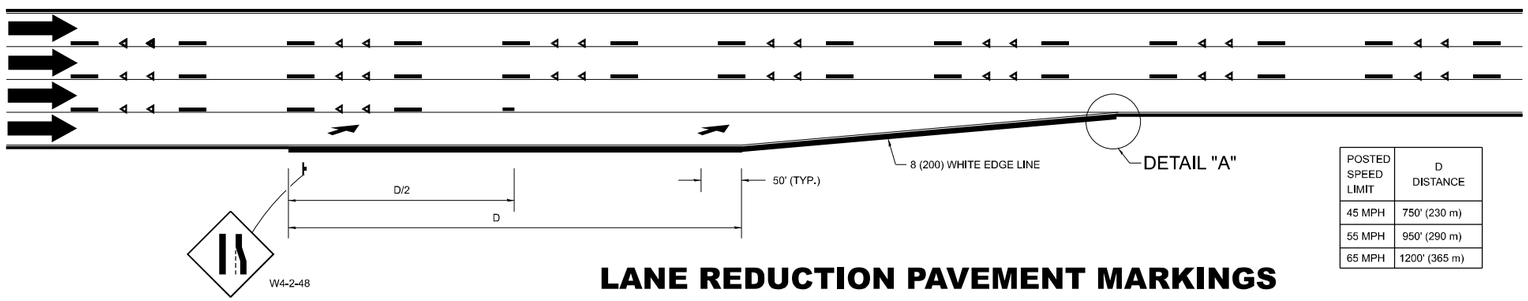
1. THERMOPLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON HMA PAVEMENTS.
2. POLYUREA OR MODIFIED URETHANE PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON PCC PAVEMENTS.
3. PREFORMED PLASTIC PAVEMENT MARKING LINE 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

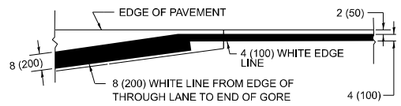


TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



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.

USER NAME = ivan.diaz	DESIGNED - D.W.S.	REVISED - S.P.B. 01-10	
	DRAWN -	REVISED - M.D. 05-13	
	CHECKED -	REVISED - M.D. 09-17	
PLOT DATE = 2/5/2025	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.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR. I 24	COOK	106	102
	TC-12	CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

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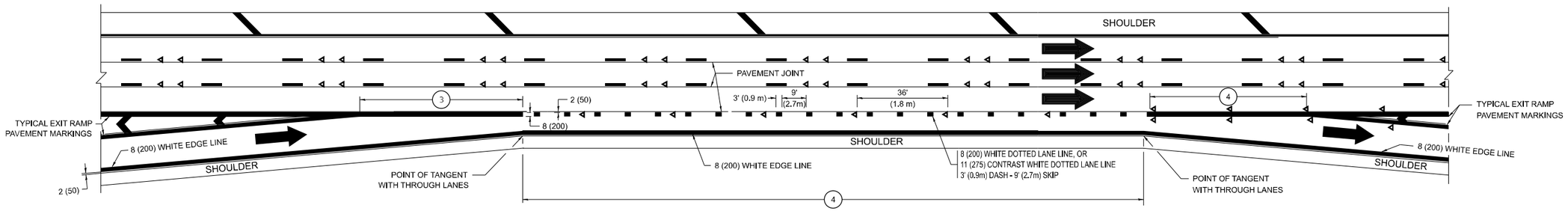
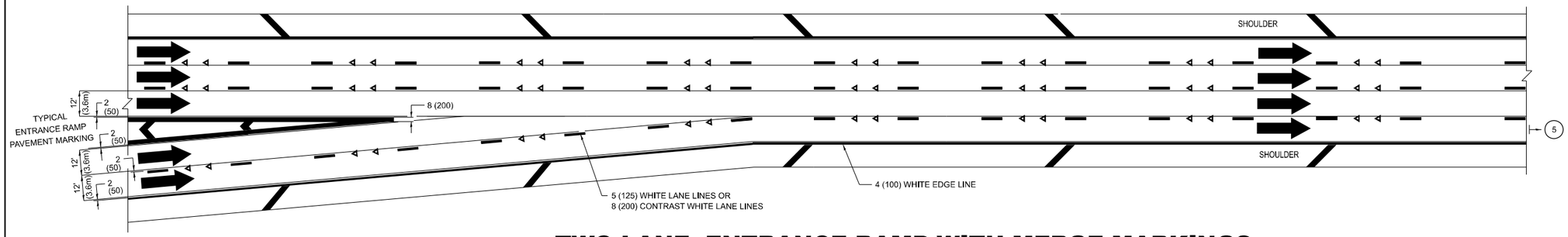
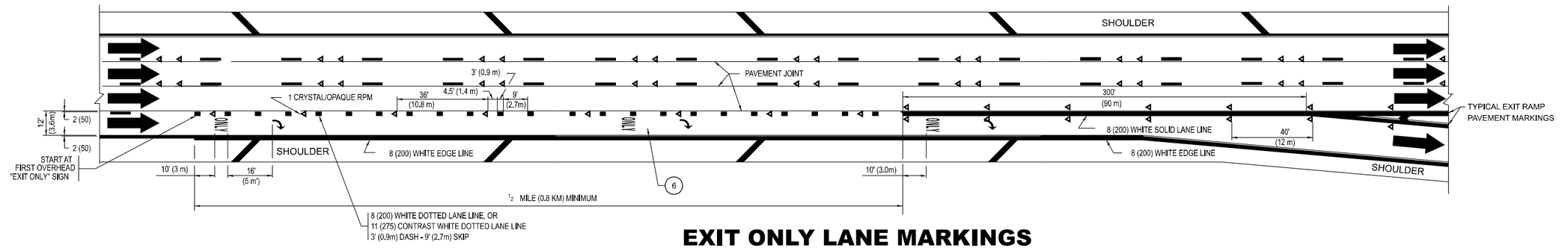


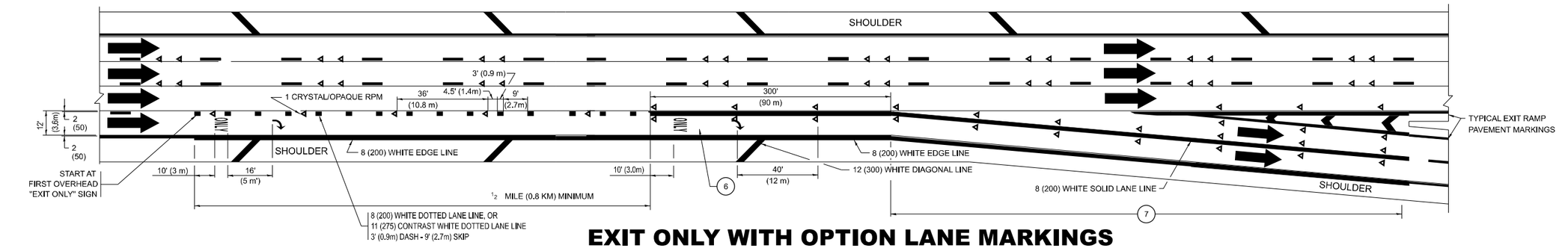
AUXILIARY LANE MARKINGS



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.

MODEL: 12b [Sheet]
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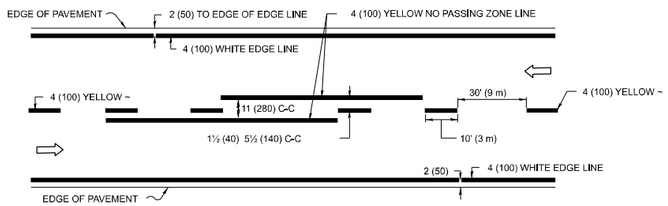
	DRAWN -	REVISED - S.P.B. 01-07	
	CHECKED -	REVISED - S.P.B. 01-10	
PLOT DATE = 2/5/2025	DATE - 01-90	REVISED - M.D. 09-17	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

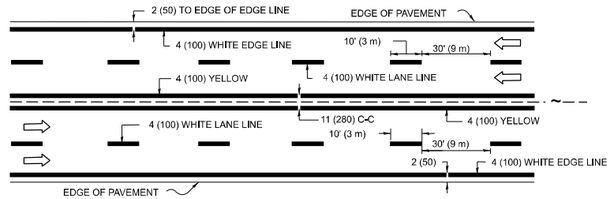
MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS

SCALE: NONE | SHEET 2 OF 2 SHEETS | STA. | TO STA.

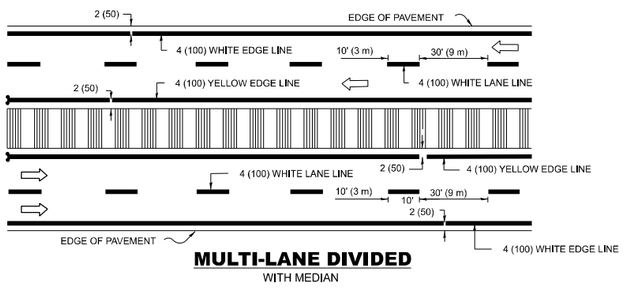
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	103
	TC-12	CONTRACT NO. 62X40		
	ILLINOIS | FED. AID PROJECT			



2-LANE ROADWAY

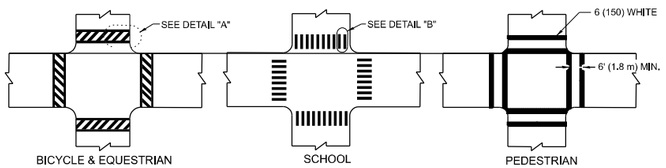


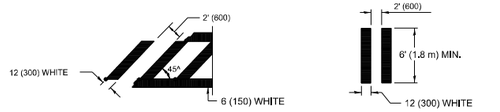
MULTI-LANE UNDIVIDED



MULTI-LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

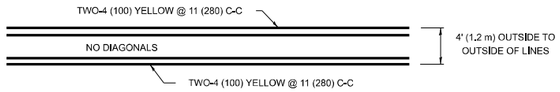




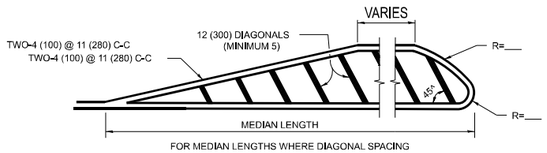
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



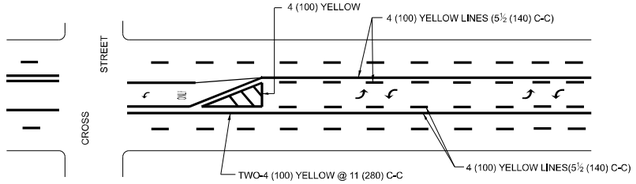
4' (1.2 m) WIDE MEDIANS ONLY



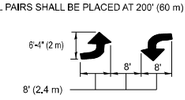
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

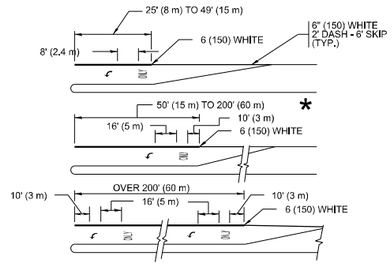


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

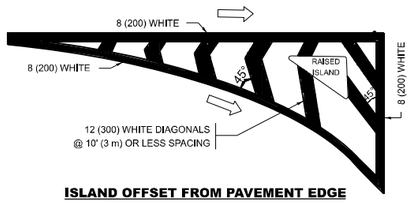


FULL SIZE LETTERS 8' (2,4 m) AND ARROWS SHALL BE USED.
AREA = 15,6 SQ. FT. (1,5 m²) **ONLY** AREA = 20,8 SQ. FT. (1,9 m²)

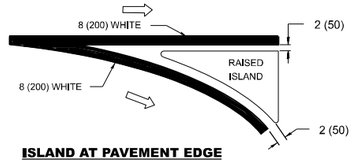
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

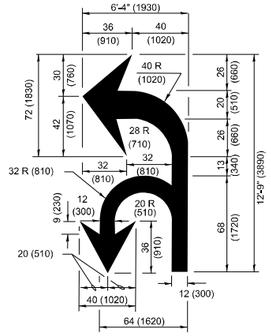


ISLAND OFFSET FROM PAVEMENT EDGE

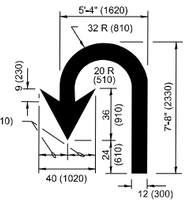


ISLAND AT PAVEMENT EDGE

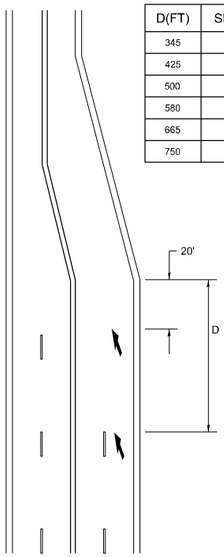
TYPICAL ISLAND MARKING



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.

MODEL: 13 [Sheet]
FILE NAME: c:\pw_work\pwdot\diazia\d1045696\D102625-sht-DistStds.dgn

USER NAME = ivan.diaz	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09	
	DRAWN -	REVISED - C. JUCIUS 07-01-13	
	CHECKED -	REVISED - C. JUCIUS 12-21-15	
PLOT DATE = 2/5/2025	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16	

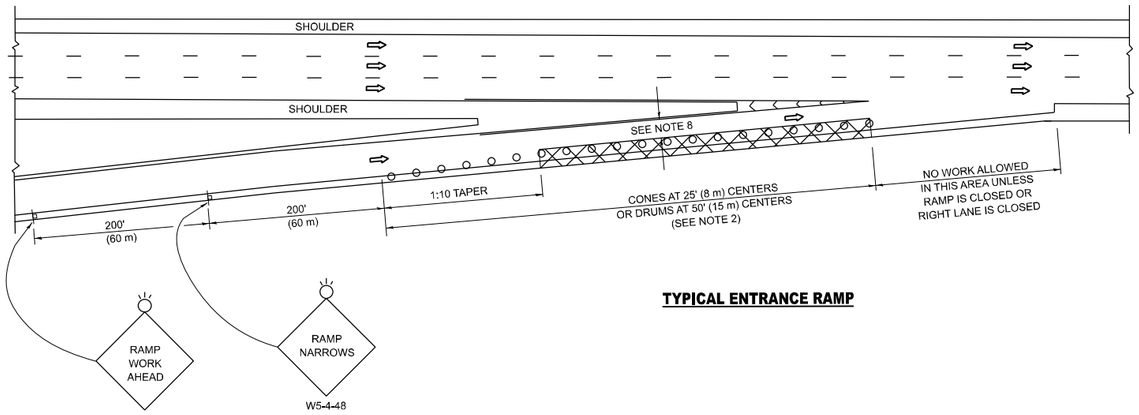
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

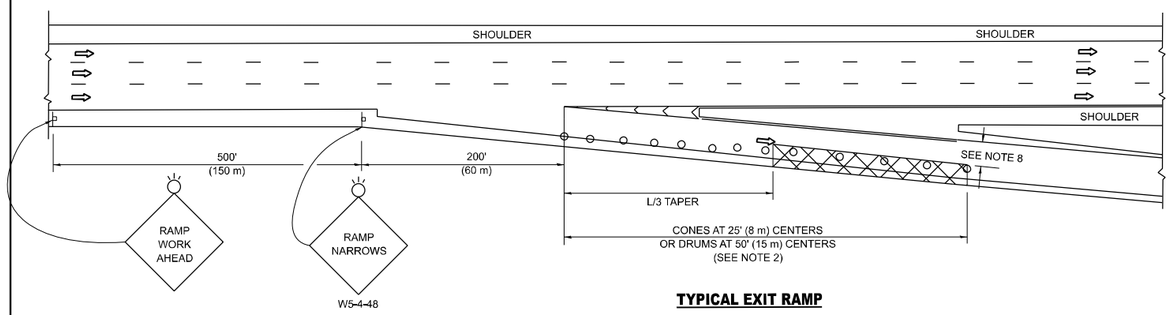
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323,3-CF) BR, I 24	COOK	106	104
TC-13		CONTRACT NO. 62X40		
		ILLINOIS	FED. AID PROJECT	

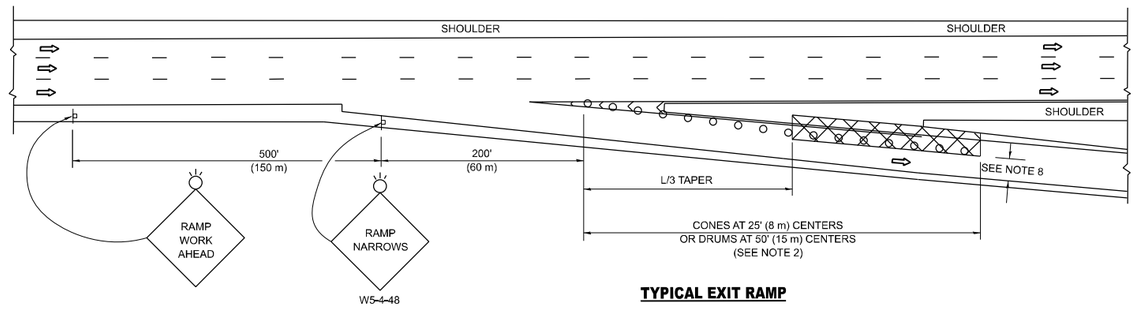
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP

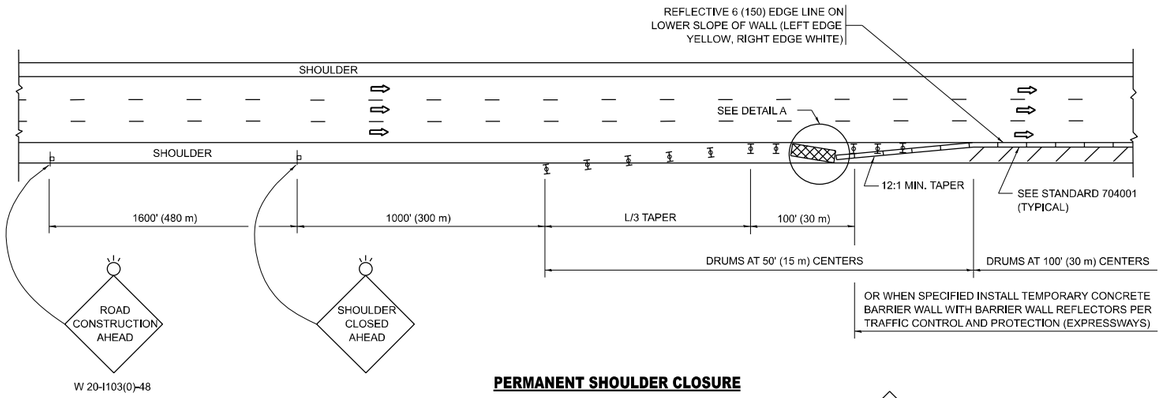


TYPICAL EXIT RAMP

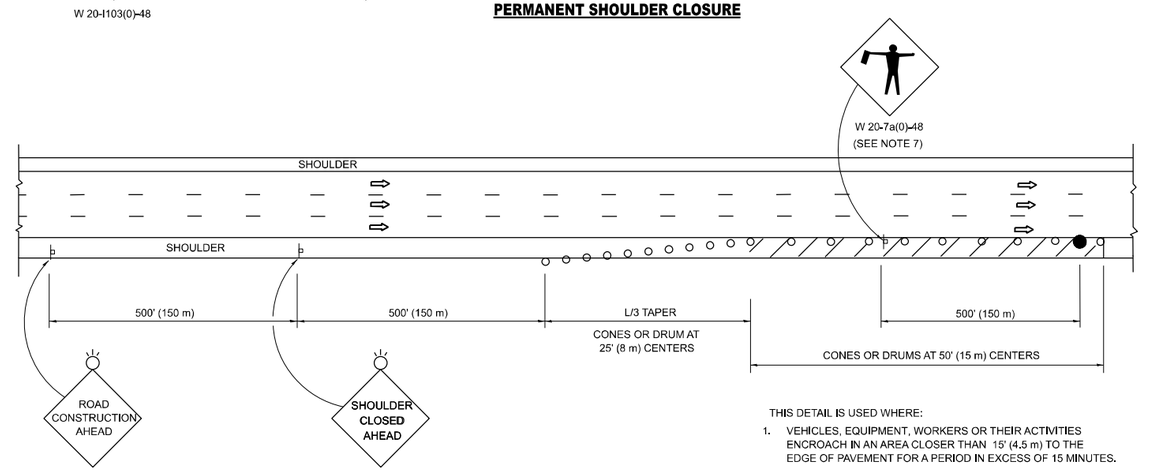


TYPICAL EXIT RAMP

SHOULDER CLOSURE DETAILS



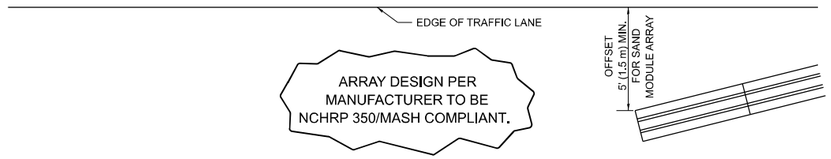
PERMANENT SHOULDER CLOSURE



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.

TEMPORARY SHOULDER CLOSURE



DETAIL "A"
IMPACT ATTENTUATOR, 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	
	METRIC	ENGLISH
45 mph (80 km/h) OR GREATER:	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 NIGHTTIME 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.
9. TEMPORARY SHOULDER AND NON-SYSTEM INTERCHANGE PARTIAL RAMP CLOSURES ARE ALLOWED WEEKDAYS BETWEEN 9:00 A.M. AND 3:00 P.M. AND BETWEEN 7:00 P.M. AND 5:00 A.M. OR AS APPROVED BY THE EXPRESSWAY TRAFFIC OPERATIONS ENGINEER. PERMANENT SHOULDER AND PARTIAL RAMP CLOSURES WILL ONLY BE PERMITTED IF CALLED FOR IN THE PLANS OR AS APPROVED BY THE EXPRESSWAY OPERATIONS ENGINEER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MODEL: 17 [Sheet]
FILE NAME: c:\pw_work\pwidot\diazia\d1045696\D1026225-sht-DistStds.dgn

USER NAME = Ivan.diaz	DESIGNED -	REVISED - M.D. 06-13	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN - D.W.S.	REVISED - M.D. 01-18	
	CHECKED -	REVISED - M.D. 10-20	
PLOT DATE = 2/5/2025	DATE - 11-96	REVISED - D.S. 05-24	

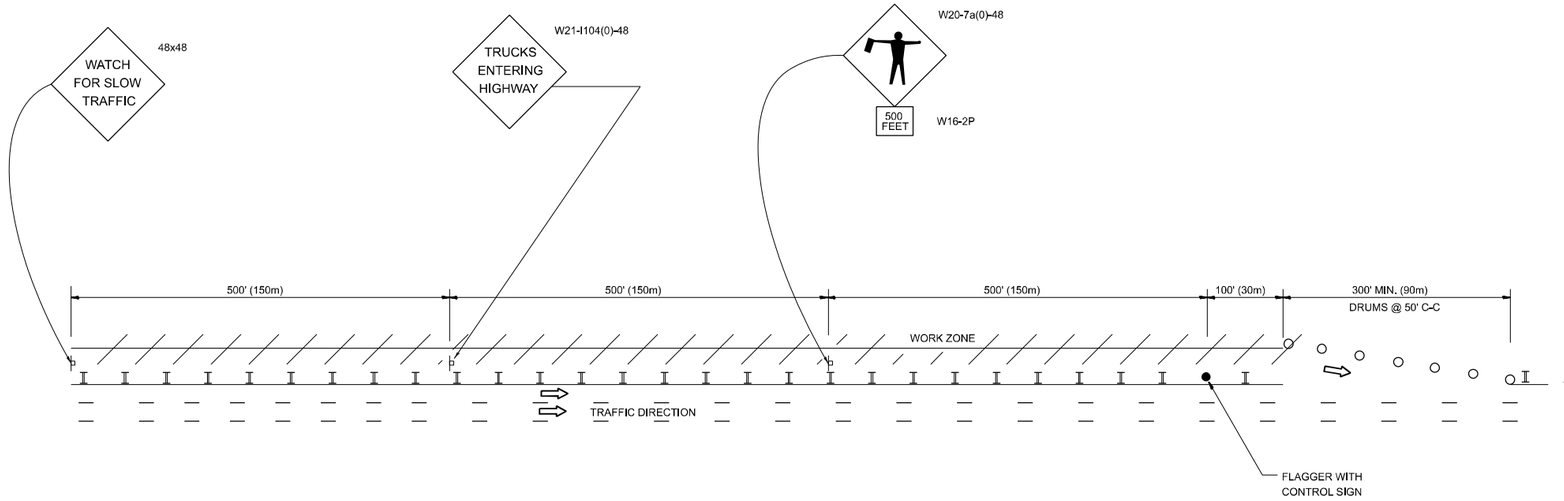
TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

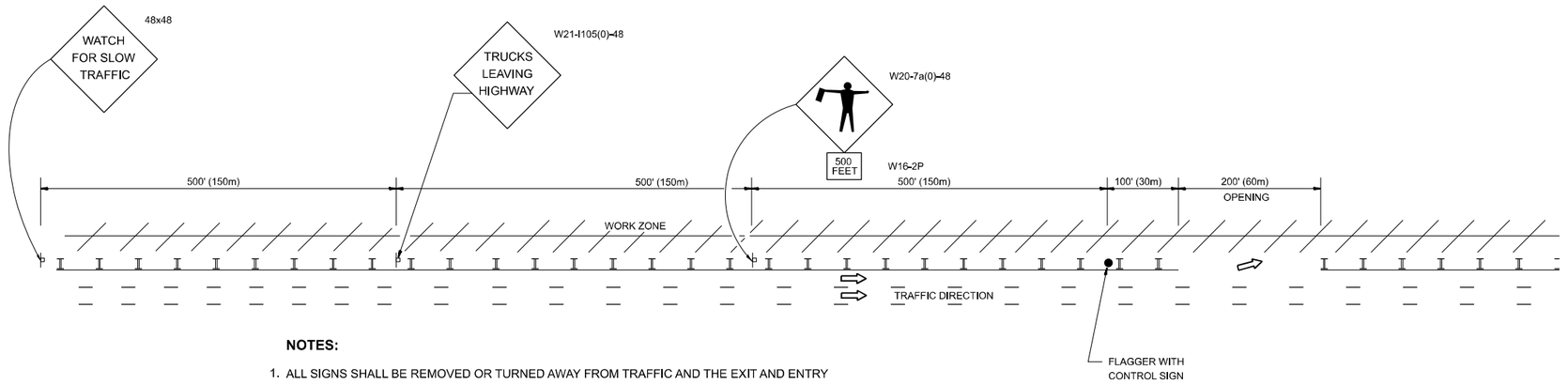
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	105
	TC-17	CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			

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

MODEL: 18 [Sheet]
FILE NAME: c:\pw_work\pwidot\diazia\d1045696\D102625-sht-DistStds.dgn

USER NAME = ivan.diaz	DESIGNED -	REVISED -	J.A.F. 02-06
	DRAWN -	REVISED -	S.P.B. 01-07
	CHECKED -	REVISED -	S.P.B. 12-09
PLOT DATE = 2/5/2025	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.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(068-2323.3-CF) BR, I 24	COOK	106	106
	TC-18	CONTRACT NO. 62X40		
	ILLINOIS FED. AID PROJECT			