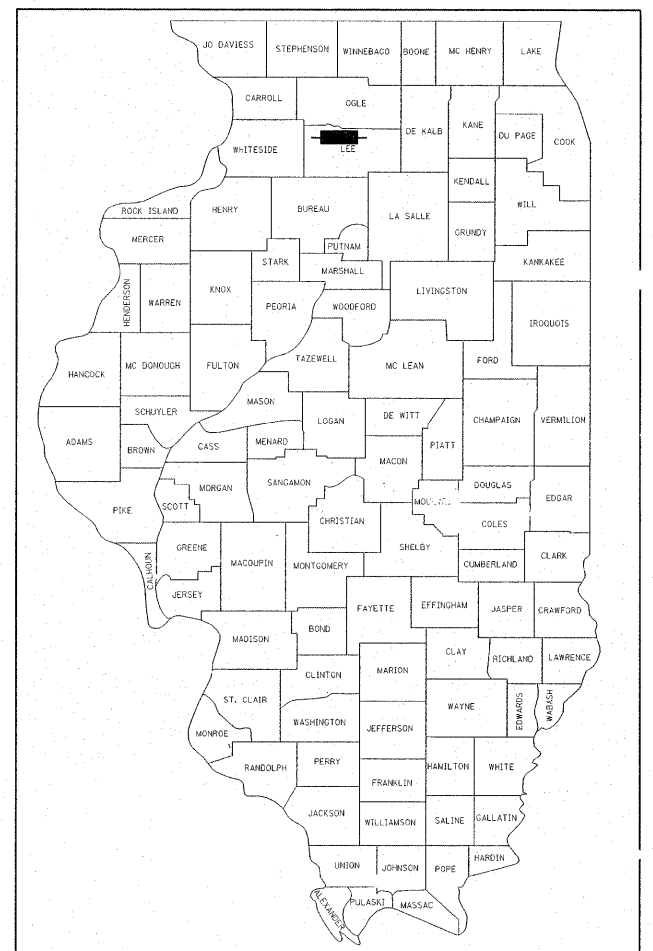


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1 & 31-1BR-2	LEE	92	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 64B05	

D-92-067-05



LOCATION OF SECTION INDICATED THUS: - ■ -

FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR STATE STANDARDS SEE SHEET NO. 2

ROADWAY CLASSIFICATION
 F.A.P. ROUTE 561 (IL 2) - PRINCIPAL ARTERIAL
 ADT 7200 (2008) - 96% PV; 3% SU; 1% MU
 DESIGN SPEED: 70 MPH
 DESIGN POLICY: 3R

F.A.P. ROUTE 561 (IL 2)
SECTION 31-1BR-1 & 31-1BR-2
PROJECT ESP-0561(029)
LEE COUNTY
C-92-084-09

PREPARED BY:



7615 NORTH HARKER DRIVE
 PEORIA, ILLINOIS 61615
 TEL 309-693-7615
 FAX 309-693-7616

SECTION 31-1BR-1 ENDS
 STA. 71+38.03

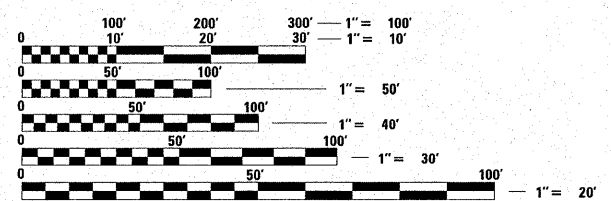
SECTION 31-1BR-1 REMOVE AND REPLACE
 STRUCTURE CARRYING IL ROUTE 2 OVER
 LITTLE CREEK
 EX. S.N. 052-0014
 PR. S.N. 052-0078

SECTION 31-1BR-1 BEGINS
 STA. 64+03.75

SECTION 31-1BR-2 BEGINS
 STA. 112+62.17

SECTION 31-1BR-2 REMOVE AND REPLACE
 STRUCTURE CARRYING IL ROUTE 2 OVER
 AN UNNAMED TRIBUTARY TO THE ROCK
 RIVER
 EX. S.N. 052-0015
 PR. S.N. 052-0079

SECTION 31-1BR-2 ENDS
 STA. 120+07.62

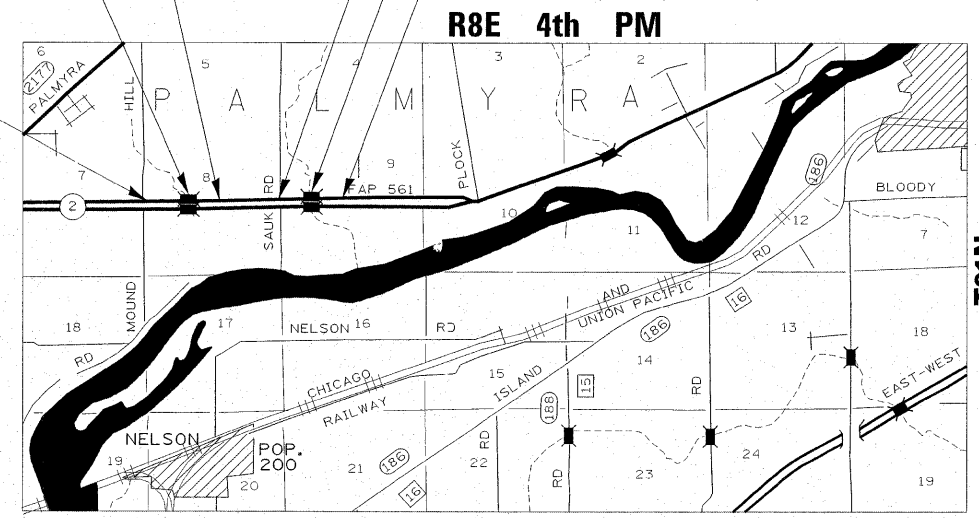


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
 ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
 CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
 ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER REBECCA MARRUFFO
 PROJECT MANAGER ED CONDERMAN 815-284-5947

CONTRACT NO. 64B05



PALMYRA TOWNSHIP SECTIONS 8 & 9

NET LENGTH OF PROJECT = 1480 LIN. FEET = 0.280 MILES
GROSS LENGTH OF PROJECT = 1480 LIN. FEET = 0.280 MILES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED August 6, 2009
George F. Ryan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 2, 2009
Charles J. Ingersoll
 ENGINEER OF DESIGN AND ENVIRONMENT

October 2, 2009
Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

ENGINEERS SIGNATURE BOX

Jeffrey D. Spiller
 7/29/09
 SIGNED

Christine M. Reed
 11/30/09
 LISC. EXP. DATE

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

INDEX OF SHEETS AND STATE STANDARDS

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FILE NAME =	USER NAME = #USER#	DESIGNED - JDS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS - STATE STANDARDS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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GENERAL NOTES

COMMITMENT

FOR MAINLINE SURFACE COURSE ONLY: THE AREA TO BE PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED WITH HMA THE SAME DAY, UNLESS OTHERWISE PERMITTED BY THE ENGINEER.

THE REMOVAL OF BITUMINOUS SURFACING NOT ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE REMOVED AS EARTH EXCAVATION. THE REMOVAL OF BITUMINOUS SURFACING ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL OF THE TYPE SPECIFIED.

THE FINAL TOP 100 MM (FOUR INCHES) OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE CAPABLE OF SUPPORTING VEGETATION. THE SOIL MUST BE FROM THE A HORIZON (ZERO TO 2' DEEP) OF SOIL PROFILES OF LOCAL SOILS.

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 4 OR 2A SHALL BE USED, EXCEPT IN FRONT OF PROPERTIES WHERE THE GRASS WILL BE MOWED, THEN USE SEEDING, CLASS 1. CLASS 2A SHALL BE USED ON FRONT SLOPES AND DITCH BOTTOMS. CLASS 4 SHALL BE USED BEHIND TYPE A GUTTER, ON ALL BACKSLOPES AND AREAS BEHIND THE BACKSLOPE, AND BEYOND THE TOE OF FRONT SLOPE ON FILL SECTIONS WITHOUT DITCHES.

FERTILIZER NUTRIENTS SHALL BE APPLIED AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST OF SEEDING

PREVIOUSLY PUGMILLED STOCKPILES OF "TYPE A" OLDER THAN 1 MONTH WILL NOT BE APPROVED FOR USE UNTIL A MOISTURE CHECK IS RUN TO VERIFY MOISTURE CONTENT. MATERIAL SHIPPED TO PROJECTS WITHOUT BEING TESTED WILL NOT BE ACCEPTED.

EXCEPT FOR THE TOP 75 MM (3"), ALL AGGREGATE BASES AND SUBBASES 300 MM (12") IN THICKNESS SHALL BE CONSTRUCTED OF AGGREGATE GRADATION CA-2. IF THE SPECIFIED THICKNESS EXCEEDS 300 MM (12"), THE BASES OR SUBBASES SHALL BE CONSTRUCTED OF TOPSIZE 150 MM (6") BREAKER-RUN CRUSHED STONE WITH 70% TO 90% BY WEIGHT, PASSING THE 4" SIEVE AND 15% TO 40% BY WEIGHT, PASSING THE 50 MM (2") SIZE SIEVE, EXCEPT FOR THE TOP 75 MM (3"). THE BREAKER-RUN CRUSHED STONE SHALL BE REASONABLY UNIFORMLY GRADED FROM COARSE TO FINE AND BE TAKEN FROM A QUARRY LEDGE CAPABLE OF PRODUCING CLASS "D" QUALITY AGGREGATE. THE TOP 75 MM (3") SHALL BE GRADATION CA-6 OR CA-10 REGARDLESS OF THICKNESS. THE WATER NECESSARY TO ACHIEVE COMPACTION IN ALL BUT THE TOP 75 MM (3") LAYER MAY BE ADDED AFTER THE SUBBASE OR BASE COURSE IS PLACED ON THE GRADE.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURES USES:	SURFACE	LEVEL BINDER	BINDER	TOP SHOULDER	BOTTOM SHOULDER
PG:	PG 64-22	PG 64-22	PG 64-22	PG 58-22	PG 58-22
DESIGN AIR VOIDS	4.0%±0.50	4.0%±0.50	4.0%±0.50	3.0%±0.50	2.0%±0.50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5 OR 12.5	IL 9.5	IL 19	IL 9.5 OR 12.5	BAM
FRICTION AGGREGATE	D	N/A	N/A	C	N/A
20 YEAR ESAL	1.5	1.5	1.5	N/A	N/A

THE CONTRACTOR WILL BE REQUIRED TO FURNISH 140 MM (5 1/2") HIGH BRASS STENCILS AS APPROVED BY THE ENGINEER AND INSTALL STATIONING AT 250' INTERVALS. STATIONING SHALL BE PLACED ON BOTH LANES OF 2-LANE HIGHWAYS AND ON THE OUTSIDE LANES IN BOTH DIRECTIONS ON 4-LANE HIGHWAYS. THE STATIONS SHALL BE PLACED 150 MM (6") INSIDE THE PAVEMENT MARKING EDGE SO THEY CAN BE READ FROM THE SHOULDER. THIS WORK WILL BE INCLUDED IN THE COST OF THE FINAL PAVEMENT SURFACE.

BITUMINOUS AND AGGREGATE PRIME COAT SHALL BE PLACED IN ACCORDANCE WITH SECTION 406 OF THE STANDARD SPECIFICATIONS. THE COST OF THE PRIME COATS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE OF THE TYPE SPECIFIED.

A NATIONWIDE 404 PERMIT HAS BEEN ISSUED FOR THIS PROJECT AND THE CONDITIONS OF THAT PERMIT MUST BE ADHERED TO.

THE NEW NUMBERS FOR THESE STRUCTURES WILL BE S.N. 052-0078 AND S.N. 052-0079.

THE CONTRACTOR SHALL SUBMIT FOUR COPIES OF THE REQUIRED SHOP DRAWINGS FOR REVIEW AND APPROVAL TO THE BUREAU OF BRIDGES AND STRUCTURES, 2300 SOUTH DIRKSEN PARKWAY, SPRINGFIELD, IL 62764. AFTER APPROVAL OF INITIAL SUBMITTAL, THE CONTRACTOR SHALL SUBMIT ONE SET OF SHOP DRAWINGS TO DAVE LIPPERT, ENGINEER OF MATERIALS, 126 EAST ASH STREET, SPRINGFIELD, IL 62704, AND EIGHT (8) SETS OF SHOP DRAWINGS TO BE DISTRIBUTED TO:

- DISTRICT 2 DISTRICT ENGINEER (1)
- FABRICATOR (1)
- CONTRACTOR (2)
- RESIDENT ENGINEER (2)
- DISTRICT 2 BUREAU OF MATERIALS (2)

THE REVIEW AND APPROVAL OF TEMPORARY SHEET PILING WILL REQUIRE 4 TO 6 WEEKS. THE CONTRACTOR SHALL SCHEDULE HIS WORK ACCORDINGLY.

THE ADDITIONAL THICKNESS OF PROPOSED PAVEMENT REQUIRED TO MATCH THE BRIDGE APPROACH PAVEMENT, SHOWN ON THE BRIDGE APPROACH PAVEMENT DETAIL (SHEETS 80-83), SHALL BE INCLUDED IN THE COST OF THE PROPOSED PAVEMENT AND NOT PAID FOR SEPARATELY.

THE THICKNESS FOR THE BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) ADJACENT TO EXISTING PAVEMENT SHALL BE A MINIMUM OF 12". THE MATERIAL SHALL BE 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, AND THE REMAINING THICKNESS SHALL BE HOT-MIX ASPHALT BINDER COURSE.

THE CURB IS REQUIRED ON THE BRIDGE APPROACH PAVEMENT AS SHOWN ON THE BRIDGE APPROACH PAVEMENT DETAIL (SHEETS 80-83).

REFLECTOR MARKERS TYPE B SHALL BE INSTALLED ON THE TOP OF BRIDGE PARAPET WALLS. THE MARKERS SHALL BE ACCORDING TO STANDARD 635011 AND THE COLOR AND SPACING ACCORDING TO STANDARD 635006, EXCEPT THE MINIMUM IS 2 PER SIDE.

CULVERT & BRIDGE FLOWS MUST BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOW SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOBSITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.

EMBANKMENT QUANTITIES FOR THE CONSTRUCTION OF THE TRAFFIC BARRIER TERMINALS AS SHOWN IN THE PLANS ARE INCLUDED IN QUANTITIES FOR EARTH EXCAVATION.

THE CONTRACTOR SHALL SUPPLY THE RESIDENT ENGINEER WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE STEEL PLATE BEAM GUARDRAIL TERMINAL TYPE I SPECIAL (FLARED).

ONE 16D GALVANIZED NAIL SHALL BE USED TO TOE NAIL THE WOOD BLOCK OUT TO THE WOOD POST ON ALL TRAFFIC BARRIER TERMINAL TYPE I SPECIALS.

DELINEATORS SHALL BE INSTALLED AS SHOWN IN STANDARD 635001, EXCEPT THAT THE POST SHALL BE ROTATED 180° AND ONLY METAL-BACKED DELINEATORS SHALL BE PERMITTED.

DELINEATORS SHALL BE PLACED AT THE ENDS OF APPROACH GUARDRAIL TERMINAL SECTIONS, AND AT EACH HEADWALL OR END SECTION OF AR CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR DELINEATORS.

PERMANENT SURVEY MARKERS, TYPE II, SHALL BE SET AT INTERVALS OF 1.6 KM (1 MILE) OR AS DIRECTED BY THE ENGINEER. BRIDGE OR CULVERT PROJECTS SHALL HAVE ONE SURVEY MARKER PLACED NEAR THE STRUCTURE. ESTIMATED: 2 EACH.

PERMANENT SURVEY MARKERS, TYPE II SHALL BE CAST-IN-PLACE AS SHOWN ON DISTRICT STANDARD 66.2. THE BOTTOM OF THE MARKER SHALL BE 5'-0" BELOW THE GROUND SURFACE.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A DESCRIPTION OF LOCATION, ELEVATION, AND COORDINATES FOR EACH PERMANENT SURVEY MARKER. THE HORIZONTAL AND VERTICAL COORDINATES MUST BE DERIVED BY GPS AND THE ELEVATION DERIVED BY A CLOSED LEVEL CIRCUIT. THE ENGINEER SHALL SUBMIT THIS INFORMATION TO THE SURVEY CREW.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

MS. CINDY OLSON GALLATIN RIVER/CENTURY TEL 2296 N. HENDERSON STREET GALESBURG, IL 61401	TELEPHONE	309-345-5240
MR. MICHAEL LENOX COMMONWEALTH EDISON COMPANY 123 ENERGY AVE. ROCKFORD, IL 61109	ELECTRIC	815-490-2869
MR. FRANK ROSE AT&T 2404 EIGHTH AVE. ROCKFORD, IL 61108	TELEPHONE	815-394-7276
MS. CONSTANCE LANE NICOR GAS CO. 1844 FERRY ROAD NAPERVILLE, IL 60563-9600	GAS	630-983-8676
MR. MIKE OWENS COMCAST 4450 KISHWAUKEE STREET ROCKFORD, IL 61109	CATV	815-395-8977

FOLLOWING ARE THE KNOWN UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS WHICH ARE NOT MEMBERS OF JULIE AND SHOULD BE NOTIFIED INDIVIDUALLY BY THE CONTRACTOR:

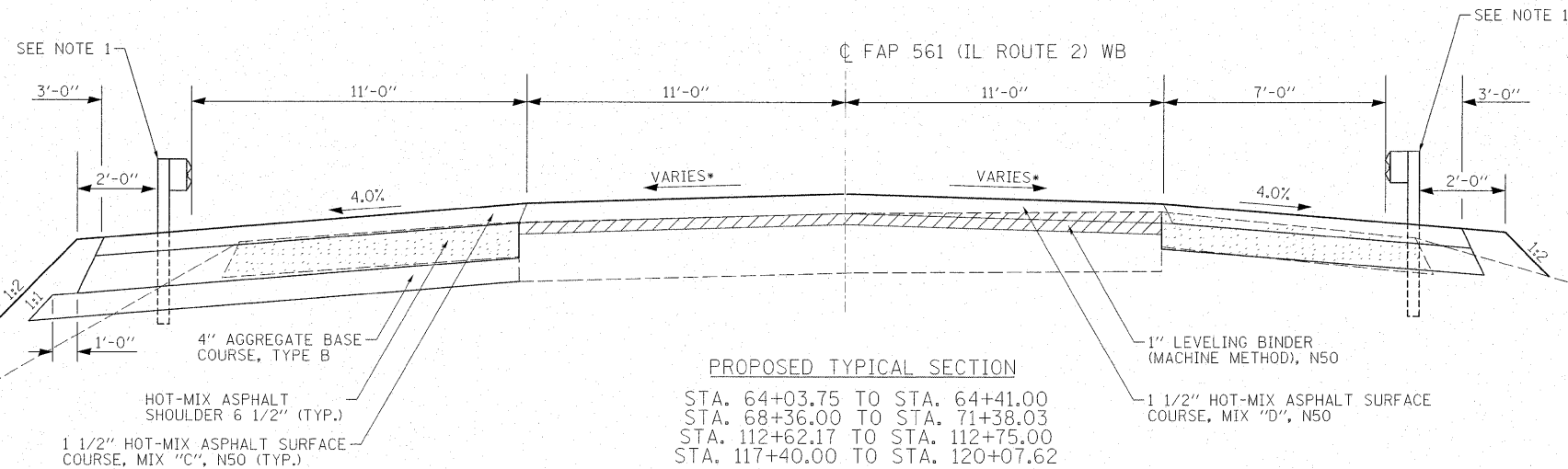
IDOT MR. KYLE LORENZ 819 DEPOT AVE. DIXON, IL 61021	HIGHWAY LIGHTING & TRAFFIC SIGNAL CABLES	815-284-5469
--	--	--------------

CADD DATA WILL BE AVAILABLE TO CONTRACTORS AND CONSULTANTS WORKING ON THIS PROJECT. THIS INFORMATION WILL BE PROVIDED UPON REQUEST AS MICROSTATION CADD FILES AND GEOPAK COORDINATE GEOMETRY FILES ONLY. IF DATA IS REQUIRED IN OTHER FORMATS IT WILL BE YOUR RESPONSIBILITY TO MAKE THESE CONVERSIONS. IF ANY DISCREPANCY OR INCONSISTENCY ARISES BETWEEN THE ELECTRONIC DATA AND THE INFORMATION ON THE HARD COPY, THE INFORMATION ON THE HARD COPY SHOULD BE USED. CONTACT THE DISTRICT'S PROJECT ENGINEER TO REQUEST THESE FILES.

AT ANY LOCATION WHERE THE INSIDE OF THE BARRIER WALL IS WITHIN 3'-6" OF A HAZARD, THE TEMPORARY CONCRETE BARRIER SHALL BE ANCHORED TO THE PAVEMENT WITH 6 ANCHORS PER SECTION AT THE FOLLOWING LOCATIONS.

STA. 64+03.50 TO STA. 68+66.00	STAGE 1
STA. 112+52.50 TO STA. 117+65.00	STAGE 1
STA. 64+16.00 TO STA. 68+66.00	STAGE 2
STA. 112+50.00 TO STA. 117+62.50	STAGE 2

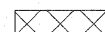
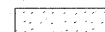
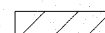
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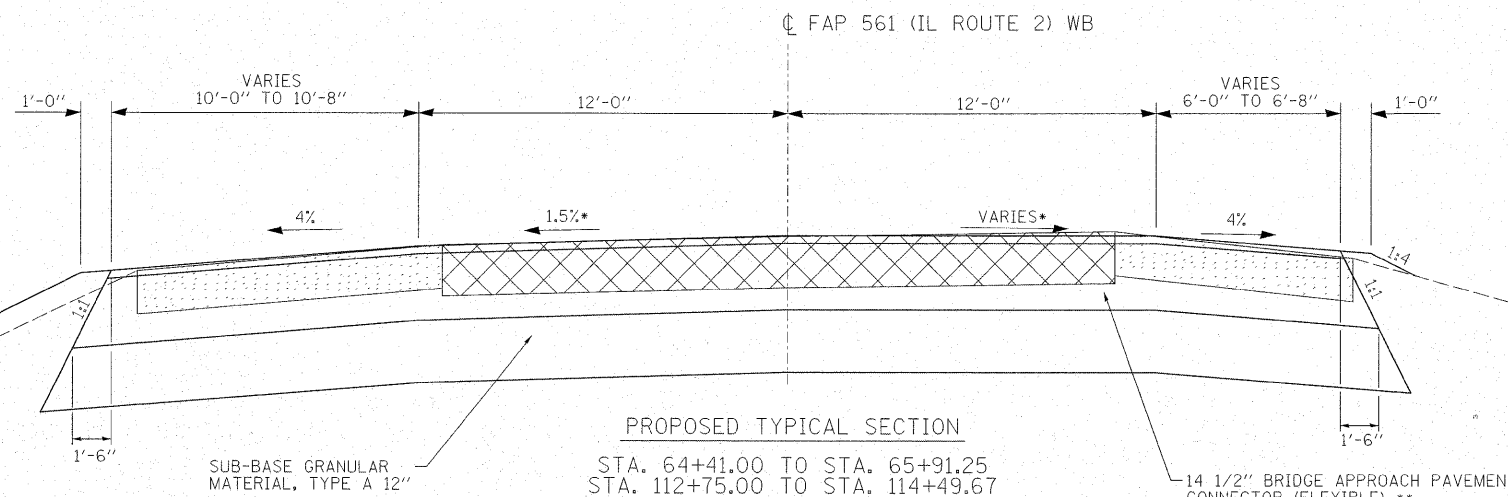


*SEE CROSS SLOPE TRANSITION TABLE (SHEET 5)

NOTE:
1. GUARDRAIL LIMITS
STRUCTURE 052-0078
STA. 66+76.73 TO STA. 69+95.48, LT
STA. 66+86.61 TO STA. 70+67.86, RT
STRUCTURE 052-0079
STA. 115+46.31 TO STA. 118+65.06, LT
STA. 115+56.19 TO STA. 119+37.44, RT
2. THE CONVERSION FACTOR FOR THE
LEVELING BINDER (MACHINE METHOD)
AND THE HOT-MIX ASPHALT SURFACE
COURSE IS 112 LBS/SY/INCH.

REMOVAL LEGEND

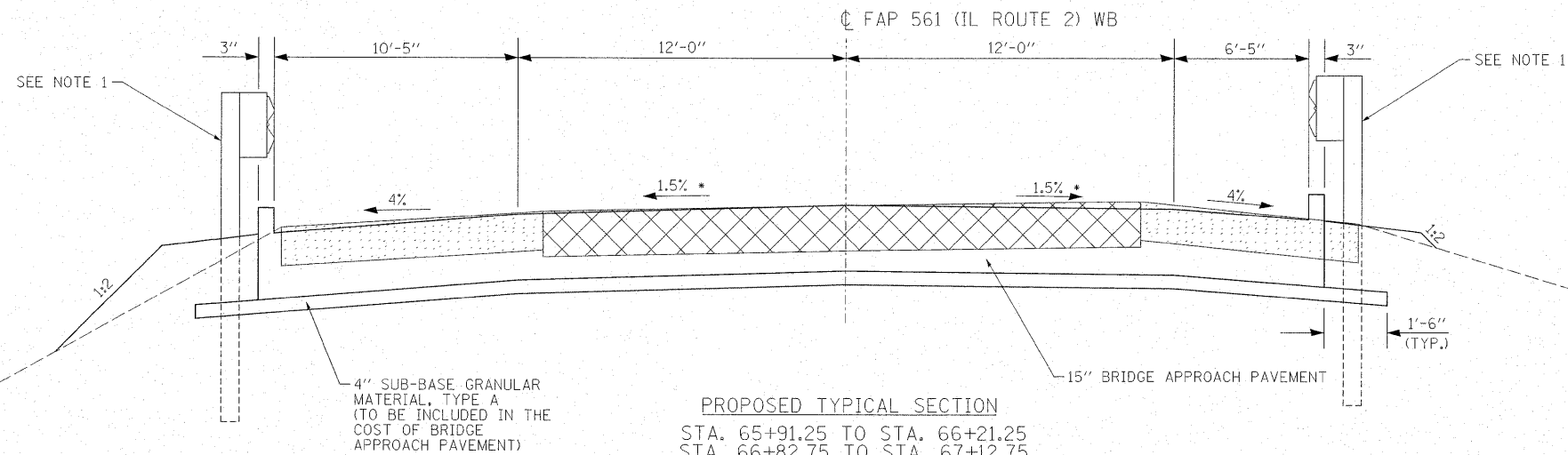
-  PAVEMENT REMOVAL
-  PAVED SHOULDER REMOVAL
-  HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH



*SEE CROSS SLOPE TRANSITION TABLE (SHEET 5)

**CONSISTS OF 13" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 AND 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50

APPLICATION RATES	
DESCRIPTION	RATES
BITUMINOUS MATERIALS (PRIME COAT)	
ON GRANULAR BASE	0.5 GAL/SQ YD
ON EXISTING PAVEMENT	0.05 GAL/SQ YD
ON COLD MILLED SURFACE	0.1 GAL/SQ YD
FOG COAT ON NEW BINDER	0.03 GAL/SQ YD
AGGREGATE (PRIME COAT)	
ON EXISTING PAVEMENT	4 LB/SQ YD
ON COLD MILLED SURFACE	4 LB/SQ YD
FOG COAT ON NEW BINDER	2 LB/SQ YD




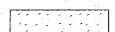
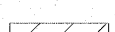
PROPOSED TYPICAL SECTION
 STA. 65+91.25 TO STA. 66+21.25
 STA. 66+82.75 TO STA. 67+12.75
 STA. 114+49.67 TO STA. 114+79.67
 STA. 115+52.33 TO STA. 115+82.33

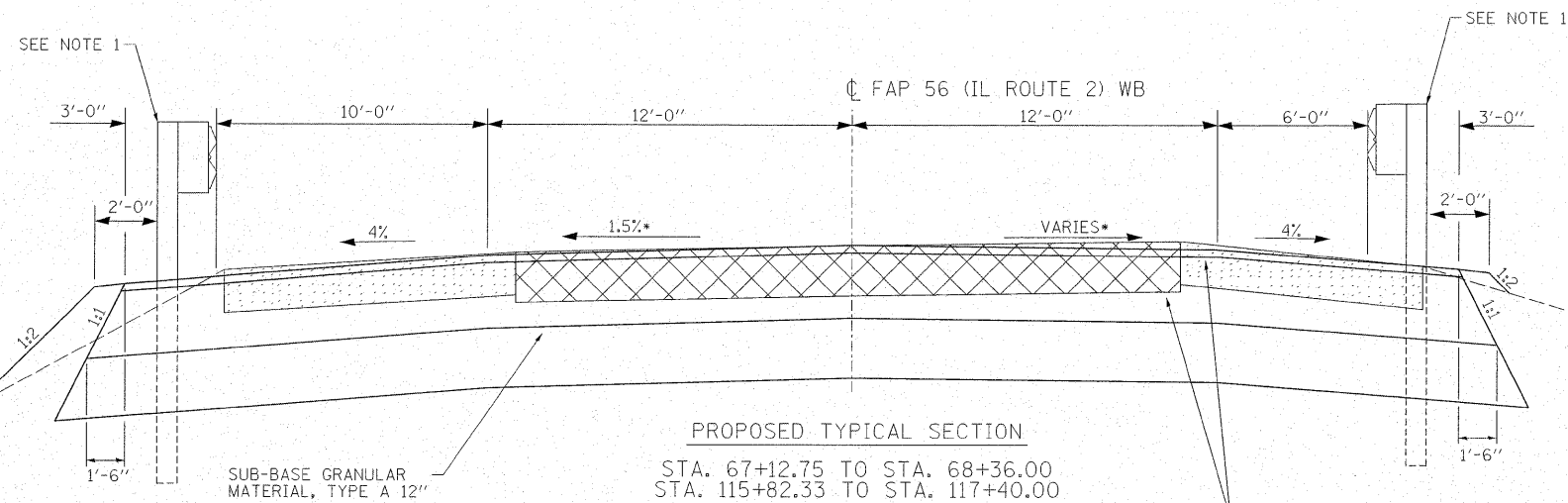
BRIDGE OMISSION
 STA. 66+21.25 TO STA. 66+82.75
 STA. 114+79.67 TO STA. 115+52.33

* SEE CROSS SLOPE TRANSITION TABLE (SHEET 5)

NOTE:
 1. GUARDRAIL LIMITS
 STRUCTURE 052-0078
 STA. 66+76.73 TO STA. 69+95.48, LT
 STA. 66+86.61 TO STA. 70+67.86, RT
 STRUCTURE 052-0079
 STA. 115+46.31 TO STA. 118+65.06, LT
 STA. 115+56.19 TO STA. 119+37.44, RT
 2. THE CONVERSION FACTOR FOR THE
 LEVELING BINDER (MACHINE METHOD)
 AND THE HOT-MIX ASPHALT SURFACE
 COURSE IS 112 LBS/SY/INCH.

REMOVAL LEGEND

-  PAVEMENT REMOVAL
-  PAVED SHOULDER REMOVAL
-  HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

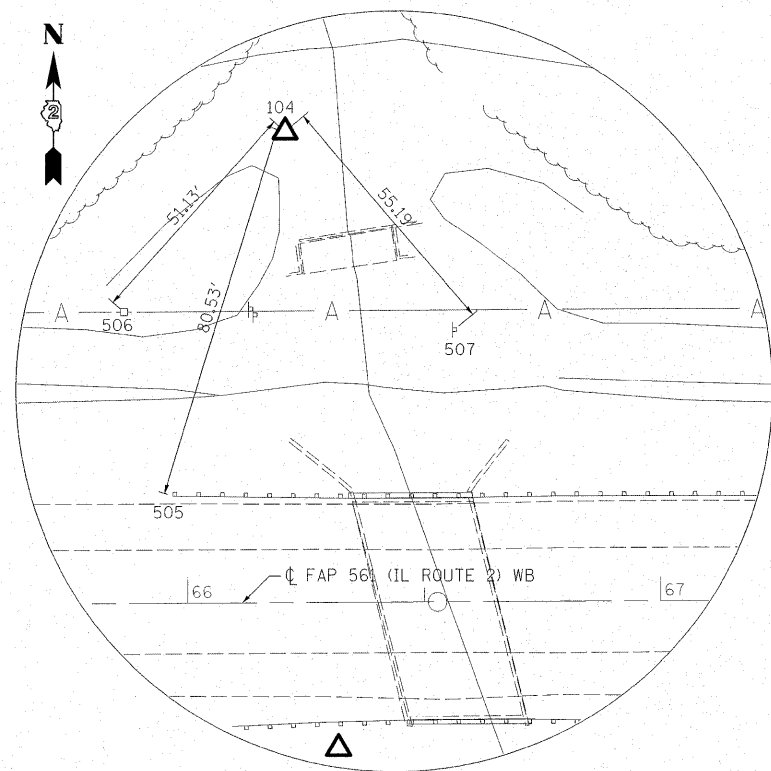
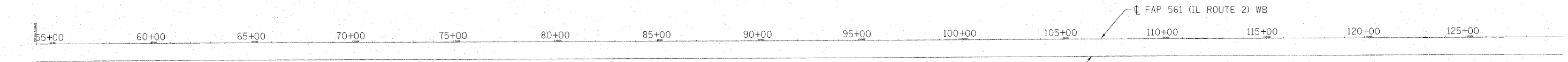


PROPOSED TYPICAL SECTION
 STA. 67+12.75 TO STA. 68+36.00
 STA. 115+82.33 TO STA. 117+40.00

*SEE CROSS SLOPE TRANSITION TABLE (SHEET 5)

**CONSISTS OF 13" HOT-MIX ASPHALT BINDER COURSE, 1L-19.0, N50
 AND 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50

APPLICATION RATES	
DESCRIPTION	RATES
BITUMINOUS MATERIALS (PRIME COAT)	
ON GRANULAR BASE	0.5 GAL/SQ YD
ON EXISTING PAVEMENT	0.05 GAL/SQ YD
ON COLD MILLED SURFACE	0.1 GAL/SQ YD
FOG COAT ON NEW BINDER	0.03 GAL/SQ YD
AGGREGATE (PRIME COAT)	
ON EXISTING PAVEMENT	4 LB/SQ YD
ON COLD MILLED SURFACE	4 LB/SQ YD
FOG COAT ON NEW BINDER	2 LB/SQ YD



HORIZONTAL CONTROL POINT NO. 104

Chain IL2 contains:
10 11

Beginning chain IL2 description

Point 10 N 1,878,576.39 E 2,448,154.25 Sta 54+38.52

Course from 10 to 11 89° 39' 14.20" Dist 7,556.53

Point 11 N 1,878,622.03 E 2,455,710.65 Sta 129+95.05

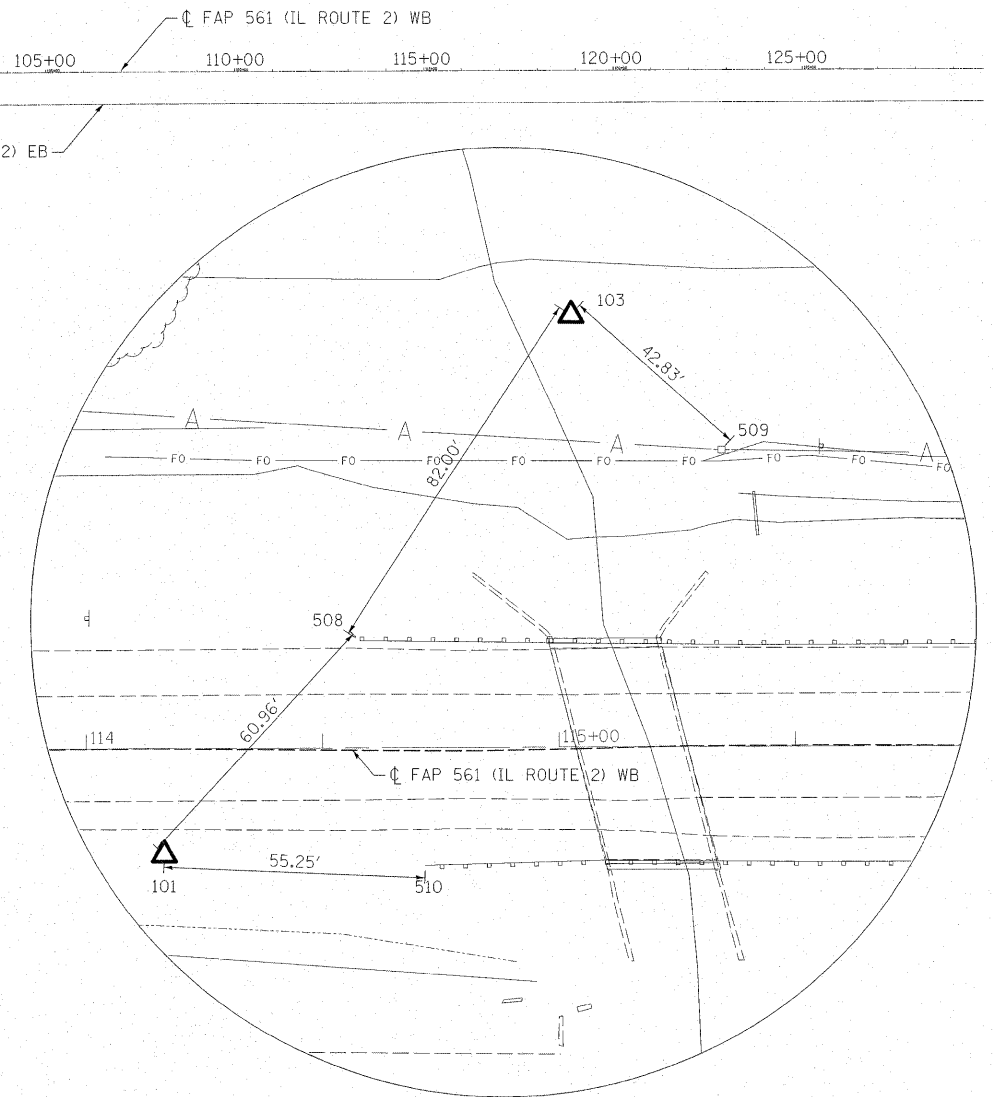
Ending chain IL2 description

REFERENCE TIES						
POINT	CHAIN	STATION	OFFSET	DESCRIPTION		
501	IL2	93+86.01	198.77' RT	CONCRETE FOUNDATION		
502	IL2	69+72.47	61.53' LT	POWER POLE		
503	IL2	71+66.72	61.71' LT	POWER POLE		
504	IL2	69+23.39	23.86' LT	GUARDRAIL		
505	IL2	65+96.95	22.31' LT	GUARDRAIL		
506	IL2	65+86.77	61.19' LT	POWER POLE		
507	IL2	66+56.64	57.01' LT	SIGN		
508	IL2	114+58.01	22.28' LT	GUARDRAIL		
509	IL2	115+34.59	62.28' LT	POWER POLE		
510	IL2	114+71.61	24.75' RT	GUARDRAIL		

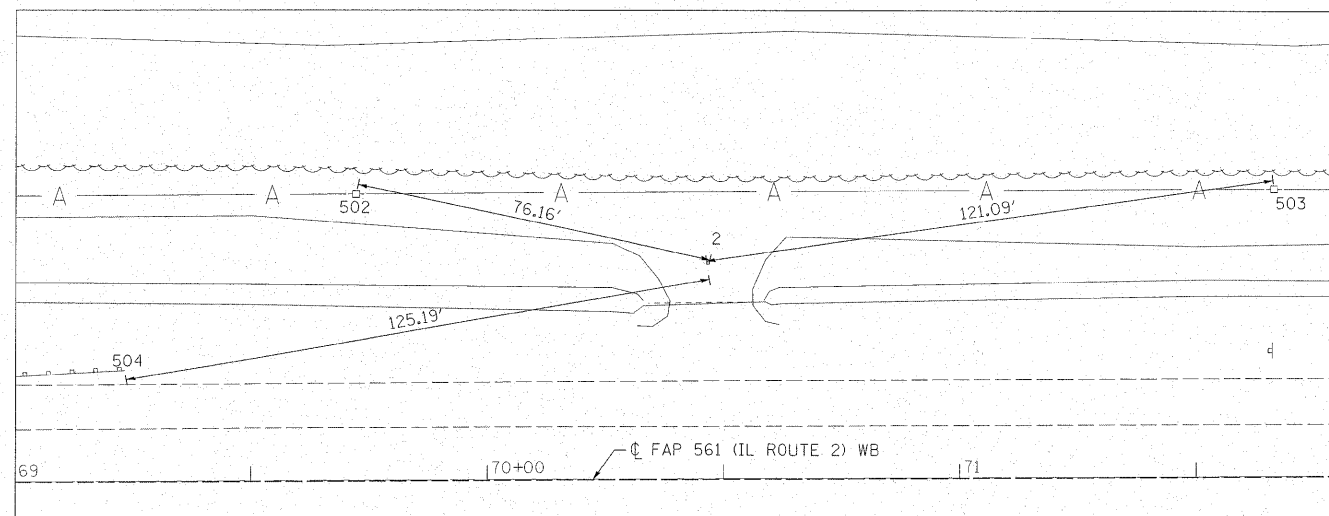
HORIZONTAL CONTROL POINTS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
1	1878433.38	1452122.87	678.65	IL2	94+06.20	166.98' RT	GPS CONTROL POINT, 5/8" DIA. REBAR
2	1878631.03	2449762.23	665.88	IL2	70+46.80	44.93' LT	GPS CONTROL POINT, 5/8" DIA. REBAR
101	1878590.21	2454132.17	666.90	IL2	114+16.42	22.28' RT	TOPO SURVEY POINT, 5/8" DIA. REBAR
103	1878703.98	2454217.87	658.06	IL2	115+02.79	90.97' LT	TOPO SURVEY POINT, 5/8" DIA. REBAR
104	1878682.69	2449338.12	660.87	IL2	66+21.01	99.16' LT	TOPO SURVEY POINT, 5/8" DIA. REBAR

BENCHMARKS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
401	1878606.60	2449349.90	667.26	IL2	66+34.33	22.99' LT	WINGWALL, CHISELED SQUARE
402	1878635.89	2454213.18	668.03	IL2	114+97.69	22.91' LT	WINGWALL, CHISELED SQUARE

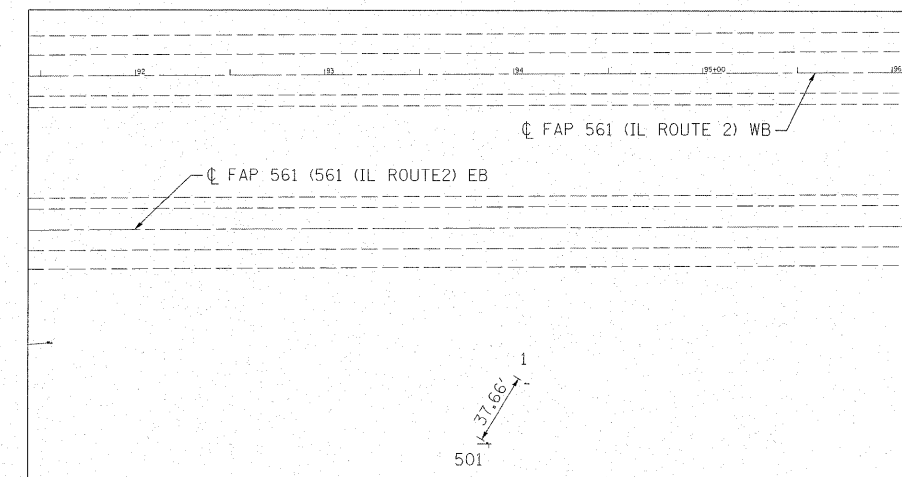
SURVEY WORK POINTS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
102	1878562.28	2454294.65	664.64	IL2	115+78.72	51.19' RT	5/8" DIA. REBAR
105	1878552.86	2449347.61	665.64	IL2	66+31.71	30.74' RT	5/8" DIA. REBAR
106	1878436.88	2450293.83	664.59	IL2	75+77.22	152.43' RT	IRON ROD
107	1878768.02	2453338.89	666.35	IL2	106+24.22	160.32' LT	NAIL
108	1878499.22	2454452.21	666.43	IL2	117+35.90	115.21' RT	NAIL



HORIZONTAL CONTROL POINTS NO. 101 AND 103








HORIZONTAL CONTROL POINT NO. 2

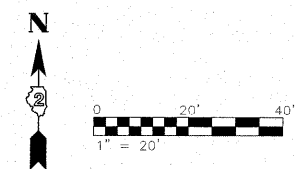
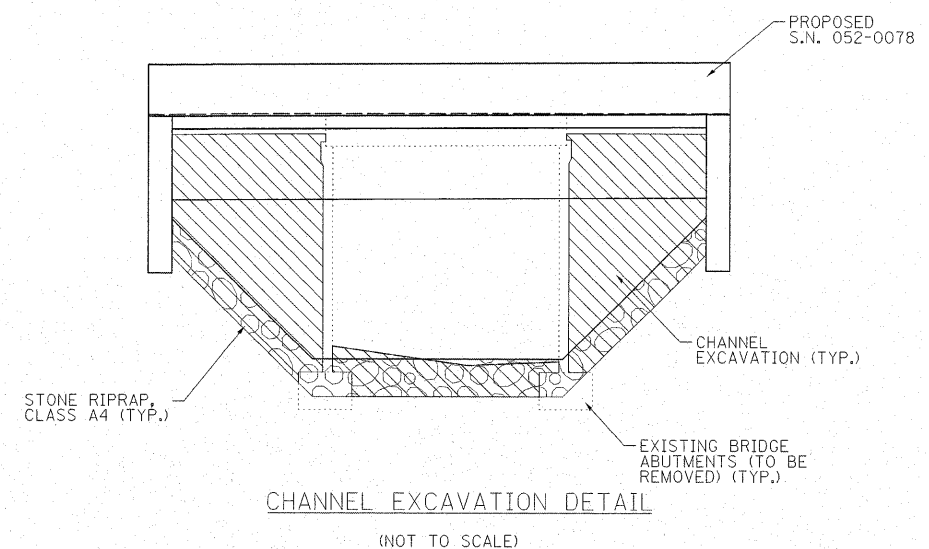
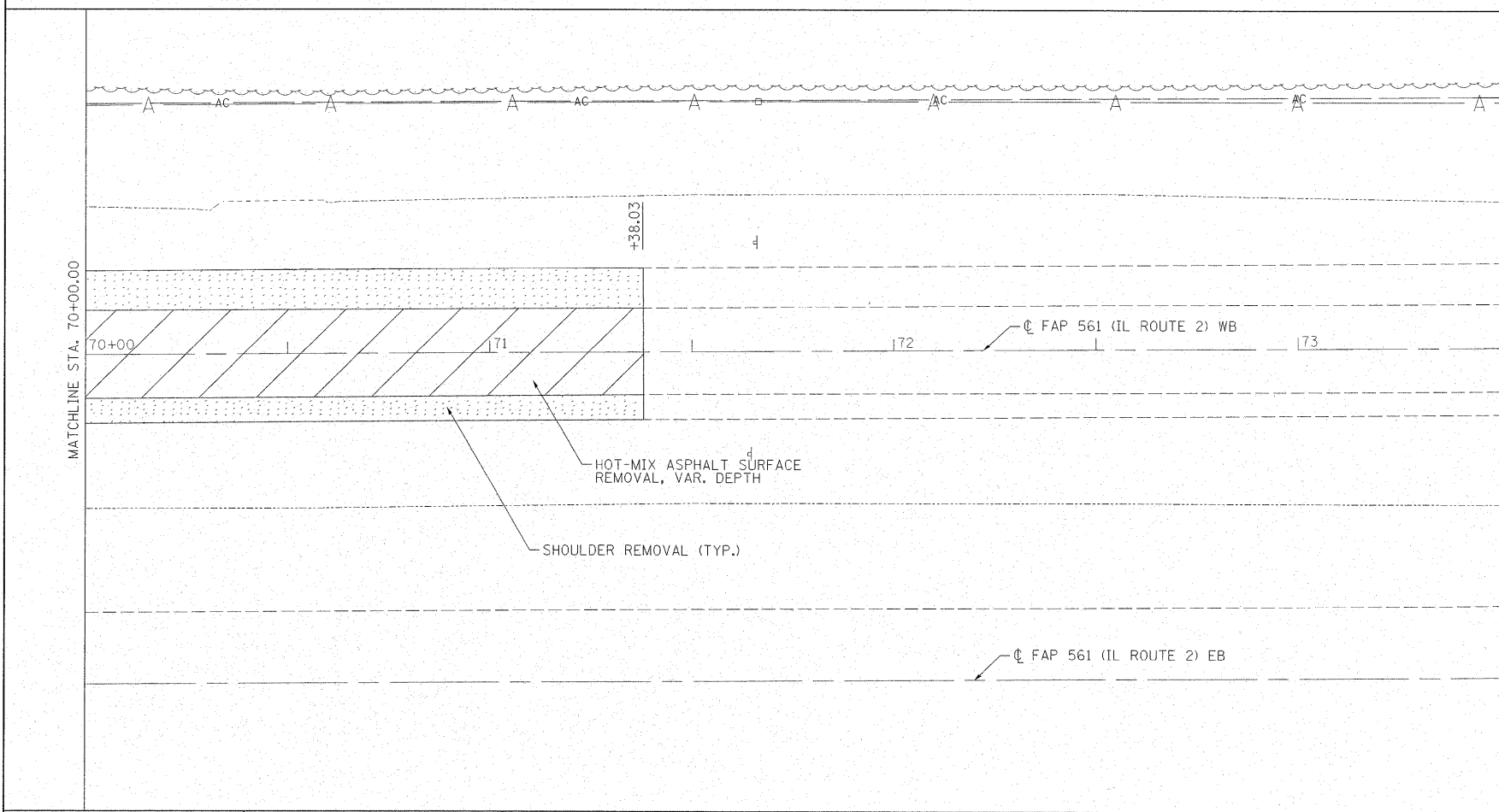
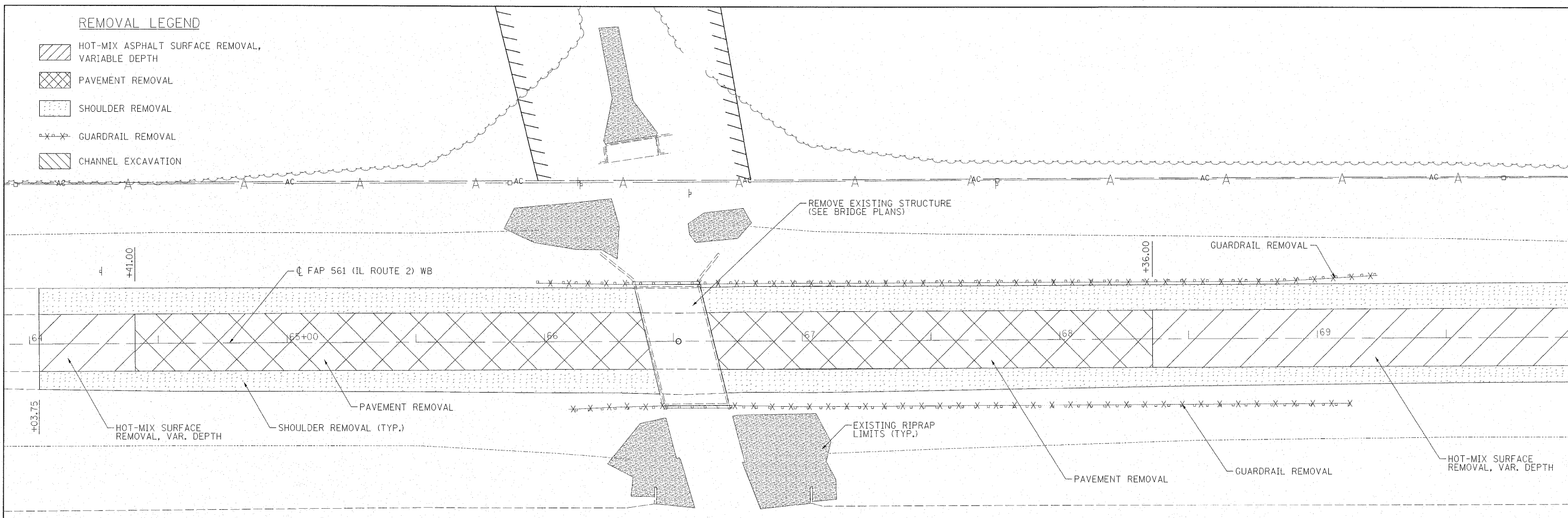


HORIZONTAL CONTROL POINTS NO. 1



REMOVAL LEGEND

-  HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
-  PAVEMENT REMOVAL
-  SHOULDER REMOVAL
-  GUARDRAIL REMOVAL
-  CHANNEL EXCAVATION

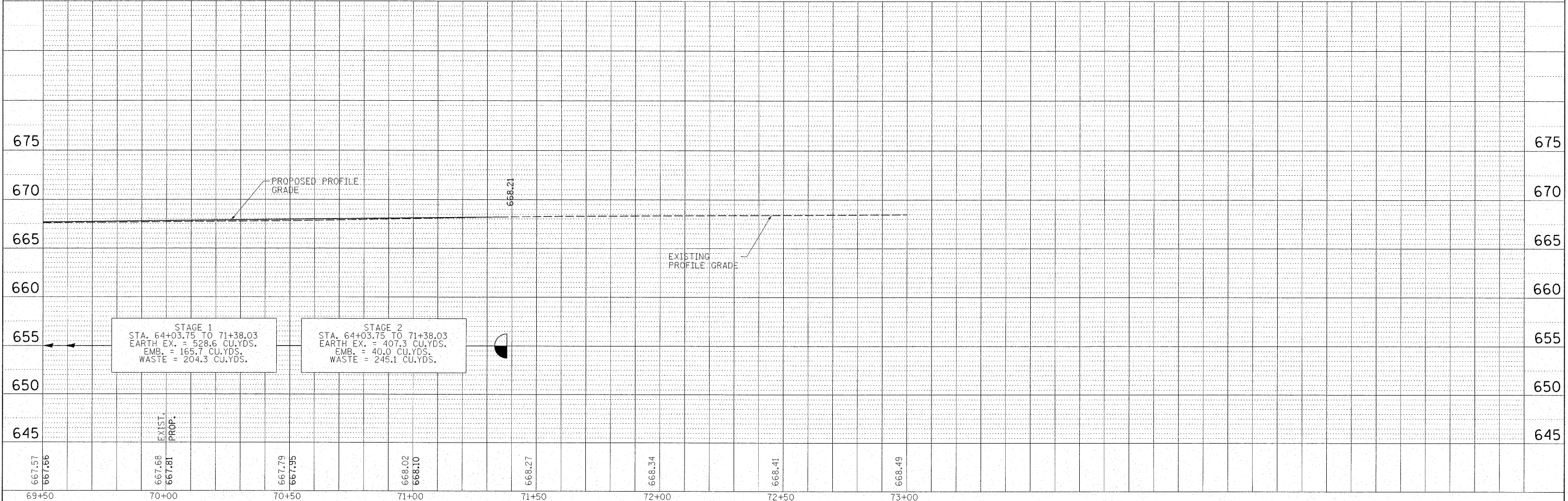
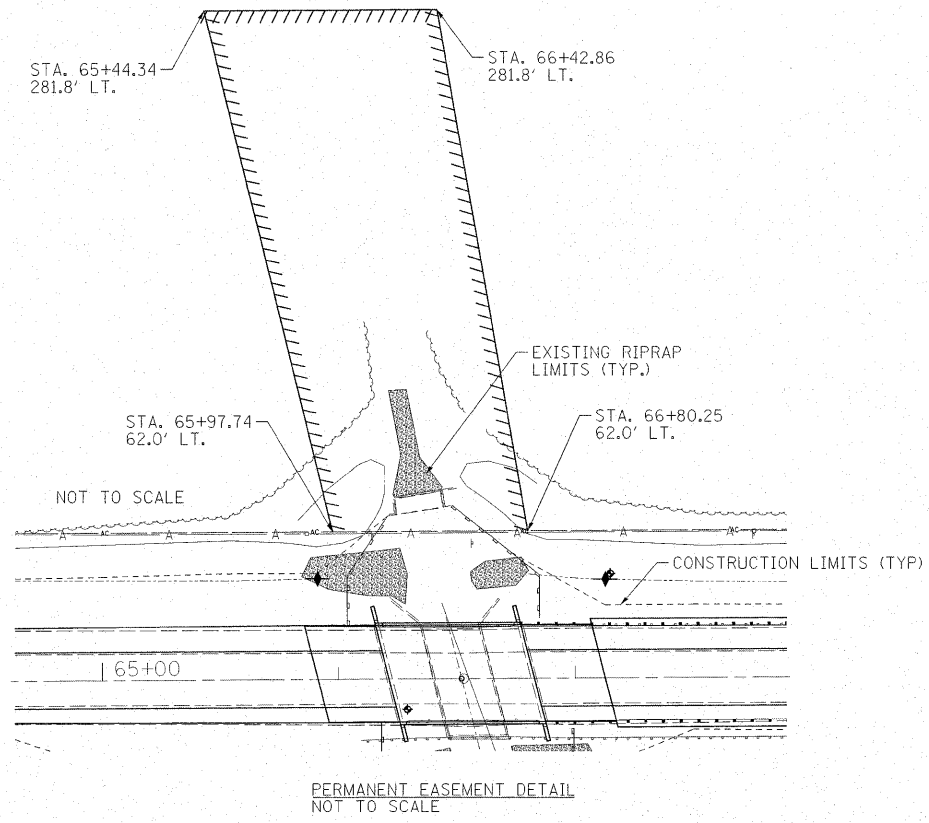
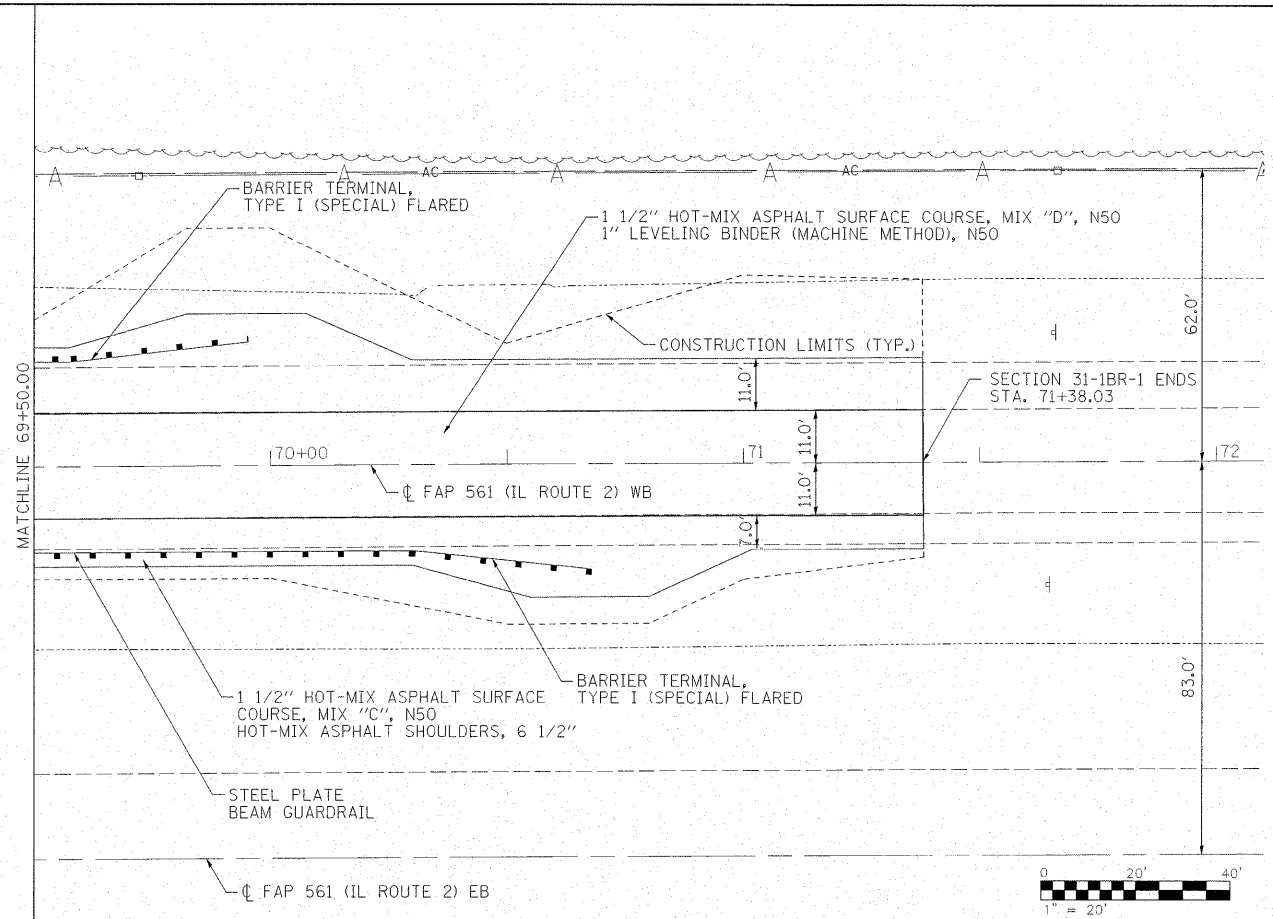


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		DATE -	REVISED -									

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 GRADES CHECKED _____
 B.M. NOTED _____
 STRUCTURE NOTATIONS CHECKED _____
 PI AN _____
 NOTE BOOK _____
 NO. _____



DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 GRADES CHECKED _____
 B.M. NOTED _____
 STRUCTURE NOTATIONS CHECKED _____
 PROFILE _____
 NOTE BOOK _____
 NO. _____

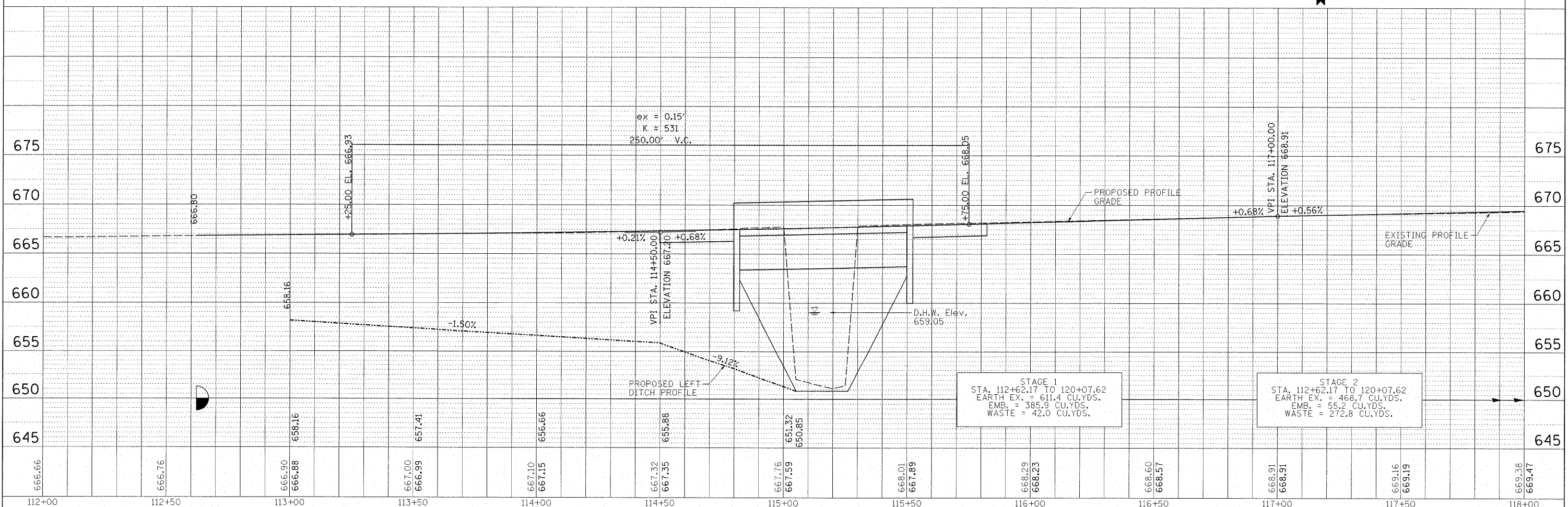
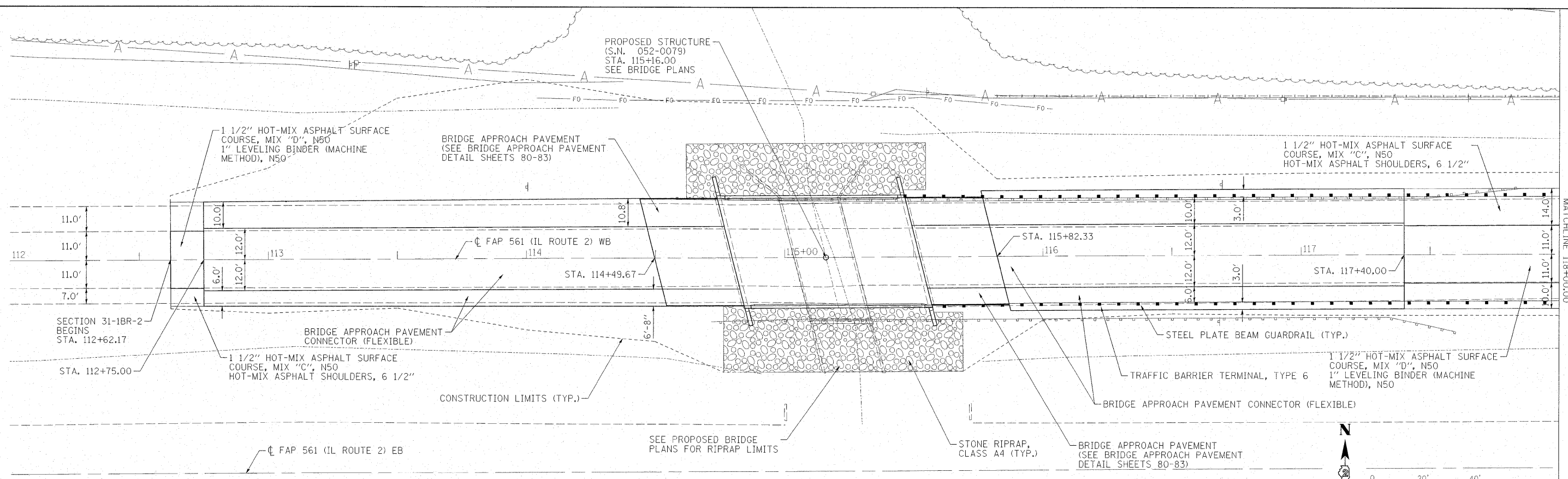


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		DATE -	REVISED -									

DATE: _____ BY: _____
 SURVEYED: _____ CHECKED: _____
 PLAN: _____ NO. _____
 NOTE BOOK: _____
 RT. OF WAY: _____
 GRID FILE NAME: _____

MAURER & STUTZ, INC.
 ENGINEERS
 SURVEYORS

DATE: _____ BY: _____
 PROFILE: _____
 PLOTTED: _____
 GRADES CHECKED: _____
 E.M. NOTED: _____
 STRUCTURE: _____
 NOTES: _____
 NO. _____

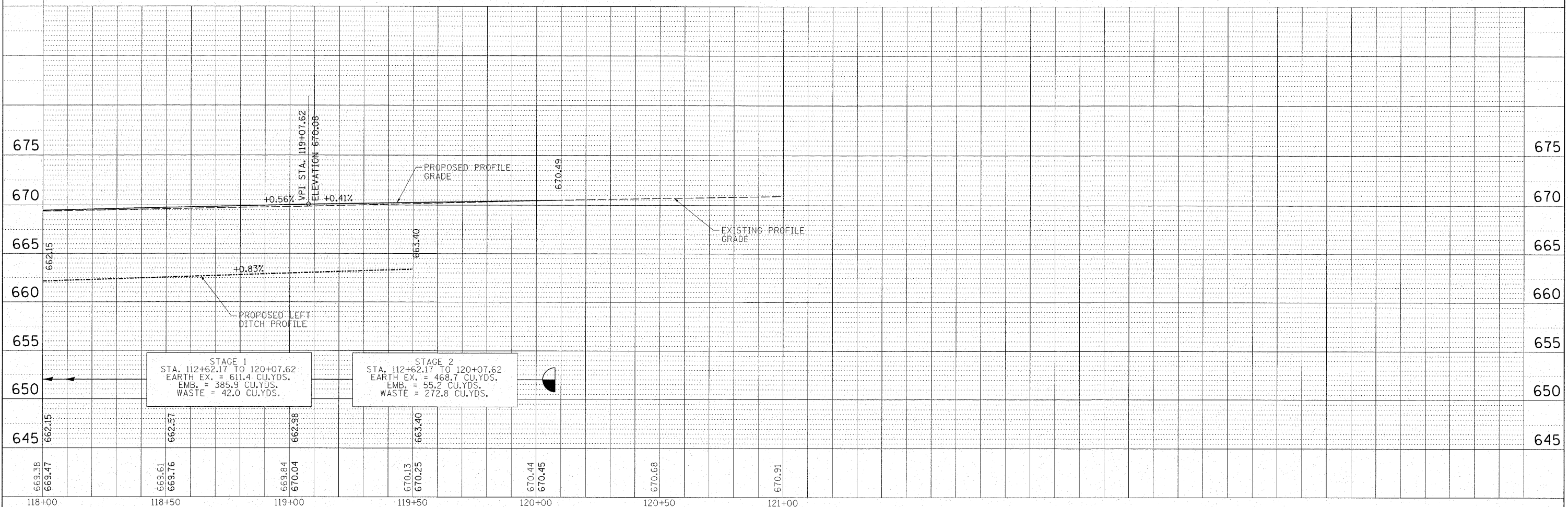
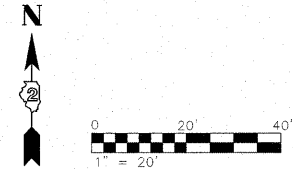
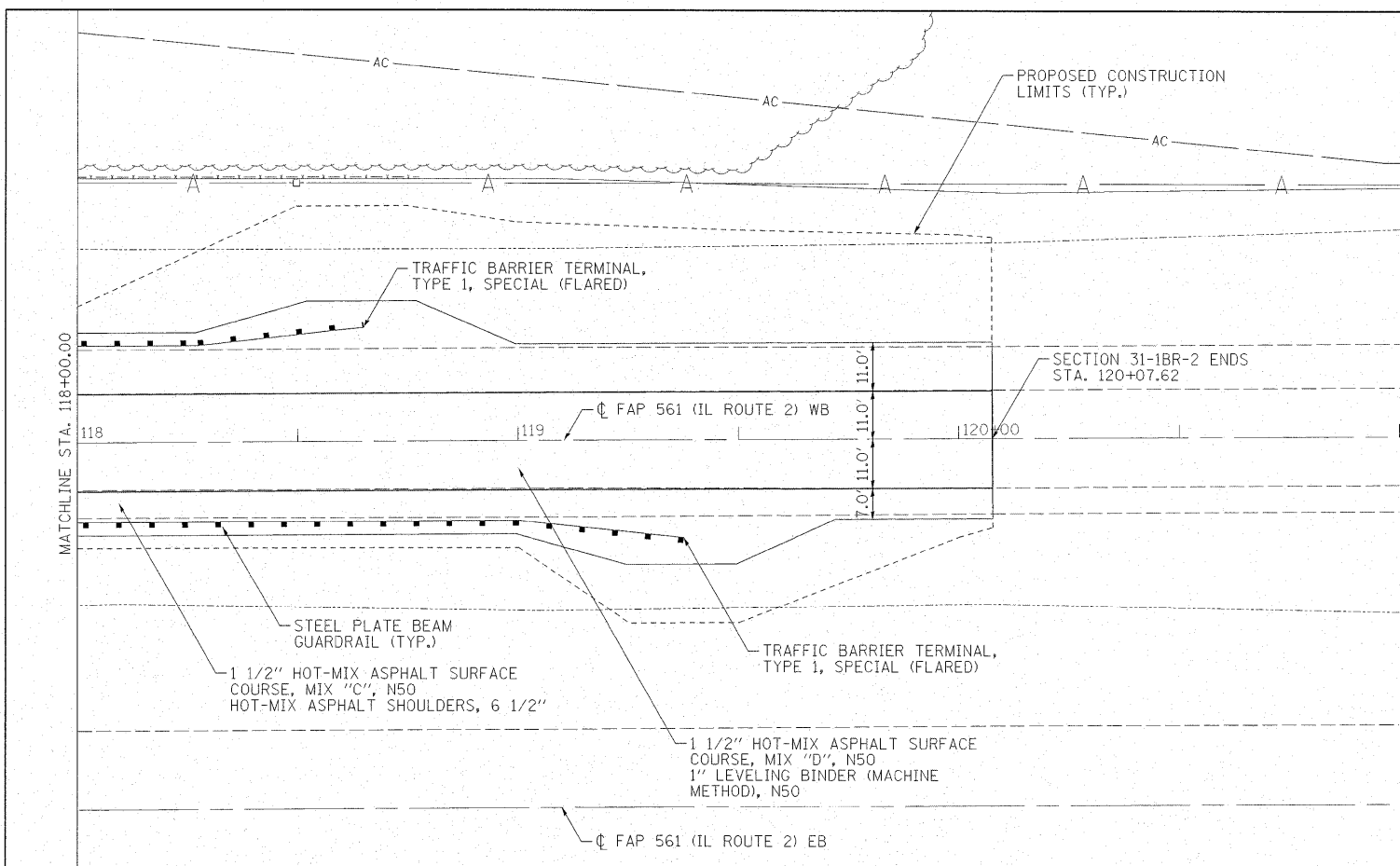


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DATE: _____ BY: _____
 REVIEWED: _____
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 PLAN NOTE BOOK NO. _____

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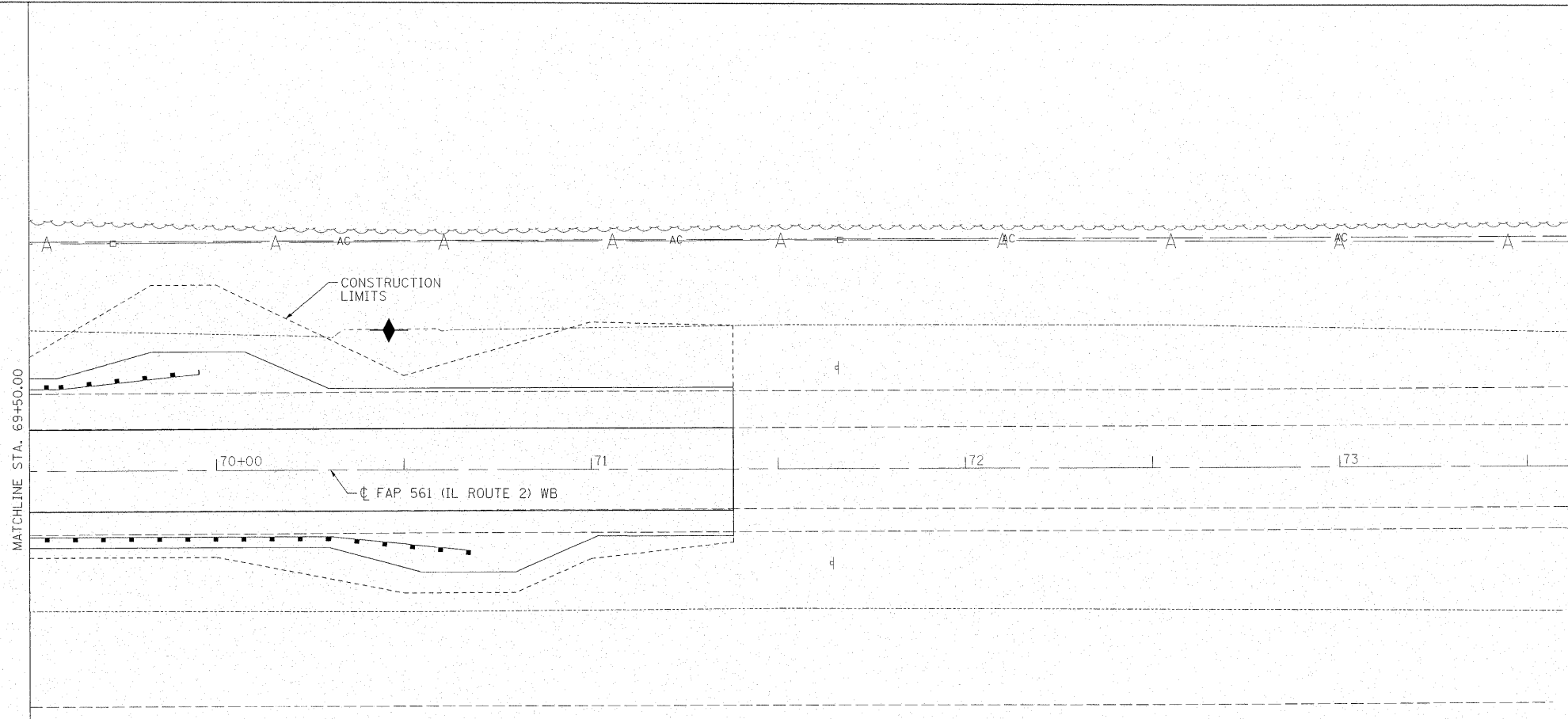
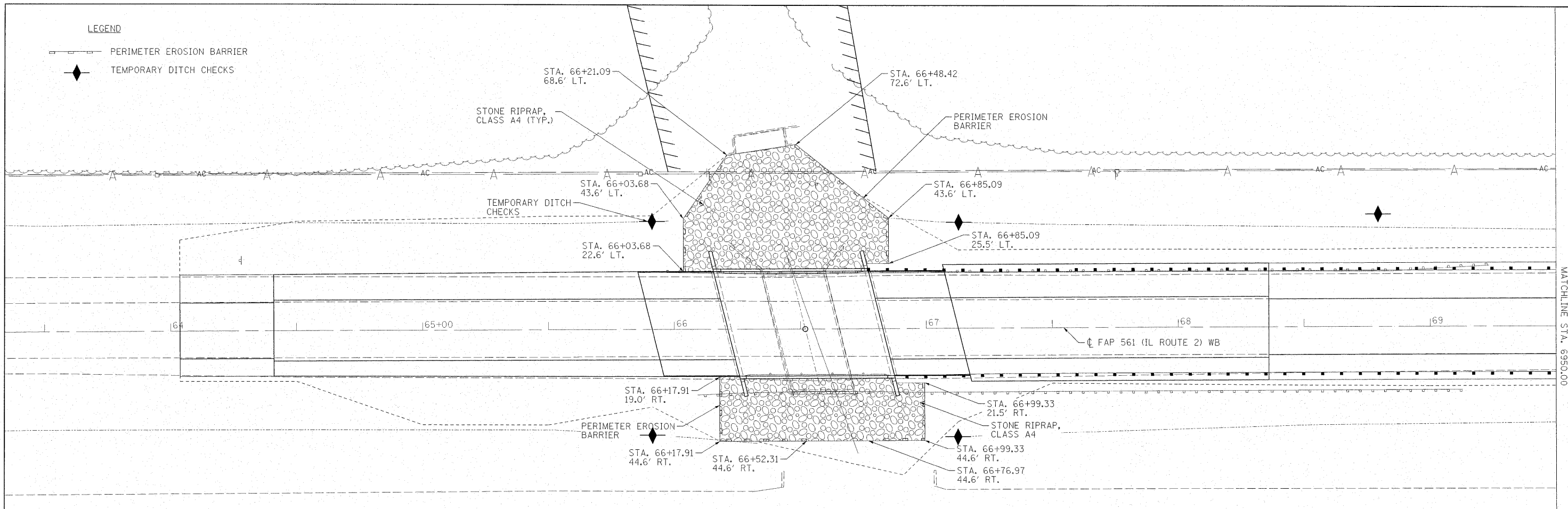
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		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	

LEGEND

- PERIMETER EROSION BARRIER
- ◆ TEMPORARY DITCH CHECKS



FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED - JDS	REVISED -
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		CHECKED - GBM	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 2 WB (SN 052-0078)
EROSION CONTROL PLAN**

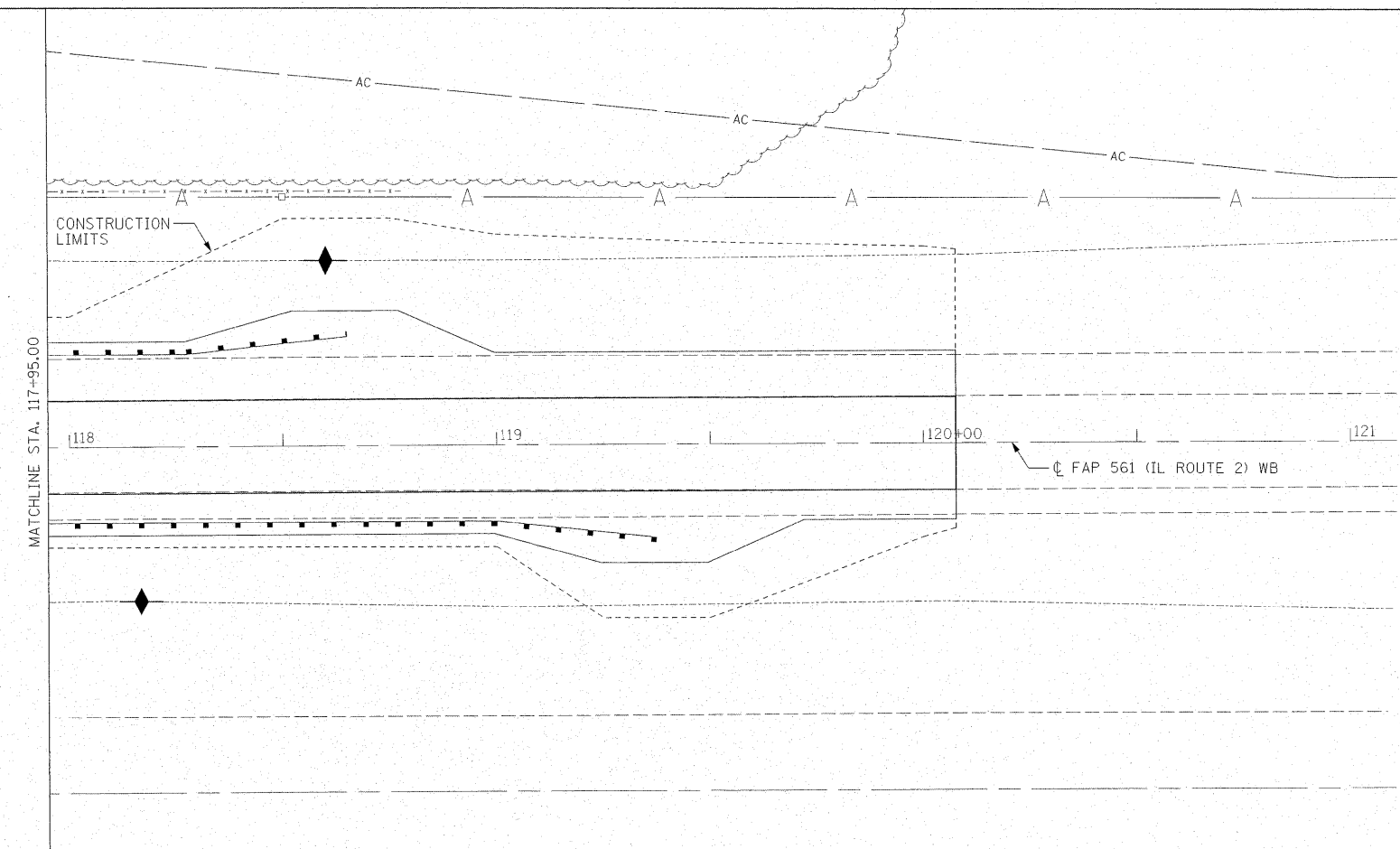
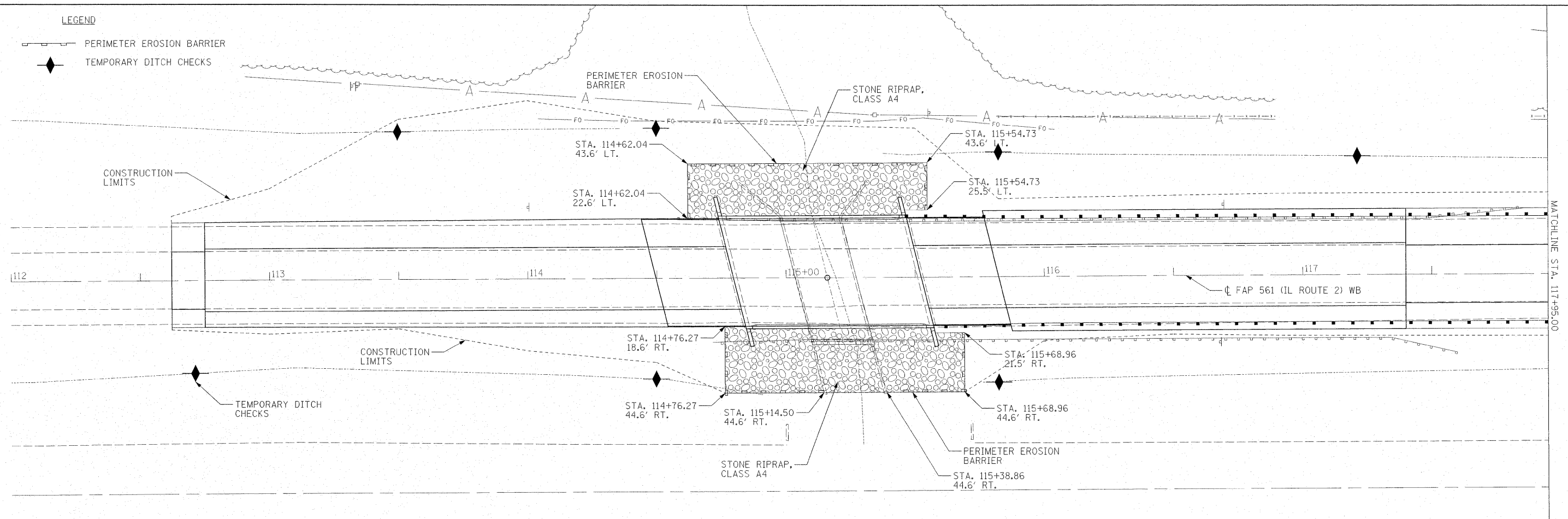
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64B05				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				










LEGEND

- PERIMETER EROSION BARRIER
- ◆ TEMPORARY DITCH CHECKS

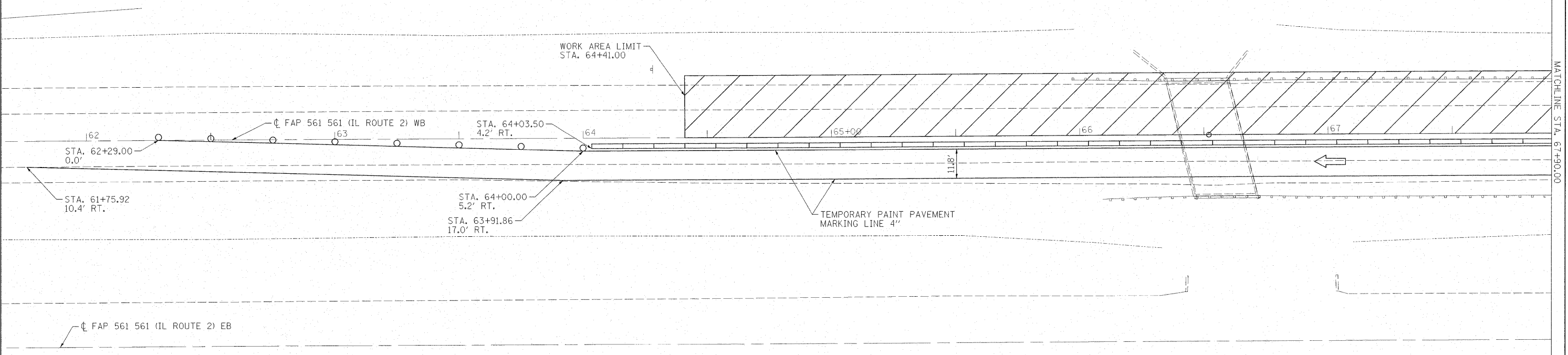


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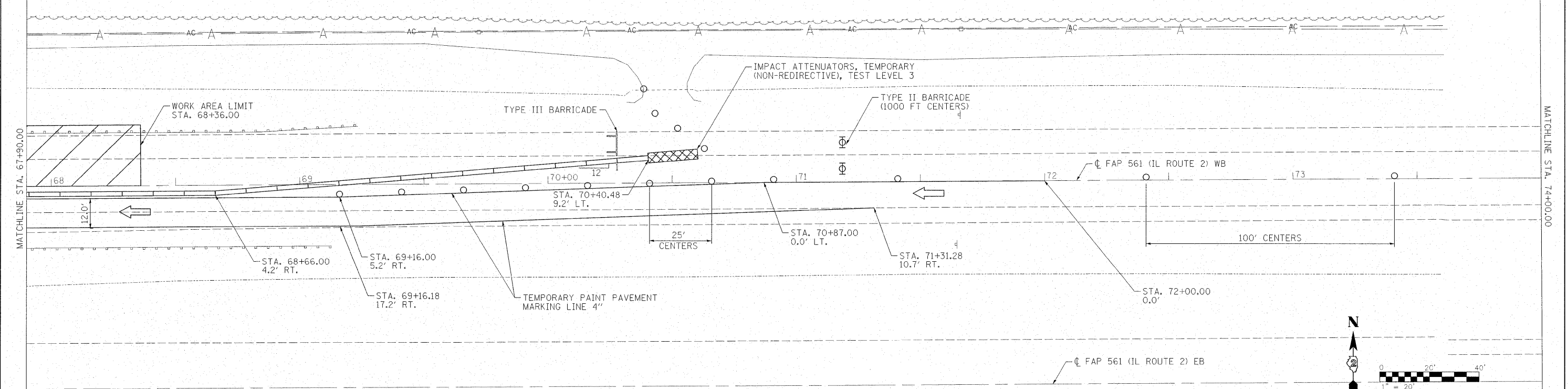
STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC

- SUGGESTED SEQUENCE OF CONSTRUCTION:**
1. USE STANDARDS 701400 AND 701402 FOR BRIDGE, APPROACH PAVEMENT, AND CONNECTOR PAVEMENT WORK.
 2. REMOVE STAGE 1 PORTION OF THE EXISTING STRUCTURE, GUARDRAIL, PAVEMENT, AND SHOULDERS.
 3. CONSTRUCT STAGE 1 PORTION OF THE PROPOSED BRIDGE INCLUDING APPROACH PAVEMENTS, CONNECTOR PAVEMENTS, RIPRAP, AND GUARDRAIL.
 4. CONSTRUCT TEMPORARY RAMPS AS NEEDED.



- NOTE:**
1. SEE STD. 701400-03 FOR TRAFFIC CONTROL SIGN LOCATIONS AND INFORMATION.
 2. THE LANE CLOSURE IN THE RIGHT LANE SHALL EXTEND THROUGH BOTH BRIDGE REPLACEMENTS.
 3. DEVICES USED FOR TRAFFIC CONTROL AND PROTECTION AT TURN BAYS IS SHOWN ON DISTRICT STANDARD 94.2.

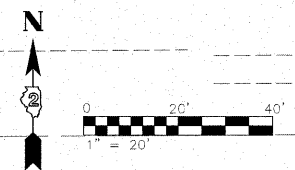


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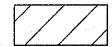






**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

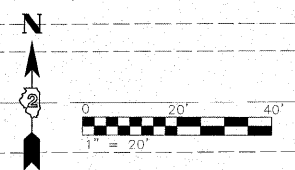
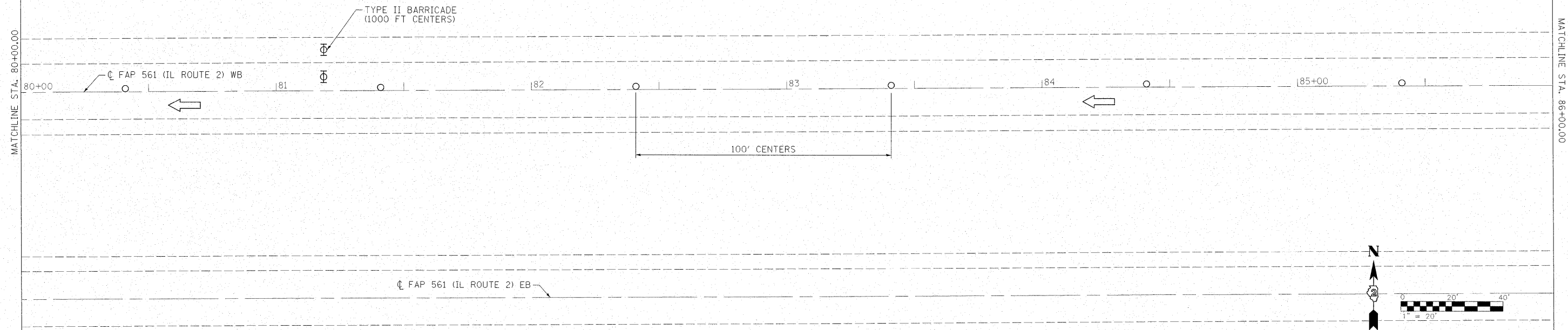
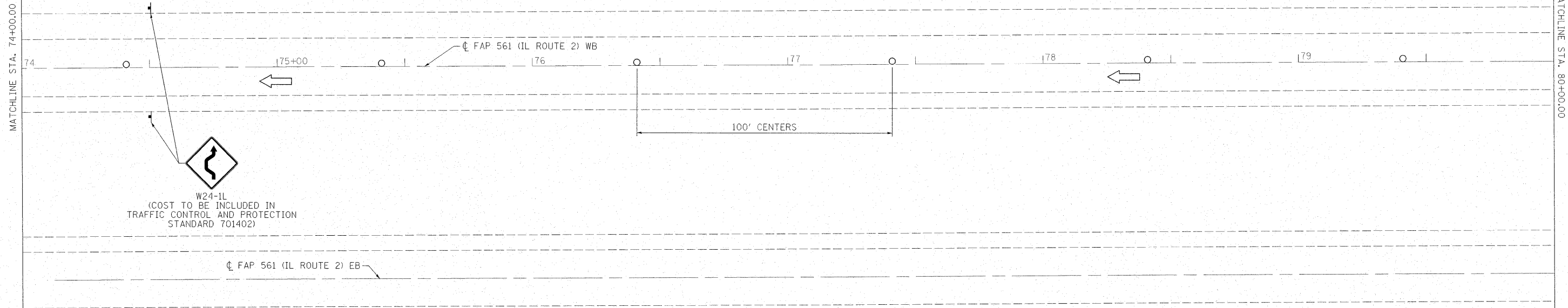
**IL ROUTE 2 WB
STAGE 1 STAGING PLAN**

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PLOT DATE = \$DATE\$		DATE -	REVISED -	SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT					



STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC



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






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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

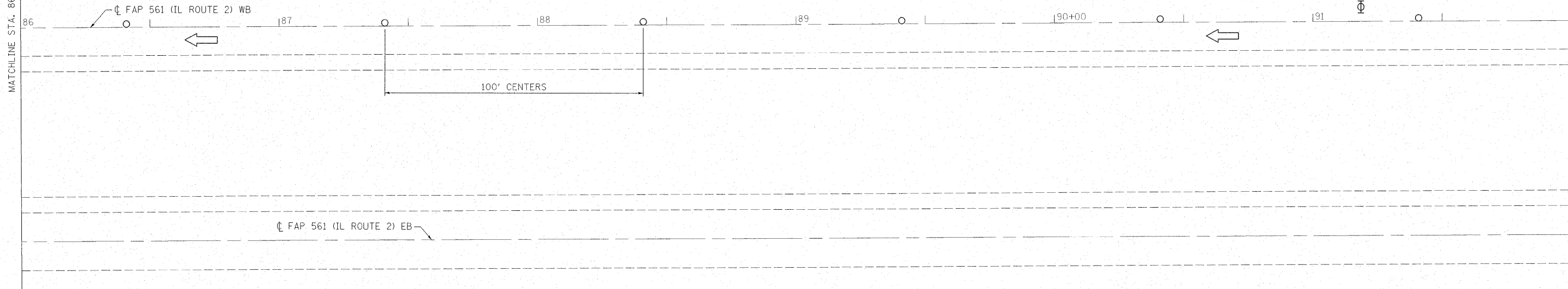
IL ROUTE 2 WB			
STAGE 1 STAGING PLAN			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1 & 31-1BR-2	LEE	92	20
CONTRACT NO. 64B05				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STAGING LEGEND

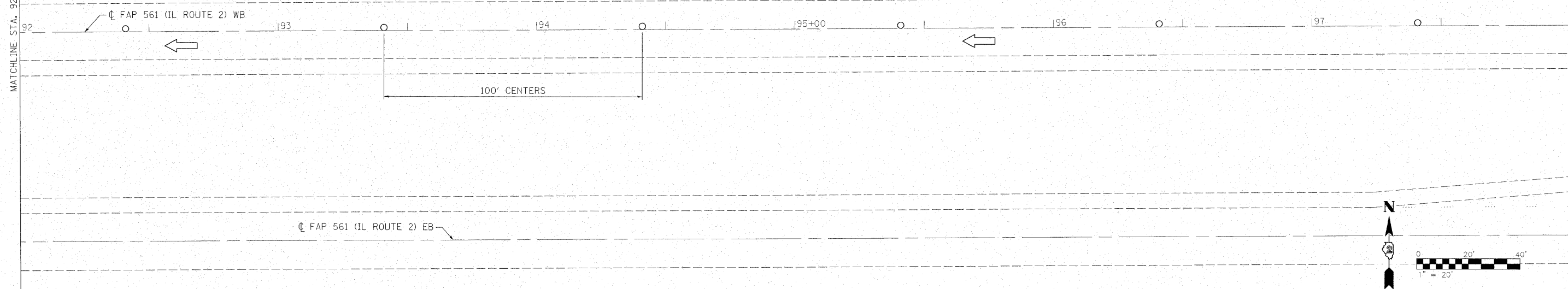
-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC

MATCHLINE STA. 86+00.00

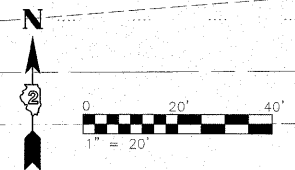


MATCHLINE STA. 92+00.00

MATCHLINE STA. 92+00.00

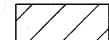


MATCHLINE STA. 98+00.00



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		CHECKED - GBM	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								
		DATE -	REVISED -										

STAGING LEGEND



WORK ZONE



TEMPORARY CONCRETE BARRIER



BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS



ARROW BOARD



TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



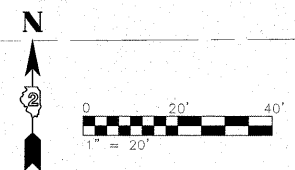
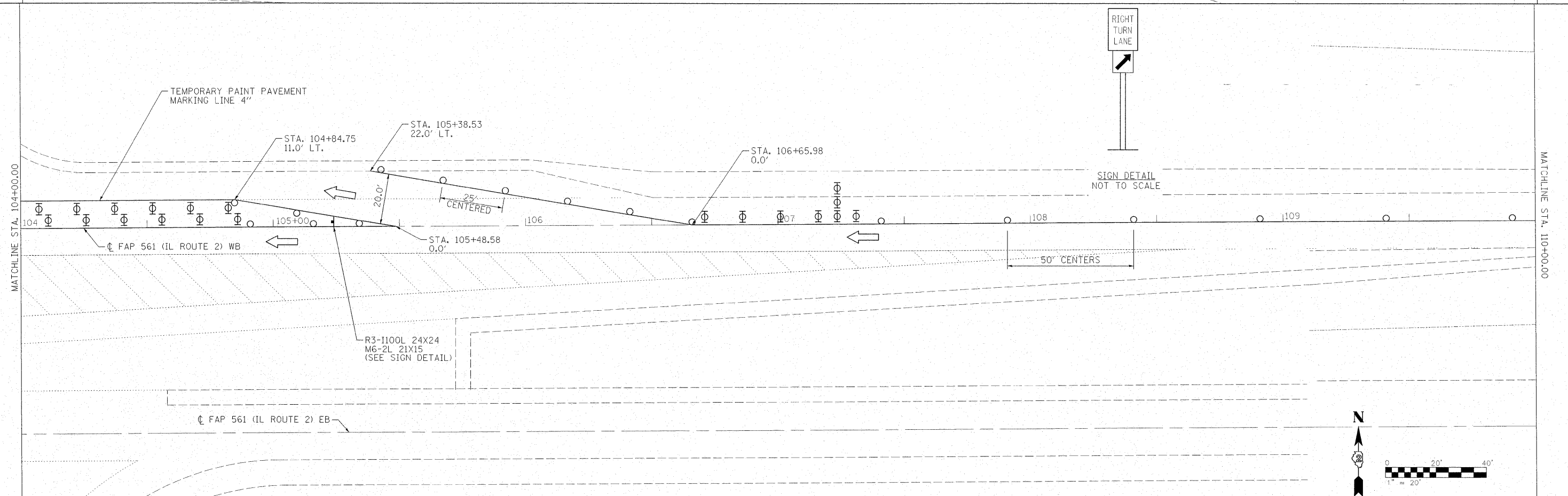
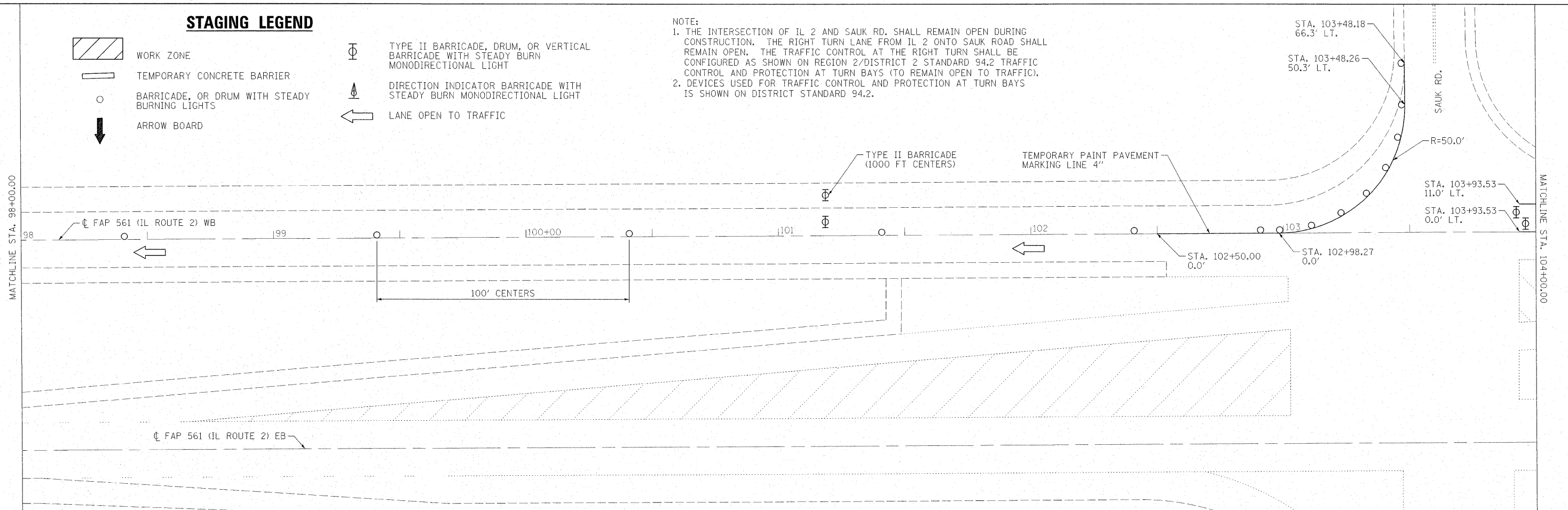
DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



LANE OPEN TO TRAFFIC








NOTE:

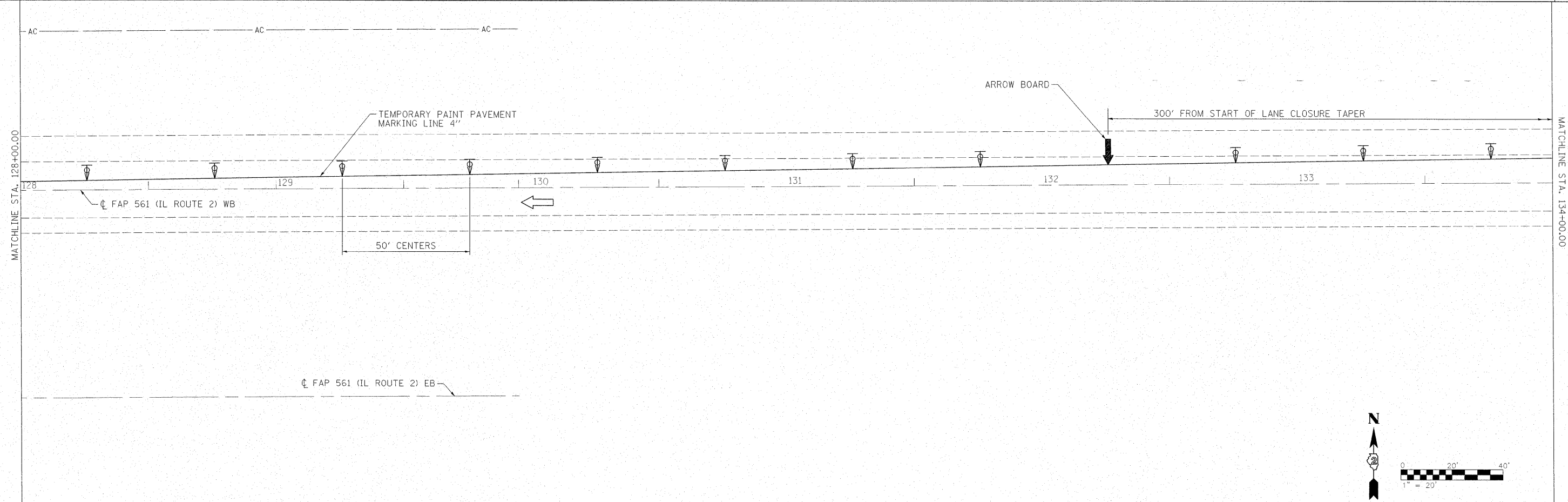
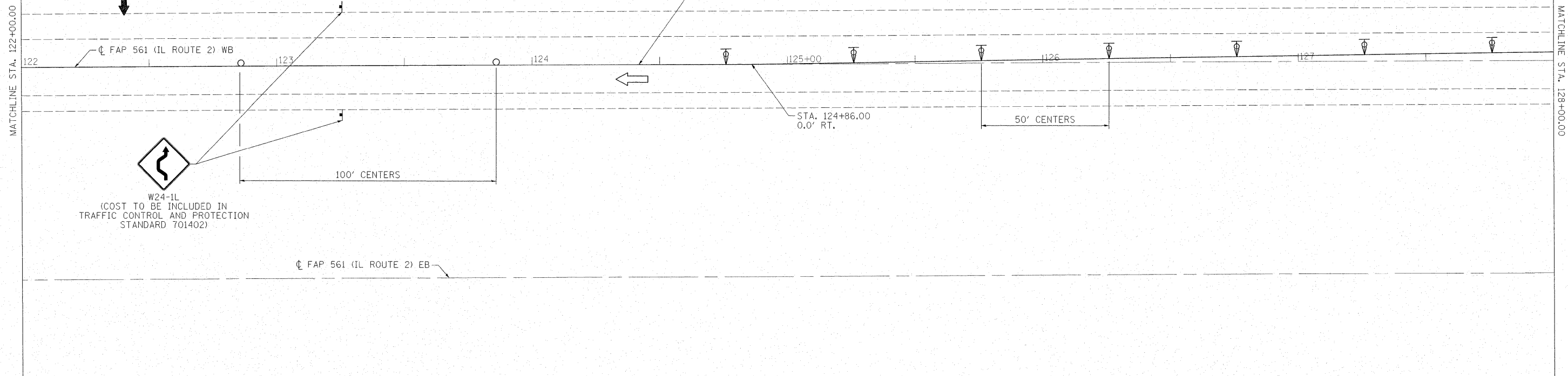
1. THE INTERSECTION OF IL 2 AND SAUK RD. SHALL REMAIN OPEN DURING CONSTRUCTION. THE RIGHT TURN LANE FROM IL 2 ONTO SAUK ROAD SHALL REMAIN OPEN. THE TRAFFIC CONTROL AT THE RIGHT TURN SHALL BE CONFIGURED AS SHOWN ON REGION 2/DISTRICT 2 STANDARD 94.2 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC).
2. DEVICES USED FOR TRAFFIC CONTROL AND PROTECTION AT TURN BAYS IS SHOWN ON DISTRICT STANDARD 94.2.



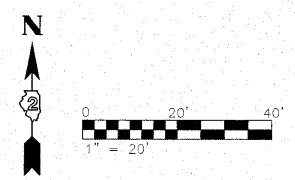
FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED - JDS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 2 WB STAGE 1 STAGING PLAN			F.A.P. RTE. 561	SECTION 31-1BR-1 & 31-1BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 22
		DRAWN - WLL	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 64B05		
		CHECKED - GBM	REVISED -							ILLINOIS FED. AID PROJECT		
		DATE	REVISED -									

STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC

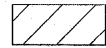


MAURER & STUTZ, INC.
ENGINEERS SURVEYORS



FILE NAME =	USER NAME = #USER#	DESIGNED - JDS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 2 WB STAGE 1 STAGING PLAN			F.A.P. RTE. 561	SECTION 31-1BR-1 & 31-1BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 24
FILEL		DRAWN - WLL	REVISED -					CONTRACT NO. 64B05				
		CHECKED - GBM	REVISED -									
		DATE -	REVISED -									
				SCALE:		SHEET NO. OF SHEETS		STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

STAGING LEGEND



WORK ZONE



TEMPORARY CONCRETE BARRIER



BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS



ARROW BOARD



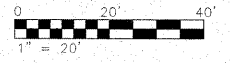
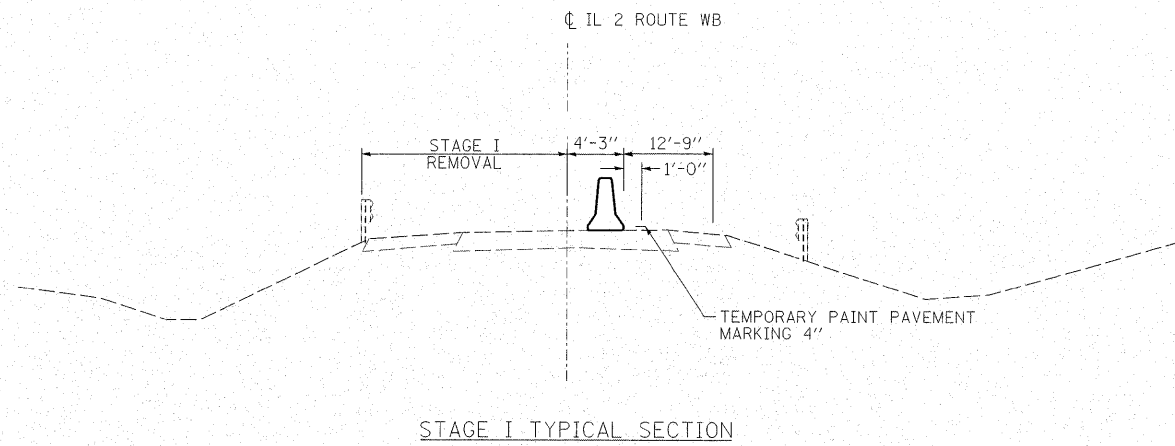
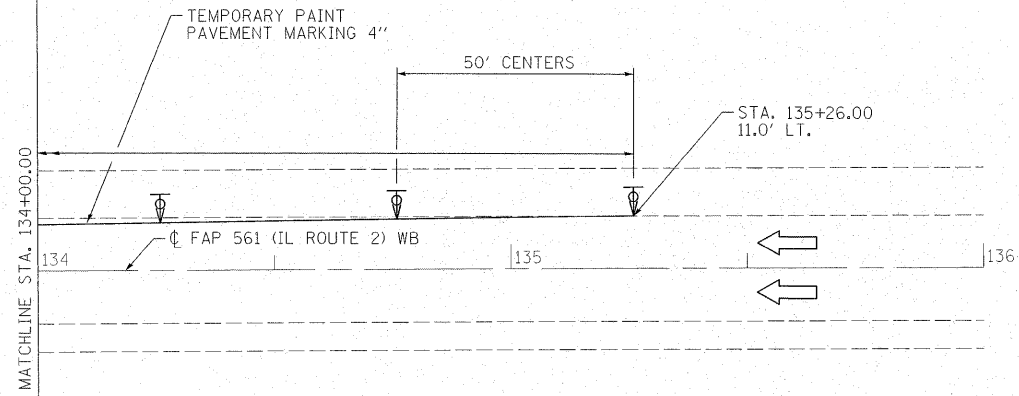
TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



LANE OPEN TO TRAFFIC



FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED - JDS	REVISED -
		DRAWN - WLL	REVISED -
		CHECKED - GBM	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 2 WB
STAGE 1 STAGING PLAN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1 & 31-1BR-2	LEE	92	25
CONTRACT NO. 64B05				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALE: SHEET NO. OF SHEETS STA. TO STA.

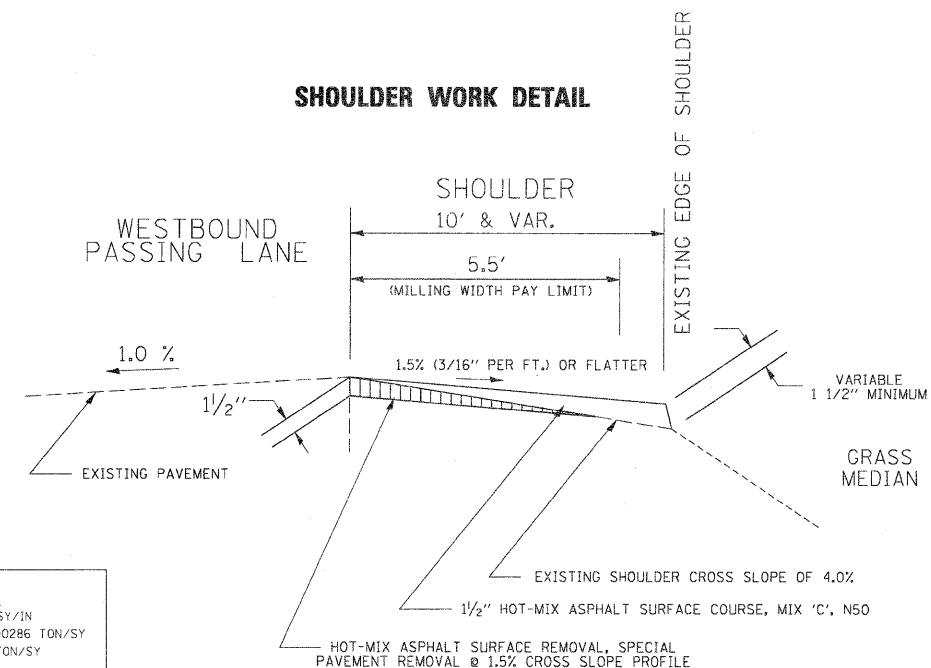
ILLINOIS ROUTE 2 (WESTBOUND)

SCHEDULE OF QUANTITIES

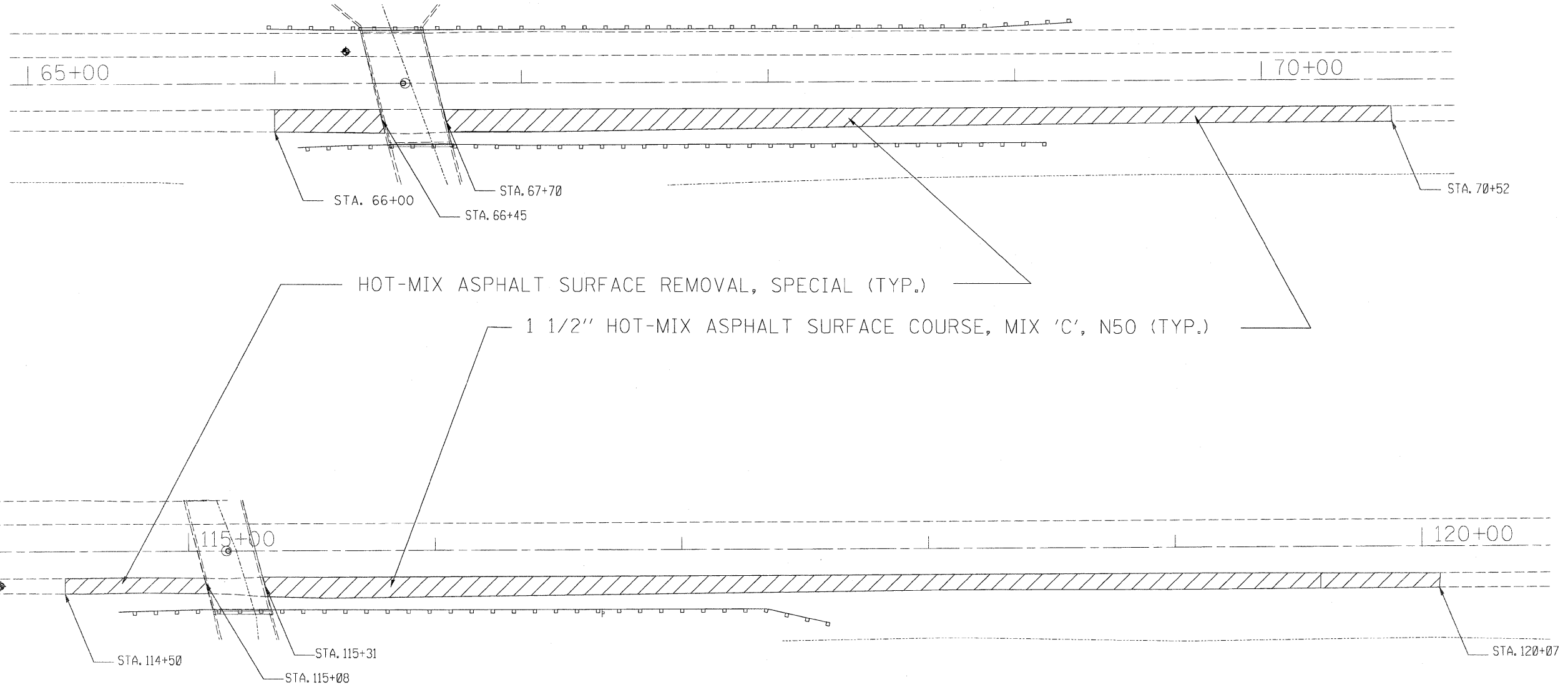
(44000196) HOT-MIX ASPHALT SURFACE REMOVAL, SPECIAL					(40603310) HOT-MIX ASPHALT SURFACE COURSE, MIX 'C', N50				
STATION	LENGTH	WIDTH	AREA (SQ.YD.)		STATION	LENGTH	AREA (SQ.YD.)	TONS	
66+00 to 66+45	45	5.5	27.50		66+00 to 66+45	45	44.44	4.36	
67+70 to 68+00	30	5.5	18.34		67+70 to 70+52	282	317.73	31.14	
68+00 to 70+52	252	5.5	154.00						
114+50 to 115+08	58	5.5	35.44		114+50 to 115+08	58	40.53	3.98	
115+31 to 116+00	69	5.5	42.17		115+31 to 120+07	476	339.34	33.26	
116+00 to 120+07	407	5.5	248.73						
			587.28					72.74	
			58.73		VARIABLE FIELD CONDITIONS (10%)			7.27	
			<u>646.01</u>	TOTAL				<u>80.01</u>	TONS

NOTE: PRIME COATS INCLUDED IN CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE

SHOULDER WORK DETAIL



BITUMINOUS APPLICATION RATES
 ALL BITUMINOUS MIXTURES: 112 LB/SY/IN
 BITUMINOUS MATERIALS (PRIME COAT): 0.000286 TON/SY
 AGGREGATE (PRIME COAT): 0.0015 TON/SY




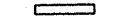





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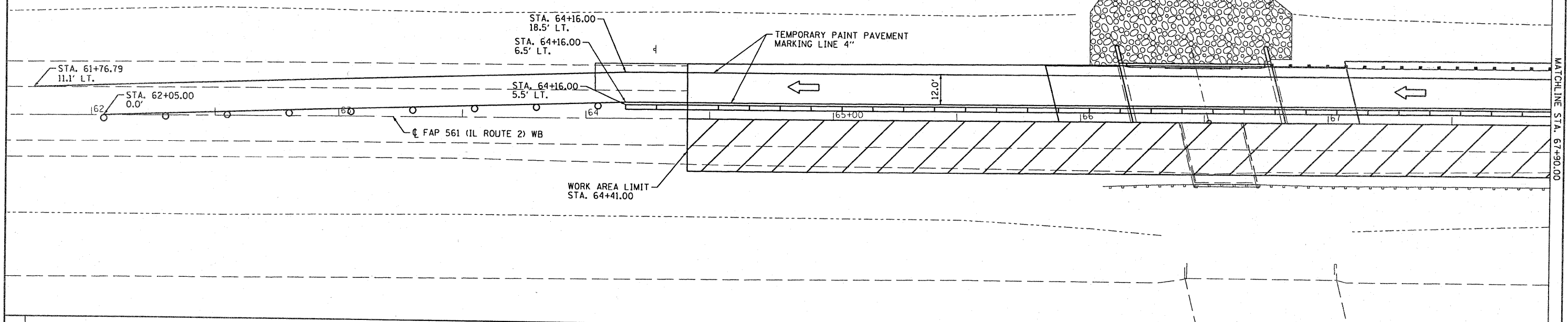
FILE NAME =	USER NAME = candermanee	DESIGNED - EEC	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE ONE SHOULDER DETAIL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
D:\Projects\Lee\64805.1L.2WB.Bridges.PTB	136_008A\06705a.dgn	DRAWN - EEC	REVISED - ---			561	31-1BR-1 & 31-1BR-2	LEE	92	26	
	PLOT SCALE = 35.0000' / IN.	CHECKED - -----	REVISED - ---			CONTRACT NO. 64B05					
	PLOT DATE = Thu Aug 06 16:26:03 2009	DATE - -----	REVISED - ---			SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. _____ TO STA. _____ FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

SUGGESTED SEQUENCE OF CONSTRUCTION:

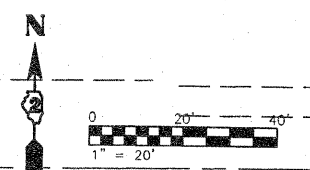
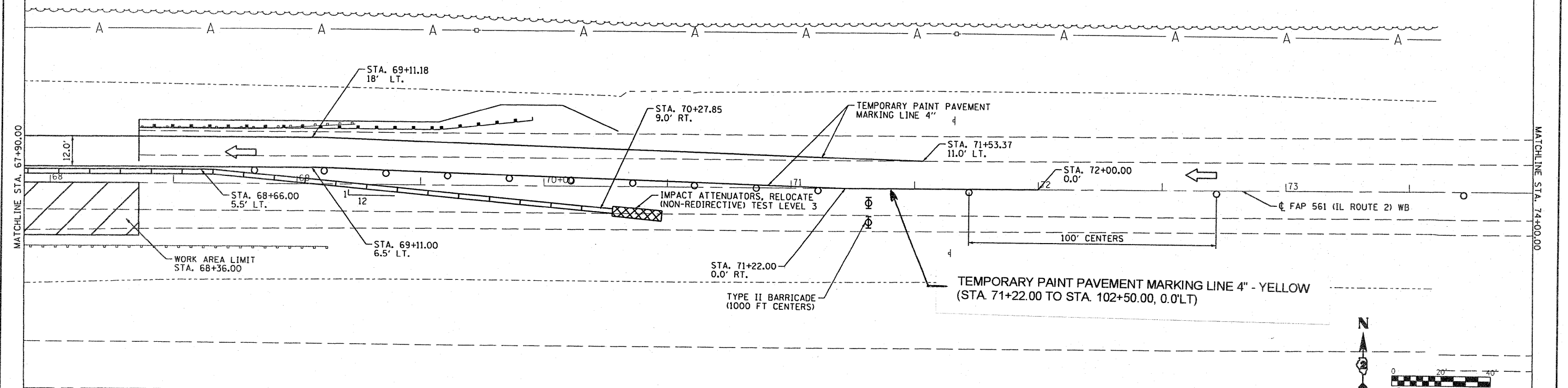
1. USE STANDARDS 701400 AND 701402 FOR BRIDGE, APPROACH PAVEMENT, AND CONNECTOR PAVEMENT WORK.
2. REMOVE STAGE 2 PORTION OF THE EXISTING STRUCTURE, GUARDRAIL, PAVEMENT, AND SHOULDERS.
3. CONSTRUCT STAGE 2 PORTION OF THE PROPOSED BRIDGE INCLUDING APPROACH PAVEMENTS, CONNECTOR PAVEMENTS, RIPRAP, AND GUARDRAIL.
4. CONSTRUCT TEMPORARY RAMPS FROM STA. 64+55.00 TO STA. 64+60.00 AND STA. 68+36.00 TO STA. 68+41.00.
5. CONSTRUCT HMA SURFACE REMOVAL, HMA LEVELING BINDER AND SURFACE COURSE, AND HMA SHOULDERS, FROM STA. 64+03.75 TO STA. 64+60.00 AND STA. 68+36.00 TO STA. 71+38.02

STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC










NOTE:
 1. SEE STD. 701400-03 FOR TRAFFIC CONTROL SIGN LOCATIONS AND INFORMATION.
 2. THE LANE CLOSURE IN THE LEFT LANE SHALL EXTEND THROUGH BOTH BRIDGE REPLACEMENTS.
 3. DEVICES USED FOR TRAFFIC CONTROL AND PROTECTION AT TURN BAYS IS SHOWN ON DISTRICT STANDARD 94.2.



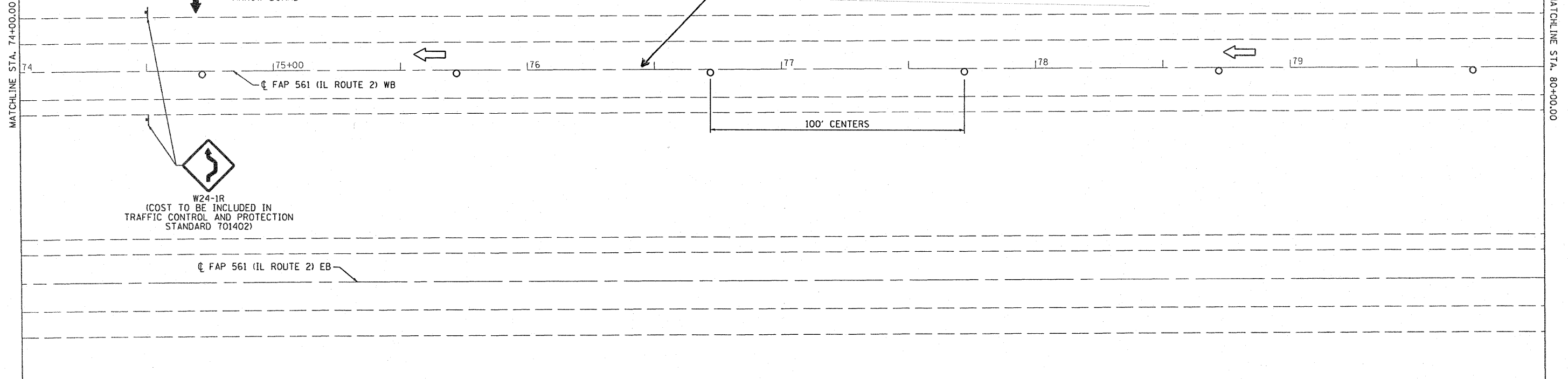
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#FILEL#	PLOT SCALE = #SCALE#	DRAWN - WLL	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 64B05				
	PLOT DATE = #DATE#	CHECKED - GBM	REVISED -					FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				
		DATE -	REVISED -									

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ENGINEERS SURVEYORS

STAGING LEGEND

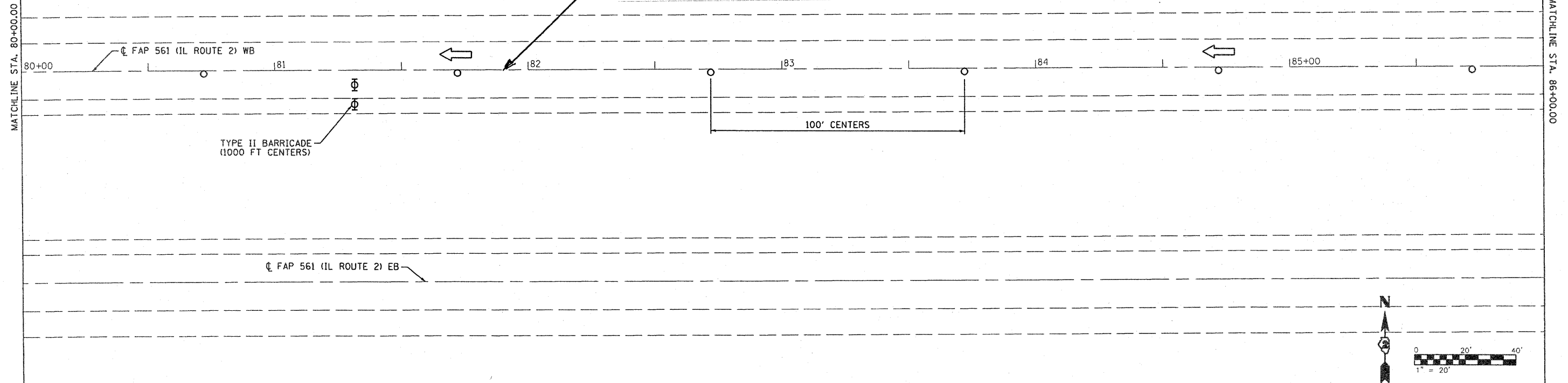
-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC

TEMPORARY PAINT PAVEMENT MARKING LINE 4" - YELLOW
(STA. 71+22.00 TO STA. 102+50.00, 0.0'LT)

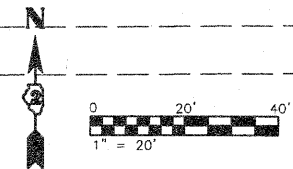


W24-1R
(COST TO BE INCLUDED IN TRAFFIC CONTROL AND PROTECTION STANDARD 701402)

TEMPORARY PAINT PAVEMENT MARKING LINE 4" - YELLOW
(STA. 71+22.00 TO STA. 102+50.00, 0.0'LT)










TYPE II BARRICADE
(1000 FT CENTERS)

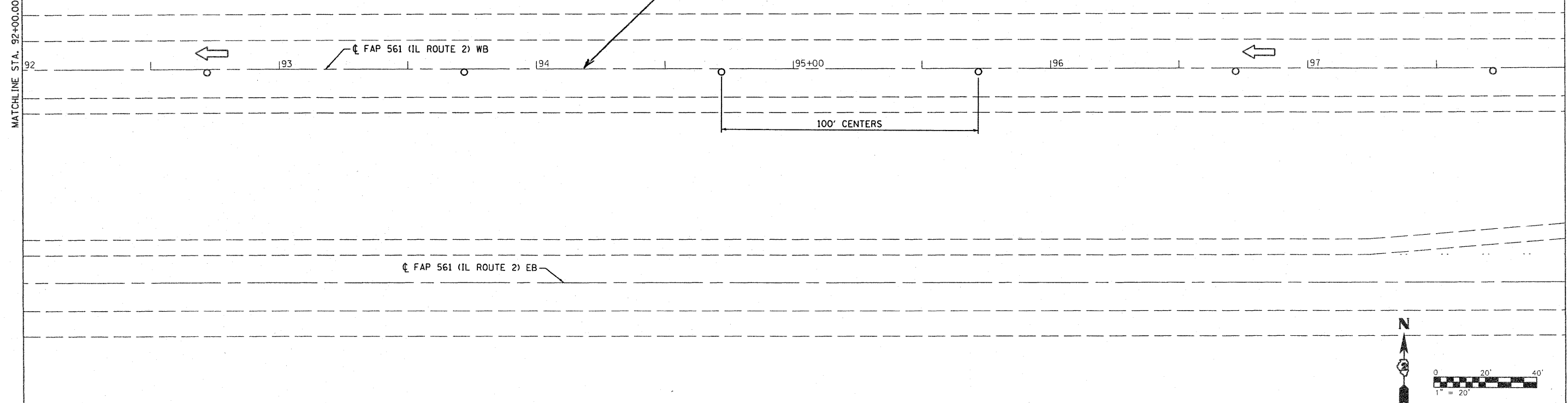
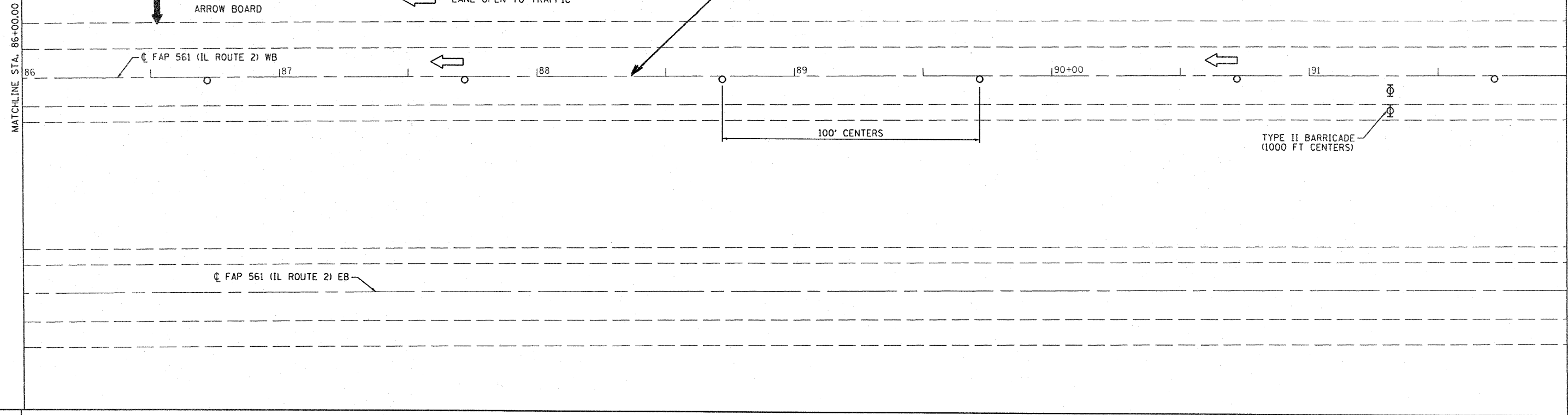


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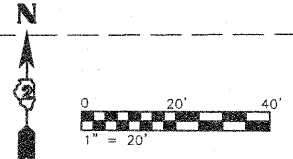
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\$FILE#		DRAWN - WLL	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. TO STA.	CONTRACT NO. 64B05		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
		CHECKED - GBM	REVISED -								
		DATE -	REVISED -								

STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC

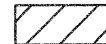








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ENGINEERS SURVEYORS

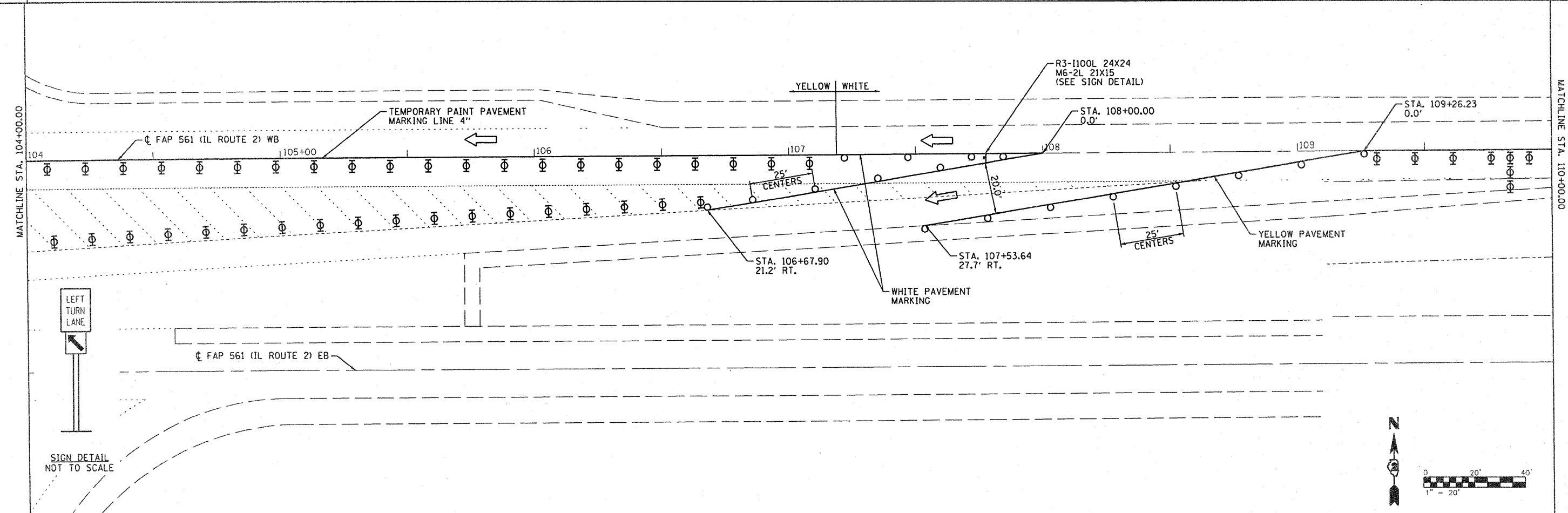
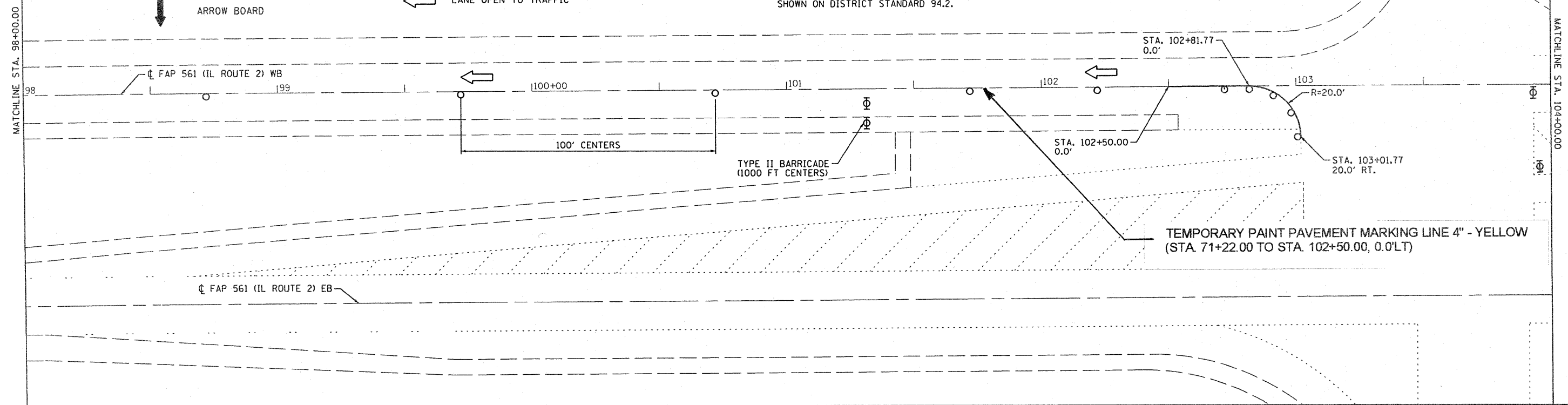


FILE NAME =	USER NAME = \$USER\$	DESIGNED - JDS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 2 WB STAGE 2 STAGING PLAN	F.A.P. RTE. 561	SECTION 31-1BR-1 & 31-1BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 29		
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		CHECKED - GBM	REVISED -									
		DATE -	REVISED -									
						ILLINOIS FED. AID PROJECT						

STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC

NOTE:
 1. THE INTERSECTION OF IL 2 AND SAUK RD. SHALL REMAIN OPEN DURING CONSTRUCTION. THE LEFT TURN LANE FROM IL 2 ONTO SAUK ROAD SHALL REMAIN OPEN. THE TRAFFIC CONTROL AT THE LEFT TURN SHALL BE CONFIGURED AS SHOWN ON REGION 2/DISTRICT 2 STANDARD 94.2 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC).
 2. DEVICES USED FOR TRAFFIC CONTROL AND PROTECTION AT TURN BAYS IS SHOWN ON DISTRICT STANDARD 94.2.



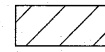
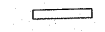





MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

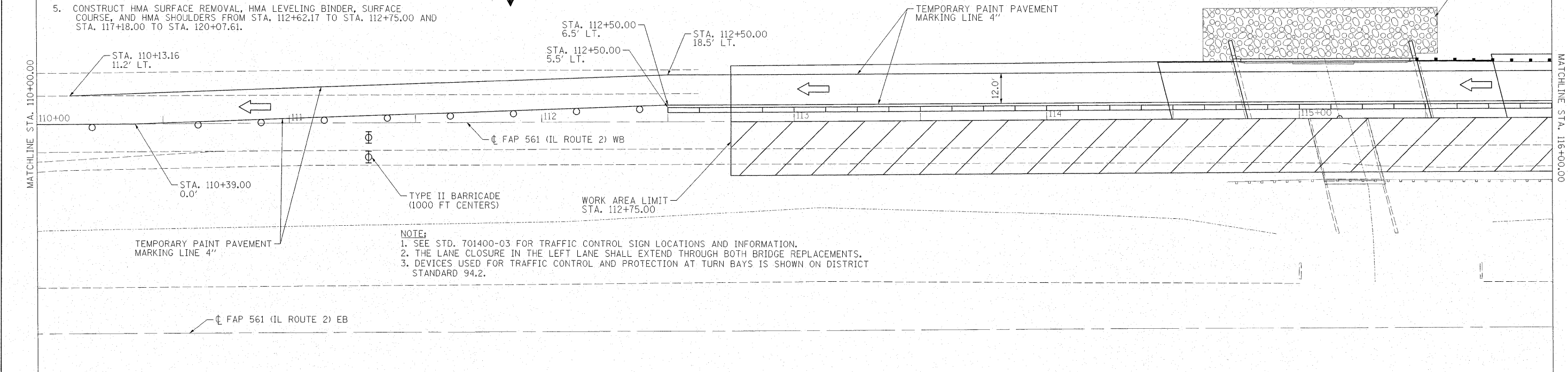
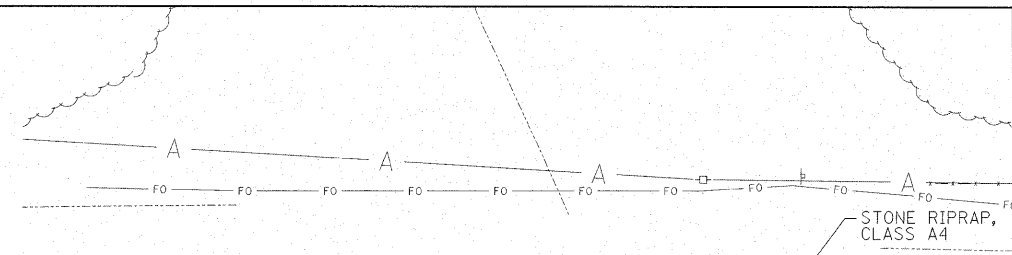
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#FILE#		DRAWN - WLL	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 64B05		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT
		CHECKED - GBM	REVISED -								
		DATE -	REVISED -								

SUGGESTED SEQUENCE OF CONSTRUCTION:

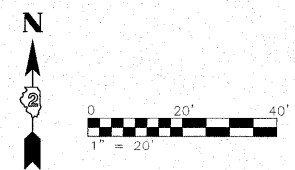
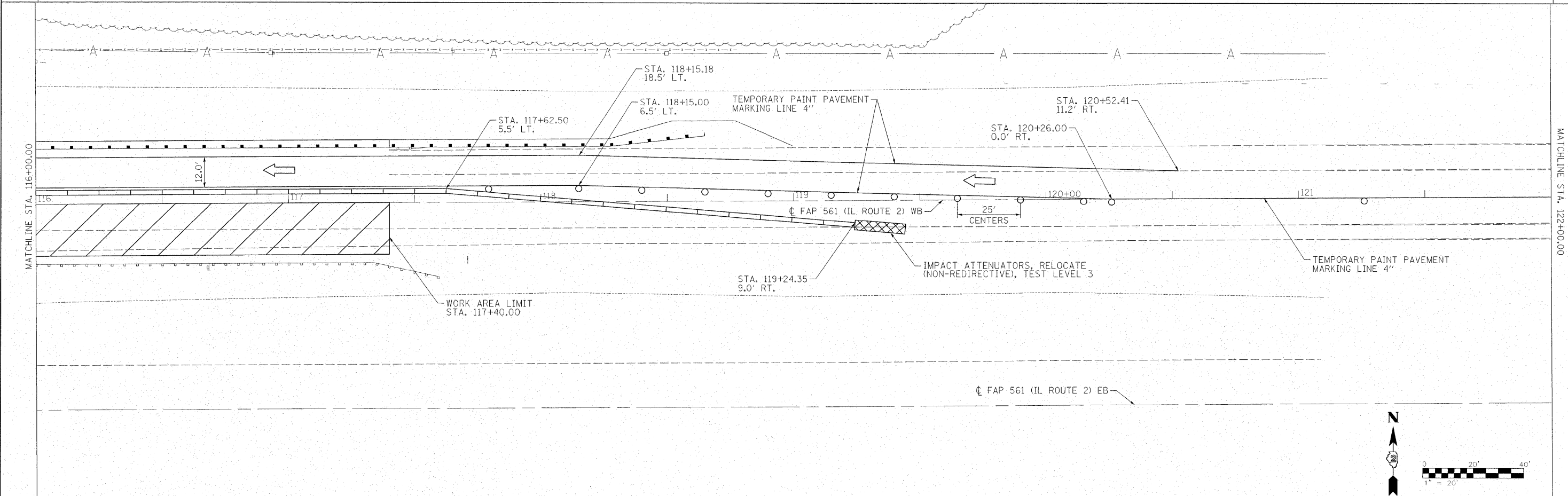
1. USE STANDARDS 701400 AND 701402 FOR BRIDGE, APPROACH PAVEMENT, AND CONNECTOR PAVEMENT WORK.
2. REMOVE STAGE 2 PORTION OF THE EXISTING STRUCTURE, GUARDRAIL, PAVEMENT, AND SHOULDERS.
3. CONSTRUCT STAGE 2 PORTION OF THE PROPOSED BRIDGE INCLUDING APPROACH PAVEMENTS, CONNECTOR PAVEMENTS, RIPRAP, AND GUARDRAIL.
4. CONSTRUCT TEMPORARY RAMPS FROM STA. 112+70.00 TO STA. 112+75.00 AND STA. 117+18.00 TO STA. 117+23.00.
5. CONSTRUCT HMA SURFACE REMOVAL, HMA LEVELING BINDER, SURFACE COURSE, AND HMA SHOULDERS FROM STA. 112+62.17 TO STA. 112+75.00 AND STA. 117+18.00 TO STA. 120+07.61.

STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC



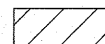
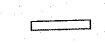





NOTE:
 1. SEE STD. 701400-03 FOR TRAFFIC CONTROL SIGN LOCATIONS AND INFORMATION.
 2. THE LANE CLOSURE IN THE LEFT LANE SHALL EXTEND THROUGH BOTH BRIDGE REPLACEMENTS.
 3. DEVICES USED FOR TRAFFIC CONTROL AND PROTECTION AT TURN BAYS IS SHOWN ON DISTRICT STANDARD 94.2.

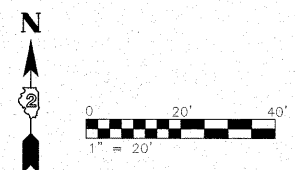
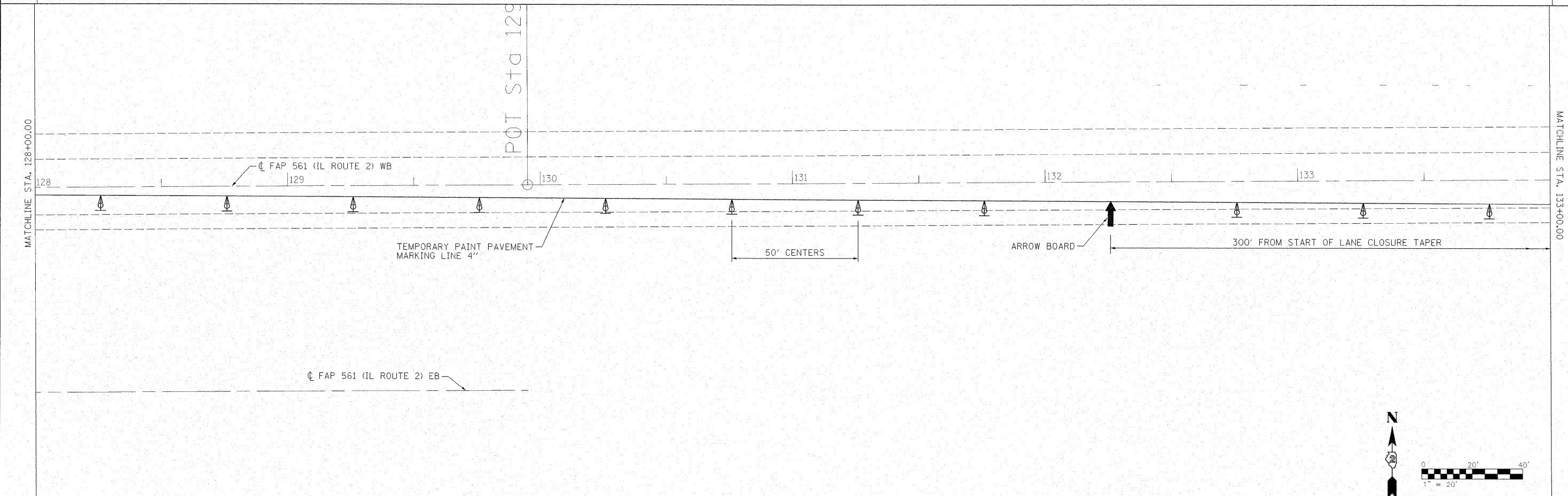
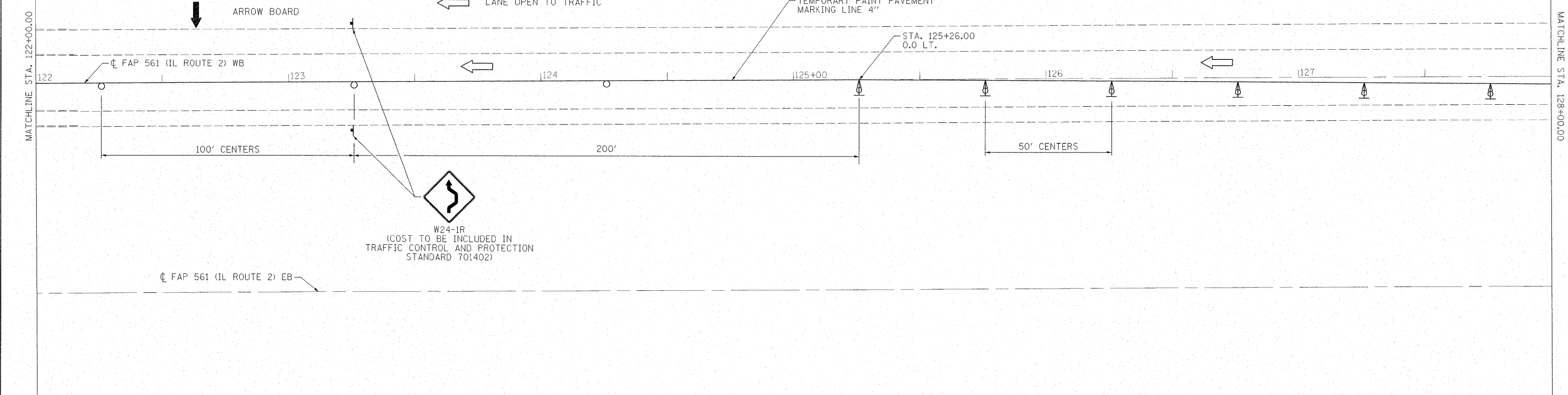


MAUER & STUTZ, INC.
ENGINEERS SURVEYORS

FILE NAME =	USER NAME = #USER#	DESIGNED - JDS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 2 WB STAGE 2 STAGING PLAN				F.A.P. RTE. 561	SECTION 31-1BR-1 & 31-1BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 31
*FILEL#		DRAWN - WLL	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 64B05		
		CHECKED - GBM	REVISED -								ILLINOIS FED. AID PROJECT		
		DATE -	REVISED -										

STAGING LEGEND

-  WORK ZONE
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
-  ARROW BOARD
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  LANE OPEN TO TRAFFIC



FILE NAME = \$FILEL\$	USER NAME = #USER#	DESIGNED - JDS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 2 WB STAGE 2 STAGING PLAN			F.A.P. RTE. 561	SECTION 31-1BR-1 & 31-1BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 32
		DRAWN - WLL	REVISED -					CONTRACT NO. 64B05				
		CHECKED - GBM	REVISED -					ILLINOIS FED. AID PROJECT				
		DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.					

STAGING LEGEND



WORK ZONE



TEMPORARY CONCRETE BARRIER



BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS



ARROW BOARD



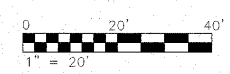
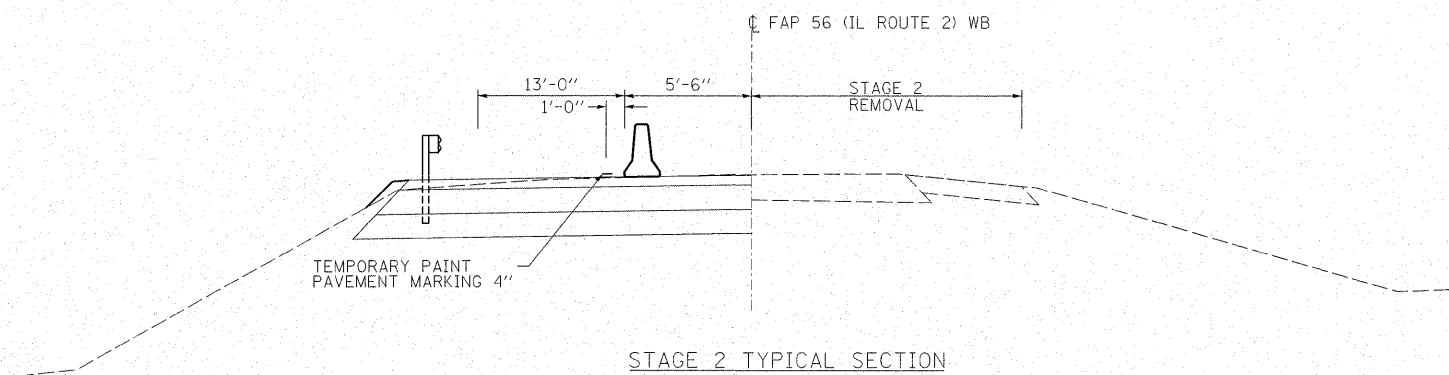
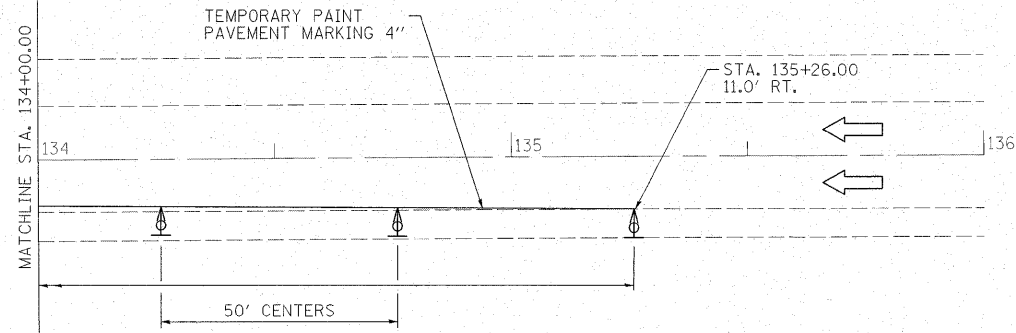
TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



LANE OPEN TO TRAFFIC



FILE NAME =	USER NAME = \$USERS\$	DESIGNED - JDS	REVISED -
\$FILEL\$		DRAWN - WLL	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - GBM	REVISED -
	PLOT DATE = \$DATE\$	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 2 WB
STAGE 2 STAGING PLAN**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

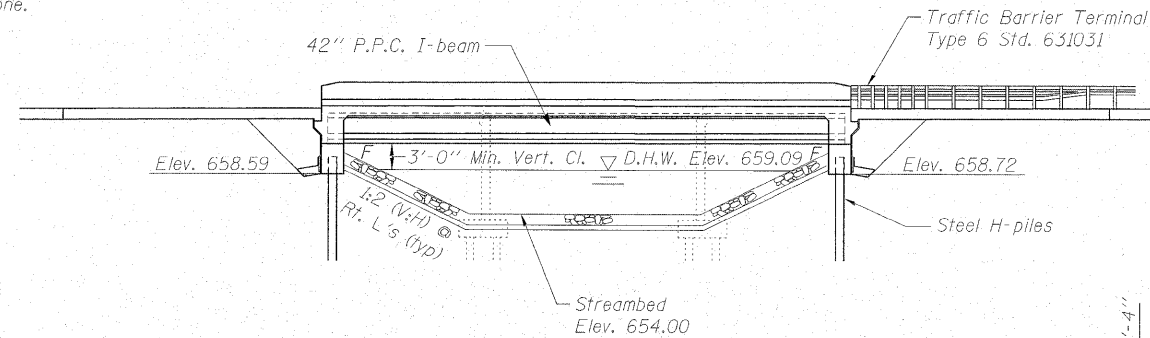
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1 & 31-1BR-2	LEE	92	33
CONTRACT NO. 64B05				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

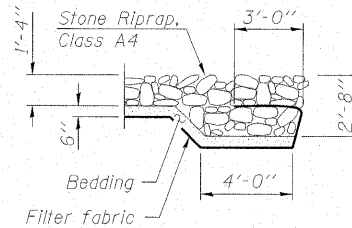
Bench Mark: 5/8" φ rod, Sta 114+16.50, 11.25' south of WB EOP, Elevation 666.90

Existing Structure: 052-0014. Built in 1955 as FA 7, Section 31-1B as a single span, cast-in-place, slab bridge, 26'-6" back-to-back abutments, 48'-8" out-to-out slab width. Various repairs made in 1984 to the deck drains, deck slab and abutment. Additional 1-1/2" overlay done in 1991. Existing bridge to be replaced with single-span P.P.C. I-beam bridge. Structure to be removed and replaced using stage construction.

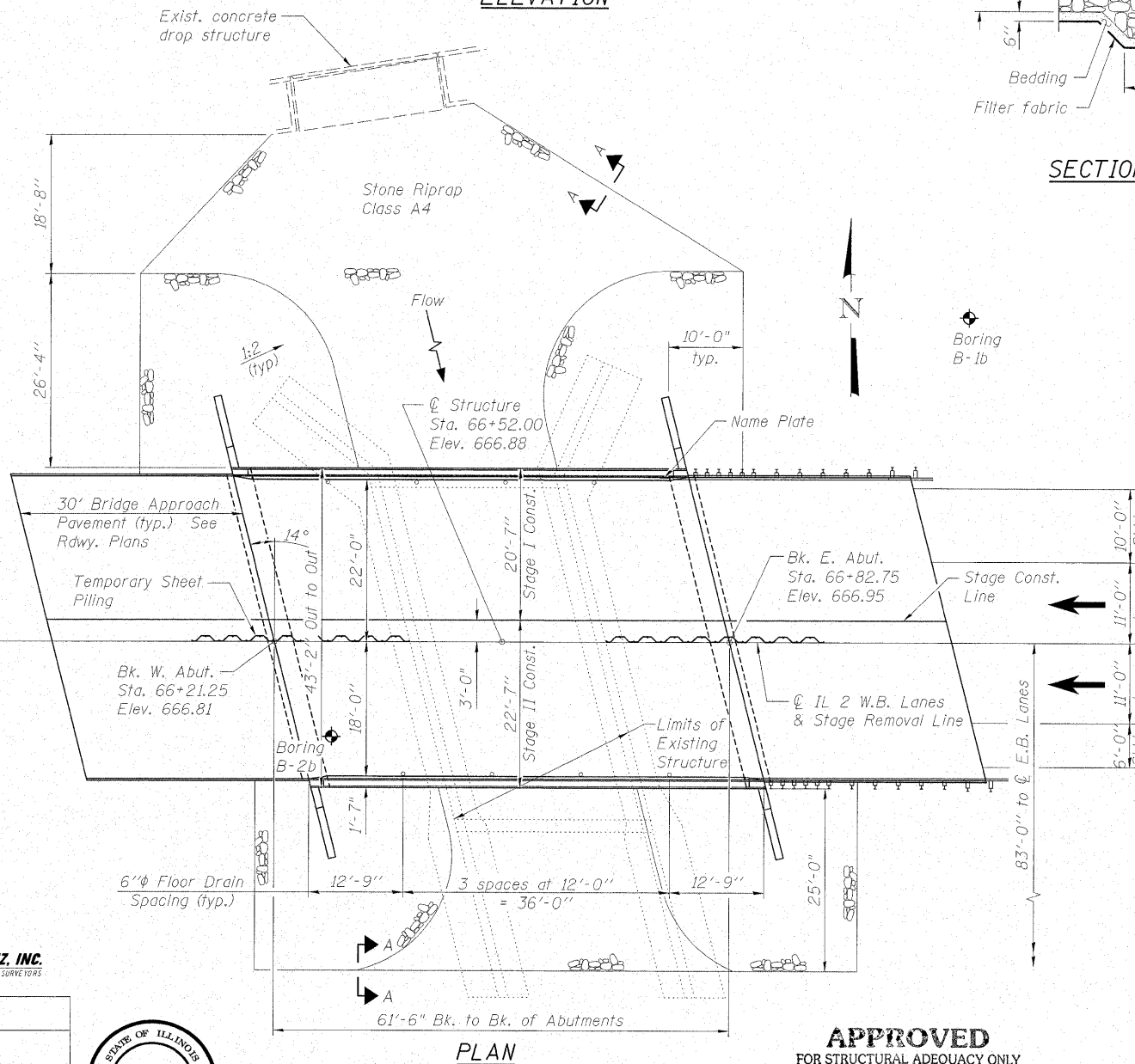
Salvage: None.



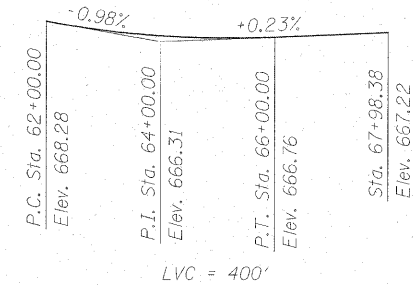
ELEVATION



SECTION A-A



PLAN



PROFILE GRADE

FAP 561 - IL Route 2
(Along C of WB Lanes)

STATION 66+52.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 561 SEC. 31-1BR-1
LOADING HL93
STRUCTURE NO. 052-0078

NAME PLATE

See Std. 515001

WATERWAY INFORMATION

Existing Low Grade Elev. 666.63 @ Sta. 65+55
Drainage Area = 2.07 sq. mi. Proposed Low Grade Elev. 666.68 @ Sta. 65+25

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Ten-Year	10	602	104	150	658.12	1.55	1.46	659.7	659.6	
Design	50	935	127	195	659.09	2.10	1.51	661.2	660.6	
Base	100	1076	136	213	659.47	2.32	1.49	661.8	661.0	
Max. Calc.	500	1412	155	254	660.26	2.84	1.41	663.1	661.7	

10-Year Velocity through Existing Structure = 7.0 fps
10-Year Velocity through Proposed Structure = 4.5 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	655.6	655.7

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Ed.

DESIGN STRESSES

FIELD UNITS

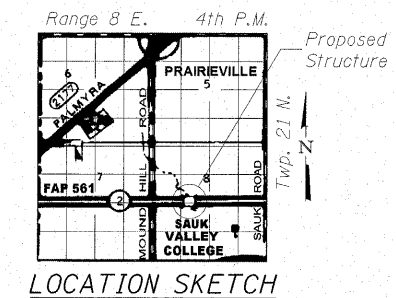
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fs' = 270,000 psi (1/2" φ low lax strands)
fsi = 201,960 psi (1/2" φ low lax strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Horizontal Bedrock Acceleration Coefficient (A) = .034g
Site Coefficient (S) = 1.5



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Notes, Total Bill of Material
- 3 Staging Plan & Details
- 4 Temporary Concrete Barrier
- 5-6 Top of Slab Elevations
- 7-8 Top of Approach Slab Elevations
- 9 Superstructure
- 10 Superstructure Details
- 11 Diaphragm Details
- 12 Framing Plan
- 13 42" PPC I-Beam
- 14 42" PPC I-Beam Details
- 15 West Abutment
- 16 East Abutment
- 17 HP Pile Details
- 18 Bar Splicer Assembly Details
- 19-20 Soil Borings



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF



Kristen E. Fields
Date Signed: 7-29-09
Exp. Date: 11-30-10

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TND)
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	20 SHEETS	561	31-1BR-1	LEE	92
STRUCTURE NO. 052-0078		CONTRACT NO. 64B05			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

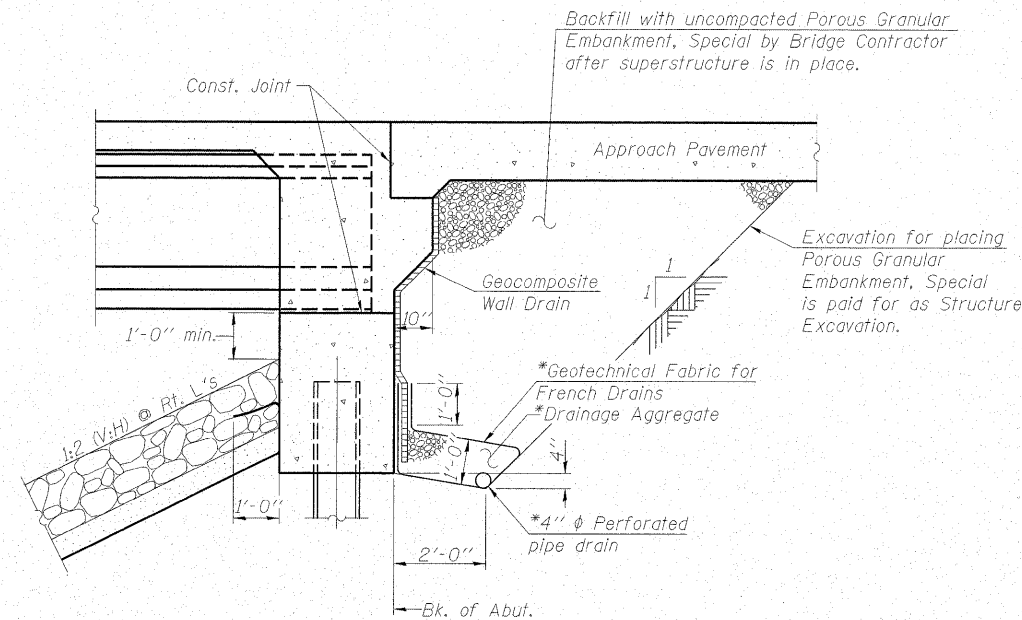
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		117	117
Stone Riprap, Class A4	Sq. Yd.		914	914
Filter Fabric	Sq. Yd.		914	914
Removal of Existing Structures No. 1	Each		1	1
Structure Excavation	Cu. Yd.		310	310
Floor Drains	Each	8		8
Concrete Structures	Cu. Yd.		40.4	40.4
Concrete Superstructure	Cu. Yd.	114.8		114.8
Bridge Deck Grooving	Sq. Yd.	260		260
Concrete Encasement	Cu. Yd.		5.6	5.6
Protective Coat	Sq. Yd.	325		325
Furnishing and Erecting Precast Prestressed Concrete I Beams, 42"	Foot	360.5		360.5
Reinforcement Bars, Epoxy Coated	Pound	21590	5480	27070
Bar Splicers	Each	292	20	312
Furnishing Steel Piles HP12x53	Foot		882	882
Driving Piles	Foot		882	882
Test Pile Steel HP12x53	Each		2	2
Pile Shoes	Each		16	16
Temporary Sheet Piling	Sq. Ft.		1528	1528
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		87	87
Pipe Underdrains for Structures 4"	Foot		165	165



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

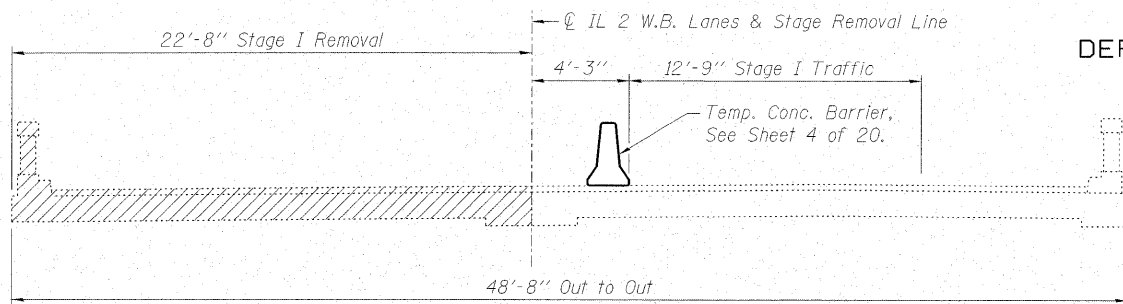


DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

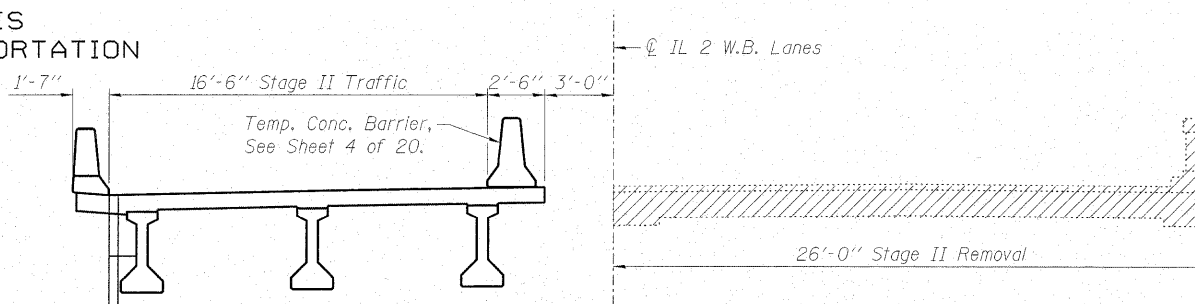
**GENERAL NOTES, TOTAL BILL OF MATERIAL
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00**

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	35
20 SHEETS	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

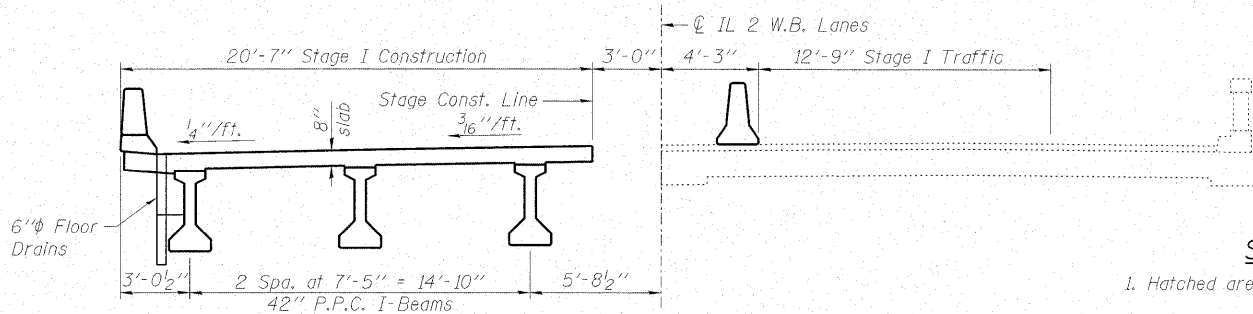
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



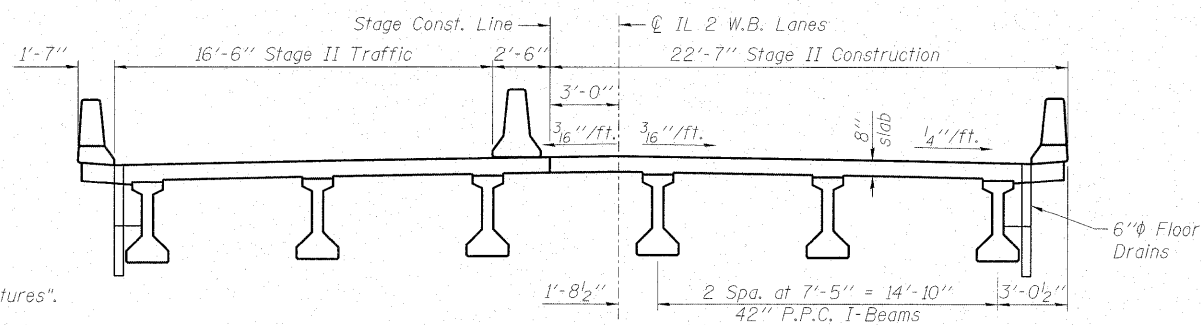
STAGE I REMOVAL
(Looking East)



STAGE II REMOVAL
(Looking East)



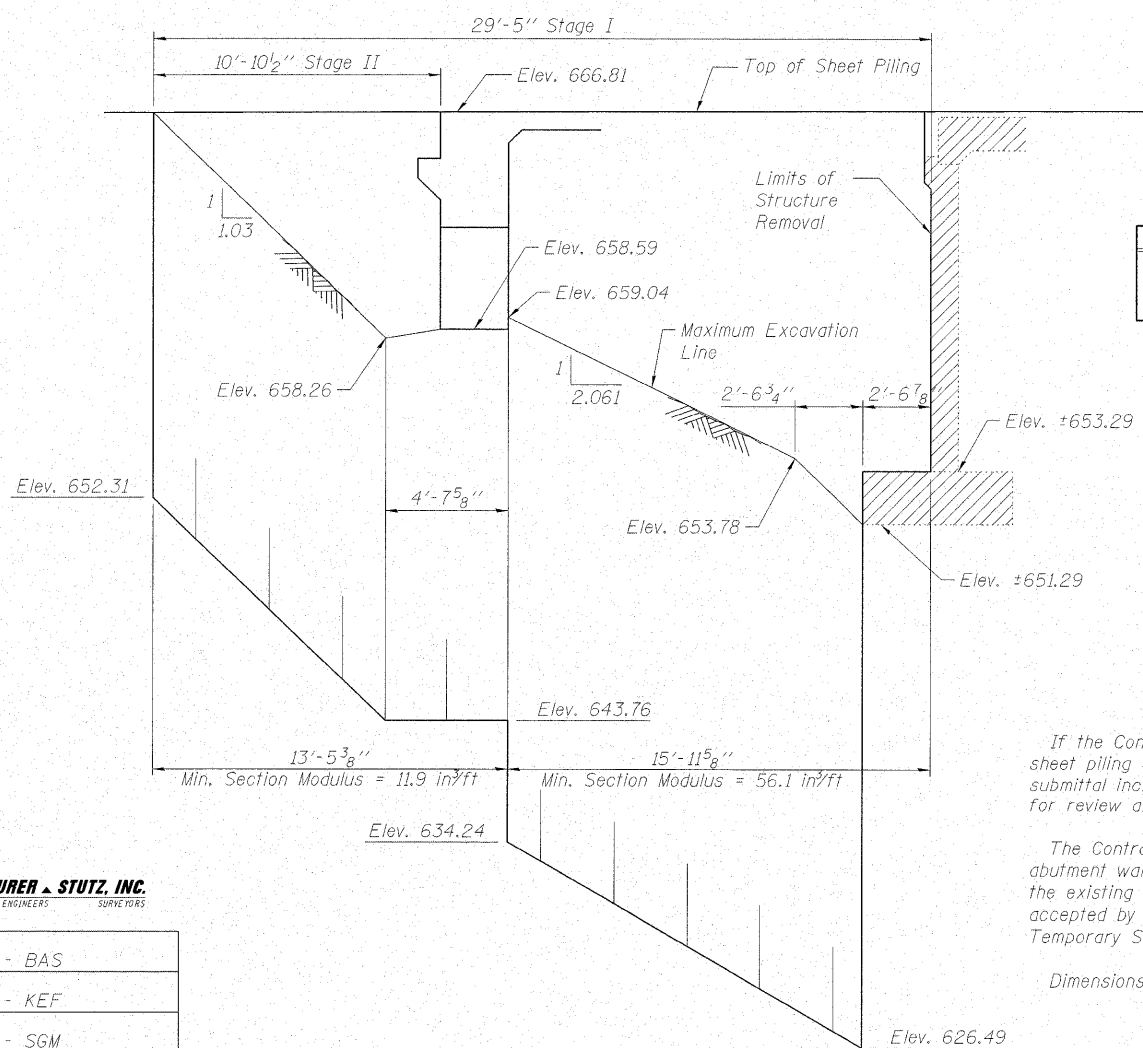
STAGE I CONSTRUCTION
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

STAGING NOTES:

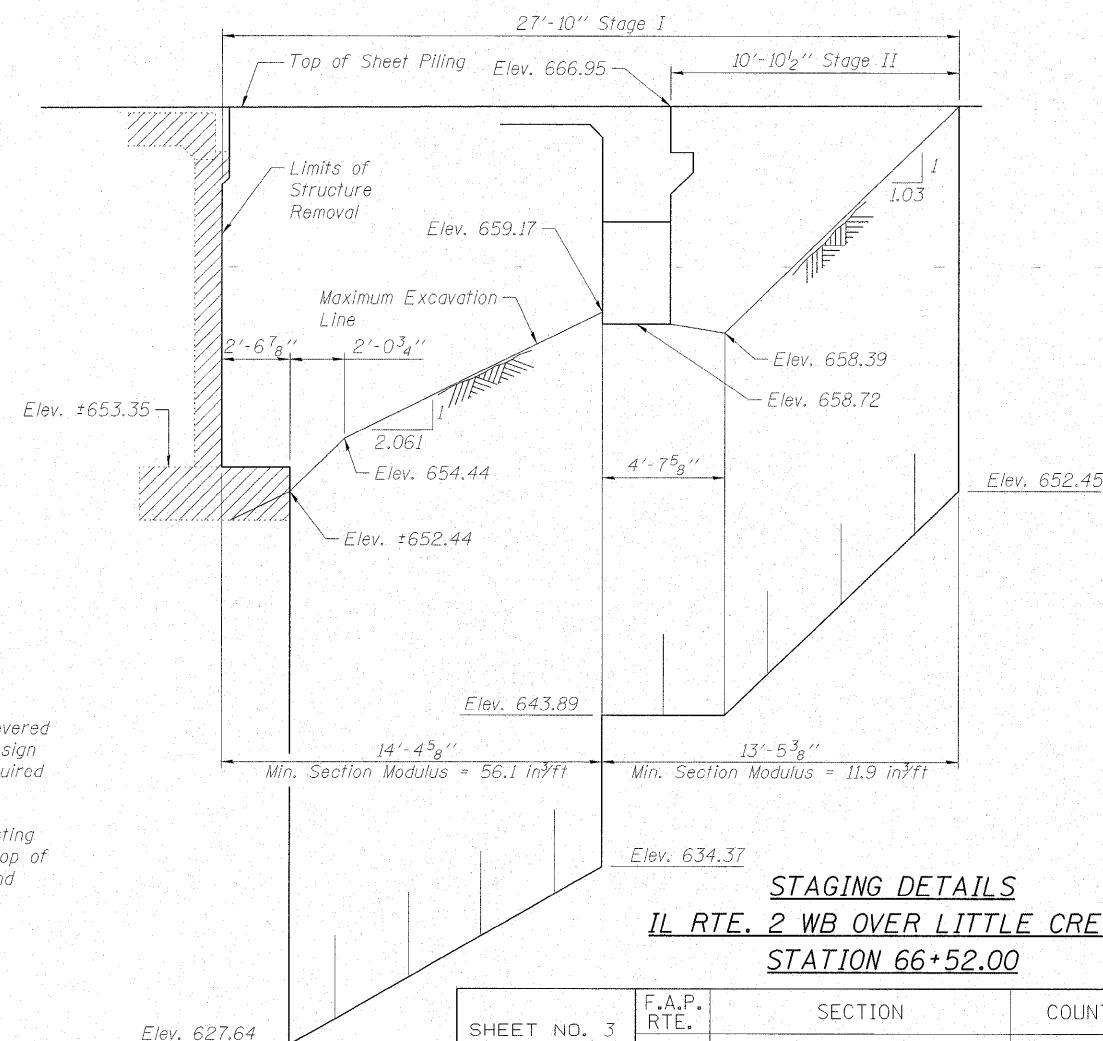
1. Hatched areas indicate "Removal of Existing Structures".
2. For quantities of "Temporary Concrete Barrier", see Roadway Plans.



TEMPORARY SHEET PILING
(West Abutment)

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Sheet Piling	Sq. Ft.	1528



TEMPORARY SHEET PILING
(East Abutment)

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

Dimensions shown parallel to \varnothing roadway.

STAGING DETAILS

**IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00**

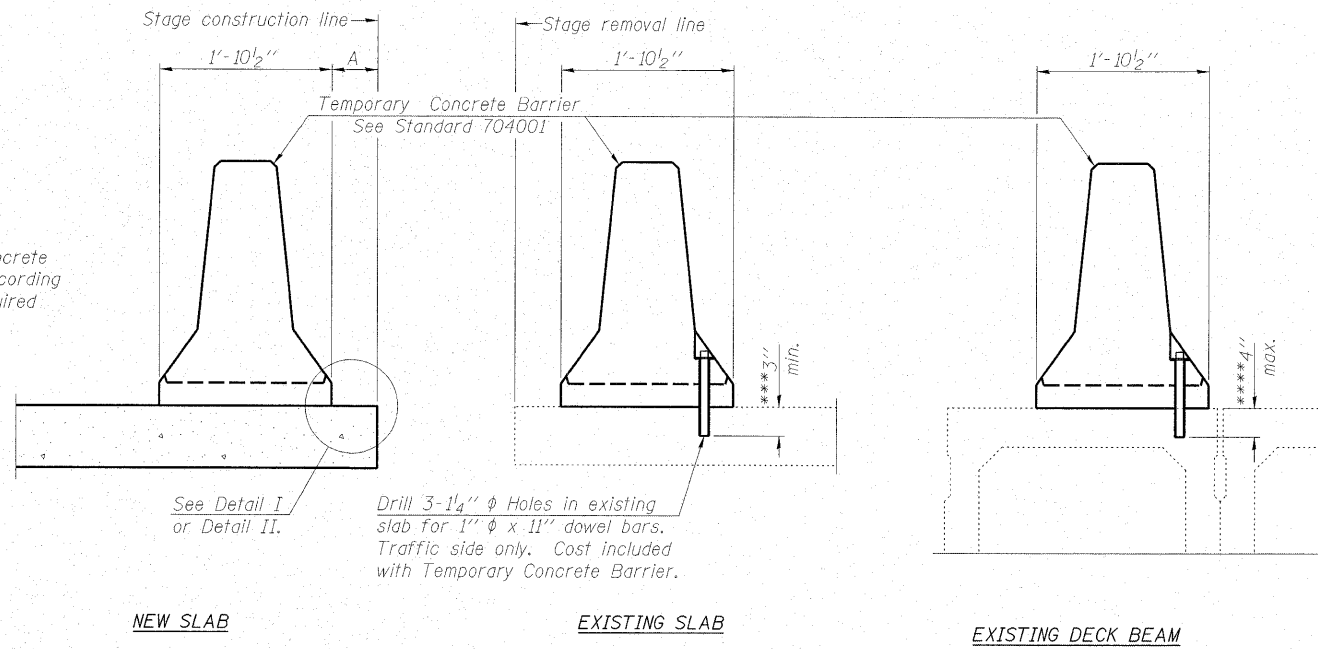


DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SHEET NO. 3 20 SHEETS	F.A.P. RTE. 561	SECTION 31-1BR-1	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 36
	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

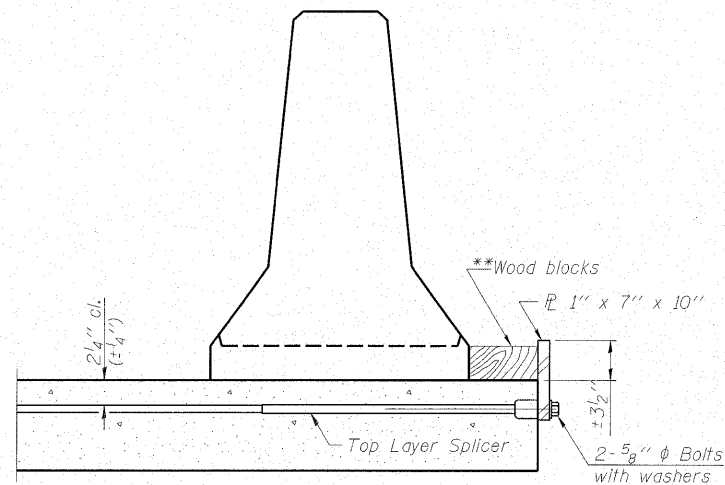
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

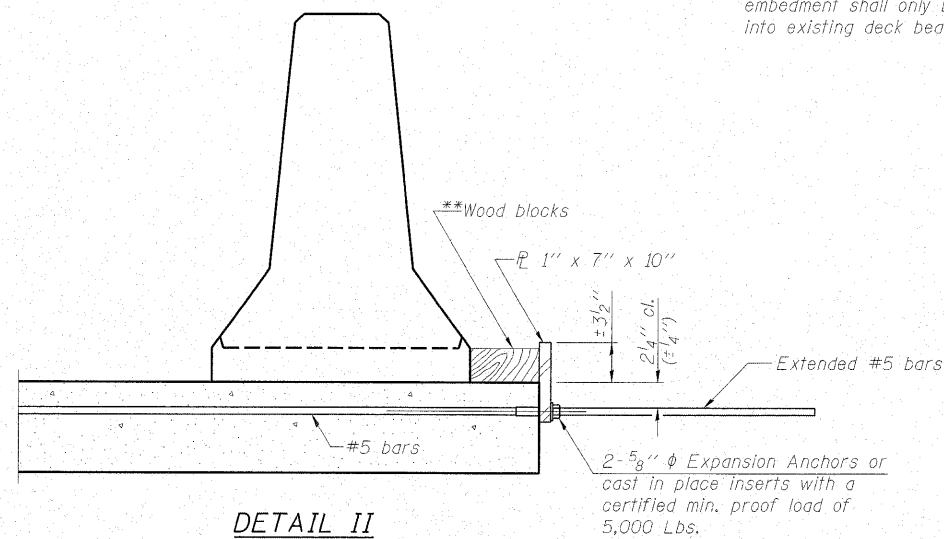
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

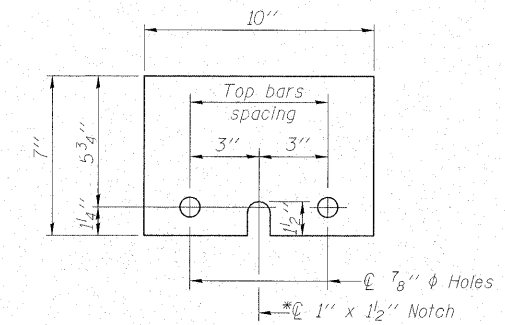
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

* Required only with Detail II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

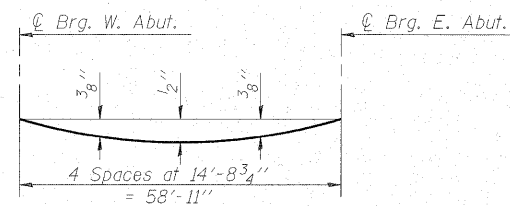
R-27

10-1-08

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

SHEET NO. 4 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	37
STRUCTURE NO. 052-0078		CONTRACT NO. 64B05			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

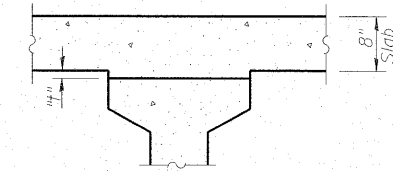


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

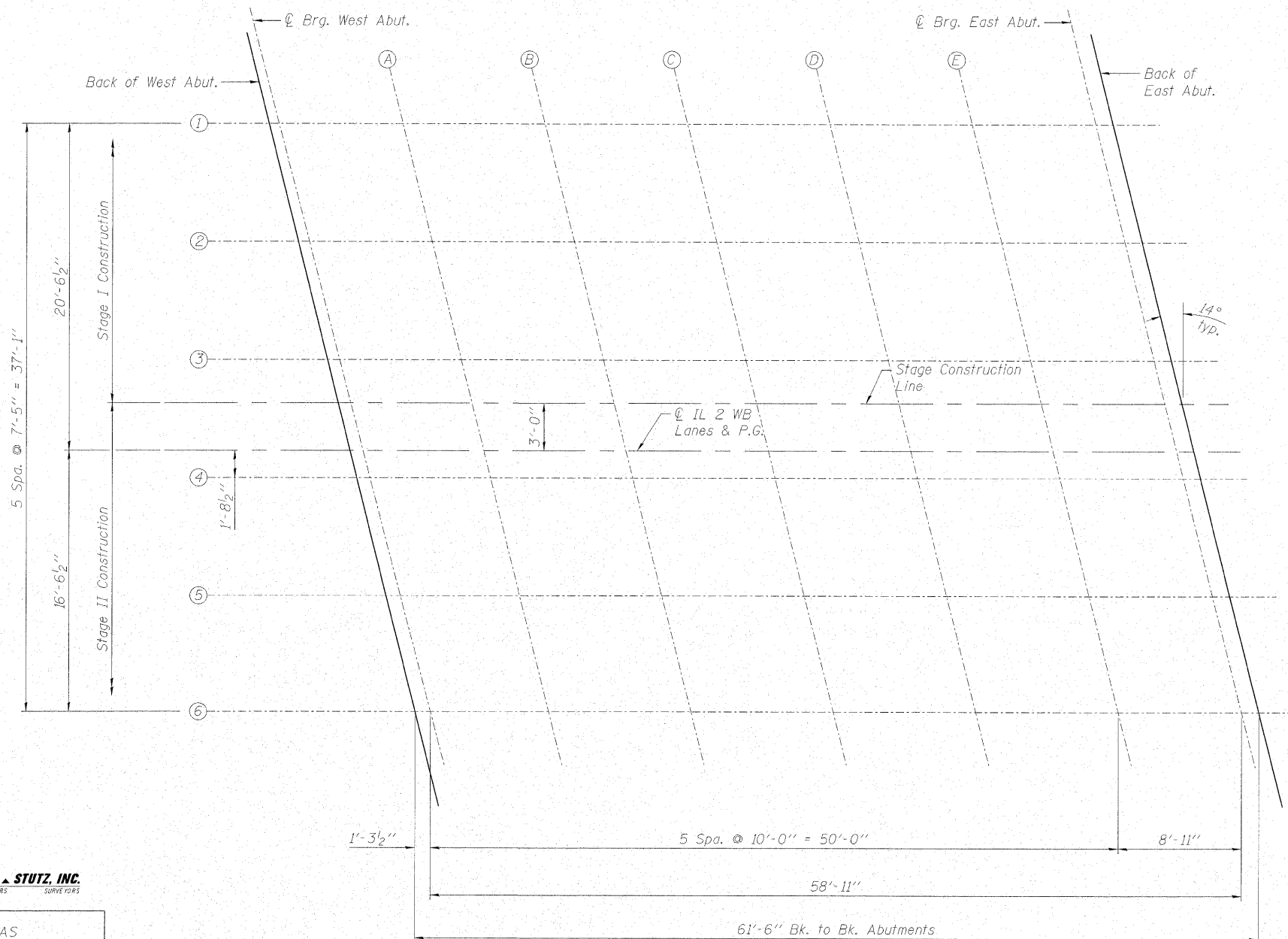
Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on sheet 6 of 20.

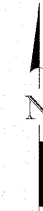


To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below and on sheet 6 of 20, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



PLAN



BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+16.13	-20.54	666.43	666.43
CL Brg. W. Abut.	66+17.42	-20.54	666.44	666.44
A	66+27.42	-20.54	666.46	666.48
B	66+37.42	-20.54	666.48	666.52
C	66+47.42	-20.54	666.50	666.55
D	66+57.42	-20.54	666.53	666.56
E	66+67.42	-20.54	666.55	666.57
CL Brg. E. Abut.	66+76.34	-20.54	666.57	666.57
Back of East Abut.	66+77.63	-20.54	666.57	666.57

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+17.98	-13.13	666.59	666.59
CL Brg. W. Abut.	66+19.27	-13.13	666.59	666.59
A	66+29.27	-13.13	666.62	666.64
B	66+39.27	-13.13	666.64	666.68
C	66+49.27	-13.13	666.66	666.70
D	66+59.27	-13.13	666.69	666.72
E	66+69.27	-13.13	666.71	666.73
CL Brg. E. Abut.	66+78.19	-13.13	666.73	666.73
Back of East Abut.	66+79.48	-13.13	666.73	666.73

**TOP OF SLAB ELEVATIONS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00**

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	561	31-1BR-1	LEE	92	38
20 SHEETS		STRUCTURE NO. 052-0078		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



DESIGNED -	BAS
CHECKED -	KEF
DRAWN -	SGM
CHECKED -	RJA/KEF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+19.83	-5.71	666.72	666.72
CL Brg. W. Abut.	66+21.12	-5.71	666.72	666.72
A	66+31.12	-5.71	666.74	666.76
B	66+41.12	-5.71	666.77	666.80
C	66+51.12	-5.71	666.79	666.83
D	66+61.12	-5.71	666.81	666.85
E	66+71.12	-5.71	666.83	666.85
CL Brg. E. Abut.	66+80.04	-5.71	666.86	666.86
Back of East Abut.	66+81.33	-5.71	666.86	666.86

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+20.50	-3.00	666.76	666.76
CL Brg. W. Abut.	66+21.79	-3.00	666.76	666.76
A	66+31.79	-3.00	666.79	666.81
B	66+41.79	-3.00	666.81	666.85
C	66+51.79	-3.00	666.83	666.87
D	66+61.79	-3.00	666.86	666.89
E	66+71.79	-3.00	666.88	666.90
CL Brg. E. Abut.	66+80.71	-3.00	666.90	666.90
Back of East Abut.	66+82.00	-3.00	666.90	666.90

IL 2 WB LANES & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+21.25	0.00	666.81	666.81
CL Brg. W. Abut.	66+22.54	0.00	666.81	666.81
A	66+32.54	0.00	666.83	666.86
B	66+42.54	0.00	666.86	666.90
C	66+52.54	0.00	666.88	666.92
D	66+62.54	0.00	666.90	666.94
E	66+72.54	0.00	666.93	666.95
CL Brg. E. Abut.	66+81.46	0.00	666.95	666.95
Back of East Abut.	66+82.75	0.00	666.95	666.95

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+21.68	1.71	666.78	666.78
CL Brg. W. Abut.	66+22.96	1.71	666.79	666.79
A	66+32.96	1.71	666.81	666.83
B	66+42.96	1.71	666.83	666.87
C	66+52.96	1.71	666.85	666.90
D	66+62.96	1.71	666.88	666.91
E	66+72.96	1.71	666.90	666.92
CL Brg. E. Abut.	66+81.89	1.71	666.92	666.92
Back of East Abut.	66+83.18	1.71	666.92	666.92

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+23.53	9.13	666.67	666.67
CL Brg. W. Abut.	66+24.81	9.13	666.67	666.67
A	66+34.81	9.13	666.70	666.72
B	66+44.81	9.13	666.72	666.76
C	66+54.81	9.13	666.74	666.79
D	66+64.81	9.13	666.77	666.80
E	66+74.81	9.13	666.79	666.81
CL Brg. E. Abut.	66+83.74	9.13	666.81	666.81
Back of East Abut.	66+85.03	9.13	666.81	666.81

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	66+25.37	16.54	666.54	666.54
CL Brg. W. Abut.	66+26.66	16.54	666.54	666.54
A	66+36.66	16.54	666.56	666.58
B	66+46.66	16.54	666.59	666.62
C	66+56.66	16.54	666.61	666.65
D	66+66.66	16.54	666.63	666.67
E	66+76.66	16.54	666.65	666.67
CL Brg. E. Abut.	66+85.59	16.54	666.67	666.67
Back of East Abut.	66+86.87	16.54	666.68	666.68



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

TOP OF SLAB ELEVATIONS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

SHEET NO. 6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	39
20 SHEETS	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	65+85.66	-22.42	666.33
F	65+95.66	-22.42	666.35
G	66+05.66	-22.42	666.37
Back of West Abut.	66+15.66	-22.42	666.39

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	65+88.26	-12.00	666.55
F	65+98.26	-12.00	666.57
G	66+08.26	-12.00	666.59
Back of West Abut.	66+18.26	-12.00	666.61

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	65+90.50	-3.00	666.69
F	66+00.50	-3.00	666.71
G	66+10.50	-3.00	666.74
Back of West Abut.	66+20.50	-3.00	666.76

IL 2 WB LANES & P.G.

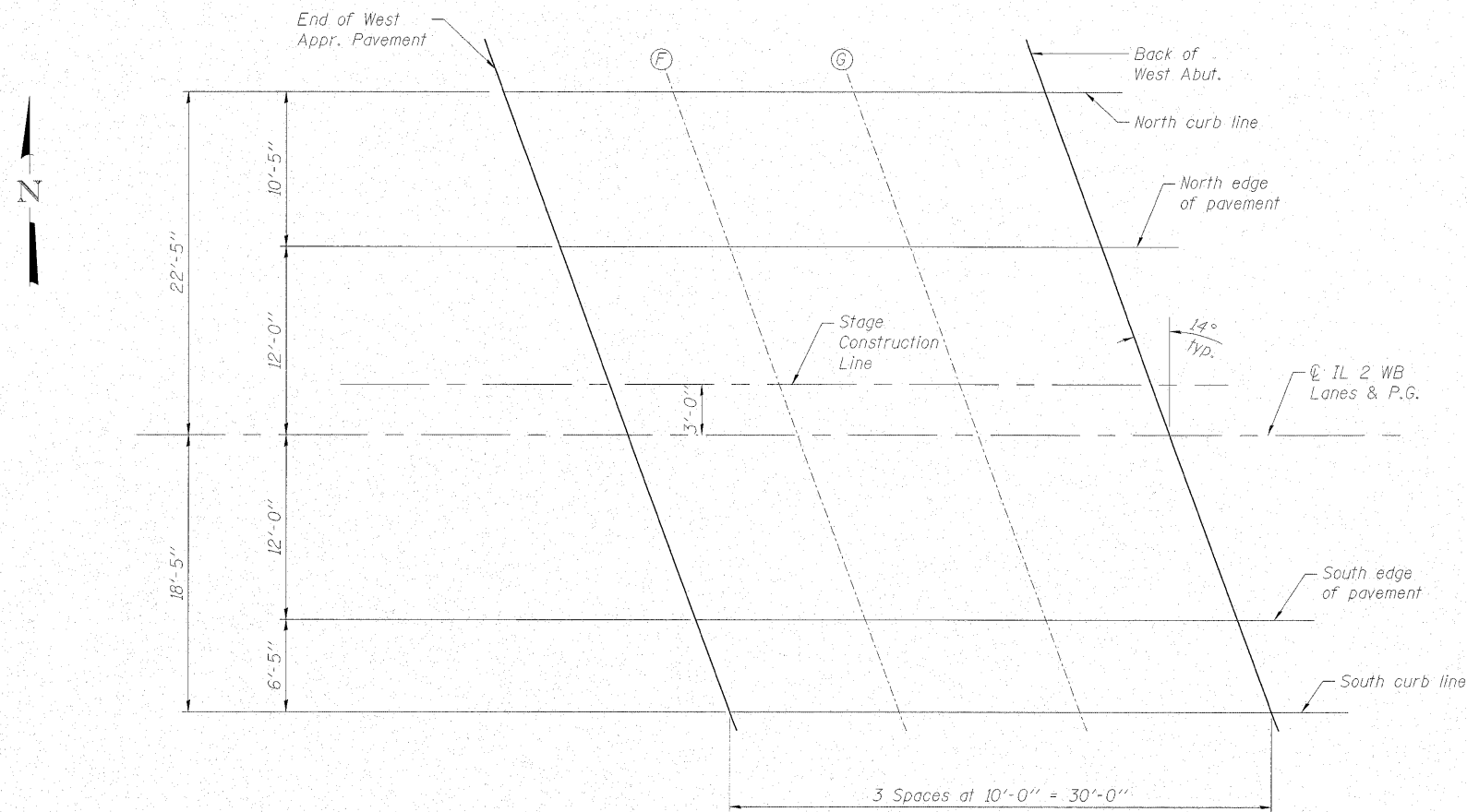
Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	65+91.25	0.00	666.74
F	66+01.25	0.00	666.76
G	66+11.25	0.00	666.79
Back of West Abut.	66+21.25	0.00	666.81

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	65+94.24	12.00	666.56
F	66+04.24	12.00	666.58
G	66+14.24	12.00	666.60
Back of West Abut.	66+24.24	12.00	666.63

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	65+95.84	18.42	666.43
F	66+05.84	18.42	666.45
G	66+15.84	18.42	666.48
Back of West Abut.	66+25.84	18.42	666.50



**TOP OF WEST APPROACH ELEVATIONS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00**

SHEET NO. 7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	40
20 SHEETS		STRUCTURE NO. 052-0078		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



DESIGNED -	BAS
CHECKED -	KEF
DRAWN -	SGM
CHECKED -	RJA/KEF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	66+77.16	-22.42	666.53
H	66+87.16	-22.42	666.56
I	66+97.16	-22.42	666.58
End of East Appr. Pavt.	67+07.16	-22.42	666.60

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	66+79.76	-12.00	666.76
H	66+89.76	-12.00	666.78
I	66+99.76	-12.00	666.80
End of East Appr. Pavt.	67+09.76	-12.00	666.82

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	66+82.00	-3.00	666.90
H	66+92.00	-3.00	666.92
I	67+02.00	-3.00	666.95
End of East Appr. Pavt.	67+12.00	-3.00	666.97

CL 2 WB LANES & P.G.

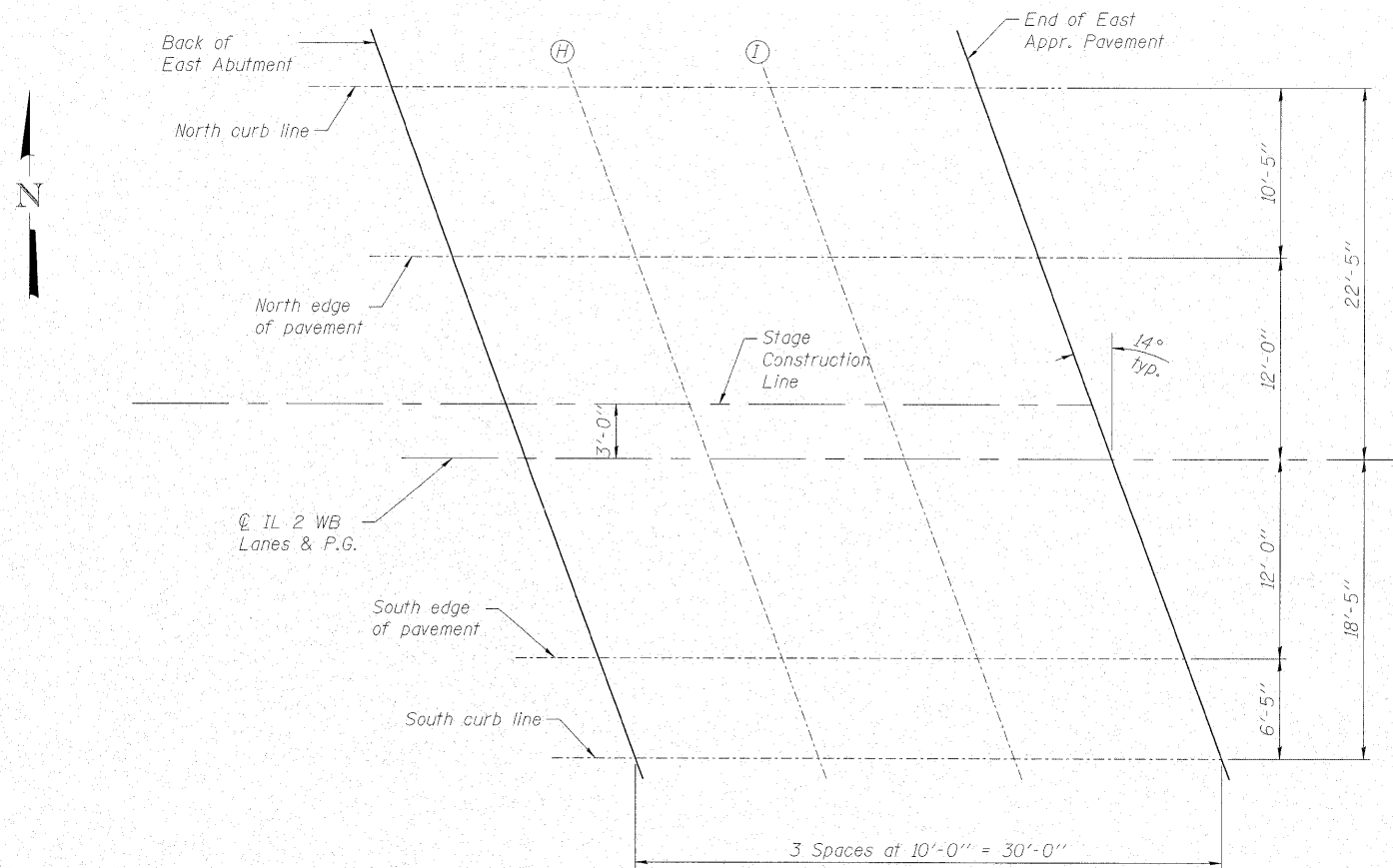
Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	66+82.75	0.00	666.95
H	66+92.75	0.00	666.97
I	67+02.75	0.00	667.00
End of East Appr. Pavt.	67+12.75	0.00	667.02

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	66+85.74	12.00	666.77
H	66+95.74	12.00	666.79
I	67+05.74	12.00	666.82
End of East Appr. Pavt.	67+15.74	12.00	666.84

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	66+87.34	18.42	666.64
H	66+97.34	18.42	666.66
I	67+07.34	18.42	666.69
End of East Appr. Pavt.	67+17.34	18.42	666.71



**TOP OF EAST APPROACH ELEVATIONS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00**

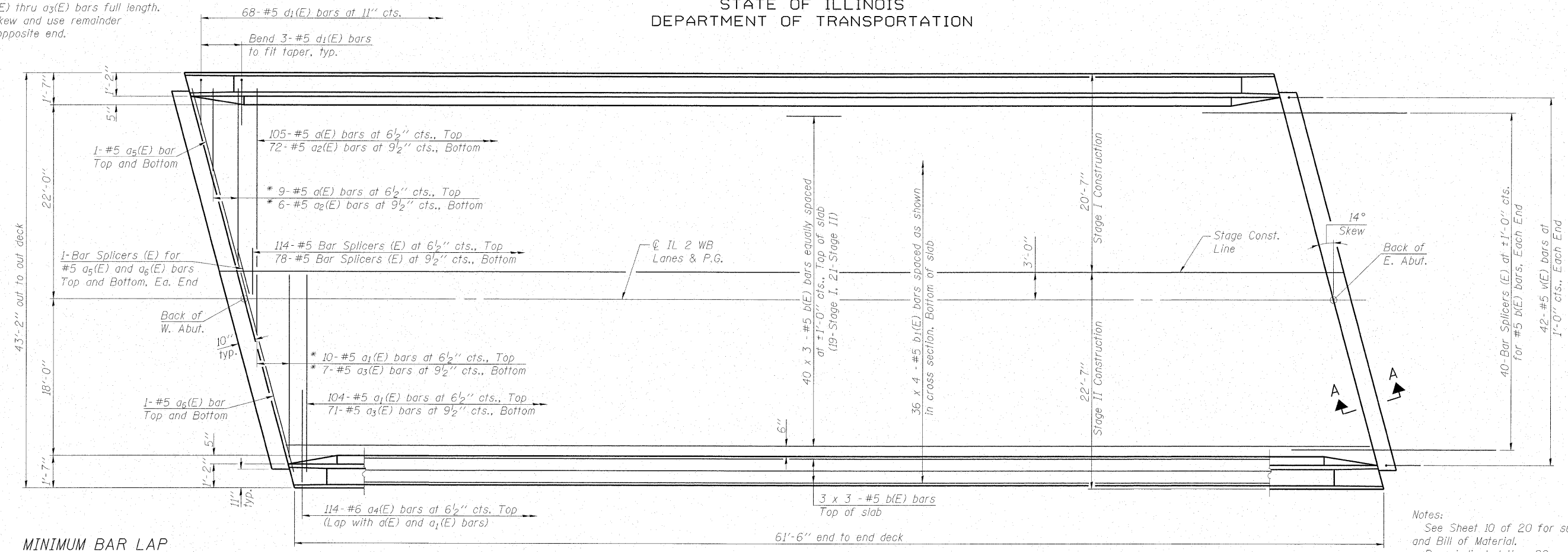
SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	561	31-1BR-1	LEE	92	41
20 SHEETS		STRUCTURE NO. 052-0078		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

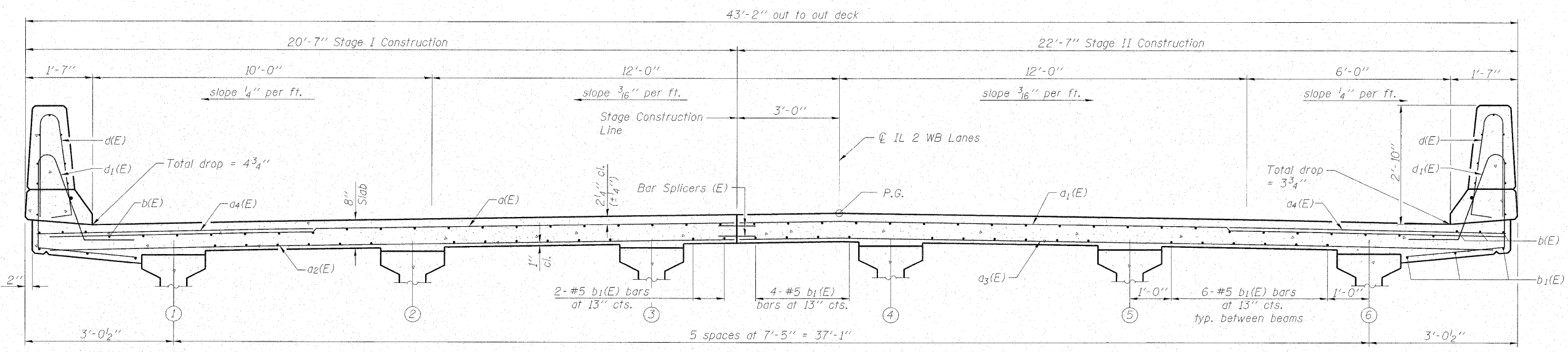
*Order a(E) thru a₃(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



MINIMUM BAR LAP
#5 bar = 1'-8"

PLAN

Notes:
See Sheet 10 of 20 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 10 of 20 for parapet reinforcement.
See Sheet 11 of 20 for Section A-A.



CROSS SECTION
(Looking East)

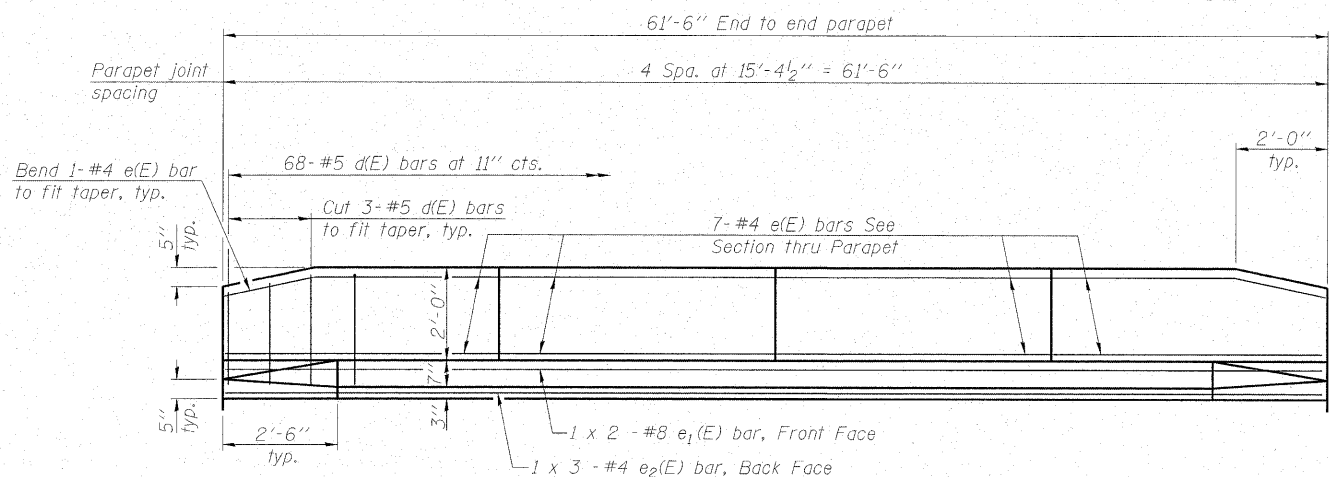
SUPERSTRUCTURE
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

MAUREL STUTZ, INC.
ENGINEERS SURVEYORS

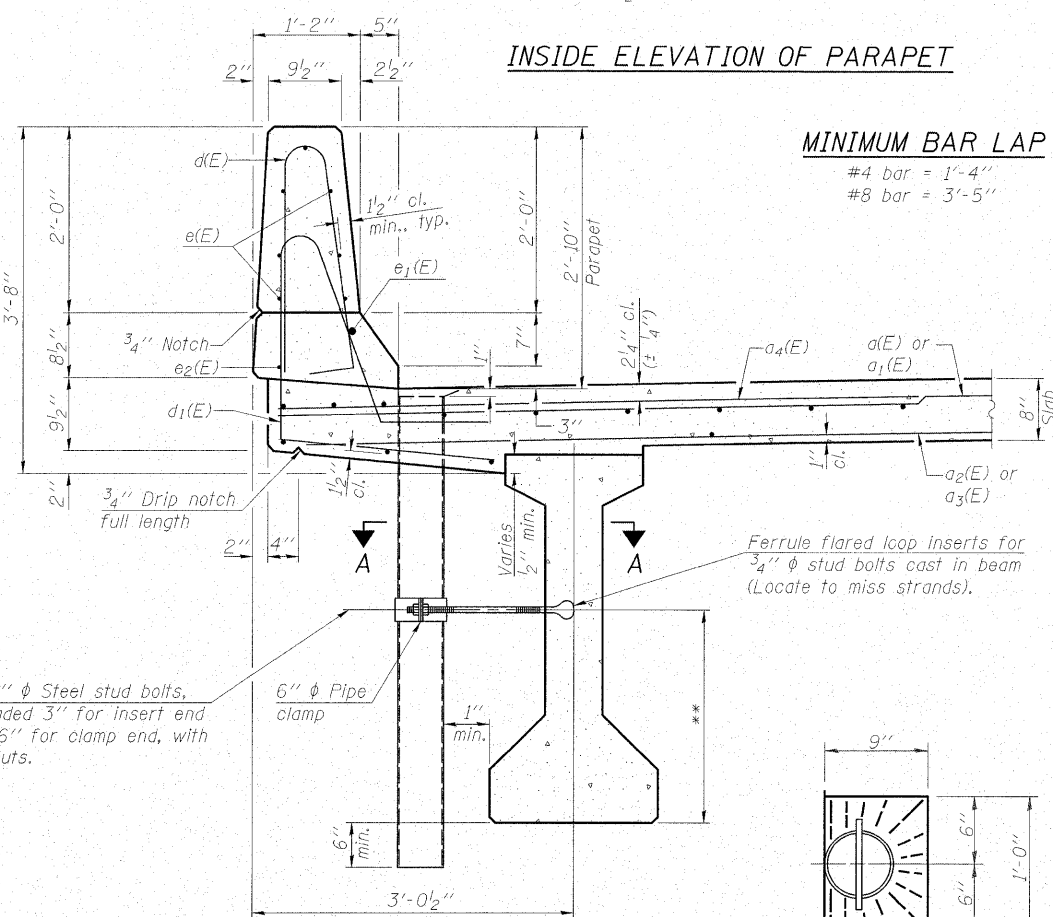
DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SHEET NO. 9 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	42
	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE ELEVATION OF PARAPET

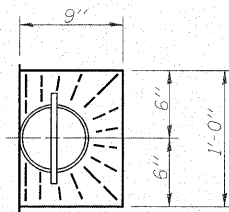


SECTION THRU PARAPET

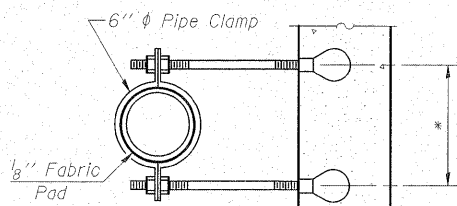
**For insert locations See sheet 13 of 20.

MINIMUM BAR LAP

#4 bar = 1'-4"
#8 bar = 3'-5"

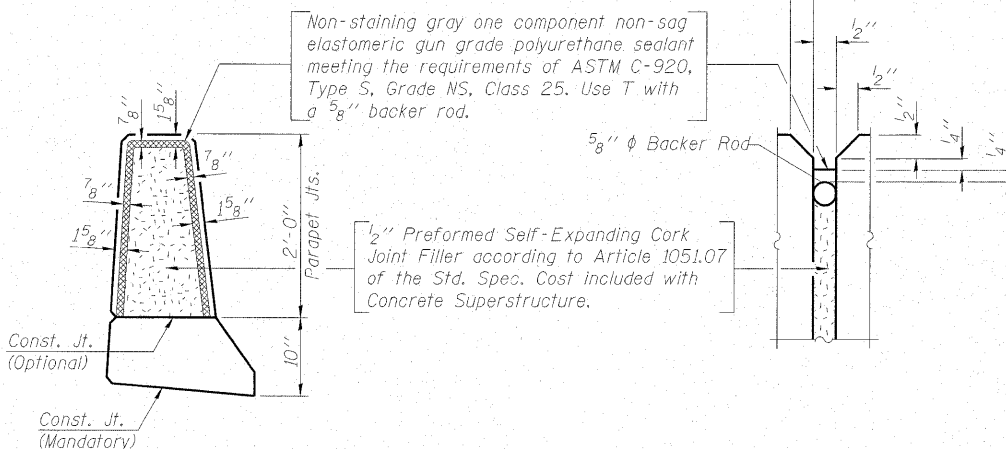


TOP PLAN



SECTION A-A

*Dimension as required by Pipe Clamp

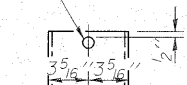


PARAPET JOINT DETAILS

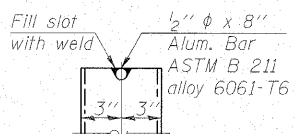
Notes:

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
The clamping device and inserts shall be galvanized according to AASHTO M 232.

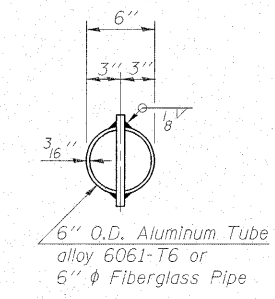
1/2" x 8" Fiberglass Reinf. Plastic Rebar



FIBERGLASS PIPE

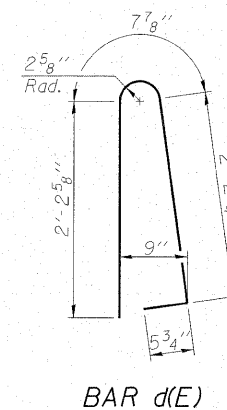


ALUMINUM TUBE

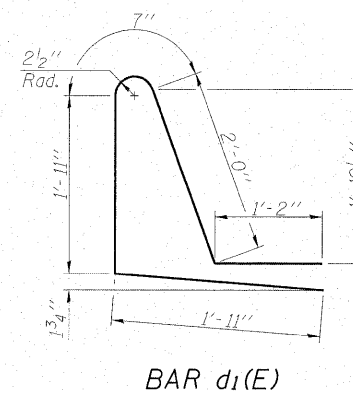


TOP PLAN

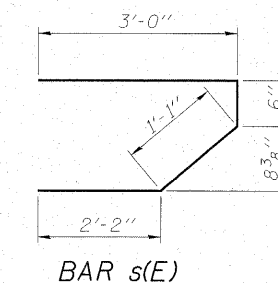
(Showing Aluminum Tube)



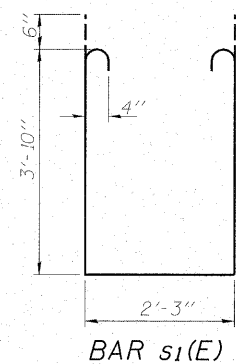
BAR d(E)



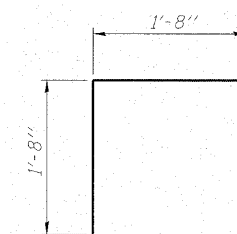
BAR d1(E)



BAR s(E)



BAR s1(E)



BAR v(E)

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	114	#5	20'-1"	—
a1(E)	114	#5	22'-1"	—
a2(E)	78	#5	19'-6"	—
a3(E)	78	#5	21'-6"	—
a4(E)	228	#6	6'-0"	—
a5(E)	4	#5	20'-9"	—
a6(E)	4	#5	22'-9"	—
b(E)	138	#5	21'-7"	—
b1(E)	144	#5	16'-7"	—
d(E)	136	#5	5'-7"	⌋
d1(E)	136	#5	7'-7"	⌋
e(E)	56	#4	15'-1"	—
e1(E)	4	#8	32'-4"	—
e2(E)	6	#4	2'-4"	—
m(E)	4	#6	19'-11"	—
m1(E)	4	#6	22'-0"	—
m2(E)	6	#6	20'-10"	—
m3(E)	6	#6	22'-11"	—
m4(E)	24	#6	9'-6"	—
m5(E)	8	#6	5'-5"	—
m6(E)	4	#6	1'-10"	—
m7(E)	2	#6	1'-6"	—
m8(E)	2	#6	3'-7"	—
s(E)	92	#5	6'-9"	⌋
s1(E)	72	#4	10'-11"	⌋
v(E)	84	#5	3'-4"	⌋
Reinforcement Bars, Epoxy Coated		Lbs.		21590
Concrete Superstructure		Cu. Yds.		114.8

Bars indicated thus 1 x 3 - #5 etc. indicates 1 line of bars with 3 lengths per line.

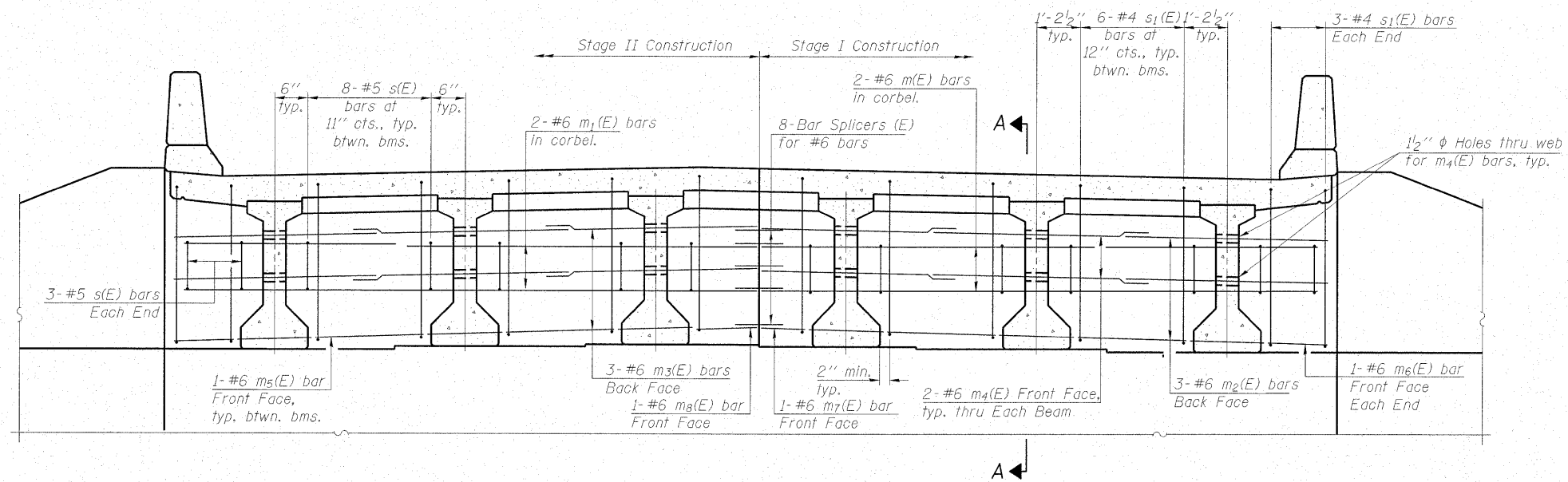
SUPERSTRUCTURE DETAILS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SHEET NO. 10 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	43
	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

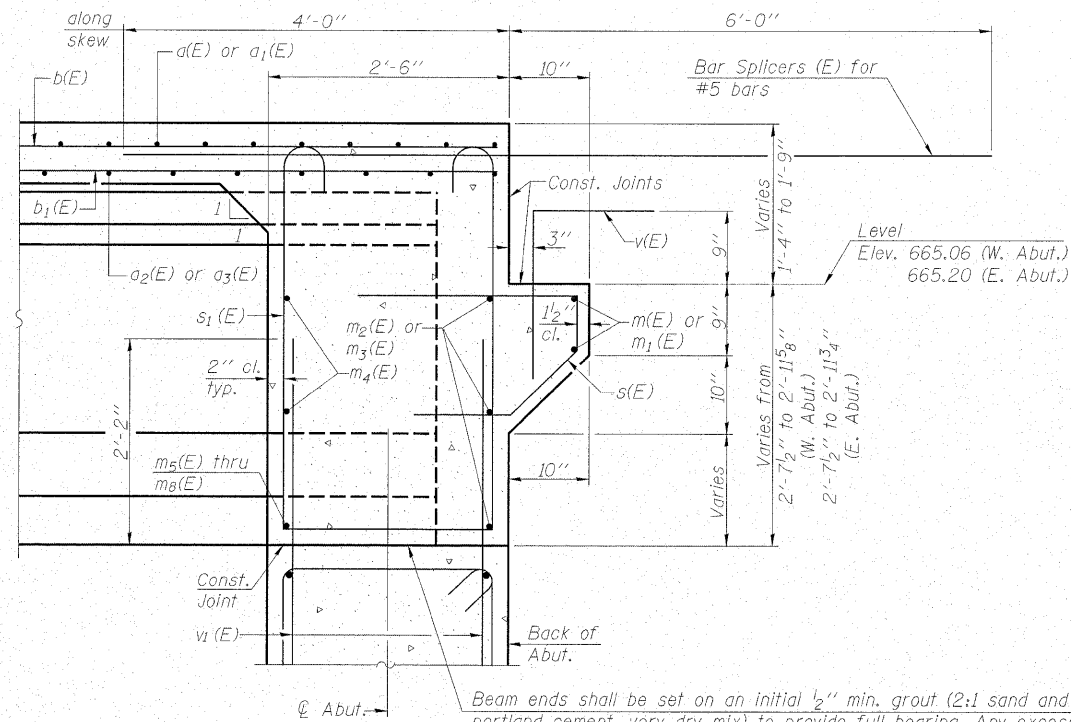
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM ELEVATION AT ABUTMENT
West Abut. shown, East Abut. opposite

MIN. BAR LAP
#6 bar = 2'-9"

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 20.
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 20.
For details of bars s(E) and s₁(E) see sheet 10 of 20.
The s(E) and s₁(E) bars shall be placed parallel to the beams.
Spacing for these bars shall be at right angles to the beams.



SECTION A-A

Beam ends shall be set on an initial 1/2" min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

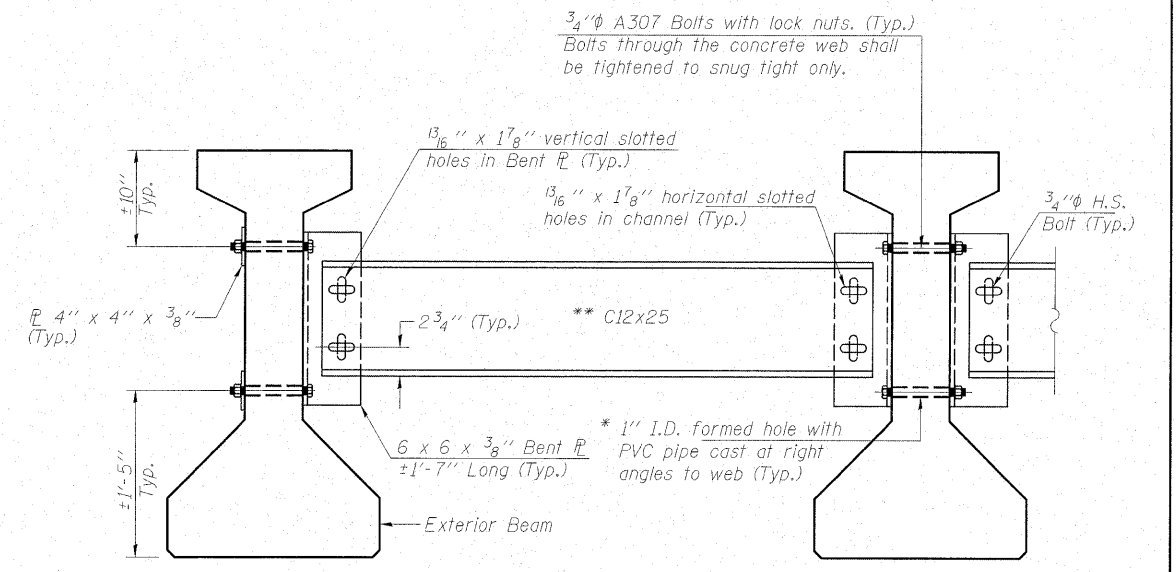
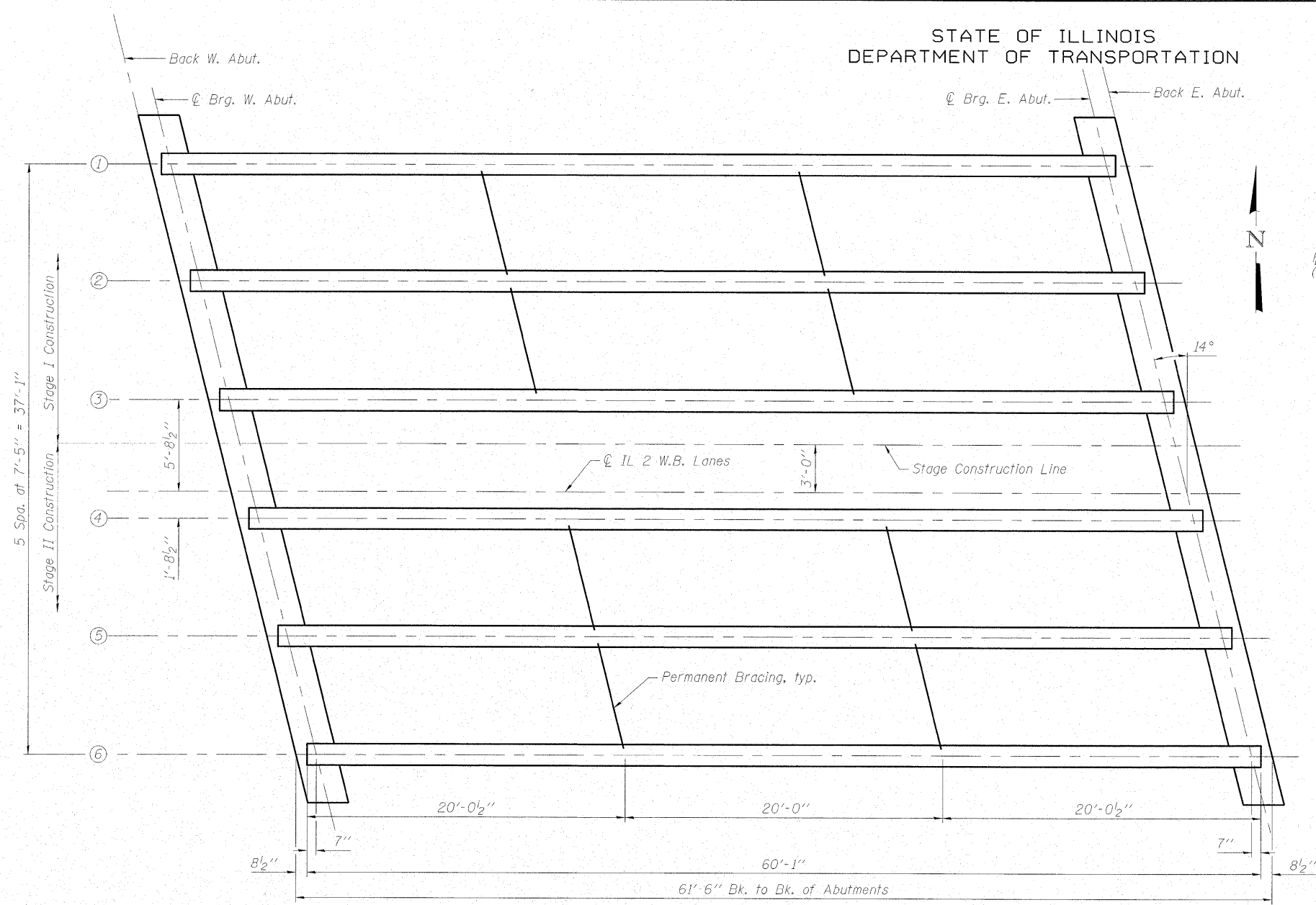
DIAPHRAGM DETAILS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SHEET NO. 11 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	44
STRUCTURE NO. 052-0078			CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NOTES:
 All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
 Two hardened washers are required for each set of oversized holes.
 All holes shall be 1/16 inch unless otherwise noted.
 5/16 inch x 3 inch x 3 inch plate washers are required over all slotted holes.
 All bolts shall be galvanized according to AASHTO M232.
 Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
 Cost of Permanent Bracing is included with Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42".

* Fabricator shall locate to miss strands within permissible tolerances.
 ** Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on lighter section. The alternate, if utilized, shall be provided at no extra cost to the Department.

PERMANENT BRACING DETAILS FOR
42" PPC I-BEAMS

FRAMING PLAN

INTERIOR BEAM MOMENT TABLE		0.5 Sp. 1
I	(in ⁴)	90956
I'	(in ⁴)	294700
S _b	(in ³)	5153
S _b '	(in ³)	8955
S _t	(in ³)	3736
S _t '	(in ³)	32420
DC1	(k/ft)	1.248
M _{DC1}	(k)	541.6
DC2	(k/ft)	0.150
M _{DC2}	(k)	65.1
DW	(k/ft)	0.333
M _{DW}	(k)	144.5
M _{L + IM}	(k)	922.4

I: Non-composite moment of inertia of beam section (in⁴).
 I': Composite moment of inertia of beam section (in⁴).
 S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
 S_b': Composite section modulus for the bottom fiber of the prestressed beam (in³).
 S_t: Non-composite section modulus for the top fiber of the prestressed beam (in³).
 S_t': Composite section modulus for the top fiber of the prestressed beam (in³).
 DC1: Un-factored non-composite dead load (kips/ft.).
 M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
 DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
 M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
 DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
 M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
 M_{L + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

INTERIOR BEAM REACTION TABLE		Abut.
R _{DC1}	(k)	36.8
R _{DC2}	(k)	4.4
R _{DW}	(k)	9.8
R _{L + IM}	(k)	80.6
R _{Total}	(k)	131.6

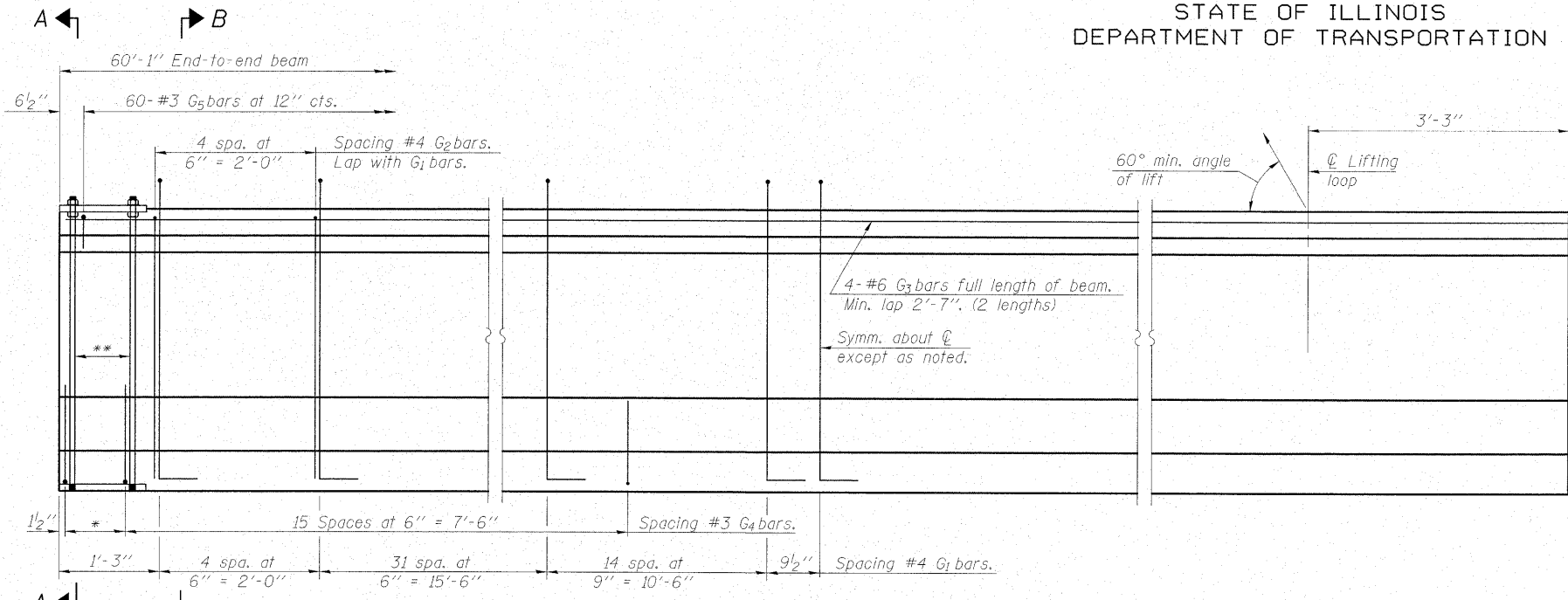
FRAMING PLAN
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

MAURER STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED - BAS
 CHECKED - KEF
 DRAWN - SGM
 CHECKED - RJA/KEF

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	561	31-1BR-1	LEE	92	45
20 SHEETS		STRUCTURE NO. 052-0078		CONTRACT NO. 64B05	
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

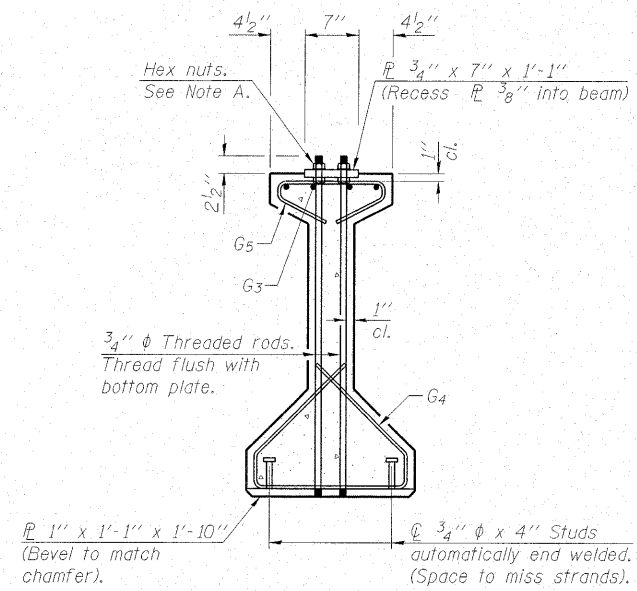
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



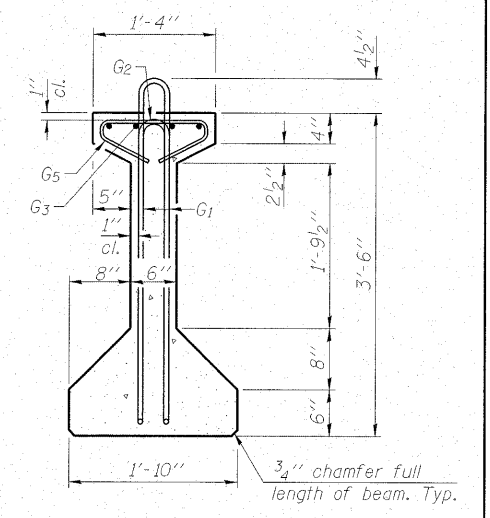
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

*3 spaces at 3" = 9"
**4-3/4" φ threaded dowel rods at 3" cts., Each Face.

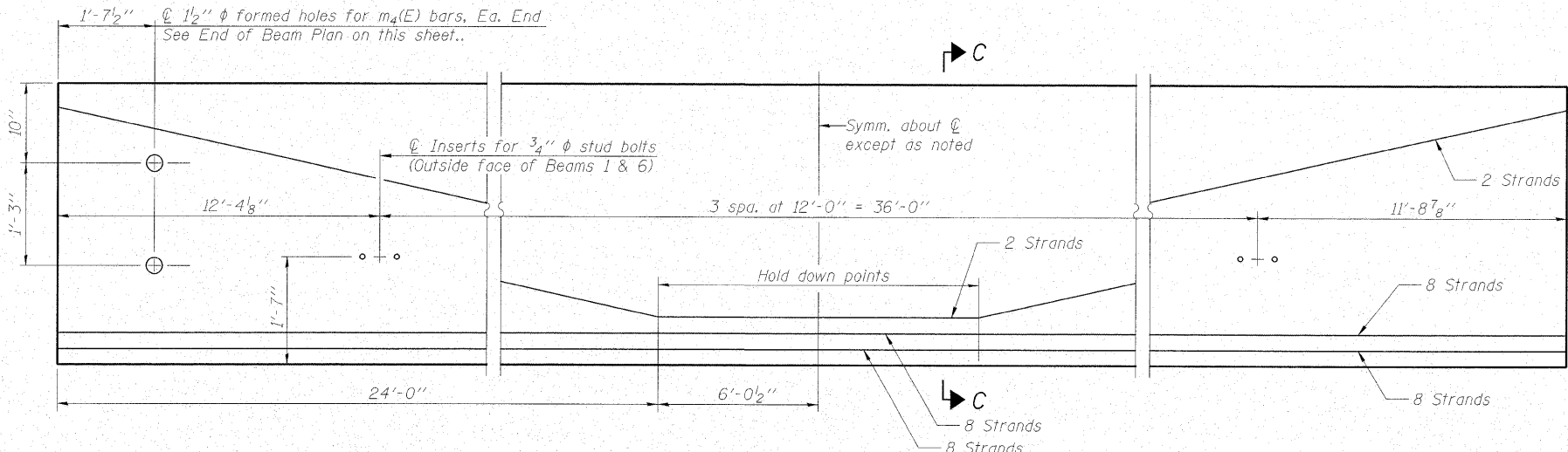
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



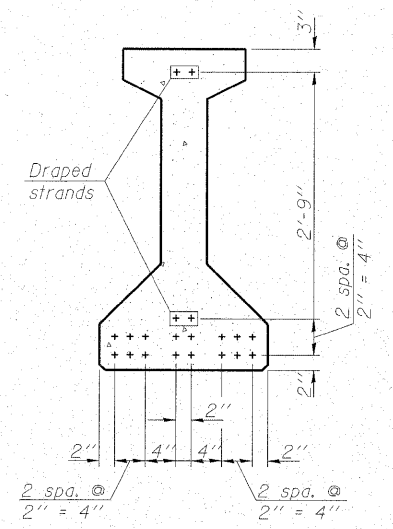
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)

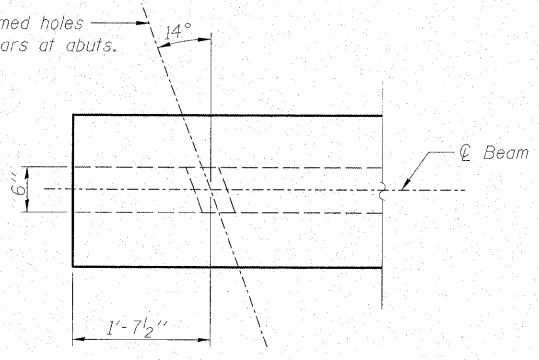


SECTION C-C

*****BAR LIST
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G1	101	#4	8'-5"	∩ L
G2	10	#4	6'-8"	∩
G3	8	#6	31'-3"	—
G4	38	#3	4'-11"	U
G5	60	#3	2'-6"	U

***For information only
Notes:
See sheet 14 of 20 for additional details and Bill of Material.
Required release strength, f'cl, shall be 5000 psi.



END OF BEAM PLAN

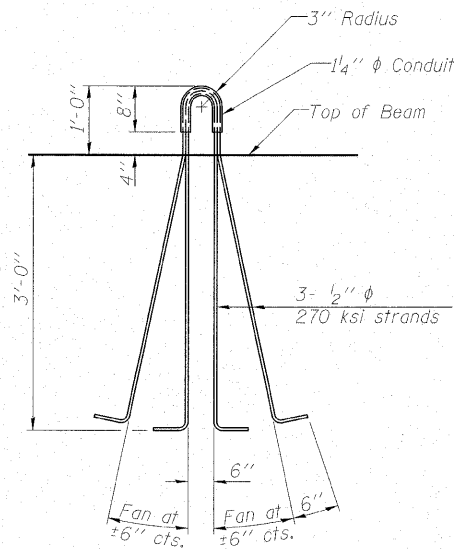
MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED -	BAS
CHECKED -	KEF
DRAWN -	SGM
CHECKED -	RJA/KEF

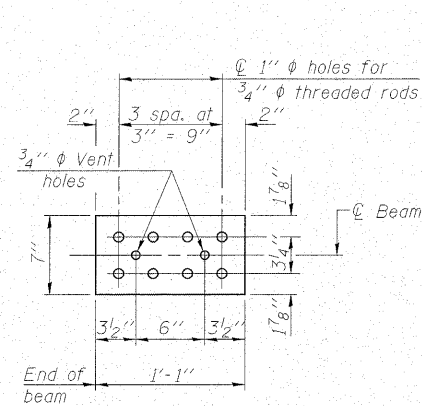
**42" PPC I-BEAM
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00**

SHEET NO. 13 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	46
STRUCTURE NO. 052-0078		CONTRACT NO. 64B05			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

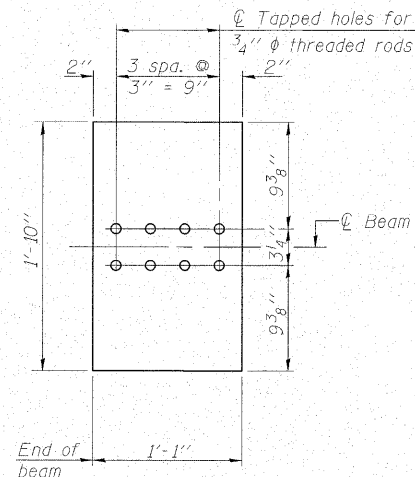
Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling.
The top and bottom plates shall be AASHTO M270 Grade 50.
The bottom plates and studs shall be galvanized according to AASHTO M111.
Threaded rods shall be ASTM F 1554 Grade 55.



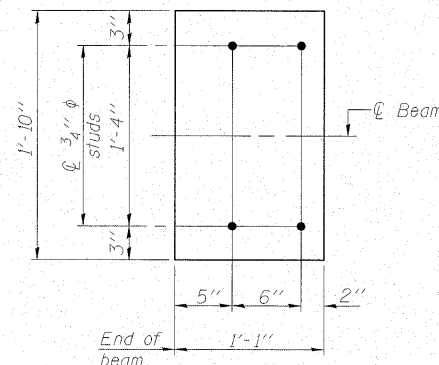
LIFTING LOOP DETAIL



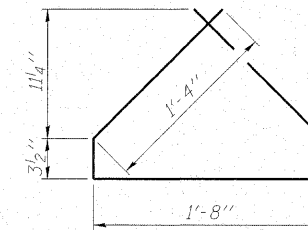
TOP PLATE



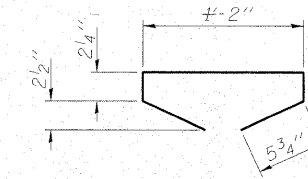
BOTTOM PLATE
(Showing threaded rods)



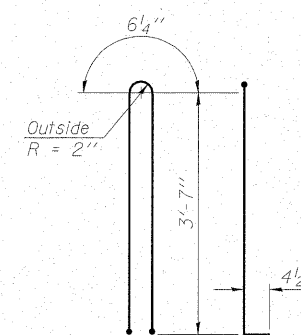
BOTTOM PLATE
(Showing studs)



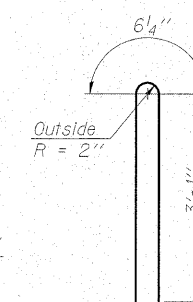
BAR G4



BAR G5



BAR G1



BAR G2

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Fl.	360.5

42" PPC I-BEAM DETAILS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

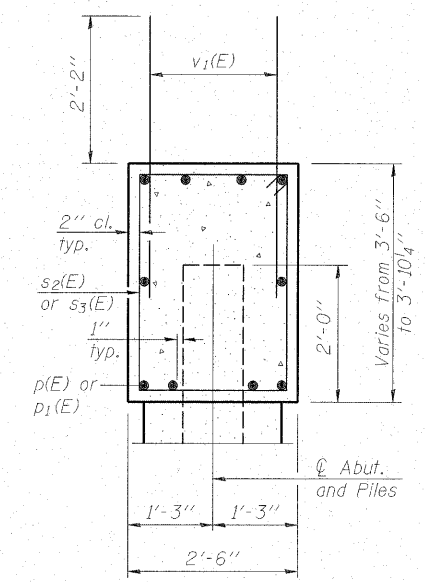
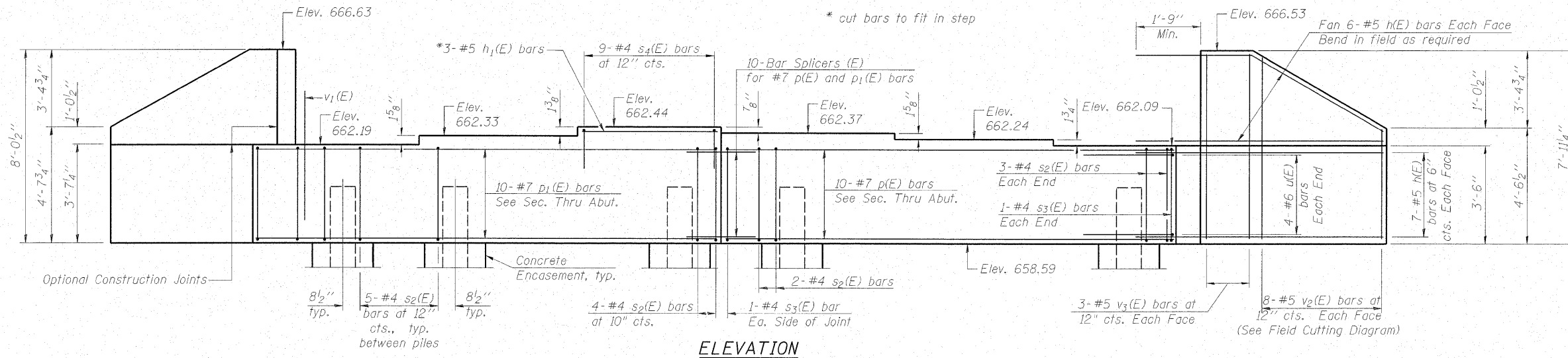
SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	561	31-1BR-1	LEE	92	47
20 SHEETS		STRUCTURE NO. 052-0078		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					



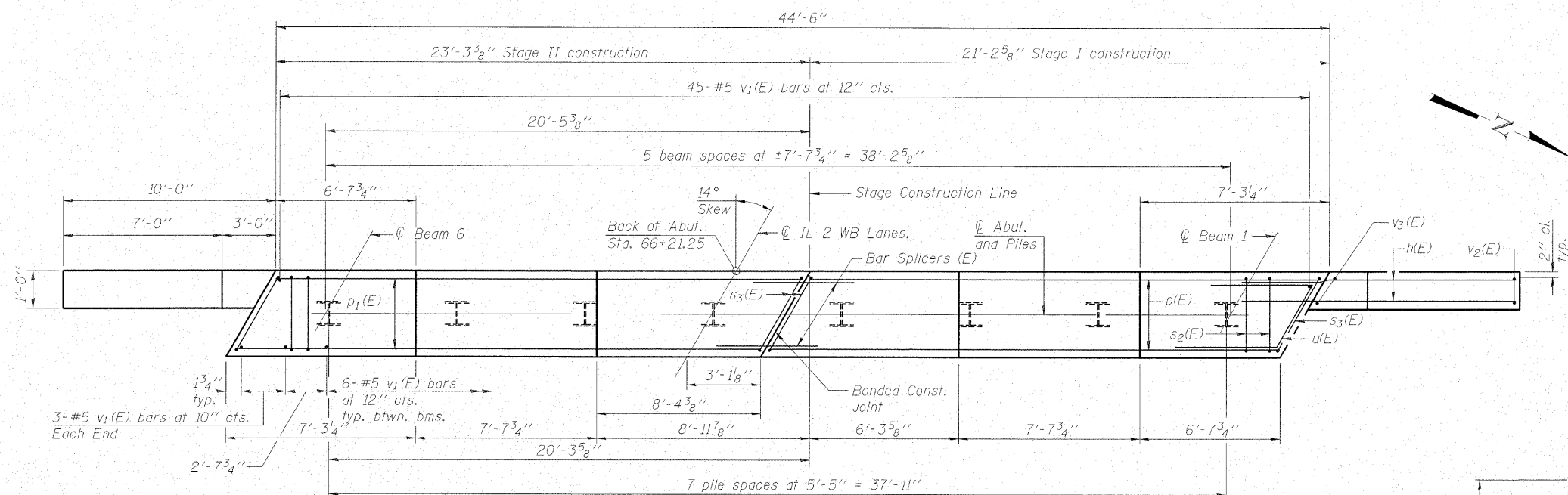
DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes: Four steps monolithically with cap.

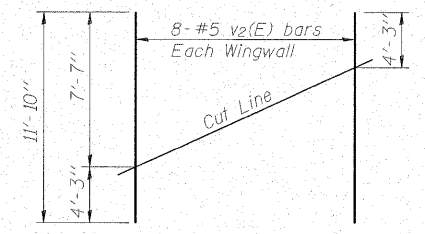


SEC. THRU ABUT.



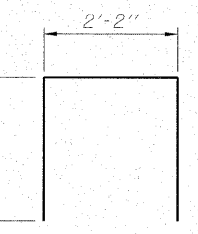
PLAN

PILE DATA
Type: Steel HP12x53 w/ pile shoes
Nominal Required Bearing: 330 kips
Factored Resistance Available: 165 kips
Est. Length: 63 feet
No. Production Piles: 7
No. Test Piles: 1

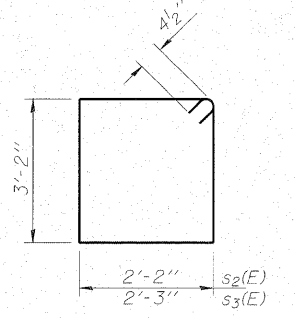


FIELD CUTTING DIAGRAM

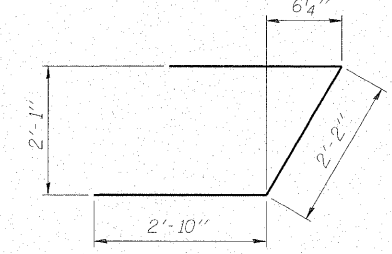
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s4(E)



BARS s2(E) & s3(E)



BAR u(E)

BILL OF MATERIAL

Bar No.	Size	Length	Shape
h(E)	#5	12'-5"	—
h1(E)	#5	8'-8"	—
p(E)	#7	20'-11"	—
p1(E)	#7	22'-11"	—
s2(E)	#4	11'-5"	□
s3(E)	#4	11'-7"	□
s4(E)	#4	6'-2"	□
u(E)	#6	7'-10"	┘
v1(E)	#5	4'-4"	—
v2(E)	#5	11'-10"	—
v3(E)	#5	7'-8"	—
Structure Excavation	Cu. Yd.	155	
Concrete Structures	Cu. Yd.	20.2	
Concrete Encasement	Cu. Yd.	2.8	
Reinforcement Bars, Epoxy Coated	Pound	2740	
Furnishing Steel Piles, HP12x53	Foot	441	
Driving Piles	Foot	441	
Test Pile, Steel HP12x53	Each	1	
Pile Shoes	Each	8	

For details of Bar Splicers, see sheet 18 of 20.
For details of piles and Concrete Encasement, see sheet 17 of 20.

WEST ABUTMENT
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

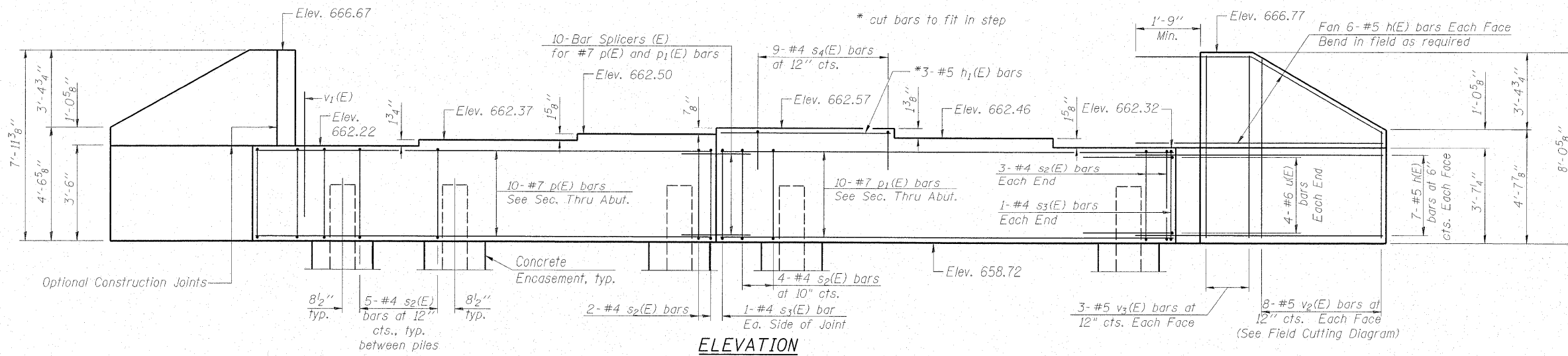
MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

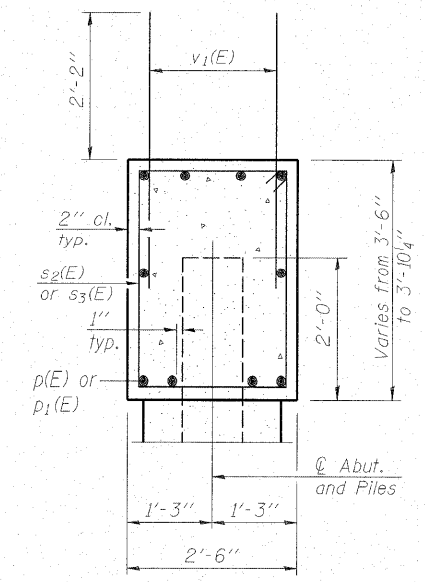
SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15	561	31-1BR-1	LEE	92	48
20 SHEETS		STRUCTURE NO. 052-0078		CONTRACT NO. 64B05	
		FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

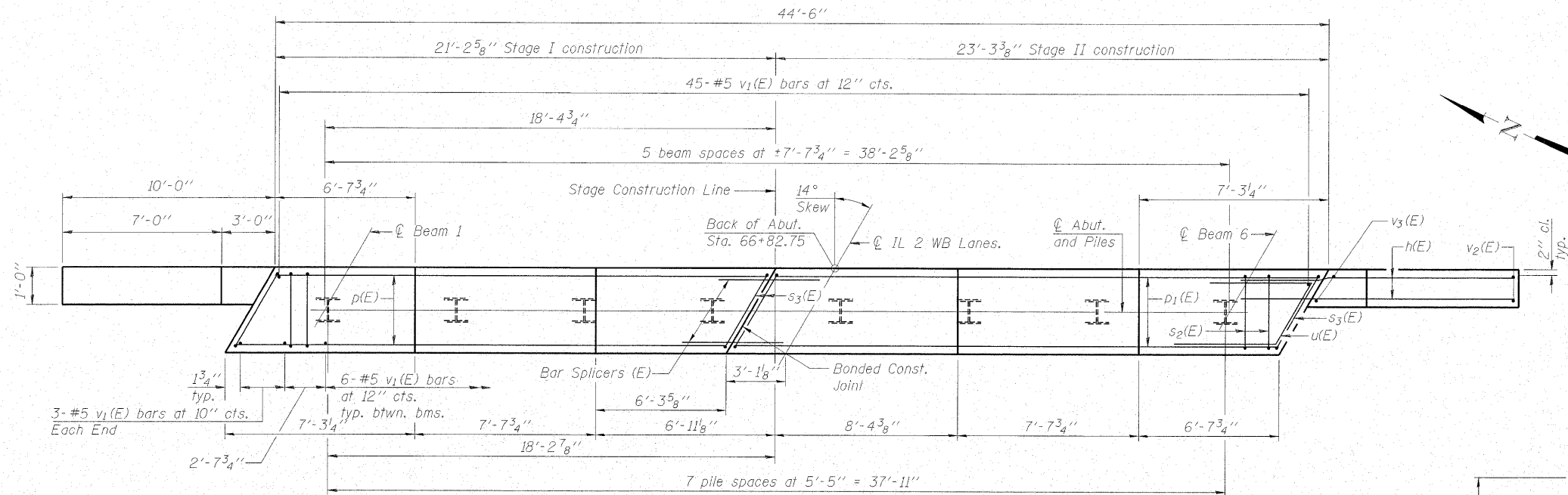
Notes: Four steps monolithically with cap.



ELEVATION

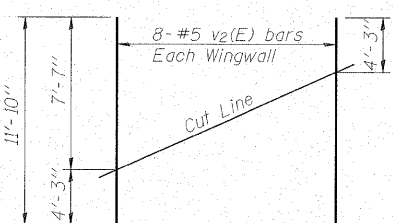


SEC. THRU ABUT.



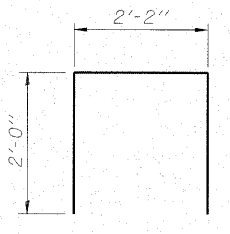
PLAN

PILE DATA
Type: Steel HP12x53 w/ pile shoes
Nominal Required Bearing: 330 kips
Factored Resistance Available: 165 kips
Est. Length: 63 feet
No. Production Piles: 7
No. Test Piles: 1

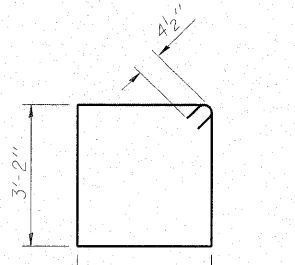


FIELD CUTTING DIAGRAM

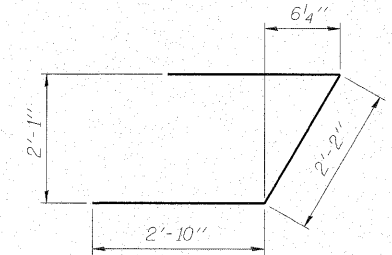
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s4(E)



BARS s2(E) & s3(E)



BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	52	#5	12'-5"	—
h1(E)	3	#5	8'-8"	—
p(E)	10	#7	20'-11"	—
p1(E)	10	#7	22'-11"	—
s2(E)	42	#4	11'-5"	□
s3(E)	4	#4	11'-7"	□
s4(E)	9	#4	6'-2"	□
u(E)	8	#6	7'-10"	┘
v1(E)	81	#5	4'-4"	—
v2(E)	16	#5	11'-10"	—
v3(E)	12	#5	7'-8"	—
Structure Excavation			Cu. Yd.	155
Concrete Structures			Cu. Yd.	20.2
Concrete Encasement			Cu. Yd.	2.8
Reinforcement Bars, Epoxy Coated			Pound	2740
Furnishing Steel Piles, HP12x53			Foot	441
Driving Piles			Foot	441
Test Pile, Steel HP12x53			Each	1
Pile Shoes			Each	8

For details of Bar Splicers, see sheet 18 of 20.
For details of piles and Concrete Encasement, see sheet 17 of 20.

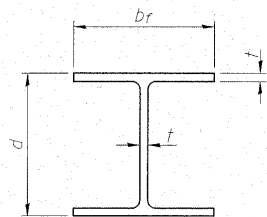
EAST ABUTMENT
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

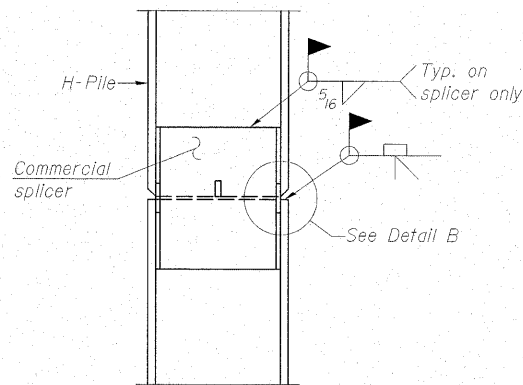
SHEET NO. 16 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	49
	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

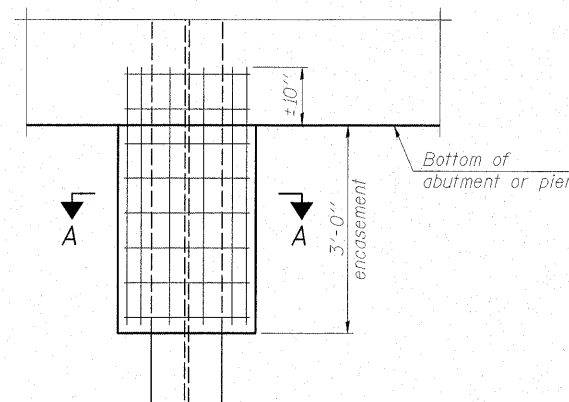


STEEL PILE TABLE

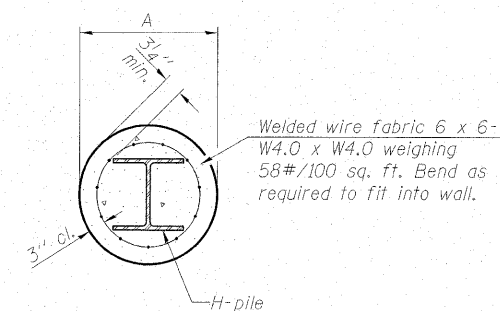
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



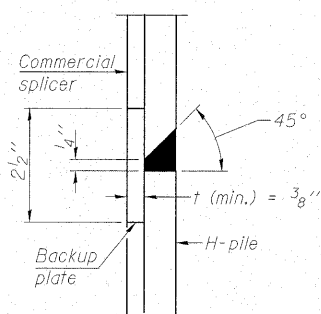
ELEVATION



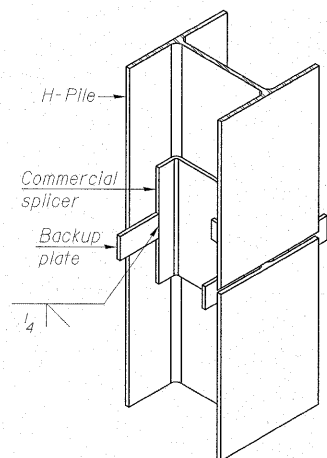
SECTION A-A

PILE ENCASEMENT

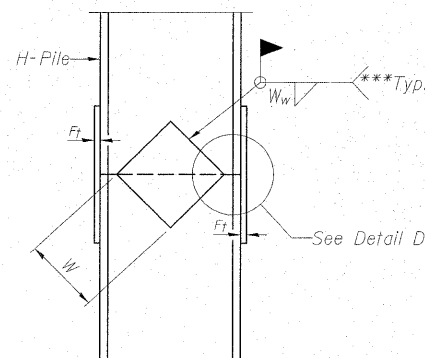
Note:
Forms for encasement may be omitted when soil conditions permit.



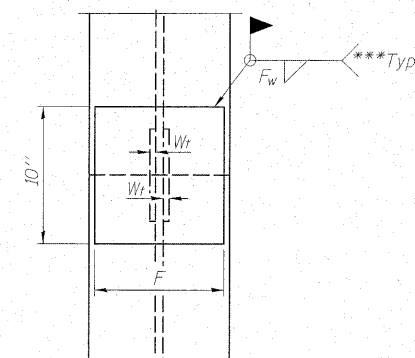
DETAIL "B"



ISOMETRIC VIEW

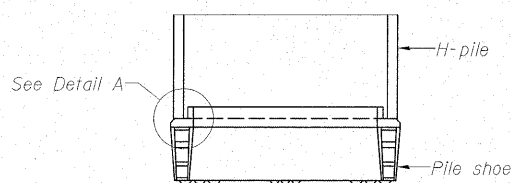


ELEVATION

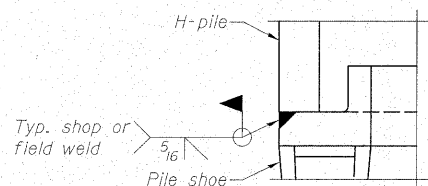


END VIEW

WELDED COMMERCIAL SPLICE

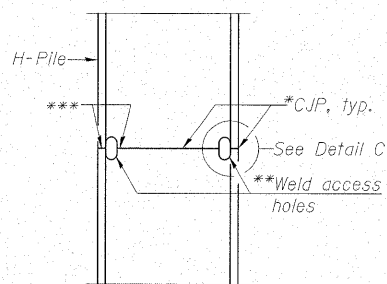


ELEVATION

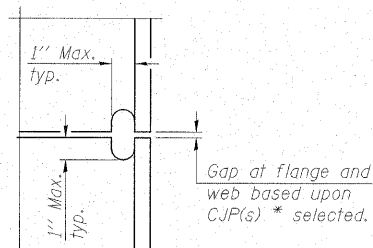


DETAIL A

H-PILE SHOE ATTACHMENT

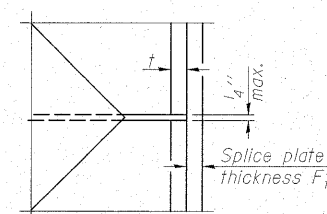


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

HP PILE DETAILS

IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF
F-HP

10-1-08

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

SHEET NO. 17 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	50
	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

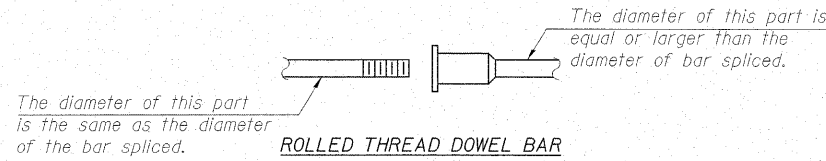
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES

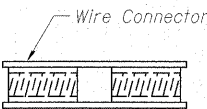
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



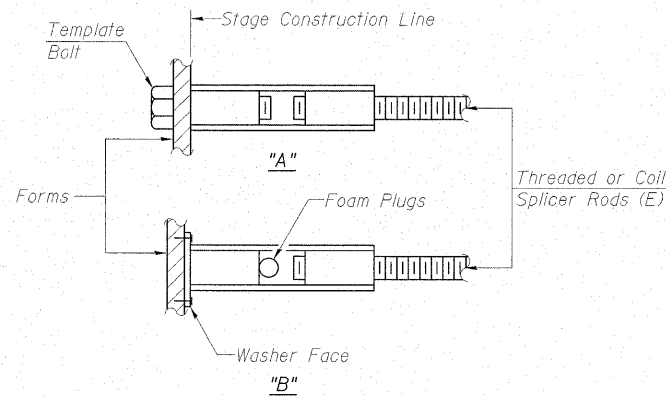
** ONE PIECE



WELDED SECTIONS

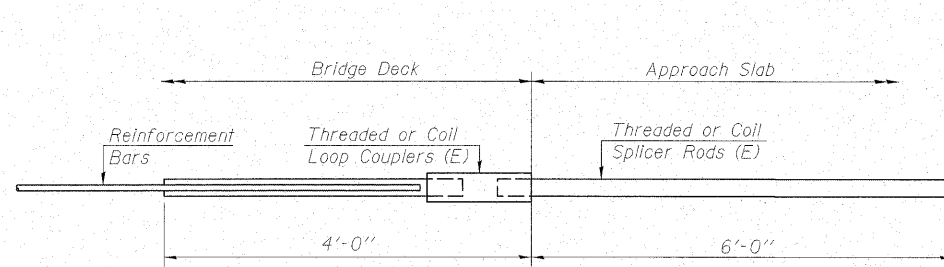
BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



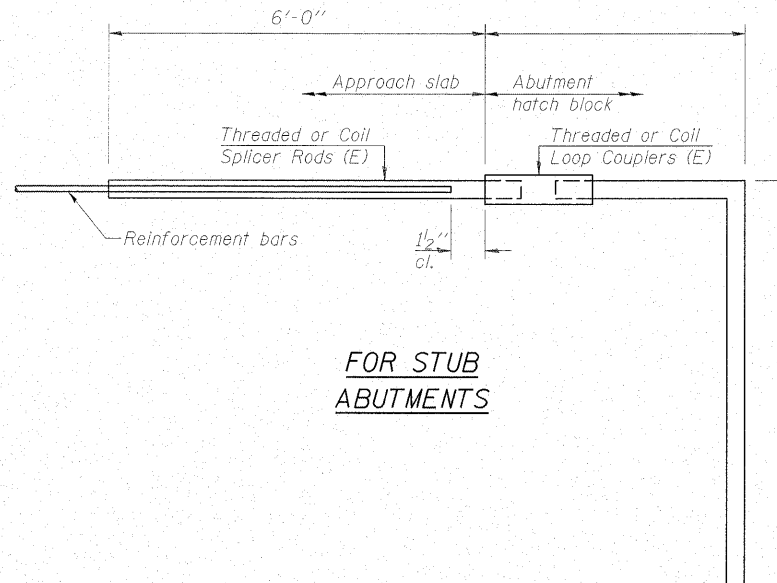
INSTALLATION AND SETTING METHODS

"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.



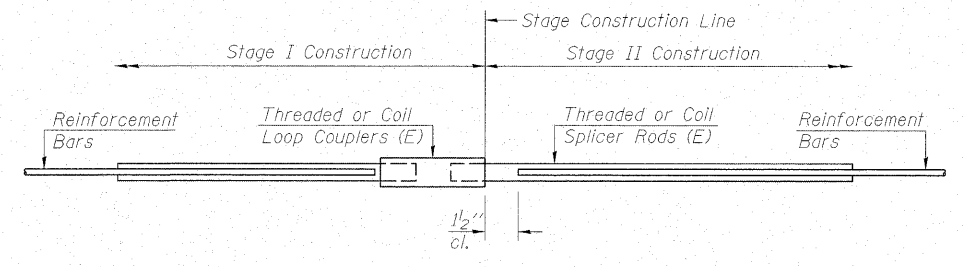
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 80



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	196	Deck
#6	16	Diaphragm
#7	20	Abutments

BAR SPLICER ASSEMBLY DETAILS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

SHEET NO. 18 20 SHEETS	F.A.P. RTE. 561	SECTION 31-1BR-1	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 51
	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

BSD-1

10-1-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 2

ROUTE FAP 561 DESCRIPTION P92-067-05 IL 2 WB over Little Creek, .2 m. W. of Sauk Valley College Entrance LOGGED BY W. Garza
SECTION 31-1BR-2 (& 1) LOCATION Palmyra Twp. - 8NE, SEC. , TWP. 21N, RNG. 8E
COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO.	STATION	BORING NO.	STATION	OFFSET	GROUND SURFACE ELEV.	DEPTH (ft)	DIAMETER (in)	UNIT	PERCENT	SOIL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	DIAMETER (in)	UNIT	PERCENT
052-0014	66+53	B-2b	66+29	13.00ft Lt CL WB	666.58					VERY LOOSE brown fine SAND	645.08	1			
						664.08	2			LOOSE/MEDIUM brown fine SAND	642.58	4	2.0	22.0	
						662.58	5	B		LOOSE gray fine SAND	639.58	4			
						660.08	6	B	28.0	MEDIUM gray SILT with fine SAND lens	637.08	6	0.6	24.0	
						657.58	6			MEDIUM gray fine SAND	634.58	3			
						655.08	6	P	38.0	Wash STIFF gray SILTY CLAY TILL with SAND lens	632.08	6	1.5	18.0	
						652.58	5	B	28.0	LOOSE/MEDIUM gray dirty SAND & GRAVEL	629.58	5			
						649.58	4	B	24.0	STIFF gray SILTY LOAM with SAND lens	627.58	5	1.8	24.0	
						647.58	5					7			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 2

ROUTE FAP 561 DESCRIPTION P92-067-05 IL 2 WB over Little Creek, .2 m. W. of Sauk Valley College Entrance LOGGED BY W. Garza
SECTION 31-1BR-2 (& 1) LOCATION Palmyra Twp. - 8NE, SEC. , TWP. 21N, RNG. 8E
COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO.	STATION	BORING NO.	STATION	OFFSET	GROUND SURFACE ELEV.	DEPTH (ft)	DIAMETER (in)	UNIT	PERCENT	SOIL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	DIAMETER (in)	UNIT	PERCENT
052-0014	66+53	B-2b	66+29	13.00ft Lt CL WB	666.58					DENSE gray dirty SAND & GRAVEL	604.58	12			
						625.08	6	P	25.0	HARD olive green SILTY CLAY	602.58	28	6.0	19.0	
						622.58	11	B		VERY STIFF gray SILTY CLAY TILL	599.58	11	2.1	19.0	
						620.08	15	P	22.0	Auger Refusal at 67.0'		18	2.6		
						617.58	10	B		End of Boring					
						615.08	8	B	24.0						
						612.58	5	B	23.0						
						610.08	4	B	18.0						
						607.08	33			Wash VERY DENSE gray SILTY CLAY TILL					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SOIL BORINGS
IL RTE. 2 WB OVER LITTLE CREEK
STATION 66+52.00

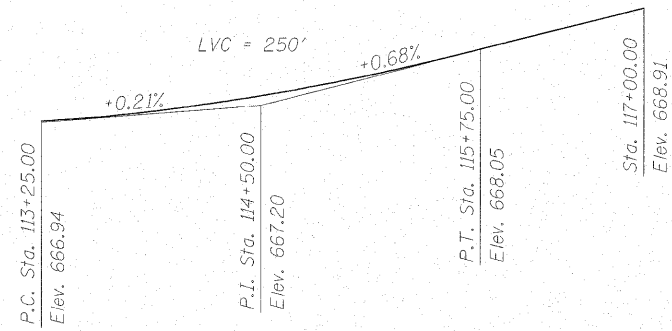
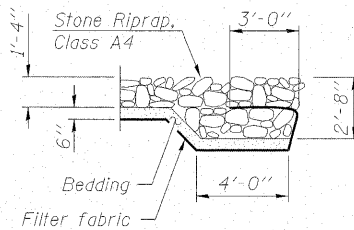
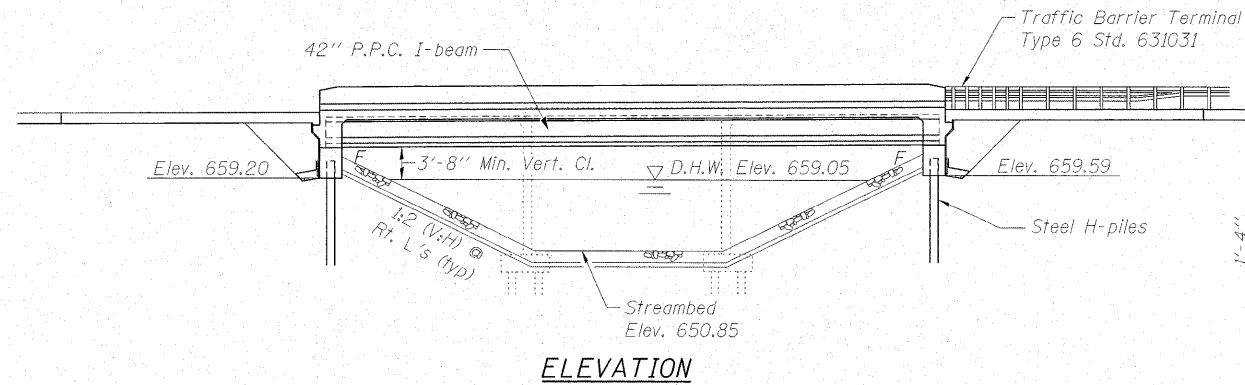
SHEET NO. 20	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-1	LEE	92	53
20 SHEETS	STRUCTURE NO. 052-0078		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Bench Mark: $\frac{5}{8}$ " ϕ rod, Sta 114+16.50, 11.25' south of WB EOP, Elevation 666.90

Existing Structure: 052-0015. Built in 1955 as FA 7, Section 31-1B as a single span, cast-in-place, slab bridge, 24'-7" back-to-back abutments, 48'-8" out-to-out slab width. Various repairs made in 1984 to the deck drains, deck slab and abutment. Additional 1-1/2" overlay done in 1991. Existing bridge to be replaced with single-span P.P.C. I-beam bridge. Structure to be removed and replaced using stage construction.

Salvage: None.



PROFILE GRADE

FAP 561 - IL Route 2
(Along ϕ of WB Lanes)

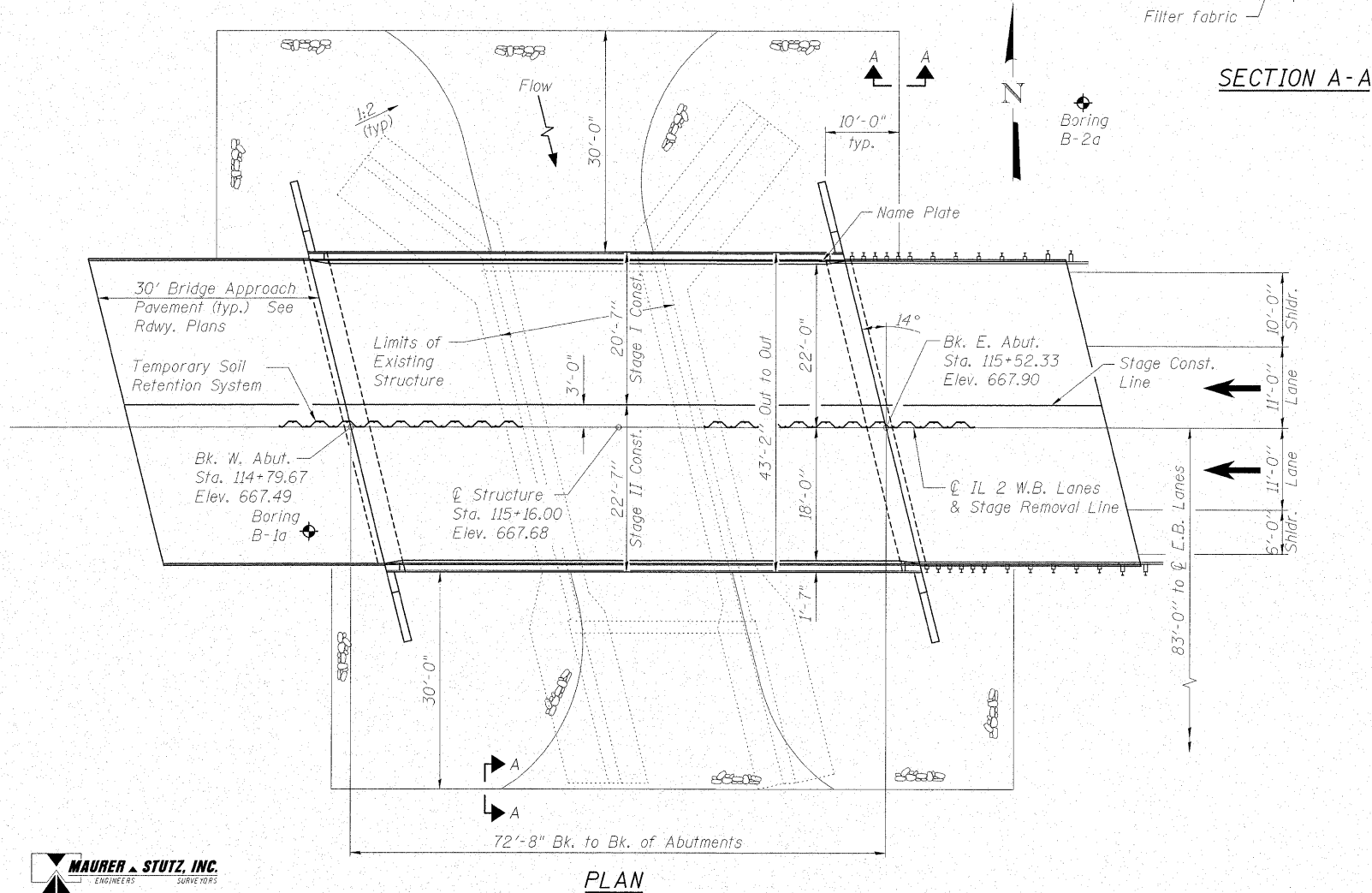
STATION 115+16.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 561 SEC. 31-1BR-2
LOADING HL93
STRUCTURE NO. 052-0079

NAME PLATE

See Std. 515001

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Notes, Total Bill of Material
- 3 Staging Details
- 4 Temporary Concrete Barrier
- 5-6 Top of Slab Elevations
- 7-8 Top of Approach Slab Elevations
- 9 Superstructure
- 10 Superstructure Details
- 11 Diaphragm Details
- 12 Framing Plan
- 13 42" PPC I-Beam
- 14 42" PPC I-Beam Details
- 15 West Abutment
- 16 East Abutment
- 17 HP Pile Details
- 18 Bar Splicer Assembly Details
- 19-20 Soil Borings



PLAN

WATERWAY INFORMATION

Drainage Area = 2.90 sq. mi. Proposed Low Grade Elev. 662.22 @ Sta. 112+05

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Ten-Year	10	925	138	233	657.91	2.85	1.90	660.8	659.8
Design	50	1453	161	289	659.05	3.98	2.25	663.0	661.3
Base	100	1678	170	311	659.47	2.59	2.36	652.1	661.8
Max. Calc.	500	2220	185	352	660.24	4.25	3.05	664.5	663.3

10-Year Velocity through Existing Structure = 7.7 fps
10-Year Velocity through Proposed Structure = 2.8 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	656.2	656.6

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Ed.

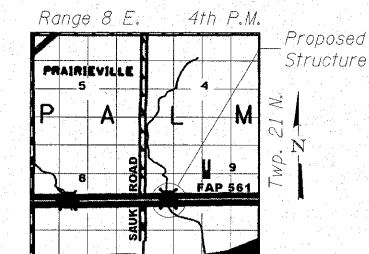
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
PRECAST PRESTRESSED UNITS
 $f'_c = 7,000$ psi
 $f'_ci = 6,000$ psi
 $f_s' = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax strands)
 $f_{sl} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Horizontal Bedrock Acceleration Coefficient (A) = .034g
Site Coefficient (S) = 1.5



LOCATION SKETCH

GENERAL PLAN & ELEVATION

IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER

STATION 115+16.00



DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF



Kristen E. Fields
Date Signed: 7-29-09
Exp. Date: 11-30-10

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (P.E.)
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	20 SHEETS	561	31-1BR-2	LEE	92
STRUCTURE NO. 052-0079			CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

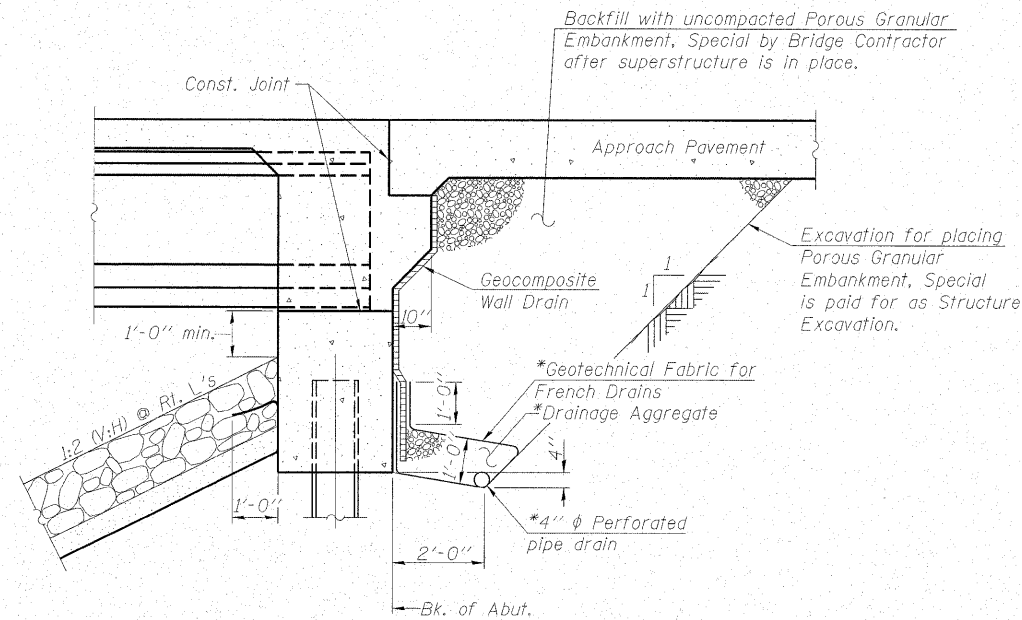
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		120	120
Stone Riprap, Class A4	Sq. Yd.		1018	1018
Filter Fabric	Sq. Yd.		1018	1018
Removal of Existing Structures No. 2	Each		1	1
Structure Excavation	Cu. Yd.		314	314
Concrete Structures	Cu. Yd.		40.6	40.6
Concrete Superstructure	Cu. Yd.	130.3		130.3
Bridge Deck Grooving	Sq. Yd.	307		307
Concrete Encasement	Cu. Yd.		5.6	5.6
Protective Coat	Sq. Yd.	384		384
Furnishing and Erecting Precast Prestressed Concrete I Beams, 42"	Foot	427.5		427.5
Reinforcement Bars, Epoxy Coated	Pound	24910	5480	30390
Bar Splicers	Each	326	20	346
Furnishing Steel Piles HP12x53	Foot		861	861
Driving Piles	Foot		861	861
Test Pile Steel HP12x53	Each		2	2
Pile Shoes	Each		16	16
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		88	88
Pipe Underdrains for Structures 4"	Foot		166	166
Temporary Soil Retention System	Sq. Ft.		730	730



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

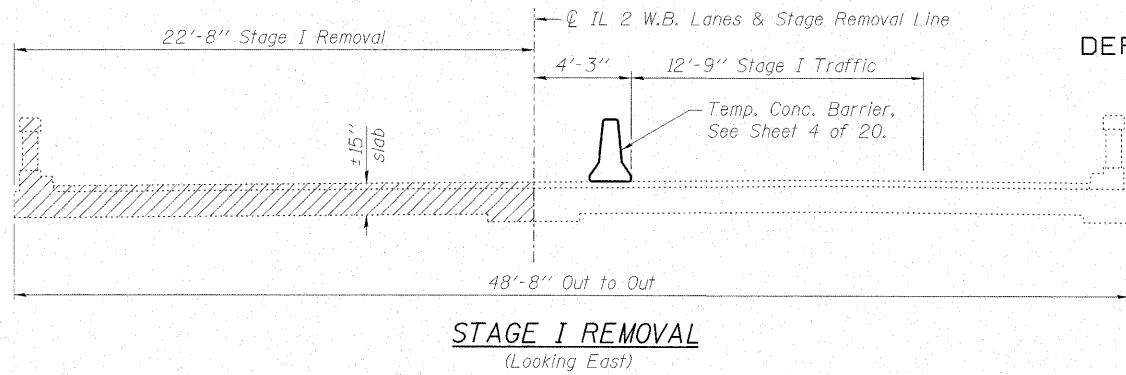


DESIGNED - JAE
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CHECKED - RJA/KEF

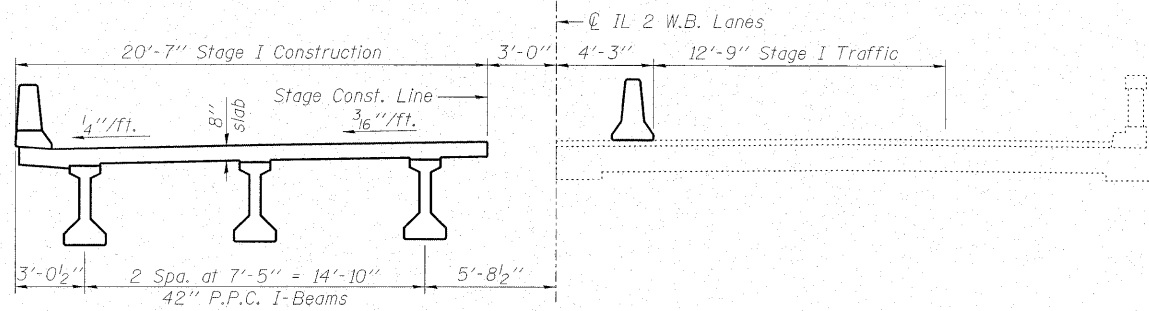
GENERAL NOTES, TOTAL BILL OF MATERIAL
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-2	LEE	92	55
20 SHEETS	STRUCTURE NO. 052-0079		CONTRACT NO. 64B05		
	FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT		

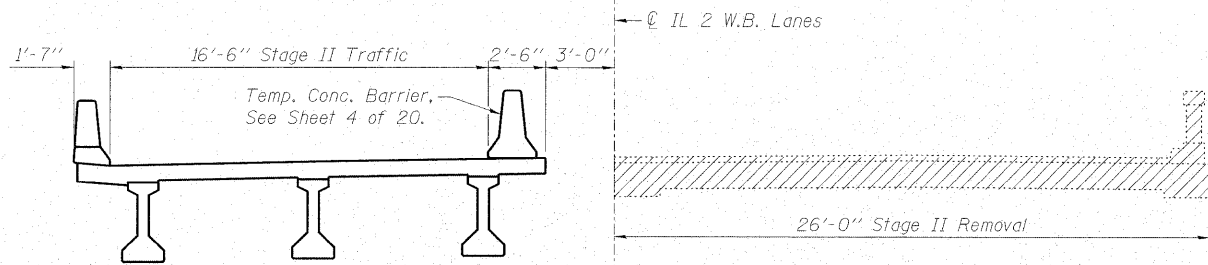
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



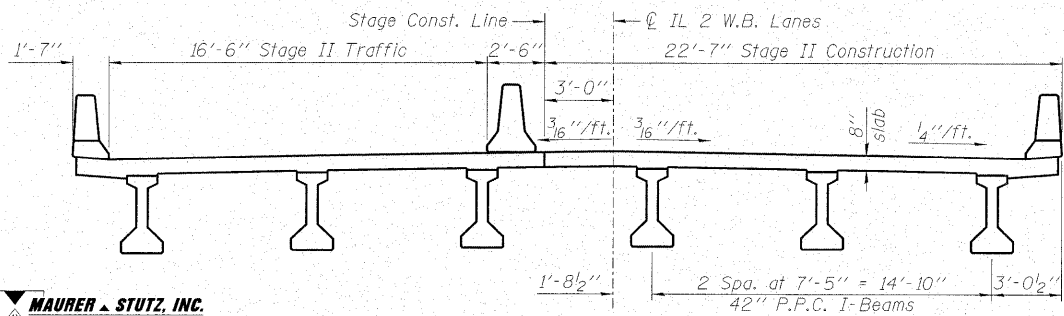
STAGE I REMOVAL
(Looking East)



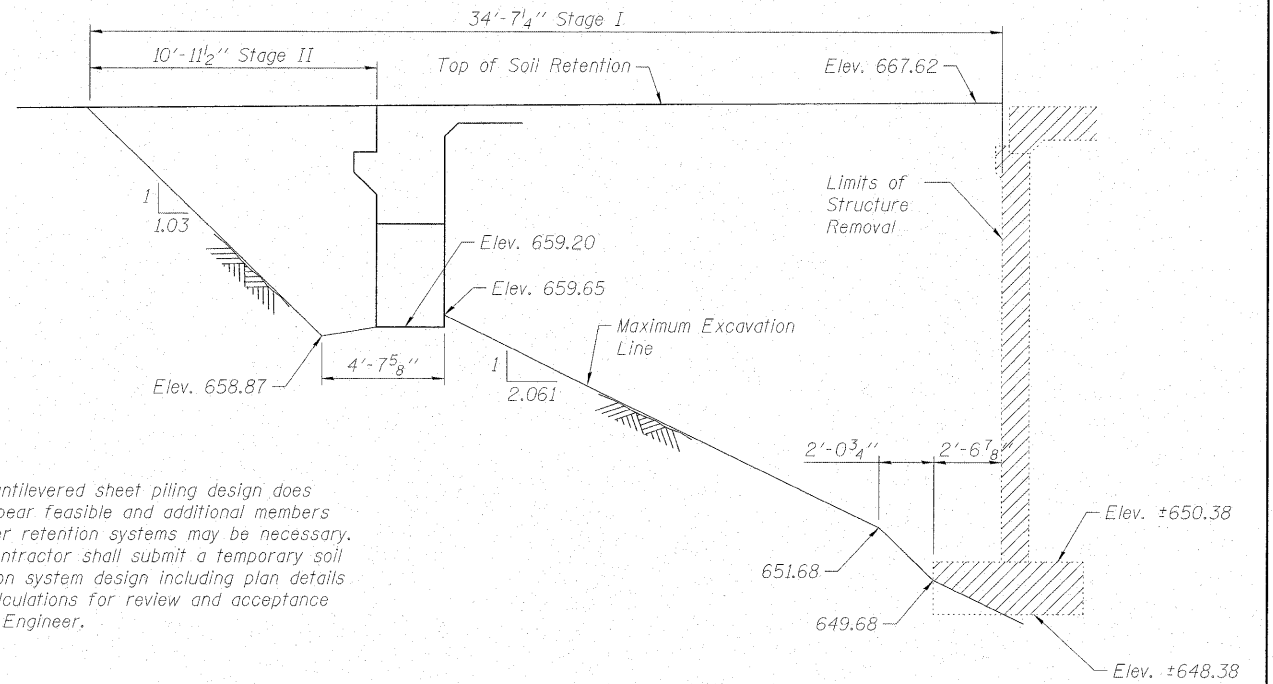
STAGE I CONSTRUCTION
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

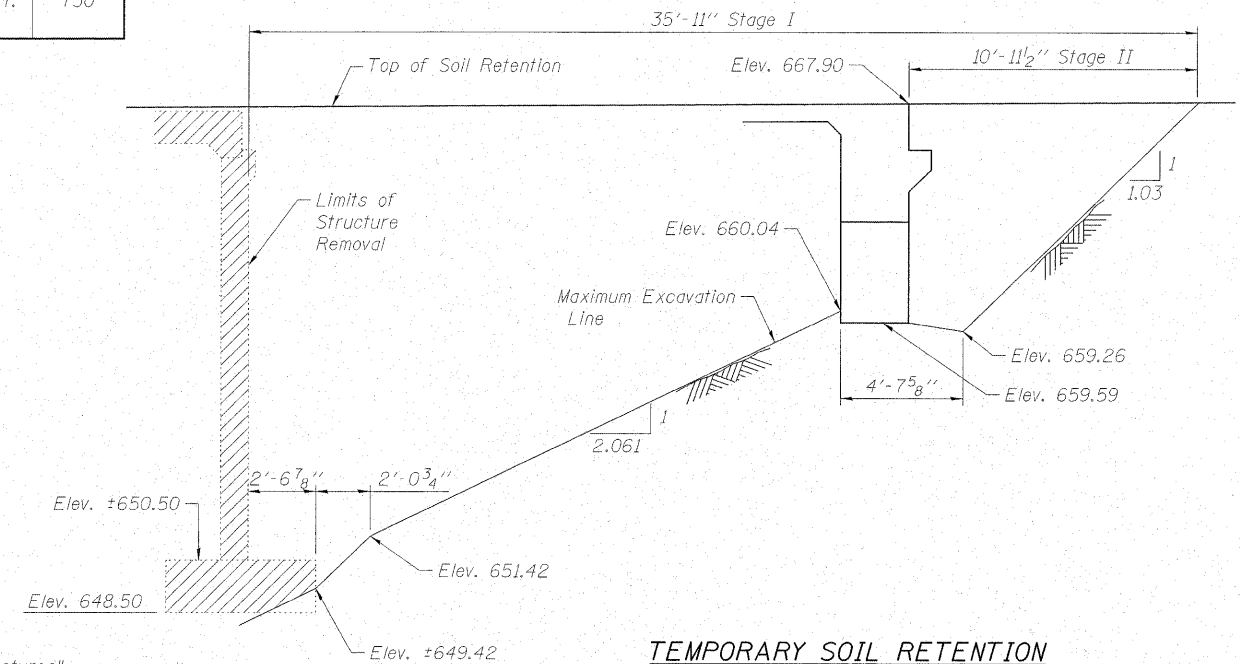


TEMPORARY SOIL RETENTION
(West Abutment)
Dim. along \varnothing IL 2 WB Lanes

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Soil Retention System	Sq. Ft.	730



TEMPORARY SOIL RETENTION
(East Abutment)
Dim. along \varnothing IL 2 WB Lanes

STAGING NOTES:

- Hatched areas indicate "Removal of Existing Structures".
- For quantities of "Temporary Concrete Barrier", see Roadway Plans.

STAGING DETAILS

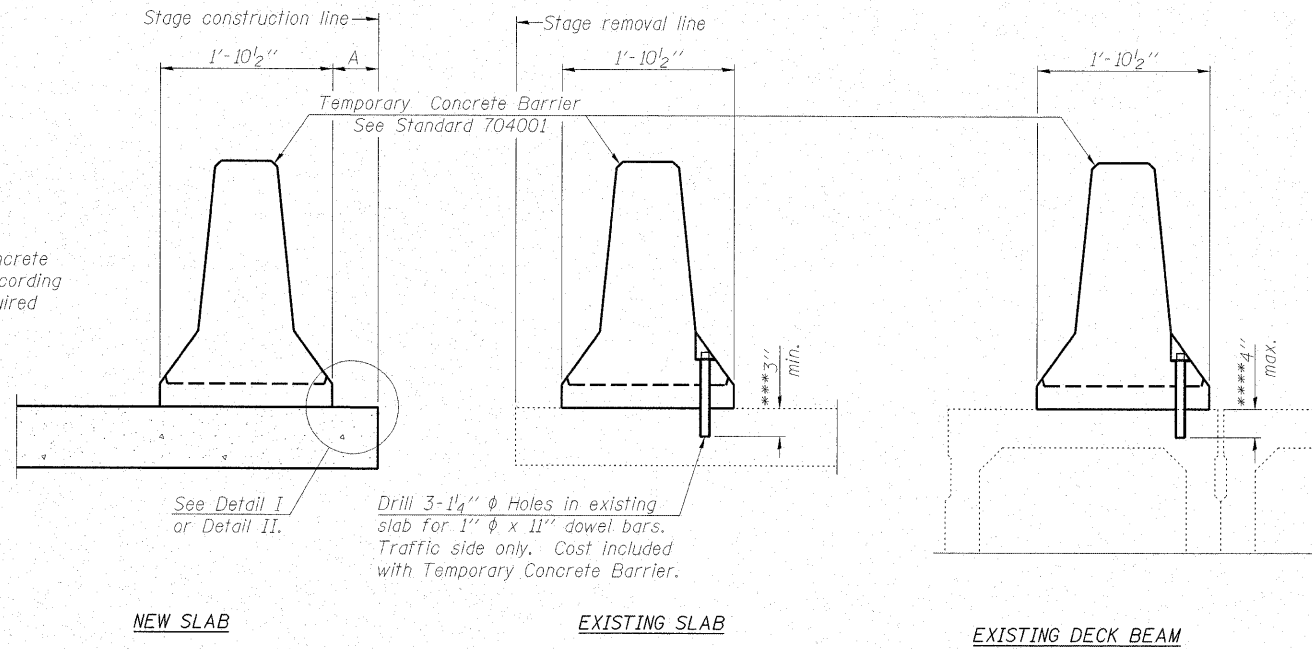
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	561	31-1BR-2	LEE	92	56
20 SHEETS			STRUCTURE NO. 052-0079 CONTRACT NO. 64B05		
FED. ROAD DIST. NO. _			ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

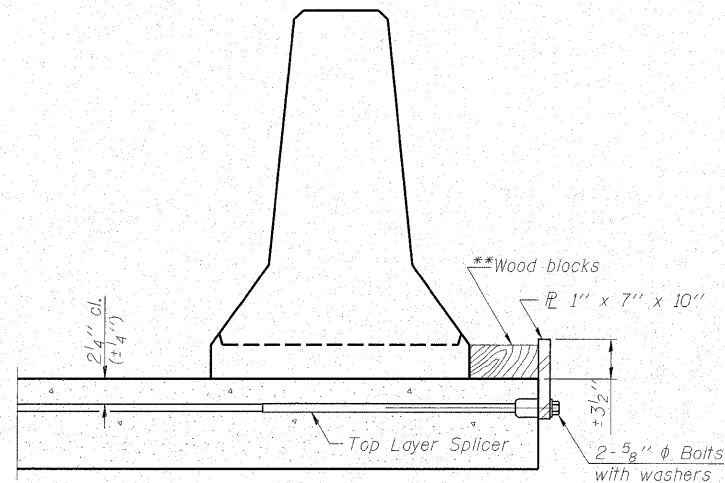
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

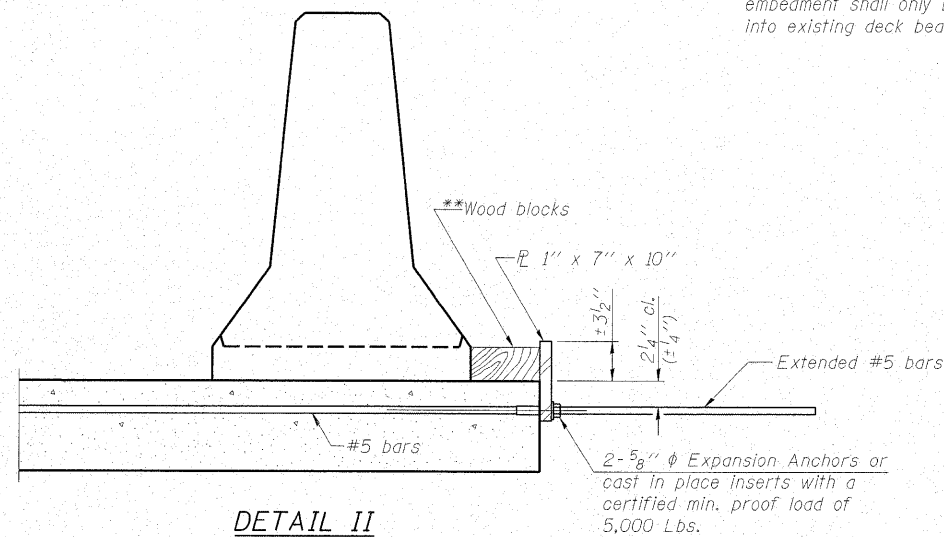
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

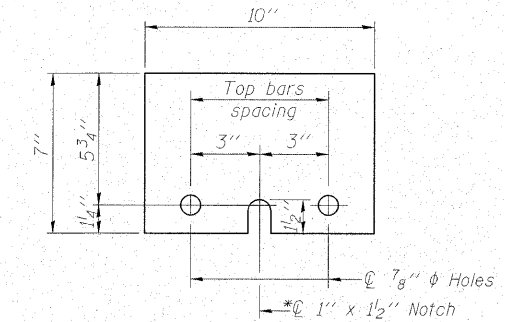
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

* Required only with Detail II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.



DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

R-27

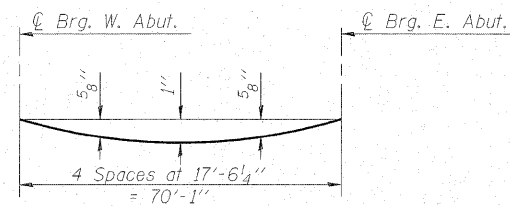
10-1-08

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION

IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO. 4 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-2	LEE	92	57
STRUCTURE NO. 052-0079		CONTRACT NO. 64B05			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

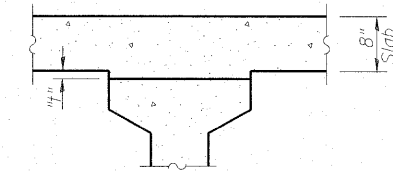


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

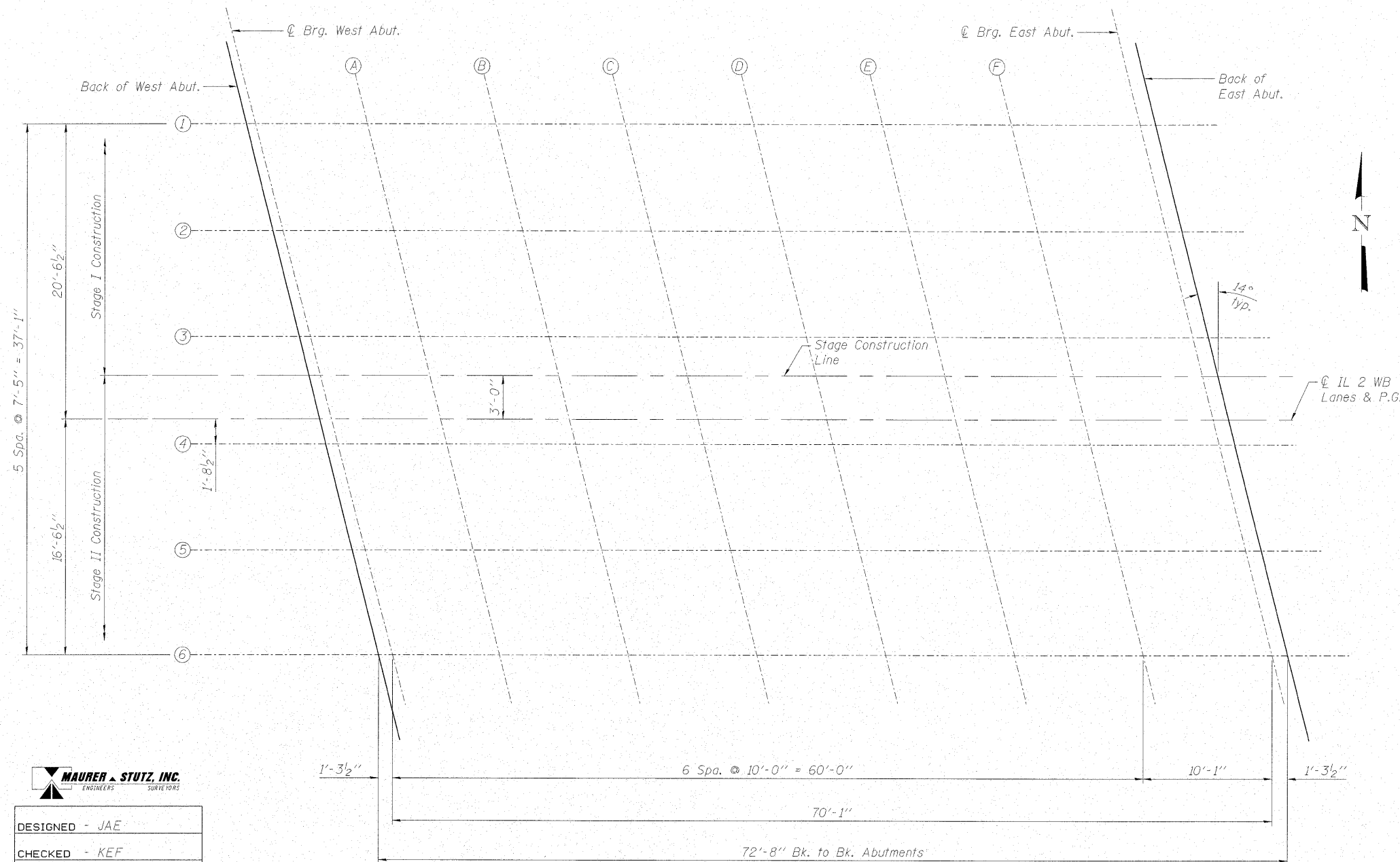
Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on sheet 6 of 20.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below and on sheet 6 of 20, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



PLAN

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+74.55	-20.54	667.10	667.10
CL Brg. W. Abut.	114+75.84	-20.54	667.11	667.11
A	114+85.84	-20.54	667.16	667.19
B	114+95.84	-20.54	667.21	667.27
C	115+05.84	-20.54	667.26	667.34
D	115+15.84	-20.54	667.32	667.39
E	115+25.84	-20.54	667.38	667.44
F	115+35.84	-20.54	667.44	667.47
CL Brg. E. Abut.	115+45.92	-20.54	667.50	667.50
Back of East Abut.	115+47.21	-20.54	667.51	667.51

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+76.40	-13.13	667.26	667.26
CL Brg. W. Abut.	114+77.69	-13.13	667.27	667.27
A	114+87.69	-13.13	667.32	667.35
B	114+97.69	-13.13	667.37	667.43
C	115+07.69	-13.13	667.43	667.50
D	115+17.69	-13.13	667.48	667.56
E	115+27.69	-13.13	667.54	667.60
F	115+37.69	-13.13	667.60	667.64
CL Brg. E. Abut.	115+47.77	-13.13	667.66	667.66
Back of East Abut.	115+49.06	-13.13	667.67	667.67

TOP OF SLAB ELEVATIONS
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	561	31-1BR-2	LEE	92	58
20 SHEETS		STRUCTURE NO. 052-0079		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+78.25	-5.71	667.39	667.39
CL Brg. W. Abut.	114+79.54	-5.71	667.40	667.40
A	114+89.54	-5.71	667.45	667.49
B	114+99.54	-5.71	667.50	667.57
C	115+09.54	-5.71	667.56	667.64
D	115+19.54	-5.71	667.62	667.69
E	115+29.54	-5.71	667.67	667.74
F	115+39.54	-5.71	667.73	667.77
CL Brg. E. Abut.	115+49.62	-5.71	667.80	667.80
Back of East Abut.	115+50.91	-5.71	667.81	667.81

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+78.92	-3.00	667.44	667.44
CL Brg. W. Abut.	114+80.21	-3.00	667.45	667.45
A	114+90.21	-3.00	667.50	667.53
B	115+00.21	-3.00	667.55	667.61
C	115+10.21	-3.00	667.60	667.68
D	115+20.21	-3.00	667.66	667.74
E	115+30.21	-3.00	667.72	667.78
F	115+40.21	-3.00	667.78	667.82
CL Brg. E. Abut.	115+50.29	-3.00	667.84	667.84
Back of East Abut.	115+51.58	-3.00	667.85	667.85

IL 2 WB LANES & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+79.67	0.00	667.49	667.49
CL Brg. W. Abut.	114+80.96	0.00	667.50	667.50
A	114+90.96	0.00	667.55	667.58
B	115+00.96	0.00	667.60	667.66
C	115+10.96	0.00	667.66	667.73
D	115+20.96	0.00	667.71	667.79
E	115+30.96	0.00	667.77	667.83
F	115+40.96	0.00	667.83	667.87
CL Brg. E. Abut.	115+51.04	0.00	667.90	667.90
Back of East Abut.	115+52.33	0.00	667.90	667.90

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+80.10	1.71	667.46	667.46
CL Brg. W. Abut.	114+81.38	1.71	667.47	667.47
A	114+91.38	1.71	667.52	667.56
B	115+01.38	1.71	667.58	667.64
C	115+11.38	1.71	667.63	667.71
D	115+21.38	1.71	667.69	667.76
E	115+31.38	1.71	667.75	667.81
F	115+41.38	1.71	667.81	667.84
CL Brg. E. Abut.	115+51.47	1.71	667.87	667.87
Back of East Abut.	115+52.76	1.71	667.88	667.88

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+81.95	9.13	667.36	667.36
CL Brg. W. Abut.	114+83.23	9.13	667.36	667.36
A	114+93.23	9.13	667.42	667.45
B	115+03.23	9.13	667.47	667.53
C	115+13.23	9.13	667.53	667.60
D	115+23.23	9.13	667.58	667.66
E	115+33.23	9.13	667.64	667.70
F	115+43.23	9.13	667.70	667.74
CL Brg. E. Abut.	115+53.32	9.13	667.77	667.77
Back of East Abut.	115+54.61	9.13	667.77	667.77

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	114+83.79	16.54	667.23	667.23
CL Brg. W. Abut.	114+85.08	16.54	667.24	667.24
A	114+95.08	16.54	667.29	667.32
B	115+05.08	16.54	667.34	667.40
C	115+15.08	16.54	667.40	667.47
D	115+25.08	16.54	667.45	667.53
E	115+35.08	16.54	667.51	667.58
F	115+45.08	16.54	667.58	667.61
CL Brg. E. Abut.	115+55.17	16.54	667.64	667.64
Back of East Abut.	115+56.45	16.54	667.65	667.65



DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

TOP OF SLAB ELEVATIONS
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO. 6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-2	LEE	92	59
20 SHEETS		STRUCTURE NO. 052-0079		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	114+44.08	-22.42	666.92
G	114+54.08	-22.42	666.96
H	114+64.08	-22.42	667.01
Back of West Abut.	114+74.08	-22.42	667.06

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	114+46.68	-12.00	667.15
G	114+56.68	-12.00	667.19
H	114+66.68	-12.00	667.24
Back of West Abut.	114+76.68	-12.00	667.29

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	114+48.92	-3.00	667.30
G	114+58.92	-3.00	667.34
H	114+68.92	-3.00	667.39
Back of West Abut.	114+78.92	-3.00	667.44

IL 2 WB LANES & P.G.

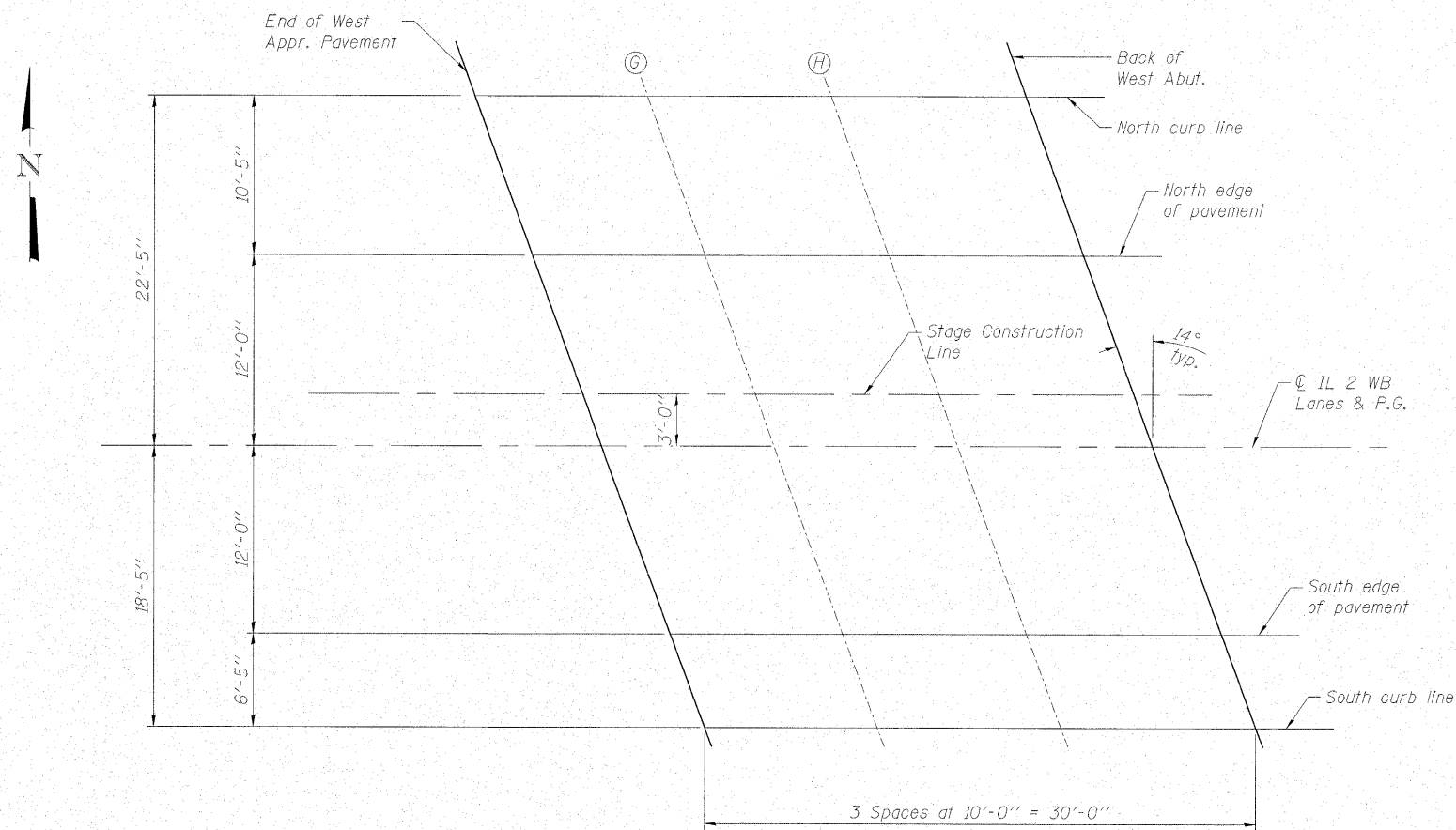
Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	114+49.67	0.00	667.35
G	114+59.67	0.00	667.39
H	114+69.67	0.00	667.44
Back of West Abut.	114+79.67	0.00	667.49

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	114+52.66	12.00	667.17
G	114+62.66	12.00	667.22
H	114+72.66	-12.00	667.27
Back of West Abut.	114+82.66	12.00	667.32

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of West Appr. Pavt.	114+54.26	18.42	667.05
G	114+64.26	18.42	667.09
H	114+74.26	18.42	667.14
Back of West Abut.	114+84.26	18.42	667.19



DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

TOP OF WEST APPROACH ELEVATIONS
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO. 7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
20 SHEETS	561	31-1BR-2	LEE	92	60
STRUCTURE NO. 052-0079			CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	115+46.74	-22.42	667.46
I	115+56.74	-22.42	667.53
J	115+66.74	-22.42	667.59
End of East Appr. Pavt.	115+76.74	-22.42	667.66

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	115+49.34	-12.00	667.70
I	115+59.34	-12.00	667.76
J	115+69.34	-12.00	667.83
End of East Appr. Pavt.	115+79.34	-12.00	667.89

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	115+51.58	-3.00	667.85
I	115+61.58	-3.00	667.92
J	115+71.58	-3.00	667.98
End of East Appr. Pavt.	115+81.58	-3.00	668.05

IL 2 WB LANES & P.G.

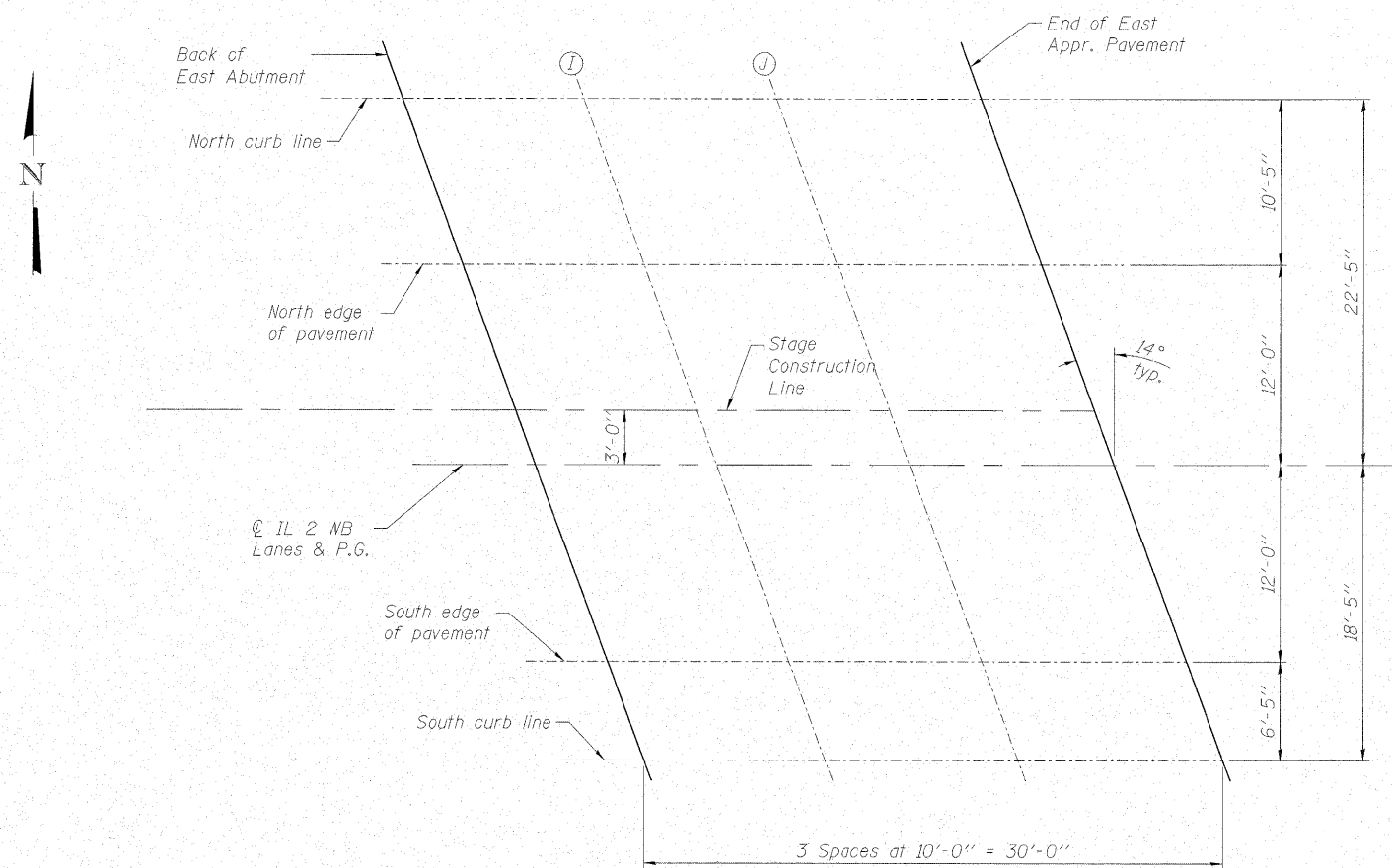
Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	115+52.33	0.00	667.90
I	115+62.33	0.00	667.97
J	115+72.33	0.00	668.03
End of East Appr. Pavt.	115+82.33	0.00	668.10

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	115+55.32	12.00	667.73
I	115+65.32	12.00	667.80
J	115+75.32	12.00	667.86
End of East Appr. Pavt.	115+85.32	12.00	667.93

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of East Abut.	115+56.92	18.42	667.61
I	115+66.92	18.42	667.68
J	115+76.92	18.42	667.74
End of East Appr. Pavt.	115+86.92	18.42	667.81



TOP OF EAST APPROACH ELEVATIONS
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

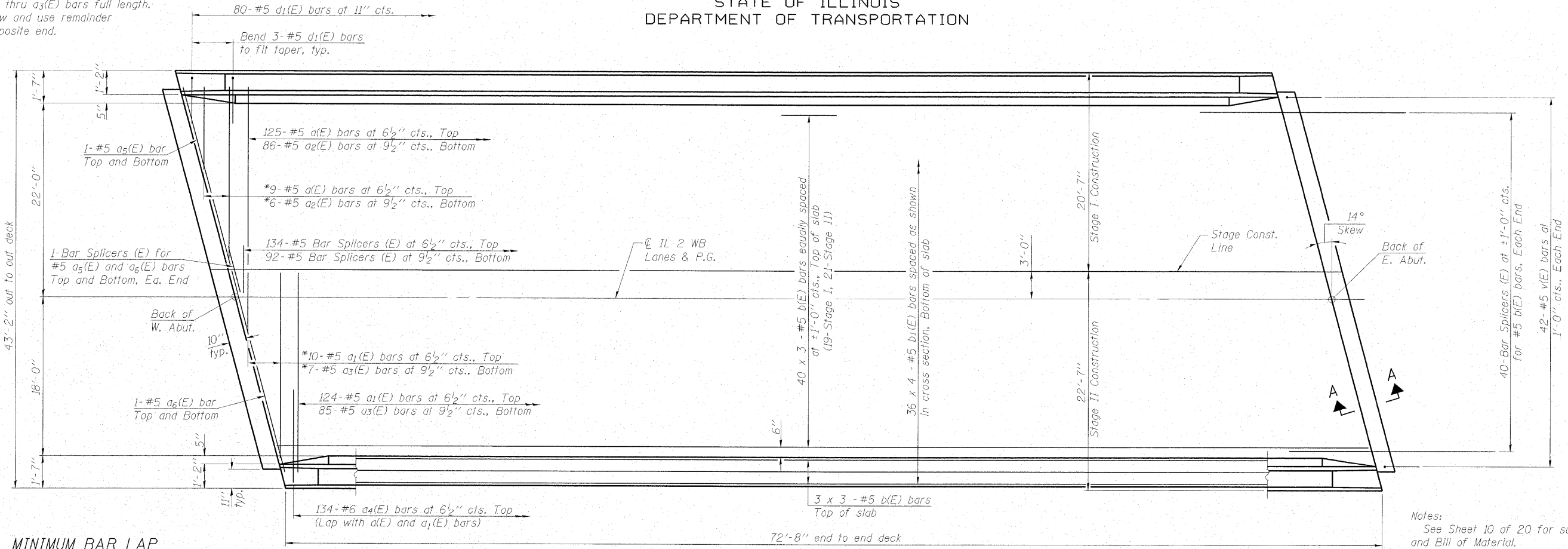
SHEET NO. 8	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
20 SHEETS	561	31-1BR-2	LEE	92	61
STRUCTURE NO. 052-0079			CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



DESIGNED - JAE
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DRAWN - SGM
CHECKED - RJA/KEF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

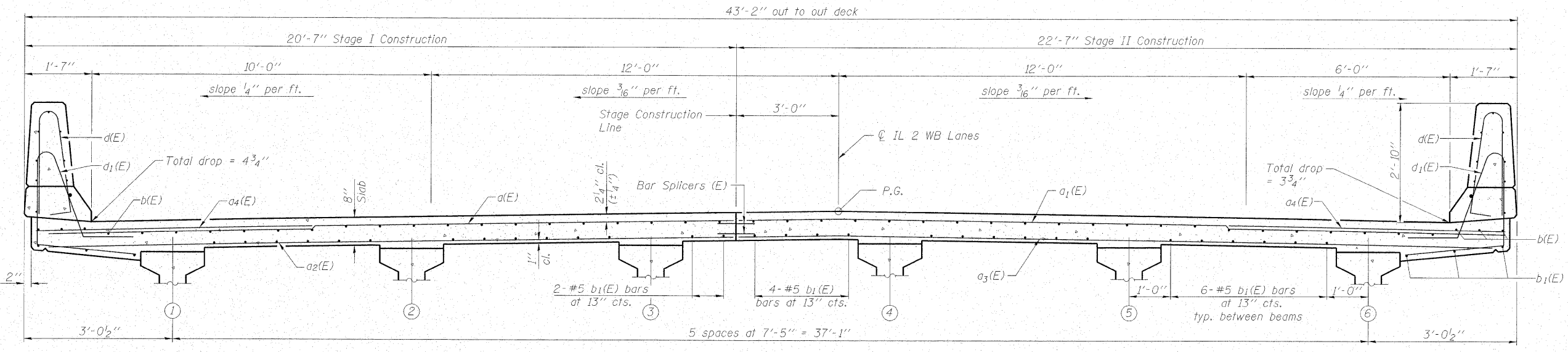
*Order a(E) thru a3(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



MINIMUM BAR LAP
#5 bar = 1'-8"

PLAN

Notes:
See Sheet 10 of 20 for superstructure details
and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See Sheet 10 of 20 for parapet reinforcement.
See Sheet 11 of 20 for Section A-A.



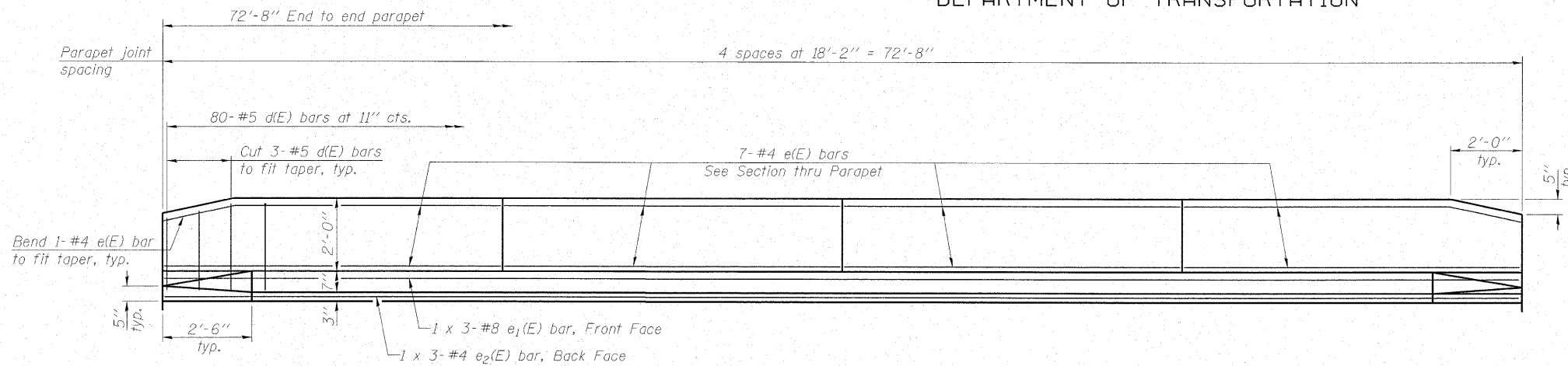
CROSS SECTION
(Looking East)

SUPERSTRUCTURE
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SHEET NO. 9 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-2	LEE	92	62
STRUCTURE NO. 052-0079			CONTRACT NO. 64B05		
FED. ROAD DIST. NO. _			ILLINOIS FED. AID PROJECT		

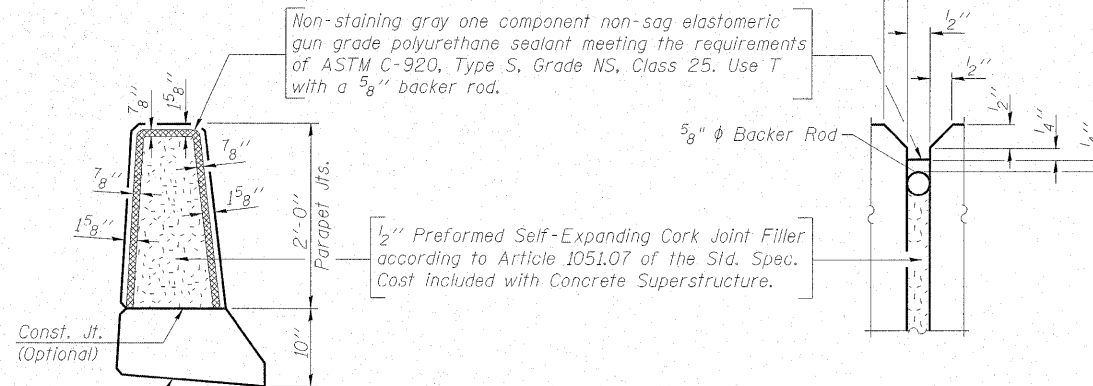
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



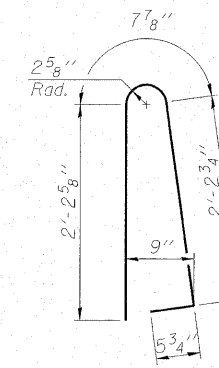
INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

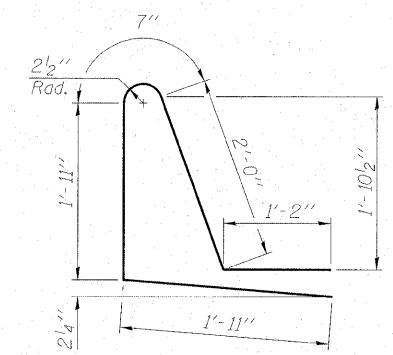
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



PARAPET JOINT DETAILS



BAR d(E)

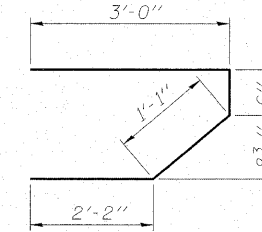


BAR d₁(E)

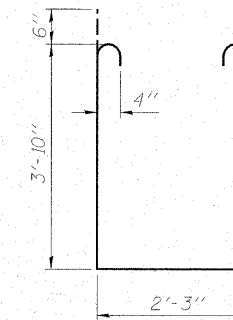
SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	134	#5	20'-1"	—
a ₁ (E)	134	#5	22'-1"	—
a ₂ (E)	92	#5	19'-6"	—
a ₃ (E)	92	#5	21'-6"	—
a ₄ (E)	268	#6	6'-0"	—
a ₅ (E)	4	#5	20'-9"	—
a ₆ (E)	4	#5	22'-9"	—
b(E)	138	#5	25'-3"	—
b ₁ (E)	144	#5	19'-5"	—
d(E)	160	#5	5'-7"	U
d ₁ (E)	160	#5	7'-7"	U
e(E)	56	#4	17'-10"	—
e ₁ (E)	6	#8	26'-5"	—
e ₂ (E)	6	#4	25'-1"	—
m(E)	4	#6	19'-11"	—
m ₁ (E)	4	#6	22'-0"	—
m ₂ (E)	6	#6	20'-10"	—
m ₃ (E)	6	#6	22'-11"	—
m ₄ (E)	24	#6	9'-6"	—
m ₅ (E)	8	#6	5'-5"	—
m ₆ (E)	4	#6	1'-10"	—
m ₇ (E)	2	#6	1'-6"	—
m ₈ (E)	2	#6	3'-7"	—
s(E)	92	#5	6'-9"	∩
s ₁ (E)	72	#4	10'-11"	U
v(E)	84	#5	3'-4"	Γ
Reinforcement Bars, Epoxy Coated		Pound	24910	
Concrete Superstructure		Cu. Yds.	130.3	

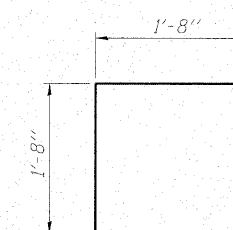
Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.



BAR s(E)



BAR s₁(E)



BAR v(E)

SUPERSTRUCTURE DETAILS

IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

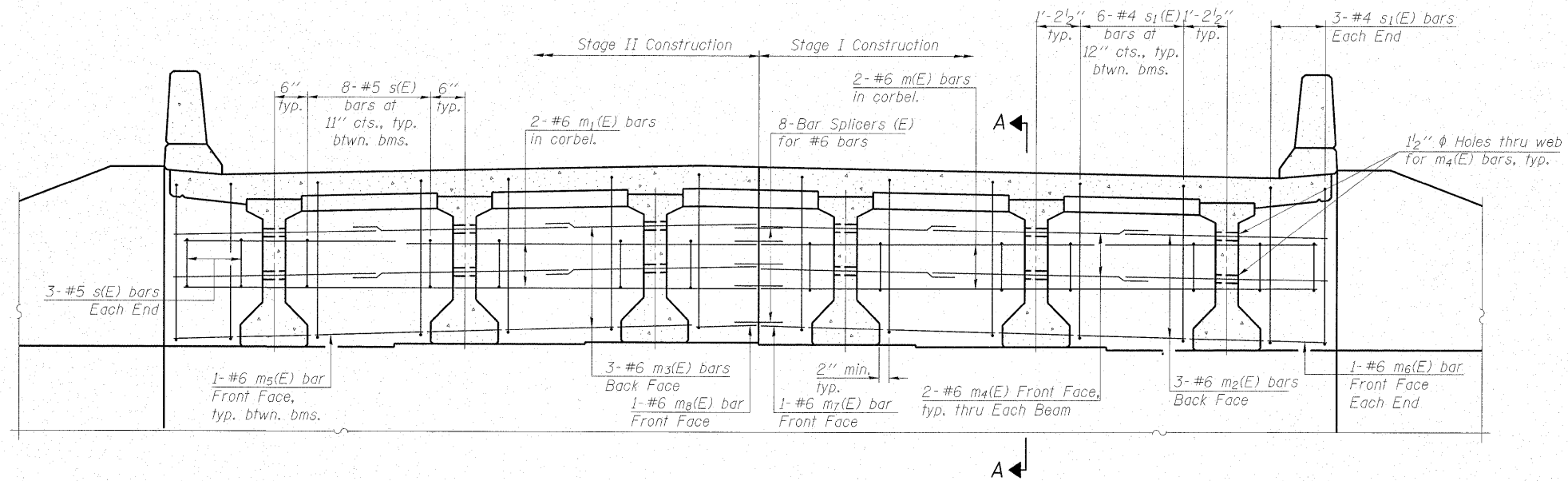
SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	561	31-1BR-2	LEE	92	63
20 SHEETS	STRUCTURE NO. 052-0079		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

SECTION THRU PARAPET

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



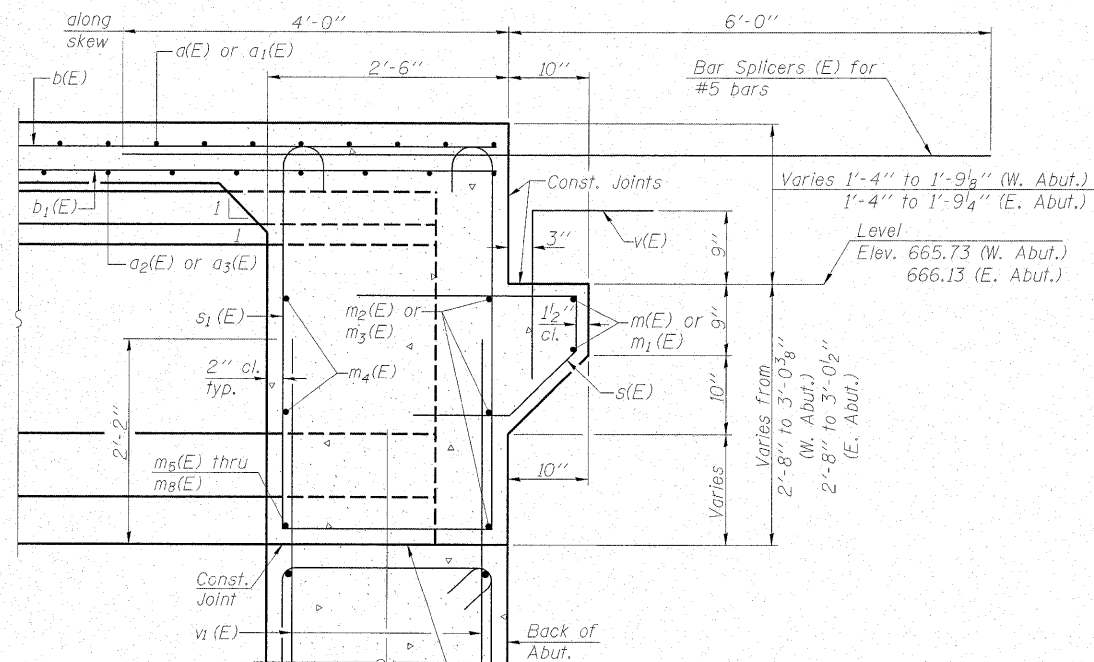
DIAPHRAGM ELEVATION AT ABUTMENT

West Abut. shown, East Abut. opposite

MIN. BAR LAP

#6 bar = 2'-9"

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 20.
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 20.
For details of bars s(E) and s₁(E) see sheet 10 of 20.
The s(E) and s₁(E) bars shall be placed parallel to the beams.
Spacing for these bars shall be at right angles to the beams.



Beam ends shall be set on an initial 1/2" min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

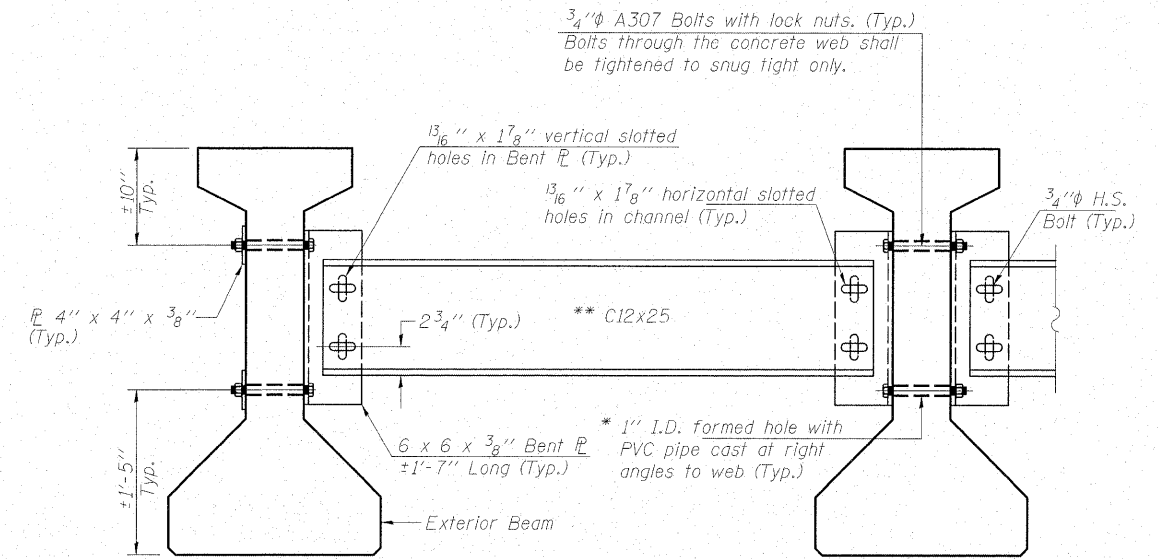
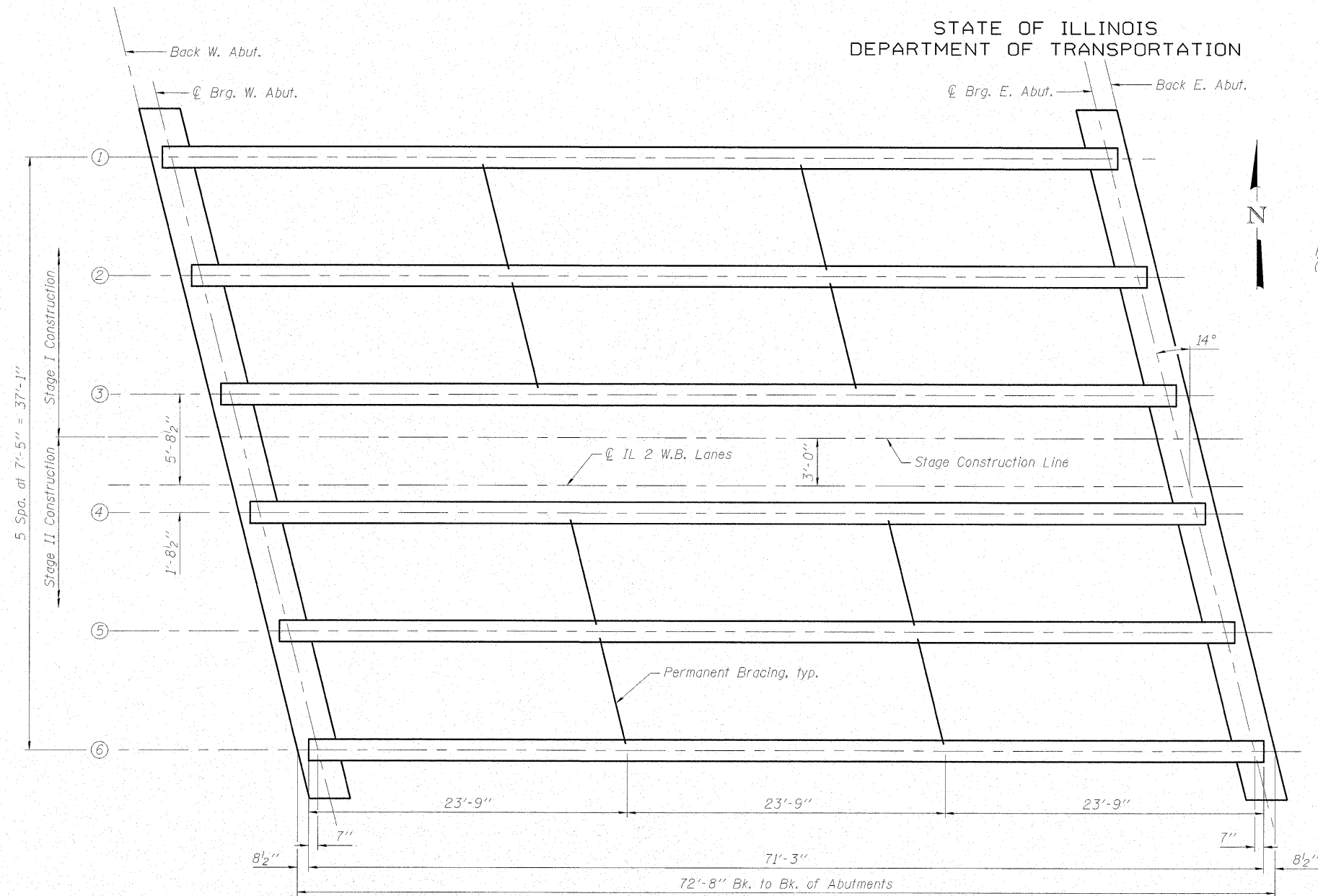


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DIAPHRAGM DETAILS
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO. 11 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-2	LEE	92	64
STRUCTURE NO. 052-0079		CONTRACT NO. 64B05			
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NOTES:
 All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
 Two hardened washers are required for each set of oversized holes.
 All holes shall be 1/16" unless otherwise noted.
 5/16" x 3" x 3" plate washers are required over all slotted holes.
 All bolts shall be galvanized according to AASHTO M232.
 Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
 Cost of Permanent Bracing is included with Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42".

* Fabricator shall locate to miss strands within permissible tolerances.
 ** Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on lighter section. The alternate, if utilized, shall be provided at no extra cost to the Department.

PERMANENT BRACING DETAILS FOR
42" PPC I-BEAMS

FRAMING PLAN

INTERIOR BEAM MOMENT TABLE		
0.5 Sp. 1		
I	(in ⁴)	90956
I'	(in ⁴)	288183
S _b	(in ³)	5153
S _b '	(in ³)	8886
S _t	(in ³)	3736
S _t '	(in ³)	30113
DC1	(k/ft)	1.248
M _{DC1}	(k)	766.4
DC2	(k/ft)	0.150
M _{DC2}	(k)	92.1
DW	(k/ft)	0.333
M _{DW}	(k)	204.5
M _{L + IM}	(k)	1155.1

I: Non-composite moment of inertia of beam section (in.⁴).
 I': Composite moment of inertia of beam section (in.⁴).
 S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
 S_b': Composite section modulus for the bottom fiber of the prestressed beam (in.³).
 S_t: Non-composite section modulus for the top fiber of the prestressed beam (in.³).
 S_t': Composite section modulus for the top fiber of the prestressed beam (in.³).
 DC1: Un-factored non-composite dead load (kips/ft.).
 M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
 DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
 M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
 DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
 M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
 M_{L + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

INTERIOR BEAM REACTION TABLE		
		Abut.
R _{DC1}	(k)	43.7
R _{DC2}	(k)	5.3
R _{DW}	(k)	11.7
R _{L + IM}	(k)	85.6
R _{Total}	(k)	146.3

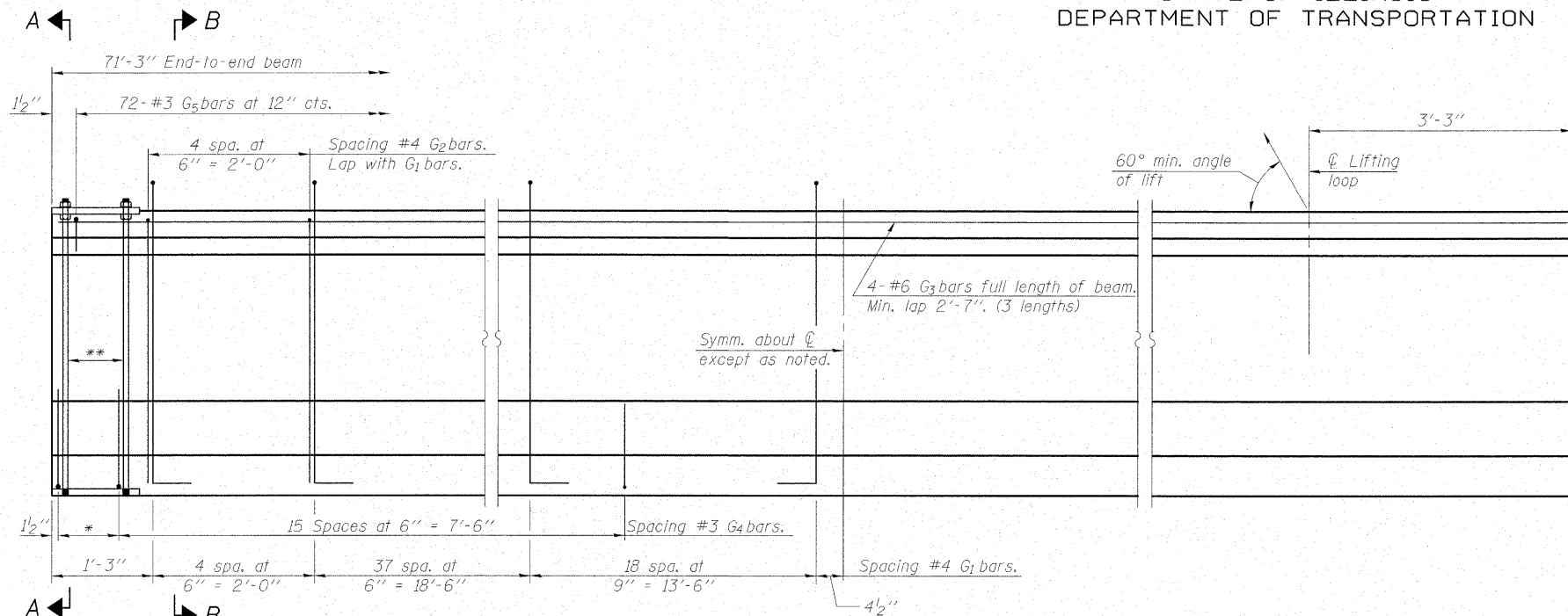
FRAMING PLAN
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	561	31-1BR-2	LEE	92	65
20 SHEETS		STRUCTURE NO. 052-0079		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



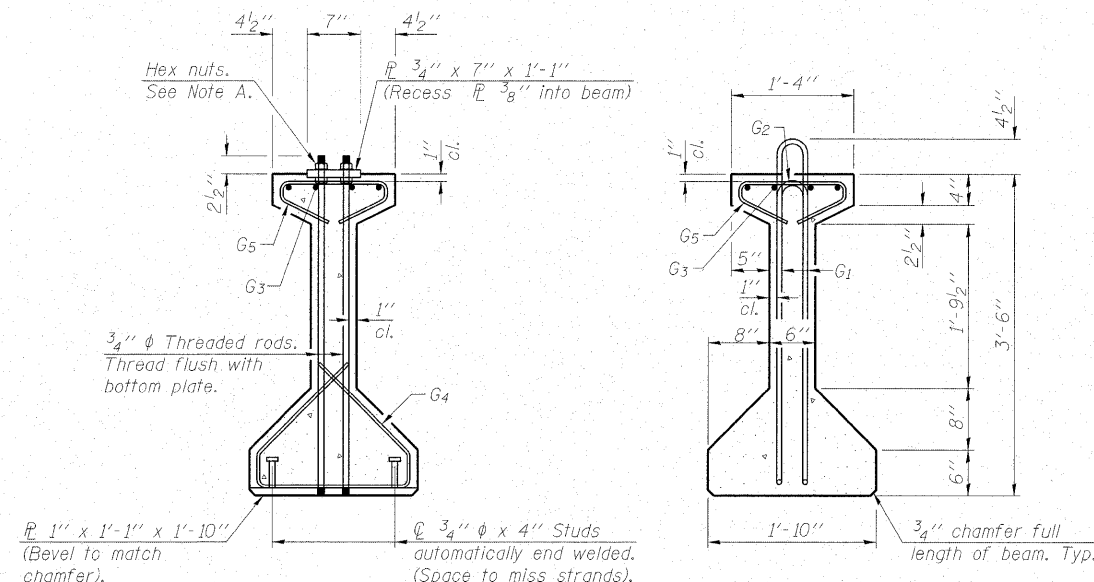
DESIGNED - JAE
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DRAWN - SGM
CHECKED - RJA/KEF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



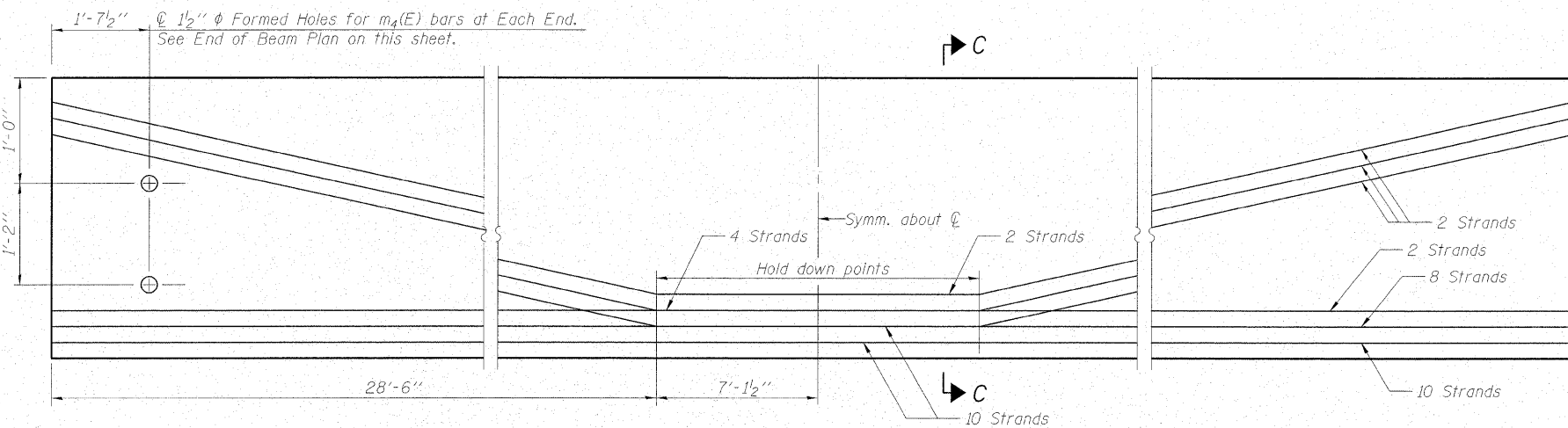
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

Note A:
Hex nuts (top and bottom)
with lock washers (top).
Only tighten sufficiently
to compress lock washers.

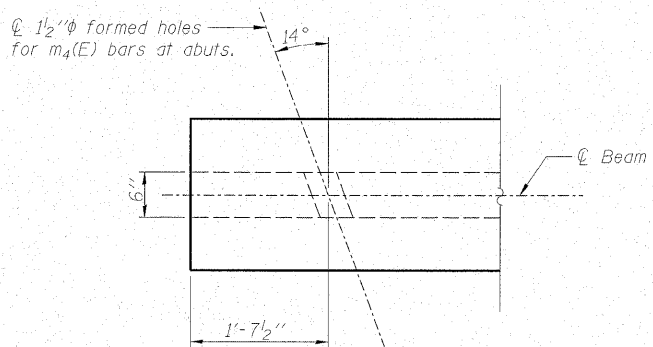


SECTION A-A

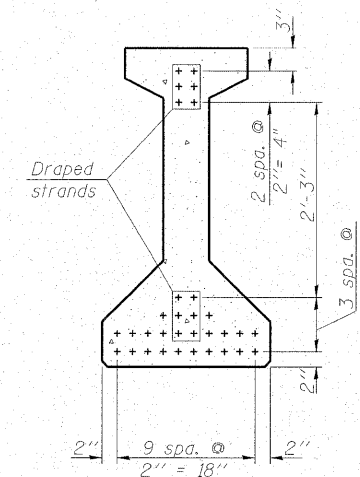
SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



END OF BEAM PLAN



SECTION C-C

*****BAR LIST
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G ₁	120	#4	8'-5"	∩L
G ₂	10	#4	6'-8"	∩
G ₃	12	#6	25'-5"	—
G ₄	38	#3	4'-11"	∩
G ₅	72	#3	2'-6"	∩

***For information only

Notes:
See sheet 14 of 20 for additional details
and Bill of Material.

Required release strength, f'cl, shall
be 6000 psi.

MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

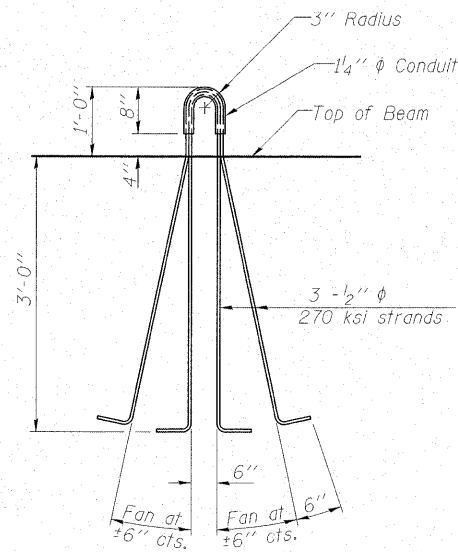
42" PPC I-BEAM
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO. 13 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-2	LEE	92	66
	STRUCTURE NO. 052-0079		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

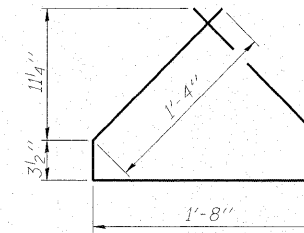
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES

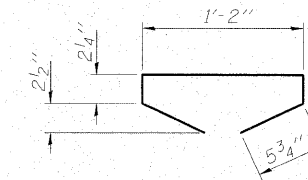
Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Threaded rods shall be ASTM F 1554 Grade 55.



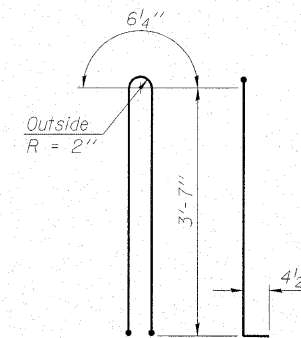
LIFTING LOOP DETAIL



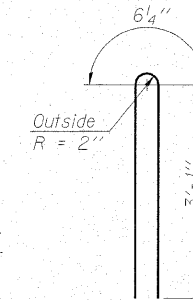
BAR G4



BAR G5



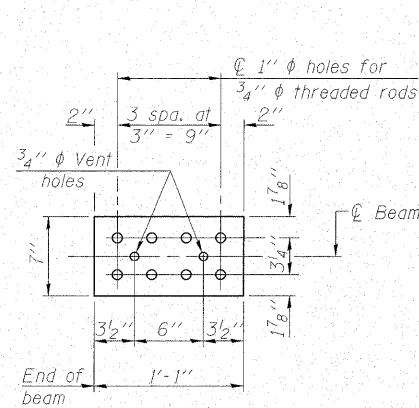
BAR G1



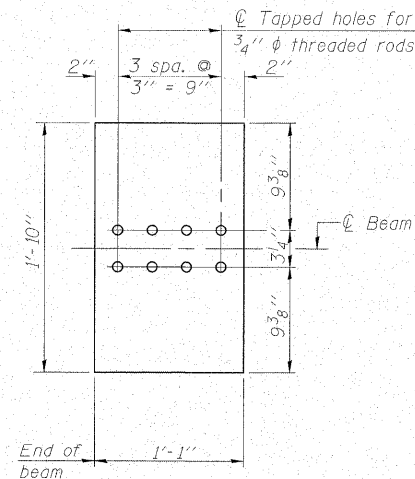
BAR G2

BILL-OF MATERIAL

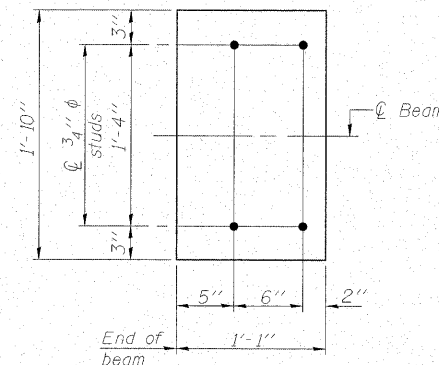
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	427.5



TOP PLATE



BOTTOM PLATE
(Showing threaded rods)



BOTTOM PLATE
(Showing studs)



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DRAWN - SGM
CHECKED - RJA/KEF

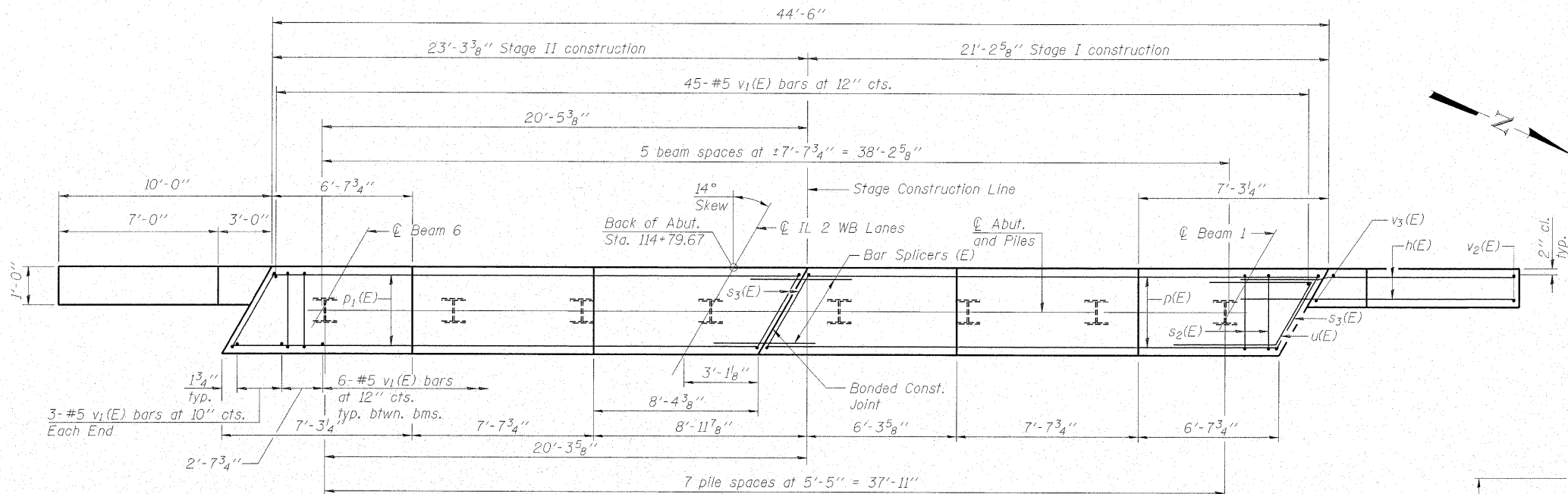
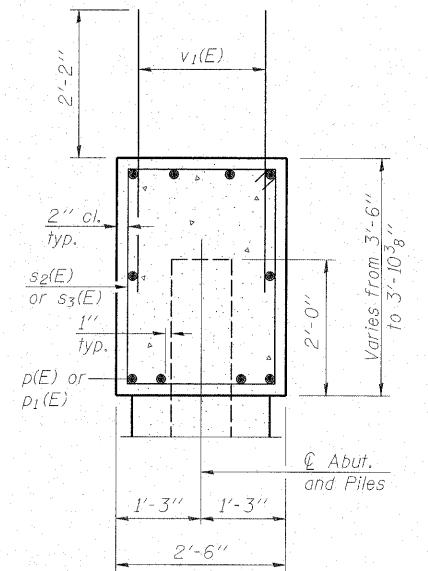
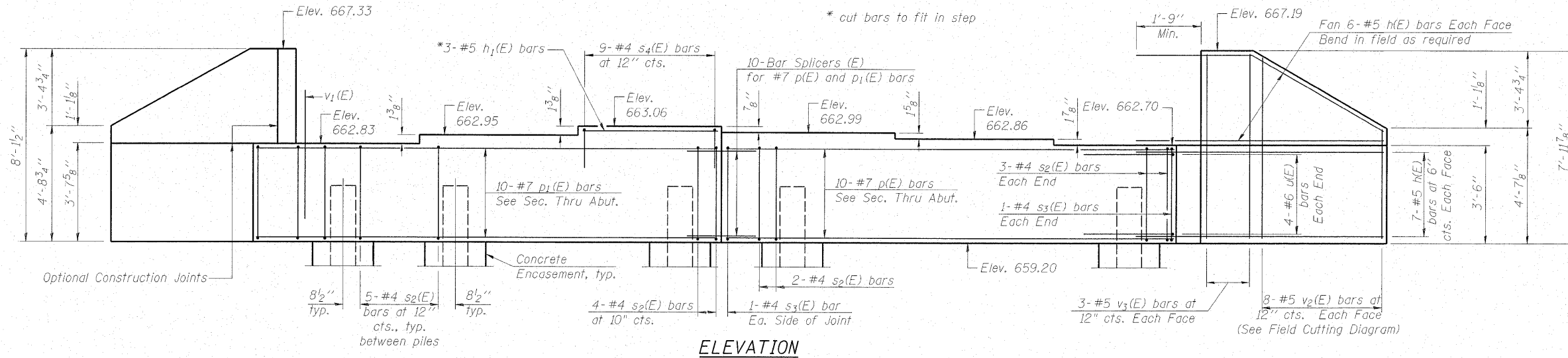
42" PPC I-BEAM DETAILS

IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

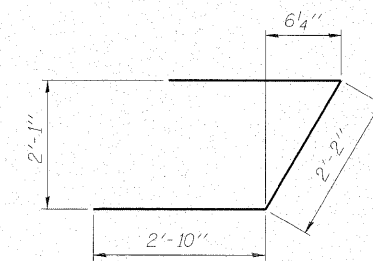
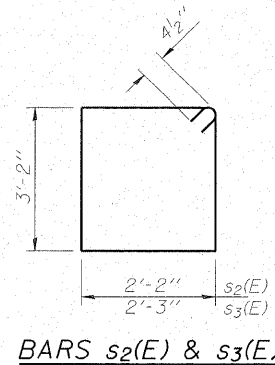
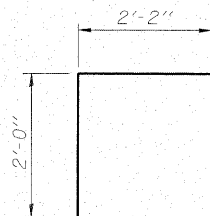
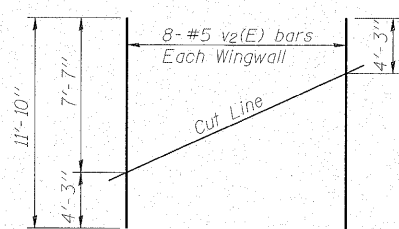
SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	561	31-1BR-2	LEE	92	67
20 SHEETS		STRUCTURE NO. 052-0079		CONTRACT NO. 64B05	
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes: Four steps monolithically with cap.



PILE DATA
Type: Steel HP12x53 w/ pile shoes
Nominal Required Bearing: 352 kips
Factored Resistance Available: 176 kips
Est. Length: 61 feet
No. Production Piles: 7
No. Test Piles: 1



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	52	#5	12'-5"	—
h ₁ (E)	3	#5	8'-8"	—
p(E)	10	#7	20'-11"	—
p ₁ (E)	10	#7	22'-11"	—
s ₂ (E)	42	#4	11'-5"	□
s ₃ (E)	4	#4	11'-7"	□
s ₄ (E)	9	#4	6'-2"	□
u(E)	8	#6	7'-10"	┘
v ₁ (E)	81	#5	4'-4"	—
v ₂ (E)	16	#5	11'-10"	—
v ₃ (E)	12	#5	7'-8"	—
Structure Excavation	Cu. Yd.		157	
Concrete Structures	Cu. Yd.		20.3	
Concrete Encasement	Cu. Yd.		2.8	
Reinforcement Bars, Epoxy Coated	Pound		2740	
Furnishing Steel Piles, HP12x53	Foot		427	
Driving Piles	Foot		427	
Test Pile, Steel, HP12x53	Each		1	
Pile Shoes	Each		8	

For details of Bar Splicers, see sheet 18 of 20.
For details of piles and Concrete Encasement, see sheet 17 of 20.

WEST ABUTMENT
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

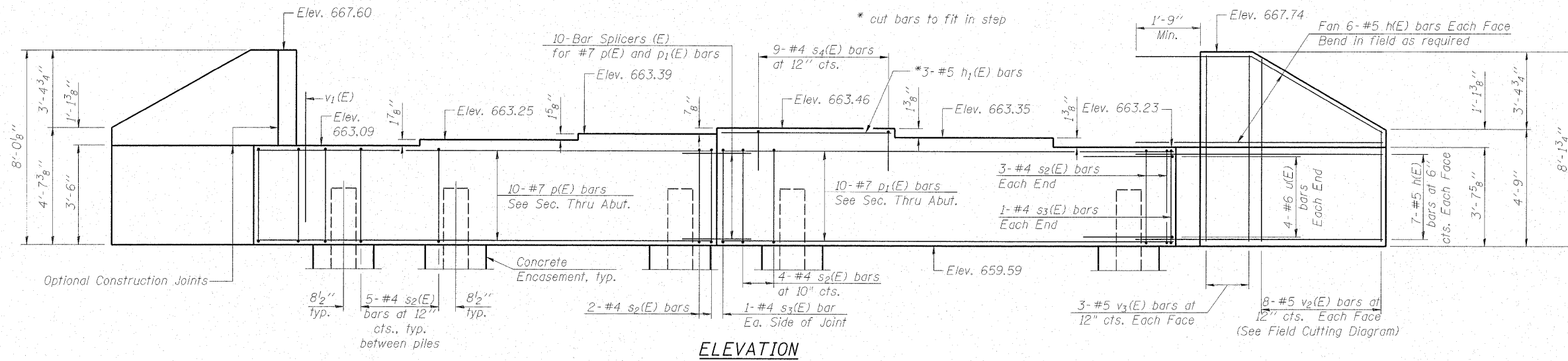


DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

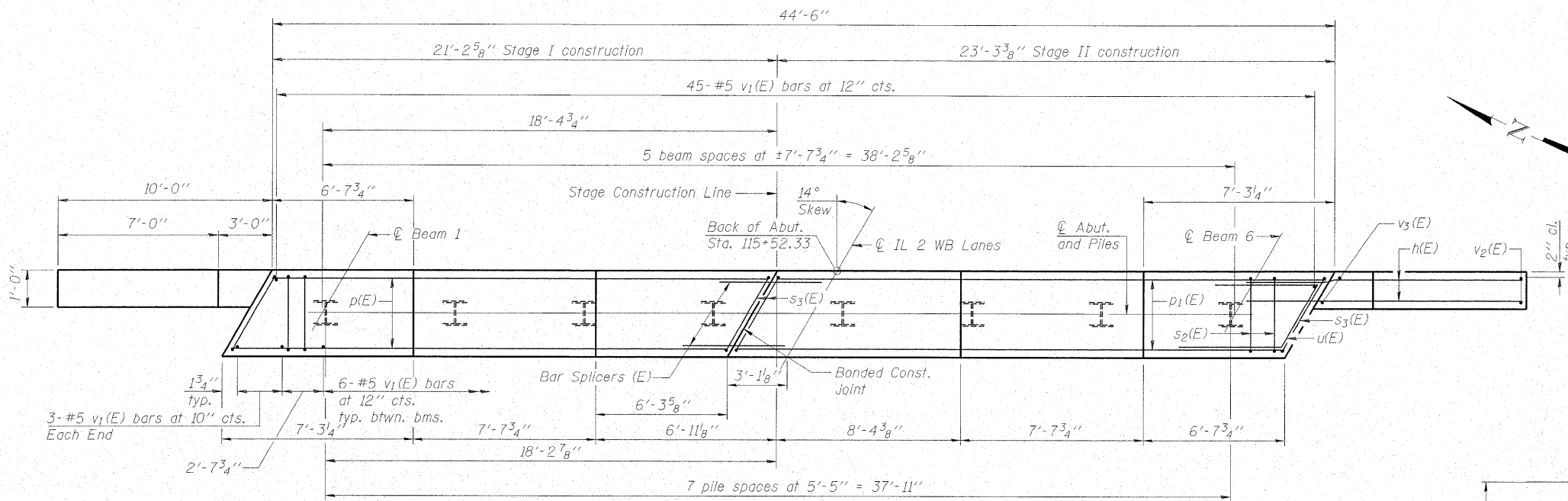
SHEET NO. 15	F.A.P. RTE. 561	SECTION 31-1BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 68
20 SHEETS	STRUCTURE NO. 052-0079		CONTRACT NO. 64B05		
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes: Four steps monolithically with cap.



ELEVATION



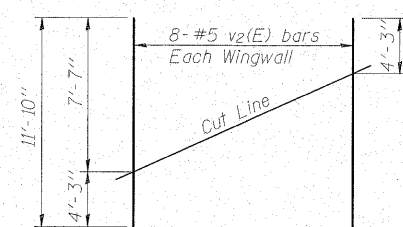
PLAN

PILE DATA

Type: Steel HP12x53 w/ pile shoes
Nominal Required Bearing: 352 kips
Factored Resistance Available: 176 kips
Est. Length: 62 feet
No. Production Piles: 7
No. Test Piles: 1

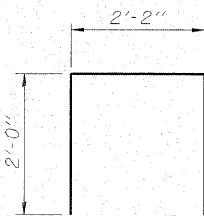


DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

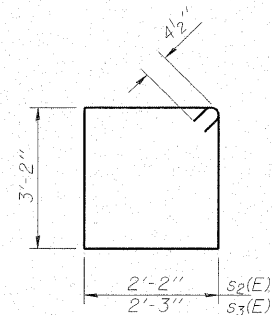


FIELD CUTTING DIAGRAM

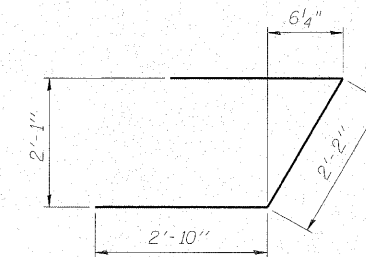
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



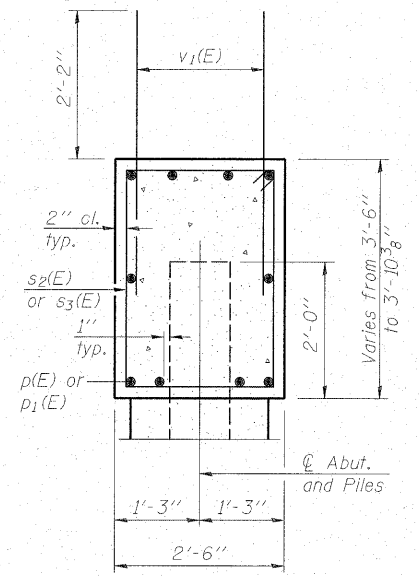
BAR s4(E)



BARS s2(E) & s3(E)



BAR u(E)



SEC. THRU ABUT.

BILL OF MATERIAL

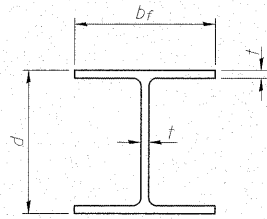
Bar	No.	Size	Length	Shape
h(E)	52	#5	12'-5"	—
h1(E)	3	#5	8'-8"	—
p(E)	10	#7	20'-11"	—
p1(E)	10	#7	22'-11"	—
s2(E)	42	#4	11'-5"	□
s3(E)	4	#4	11'-7"	□
s4(E)	9	#4	6'-2"	□
u(E)	8	#6	7'-10"	∟
v1(E)	81	#5	4'-4"	—
v2(E)	16	#5	11'-10"	—
v3(E)	12	#5	7'-8"	—
Structure Excavation		Cu. Yd.	157	
Concrete Structures		Cu. Yd.	20.3	
Concrete Encasement		Cu. Yd.	2.8	
Reinforcement Bars, Epoxy Coated		Pound	2740	
Furnishing Steel Piles, HP12x53		Foot	434	
Driving Piles		Foot	434	
Test Pile, Steel HP12x53		Each	1	
Pile Shoes		Each	8	

For details of Bar Splicers, see sheet 18 of 20.
For details of piles and Concrete Encasement, see sheet 17 of 20.

EAST ABUTMENT
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

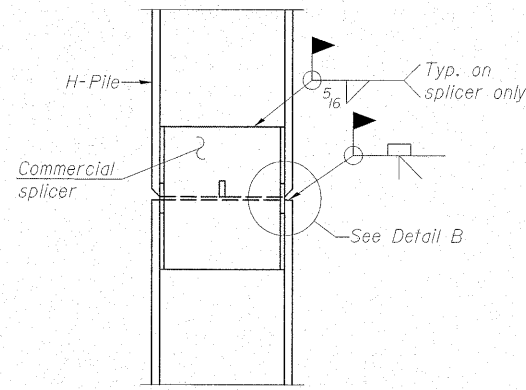
SHEET NO. 16 20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	561	31-1BR-2	LEE	92	69
STRUCTURE NO. 052-0079		CONTRACT NO. 64B05			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

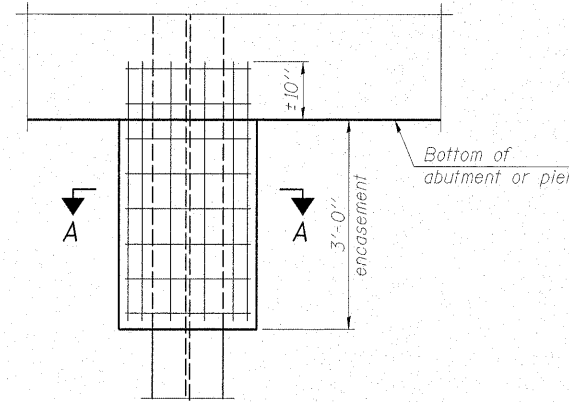


STEEL PILE TABLE

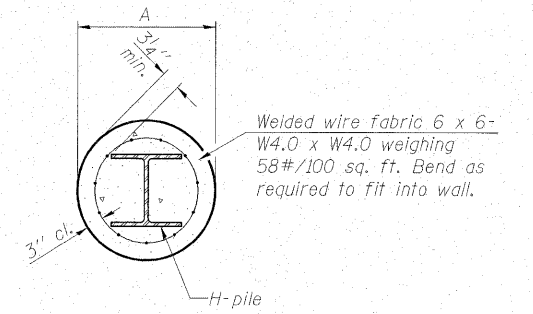
Designation	Depth <i>d</i>	Flange width <i>b_f</i>	Web and Flange thickness <i>t</i>	Encasement diameter <i>A</i>
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



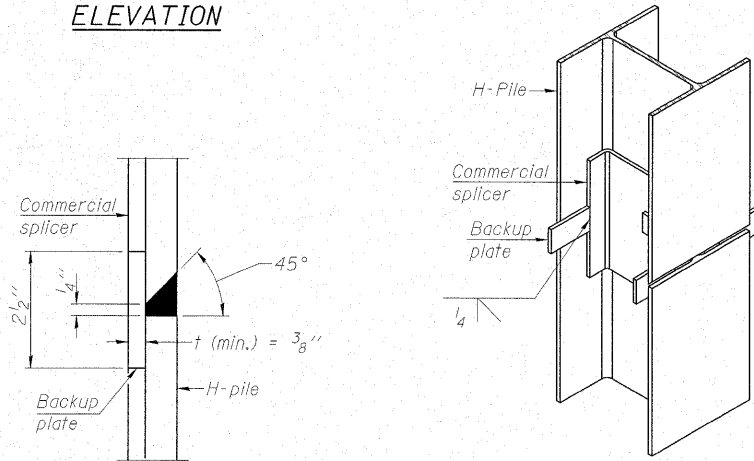
ELEVATION



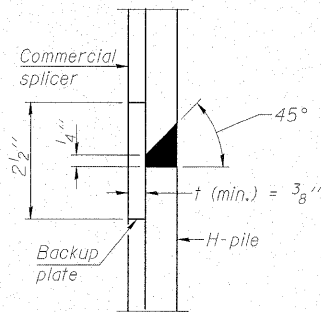
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

PILE ENCASEMENT

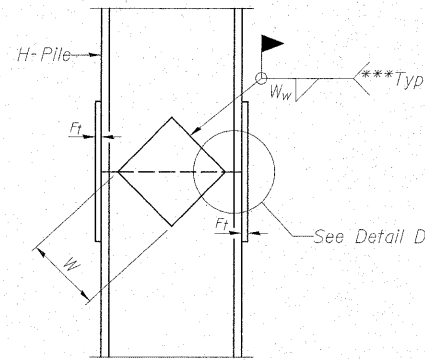


ISOMETRIC VIEW

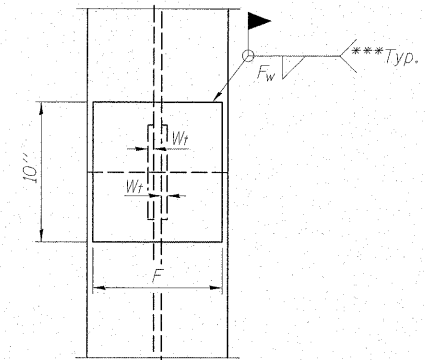


DETAIL "B"

WELDED COMMERCIAL SPLICE



ELEVATION



END VIEW

Designation	<i>F</i>	<i>F_t</i>	<i>F_w</i>	<i>W</i>	<i>W_t</i>	<i>W_w</i>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 1/2"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

HP PILE DETAILS

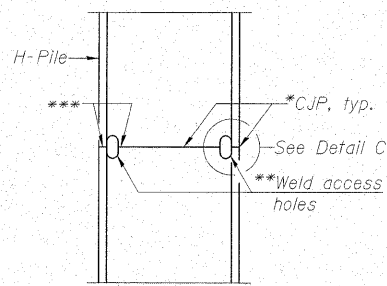
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO. 17	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
20 SHEETS	561	31-1BR-2	LEE	92	70
		STRUCTURE NO. 052-0079		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

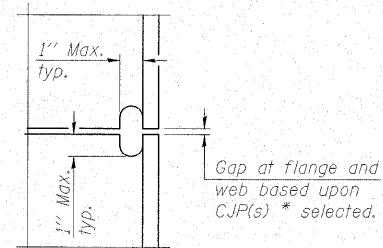
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

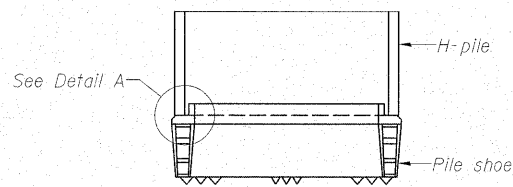
COMPLETE PENETRATION WELD SPLICE



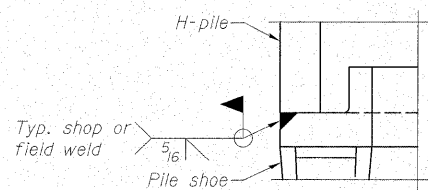
ELEVATION



DETAIL C



ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

F-HP 10-1-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

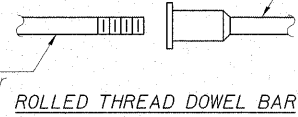
NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

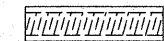
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

The diameter of this part is equal or larger than the diameter of bar spliced.

The diameter of this part is the same as the diameter of the bar spliced.

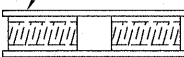


ROLLED THREAD DOWEL BAR



** ONE PIECE

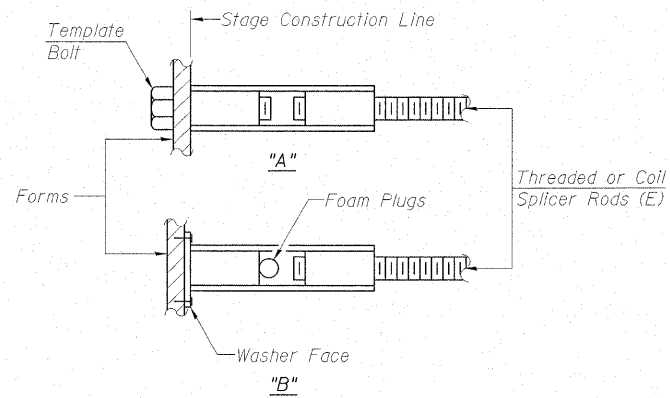
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

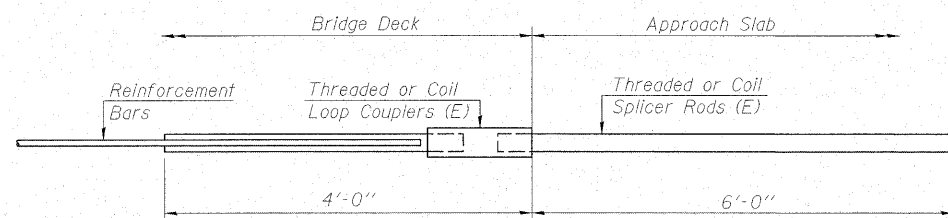
**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



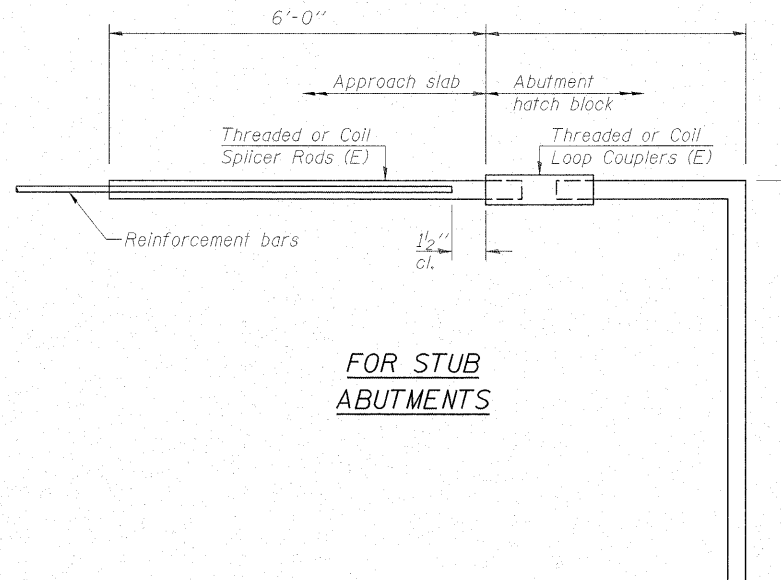
INSTALLATION AND SETTING METHODS

"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.

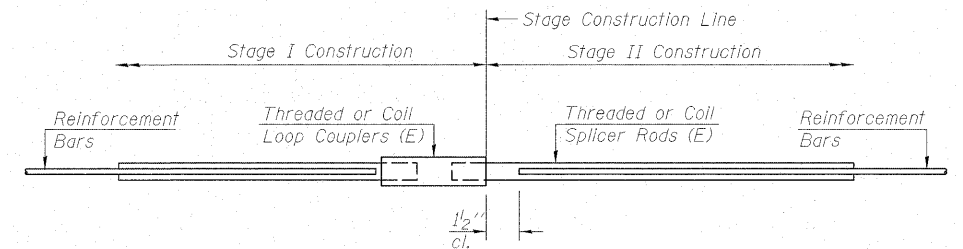
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS



FOR STUB ABUTMENTS



STANDARD

Bar Size	No. Assemblies Required	Location
#5	230	Deck
#6	16	Diaphragms
#7	20	Abutments

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 80

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =

BAR SPLICER ASSEMBLY DETAILS
IL RTE. 2 WB OVER UNNAMED TRIBUTARY TO THE ROCK RIVER
STATION 115+16.00

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18	561	31-1BR-2	LEE	92	71
20 SHEETS		STRUCTURE NO. 052-0079		CONTRACT NO. 64B05	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



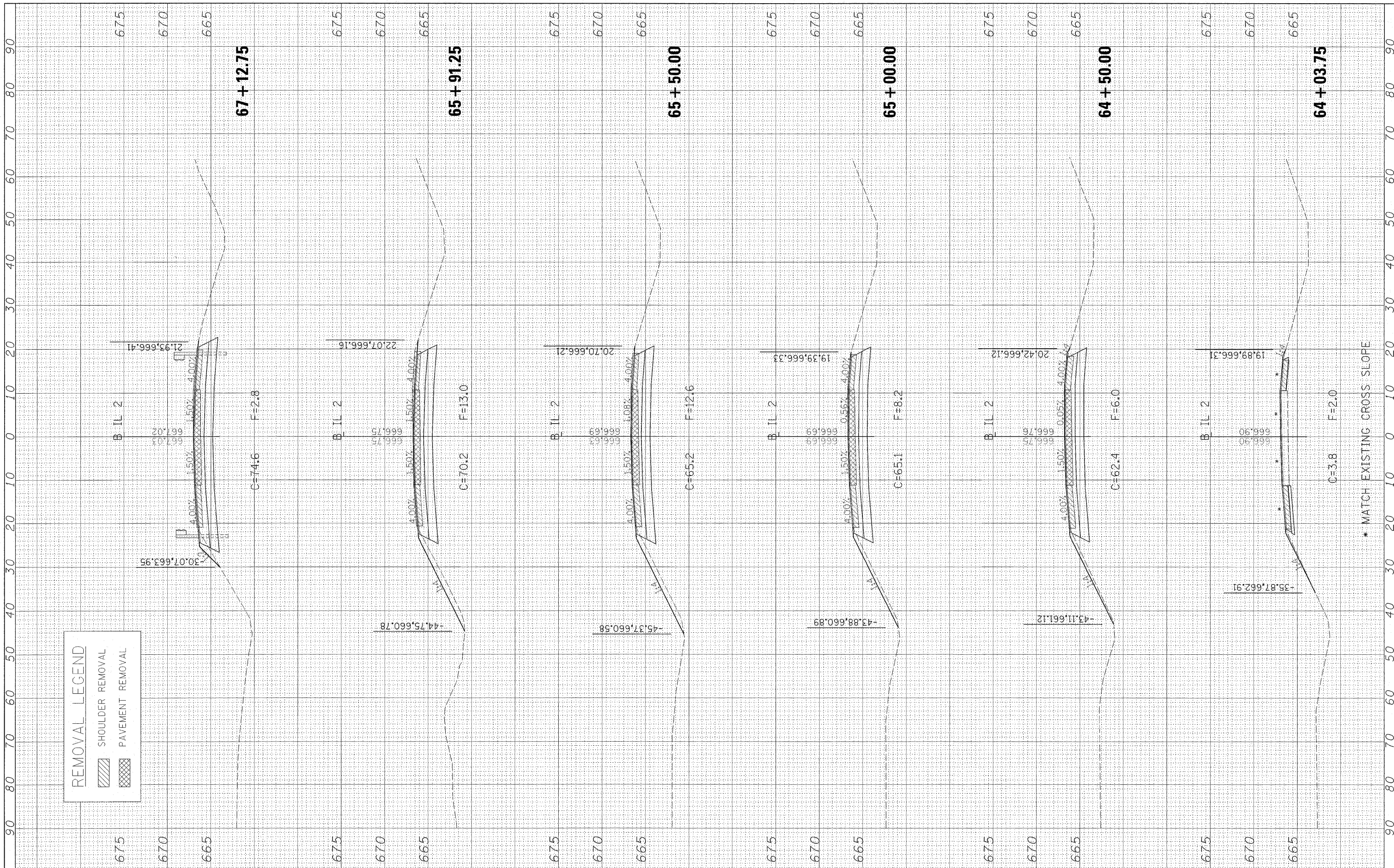
DESIGNED - JAE
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA/KEF

BSD-1

10-1-08

FINL	SURVEYED	DATE
SURVEY	PLOTTED	
NOTE BOOK	TEMPLATE	
NO.	AREAS CHECKED	

BY	DATE



* MATCH EXISTING CROSS SLOPE

FILE NAME = #FILE#

USER NAME = #USER#
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

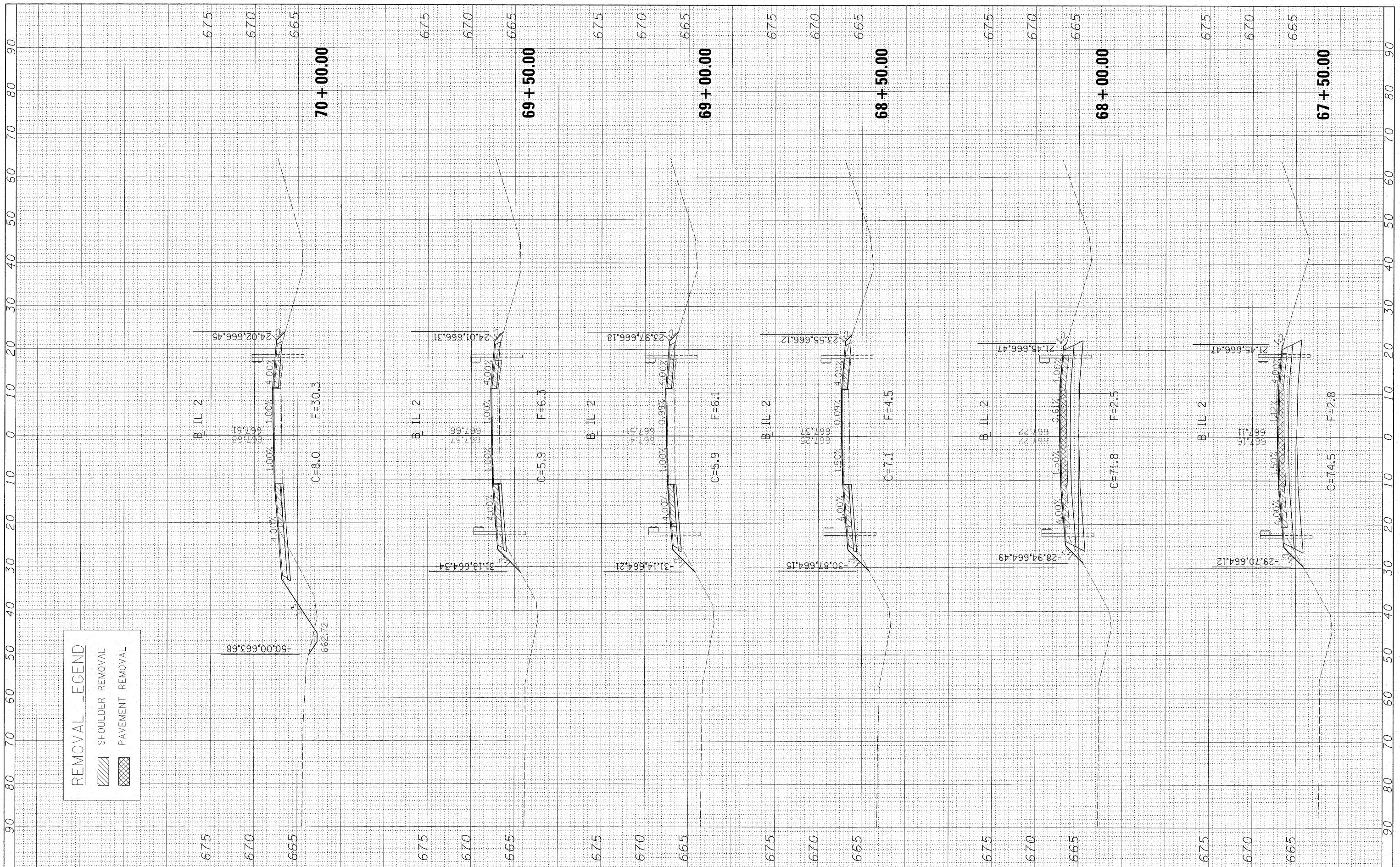
CROSS SECTIONS STR.052-0078

SCALE: SHEET NO. OF SHEETS STA. 64+03.75 TO STA. 67+12.75

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1	LEE	92	74
CONTRACT NO. 64B05				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		



REMOVAL LEGEND

- SHOULDER REMOVAL
- PAVEMENT REMOVAL

FILE NAME = *FILEL*

USER NAME = *USER*

PLOT SCALE = *SCALE*

PLOT DATE = *DATE*

DESIGNED -

DRAWN -

CHECKED -

DATE -

REVISED -

REVISED -

REVISED -

REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

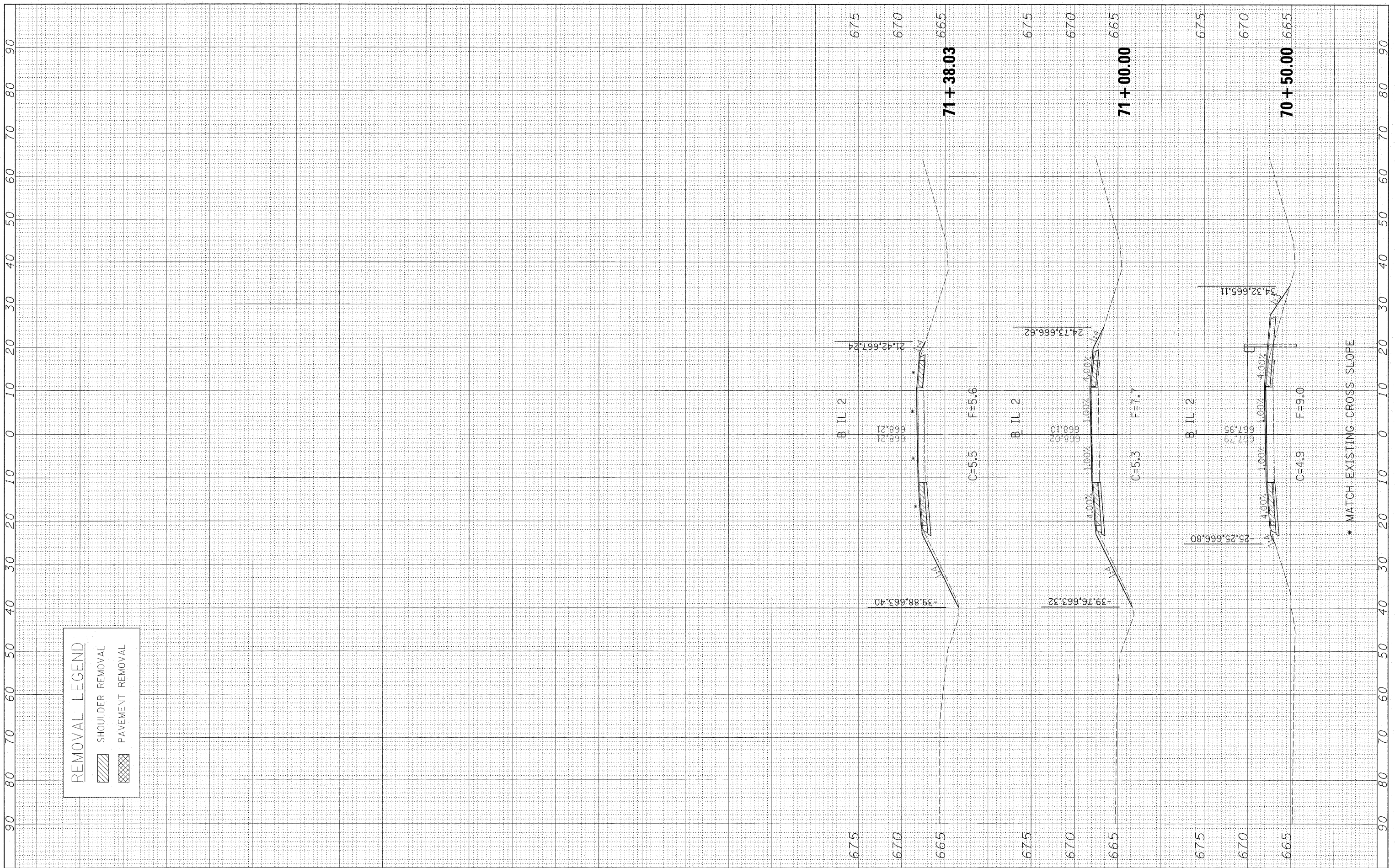
CROSS SECTIONS STR.052-0078

SCALE: SHEET NO. OF SHEETS STA. 67+50.00 TO STA. 70+00.00

F.A.P. RTE. 561	SECTION 31-IBR-1	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 75
CONTRACT NO. 64B05				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		



REMOVAL LEGEND	
	SHOULDER REMOVAL
	PAVEMENT REMOVAL

FILE NAME =	USER NAME = #USER#
#FILEL#	

DESIGNED -	REVISD -
DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -

PLOT SCALE = #SCALE#	CHECKED -	REVISD -
PLOT DATE = #DATE#	DATE -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

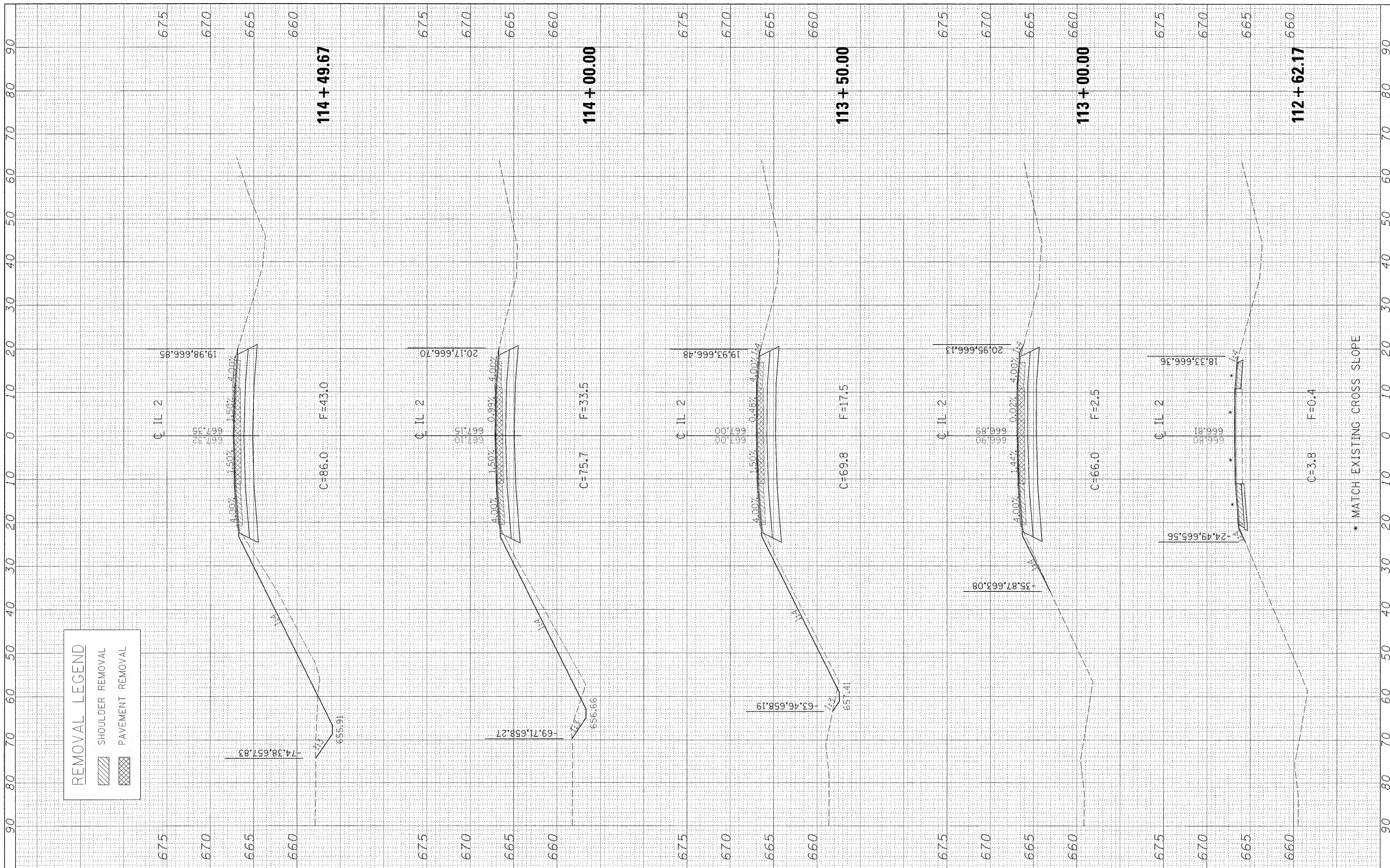
CROSS SECTIONS STR.052-0078			
SCALE:	SHEET NO.	OF	SHEETS
			STA. 70+50.00 TO STA. 71+38.03

F.A.P. RTE. 561	SECTION 31-1BR-1	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 76
CONTRACT NO. 64B05				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

* MATCH EXISTING CROSS SLOPE

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		



REMOVAL LEGEND	
	SHOULDER REMOVAL
	PAVEMENT REMOVAL

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - #DATE#	REVISED -

PLOT SCALE = #SCALE#	
PLOT DATE = #DATE#	

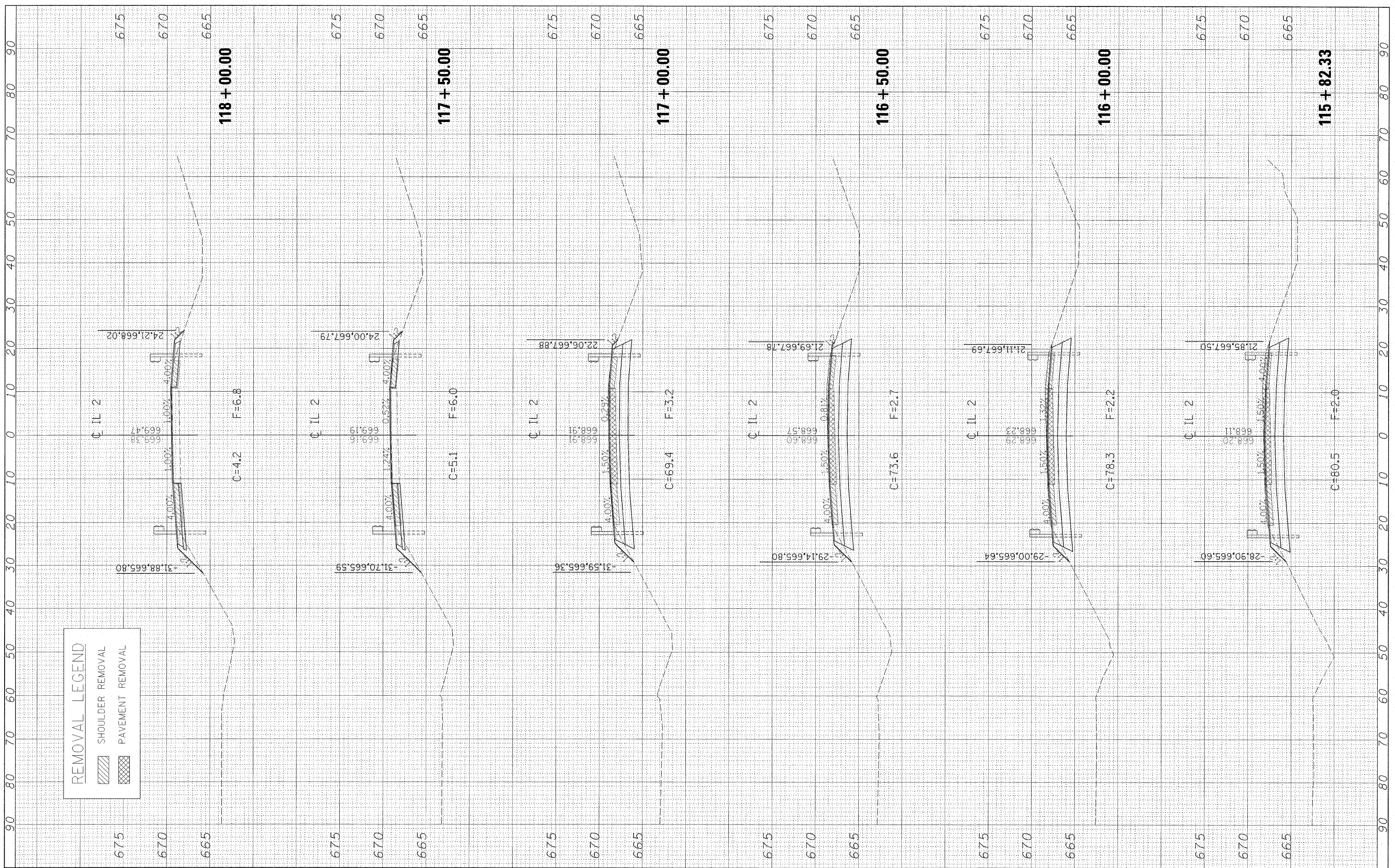
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS STR. 052-0079				
SCALE:	SHEET NO.	OF	SHEETS	STA. 112+62.17 TO STA. 114+49.67

F.A.P. RTE. 561	SECTION 31-BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 77
CONTRACT NO. 64805				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

DATE	BY	DATE	BY

DATE	BY	DATE	BY



FILE NAME =	USER NAME = #USER#
#FILE#	

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS STR. 052-0079			
SCALE:	SHEET NO.	OF SHEETS	STA. 115+82.33 TO STA. 118+00.00

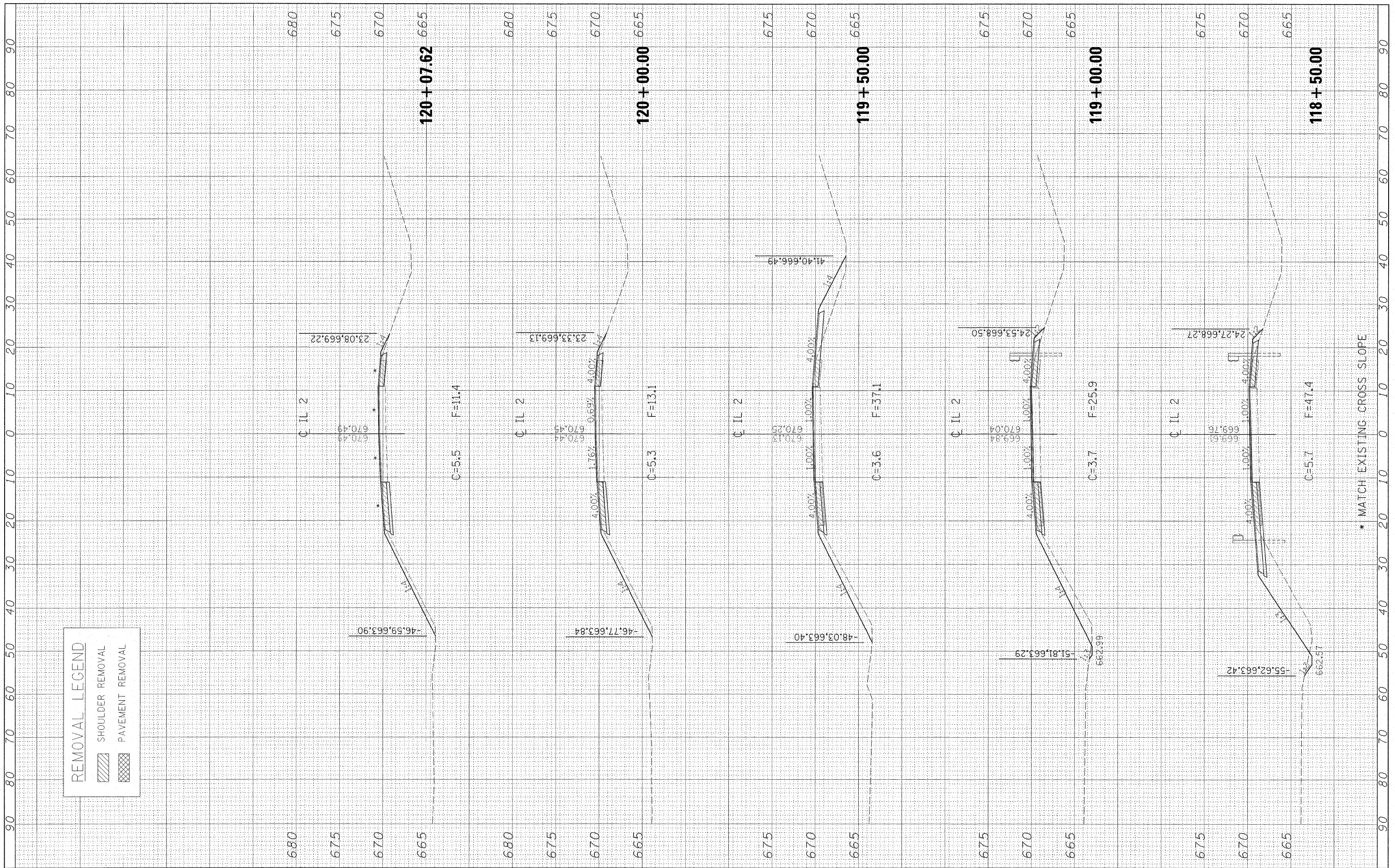
F.A.P. RTE. 561	SECTION 31-BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 78
CONTRACT NO. 64B05				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

BY	DATE
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

BY	DATE
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

REMOVAL LEGEND

- SHOULDER REMOVAL
- PAVEMENT REMOVAL



FILE NAME =	USER NAME = #USER#
#FILE#	

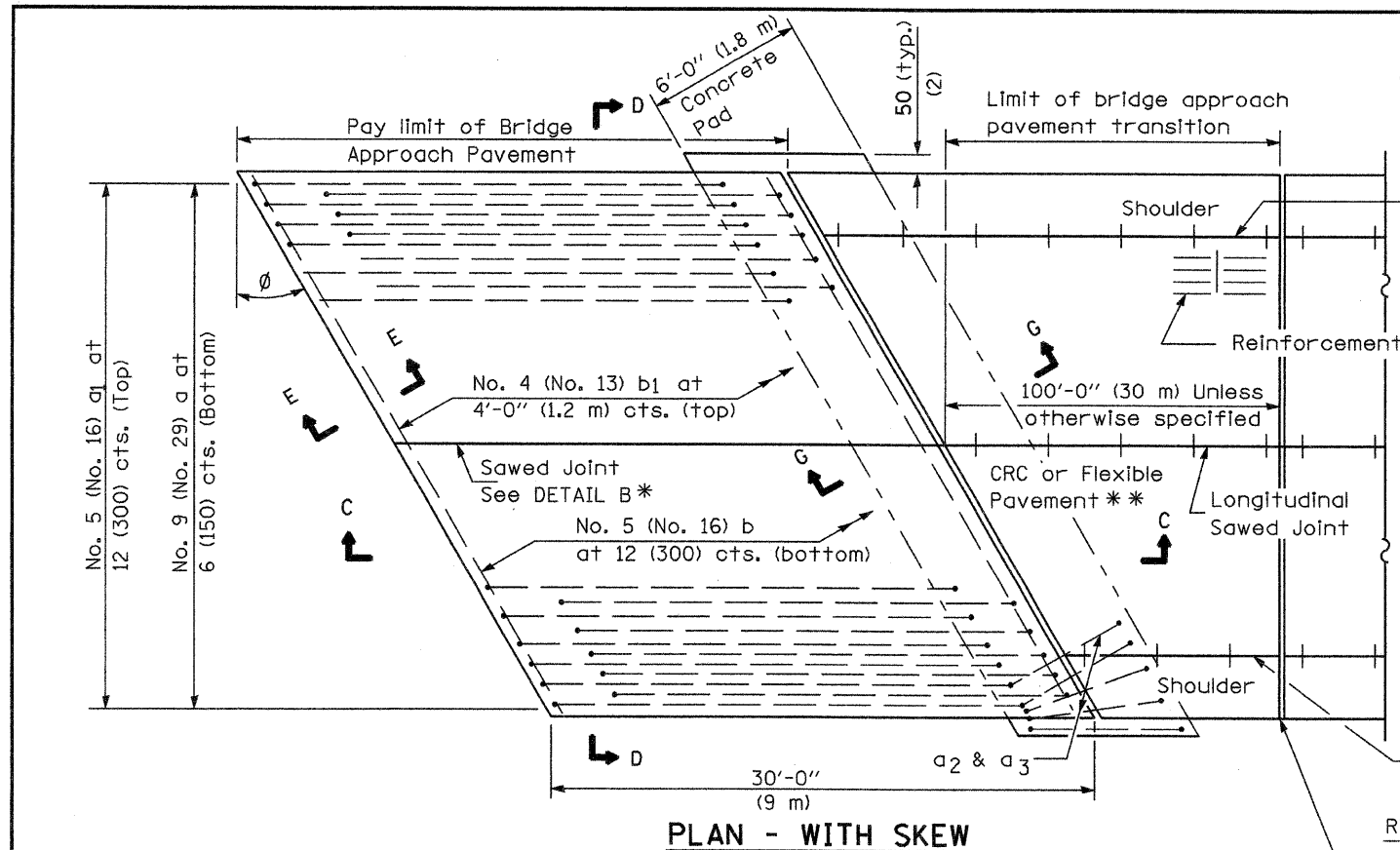
DESIGNED -	REVISD -
DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -

PLOT SCALE = #SCALE#	
PLOT DATE = #DATE#	

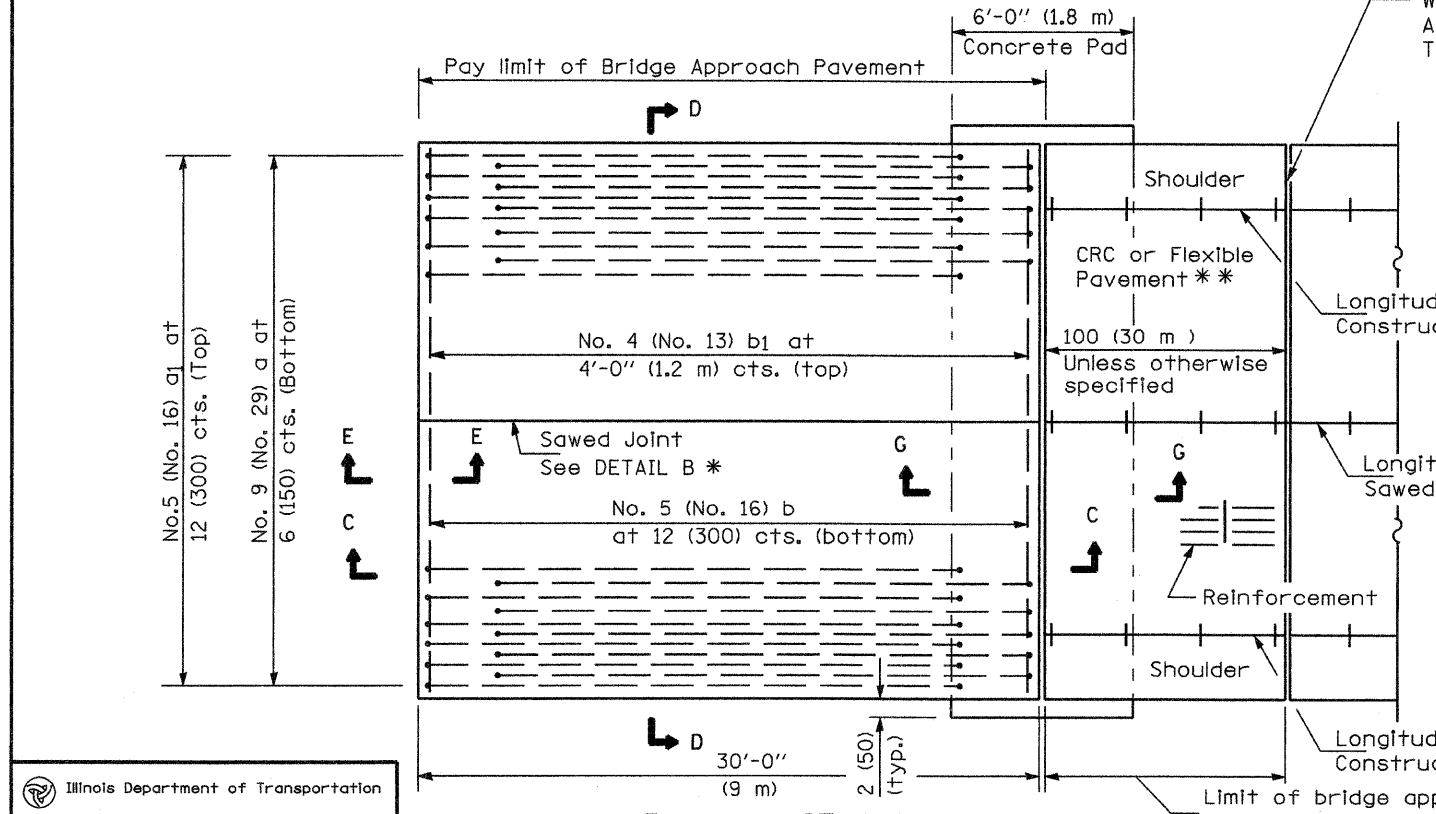
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS STR. 052-0079			
SCALE:	SHEET NO.	OF	SHEETS
			STA. 118+50.00 TO STA. 120+07.62

F.A.P. RTE. 561	SECTION 31-BR-2	COUNTY LEE	TOTAL SHEETS 92	SHEET NO. 79
CONTRACT NO. 64B05			ILLINOIS FED. AID PROJECT	

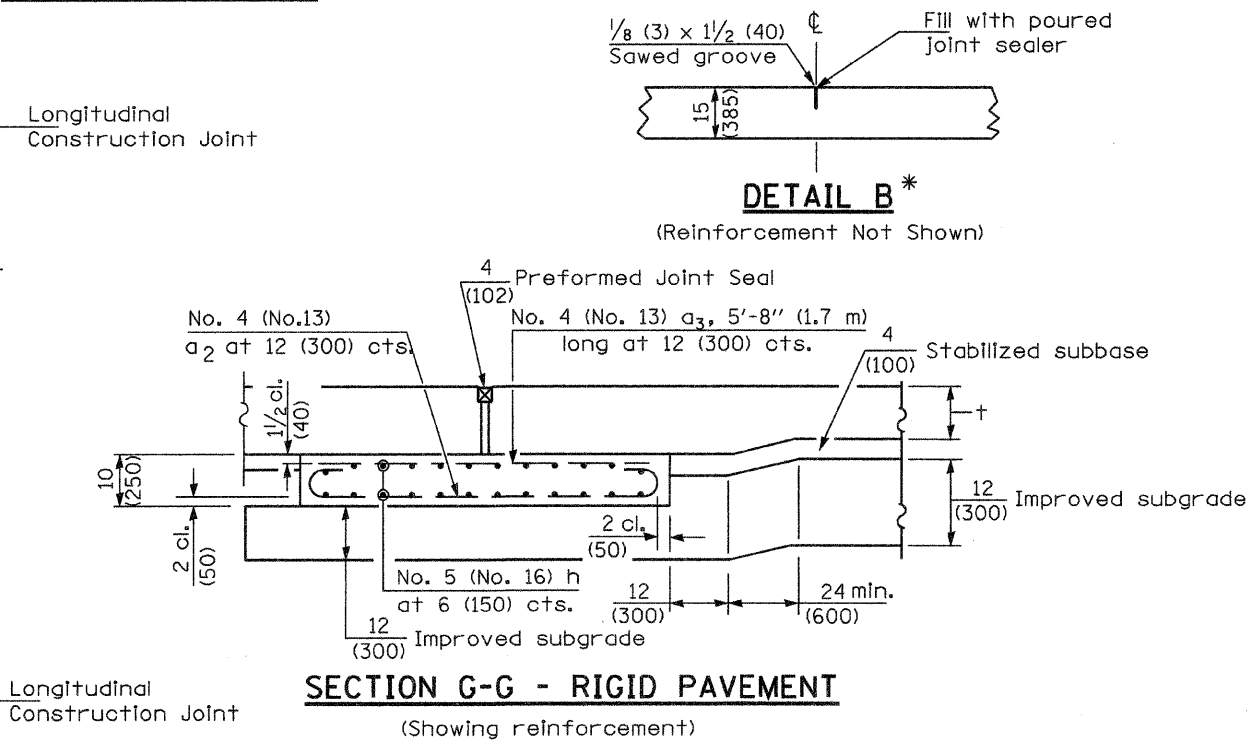


PLAN - WITH SKEW



PLAN - WITHOUT SKEW

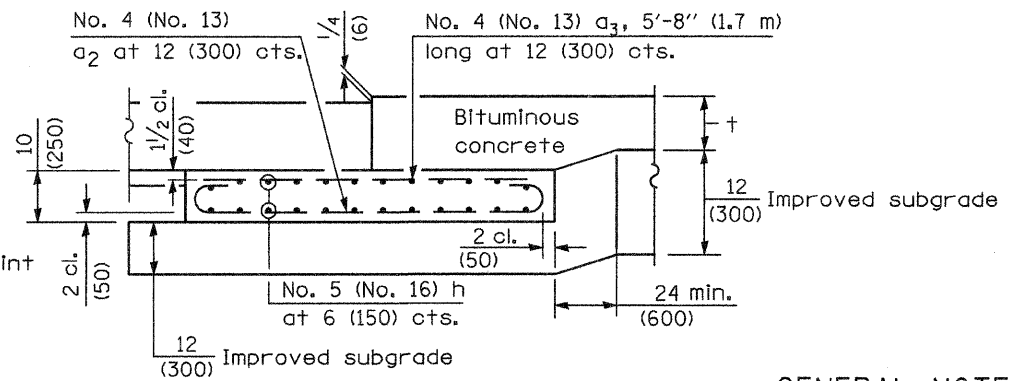
NEW CONSTRUCTION



SECTION G-G - RIGID PAVEMENT

(Showing reinforcement)

Rigid Pavement only:
Wide Flange Beam Terminal Joint (See DETAIL AT BEAM - Standard 421101 or 421106) or 2 (50) Trans. Exp. Joint as detailed on Standard 420001.



SECTION G-G - FLEXIBLE PAVEMENT

(Showing reinforcement)

GENERAL NOTES

THICKNESS--"t"=Thickness of Pavement.
See Standard 421001 for reinforcement details not shown.
See Standard 420001 for joint details not shown.
All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2008
Walsh E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
Ken S. Han
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-4-08

* Saw ∇ or lane edge if poured two or more lane widths at a time.
** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.

DATE	REVISIONS
1-1-08	Switched units to English (metric). Moved rebar epoxy coat note to Standard Spec.
1-1-04	Rev. size of Trans. Exp. Jt. and soft converted metric reinf.

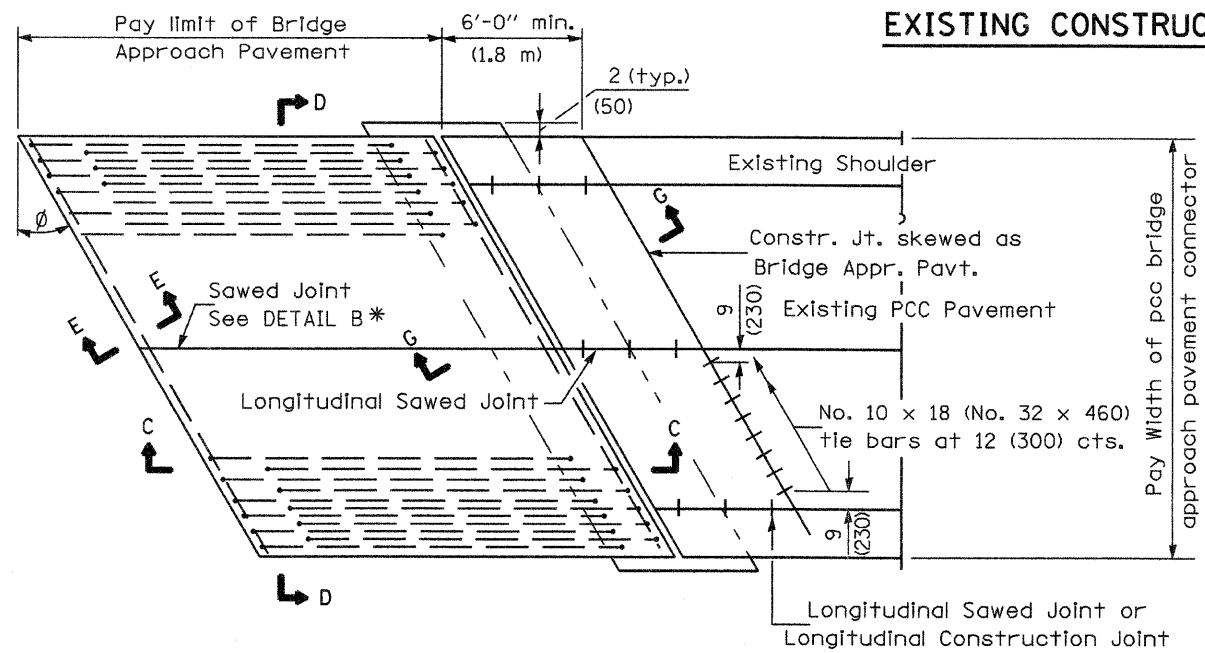
BRIDGE APPROACH PAVEMENT

(Sheet 1 of 4)

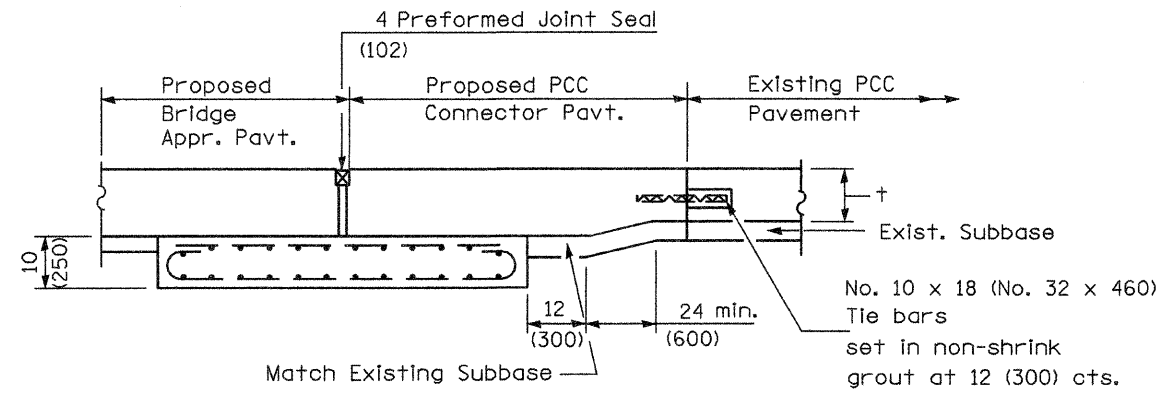
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1 & 31-1BR-2	LEE	92	80

CONTRACT NO. 64805

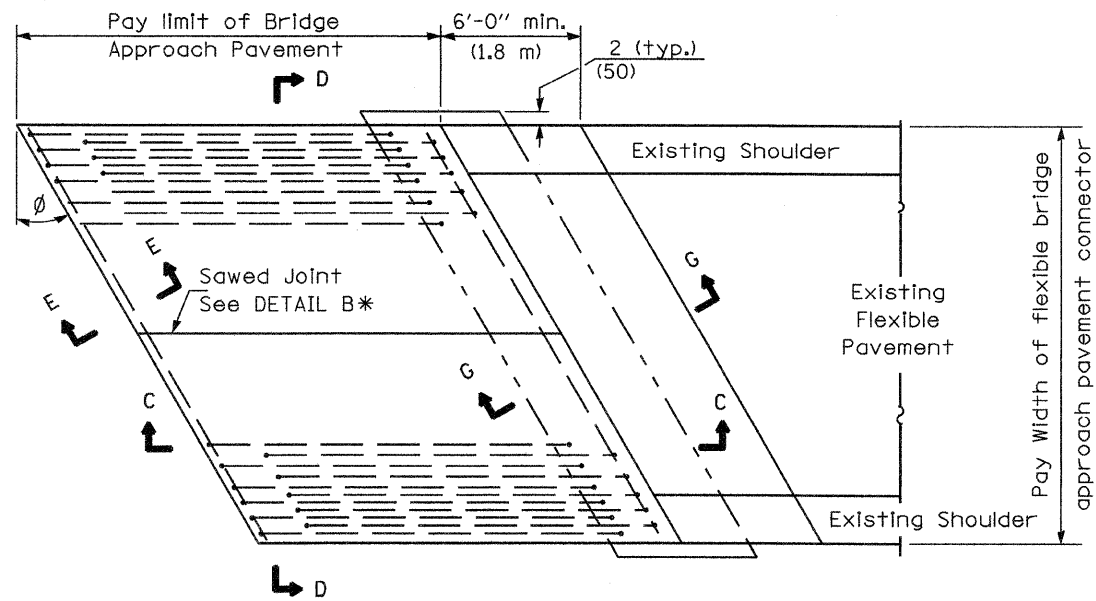
EXISTING CONSTRUCTION



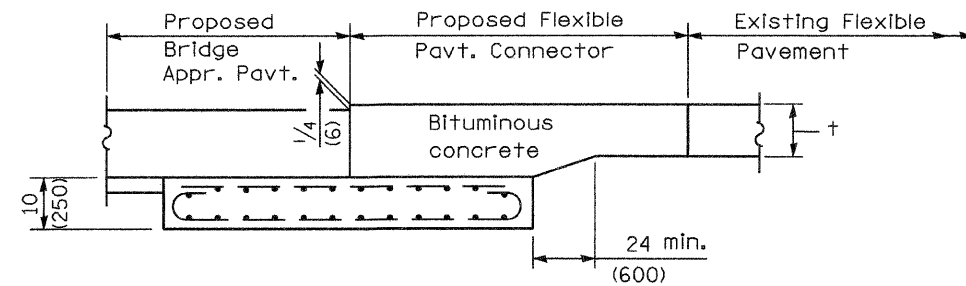
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - FLEXIBLE PAVEMENT

Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

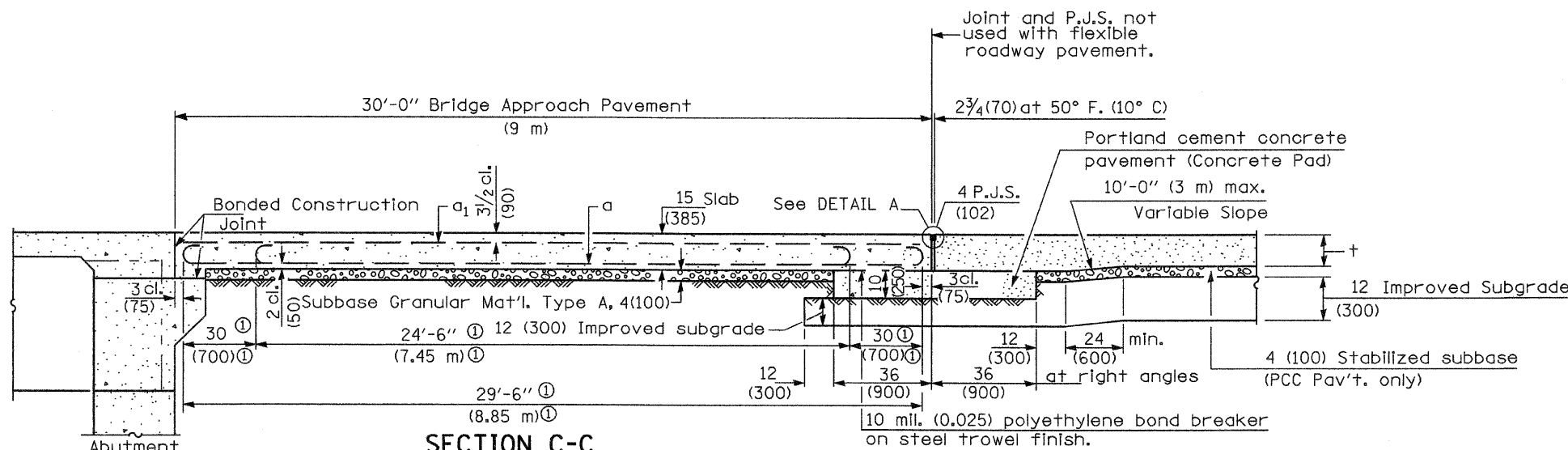
BRIDGE APPROACH PAVEMENT

(Sheet 2 of 4)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1 & 31-1BR-2	LEE	92	81

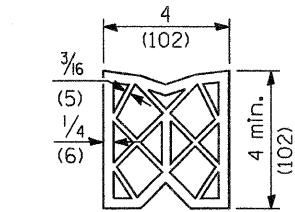
CONTRACT NO. 64805

64805-112

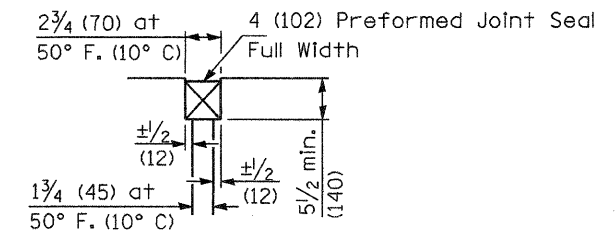


SECTION C-C

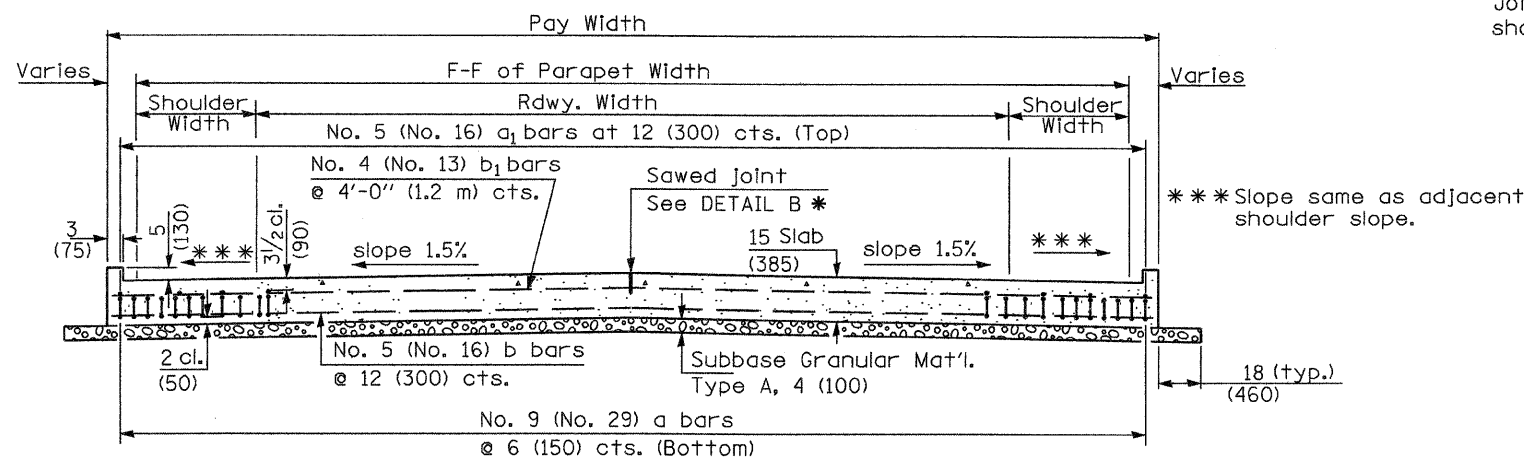
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL



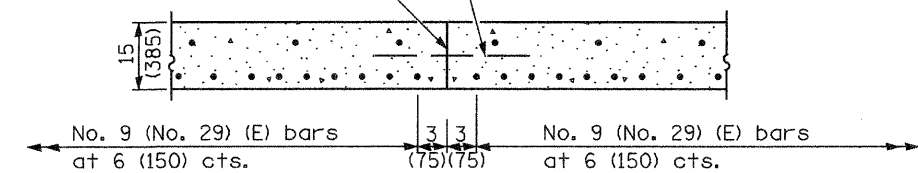
DETAIL A



SECTION D-D

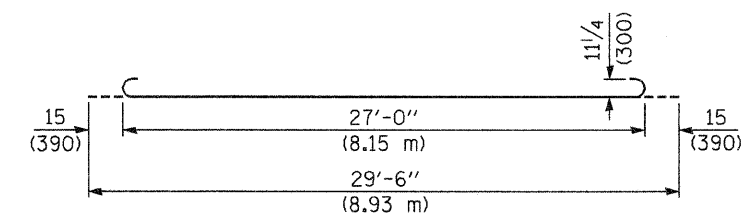
(See Plan for Dimensions not shown)

Longitudinal Construction Joint in accordance with details shown on Standard 420001.

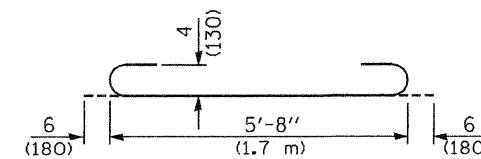


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

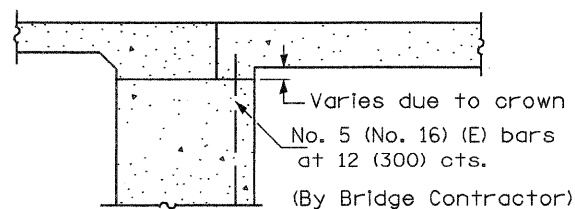
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



BAR a

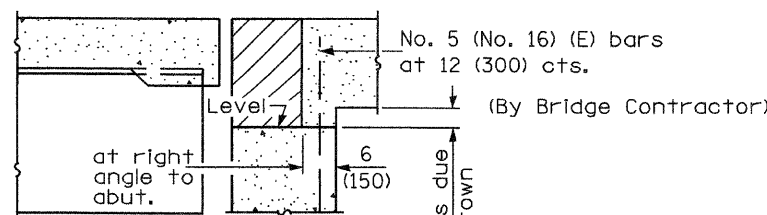


BAR a₂



SECTION E-E

(Integral Abutments)



SECTION E-E

(Jointed Abutments)

DESIGN STRESSES

f_y = 60,000 p.s.i. (400 MPa)
f'_c = 3,500 p.s.i. (24 MPa)
n = 8.5

BRIDGE APPROACH PAVEMENT

(Sheet 3 of 4)

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
561	31-1BR-1 & 31-1BR-2	LEE	92	82
CONTRACT NO. 64805				

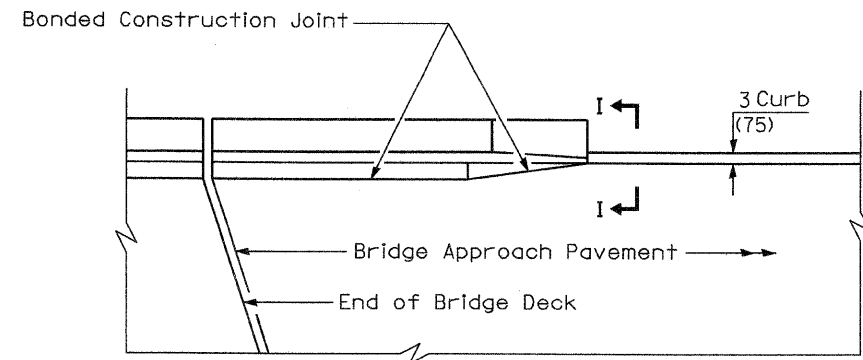
Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

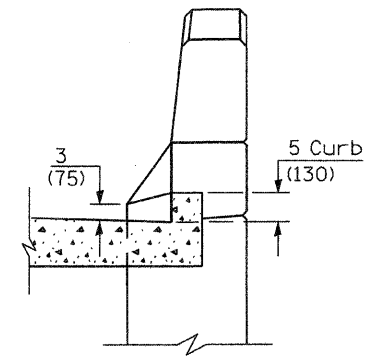
ISSUED 1-1-07

APPROVED January 1, 2008
Ken E. Han
ENGINEER OF DESIGN AND ENVIRONMENT

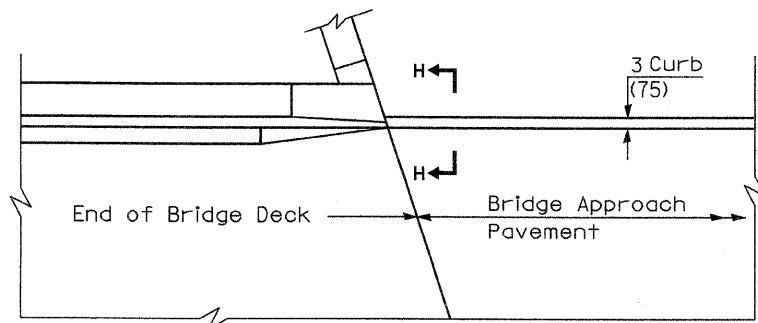
01/31/07



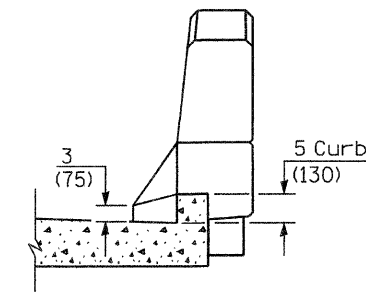
**PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT**



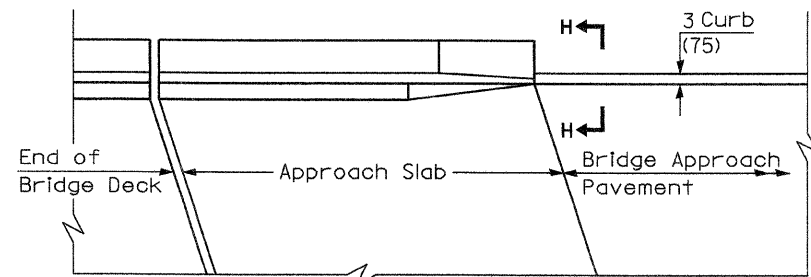
SECTION I - I



**PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT**



SECTION H - H



**PARAPET TO CURB TRANSITION
VAULTED ABUTMENT**

Illinois Department of Transportation

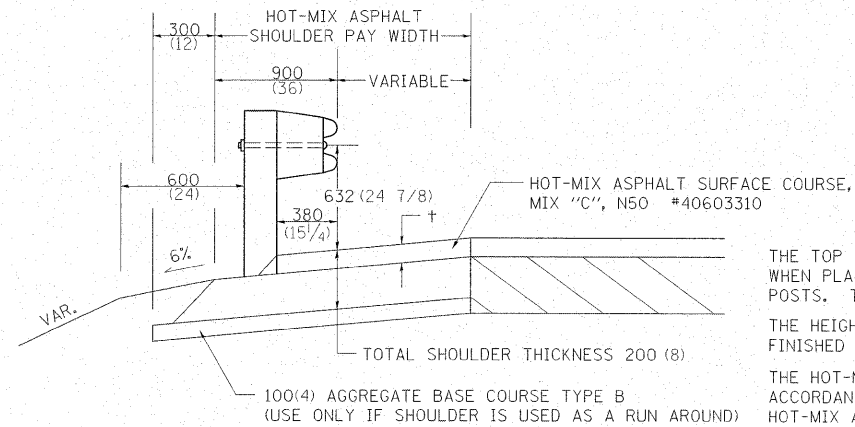
APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

ISSUED 1-1-07

APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

BRIDGE APPROACH PAVEMENT				
(Sheet 4 of 4)				
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
561	31-1BR-1 & 31-1BR-2	LEE	92	83
			CONTRACT NO. G4805	

DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARD RAIL



† = SEE TYPICAL SECTIONS FOR THICKNESS

GENERAL NOTES

THE TOP LIFT SHALL NOT BE PLACED BEHIND THE GUARDRAIL POSTS. WHEN PLACING THE TOP LIFT THE RAIL MUST BE REMOVED FROM THE POSTS. THE POST SHALL NOT BE REMOVED.

THE HEIGHT OF THE GUARD RAIL SHALL BE SET 632 (24 7/8) FROM THE FINISHED SURFACE.

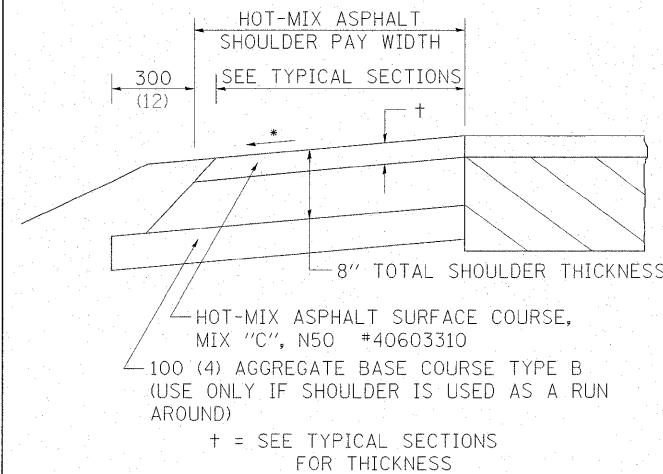
THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIXTURE "C", N50 AND SQUARE METER (SQUARE YARD) FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED. THE REMOVAL & REINSTALLATION OF THE GUARDRAIL WILL BE INCLUDED IN THE COST OF THE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 11-01-07

DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARD RAIL 23.4

HOT-MIX ASPHALT SHOULDER



GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310.

REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

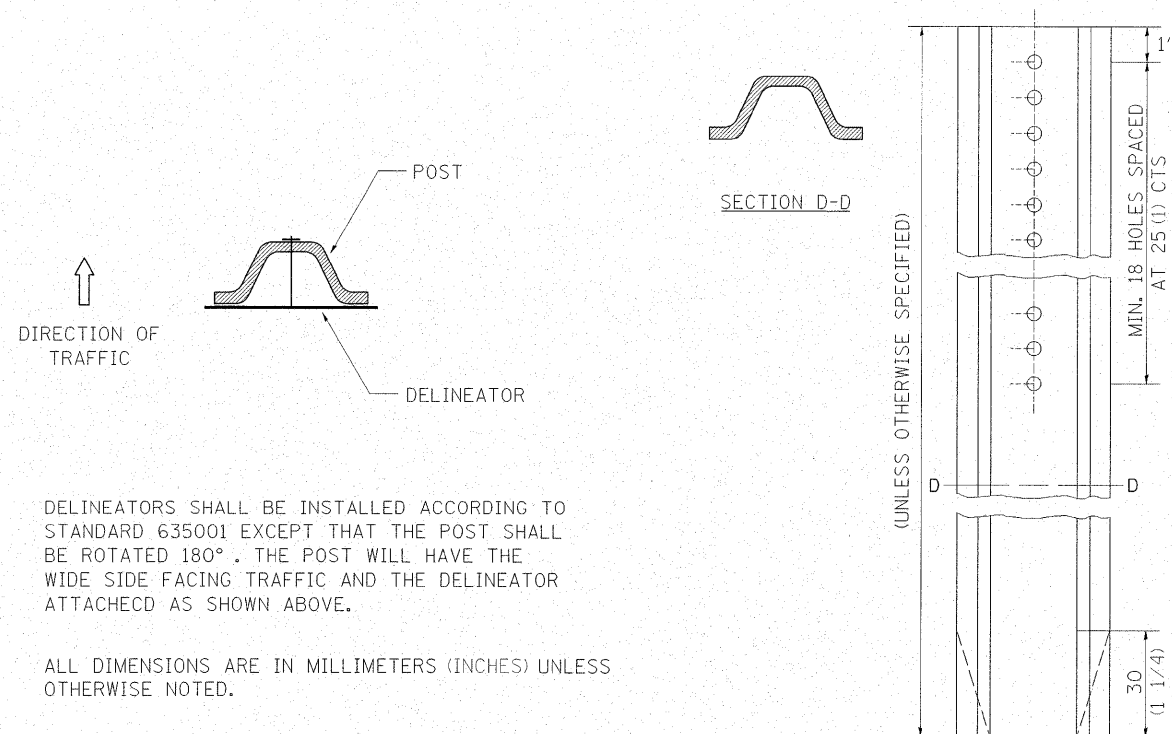
* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 11-01-07

HOT-MIX ASPHALT SHOULDER 23.4a

DELINEATOR AND POST ORIENTATION



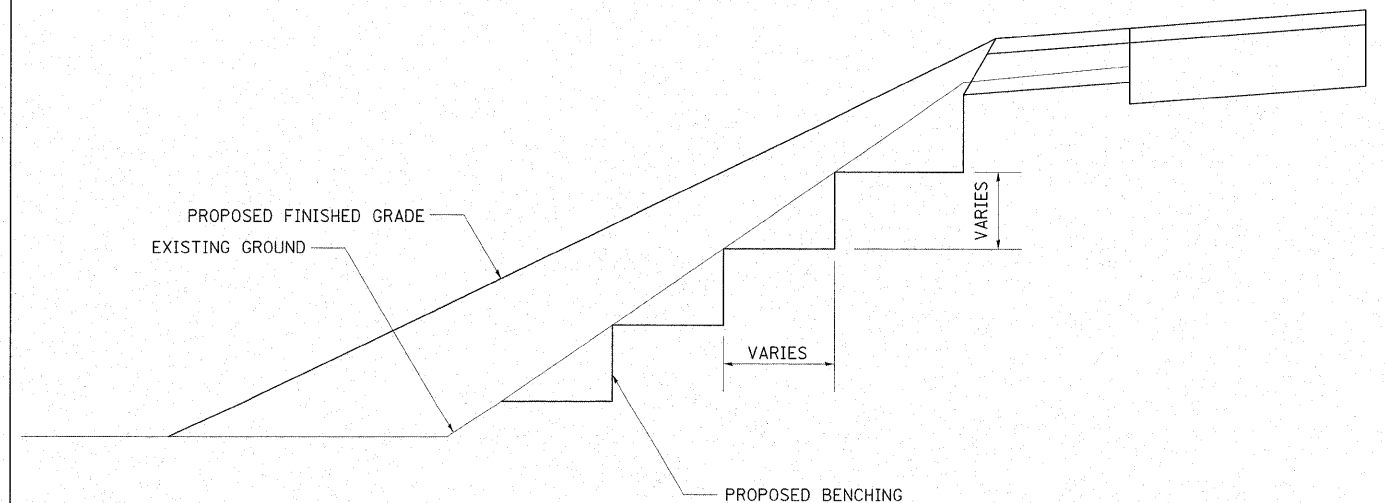
DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHED AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 11-01-07

DELINEATOR AND POST ORIENTATION 37.4

TYPICAL BENCHING ON EXISTING EMBANKMENT



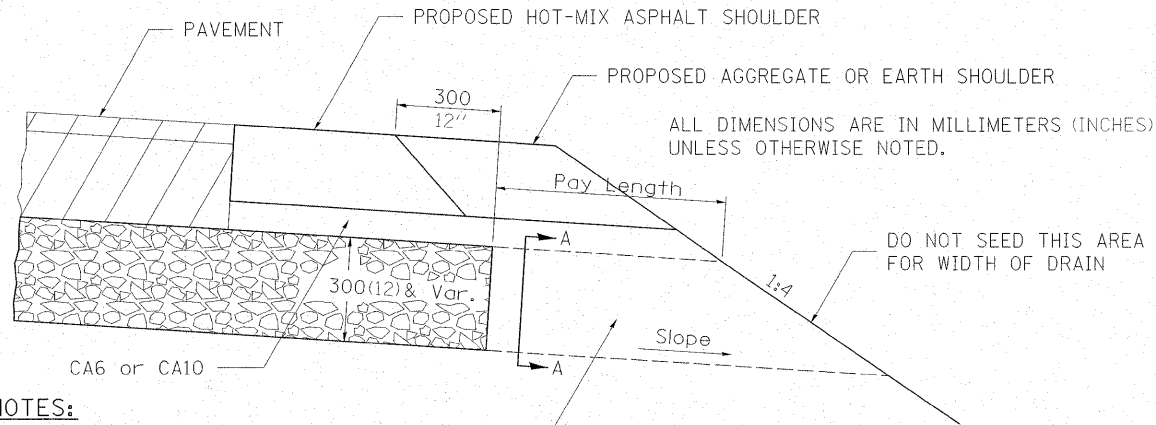
REVISED - 2-22-06

TYPICAL BENCHING ON EXISTING EMBANKMENT 50.4

REVISED -	REGION 2 / DISTRICT 2 STANDARD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -			561	31-1BR-1 & 31-1BR-2	LEE	92	84
REVISED -			CONTRACT NO. 64B05				
REVISED -	SCALE: #SCALE#	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

PLOT DATE = #DATE#

DRAIN FOR AGGREGATE BASE COURSE



NOTES:

The rock outlets shall be constructed using CA7 and will be paid for at the contract unit price per m² (SQ. YD.) for DRAIN FOR AGGREGATE BASE COURSE. The thickness shall be the same as the adjacent sub-base material as noted on the plans and shall include the cost of the filter fabric. The Rock outlets will be measured in m² (SQ. YD.), the width being 900 (36) by the length shown above. The cost of the CA6 or CA10 under the shoulder shall be included in the contract unit price per m² (SQ. YD.) for SUB-BASE GRANULAR MATERIAL, TYPE A of the thickness specified. The filter fabric to be used shall conform to the filter fabric used for Riprap.

ROCK OUTLET AT ALL LOW POINTS TO BE 900 (36) WIDE AND EXTEND TO FORESLOPE



SECTION A-A

NOTE: Slope same as shoulder with 2% min.

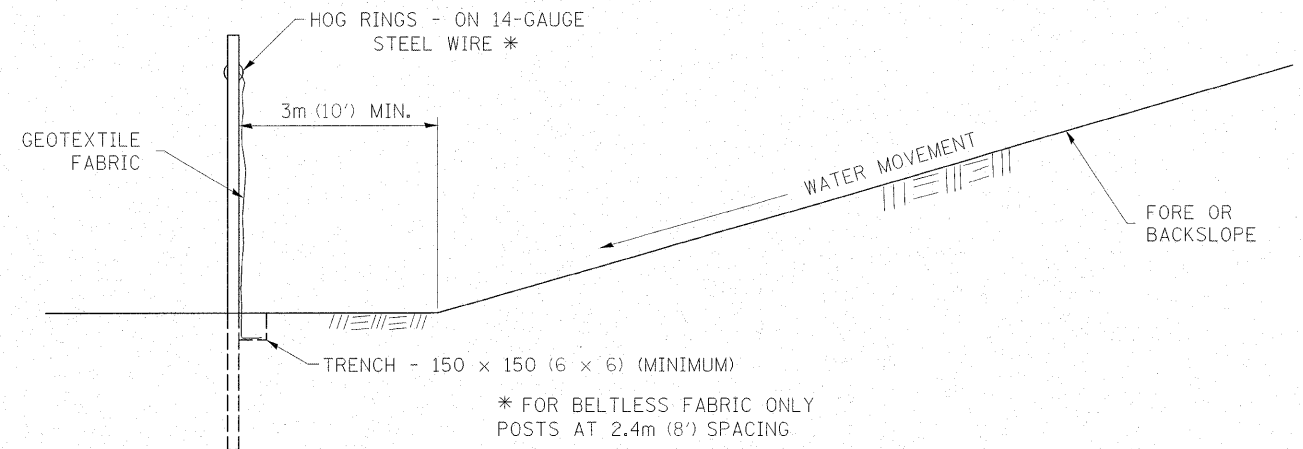
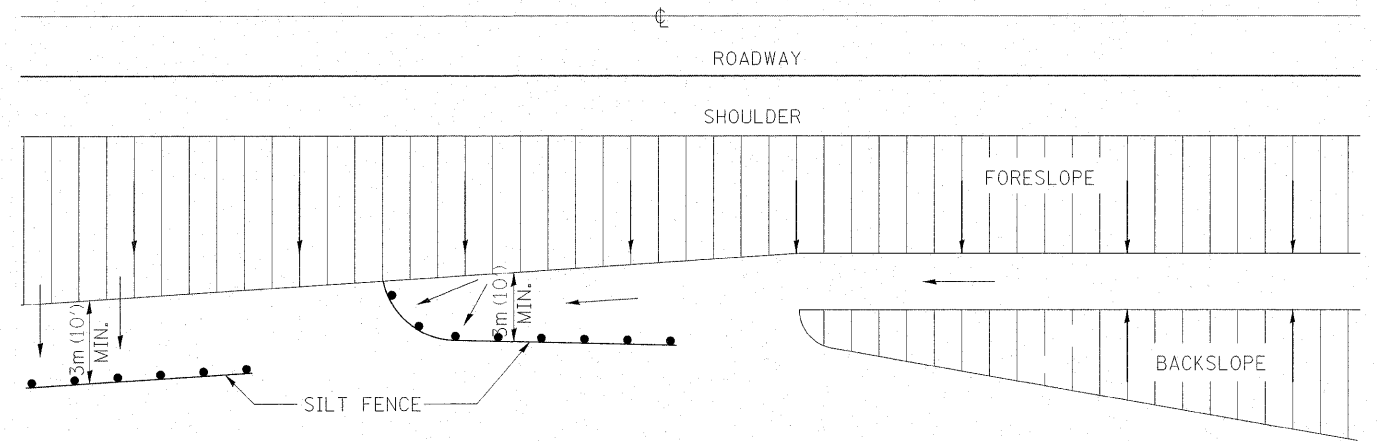
REVISED - 10-10-06

X0325519

DRAIN FOR AGGREGATE BASE COURSE

96.4

EROSION CONTROL DETAILS FOR SILT FENCE



DETAILS OF SILT FENCE

REVISED - 10-22-01

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

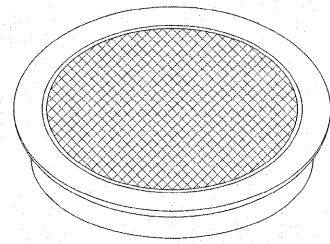
EROSION CONTROL DETAILS FOR SILT FENCE

29.2

REVISION	SCALE	SHEET NO.	OF SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISÉ -						561	31-1BR-1 & 31-1BR-2	LEE	92	85
REVISÉ -						CONTRACT NO. 64B05				
REVISÉ -						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

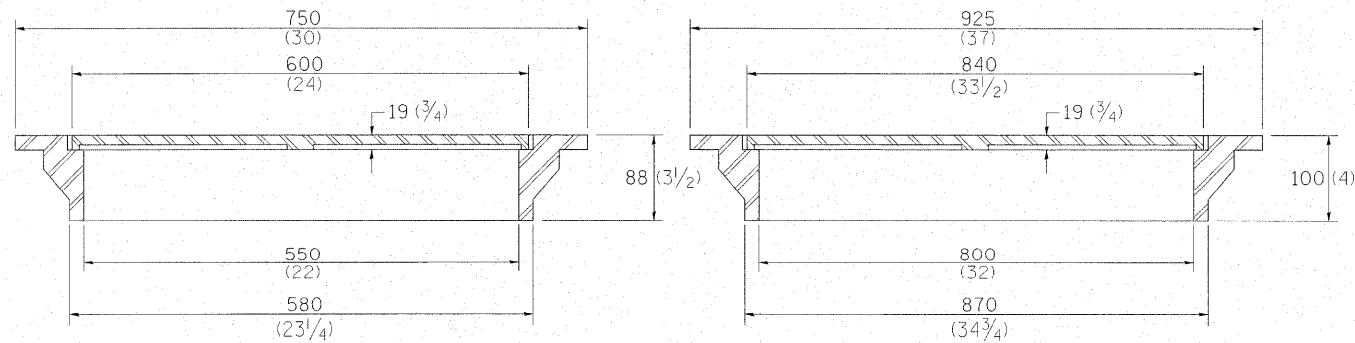
PLOT DATE = #DATE#

FIELD TILE JUNCTION VAULTS 600 (24) AND 900 (36) DIA.



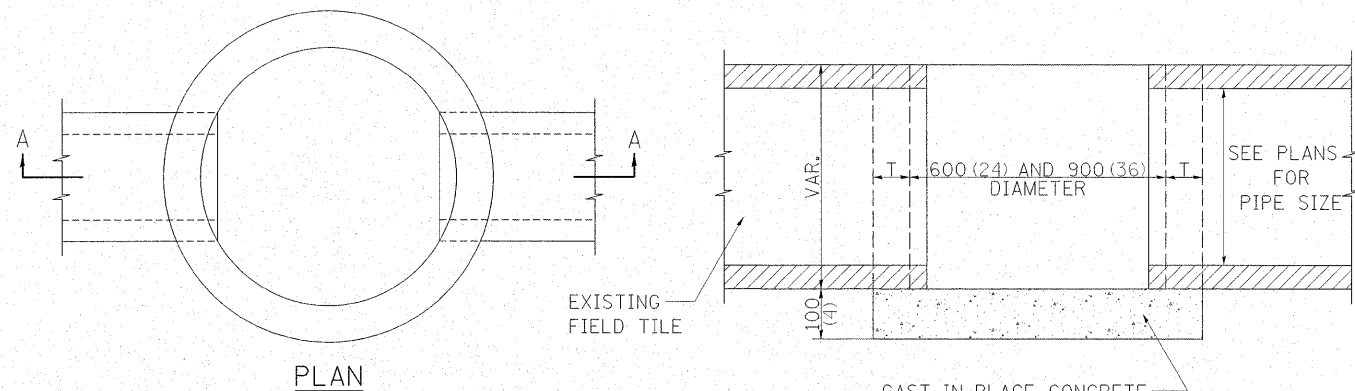
FRAME & LID FOR
600 (24) VAULT

FRAME & LID FOR
900 (36) VAULT



TOTAL WEIGHT: 66 Kg (146 lbs)

TOTAL WEIGHT: 127 Kg (280 lbs)



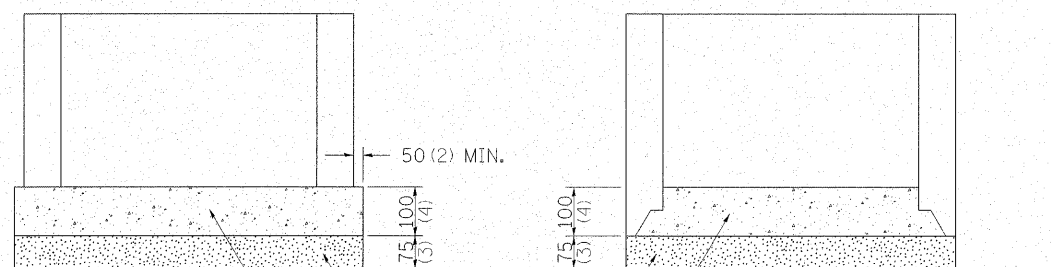
PLAN

CAST-IN-PLACE CONCRETE
SECTION A-A

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	200 (8)
CAST-IN-PLACE CONCRETE	150 (6)
CONCRETE MASONRY UNIT	125 (5)
PRECAST REINFORCED CONCRETE SECTION	75 (3)

NOTE: THE FRAME AND LID
IS REQUIRED ON ALL
JUNCTION VAULTS.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



PRECAST REINFORCED
CONCRETE SLAB

SAND CUSHION

PREFABRICATED CONCRETE SLAB,
WHEN THE PRECAST REINFORCED
CONCRETE SECTION ALTERNATE
IS USED.

ALTERNATE METHODS

REVISED - 5-03-94

FIELD TILE JUNCTION VAULTS 600 (24) AND 900 (36) DIA. 30.2

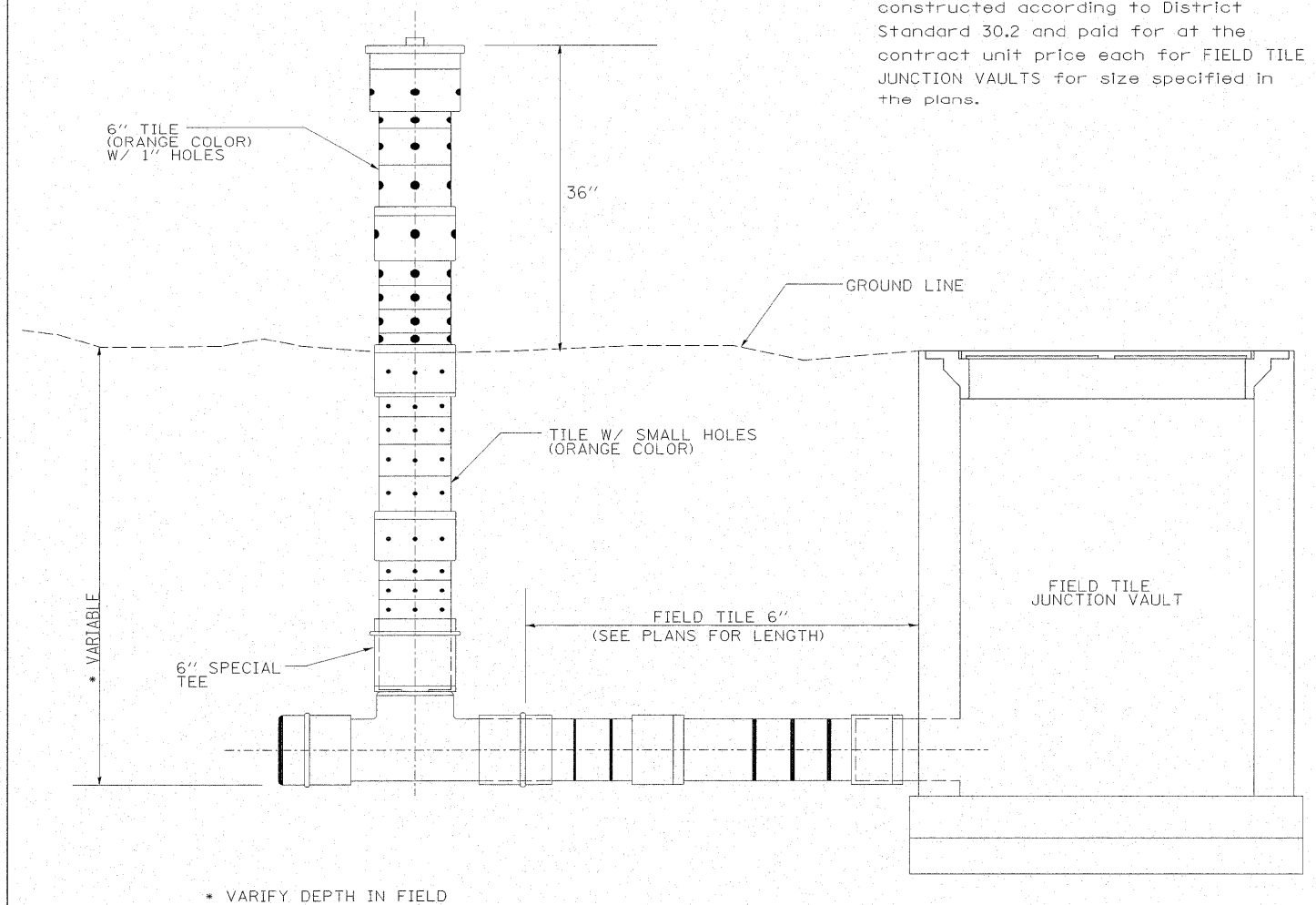
INLET STAND PIPE

Inlet Stand Pipe

Inlet Stand Pipe shall be paid for at the contract unit price each for INLET PIPE STAND. Price shall include the following items--one 36" above ground section with 1" holes, one variable depth below ground section with small holes, one 6" tee section, collars (if needed) and end caps (if needed) as directed by the engineer.

Field Tile shall be paid for at the contract unit price per foot for FIELD TILE 6".

Field Tile Junction Vault shall be constructed according to District Standard 30.2 and paid for at the contract unit price each for FIELD TILE JUNCTION VAULTS for size specified in the plans.



* VARIABLE

* VERIFY DEPTH IN FIELD

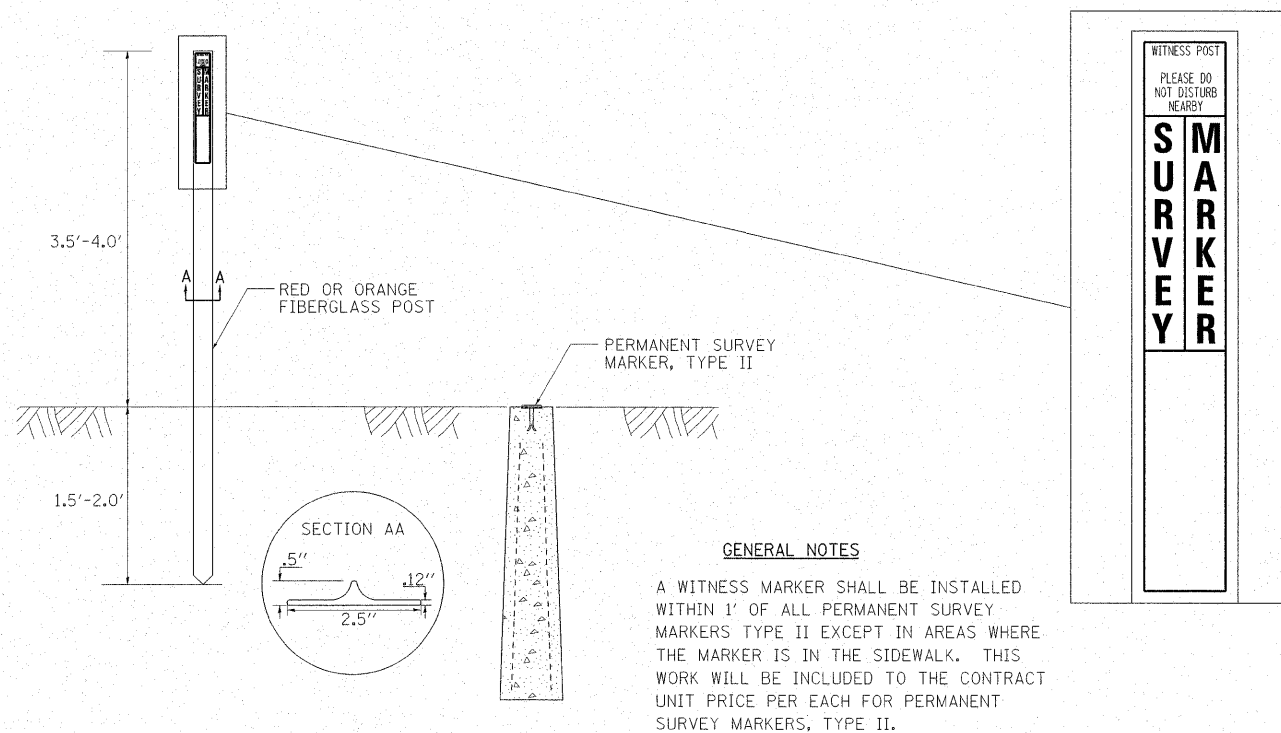
REVISED - 1-10-08

INLET STAND PIPE 34.2

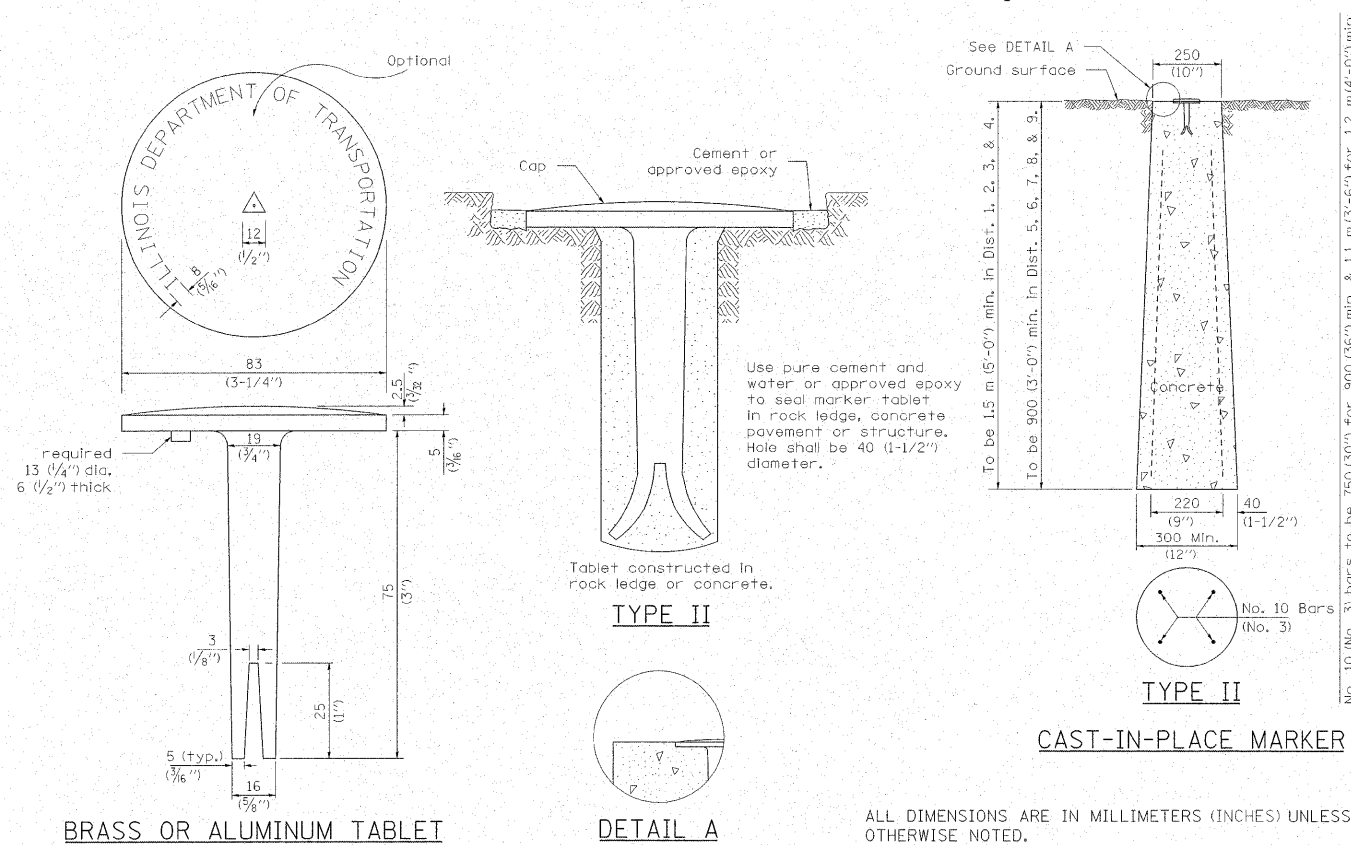
REVISED -	REGION 2 / DISTRICT 2 STANDARD				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -	SCALE: #SCALE#	SHEET NO.	OF SHEETS	STA.	TO STA.	561	31-1BR-1 & 31-1BR-2	LEE	92 86
REVISED -					CONTRACT NO. 64B05				
REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PLOT DATE = #DATE#

WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II

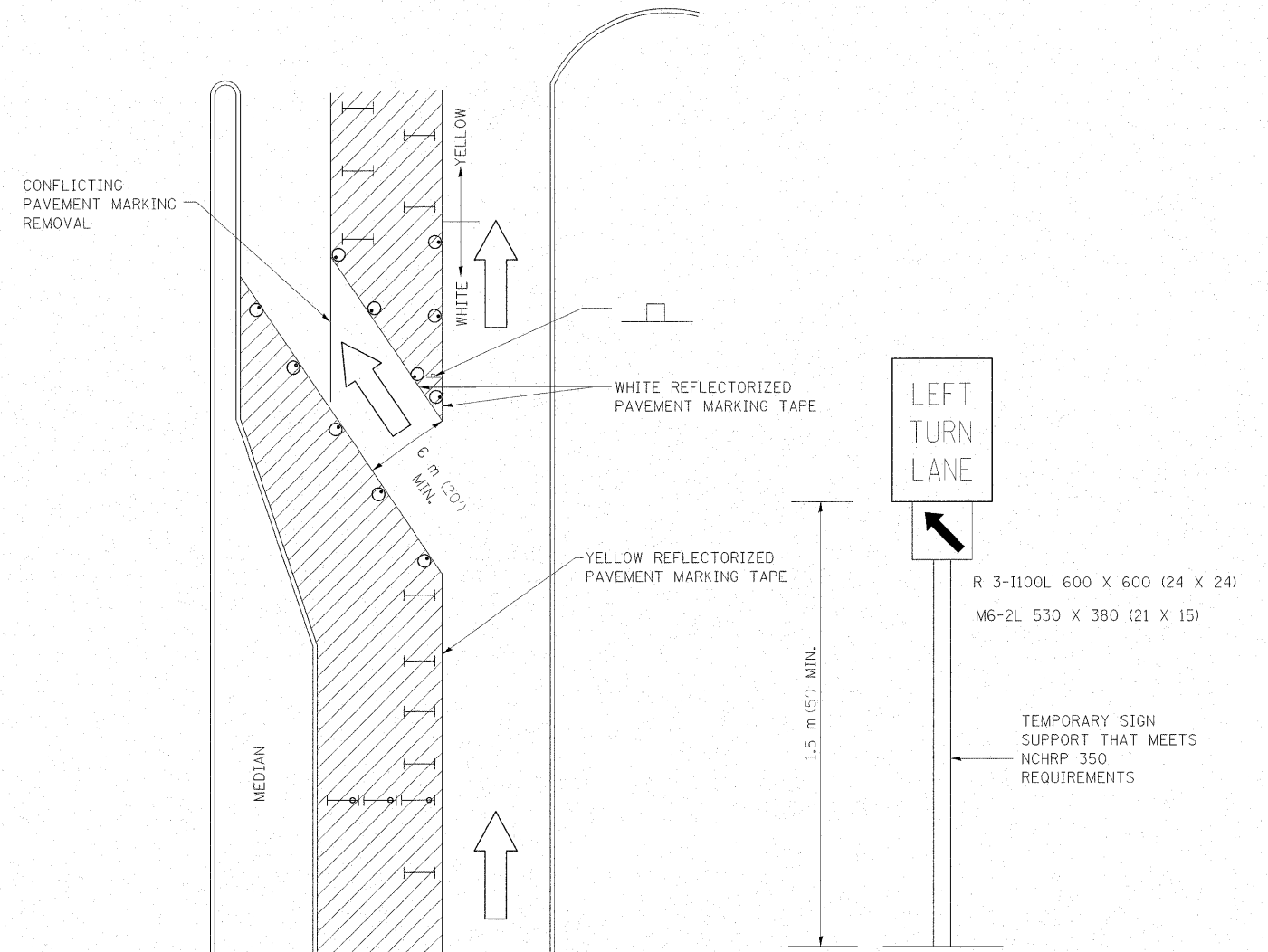


PERMANENT SURVEY MARKERS, TYPE II



WITNESS MARKER & PERMANENT SURVEY MARKERS, TYPE II 66.2

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)



TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) 94.2

REVISED - 10-15-04	REGION 2 / DISTRICT 2 STANDARD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -			561	31-1BR-1 & 31-1BR-2	LEE	92	87
REVISED -			CONTRACT NO. 64B05				
REVISED -	SCALE: #SCALE#	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

STORM WATER POLLUTION PREVENTION PLAN

EROSION CONTROL PLAN

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE SILTATION WITHIN THE CONSTRUCTION ZONE AND TO ELIMINATE SEDIMENTS FROM ENTERING AND LEAVING THE CONSTRUCTION ZONE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN ITEMS, AS SHOWN IN THIS PLAN AND REFERENCED BY THE LEGEND, SHALL BE PLACED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION RESULTING FROM THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL PLACE PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A REASONABLE AMOUNT OF TIME; THEREFORE, REDUCING THE AMOUNT OF AREA BEING OPEN TO THE POSSIBILITY OF EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE RESIDENT ENGINEER WILL DETERMINE IF TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED, THE SIZE OF THE PROPOSED DITCH CHECKS, THE PROPER METHOD OF INSTALLATION, AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS SHALL BE ADDED WHICH ARE NOT INCLUDED IN THE PLANS. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY:

THIS PROJECT CONSISTS OF REMOVING AND REPLACING THE STRUCTURES CARRYING IL 2 OVER LITTLE CREEK AND AN UNNAMED TRIBUTARY TO THE ROCK RIVER.

DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:

THE SEQUENCE OF EVENTS ARE AS FOLLOW: CLEARING, EMBANKMENT, EXCAVATION, GRADING AND PAVING. THIS PROJECT WILL BE CONSTRUCTED IN SEGMENTS AS SHOWN IN THE "STAGING PLANS".

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 2.5 ACRES

PROPOSED R.O.W (TOTAL PARCEL AREA) 0.0 ACRES

DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 0.65 ACRES

SUPPORTING REPORTS AND PLANS

THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

SOIL PROFILE SHEETS, SOILS REPORTS, BORING LOGS
USGS DRAINAGE MAPS, PROJECT PLAN DOCUMENTS

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE

LITTLE CREEK

UNNAMED TRIBUTARY TO THE ROCK RIVER

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES

STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

PERIMETER EROSION CONTROL SHALL BE PLACED PRIOR TO BEGINNING EARTHWORK.

STABILIZATION PRACTICES DURING CONSTRUCTION:

AS EARTH EXCAVATION AND EMBANKMENT ARE BEING COMPLETED THE CONTRACTOR SHALL PLACE DITCH CHECKS, INLET AND PIPE PROTECTION, EROSION CONTROL BLANKET, AND SEEDING AS STAGES OF THE PROJECT ARE COMPLETED. PERIMETER EROSION BARRIER WILL BE INSTALLED AT ADDITIONAL LOCATIONS AS THE PROJECT PROGRESSES. SEEDING SHALL BE COMPLETED AS SPECIFIED IN THE EROSION CONTROL/SEEDING MOBILIZATION AND TEMPORARY SEEDING SPECIAL PROVISION.

MAINTENANCE AFTER FINAL GRADING

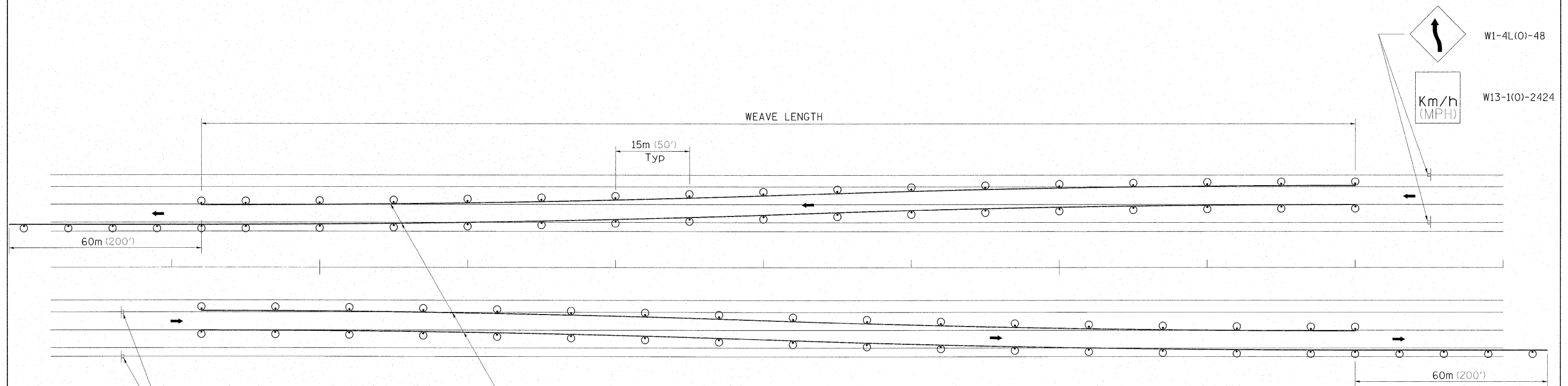
TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH THE PROPER STAND. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF RESEEDED.

STORM WATER POLLUTION PREVENTION PLAN

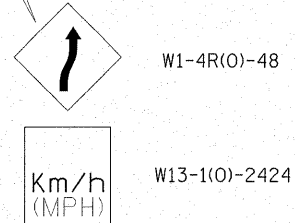
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		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
				SCALE:		SHEET NO. OF SHEETS		STA. TO STA.			

TRAFFIC CONTROL TYPICAL WEAVE



Temporary Pavement Marking required if Typical Weave is used for 14 days or more.



LEGEND

- ⊙ DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHTS
- ⊥ SIGN ON PERMANENT MOUNT

DESIGNER NOTE:

1. USE ON LONG 4-LANE PROJECTS WHERE THE CONTRACTOR MAY CHANGE A PORTION OF THE WORK TO THE OPPOSITE LANE.
2. USE WHERE THE PROJECT IS ADJACENT TO ANOTHER AND THE CONTRACTOR COULD BE WORKING ON DIFFERENT LANES.
3. TEMPORARY PAVEMENT MARKING SHALL BE USED WHEN TYPICAL WEAVE IS USED FOR 14 DAYS OR MORE.
4. TRAFFIC CONTROL TYPICAL WEAVE SHALL BE INCLUDED IN THE COST OF THE SPECIFIC TRAFFIC CONTROL STANDARDS OF ITEMS.

STANDARD WEAVE CONDITIONS FOR DIFFERENT SPEED LIMITS

POSTED SPEED LIMIT	ADVISORY SPEED LIMIT	WEAVE LENGTH
110 Km/h (65 MPH)	80 Km/h (45 MPH)	240m (780 FT.)
90 Km/h (55 MPH)	60 Km/h (35 MPH)	200m (660 FT.)
80 Km/h (45 MPH)	40 Km/h (25 MPH)	165m (540 FT.)

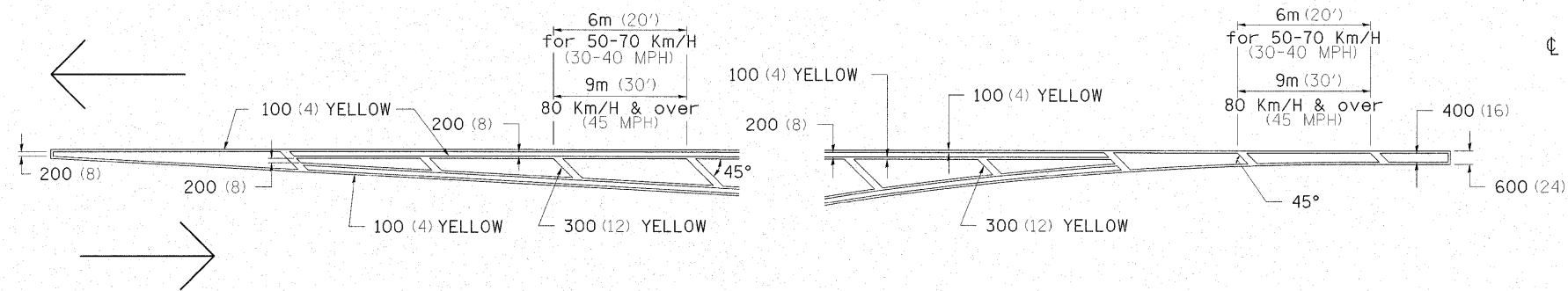
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL TYPICAL WEAVE 39.1

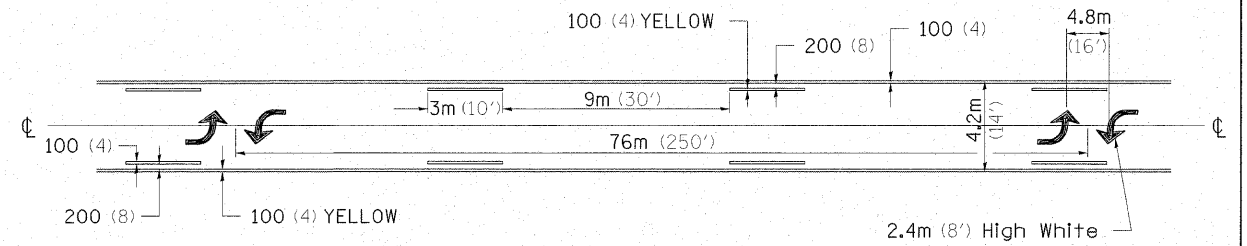
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TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

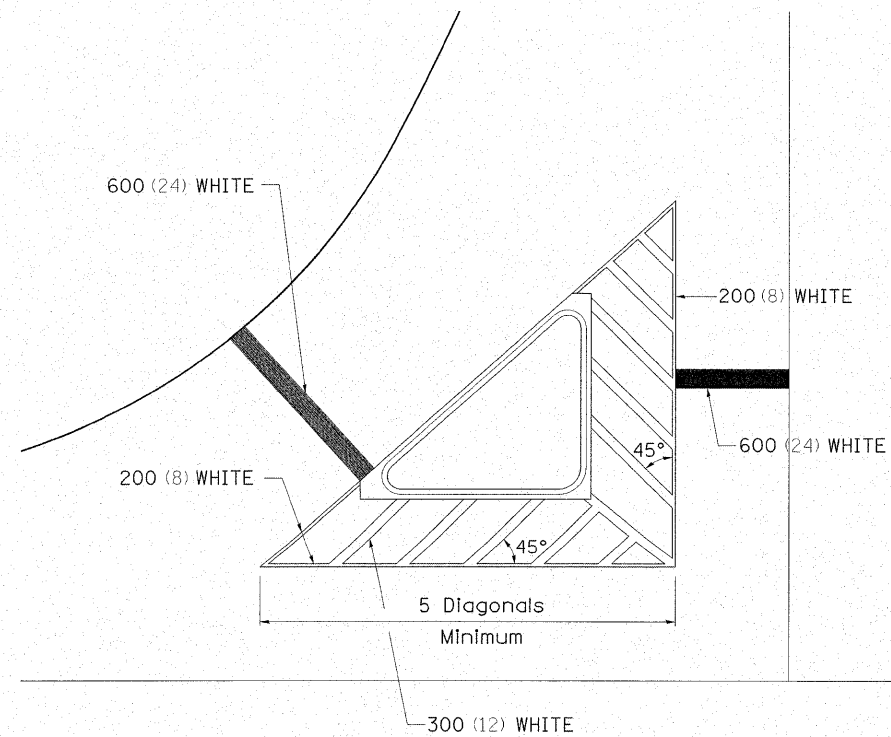


MEDIAN PAVEMENT MARKING

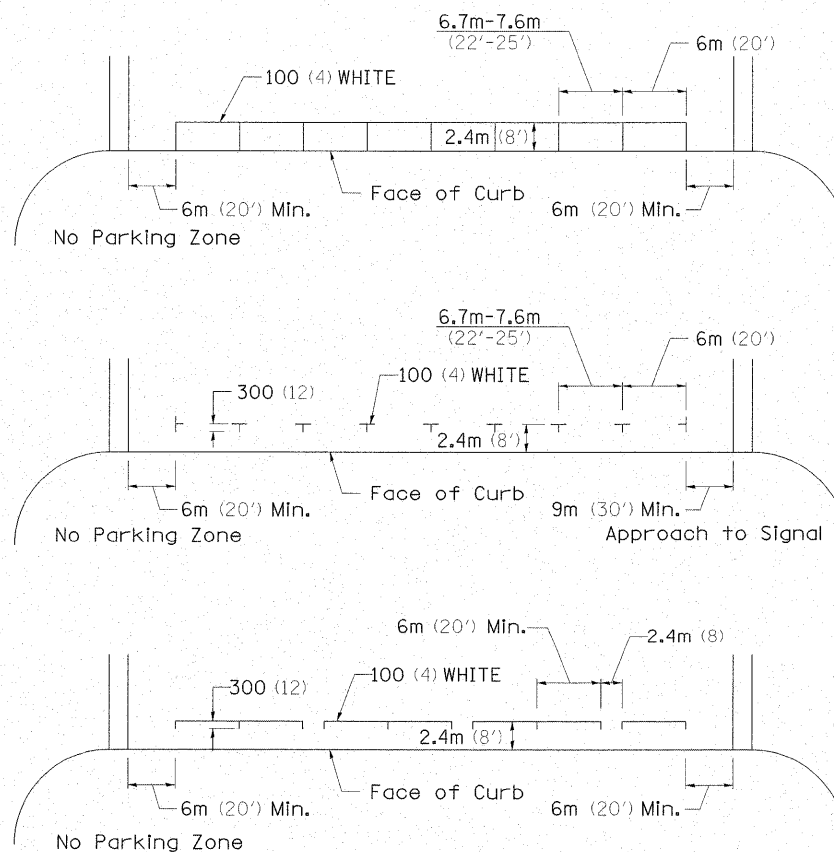


** ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH

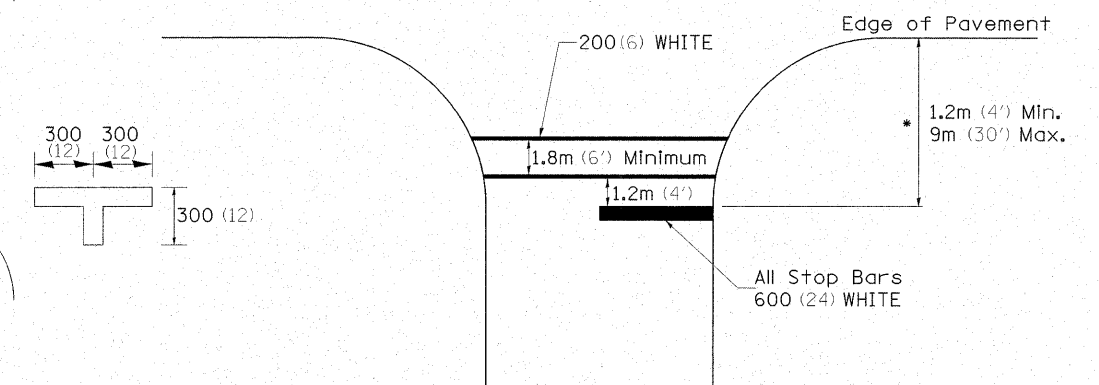


TYPICAL PARKING SPACING



STANDARD CROSSWALK MARKING

See Schedules for Locations

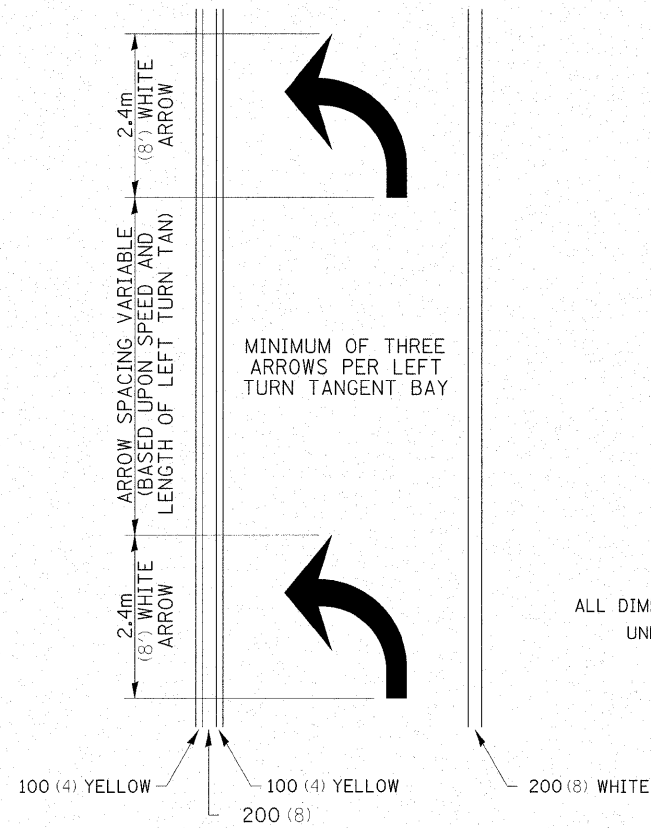


* Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

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		CHECKED -	REVISED -		CONTRACT NO. 64B05									
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT									

TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT

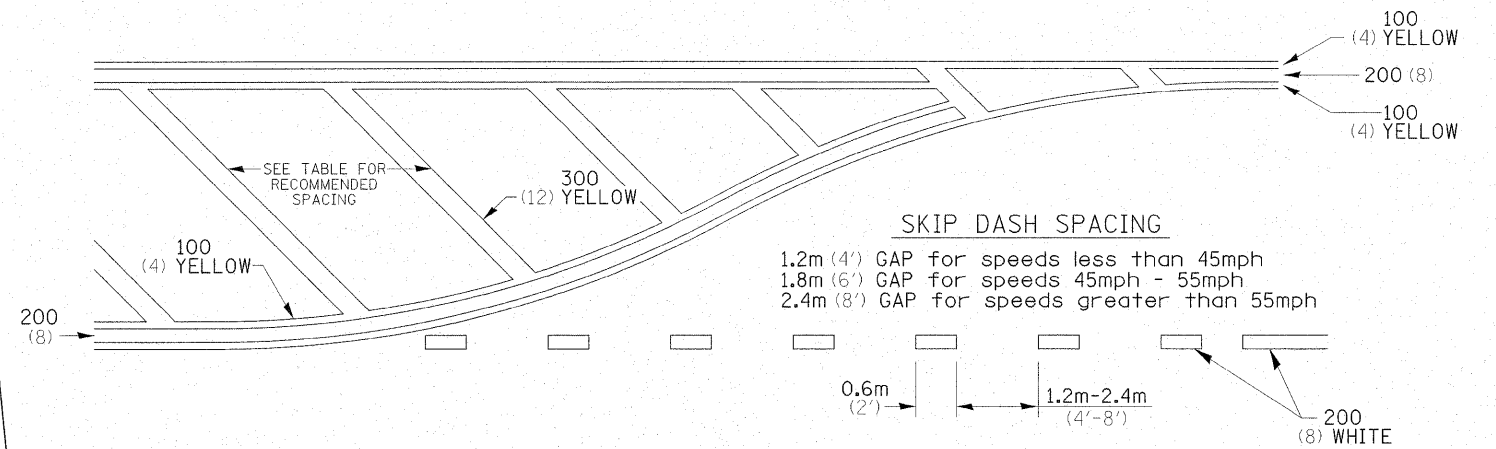


12.2m
6 at (40') O.C.
APPROACH SIDE ONLY

- ◀ ONE-WAY AMBER MARKER
- △ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES)
UNLESS OTHERWISE NOTED.

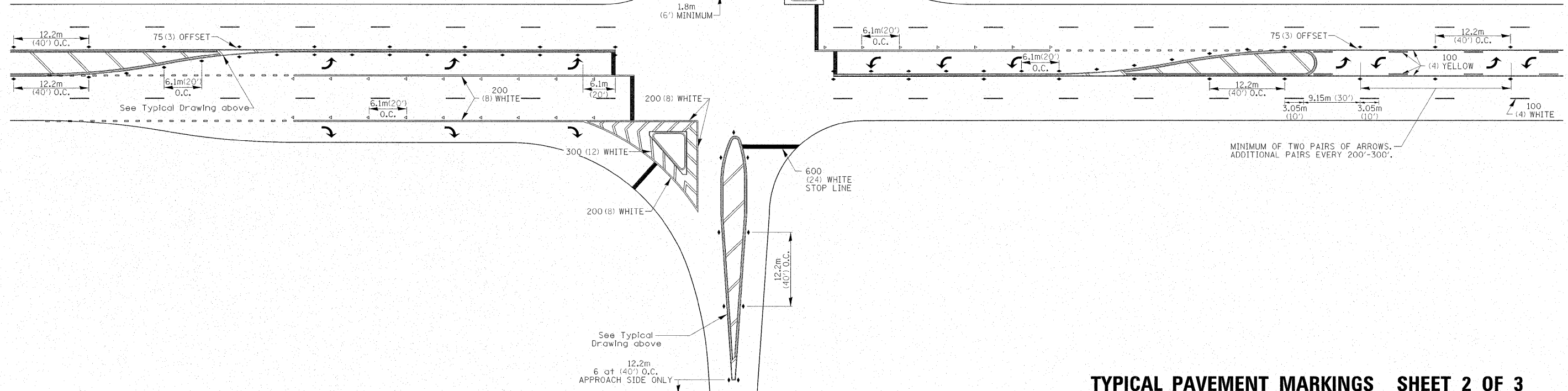
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

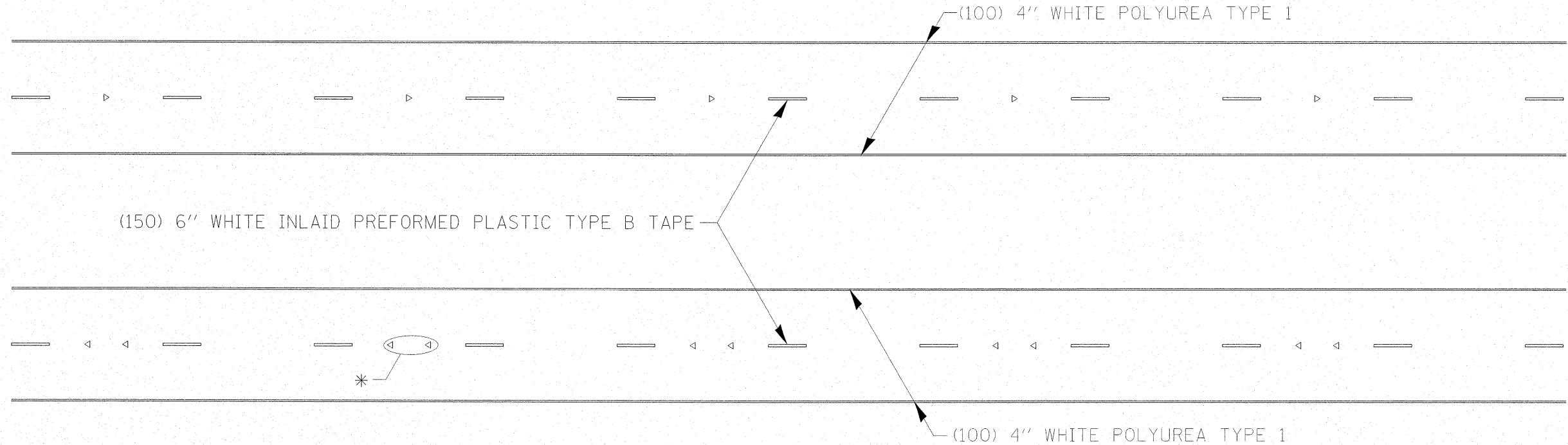
Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 50Km/H (30MPH)	15.3m (50')	4.53m (15')	3.05m (10')
50-60Km/H (30-40MPH)	22.9m (75')	6.1m (20')	4.53m (15')
70Km/H (45MPH) & over	22.9m (75')	9.05m (30')	6.1m (20')

NOTE: if the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



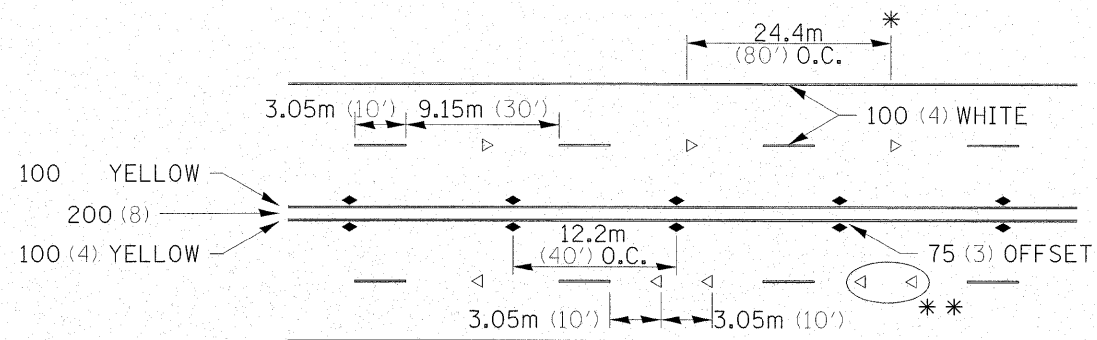
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		CHECKED -	REVISED -						CONTRACT NO. 64B05					
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT					

TYPICAL PAVEMENT MARKINGS



* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
USE DOUBLE MARKERS WHEN ADT \geq 25,000.

MULTI-LANE / DIVIDED

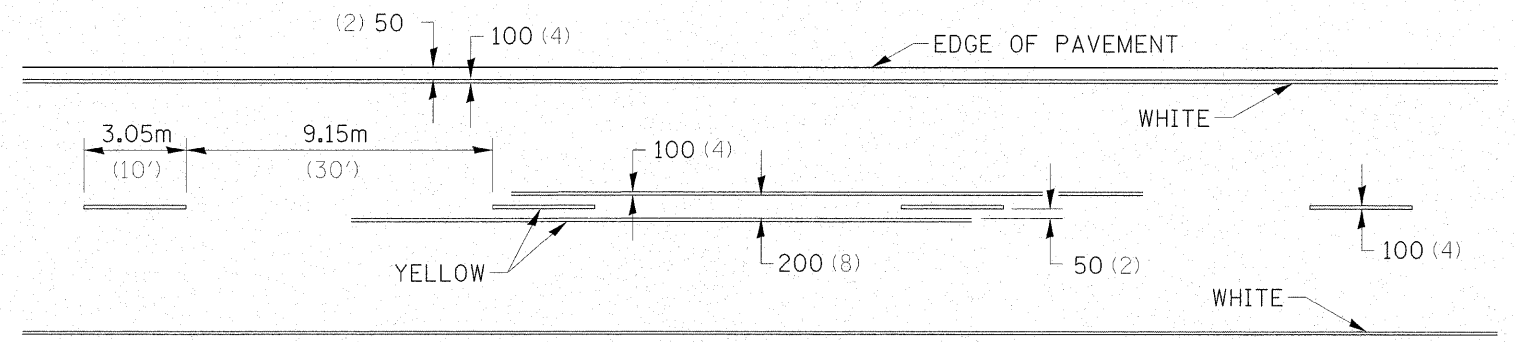


* REDUCE TO 12.2m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 15Km/H (10MPH) LOWER THAN POSTED SPEEDS.

** USE DOUBLE MARKERS WHEN ADT \geq 25,000

MULTI-LANE / UNDIVIDED

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES



SYMBOLS

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED -	REVISED - 10-21-08	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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