

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	1
		ILLINOIS	CONTRACT NO. 76P02	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA: IL 161

2019 ADT: 7850 (ACTUAL)
2020 ADT: 8000 (ESTIMATED)
2040 ADT: 10700 (ESTIMATED)

SU: 7.3%
MU: 2.3%

FUNCTIONAL CLASSIFICATION:

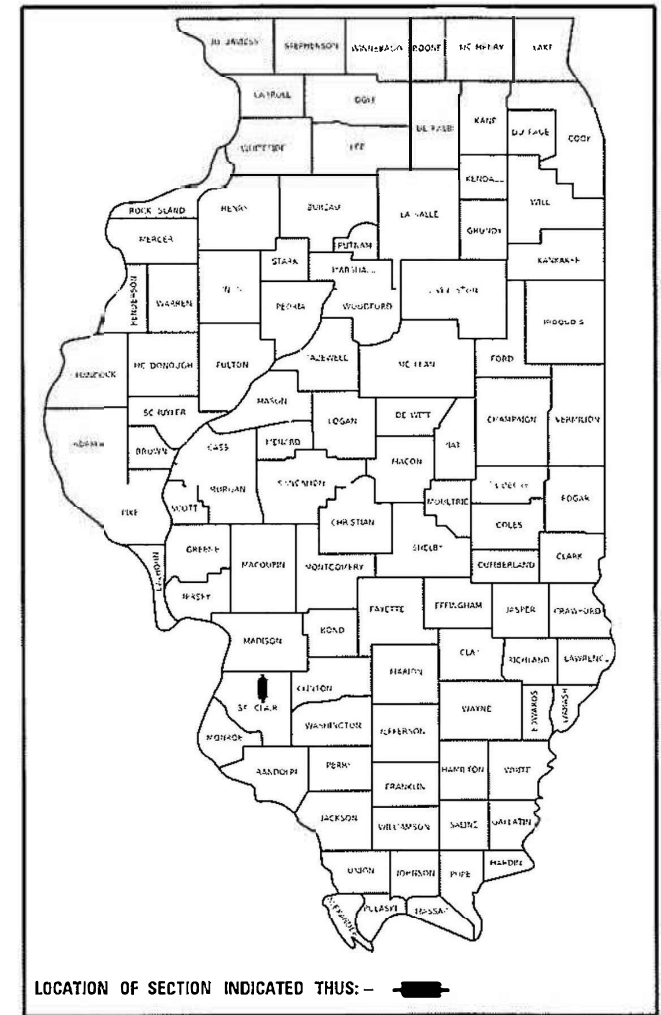
OTHER PRINCIPAL ARTERIAL (IL 161)

**PROPOSED
HIGHWAY PLANS**

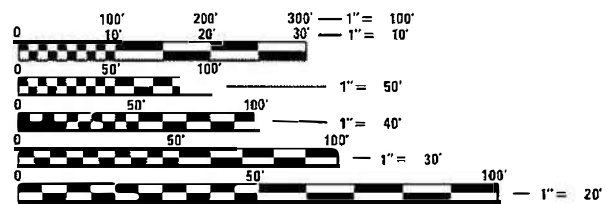
FAP ROUTE 805 (IL 161)
SECTION 125CLV-1
CULVERT REPAIR
ST. CLAIR COUNTY

C-98-141-20

D-98-131-20

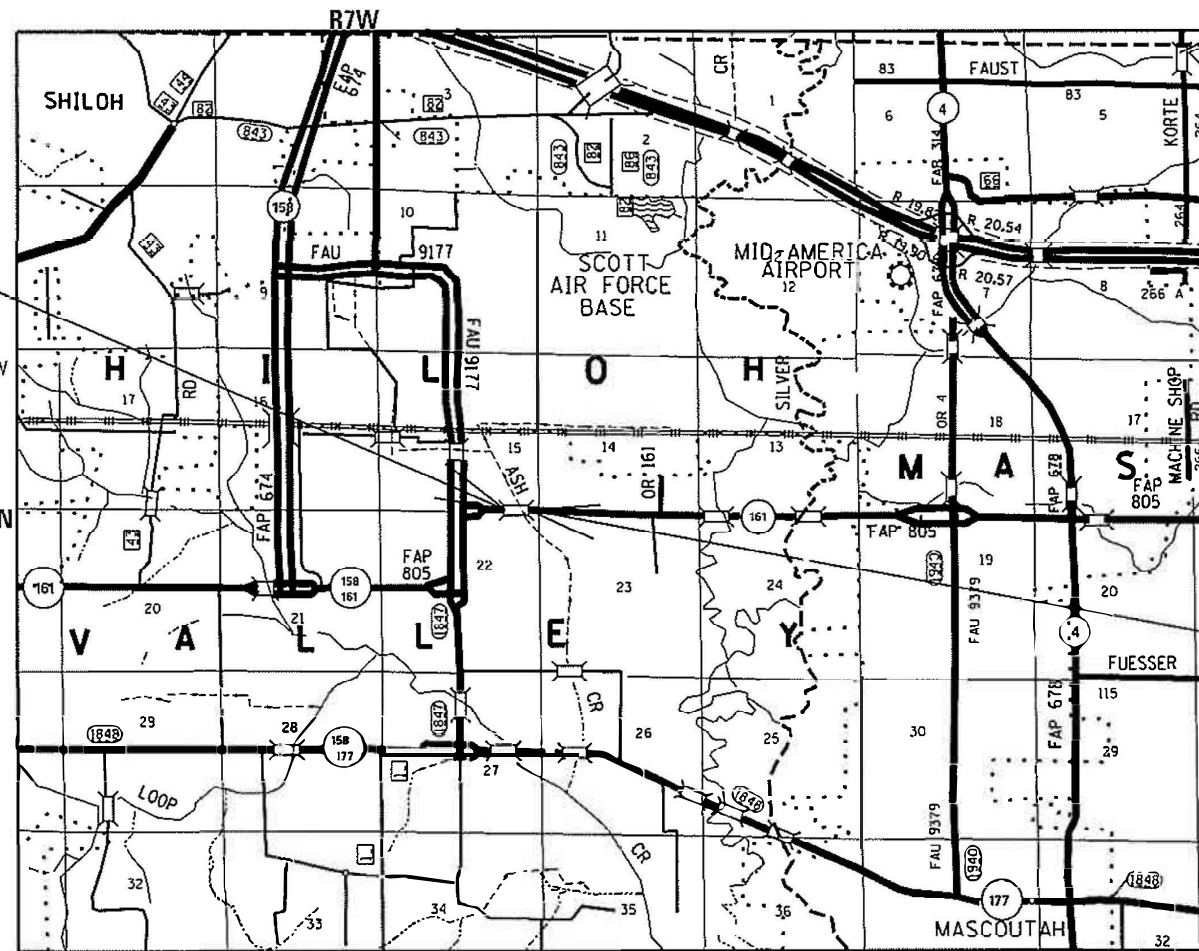


PROJECT START:
SN: 082-2003
STA. 425+29.7
LAT: 38°31'35.90" N
LONG: 89°51'22.37" W



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

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



TOWNSHIP: SCOTT AFB /SHILOH VALLEY

NOT TO SCALE
GROSS LENGTH = 65 FT. = 0.0123 MILE
NET LENGTH = 65 FT. = 0.0123 MILE

PROJECT END:
SN: 082-2003
STA. 425+94.5
LAT: 38°31'33.75" N
LONG: 89°51'18.15" W

PROJECT ENGINEER: HERVE GELIN (618) 346-3179
PROJECT MANAGER: MIKE BERG (618) 346-3411

CONTRACT NO. 76P02

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED: *March 25, 21*
Kathleen Roberts
REGIONAL ENGINEER

May 7, 2021
Joe E.A. Clark
ENGINEER OF DESIGN AND ENVIRONMENT

May 7, 2021
James J. Quinn
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

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OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STANDARDS, GENERAL NOTES, AND COMMITMENTS
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- 7 LAYOUT PLAN DETAIL
- 8 DOWELL BAR AND JOINT DETAIL
- 9-11 TEMPORARY CONCRETE BARRIER AND PAVEMENT WIDENING DETAIL
- 12 WIDE LOAD SIGNING DETAIL
- 13-19 CULVERT PLANS

HIGHWAY STANDARDS

- 000001-08 701311-03 001001-02
- 001006 701321-18 642006-01
- 701001-02 701326-04 643001-02
- 701006-05 701901-08
- 701011-04 704001-08
- 701201-05 780001-05
- 701301-04 781001-04
- 701306-04

- 2. NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.
- 3. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
- 4. PROJECT SHALL BE CONSTRUCTED WITHOUT DISTURBING THE EXISTING GUARDRAIL OR THE EXISTING BRIDGE RAIL.

COMMITMENTS: NONE

GENERAL NOTES:

1. UTILITIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

- AMEREN ILLINOIS
GAS AND ELECTRIC BURIED, AERIAL
1050 WEST BOULEVARD, BELLVILLE IL, 62221-4169
- AT&T ILLINOIS
COMMUNICATIONS BURIED, AERIAL
160 WEST DIVISION STREET, MARYVILLE IL, 62062-0378
- CHARTER COMMUNICATIONS, INC
CABLE TV BURIED, AERIAL
7645 MAGNA DRIVE, SUITE 100, BELLVILLE IL, 62223
- EVERSTREAM GLC HOLDING COMPANY LLC
COMMUNICATIONS BURIED, AERIAL
1228 EUCLID AVE., SUITE 250, CLEVELAND OH, 44115
- FRONTEIR COMMUNICATIONS
COMMUNICATIONS BURIED, AERIAL
SOUTHERN DIVISION, 111 E. STATE STREET, MASCOUTAH IL, 62258
- ILLINOIS AMERICAN WATER COMPANY
WATER BURIED
100 N. WATER WORKS DRIVE, BELLEVILLE IL, 62223-9040
- LEVEL 3 COMMUNICATIONS, LLC
COMMUNICATIONS BURIED, AERIAL
1015 LOCUST STREET, SUITE 800, ST. LOUIS MO, 63101
- WINDSTREAM COMMUNICATIONS
COMMUNICATIONS BURIED, AERIAL
4001 N. RODNEY PARHAM RD., LITTLE ROCK AK, 72212

MIXTURE REQUIREMENTS		
ROUTE	FAP 805 (IL 161)	
SECTION	125CLV-1	
COUNTY	St. Clair	
CONTRACT	76P02	
DESCRIPTION:	Slab on Slab Bridge Repair - IL 161 over Ash Creek 2.7 miles W of IL 4 SN:082-2003	
ADT (Construction Yr):	7850	
MU%:	2.3	
SU%:	7.3	
20 YR. ESAL'S:	1.81	
MIXTURE USE	POLY SURFACE	BASE COURSE
AC/PG	SBS PG 76-22	PG 64-22
RAP % (MAX)	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION (Gradation)	IL 9.5	IL 19.0
FRICTION AGG	MIXTURE "D"	MIXTURE "B"
QUALITY MGMT PROGRAM	QC/QA	QC/QA
MIXTURE USE	SHOULDERS (lower)	SHOULDERS (surface)
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=30	4.0% @ Ndes=30
MIX COMPOSITION (Gradation)	IL 19.0L	IL 9.5L
FRICTION AGG		
QUALITY MGMT PROGRAM	QC/QA	QC/QA

PLAN QUANTITIES FOR HMA ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS).

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DRAWN - _____	REVISED - _____	805			125CLV-1	ST. CLAIR	19	2		
PLOT SCALE = 40.0000" / in.	CHECKED - _____	REVISED + _____			CONTRACT NO. 76P02					
PLOT DATE = 3/23/2021	DATE - _____	REVISED + _____			SCALE: _____ SHEET 1 OF 1 SHEETS STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				URBAN
				100% STATE BOX CULVERT 0013 082-2003
20200100	EARTH EXCAVATION	CU YD	48	48
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	130	130
40600990	TEMPORARY RAMP	SQ YD	20	20
40604162	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	25	25
40800029	BITUMINOUS MATERIALS (TACK COAT)	POUND	90	90
44000100	PAVEMENT REMOVAL	SQ YD	130	130
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	188	188
44004250	PAVED SHOULDER REMOVAL	SQ YD	14	14
44201297	DOWEL BARS 1"	EACH	36	36
48101200	AGGREGATE SHOULDERS, TYPE B	TON	10	10
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	8	8
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	12	12
48203100	HOT-MIX ASPHALT SHOULDERS	TON	5	5
50102400	CONCRETE REMOVAL	CU YD	2	2

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				URBAN
				100% STATE BOX CULVERT 0013 082-2003
50300255	CONCRETE SUPERSTRUCTURE	CU YD	58	58
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	19280	19280
50800530	MECHANICAL SPLICERS	EACH	127	127
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	130	130
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	160	160
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	80	80
70400100	TEMPORARY CONCRETE BARRIER	FOOT	350	350

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PROJECT DATE: 3/19/2021

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PLOT DATE = 3/19/2021		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76P02	

CONSTR. CODE
URBAN 100% STATE
BOX CULVERT
0013
082-2003

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	350	350
70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1
70600330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	1	1
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	150	150
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	3	3
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	3	3
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1
X7200200	WIDE LOAD SIGNING	L SUM	1	1
Z0005300	BOX CULVERTS TO BE CLEANED	EACH	3	3
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	16	16
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	4	4
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500
Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	65	65

* SPECIALTY ITEM
Ø 0042

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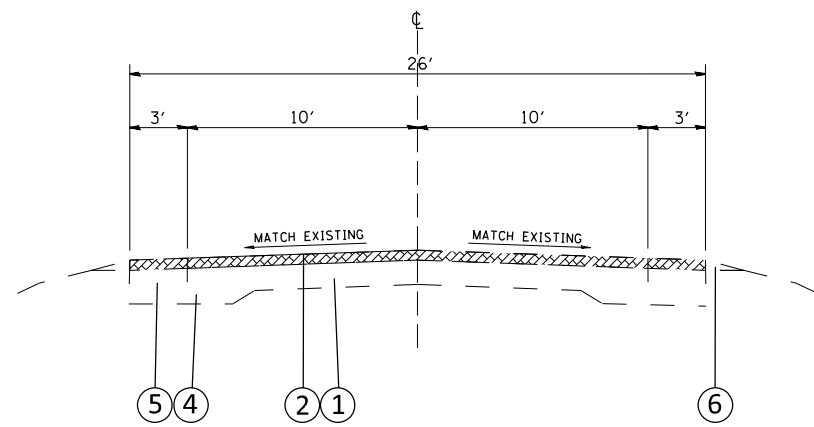
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

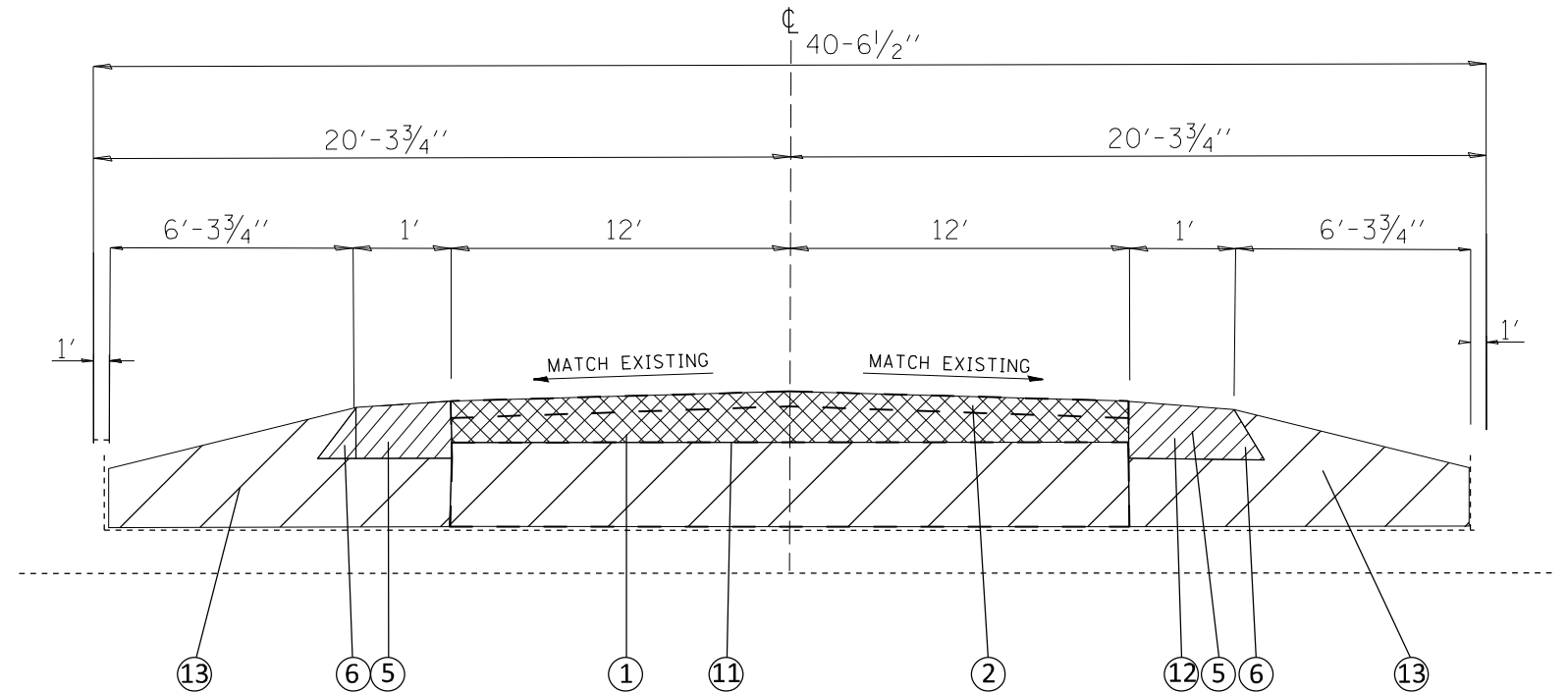
SUMMARY OF QUANTITIES

SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____

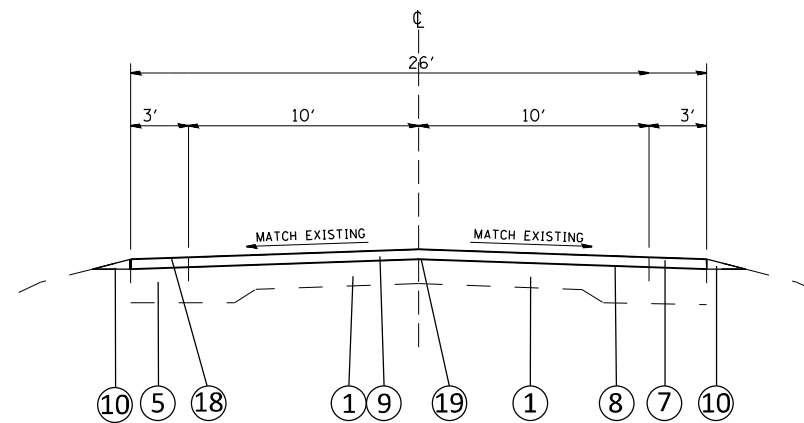
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CONTRACT NO. 76P02			ILLINOIS FED. AID PROJECT	



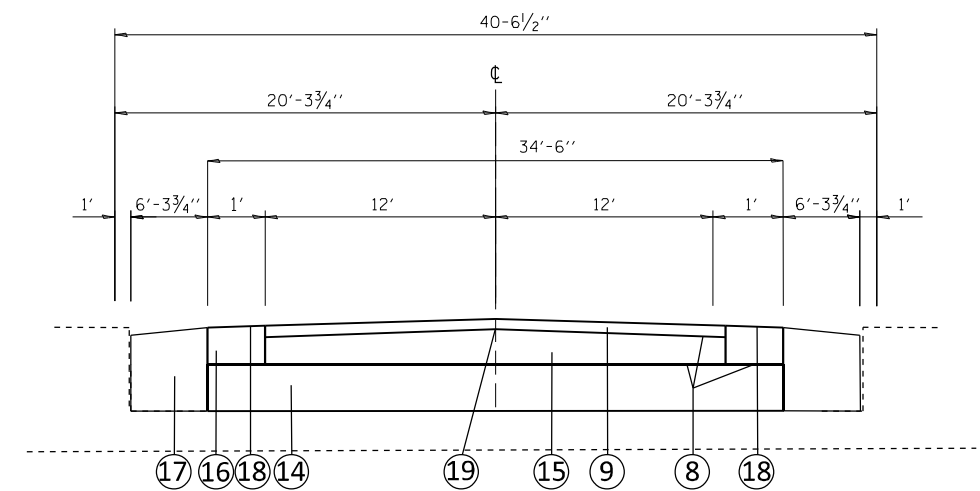
EXISTING ROADWAY TYPICAL SECTION
 STA. 425+29.7 TO STA. 425+39.7
 STA. 425+84.5 TO STA. 425+94.5



EXISTING CULVERT TYPICAL SECTION
 STA. 425+39.7 TO STA. 425+84.5



PROPOSED ROADWAY TYPICAL SECTION
 STA. 425+29.7 TO STA. 425+39.7
 STA. 425+84.5 TO STA. 425+94.5

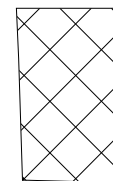


PROPOSED CULVERT TYPICAL SECTION
 STA. 425+39.7 TO STA. 425+84.5

- LEGEND**
- ① EXISTING PCC PAVEMENT, 10"
 - ② EXISTING HMA SURFACE, 2"
 - ③ EXISTING HMA BASE COURSE
 - ④ EXISTING BASE WIDENING
 - ⑤ EXISTING HMA SHOULDER, 8"
 - ⑥ EXISTING AGGREGATE SHOULDER
 - ⑦ PROPOSED HMA SHOULDER, 2"
 - ⑧ PROPOSED BITUMINOUS MATERIAL (TACK COAT)
 - ⑨ PROPOSED HMA SURFACE COURSE, 2"
 - ⑩ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
 - ⑪ PROPOSED PAVEMENT REMOVAL, 12"
 - ⑫ PROPOSED PAVED SHOULDER REMOVAL, 8"
 - ⑬ PROPOSED EARTH EXCAVATION, 6"-10"
 - ⑭ PROPOSED CONCRETE SUPERSTRUCTURE, 12"
 - ⑮ PROPOSED HMA BASE COURSE, 8"
 - ⑯ PROPOSED HMA SHOULDERS, 8"
 - ⑰ PROPOSED AGGREGATE SHOULDER, TYPE B
 - ⑱ PROPOSED SHOULDER RUMBLE STRIP, 8"
 - ⑲ PROPOSED LONGITUDINAL JOINT SEAL

PAVEMENT REMOVAL 12"

HMA SURFACE REMOVAL 2"



EARTH EXCAVATION 6"-10"



SHOULDER REMOVAL & REPLACEMENT 8"



**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76P02	

STAGING SCHEDULE								
LOCATION	PAVEMENT MARKING BLACKOUT TAPE, 5"	SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY RUMBLE STRIPS	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	TEMPORARY RAMP	TEMPORARY IMPACT ATTENUATORS	TEMPORARY IMPACT ATTENUATORS RELOCATE
SN 082-2003	FT.	SQ. FT.	EACH	FT.	FT.	SQ. YD.	EACH	EACH
TOTAL	160	80	6	350	350	20	2	2

PAVEMENT MARKING SCHEDULE				
LOCATION	THERMOPLASTIC PAVEMENT MARKING LINE, 4"		RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER
	WHITE EDGE LINE	YELLOW SKIP-DASH		
STATION	FT.		EACH	EACH
425+29.7 TO 425+94.5	130	20	3	3
TOTAL	150		3	3

PAVING SCHEDULE							
LOCATION	EARTH EXCAVATION	HMA SURFACE REMOVAL, 2"	PAVEMENT REMOVAL	PAVED SHOULDER REMOVAL	DOWEL BARS	BITUMINOUS MATERIALS, (TACK COAT)	HMA BASE COURSE 8"
STATION	CUBIC YARDS	SQ. YDS.	SQ. YDS.	SQ. YDS.	EACH	LBS	SQ. YD.
425+29.7 TO 425+94.5		188		14	36	90	
425+39.7 TO 425+84.5 (Box Culvert Area)	48		130				130
TOTAL	48	188	130	14	36	90	130

PAVING SCHEDULE CONTINUED							
LOCATION	HMA SURFACE COURSE	HMA SHOULDERS, 8"	LONGITUDINAL JOINT SEALANT	AGGREGATE SHOULDER, TYPE B	AGGREGATE WEDGE SHOULDER, TYPE B	SHOULDER RUMBLE STRIPS, 8"	HMA SHOULDERS
STATION	TON	SQ. YDS.	FT.	TON	TON	FT.	TON
425+29.7 TO 425+94.5	25		65		8	130	5
425+39.7 TO 425+84.5 (Box Culvert Area)		12		10			
TOTAL	25	12	65	10	8	130	5

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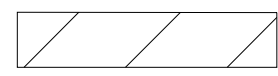
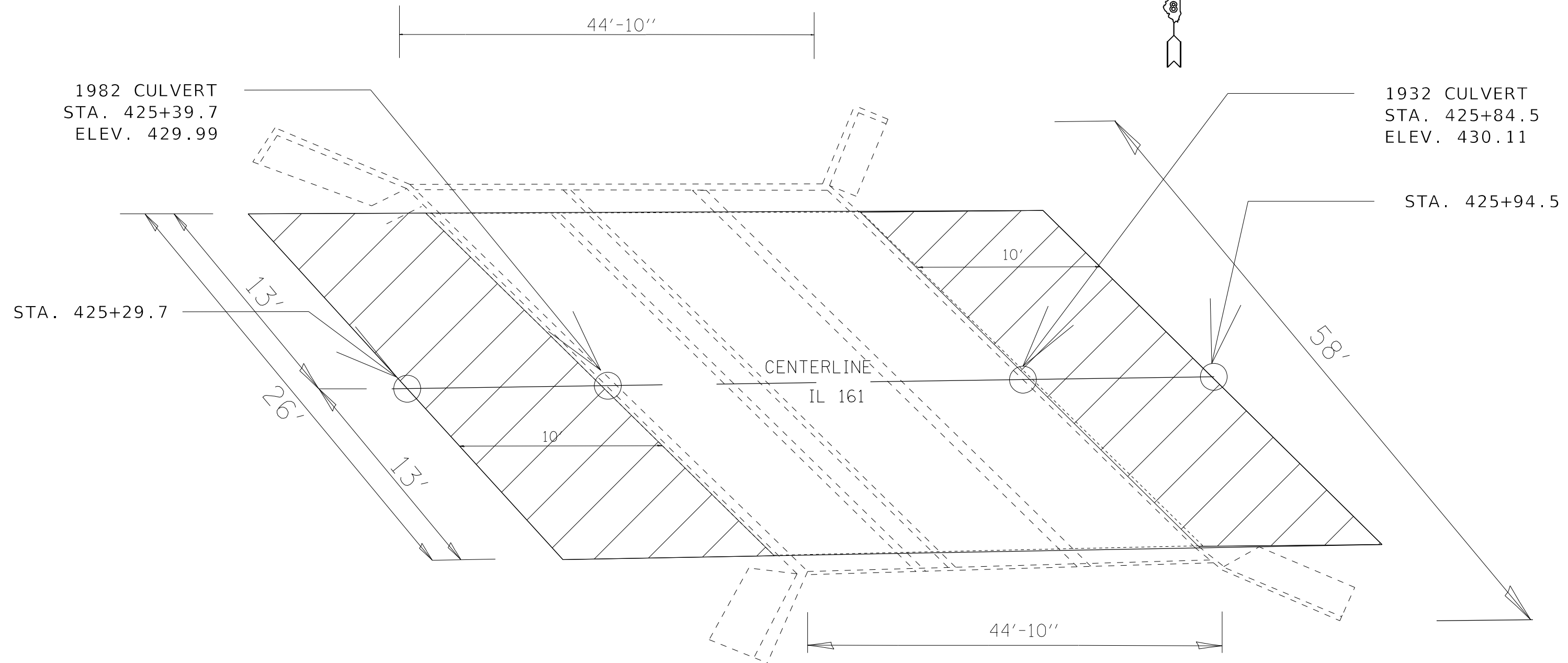
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PLOT DATE = 3/19/2021	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES			
SCALE: _____	SHEET 15 OF 1 SHEETS	STA. _____	TO STA. _____

F.A.P. RTE. 805	SECTION 125CLV-1	COUNTY ST. CLAIR	TOTAL SHEETS 19	SHEET NO. 6
CONTRACT NO. 76P02			ILLINOIS FED. AID PROJECT	

PROJECT LIMITS



RESURFACING 10' OF ROADWAY AFTER
EACH SIDE OF THE CULVERT

NOT TO SCALE

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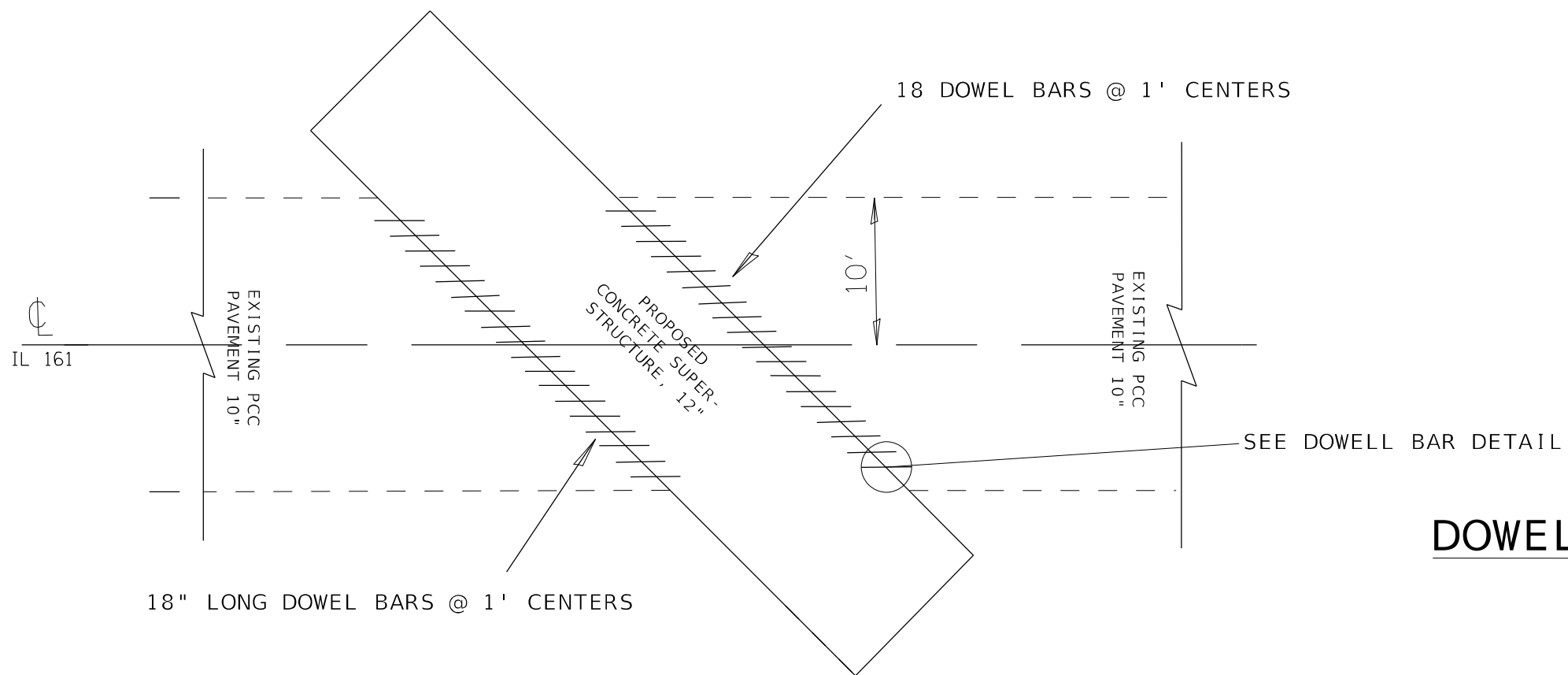
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LAYOUT PLAN DETAIL

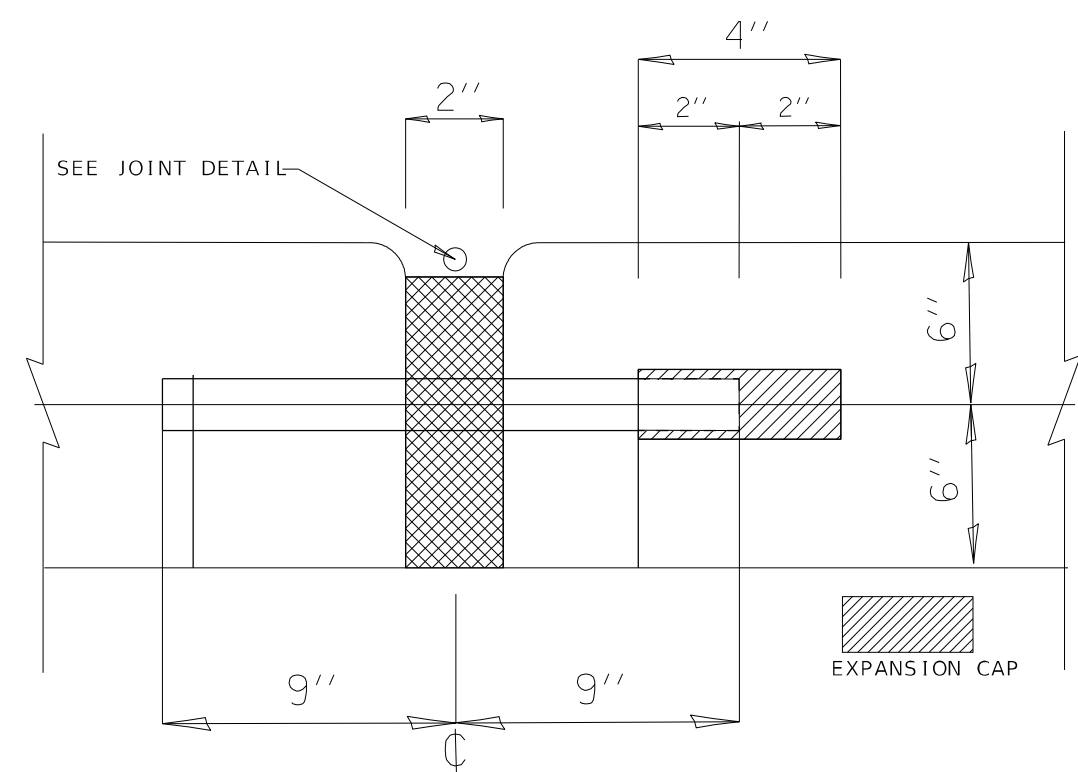
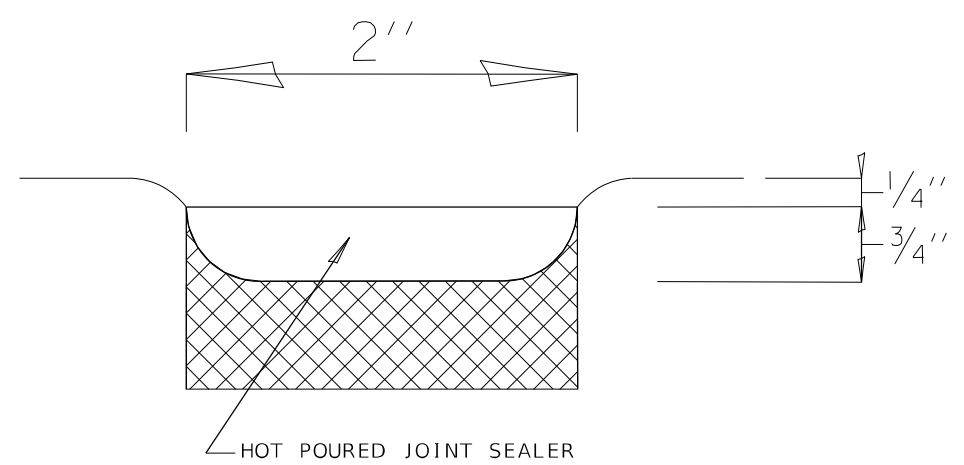
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	7
CONTRACT NO. 76P02				
ILLINOIS FED. AID PROJECT				



DOWELL BAR DETAIL

JOINT SEALER DETAIL



NOT TO SCALE

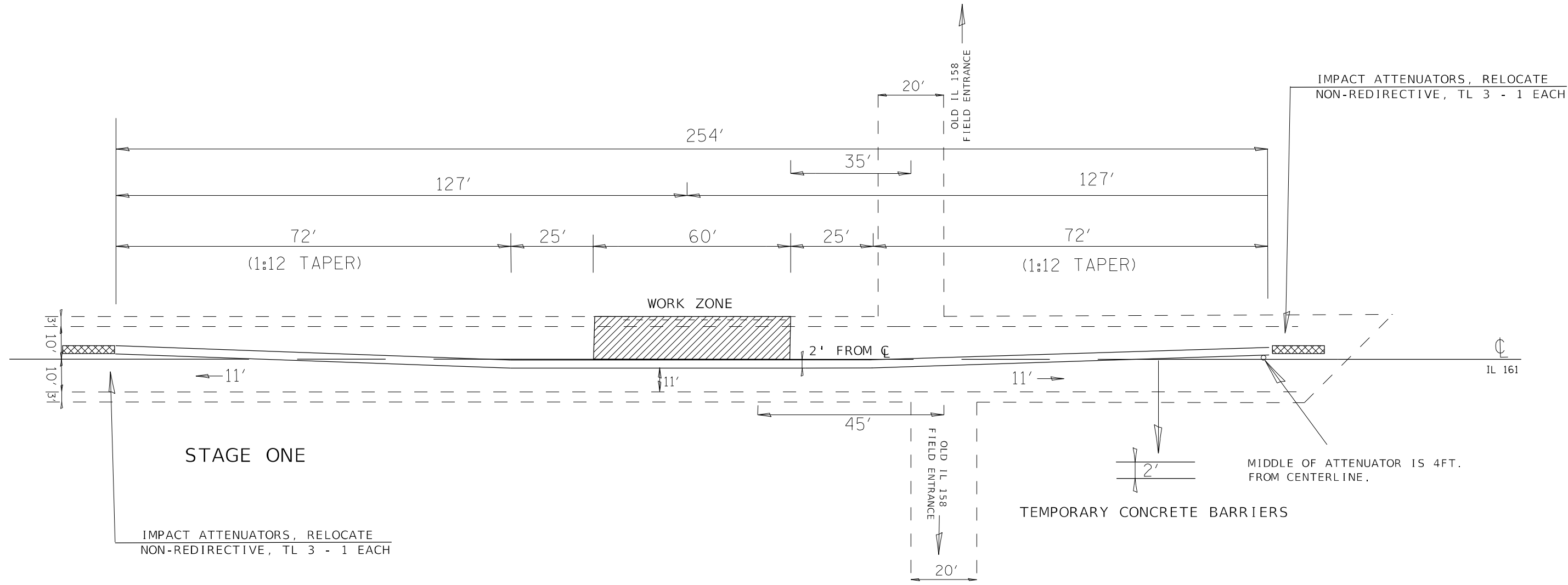
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PLOT DATE = 3/19/2021	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DOWEL BAR AND JOINT DETAIL			
SCALE: _____	SHEET 1	OF 1	SHEETS
	STA. _____	TO STA. _____	

F.A.P. RTE. 805	SECTION 125CLV-1	COUNTY ST. CLAIR	TOTAL SHEETS 19	SHEET NO. 8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76P02	



STAGE ONE

IMPACT ATTENUATORS, RELOCATE
NON-REDIRECTIVE, TL 3 - 1 EACH

IMPACT ATTENUATORS, RELOCATE
NON-REDIRECTIVE, TL 3 - 1 EACH

TEMPORARY CONCRETE BARRIERS

MIDDLE OF ATTENUATOR IS 4FT.
FROM CENTERLINE.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY CONCRETE BARRIER AND PAVEMENT WIDENING DETAIL

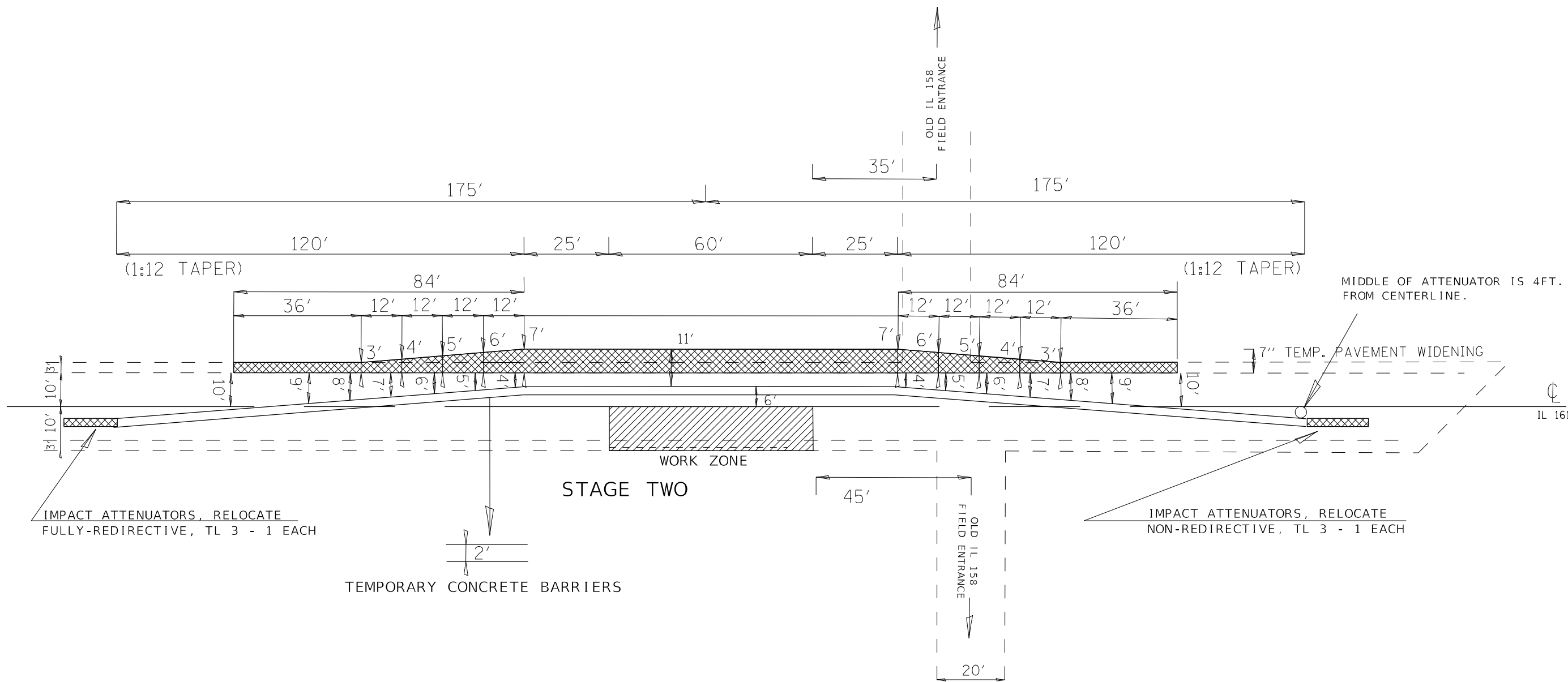
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SCALE: _____ SHEET 1 OF 1 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	9
CONTRACT NO. 76P02				
ILLINOIS FED. AID PROJECT				

NOT TO SCALE

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 PLOT SHEETS: 19
 PLOT SHEET NO.: 9
 PLOT FILE: S:\MODEL\MHMF5_Plan.dwg



IMPACT ATTENUATORS, RELOCATE
FULLY-REDIRECTIVE, TL 3 - 1 EACH

TEMPORARY CONCRETE BARRIERS

STAGE TWO

WORK ZONE

IMPACT ATTENUATORS, RELOCATE
NON-REDIRECTIVE, TL 3 - 1 EACH

MIDDLE OF ATTENUATOR IS 4FT.
FROM CENTERLINE.

7" TEMP. PAVEMENT WIDENING

TEMPORARY PAVEMENT WIDENING

NOT TO SCALE

MODEL: \$MOBELNAME\$
FILE NAME: p:\p\125clv\125clv1\DOT Documents\DOT Offices\District 8\Projects\0876P02\CADD\0876P02-11c-11m.dgn

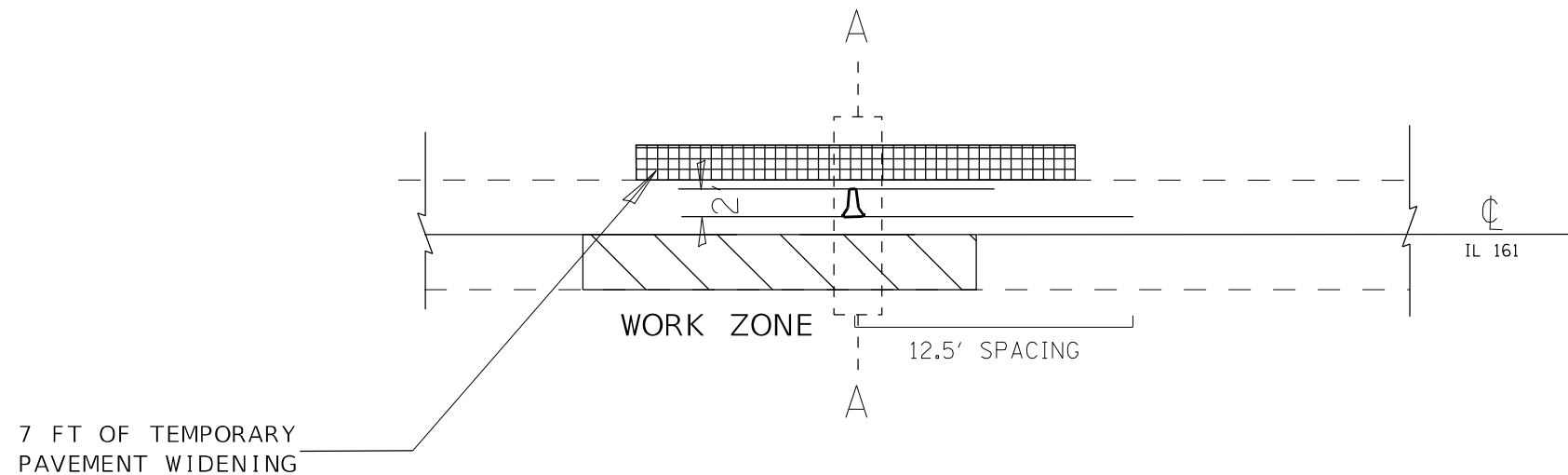
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

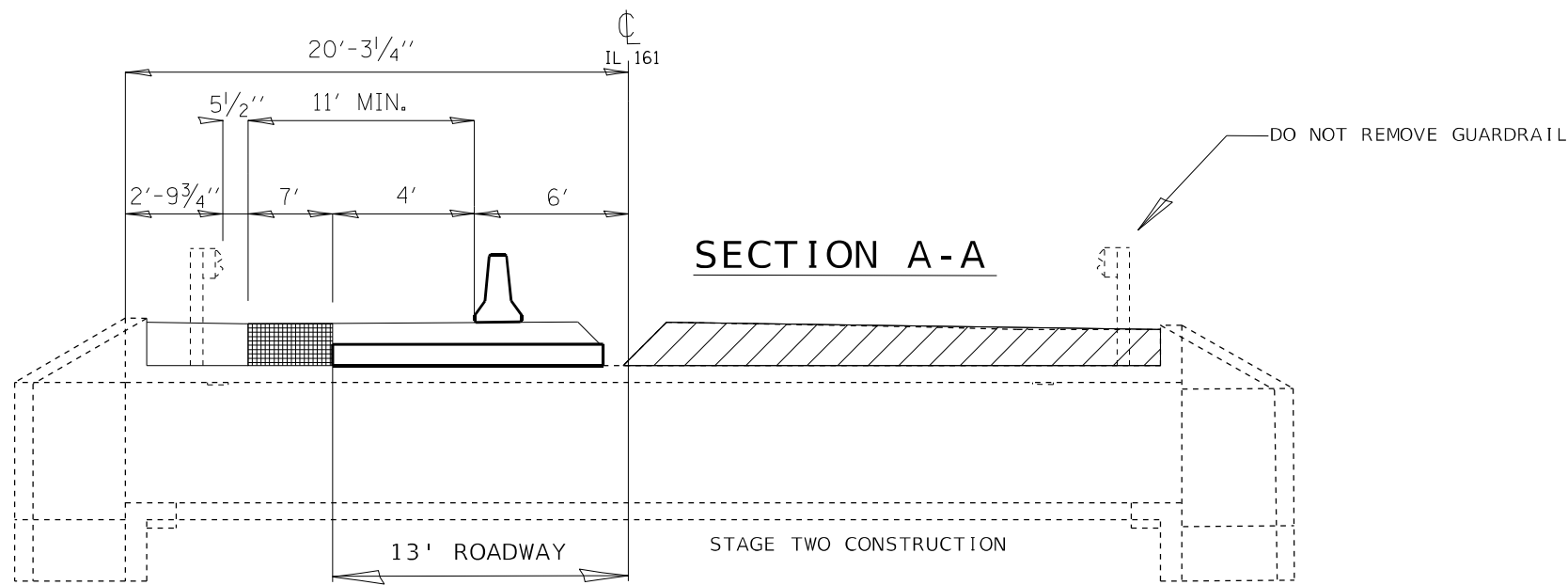
TEMPORARY CONCRETE BARRIER AND PAVEMENT WIDENING DETAIL

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

F.A.P. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	10
CONTRACT NO. 76P02			ILLINOIS FED. AID PROJECT	



TEMPORARY PAVEMENT WIDENING DETAIL



TEMPORARY PAVEMENT WIDENING

WORK ZONE

NOT TO SCALE

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 PROJECT: \\path\project\DOT - Office\District: B\Project\0676902\CAD\Drawings\0676902-01-01.dgn

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

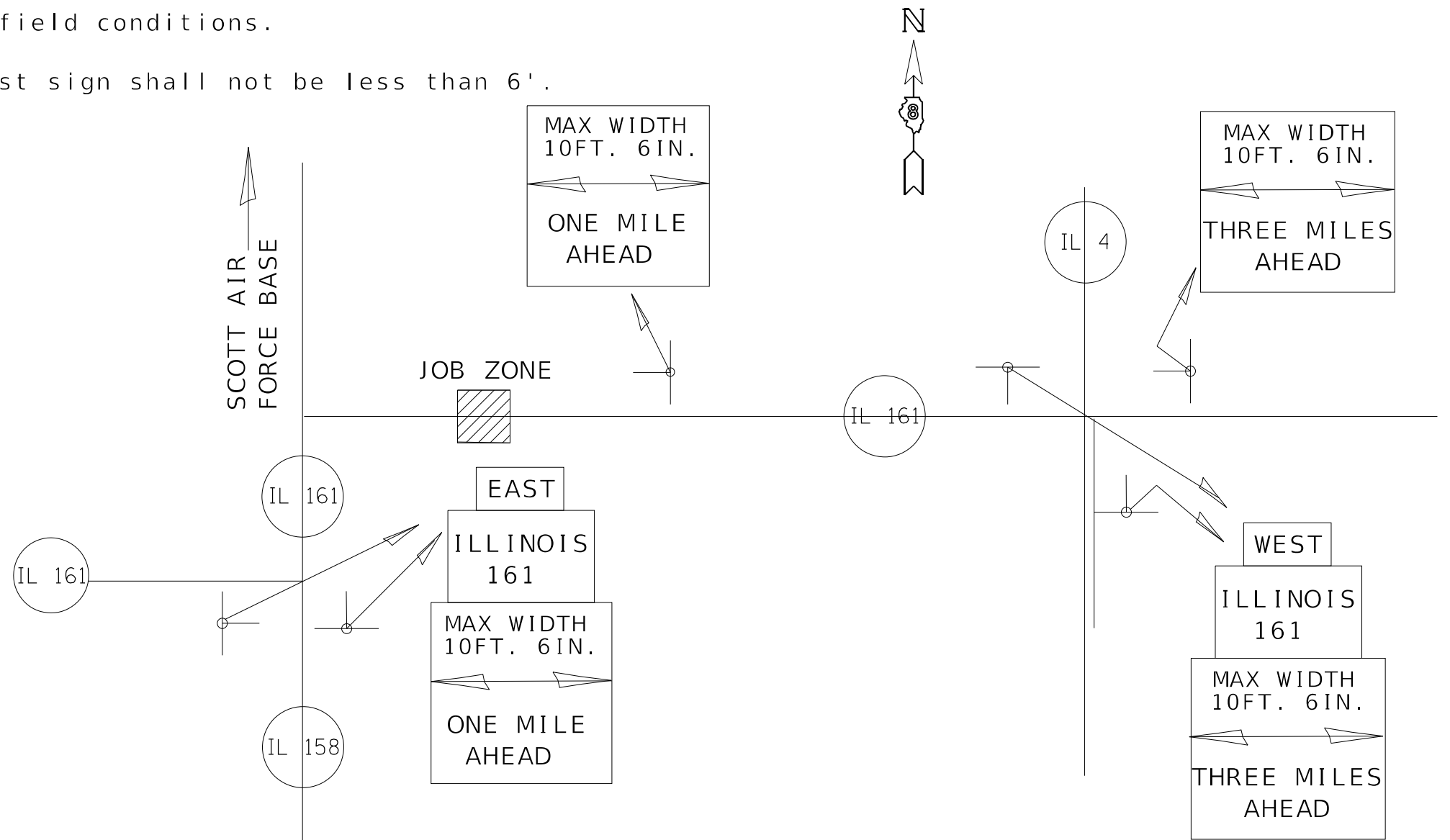
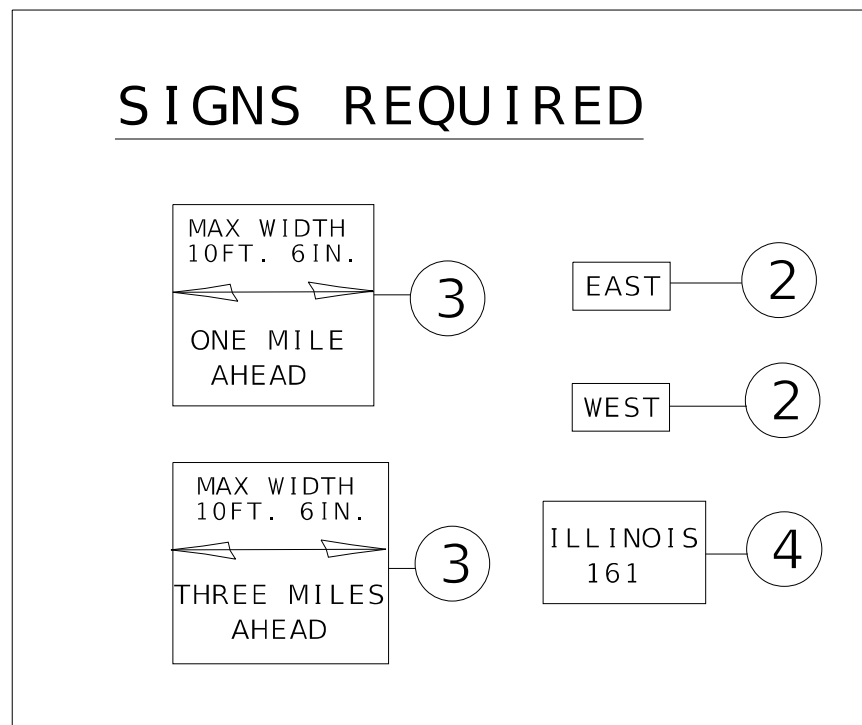
TEMPORARY CONCRETE BARRIER AND PAVEMENT WIDENING DETAIL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	11
CONTRACT NO. 76P02				
ILLINOIS FED. AID PROJECT				

1. All signs required will be supplied to the contractor by I.D.O.T.
2. The contractor shall furnish the posts and erect signs at the locations shown on this sheet, as directed by the R.E./R.T. The posts shall remain the property of the contractor.
3. The contractor shall give Illinois Department of Transportation, Bureau of Operations two weeks notice for signs. The contractor shall pick up the signs at the T.M. building in Fairview Hgts., and return them upon completion of the contract. Contact Jean Slape @ 394-2189
4. The above noted work shall be paid for at the contract unit price, Lump Sum, for Wide Load Signing and no other compensation will be allowed.
5. Sign spacing will be 400" or to fit field conditions.
6. The height to the bottom of the lowest sign shall not be less than 6'.

WIDE LOAD SIGNING IL 161 OVER ASH CREEK



NOT TO SCALE

MODEL: \\MODELS\NAME: FILE: NAME: ...

USER NAME = Default	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 2,000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 3/23/2021	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDE LOAD SIGNING DETAIL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	12
CONTRACT NO. 76P02				
ILLINOIS FED. AID PROJECT				

B.M. 1: Chiseled Square in S.W. corner of South wingwall of Double 9'x6' Box Culvert Sta. 425+70 Elev. 429.95.

Existing Structure: Triple box culvert 58'-0" long built as a Double 9'x6' box culvert along S.B.I. Rte. 161 Sect. 125 at Sta. 425+70 in 1932 with the adjacent 8'x4' box culvert built in 1982 to provide additional roadway opening.

Salvage: None

SCOPE OF WORK

- 1) Remove existing HMA wearing surface and fill over culvert. (See Roadway Plan Sheets)
- 2) Construct a reinforced concrete slab over existing Ash Creek culvert.
- 3) Replace HMA wearing surface over the new slab to re-establish driving surface. (See Roadway Plan Sheets)
- 4) Remove silt from interior of box culvert barrels.

INDEX OF SHEETS

- 1) General Plan and Elevation
- 2) Stage Construction Layout
- 3) Deck Plan
- 4) Cross Sections
- 5) Structure Repairs
- 6) Bar Splicer
- 7) Temporary Concrete Barrier

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering 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.

New slab shall be considered non-composite with existing top slab. The new slab is design to carry the entire load with no contribution from the existing top slab.

DESIGN STRESSES

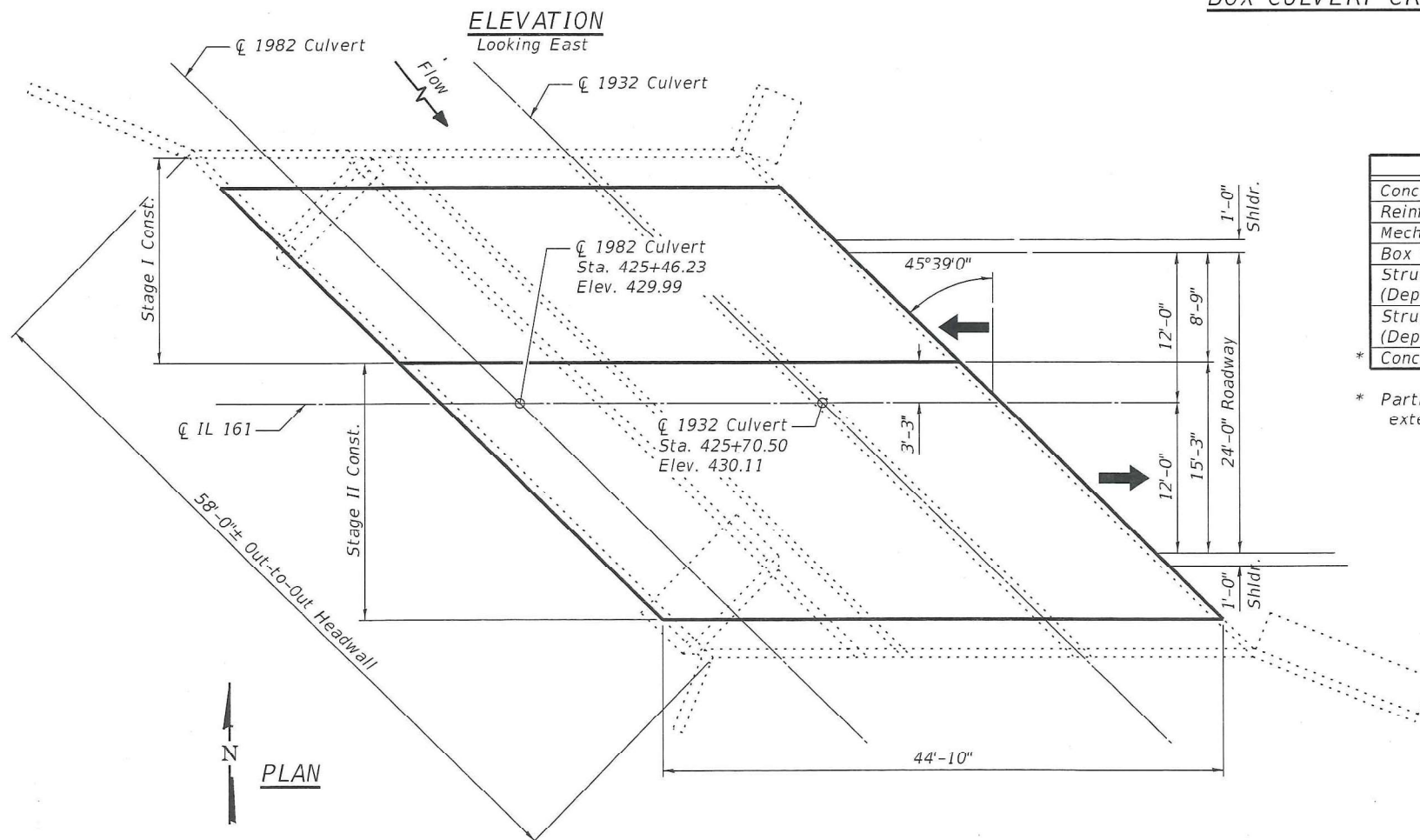
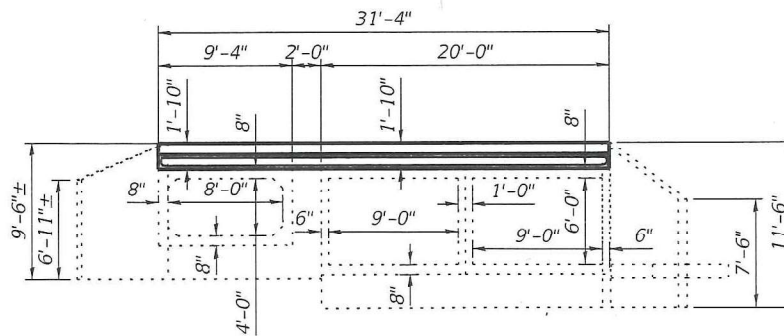
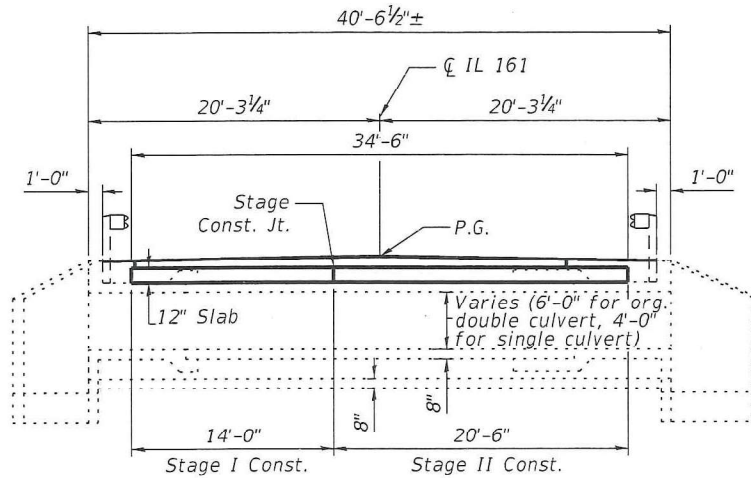
- FIELD UNITS (NEW CONST.)**
 $f'_c = 4000$ psi
 $f_y = 60,000$ psi (reinforcement)
- FIELD UNITS (1982 CONST.)**
 $f'_c = 3500$ psi
 $f_y = 60,000$ psi (reinforcement)
- PRECAST UNITS (1982 CONST.)**
 $f'_c = 5000$ psi
 $f_y = 60,000$ psi (reinforcement)
- FIELD UNITS (1932 CONST.)**
 $f'_c = 3000$ psi
 $f_y = 40,000$ psi (reinforcement)

LOADING HL-93

Allow 50 lb/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

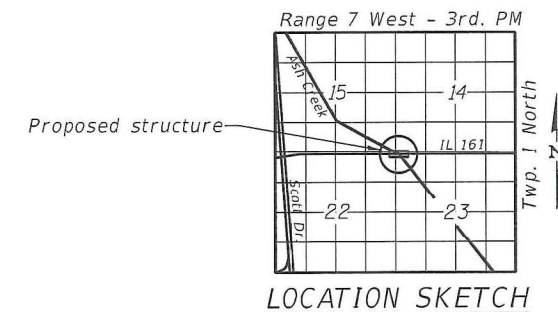
AASHTO Bridge Design Specifications 9th Edition 2020



TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Superstructure	Cu. Yd.	58
Reinforcement Bars, Epoxy Coated	Pound	19280
Mechanical Splices	Each	127
Box Culvert to be Cleaned	Each	3
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	16
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	4
* Concrete Removal	Cu. Yd.	2.0

* Partial Removal of collar on culvert extension. See Sheet 2 of 7.



GENERAL PLAN AND ELEVATION
 IL ROUTE 161 OVER ASH CREEK
 F.A.P. 805 - SEC. 125CLV-1
 ST. CLAIR COUNTY
 STATION 425+70.50 (1932)
 STATION 425+46.23 (1982)
 STRUCTURE NO. 082-2003

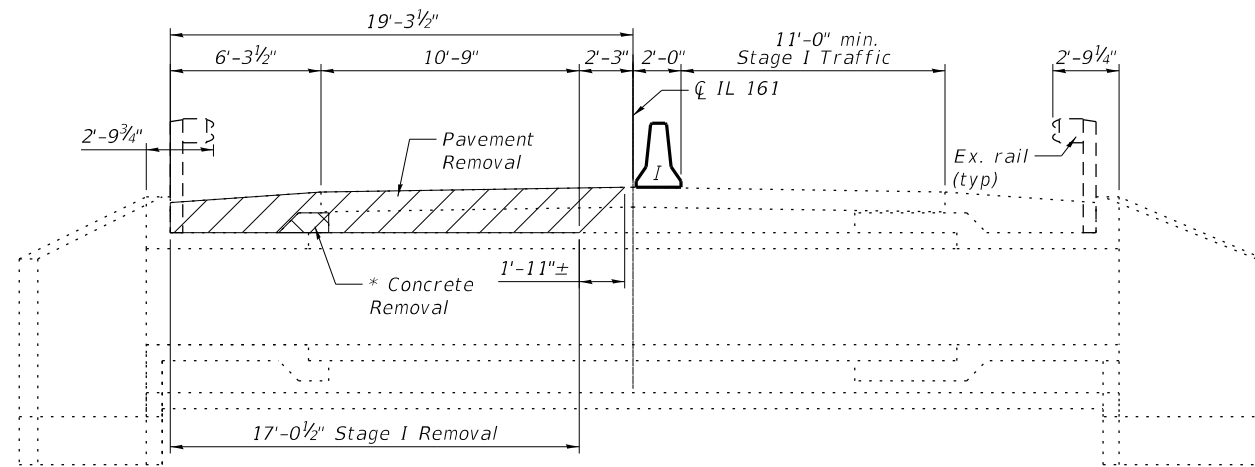


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PLOT SCALE =	CHECKED MBH	REVISED -
PLOT DATE =	DRAWN CML	REVISED -
	CHECKED RHB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

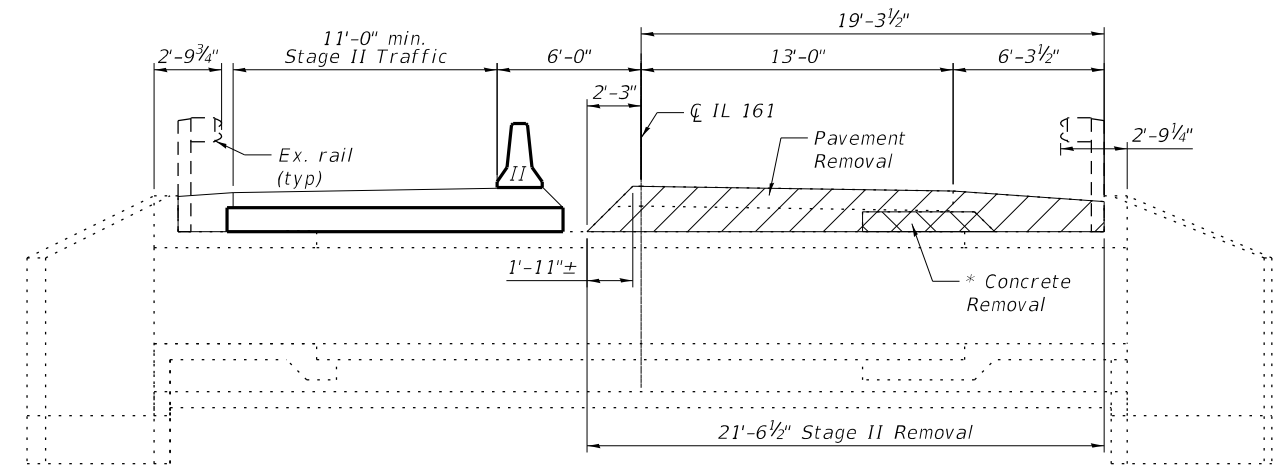
GENERAL PLAN ELEVATION
STRUCTURE NO. 082-2003
SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 76P02
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT				

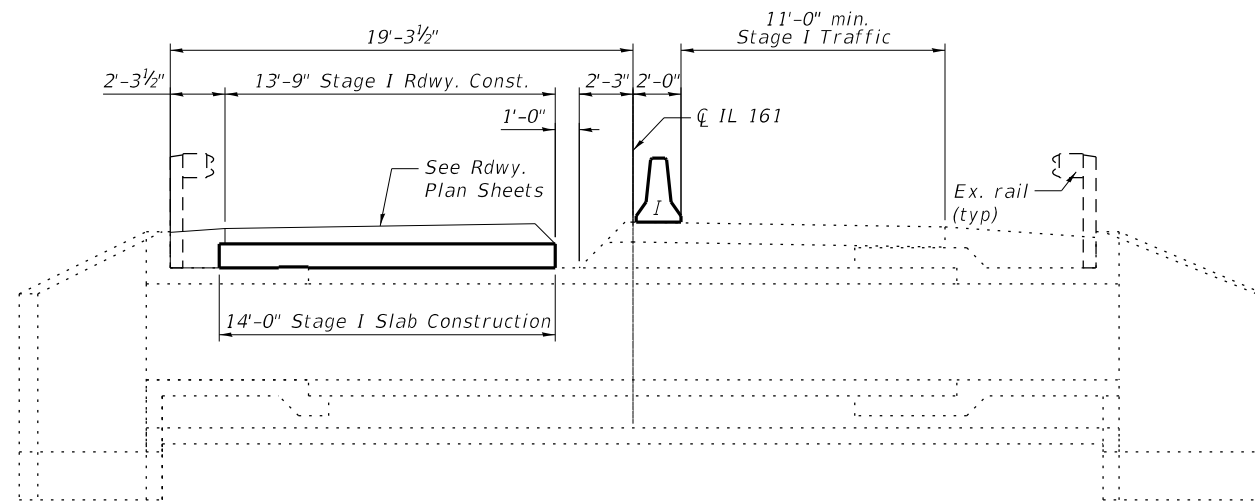


STAGE I REMOVAL
(Looking East)

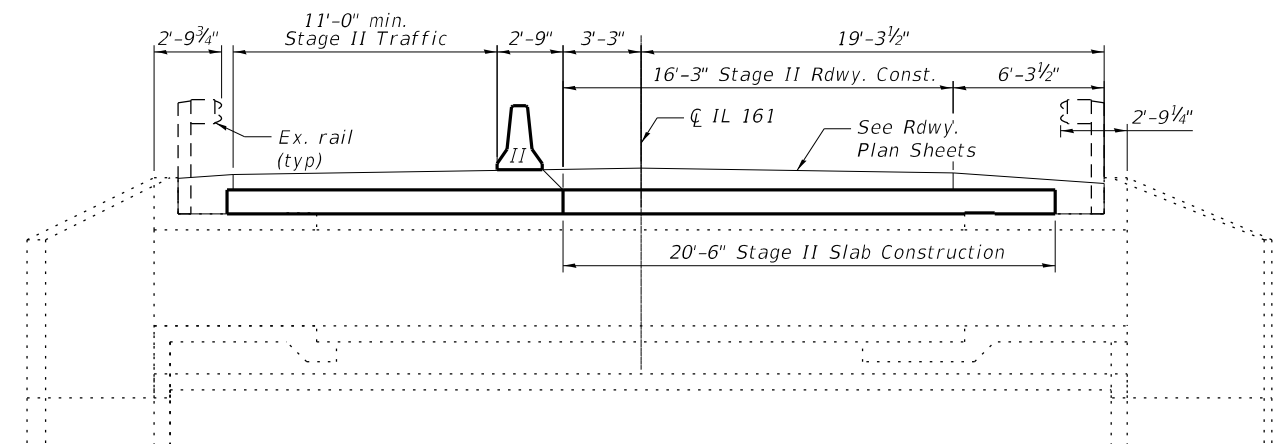
* Concrete Removal should be limited to the areas shown. Contractor must exercise care during removal operations not to damage existing culvert to remain.



STAGE II REMOVAL
(Looking East)



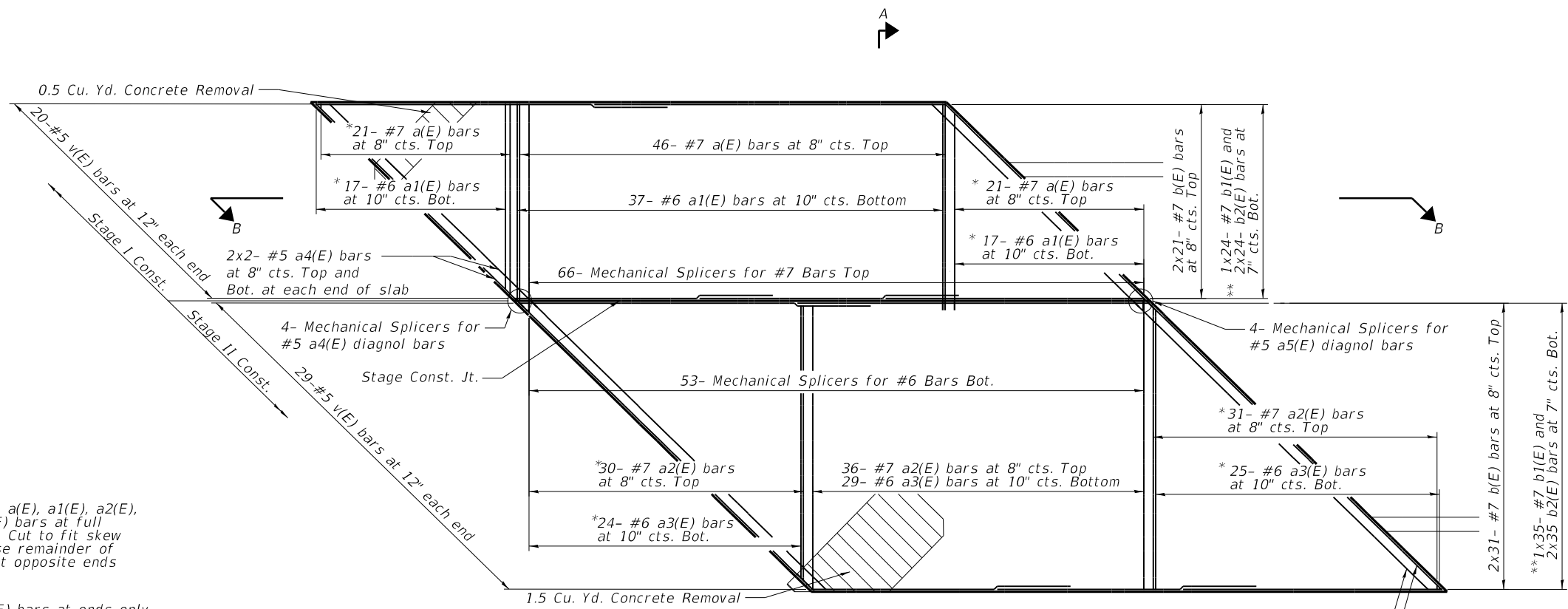
STAGE I CONSTRUCTION
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

USER NAME =	DESIGNED MBH	REVISED -
	CHECKED RHB	REVISED -
PLOT SCALE =	DRAWN CML	REVISED -
PLOT DATE =	CHECKED RHB	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 76P02				
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT				

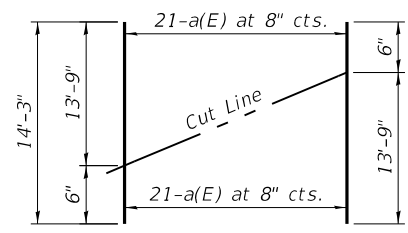


*Order a(E), a1(E), a2(E), & a3(E) bars at full length. Cut to fit skew and use remainder of bars at opposite ends

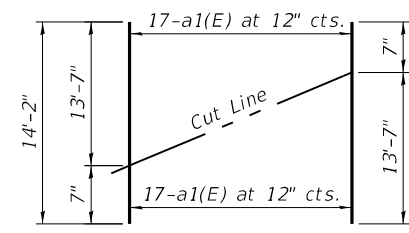
** b2(E) bars at ends only see bending diagram

MIN. BAR LAP
 #5 = 3'-3"
 #7 = 5'-2"

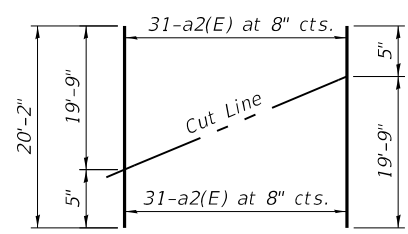
Notes:
 1. Bars indicated thus 2x22-#7 etc. indicates 22 lines of #7 bars with 2 lengths per line



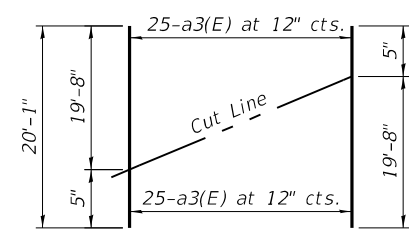
a(E) FIELD CUTTING DIAGRAM
 Order bars shown full length. Cut as shown and use remainder of bars in opposite end



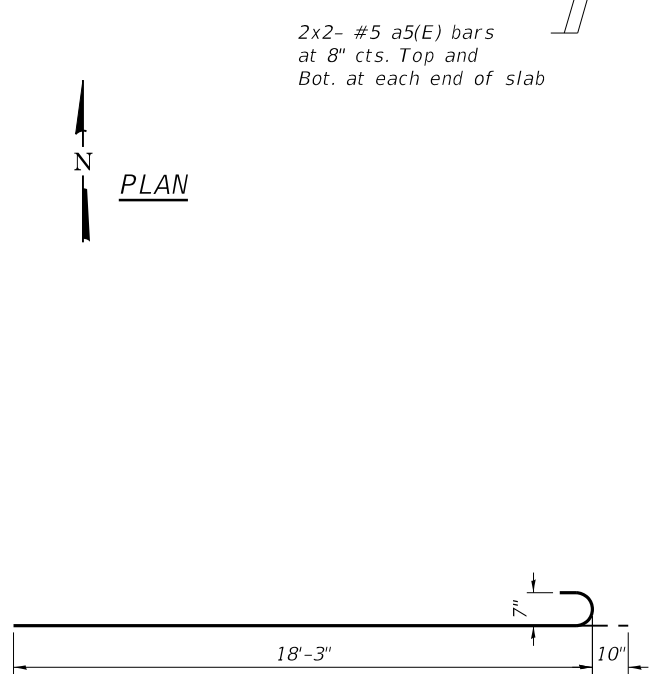
a1(E) FIELD CUTTING DIAGRAM
 Order bars shown full length. Cut as shown and use remainder of bars in opposite end



a2(E) FIELD CUTTING DIAGRAM
 Order bars shown full length. Cut as shown and use remainder of bars in opposite end



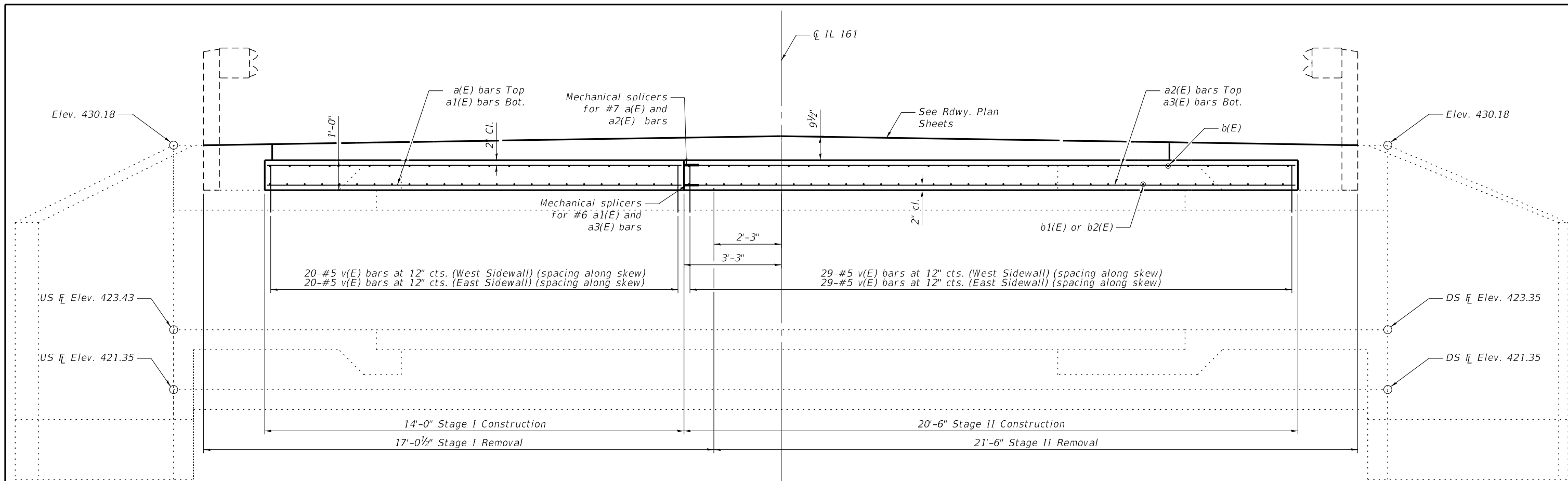
a3(E) FIELD CUTTING DIAGRAM
 Order bars shown full length. Cut as shown and use remainder of bars in opposite end



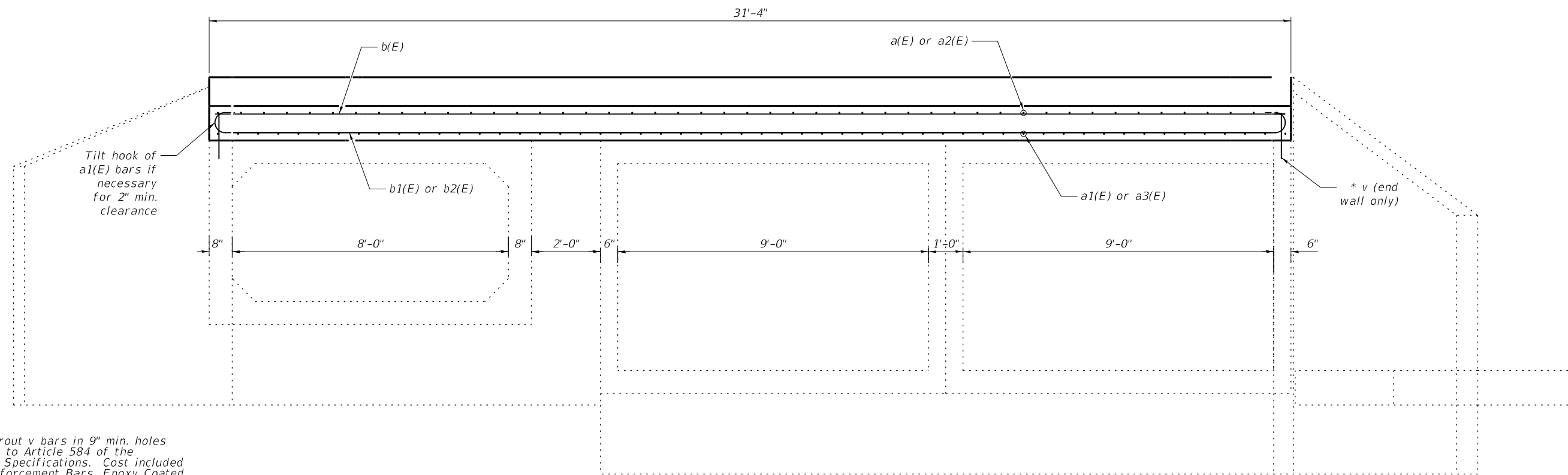
BAR b2(E)
 ** 180° hook at end of slab only

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	67	#7	14'-3"	—
a1(E)	54	#6	14'-2"	—
a2(E)	67	#7	20'-2"	—
a3(E)	54	#6	20'-1"	—
a4(E)	8	#5	20'-4"	—
a5(E)	8	#5	28'-9"	—
b(E)	104	#7	24'-10"	—
b1(E)	59	#7	18'-3"	—
b2(E)	118	#7	19'-1"	—
v(E)	98	#5	1'-4"	—
			Unit	Total
Concrete Superstructure			Cu. Yd.	58
Reinforcement Bars, Epoxy Coated			Lbs.	19280
Mechanical Splicers			Each	127
Concrete Removal			Cu. Yd.	2.0



CROSS SECTION A
Looking East (dimensions at rt. angles U.N.O.)





CROSS SECTION B
Looking East (dimensions along skew)

BENTON & ASSOCIATES, INC. 1910 N. Lorraine Ave., Joliet, IL 60438 (815) 226-0400 (Fax) 226-0499 Illinois Design Firm Registration No. 184-000852	USER NAME =	DESIGNED <i>CML</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS STRUCTURE NO. 082-2003	F.A.P. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED <i>MBH</i>	REVISED -	805			125CLV-1	ST. CLAIR	19	16	
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	PLOT DATE =	CHECKED <i>RHB</i>	REVISED -			FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT				
					SHEET NO. 4 OF 7 SHEETS					

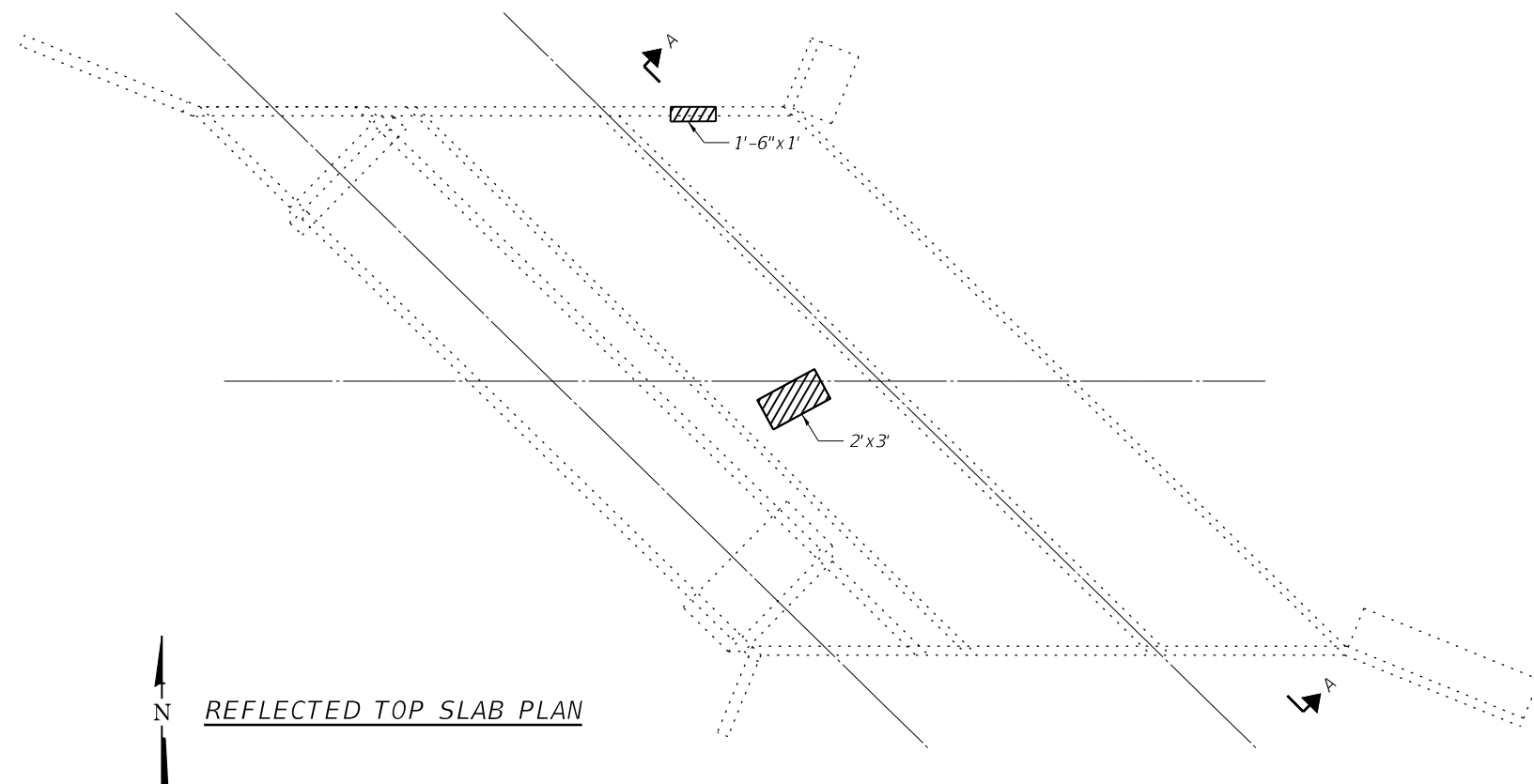
Notes:
 Existing reinforcement bars extending into the repair area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Structural Repair of Concrete.

LEGEND

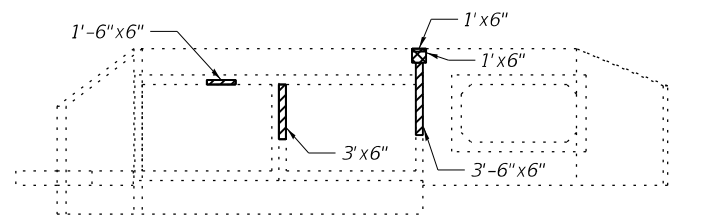
-  Area of Structural Concrete Repair <= 5"
-  Area of Structural Concrete Repair > 5"

BILL OF MATERIAL

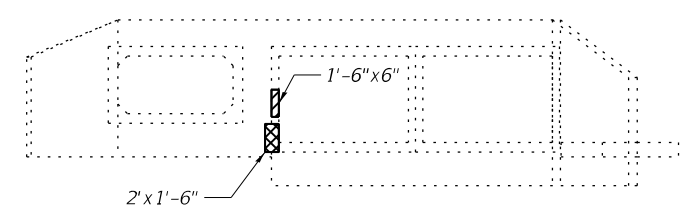
Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	16
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	4



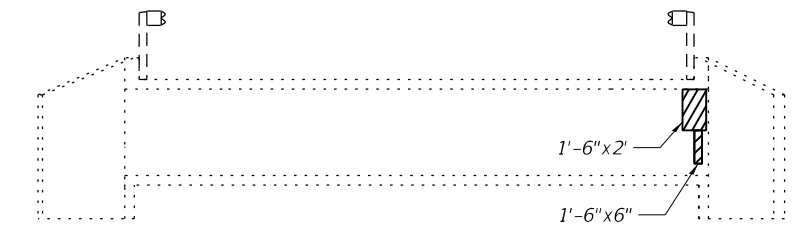
REFLECTED TOP SLAB PLAN



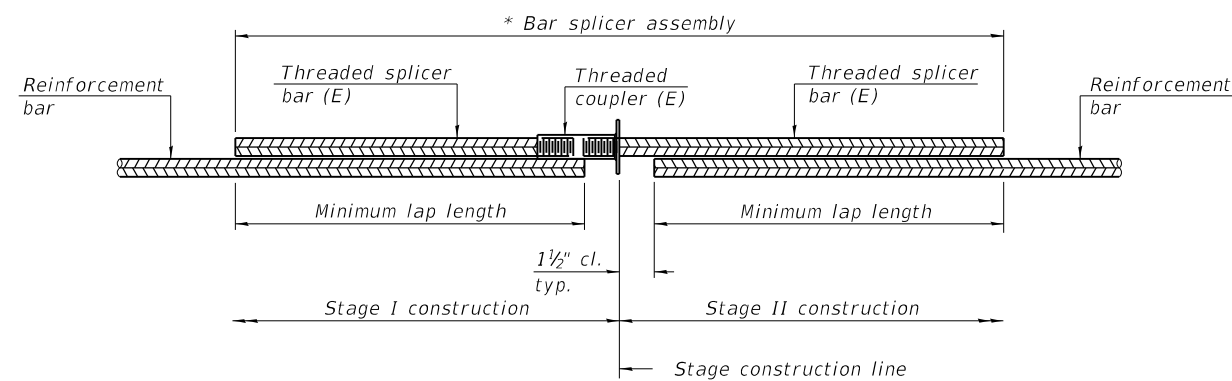
BOX CULVERT NORTH ELEVATION
 (Looking South)



BOX CULVERT SOUTH ELEVATION
 (Looking North)



CROSS SECTION A

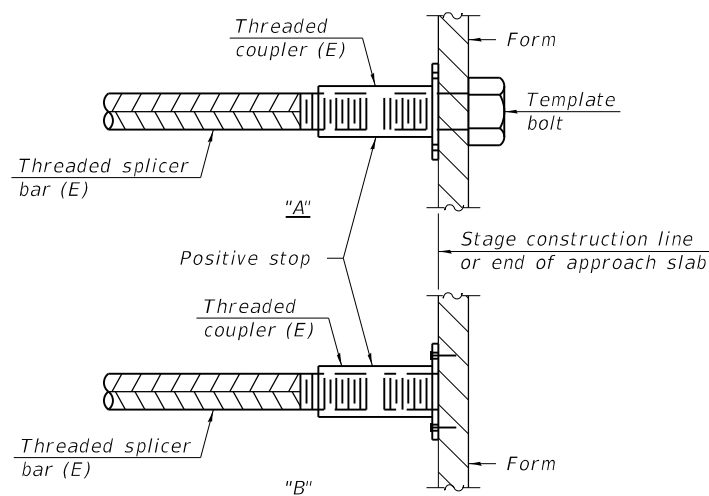


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

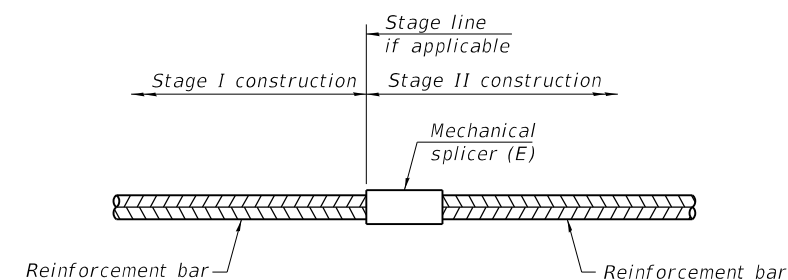
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Top Slab	#7	66
Bottom Slab	#6	53
Diag. Edge Slab	#5	8

Notes:
 Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-1-2020



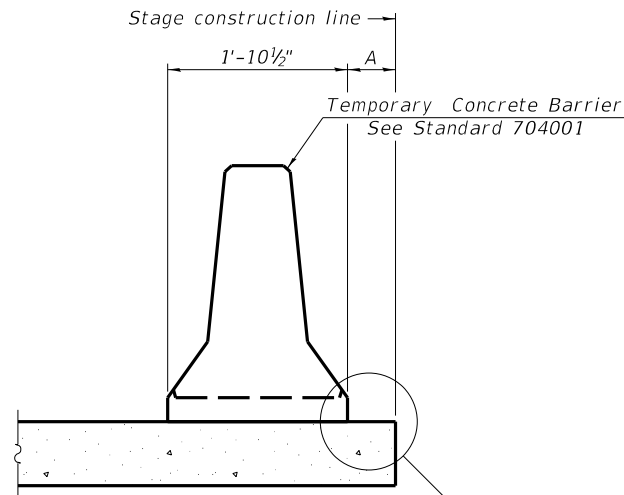
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PLOT SCALE =	DRAWN <i>CML</i>	REVISED -
PLOT DATE =	CHECKED <i>RHB</i>	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 082-2003**

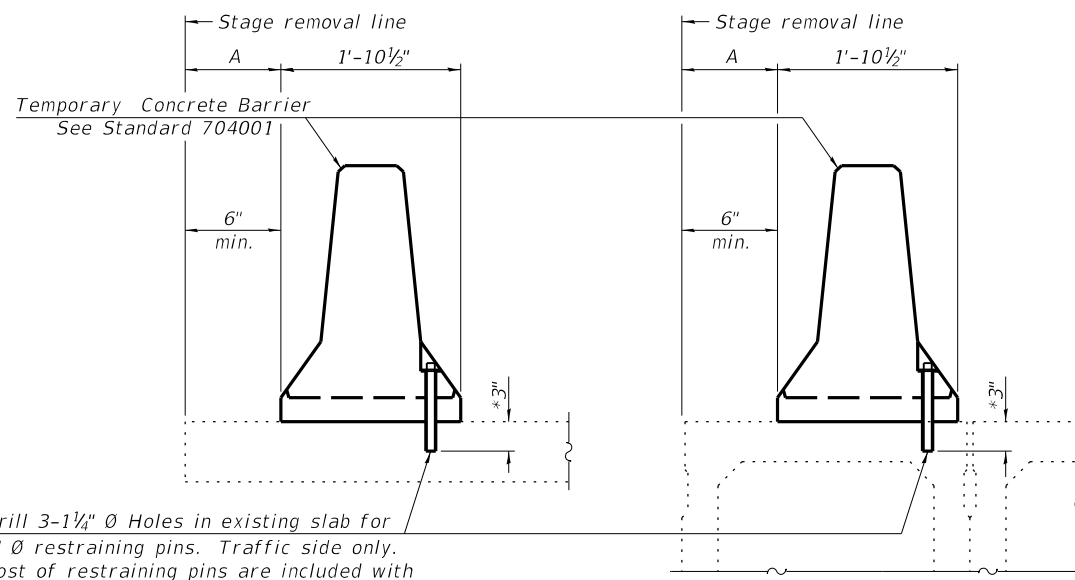
SHEET NO. 6 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	18
CONTRACT NO. 76P02				
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

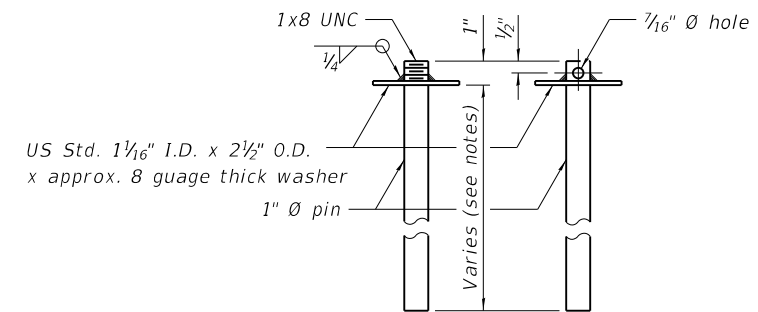


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

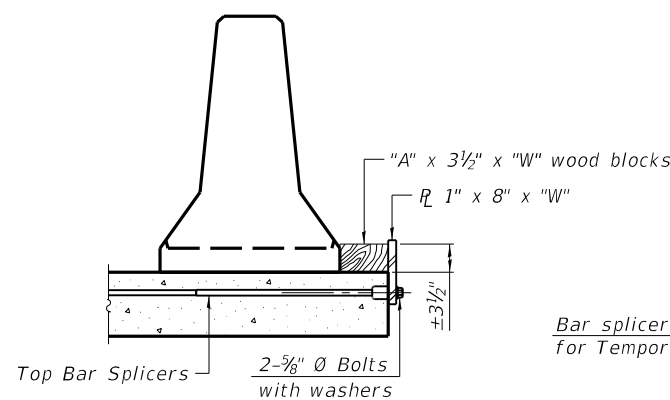
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

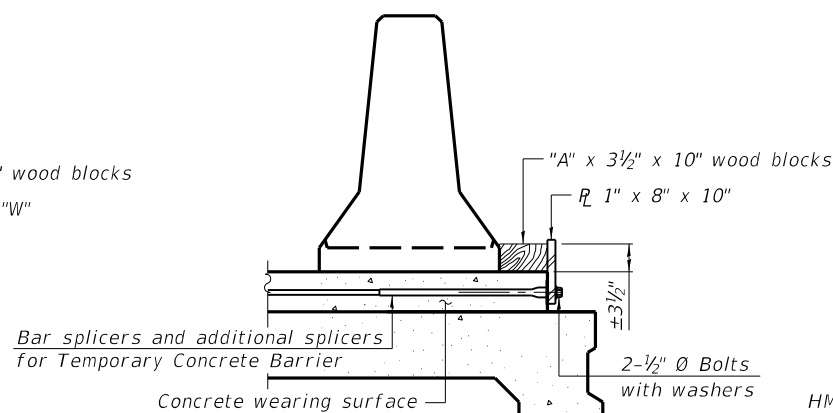


RESTRAINING PIN

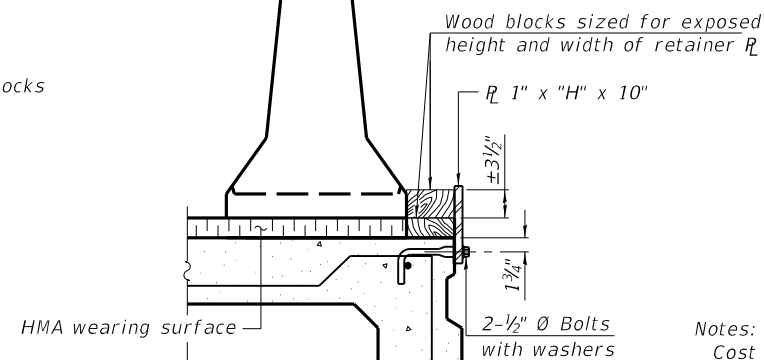
SECTIONS THRU SLAB OR DECK BEAM



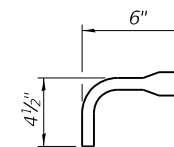
DETAIL I



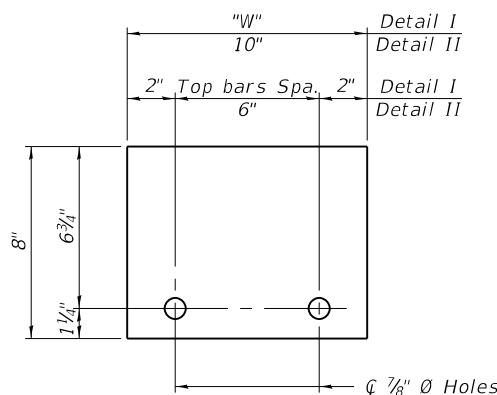
DETAIL II



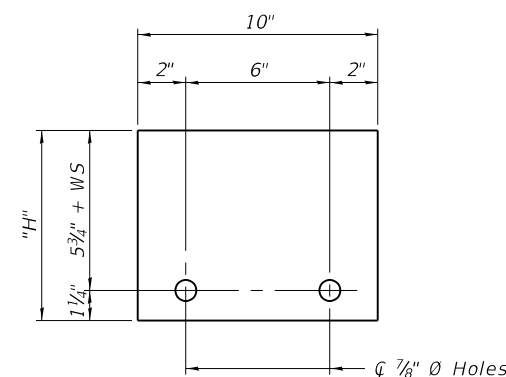
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER R 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate \bar{C} of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I - Installation for a new bridge deck or bridge slab.
- Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27 2-17-2017



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CHECKED MBH		REVISED -
PLOT SCALE =	DRAWN CML	REVISED -
PLOT DATE =	CHECKED RHB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 082-2003

SHEET NO. 7 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	125CLV-1	ST. CLAIR	19	19
CONTRACT NO. 76P02				
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT				