F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)D	CARROLL	40	1

CONTRACT NO. 64D14

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

FAP ROUTE 308 (IL 84)
SECTION (104–BY–1BR)D
PROJECT: ACBHF-0308(031)
CARROLL COUNTY
C–92–080–07

INDEX OF SHEETS

IDOT DIST 2 STANDARDS

STD. NO.	TITLE
23.4	DETAIL OF HOT–MIX ASPHALT SHOULDER AT GUARDRAIL
29.2	EROSION CONTROL DETAILS FOR SILT FENCE
37.4	DELINEATOR AND POST ORIENTATION
39.4	INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)
41.1	TYPICAL PAVEMENT MARKINGS
99.4	STOP LINE SIGN FOR TEMPORARY SIGNALS

IDOT HIGHWAY STANDARDS

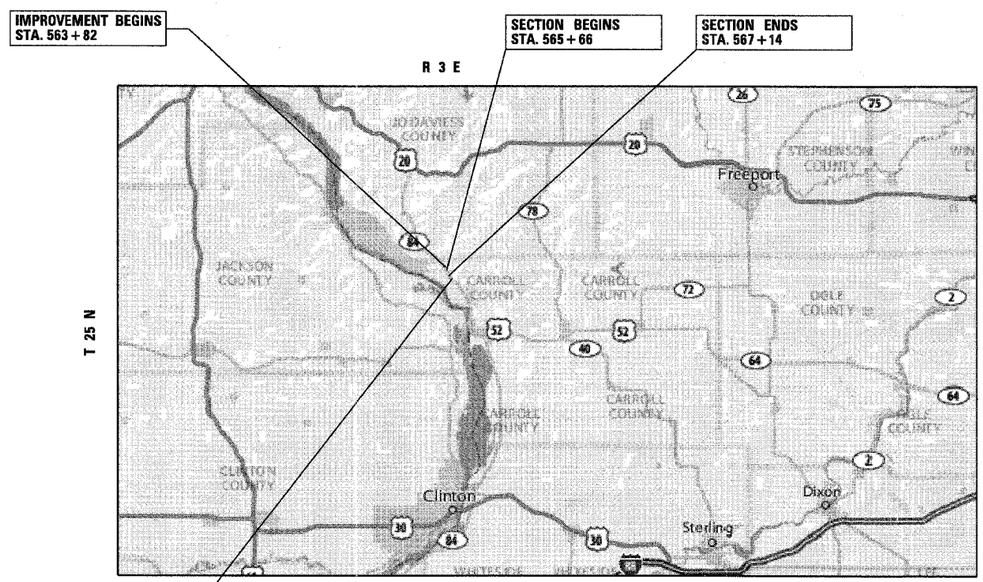
STD NO.	TITLE
280001–04	TEMPORARY EROSION CONTROL SYSTEM
515001–02	NAME PLATES FOR BRIDGES
630001–07	STEEL PLATE BEAM GUARDRAIL
630201–05	HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301–04	SHOULDER WIDENING FOR TYPE 1 (SEPCIAL) GUARDRAIL TERMINALS
631032–03	TRAFFIC BARRIER TERMINAL TYPE 6A
635001	DELINEATORS
635006–02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011–01	REFLECTOR MARKER AND MOUNTING DETAILS
701106–01	LANE CLOSURE, 2L, 2W, DAY ONLY
701201–02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301–02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306–01	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311–02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS–DAY ONLY
701321–04	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901	TRAFFIC CONTROL DEVICES
704001–04	TEMPORARY CONCRETE BARRIER
720011	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
728001	TELESCOPING STEEL SIGN SUPPORT
729001	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS AND MARKERS)
780001–01	TYPICAL PAVEMENT MARKINGS
886001	DETECTOR LOOP INSTALLATIONS
886006	TYPICAL LAYOUTS FOR DETECTION LOOPS
000001–06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

0 100′ 10′ 200′ 20′ 300′ 30′ — 1″ = 100′
0 50′ 100′ — 1″ = 50′
0 50′ 100′ — 1″ = 40′
0 50′ 100′ — 1″ = 30′
0 50′ 100′ — 1″ = 20′

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

SAVANNA TOWNSHIP SECTION 4
CONTRACT NO. 64D14



NET LENGTH = 103.54 FT = 0.020 MILES
GROSS LENGTH OF IMPROVEMENT 318.0 FT = 0.060 MILES

10/10/07

Expires: 11/30/09
10/10/07

D–92–054–07

LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED October 11 20 07
George E. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
December 7, 20 07
Eric E. Harm
Interim ENGINEER OF DESIGN AND ENVIRONMENT
December 7, 20 07
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

Wight & Company
2500 North Frontage Road . Darien . Il 60561
630.969.7000 630.969.7979 fax
Design Firm Registration 184-000451

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONSULTANT: GARY MRAZ (630) 969-7000
PROJECT ENGINEER: MASOOD AHMAD
DISTRICT TWO – BUREAU OF DESIGN
SENIOR SQUAD LEADER: SAM ABDULLAH (815) 2845902

CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	PAY CODE NO.	PAY ITEM	UNIT	80% FED 20% STATE X080-2A TOTAL
	20200100	EARTH EXCAVATION	CU YD	155
	20400800	FURNISHED EXCAVATION	CU YD	8
	28000400	PERIMETER EROSION BARRIER	FOOT	1400
	31100910	SUB-BASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	564
	40600990	TEMPORARY RAMP	SQ YD	48
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	168
	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	288
	50101500	REMOVAL OF EXISTING SUPERSTRUCURES	EACH	1
	50300225	CONCRETE STURCTURES	CU YD	5
	50300260	BRIDGE DECK GROOVING	SQ YD	157.7
	50300300	PROTECTIVE COAT	SQ YD	157.7
	X0328206	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	100
	50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	1419
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2220
	60800515	BAR SPLICERS	EACH	44
	5090150	STEEL RAILING, TYPE SM	FOOT	86
	51500100	NAME PLATES	EACH	1
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	86
	59000200	EPOXY CRACK INJECTION	FOOT	63
**	63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	287.5
**	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
**	6310016	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	EACH	4
	63200310	GUARDRAIL REMOVAL	FOOT	630
	63500105	DELILNEATORS	EACH	4
	67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL MO	3
	67100100	MOBILIZATION	L SUM	1
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
	7010046C	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5
•	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
•	70106700	TEMPORARY RUMBLE STRIP	EACH	6
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	300
	70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	5000
	70300570	PAVEMENT MARKING TAPE, TYPE III 24"	FOOT	48
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1380
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	360

	PAY CODE NO.	PAY ITEM	UNIT	80% FED 20% STATE X080-2A TOTAL
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	235
**	78001110	PAINT PAVEMENT MARKING-LINE 4"	FOOT	5680
**	78200410	GUARDRAIL MARKERS, TYPE A	EACH	14
**	78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	4
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1320
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	2
	Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
	Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	157.7
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	28
	Z0013798	CONSTRUCTION LAYOUT	LSUM	1
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1

GENERAL NOTES

THE CONTRACTOR SHALL SUBMIT FOUR COPIES OF THE REQUIRED SHOP DRAWINGS FOR REVIEW AND APPROVAL TO IDOT BUREAU OF BRIDGES AND STRUCTURES, 2300 SOUTH DIRKSEN, SPRINGFIELD, IL 62706

CONTRACTOR SHALL SUBMIT ONE SET OF SHOP DRAWINGS TO DAVE LIPPERT, ENGINEER OF MATERIALS, IDOT, 126 EAST ASH STREET, SPRINGFIELD, IL 62706, AND EIGHT SETS OF SHOP DRAWINGS TO BE DISTRIBUTED TO:
DISTRICT 2 DISTRICT ENGINEER (1), FABRICATOR (1), CONTRACTOR (1), RESIDENT ENGINEER (2)
DISTRICT 2 BUREAU OF MATERIALS (2)

WATER FLOW IN THE DITCHES MUST BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOWS 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.

PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:
THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8", NOT 7" AS SHOWN IN THE DETAIL OF TYPICAL LANE EDGE LINES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.3 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

CONSTRUCTION EQUIPMENT SHALL BE STAGED ON PAVED SURFACES. CONTRACTOR SHALL NOT BE ALLOWED TO WORK FROM THE WATERWAY.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE:	SHOULDR
PG:	PG 58-22
DESIGN AIR VOIDS	3.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5 OR 12.5
FRICTION AGGREGATE	C
20 YEAR ESAL	N/A

MIXTURE USE:	APPROACHES
PG:	PG 64-22
DESIGN AIR VOIDS	4.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5 OR 12.5
FRICTION AGGREGATE	C
20 YEAR ESAL	1.4

SEE CROSS SECTIONS FOR SPECIAL DITCHES AND BACKSLOPES.

THE FINAL TOP 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.

IT IS ESTIMATED THAT 8 CUBIC YARDS OF EARTH WILL BE HAULED TO THE JOB FROM OUTSIDE THE PROJECT LIMITS. A SHRINKAGE FACTOR OF 25 % HAS BEEN USED.

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 CUTTER, ON ALL B BEHIND THE BACKSLOPE, AND BEYOND THE TOE OF FRONT SLOPE ON FILL SECTIONS WITHOUT DITCHES. THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION.

FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS AND INCORPORATED INTO THE SEEDBED PRIOR TO SEEDING OR PLACEMENT OF SOD AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
MULCH METHOD II SHALL BE APPLIED OVER ALL SEEDED AREAS. THIS SHALL BE INCLUDED IN THE COST OF THE EARTH EXCAVATION.

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.

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 REQUIREMENTS FOR THE TYPE OF STEEL PLATE BEAM GUARDRAIL TERMINALTYPE 1 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 EACH HEADWALL OR END SECTION OF AR CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR DELINEATORS

THIS STRUCTURE WILL RETAIN THE SAME NUMBER 008-0016.

** SPECIALTY ITEMS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: VERT.
HORIZ.
DATE 10/10/07

DRAWN BY CKL
CHECKED BY CAC

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CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

TEMPORARY TRAFFIC CONTROL

LOCATION	70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH	70106700 TEMPORARY RUMBLE STRIP EACH	70300100 SHORT TERM PAVEMENT MARKING FOOT	70300520 PAVEMENT MARKING TAPE, TYPE III 4" FOOT	70300570 PAVEMENT MARKING TAPE, TYPE III 24" FOOT	70301000 WORK ZONE PAVEMENT MARKING REMOVAL FOOT	70400100 TEMPORARY CONCRETE BARRIER FOOT	70400200 RELOCATE TEMPORARY CONCRETE BARRIER FOOT	Z0030250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 EACH	Z0030350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 EACH
SN 008-0016 WEST	1	3	150	2500	24	690	118	118	1	1
SN 008-0016 EAST	1	3	150	2500	24	690	117	117	1	1
SUB-TOTAL	1	6	300	5000	48	1380	235	235	2	2

SHOULDER PAVEMENT

STATION FROM	STATION TO	20200100 EARTH EXCAVATION CU. YD.	20400800 FURNISHED EXCAVATION CU. YD.	31100910 SUB-BASE GRANULAR MATERIAL, TYPE A 12" SQ. YD.	40603310 HOT-MIX ASPHALT SURF. COURSE, MIX C, N50 TON
562+70	565+87	77.5	20	282	50
566+95	570+04	77.5	20	282	50
SUB-TOTAL		155	40	564	100

PAVEMENT

STATION FROM	STATION TO	40600990 TEMPORARY RAMPS SQ YD	40603310 HOT-MIX ASPHALT, SURF. COURSE, MIX "C", N50 TON	44000157 HOT-MIX ASPHALT SURFACE REMOVAL SQ. YD.	78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL EACH
565+66	566+20	24	34	144	1
566+60	567+14	24	34	144	1
SUB-TOTAL		48	68	288	2

GUARDRAIL

LOC.	63000000 STEEL PLATE BEAM GUARDRAIL, TYPE A FOOT	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED) EACH	63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A EACH	63200310 GUARDRAIL REMOVAL FOOT	63500105 DELINEATORS EACH	78200410 GUARDRAIL MARKERS, TYPE A EACH
NW QUADRANT	37.5	1	1	127	1	
SW QUADRANT	100	1	1	188	1	
NE QUADRANT	100	1	1	188	1	
SE QUADRANT	50	1	1	127	1	
SUB-TOTAL	287.5	4	4	630	4	14

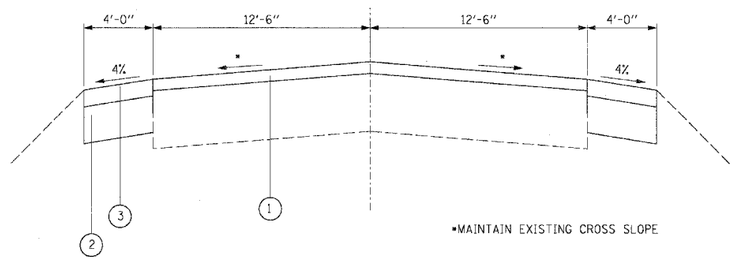
PAVEMENT MARKING

STATION FROM	STATION TO	78001110 PAINT PAVEMENT MARKING-LINE 4" FOOT
559+39	569+39	5680
SUB-TOTAL		5680

2 PAINT APPLICATIONS REQUIRED

NOT SCHEDULED

28000400 PERIMETER EROSION BARRIER 1400 FT



*MAINTAIN EXISTING CROSS SLOPE

1 HOT MIX ASPHALT SURFACE REMOVAL, 2"
2" HOT MIX ASPHALT SURFACE COURSE, MIX "D", N70

2 SUB-BASE GRANULAR MATERIAL, TYPE A 12"

3 3" HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50
PLACE IN 2 LIFTS

TYPICAL SECTION

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: VERT.
HORIZ.
DATE 10/10/07

DRAWN BY CKL
CHECKED BY CAC

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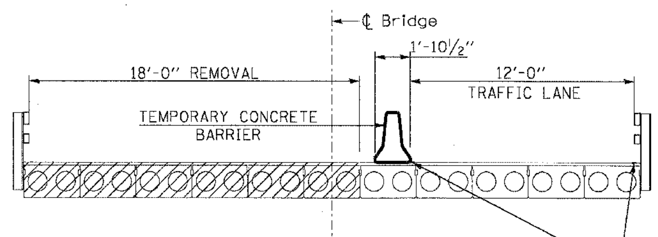
CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	4
STA. 542+80	TO STA. 554+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

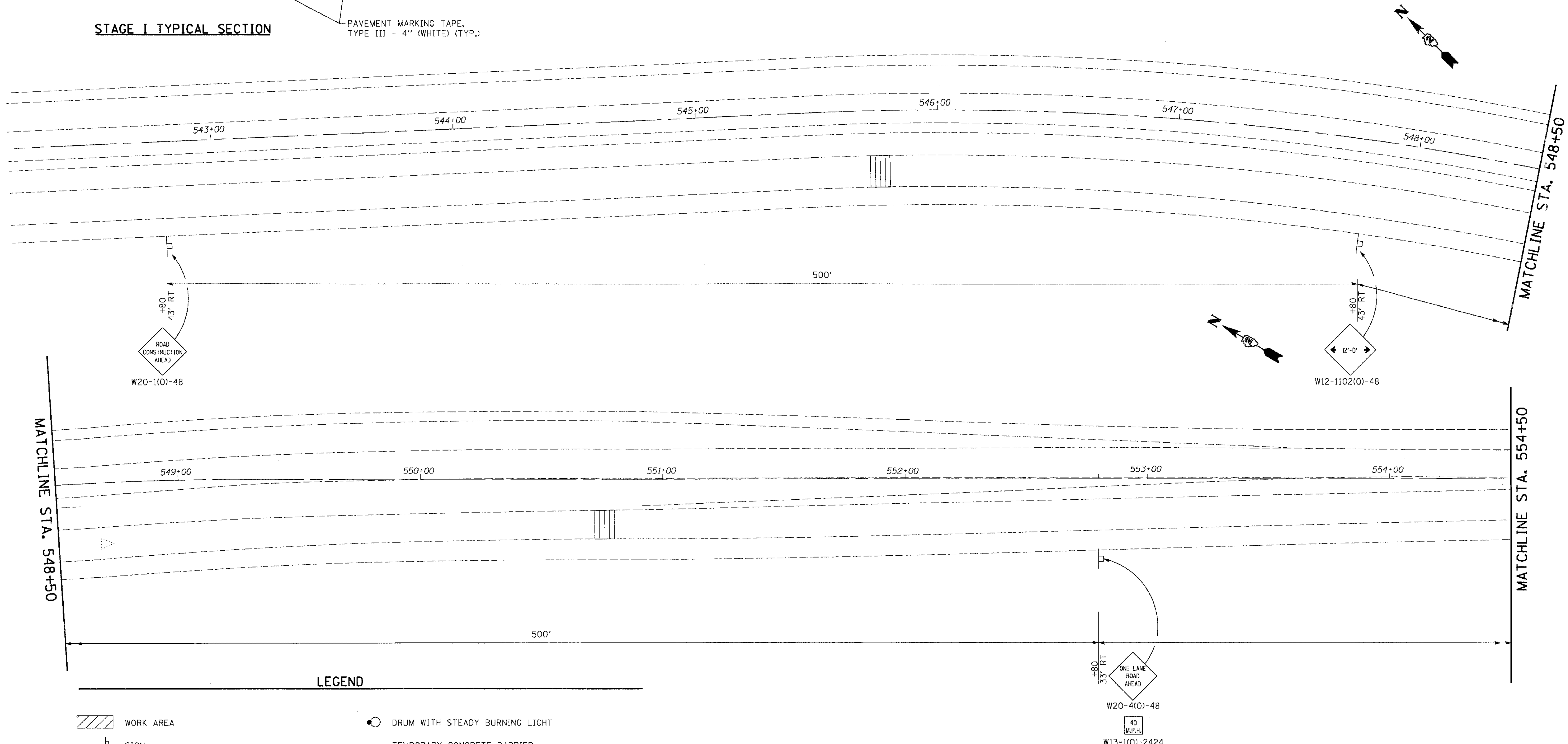


STAGE I TYPICAL SECTION

STAGE I

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES:
1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.
2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES

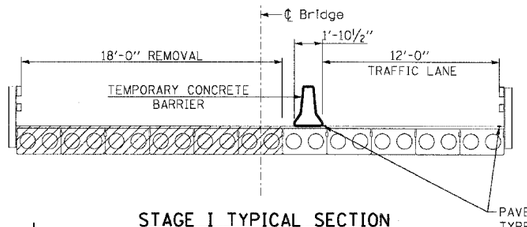
1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC
STAGE I
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016
SCALE: VERT. HORIZ.
DRAWN BY CKL
DATE 10/10/07
CHECKED BY CAC

CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	5
STA. 554+50		TO STA. 566+37.11		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



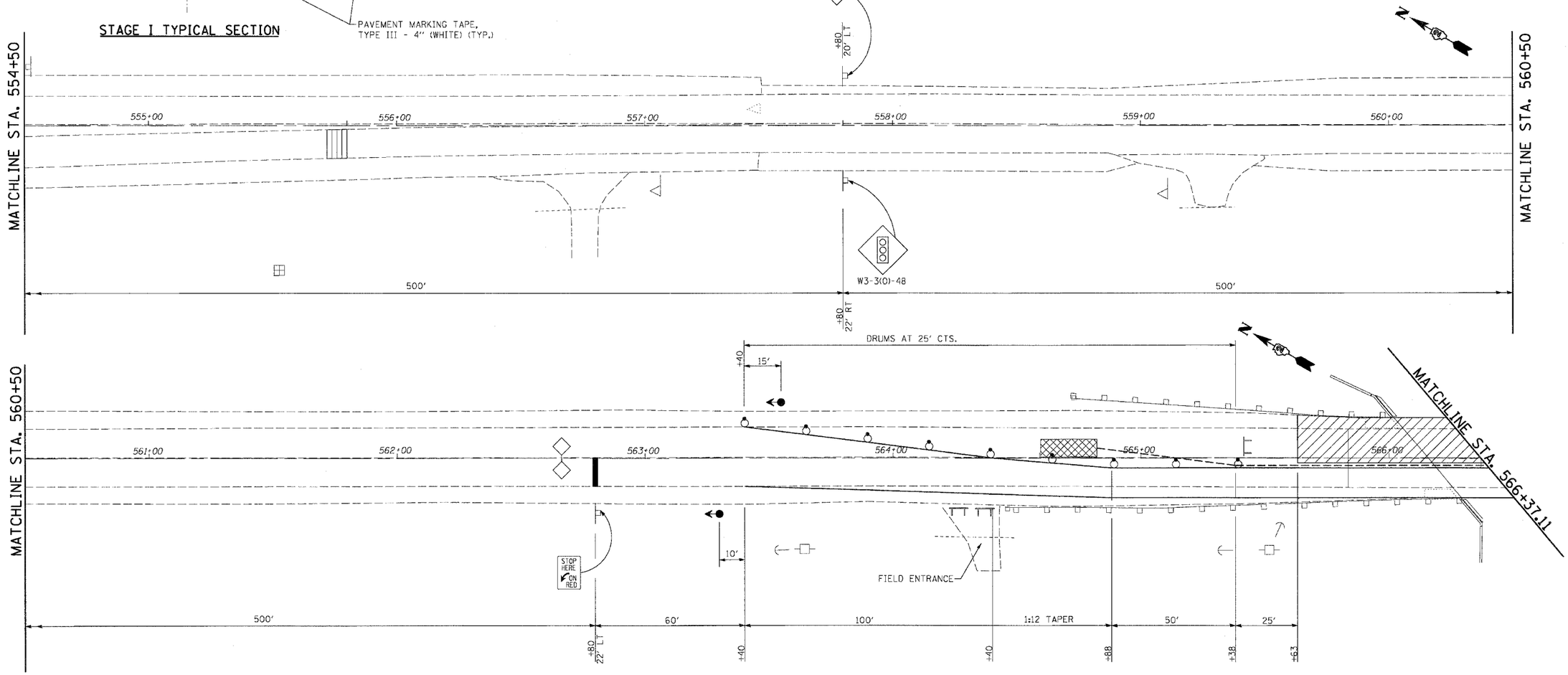
STAGE I TYPICAL SECTION

STAGE I

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES: 1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.

2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES

1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC STAGE I

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: VERT.
HORIZ.
DATE 10/10/07

DRAWN BY CKL
CHECKED BY CAC

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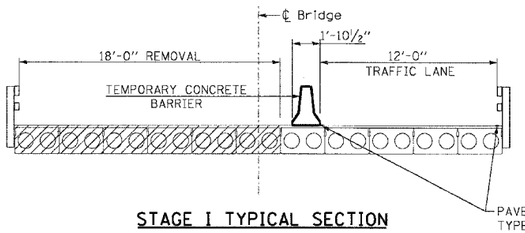
CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	6
STA. 566+37.11	TO STA. 578+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



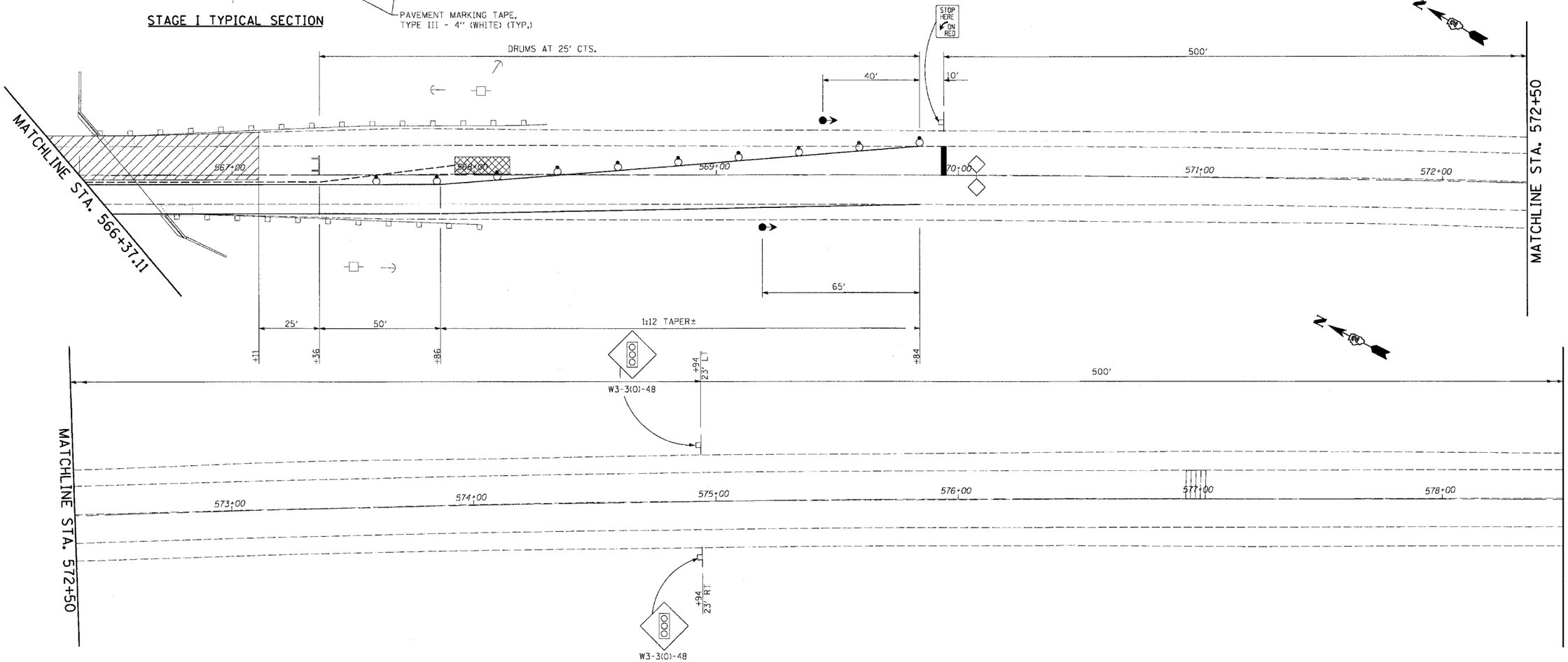
STAGE I TYPICAL SECTION

STAGE I

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES: 1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.

2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES

1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC STAGE I
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016
SCALE: VERT.
HORIZ.
DATE 10/10/07
DRAWN BY CKL
CHECKED BY CAC

PLOT DATE = 10/10/2007
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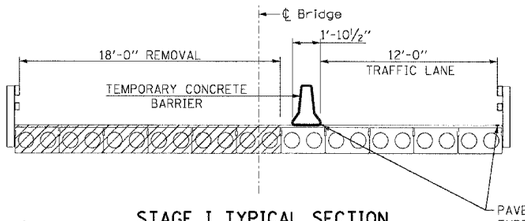
USER NAME = #USER#

CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	7
STA. 578+50		TO STA. 589+94		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



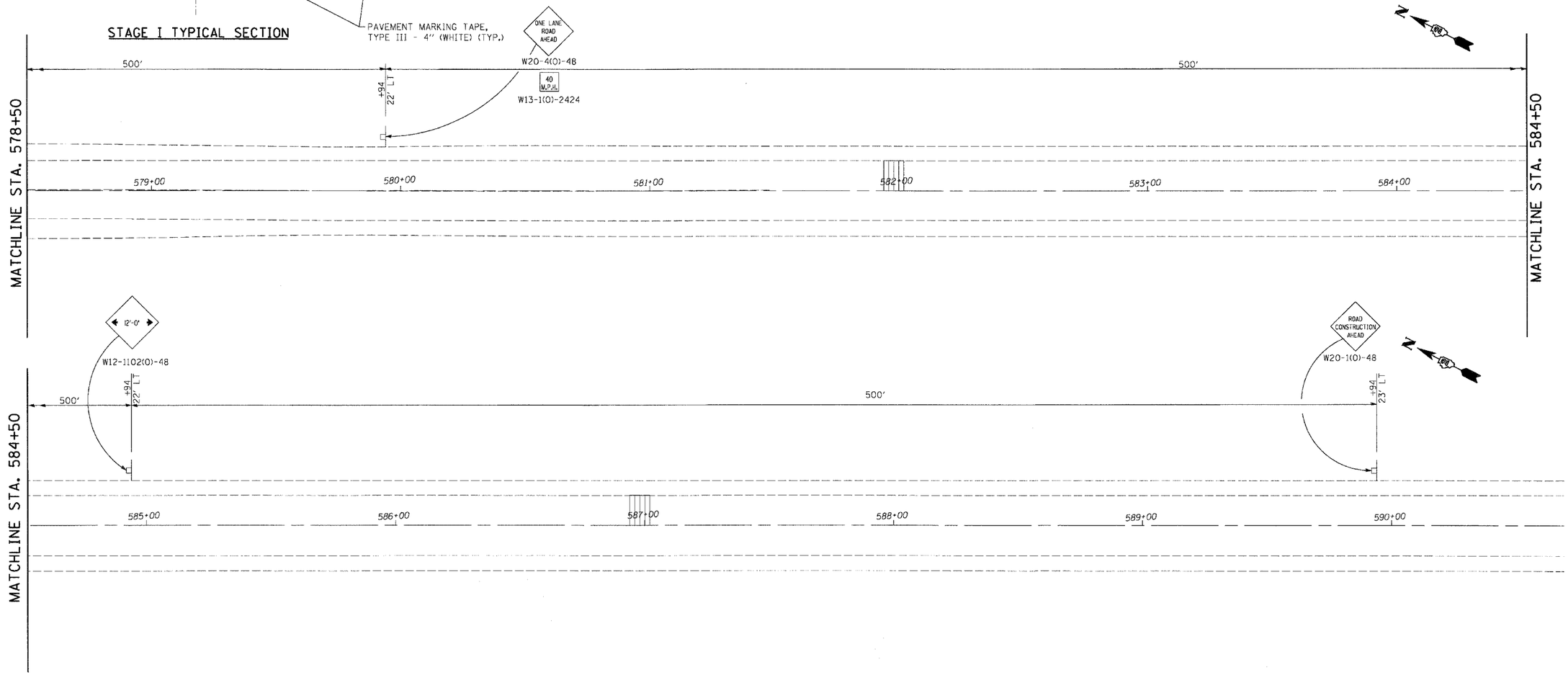
STAGE I TYPICAL SECTION

STAGE I

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES: 1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.

2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES

1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC STAGE I
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016
SCALE: VERT.
HORIZ.
DATE 10/10/07
DRAWN BY CKL
CHECKED BY CAC

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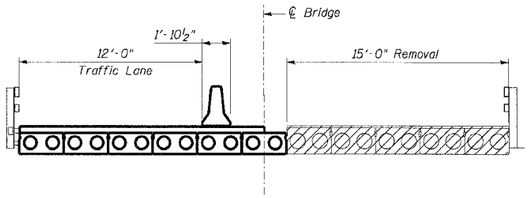
CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	8
STA. 542+80		TO STA. 554+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



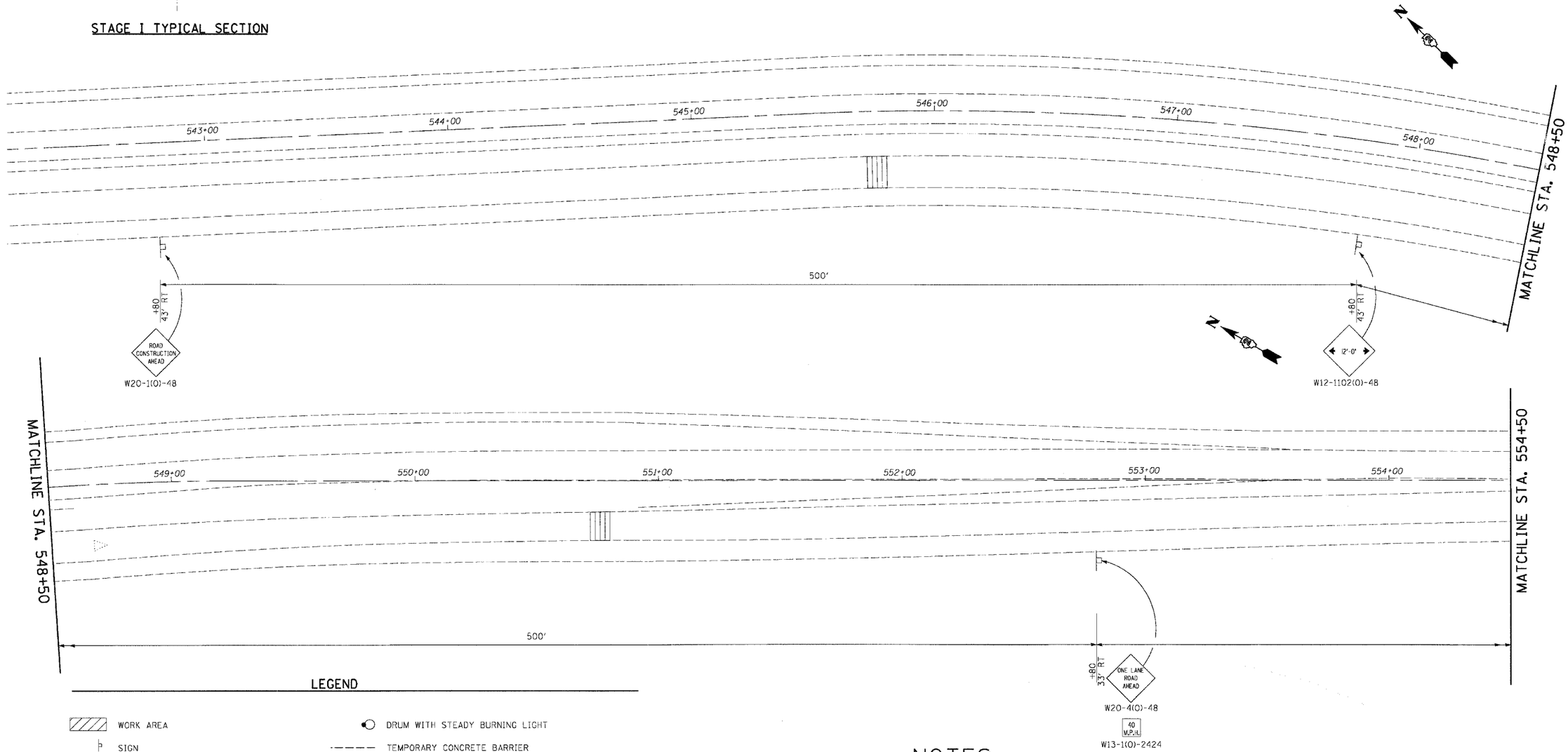
STAGE I TYPICAL SECTION

STAGE II

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES: 1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.

2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES

1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC STAGE II

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: VERT.
HORIZ.
DATE 10/10/07

DRAWN BY CKL
CHECKED BY CAC

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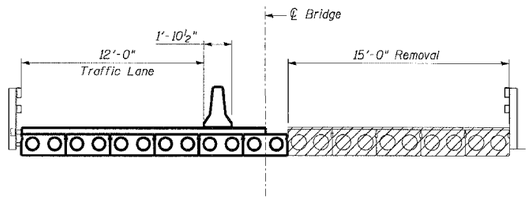
CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	9
STA. 554+50		TO STA.566+37.11		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



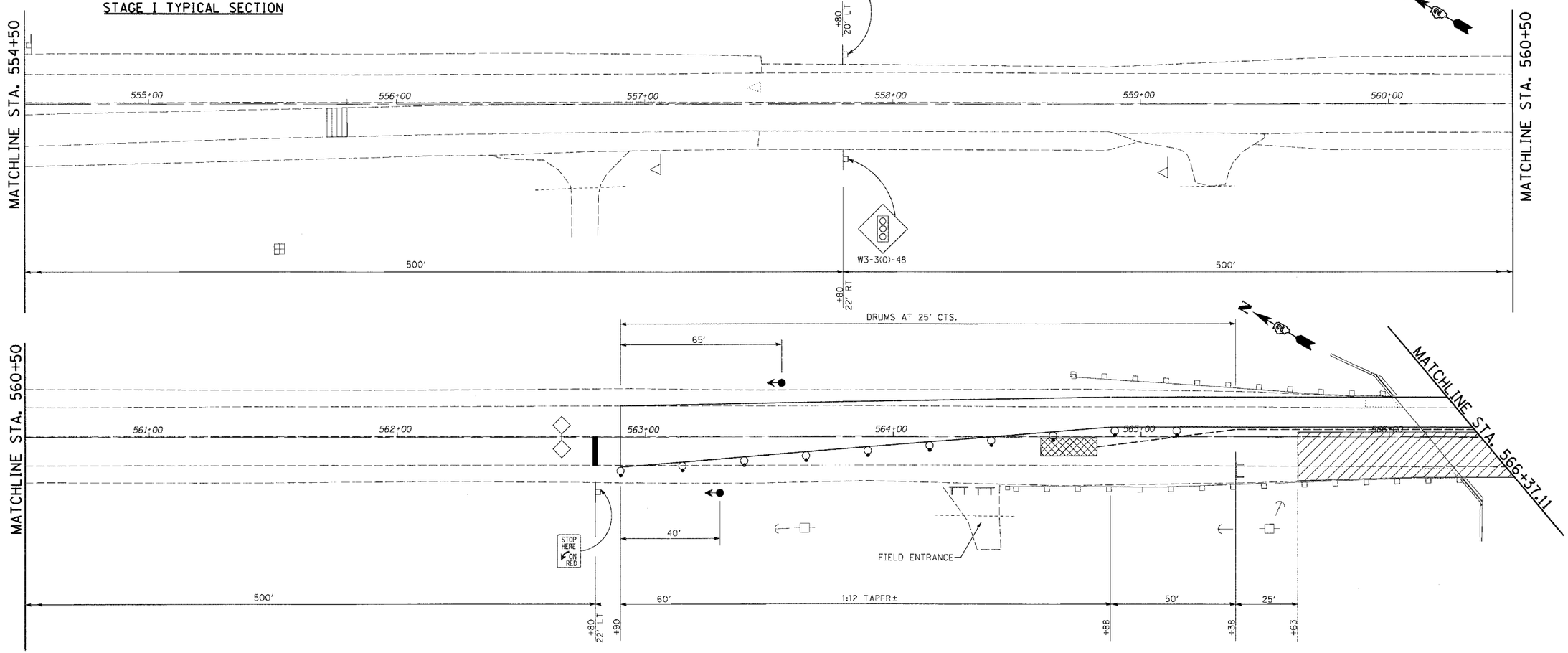
STAGE I TYPICAL SECTION

STAGE II

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES: 1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.

2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES

1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC STAGE II
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BRID
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016
SCALE: VERT.
HORIZ.
DATE 10/10/07
DRAWN BY CKL
CHECKED BY CAC

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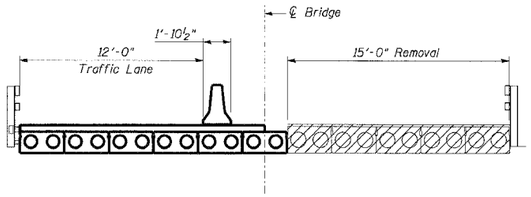
CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	10
STA. 566+37.11		TO STA. 578+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



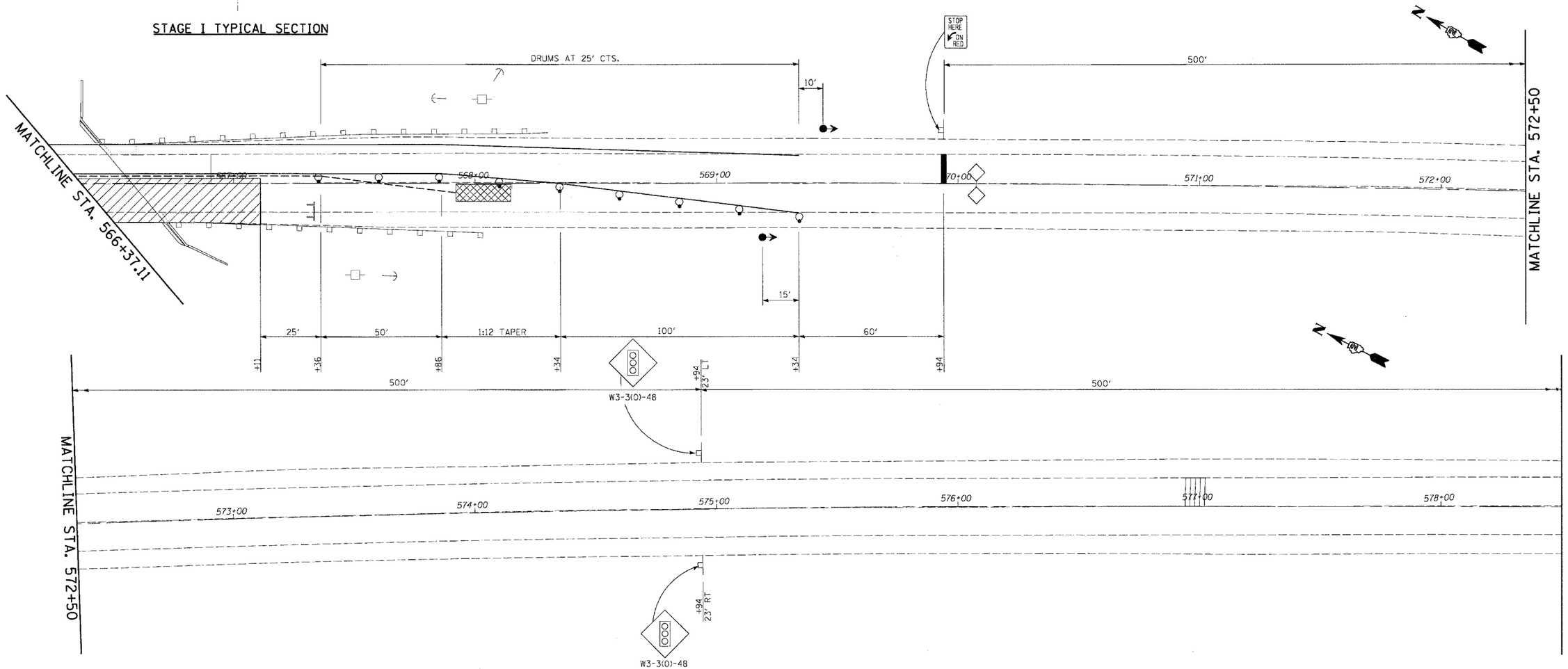
STAGE I TYPICAL SECTION

STAGE II

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES: 1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.

2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
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- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES

1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC
STAGE II
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016
SCALE: VERT.
HORIZ.
DATE 10/10/07
DRAWN BY CKL
CHECKED BY CAC

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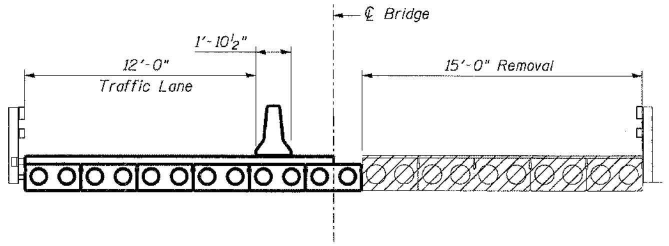
CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	11
STA. 578+50		TO STA. 589+96		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

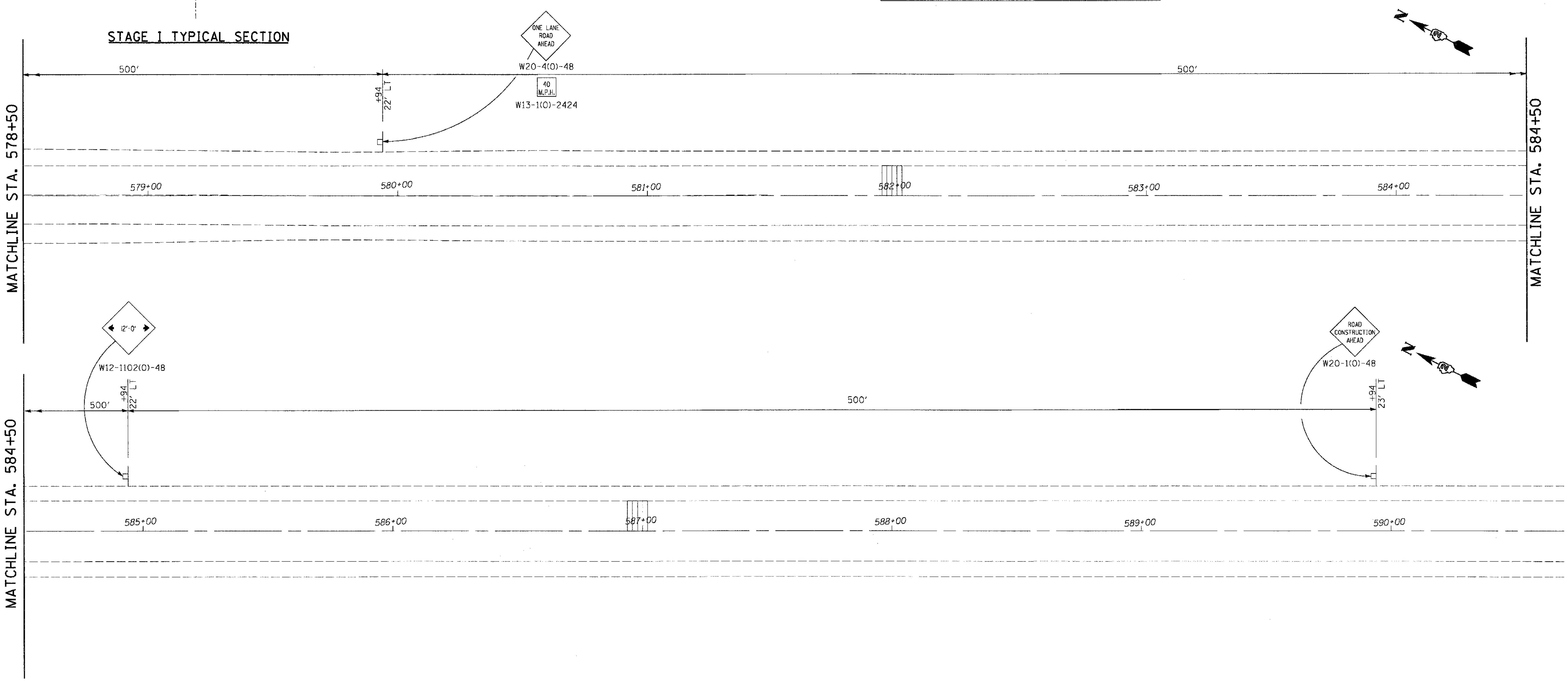
STAGE II



STAGE I TYPICAL SECTION

SEQUENCE OF OPERATIONS						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
EASTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	G	Y	R	R	R	R
WESTBOUND IL RTE 84 LEFT SIGNAL AND RIGHT SIGNAL	R	R	R	G	Y	R

NOTES:
1. CALL KRISTIE NYDEREK WITH DISTRICT 2 TRAFFIC AT (815) 284-5474 2 WEEKS BEFORE INSTALLING TEMPORARY SIGNAL.
2. PROPOSED HOT-MIX ASPHALT SHOULDERS SHALL BE CONSTRUCTED PRIOR TO THE PROPOSED BRIDGE RECONSTRUCTION AND REQUIRED STAGE I AND STAGE II LANE CLOSURES, USING STANDARD DAILY LANE CLOSURES.



LEGEND

WORK AREA	DRUM WITH STEADY BURNING LIGHT
SIGN	TEMPORARY CONCRETE BARRIER
TYPE III BARRICADE	TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
TRAFFIC SIGNAL	DOUBLE VERTICAL PANEL
DETECTOR LOOPS	CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
IMPACT ATTENUATOR	

NOTES

1. ALL GUARDRAIL MUST BE RE-INSTALLED PRIOR TO STAGE II CONSTRUCTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC
STAGE II
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016
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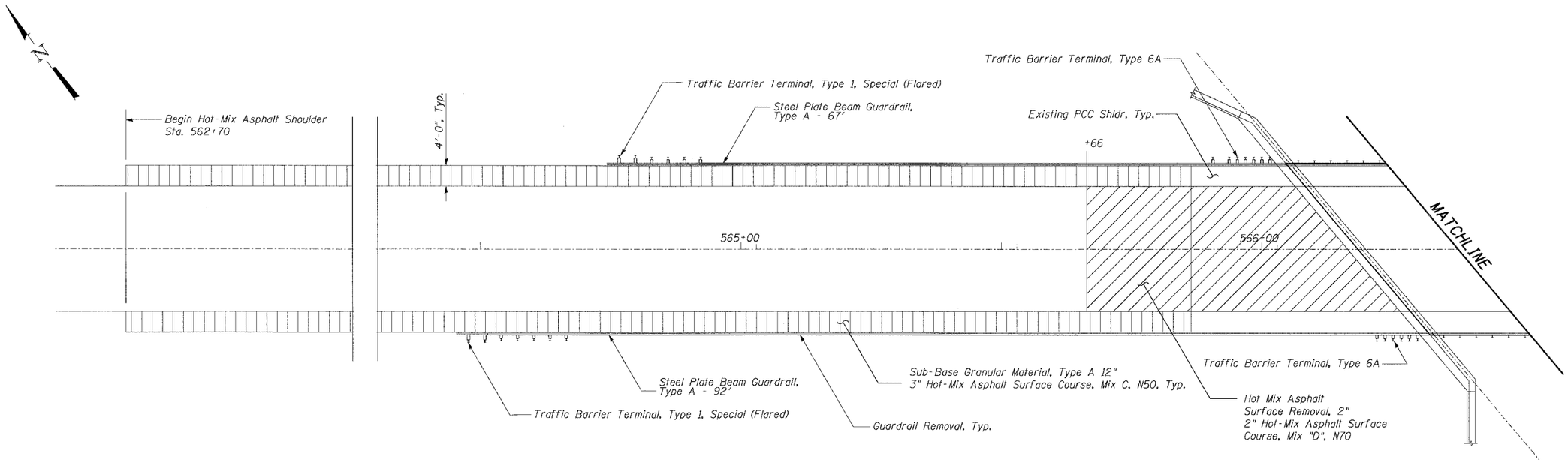
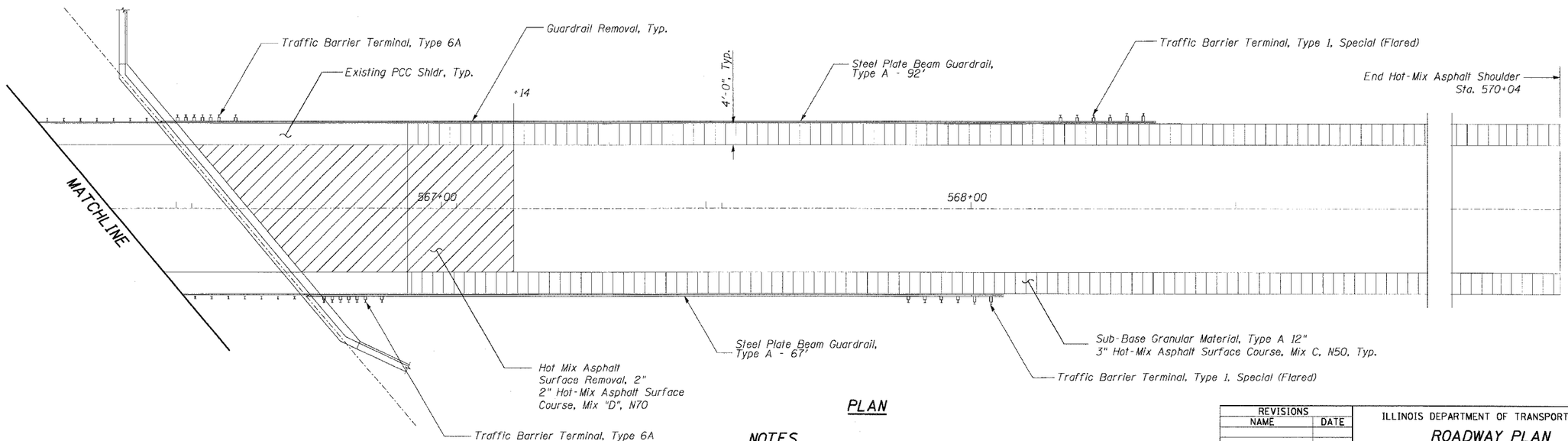
CONTRACT NO. 64D14

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)D	CARROLL	40	12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN



PLAN

NOTES

Approach Hot-Mix Asphalt Surface Removal and Replacement shall occur after the bridge construction is completed.

Proposed Hot-Mix Asphalt Shoulders shall be constructed prior to the proposed bridge reconstruction and required Stage I and Stage II lane closures, using Standard daily lane closures.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: VERT.
HORIZ.
DATE 10/10/07

DRAWN BY CKL
CHECKED BY CAC

PLOT DATE = 10/12/2007
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B.M.- USGS Brass Disc in top of Northwest Wingwall of Existing Structure Elev.=599.72

Existing Structure-Structure number 008-0016, station 566+37.11. The existing structure is a single span PPC deck beam bridge originally built in 1927 and reconstructed most recently in 1981. The back to back abutment length is 47'-2⅛" and the out to out bridge width is 33'-0". The existing superstructure is to be removed and replaced with one lane of traffic maintained utilizing staged contruction.

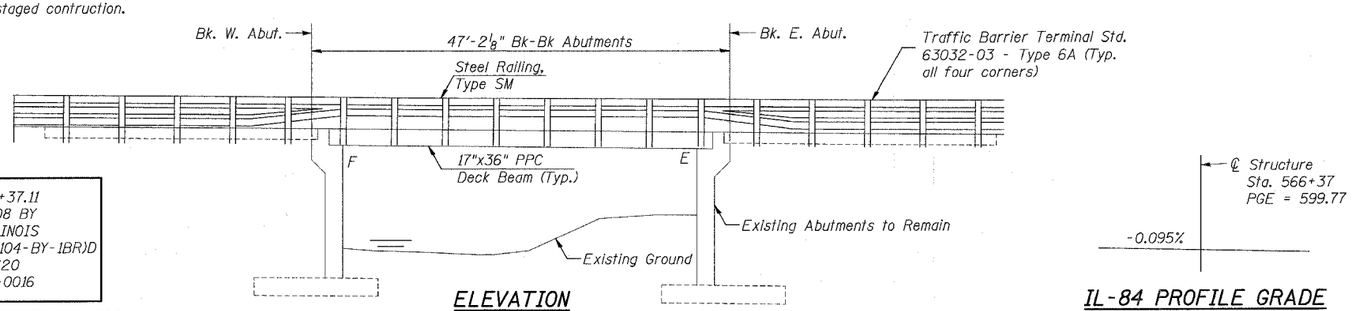
Salvage-none

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	(104-BY-1BR)D	CARROLL	40	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
9 SHEETS

Contract #64D14



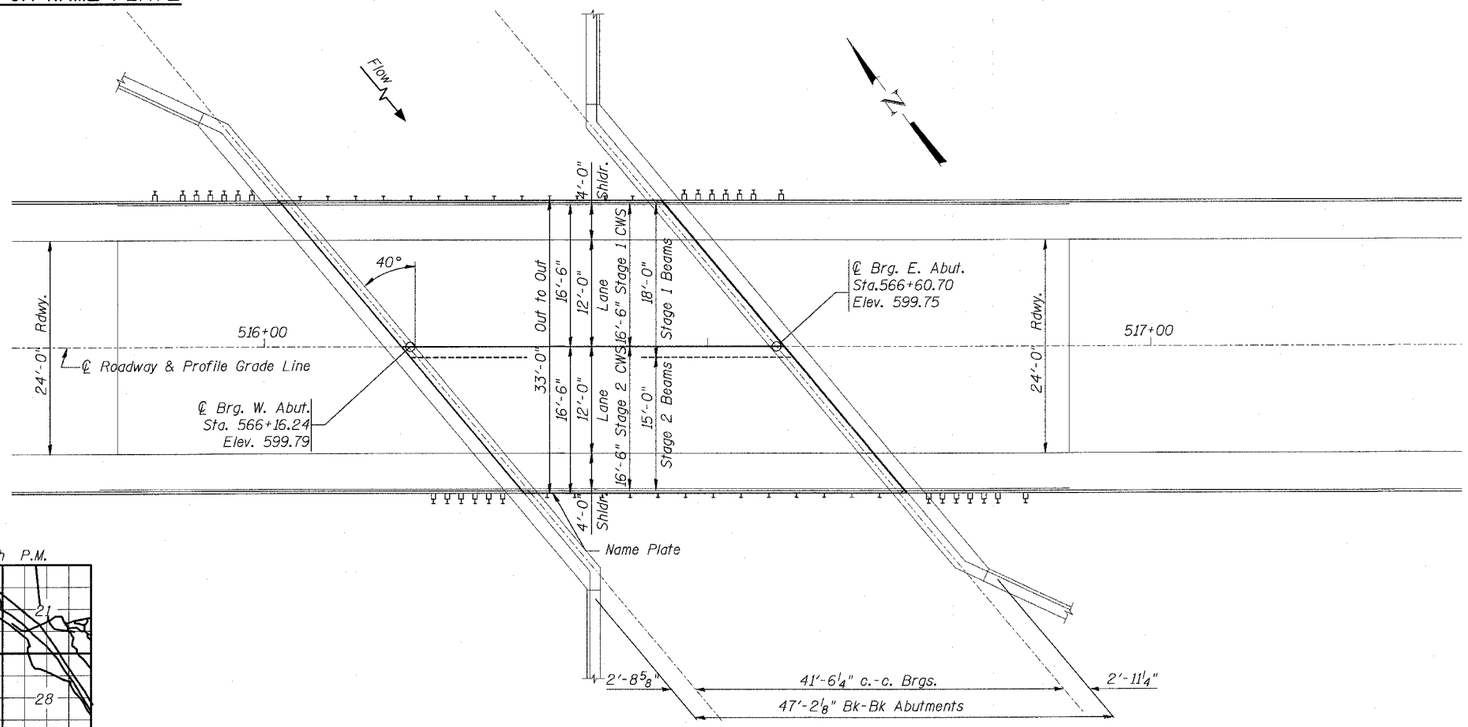
ELEVATION

IL-84 PROFILE GRADE

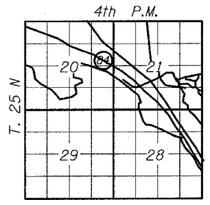
STATION 566+37.11
RE-BUILT 2008 BY
STATE OF ILLINOIS
FAP RT. 308 SEC. (104-BY-1BR)D
LOADING HS20
STR. NO. 008-0016

LETTERING FOR NAME PLATE

See Std. 515001



PLAN



LOCATION SKETCH

GENERAL NOTES

A Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete or precast prestressed concrete deck beams.

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

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

The contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the profile grade and camber.

If the contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new or existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures.

No in-stream work will be allowed on this project.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
GARY R. MINKE
NO. 081-002892
EXP. 11/30/08
CHICAGO, ILLINOIS
ILLINOIS STRUCTURAL ENGINEERS

11/5/07

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub. Abuts.	Total
Removal of Existing Superstructures	Each	1		1
Concrete Structures	Cu. Yd.	5.0		5.0
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1419		1419
Steel Railing, Type SM	Foot	86		86
Reinforcement Bars, Epoxy Coated	Pound	2220		2220
Bar Splicers	Each	44		44
Name Plates	Each	1		1
Concrete Wearing Surface, 5"	Sq. Yd.	157.7		157.7
Bridge Deck Grooving	Sq. Yd.	157.7		157.7
Protective Coat	Sq. Yd.	157.7		157.7
Preformed Joint Strip Seal	Foot	86		86
Epoxy Crack Injection	Foot		63	63
Asbestos Bearing Pad Removal	Each		28	28

WATERWAY INFORMATION

Drainage Area = 2.3 Sq. Mi. Low Grade Elev. = 598.4± @ Sta. 573+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	1902	226	226	594.5	1.26	1.26	595.76	595.76
Base	100	2207	238	238	594.9	2.08	2.08	596.98	596.98
Overtopping	200	2518	282	282	596.4	2.14	2.14	598.54	598.54
Max. Calc.	500								

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.32g
Site Coefficient (S) = 1.0

DESIGN STRESSES

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

CONCRETE WEARING SURFACE
f'c = 5,000 psi
fy = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" ϕ low relax strands)
f'si = 201,960 psi (1/2" ϕ low relax strands)

INDEX OF SHEETS

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

GP-1R (04-04-05)

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: NONE

DATE 10/10/07

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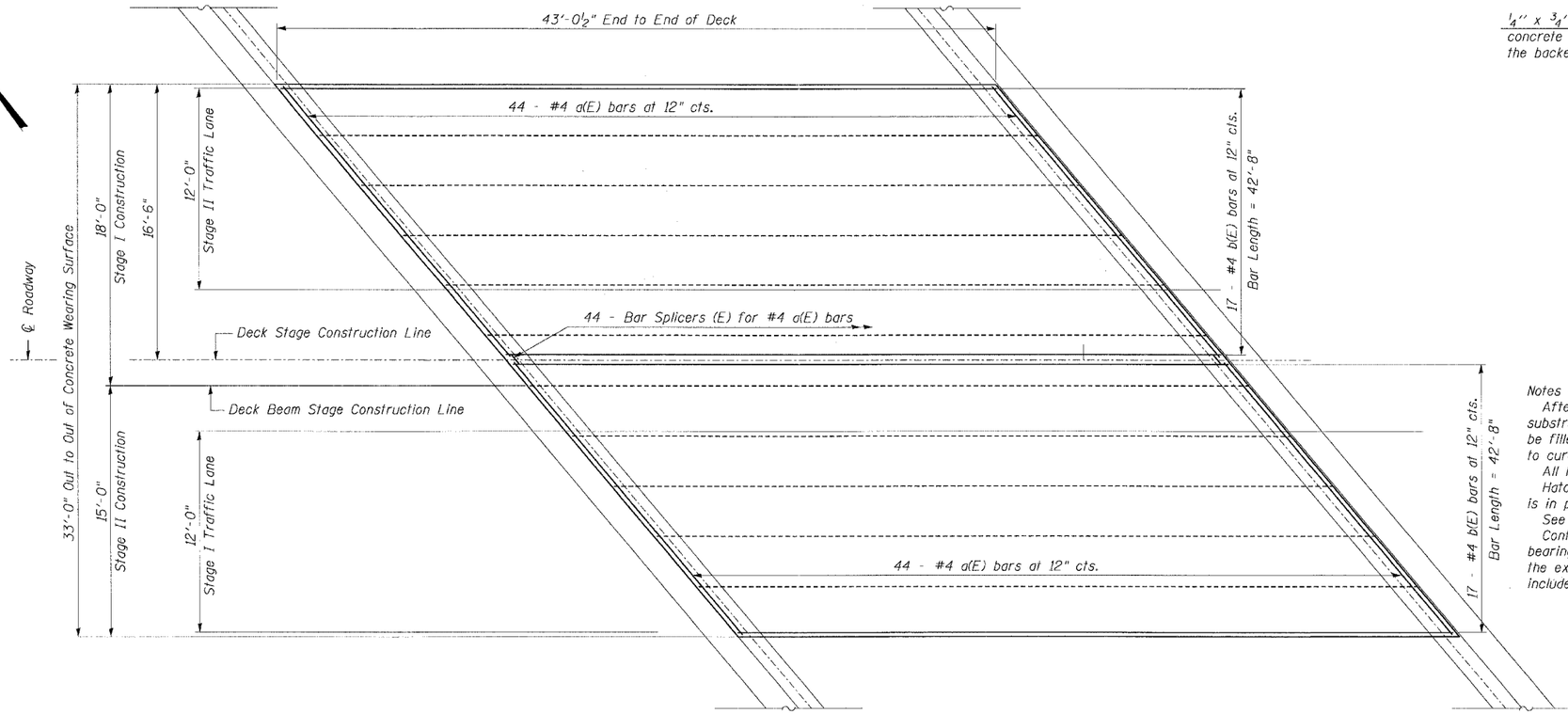
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

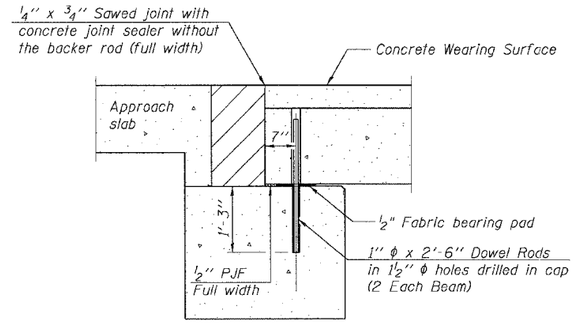
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	(104-BY-1BRID)	CARROLL	40	14
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
9 SHEETS

Contract #64D14

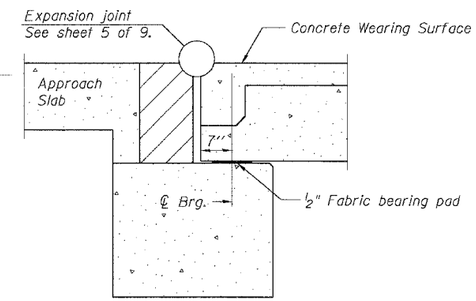


PLAN



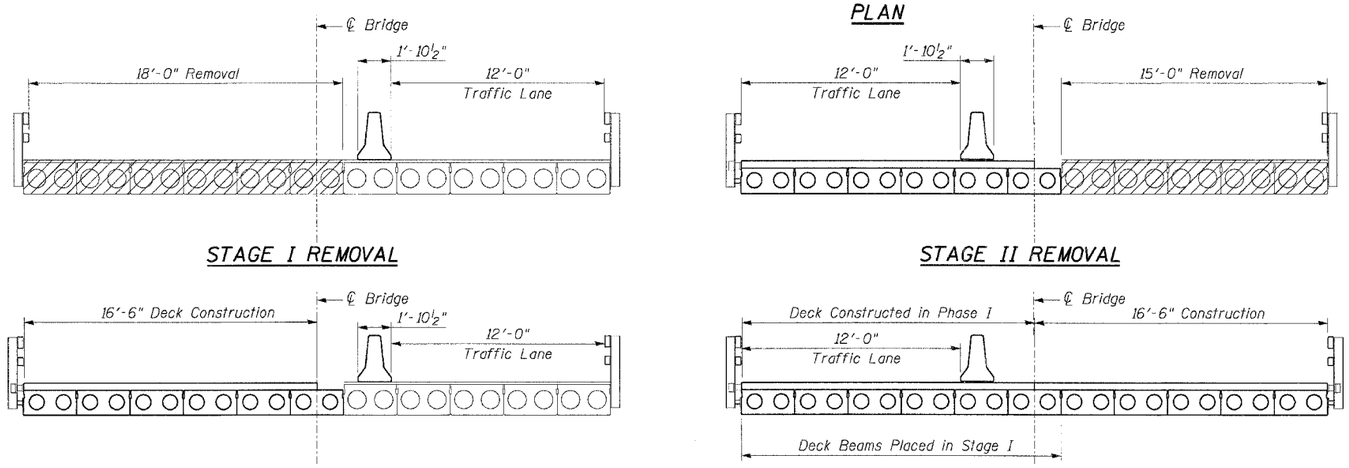
SECTION THRU WEST ABUTMENT

Notes :
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
All horizontal dimensions are at right angles to beam ends.
Hatched area to be poured after concrete wearing surface is in place.
See sheet 4 of 9 for bearing pad details.
Contractor shall burn the existing dowel rods flush with the bearing seat, grind the existing dowel rods smooth, and seal the existing dowel rods with epoxy. The cost of this work is included with Removal of Existing Superstrucure.



SECTION THRU EAST ABUTMENT

Notes :
All horizontal dimensions are at right angles to beam ends.
Hatched area to be poured after concrete wearing surface is in place.
See sheet 4 of 9 for bearing pad details.



STAGE CONSTRUCTION DETAILS

Looking East

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

GP-1R (04-04-05)

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE AND STAGING DETAILS

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BRID)
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: NONE

DATE 10/10/07

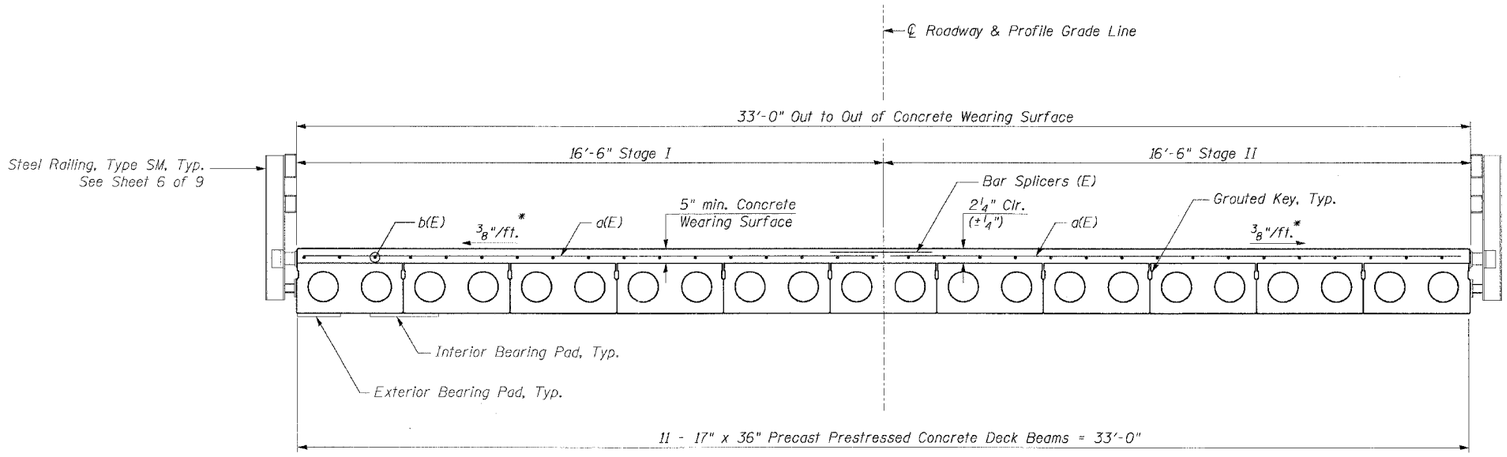
\DWG\CD\SHT014_SuperDet.dgn 10/10/2007 10:59:03 AM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	104-BY-1BRID	CARROLL	40	15
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT -	

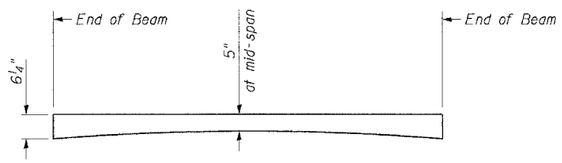
SHEET NO. 3
9 SHEETS

Contract #64D14

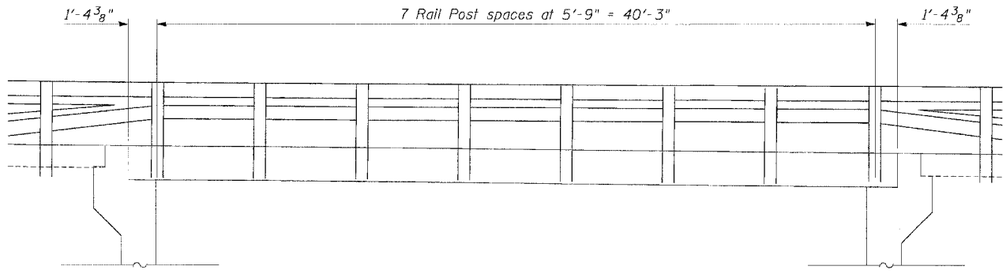


CROSS SECTION

*Field verify cross slope



REINFORCED CONCRETE WEARING SURFACE PROFILE



RAIL POST SPACING

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

GP-1R (04-04-05)

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK SECTION AND DETAILS

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: NONE

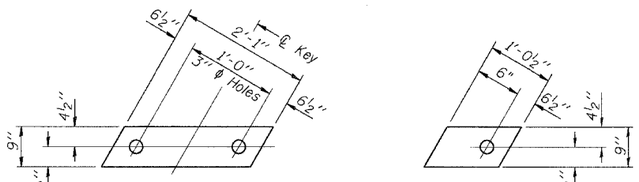
DATE 10/10/07

\DWG\CD\SHT015_DeckSect.dgn 10/10/2007 10:59:32 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	104-BY-1BR)D	CARROLL	40	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
9 SHEETS

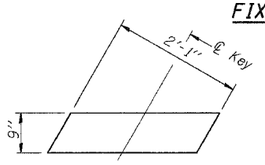
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



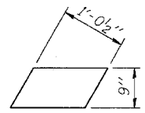
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

FIXED

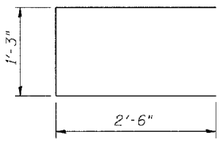


FABRIC BEARING PAD
(Interior)

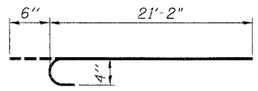


FABRIC BEARING PAD
(Exterior)

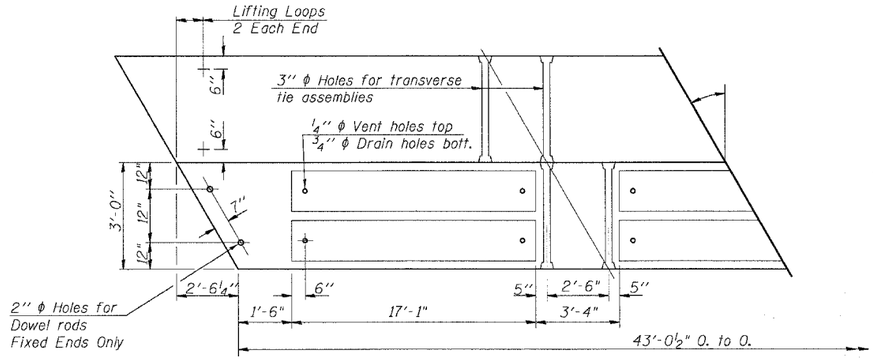
EXPANSION



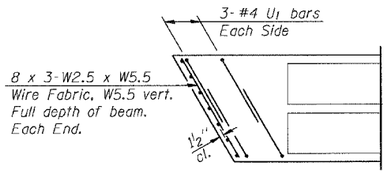
BAR U_1



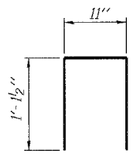
a(E) BAR



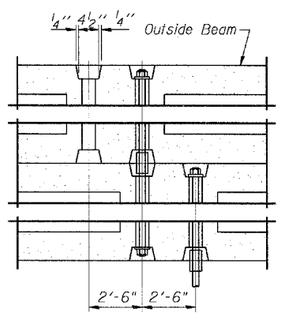
PLAN

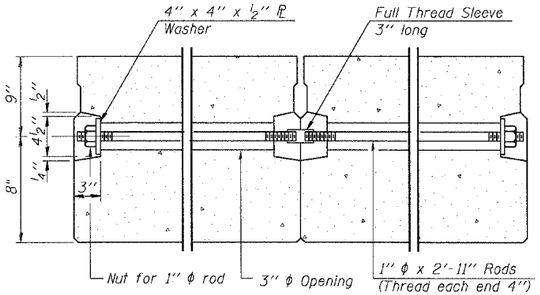


END PLAN

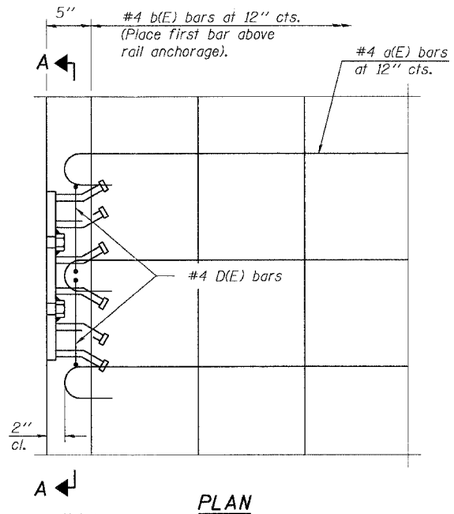


D(E) BAR



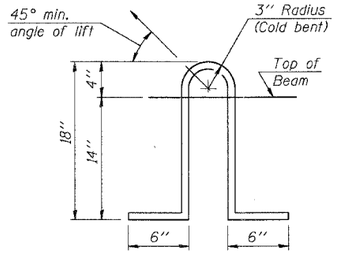


TYPICAL TRANSVERSE TIE ASSEMBLY

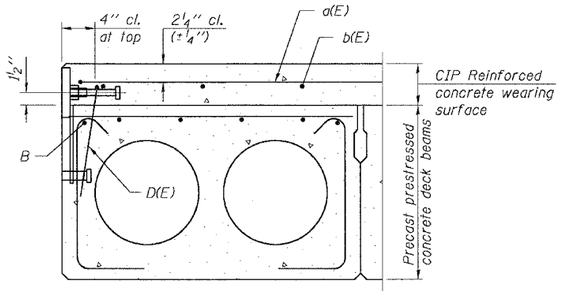


PLAN

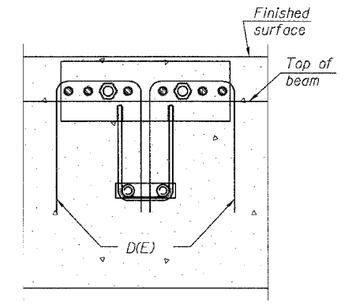
Notes:
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.



LIFTING LOOP DETAIL



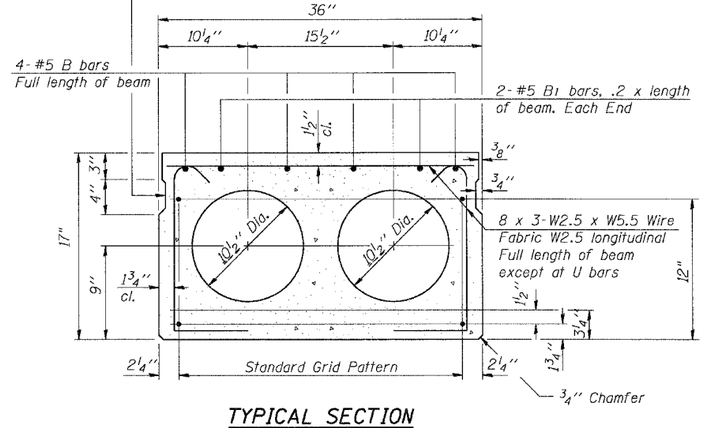
CROSS SECTION



SECTION A-A

Omit key on exterior face of outside beams.

Contract #64D14



TYPICAL SECTION

½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
9-Strands 1¾" up, 4-Strands 3¼" up, 2-Strands 12" up

Note:
Place strands symmetrically about ℄ of beam.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
Lifting loops shall be 4 - ½" ϕ-270 ksi strands, as shown.
The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms.	Sq. Ft.	
17" X 36"	1420	

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

PD-3-R 11-1-06

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK BEAM DETAILS

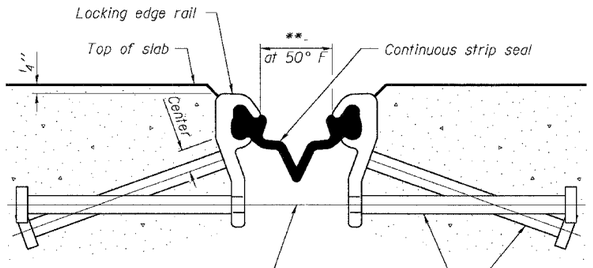
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: NONE

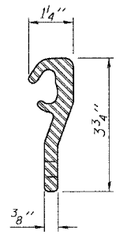
DATE 10/10/07

* Omit weld at seal opening.

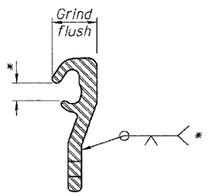
** When joint is fixed, dimension is set at 1½".



SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS



LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

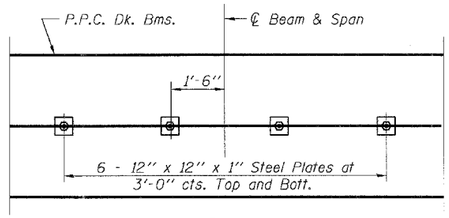
The manufacturer's recommended installation methods shall be followed.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

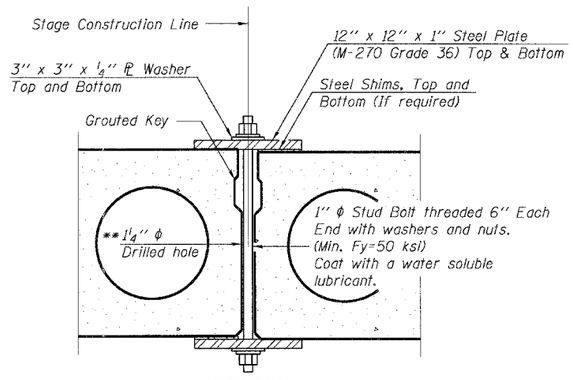
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	104-BY-1BR)D	CARROLL	40	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
9 SHEETS

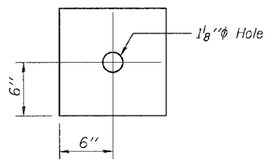
Contract #64D14



PLAN



SECTION



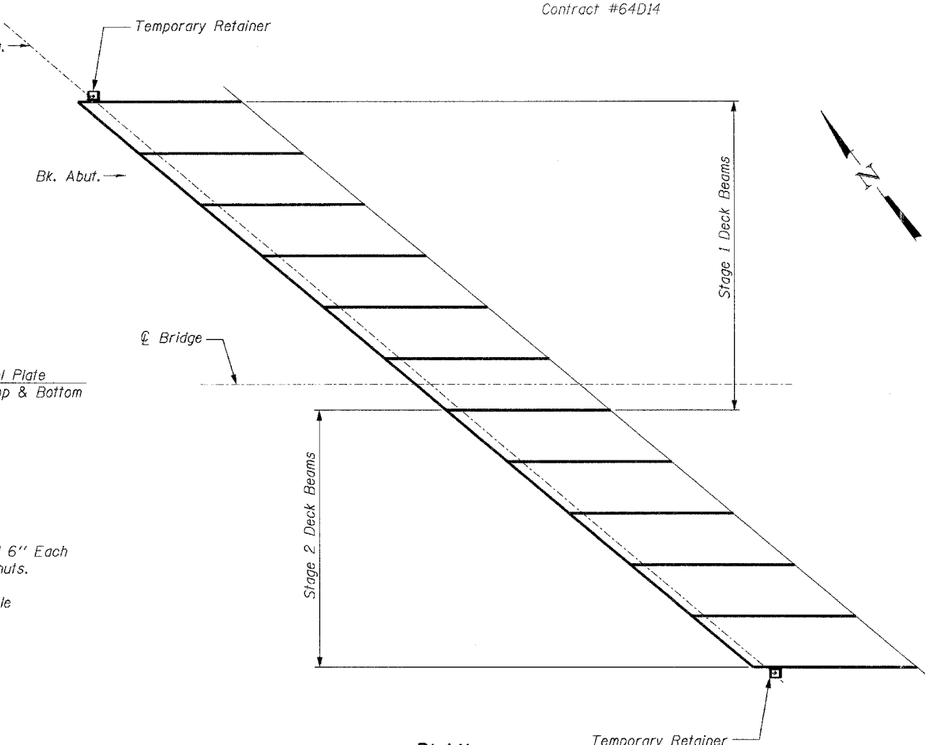
CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams.

See Stage Construction Details for traffic lanes.

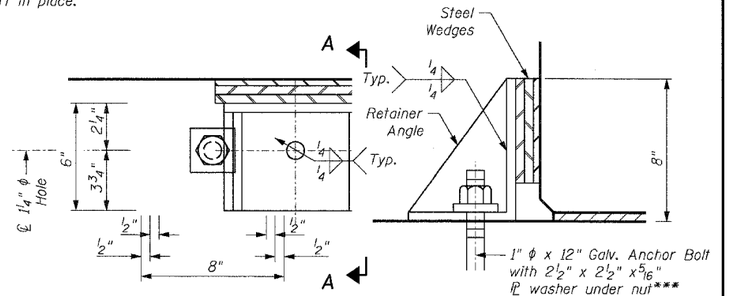
** As an alternate to the drilled holes, the Contractor may request the Fabricator to cast 2" diameter semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts. If the Contractor elects to use this alternate, the details shall be identified on the shop drawings.



PLAN

West Abutment Shown, East Abutment Similar

After the concrete wearing surface is poured and cured, the retainer angles shall be removed. Anchor bolts may be left in place.



TEMPORARY SIDE RETAINER DETAIL

SECTION A-A

*** Anchor bolts or approved threaded rod shall be placed in drilled holes and grouted in place in accordance with Artilce 584 of the Standard Specifications. Cost of Retainer and accessories are included with Precast Prestressed Concrete Deck Beams

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

ILLINOIS DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL & MISCELLANEOUS DETAILS

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: NONE

DATE 10/10/07

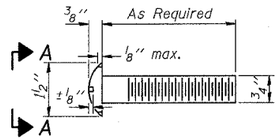
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

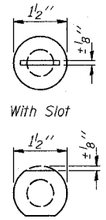
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	104-BY-1BR)D	CARROLL	40	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
9 SHEETS

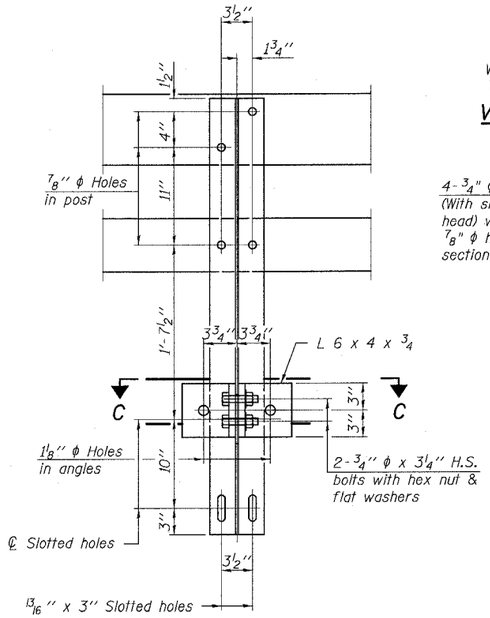
Contract #64D14

DETAIL OF $^{3}/_{4}$" ϕ ROUND HEAD BOLT

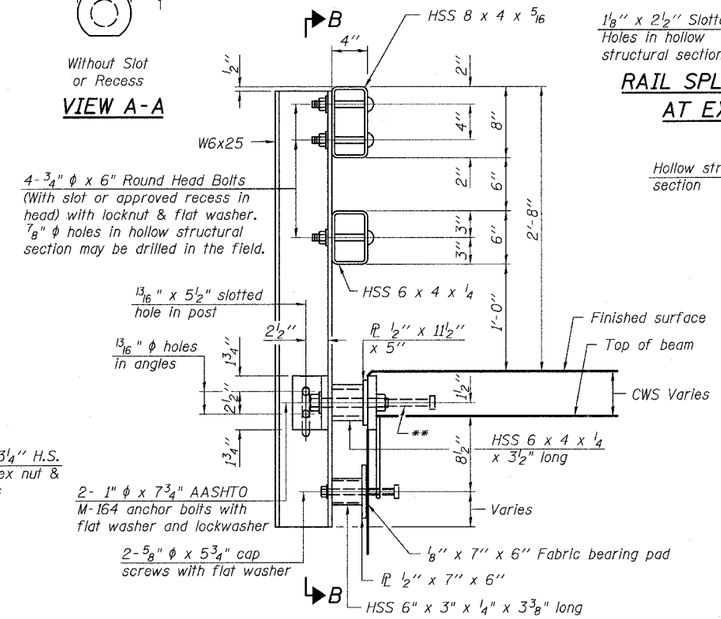




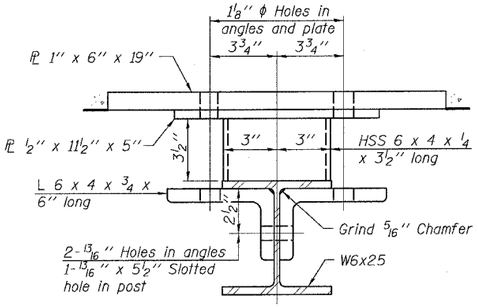
VIEW A-A



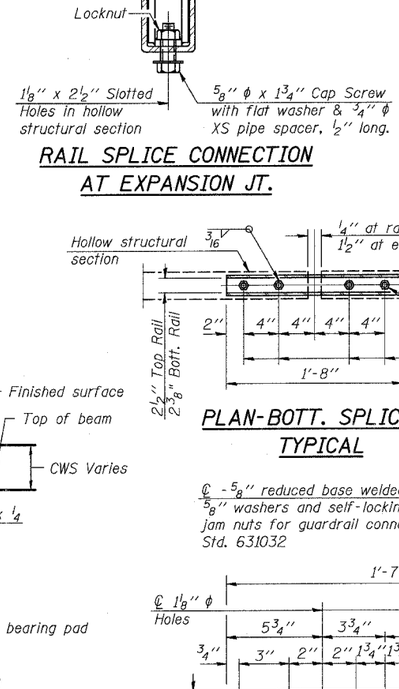
SECTION B-B



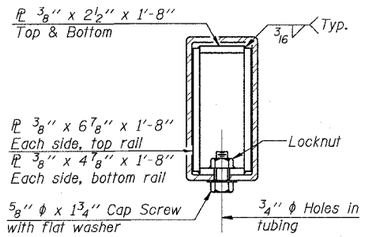
SECTION AT RAIL POST



SECTION C-C



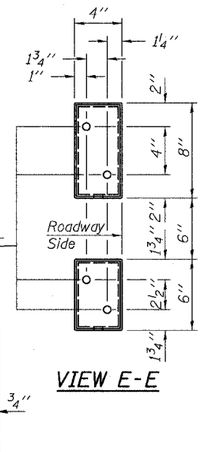
RAIL SPLICE CONNECTION AT EXPANSION JT.



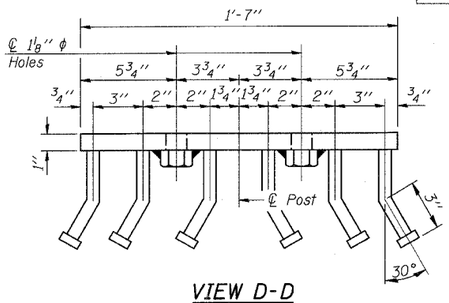
SECTION AT RAIL SPLICE

PLAN-BOTT. SPLICE PL TYPICAL

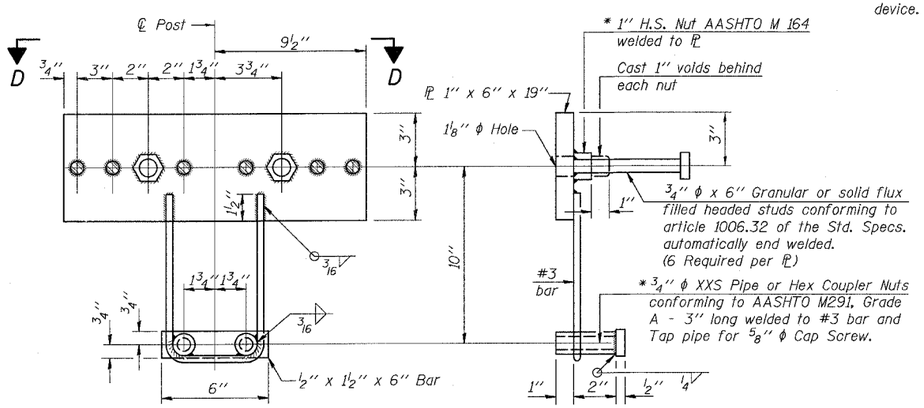
℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



VIEW E-E

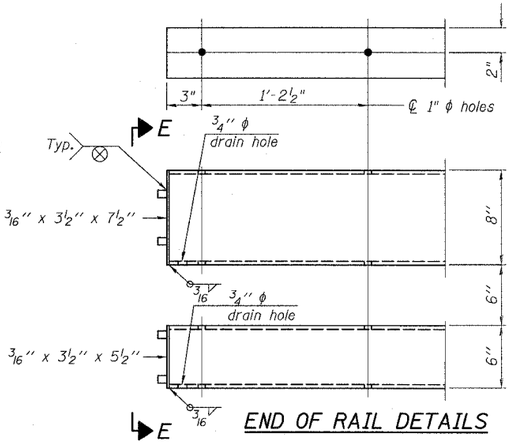


VIEW D-D



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



END OF RAIL DETAILS

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	86

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

R-34CWS 11-1-06 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

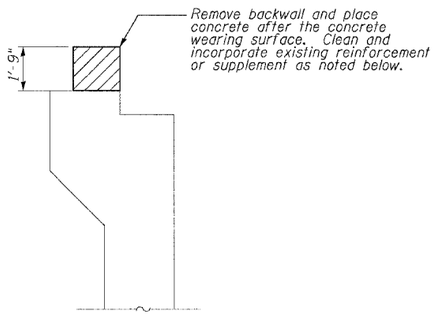
ILLINOIS DEPARTMENT OF TRANSPORTATION
STEEL RAILING, TYPE SM
WITH CONCRETE WEARING SURFACE
IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016
SCALE: NONE
DATE 10/10/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

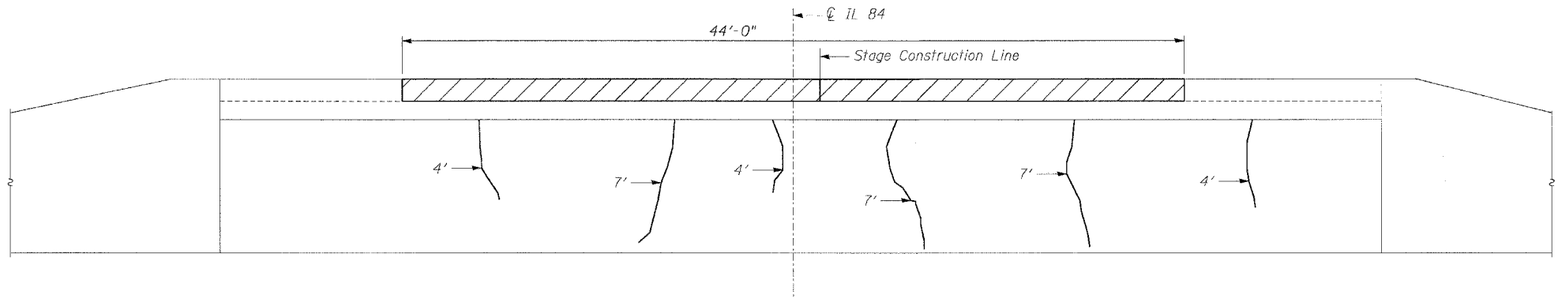
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	(104-BY-1BRID	CARROLL	40	19
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
9 SHEETS

Contract #64D14



ABUTMENT SECTION



WEST ABUTMENT ELEVATION

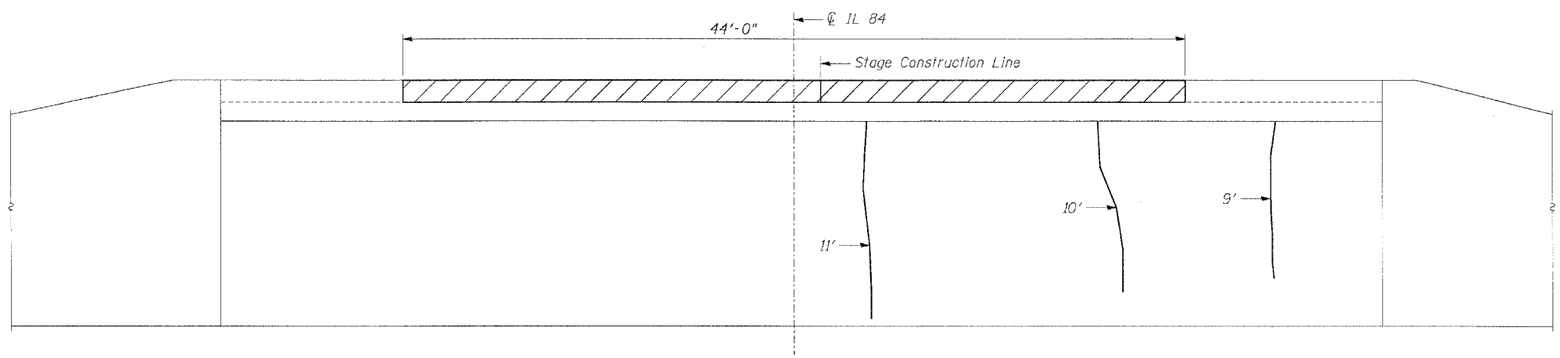
NOTES

Care shall be taken not to damage existing approach slab during concrete removal. The cost is included with the cost of Removal of Existing Superstructure.

Existing reinforcement extending into backwall shall be blast cleaned to gray metal and straightened. Blast Cleaning and straightening shall be included with the cost of Removal of Existing Superstructures.

Existing reinforcement bars which have lost 25% or more of their original diameter shall be supplemented by new epoxy coated bars of the same diameter spliced in place. Furnishing and placing supplemental epoxy coated reinforcement bars shall be included with the cost of Reinforcement Bars, Epoxy Coated.

Care shall be exercised by the contractor during and following removal operations to ensure that the existnig rebar remaining in place are not damaged. All protruding rebar shall cleaned, straightened and properly positioned prior to concrete placement. Any rebar damaged during concrete removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. The cost is included with the cost of Removal of Existing Superstructure.



EAST ABUTMENT ELEVATION

LEGEND

6' → Epoxy Crack Injection

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

GP-1R (04-04-05)

ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BRID
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: NONE

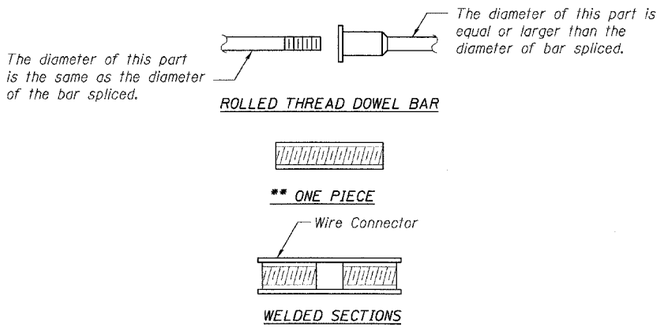
DATE 10/10/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	104-BY-1BR)D	CARROLL	40	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

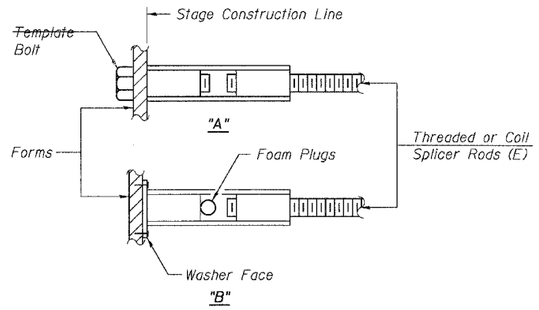
SHEET NO. 8
9 SHEETS

Contract #64D14



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.

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.

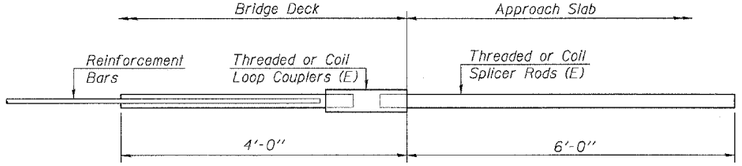
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

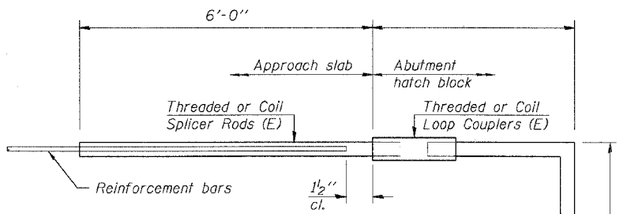
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR 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'-0"	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



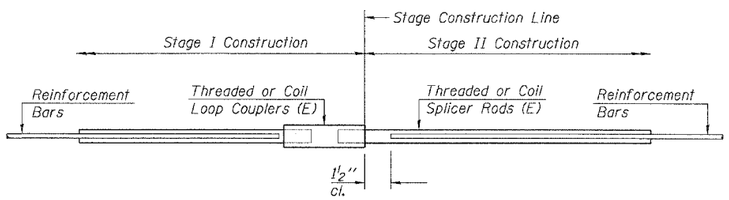
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



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
#4	44	Conc. W.S.

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

BSD-1 11-1-06

ILLINOIS DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEBLY DETAILS

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

SCALE: NONE

DATE 10/10/07

\DWG\CD\SHT020_BarSpl.dgn 10/10/2007 11:01:32 AM

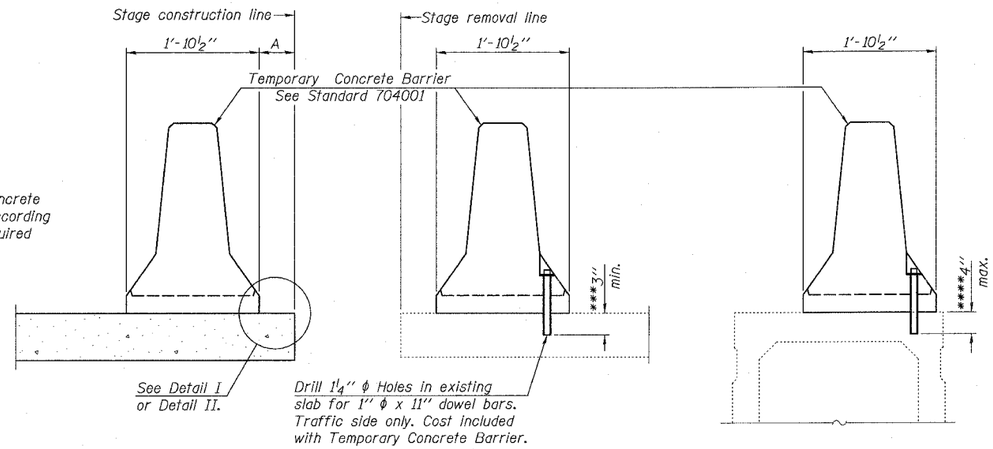
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	104-BY-1BR(D	CARROLL	40	21
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 9
9 SHEETS

Contract #64D14

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

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝"ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

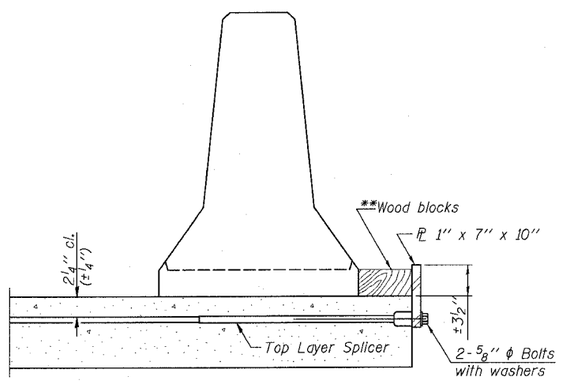
Cost of anchorage is included with Temporary Concrete Barrier.

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.

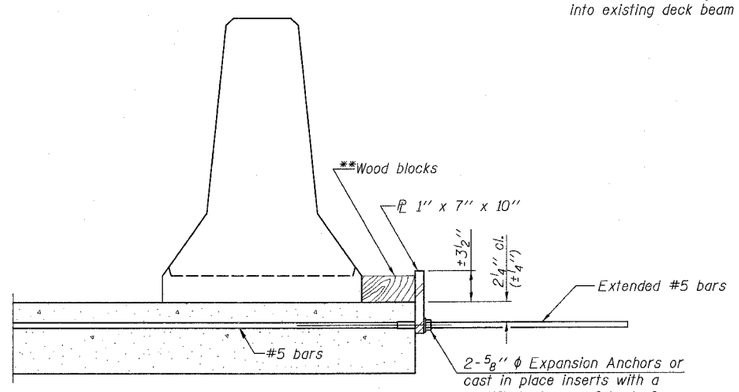
SECTIONS THRU SLAB OR DECK BEAM

***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.

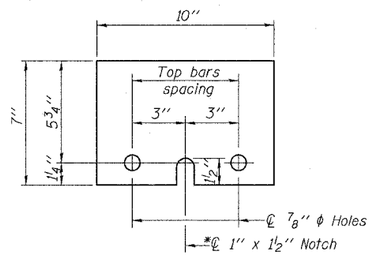


DETAIL I



DETAIL II

**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.



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

DESIGNED	GPM
CHECKED	BRT
DRAWN	GPM
CHECKED	BRT

R-27

9-3-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGED CONSTRUCTION

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

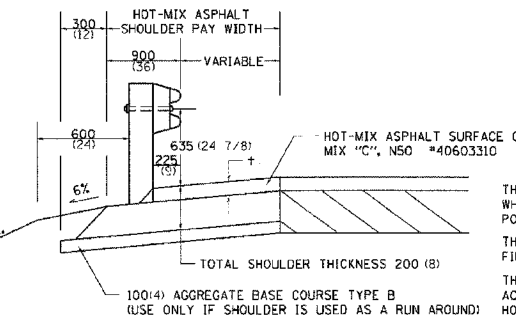
SCALE: NONE

DATE 10/10/07

...\DWG\CD\SHT021_Barrier.dgn 11/5/2007 1:27:00 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	(104-BY-1BR)	CARROLL	40	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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 **525** (21) FROM THE FINISHED SURFACE.

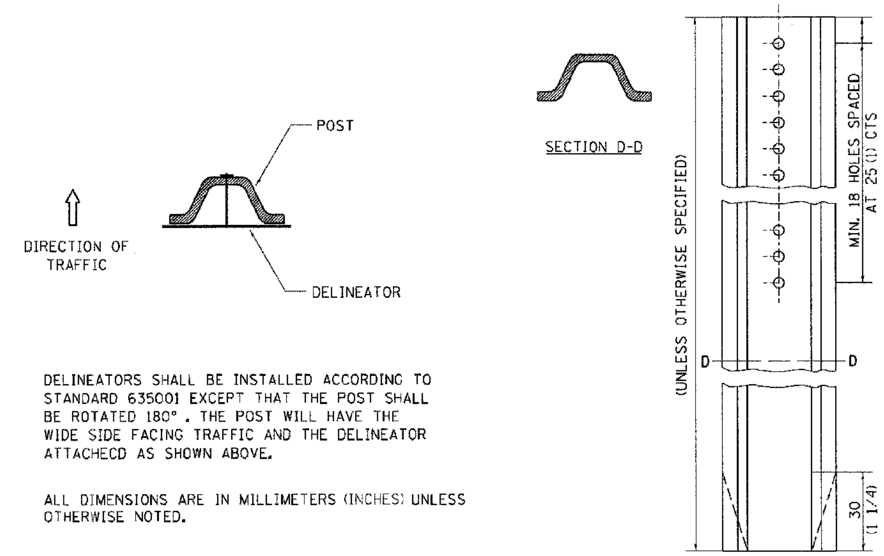
THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIXTURE "C", N50 AND SQUARE METER (SQUARE YARD) 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 - 10-06-06 | REVISED - | REVISED - | REVISED -
REGION 2 / DISTRICT 2 STANDARD
SCALE: 1.0000 '/ IN. SHEET NO. OF SHEETS STA. TO STA.
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. CONTRACT NO. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
PLOT DATE = August 23 2007

DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARD RAIL 23.4

DELINEATOR AND POST ORIENTATION



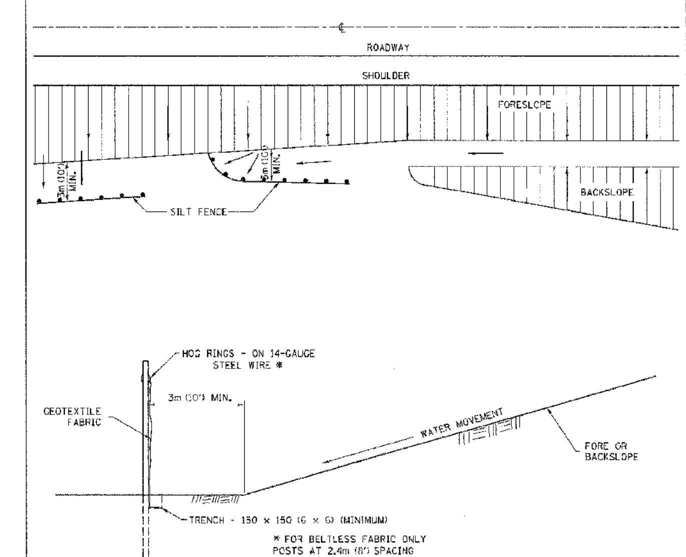
DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

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

REVISED - 1-31-00 | REVISED - | REVISED - | REVISED -
REGION 2 / DISTRICT 2 STANDARD
SCALE: 1.0000 '/ IN. SHEET NO. OF SHEETS STA. TO STA.
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. CONTRACT NO. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
PLOT DATE = August 23 2007

DELINEATOR AND POST ORIENTATION 37.4

EROSION CONTROL DETAILS FOR SILT FENCE



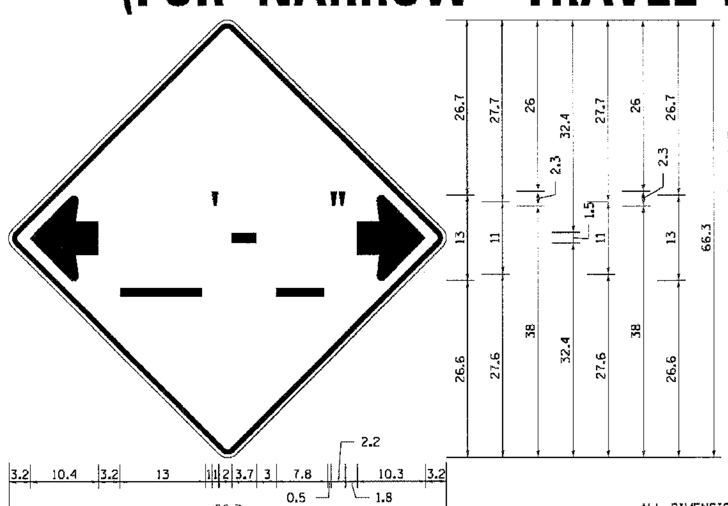
DETAILS OF SILT FENCE

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

REVISED - 10-22-01 | REVISED - | REVISED - | REVISED -
REGION 2 / DISTRICT 2 STANDARD
SCALE: 1.0000 '/ IN. SHEET NO. OF SHEETS STA. TO STA.
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. CONTRACT NO. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
PLOT DATE = August 23 2007

EROSION CONTROL DETAILS FOR SILT FENCE 29.2

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
W12-2 - Horizontal Clearance Sign 48.0" across sides, 1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange; Standard Arrow Custom 10.4" X 8.1" 180° Block 11 Inch D Series Lettering; Standard Arrow Custom 10.4" X 8.1" 0°

All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED 6-29-05 | REVISED - | REVISED - | REVISED -
REGION 2 / DISTRICT 2 STANDARD
SCALE: 1.0000 '/ IN. SHEET NO. OF SHEETS STA. TO STA.
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. CONTRACT NO. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
PLOT DATE = August 23 2007

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES) 39.4

STOP LINE SIGN FOR TEMPORARY SIGNALS

SIZE: 600(24) x 600(24)

100(4) CAPITAL LETTERS - BLACK

13 (1/2) BORDER - BLACK

WHITE REFLECTIVE - TYPE AP
HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.

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

REVISED - 1-22-07 | REVISED - | REVISED - | REVISED -
REGION 2 / DISTRICT 2 STANDARD
SCALE: 1.0000 '/ IN. SHEET NO. OF SHEETS STA. TO STA.
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. CONTRACT NO. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
PLOT DATE = August 23 2007

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

REVISIONS NAME	DATE

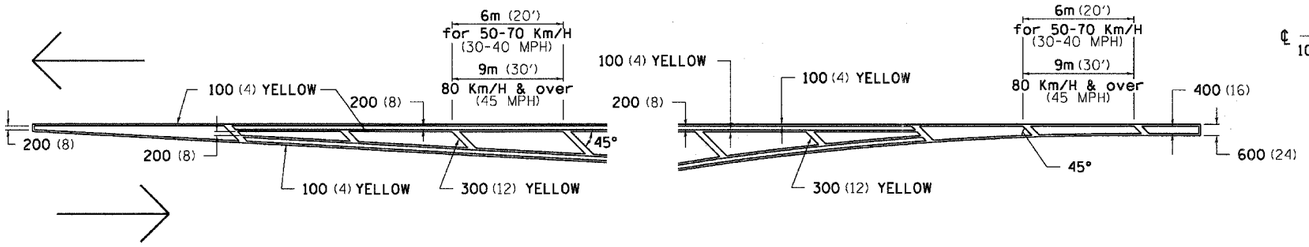
ILLINOIS DEPARTMENT OF TRANSPORTATION

IL-84 OVER A DRAINAGE DITCH
FAP ROUTE 308 SECTION (104-BY-1BR)D
CARROLL COUNTY
STATION 566+38
STRUCTURE NO. 008-0016

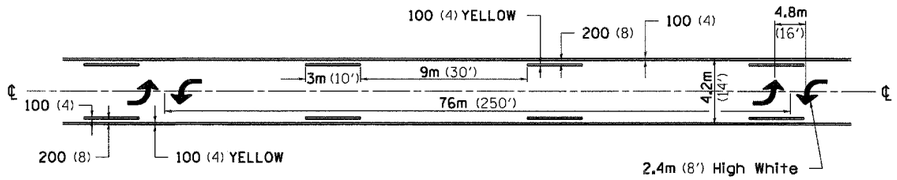
SCALE: VERT. HORIZ. DRAWN BY CKL
DATE 10/10/07 CHECKED BY CAC

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

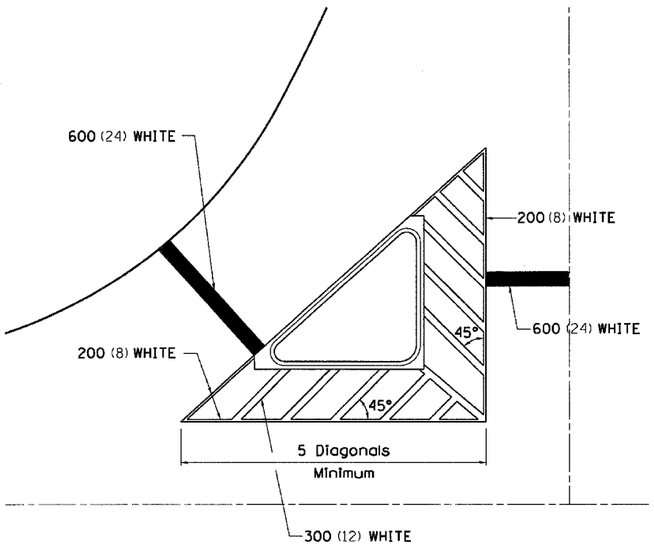


MEDIAN PAVEMENT MARKING

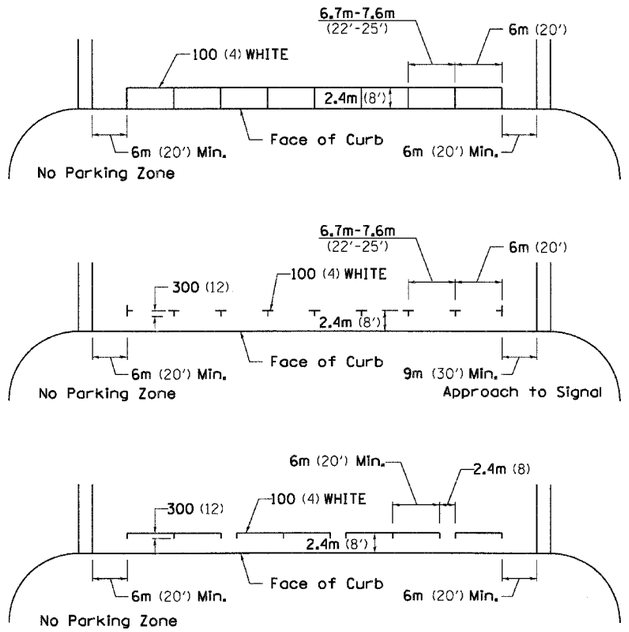


•• ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH

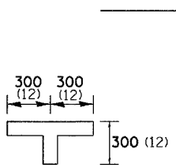


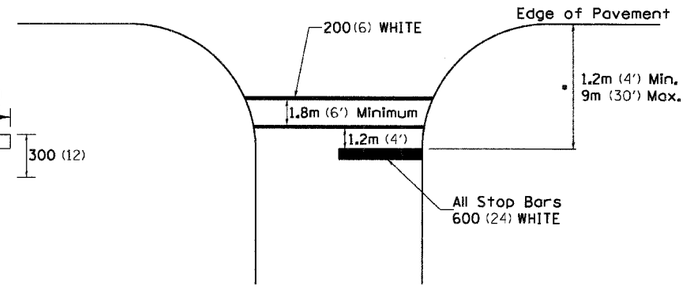
TYPICAL PARKING SPACING



STANDARD CROSSWALK MARKING

See Schedules for Locations



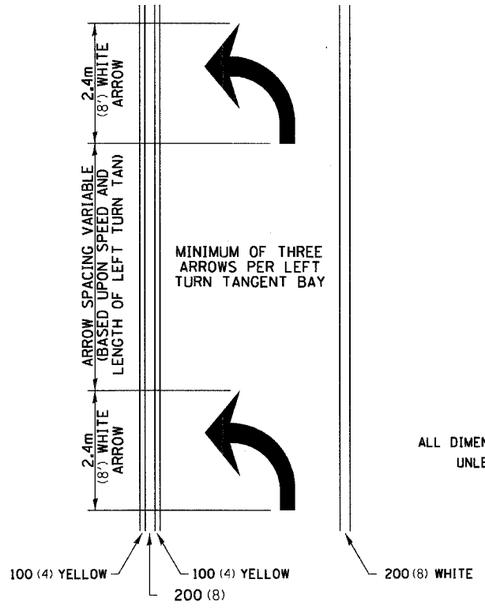


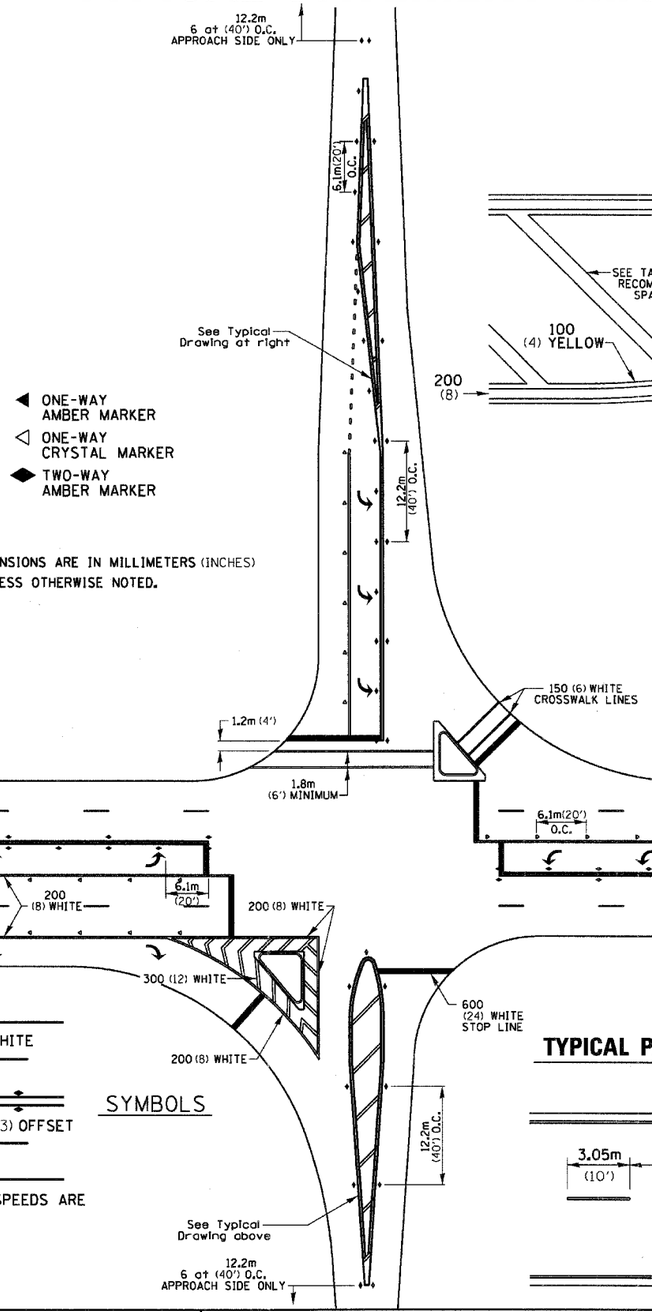
• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

FILE NAME = District 2 Standard	USER NAME = IDOT/District 2	DESIGNED -	REVISED - 7-20-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -									
	PLOT SCALE = 1.0000 ' / IN.	CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.			CONTRACT NO.		
	PLOT DATE = August 23 2007	DATE -	REVISED -					FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT

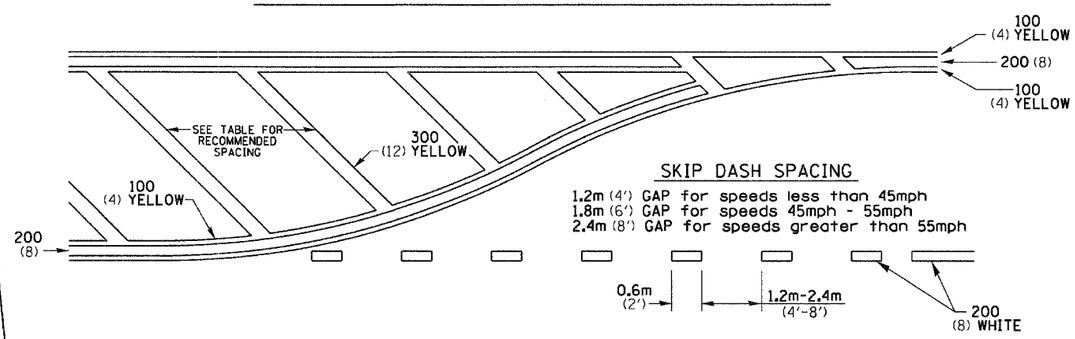




◀ ONE-WAY AMBER MARKER
◁ ONE-WAY CRYSTAL MARKER
◆ TWO-WAY AMBER MARKER

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

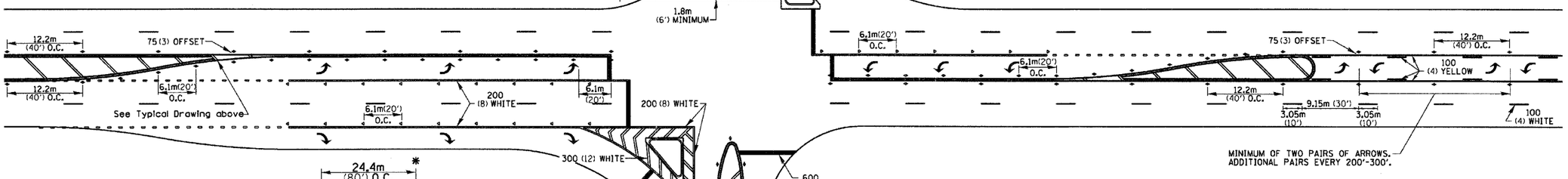
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN

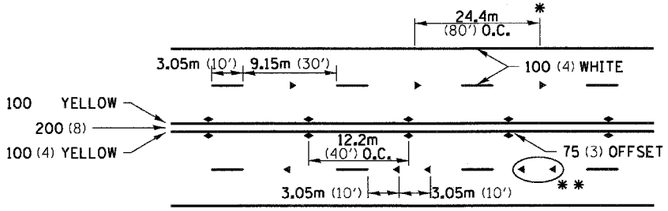


RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

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.



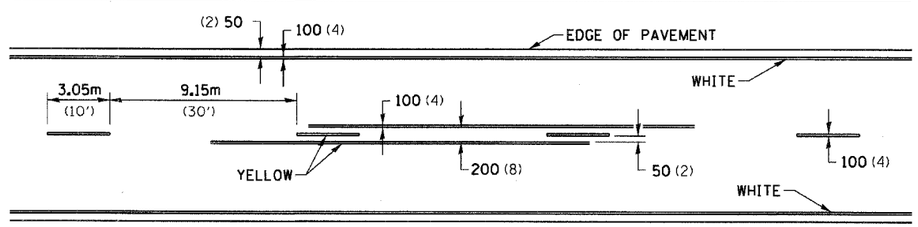


SYMBOLS

- 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 ≥ 25,000

MULTI-LANE / UNDIVIDED

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



FILE NAME = District 2 Standard	USER NAME = IDOT/District 2	DESIGNED -	REVISED - 7-20-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD
		DRAWN -	REVISED -		
	PLOT SCALE = 1.0000 ' / IN.	CHECKED -	REVISED -		
	PLOT DATE = August 23 2007	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.

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

TYPICAL PAVEMENT MARKINGS SHEET 2 OF 2 **41.1**

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALE IN FEET

PLAN:
PROFILE: HORIZ. 0 50 100
VERT. 0 5 10
GROSS SECT.: HORIZ. 0 10 20
VERT. 0 5 10

F.A. ROUTE 18 (ILL.84)
SECTION 104 BY-1BR
PROJECT GR-18(116)
CARROLL COUNTY

C-92-078-81

FEDERAL ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	104 BY-1BR	CARROLL	45	25
F.A.P. & REG. NO.	ILLINOIS	PROJECT (GR-18(116))		

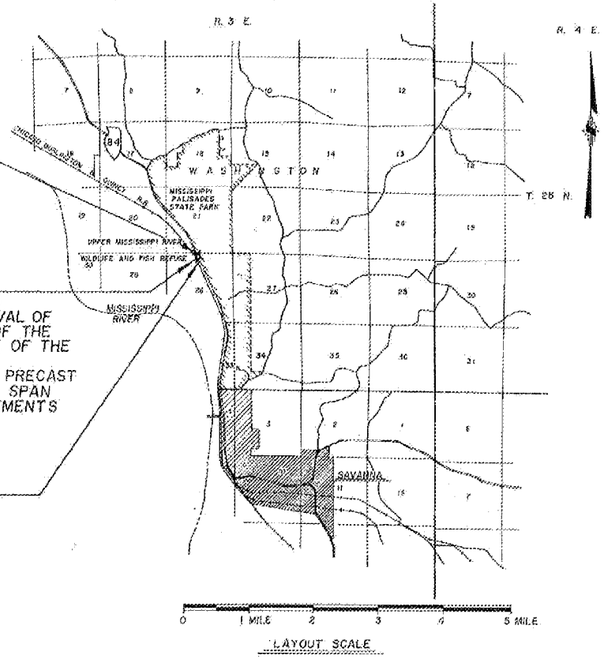
P-92-082-79

INDEX OF SHEETS

STANDARD NUMBERS:

1686-4	SYMBOLS & ABBREVIATIONS
2113-2	NAME PLATE FOR BRIDGES
2230-13	STEEL PLATE BEAM GUARDRAIL (2 SHEETS)
2298-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2299-9	DESIGN OF TRAFFIC CONTROL DEVICES
2300-2	FLAGMEN TRAFFIC CONTROL SIGN
2301-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (CASE I)
2302-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (CASE II)
2305-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (CASE V)
2324-5	BRIDGE APPROACH SHOULDER PAVEMENT
2340-3	TRAFFIC BARRIER TERMINAL, TYPE S & SA
2382-1	BRIDGE APPROACH PAVEMENT (2 SHEETS)
2383-1	TEMPORARY CONCRETE BARRIER
2388-1	TRAFFIC BARRIER TERMINAL, TYPE II
2303-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2307-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2381	TEMPORARY EROSION CONTROL SYSTEMS

LOCATION OF SECTION INDICATED THUS:—



SECTION 104 BY-1BR STA. 566+37.11
CONSISTS OF REHABILITATION OF THE EXISTING STRUCTURE AT THIS LOCATION INVOLVING REMOVAL OF THE EXISTING SUPERSTRUCTURE AND PORTIONS OF THE EXISTING SUBSTRUCTURE AND RECONSTRUCTION OF THE SUBSTRUCTURE AND INSTALLATION OF A NEW SUPERSTRUCTURE CONSISTING OF 11-21" X 36" PRECAST PRESTRESSED CONCRETE DECK BEAMS OF ONE SPAN MEASURING 47'-2-1/8" BACK TO BACK OF ABUTMENTS WITH 40° SKEW

PROJECT
SECTION 104 BY-1BR
ENDS STA. 567+25

DESIGN DESIGNATION
720(2000) MAJOR 0.969(PCC-20)

CALL J.U.L.I.E.
BEFORE YOU DIG
800-892-0123
WASHINGTON TWP.

TOTAL LENGTH OF SECTION = 225.00 FEET = 0.0426 MILES
NET LENGTH OF SECTION = 225.00 FEET = 0.0426 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Submitted 11-19 19 91
District Engineer
Examined 12-21 19 91
Engineer of Plans And Contracts
Passed 12-21 19 91
Engineer of Design
Approved 12-21 19 91
DIRECTOR OF HIGHWAYS

Wayne G. Pett
WAYNE G. PETT
ILLINOIS PROFESSIONAL ENGINEER NO. 21198
HENRY, MEISENHEIMER & GENDE, INC.
CONSULTING ENGINEERS
CARLYLE, ILLINOIS

CONTRACT NO. 63731

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	106 BY-1BR	CARROLL	40	26
F.H.W.A. REG. NO. 4	ILLINOIS PROJECT			

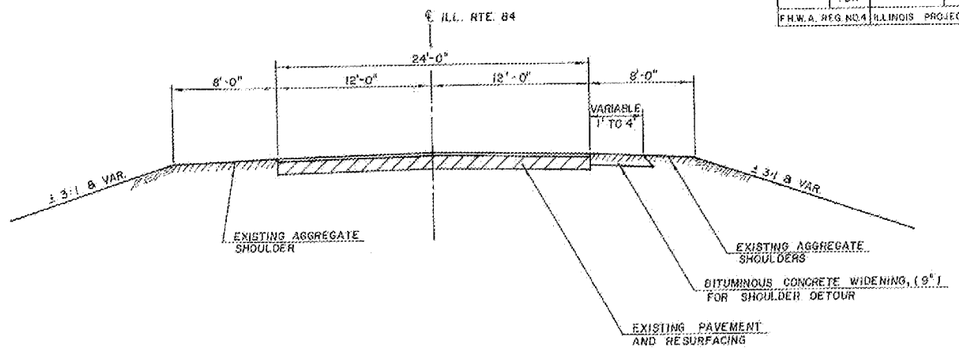
FOR INFORMATION ONLY

LOCATION OF WORK	ROAD STA.	BRIDGE STA.
	565+00 TO 566+14.10	566+14.10 TO 566+60.12
	566+60.12 TO 567+25	

SUMMARY OF QUANTITIES

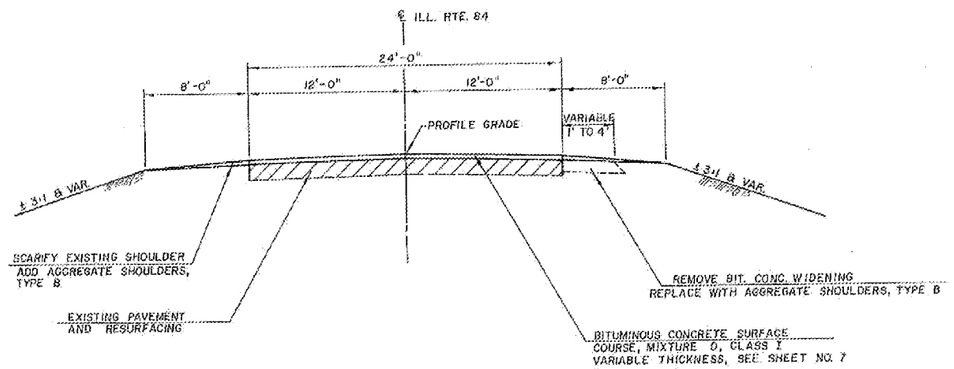
CODE NO.	ITEM	UNIT	QUANTITY	CONSTRUCTION CODE TYPE SFTY-30	X080-28
202001	EARTH EXCAVATION	CU.YD.	33	33	-
215012	AGGREGATE SHOULDERS, TYPE B	TON	~~130~~ 87	~~130~~ 87	-
306004	BITUMINOUS CONCRETE BASE COURSE WIDENING 9"	SQ.YD.	104	104	-
406001	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	~~40~~ 26	~~40~~ 26	-
406003	AGGREGATE (PRIME COAT)	TON	~~5~~ 3	~~5~~ 3	-
406013	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D; CLASS I	TON	68	~~55~~ 47	~~13~~ 13
408015	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ.YD.	24.4	24.4	-
501015 *	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	-	1
501024	CONCRETE REMOVAL	CU.YD.	31	-	31
501029	EXPANSION BOLTS 3/4 INCH	EACH	56	-	56
502001	STRUCTURE EXCAVATION	CU.YD.	96	-	96
504003	CLASS X CONCRETE	CU.YD.	55.3	-	55.3
505004	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ.FT.	~~1330~~ 1441	-	~~1330~~ 1441
X50809	STEEL RAILING, TYPE S-1	LIN.FT.	86	-	86
512001	REINFORCEMENT BARS	POUND	9,350	6,110	3,240
514001	NAME PLATES	EACH	1	-	1
517001	PAVEMENT REMOVAL	SQ.YD.	~~3076~~ 2486	~~2486~~ 2486	-
617010 *	BITUMINOUS CONCRETE SURFACE REMOVAL	SQ.YD.	160	160	-
620016	PAVEMENT REMOVAL AND BITUMINOUS REPLACEMENT, TYPE I, 8 INCH	SQ.YD.	16	16	-
633010 *	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL	LIN.FT.	~~200~~ 199	~~200~~ 199	-
646004	ENGINEER'S FIELD OFFICE, TYPE A	CAL.MO.	~~8~~ 5		~~2~~ 1.5
X64043 *	TRAFFIC CONTROL AND PROTECTION, SPECIAL	EACH	1		1
X04748	MOBILIZATION	L.SUM	1	-	1
X05728	TEMPORARY BRIDGE RAIL	LIN.FT.	43	-	43
X40812	BRIDGE APPROACH PAVEMENT (STANDARD 2382)	SQ.YD.	160.4	160.4	-
X61640	TEMPORARY CONCRETE BARRIER	LIN.FT.	420		420
X61641	TEMPORARY CONCRETE BARRIER, TERMINAL SECTION	EACH	2		2
X61642	RELOCATE TEMPORARY CONCRETE BARRIER	LIN.FT.	334		334
X69326	TRAFFIC BARRIER TERMINAL REMOVAL, TYPE 9	EACH	4	4	-
X62837 *	STEEL PLATE BEAM GUARD RAIL, TYPE A	LIN.FT.	50	50	-
X62843	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4	4	-
X62875	TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	2		2
Z10279	NEOPRENE EXPANSION JOINT 2"	LIN.FT.	47	-	47
Z10317	PORTLAND CEMENT MORTAR FAIRING COURSE	LIN.FT.	~~369~~ 325	-	~~369~~ 325
Z10530	WATERPROOFING MEMBRANE SYSTEM	SQ.YD.	~~169~~ 109	-	~~169~~ 109

* SEE SPECIAL PROVISIONS



STAGE I

PROPOSED TEMPORARY WIDENING



STAGE II & STAGE III

GENERAL NOTES:

1. ANY REFERENCE TO A STANDARD IN THESE PLANS WILL BE INTERPRETED TO MEAN THE LATEST EDITION AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS COPY OF THE STANDARD INCLUDED IN THESE PLANS.
2. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, A AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
3. THE PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I, VARIES IN THICKNESS FROM 1 1/2" TO 3". WHERE THE PROPOSED BITUMINOUS SURFACE IS GREATER THAN 2" IN THICKNESS, IT SHALL BE CONSTRUCTED IN TWO LIFTS.
4. THE EXISTING AGGREGATE SHOULDERS SHALL BE SCARIFIED TO A DEPTH OF 3", AGGREGATE SHALL BE ADDED TO BRING THE SURFACE FLUSH WITH THE NEW RESURFACING ELEVATION, AND THE SHOULDERS SHAPED AND ROLLED IN ACCORDANCE WITH SECTION 215.

DISTRICT ENGINEER OF DESIGN	11-10-81 DATE
DISTRICT ENGINEER OF PLANNING	DATE
DISTRICT ENGINEER OF RIGHT OF WAY	11/6/81 DATE
DISTRICT ENGINEER OF TRAFFIC	11/6/81 DATE
DISTRICT ENGINEER OF CONSTRUCTION	11-10-81 DATE
DISTRICT ENGINEER OF MAINTENANCE	11-10-81 DATE
DISTRICT ENGINEER OF MATERIALS	11/6/81 DATE

SUMMARY OF QUANTITIES AND TYPICAL SECTIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	04-BY-18R	CARROLL	40	27

STEEL PLATE BEAM GUARD RAIL

STATION TO STATION	TRAFFIC BARR., TERMINAL REMOVAL EACH	STEEL PLATE BEAM G.R., REMOVAL LIN.FT.	REINSTALLATION OF S.P.B.G.R. LIN.FT.	STEEL PLATE BEAM G.R. TYPE A LIN.FT.	TRAFF. BARRIER TERMINAL TYPE 5A EACH
LT. 565+51.91 TO 565+72.5	-	20.5	-	-	-
LT. 565+51.91 TO 565+76.16	1	-	24.25	-	-
LT. 565+72.5 TO 565+97.5	-	-	-	12.5	-
LT. 565+76.16 TO 565+88.66	-	29.5	-	-	-
RT. 565+79.05 TO 566+08.5	-	-	24.25	-	1
RT. 565+79.05 TO 566+03.3	-	-	-	12.5	-
LT. 565+88.66 TO 566+01.91	-	-	-	-	-
RT. 566+03.30 TO 566+15.80	-	-	-	-	1
RT. 566+08.5 TO 566+33.5	1	-	-	-	-
RT. 566+15.8 TO 566+29.05	-	-	-	-	1
LT. 566+40.5 TO 566+65.5	1	-	-	-	-
LT. 566+44.95 TO 566+58.2	-	-	-	12.5	-
LT. 566+58.2 TO 566+70.7	-	-	-	-	-
LT. 566+65.5 TO 566+94.95	-	29.5	-	-	1
LT. 566+70.7 TO 566+94.95	-	-	24.25	-	-
RT. 566+72.09 TO 566+85.34	-	-	-	12.5	-
RT. 566+76.5 TO 567+01.5	1	-	-	-	1
RT. 566+85.34 TO 568+97.84	-	-	24.25	-	-
RT. 566+97.84 TO 567+22.09	-	20.5	-	-	-
RT. 567+01.5 TO 567+22.09	-	-	-	-	-
TOTAL	4	100	97	50	4

PAVEMENT REMOVAL

STATION TO STATION	SQ.YD.
565+84.10 TO 566+15.08	82.5
566+59.20 TO 566+90.12	82.5
BIT. CONC. BASE C'RS. WIDENING	104
TOTAL	269

BITUMINOUS CONC. SURFACE REMOVAL

STATION TO STATION	SQ.YD.
565+00 TO 565+25	66.7
566+90.12 TO 567+25	93.3
TOTAL	160

BITUMINOUS CONC. BASE COURSE WIDENING, 9"

STATION TO STATION	SQ.YD.
RT. 564+60 TO 566+27.6	57.5
RT. 566+70.12 TO 568+14	46.5
TOTAL	104

BITUMINOUS SURFACING

STATION TO STATION	BIT., MATERIALS PRIME COAT GALLON	AGGREGATE PRIME COAT TON	BIT. CONC. SURF. CSE MIX D CLASS 1 TON
565+00 TO 566+14.17	30	0.6	38
566+60.05 TO 567+25	18	0.4	15
TOTAL	48	1	53

P.C. CONC. BRIDGE APP. SHOULDER PAV'T.

STATION TO STATION	SQ.YD.
LT. 565+88.74 TO 566+04.10	6.1
RT. 566+12.84 TO 566+27.60	6.1
LT. 566+46.62 TO 566+61.98	6.1
RT. 566+70.12 TO 566+85.48	6.1
TOTAL	24.4

EARTH EXCAVATION

STATION TO STATION	CU.YD.
RT. 564+60 TO 566+27.60	16
LT. 565+88.74 TO 566+04.10	2
LT. 566+46.62 TO 566+61.98	2
RT. 566+70.12 TO 568+14	13
TOTAL	33

BRIDGE APPROACH PAVEMENT, STD. 2382

STATION TO STATION	BR. APP. PAV'T., SQ.YD.	REINF. BARS POUND
565+04.10 TO 566+24.24	80.2	3,055
566+49.98 TO 566+90.12	80.2	3,055
TOTAL	160.4	6,110

AGGREGATE SHOULDERS, TY. B

STATION TO STATION	TON
TO REPLACE WIDENING	
RT., 564+60 TO 566+12.84	29
RT., 566+85.48 TO 568+14	23
TO RESHAPE SHOULDER	
LT., 565+00 TO 566+00.74	5
RT., 565+00 TO 566+27.60	7
LT., 566+46.62 TO 567+25	4
RT., 566+73.48 TO 567+25	2
TOTAL	70

REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL

STATION	LIN.FT.
565 + 20.5± - 565 + 70.5±	50
565 + 56.5± - 566 + 06.5±	50
566 + 67.7± - 567 + 17.7±	50
567 + 03.9± - 567 + 53.9±	50
TOTAL	200

TRAFFIC BARRIER TERMINAL, TYPE 5A

STATION	EACH
565 + 87.6 - 566 + 00.1	1
566 + 14.4 - 566 + 26.9	1
566 + 47.3 - 566 + 59.8	1
566 + 74.1 - 566 + 86.6	1
TOTAL	4

STEEL PLATE BEAM GUARDRAIL, TYPE A

STATION	LIN. FT.
565 + 70.5± - 565 + 87.6	17.1
566 + 06.5± - 566 + 14.4	8
566 + 59.8 - 566 + 67.7±	8
566 + 86.6 - 567 + 03.9±	17.3
TOTAL	50

TRAFFIC BARRIER TERMINAL REMOVAL, TYPE 9

STATION	EACH
565 + 70.5 - 565 + 95.5	1
566 + 06.5 - 566 + 31.5	1
566 + 42.7 - 566 + 67.7	1
566 + 78.7 - 567 + 03.7	1
TOTAL	4

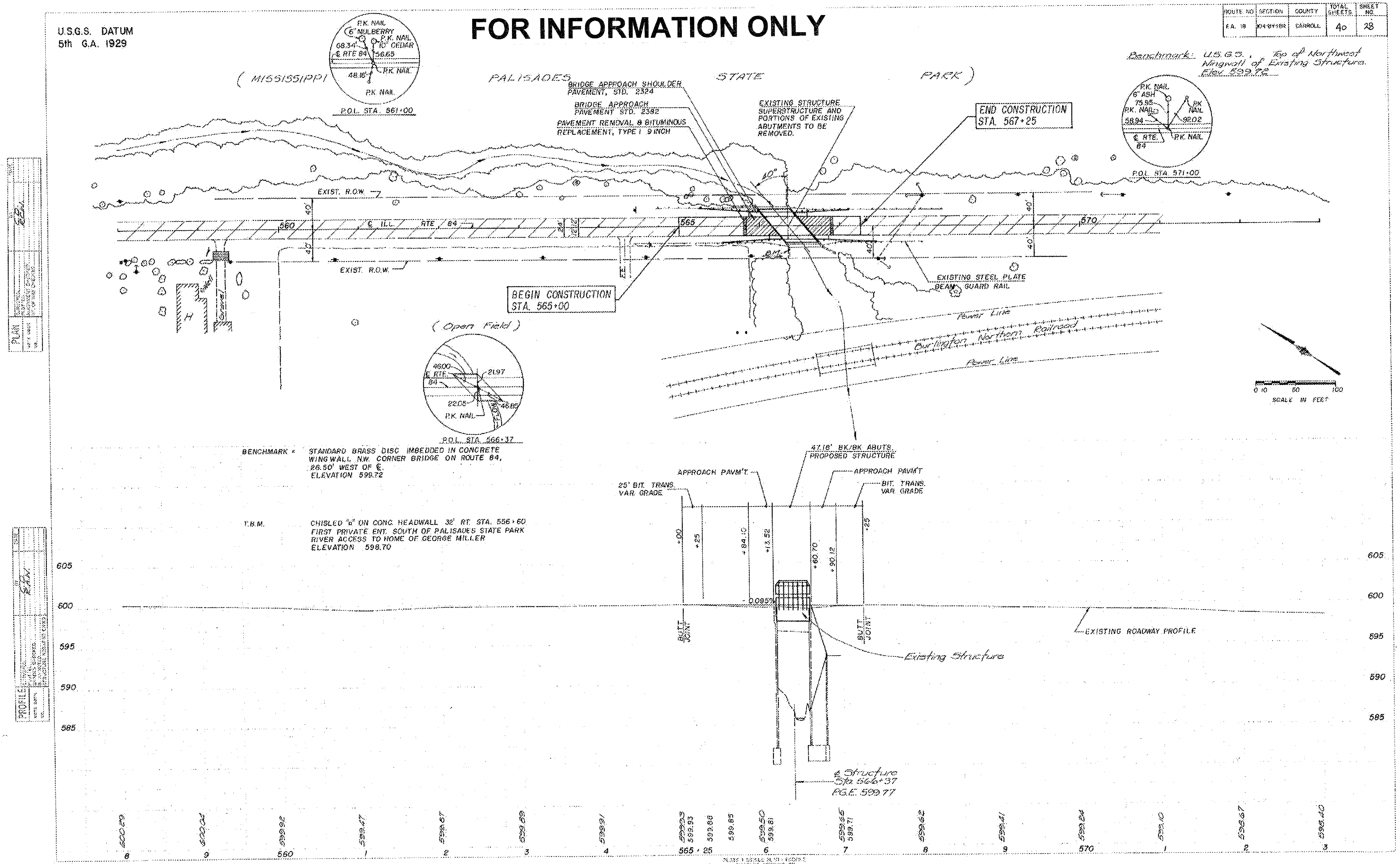
SCHEDULE OF QUANTITIES

Revised

RM-86 NO 1992/0516

FOR INFORMATION ONLY

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	104-BY-1BR	CARROLL	40	28

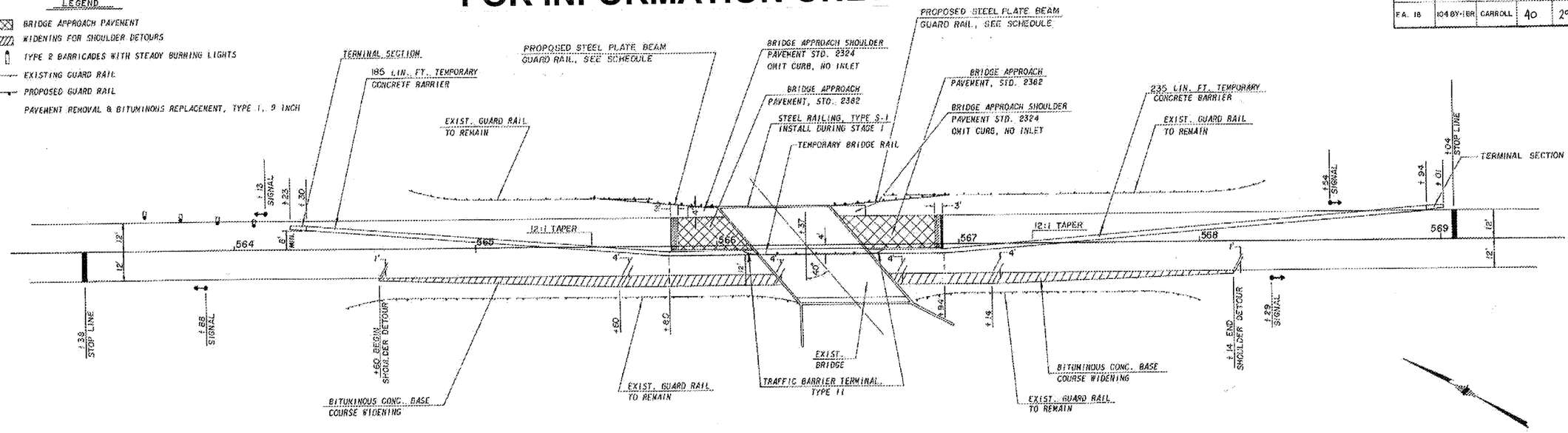


FOR INFORMATION ONLY

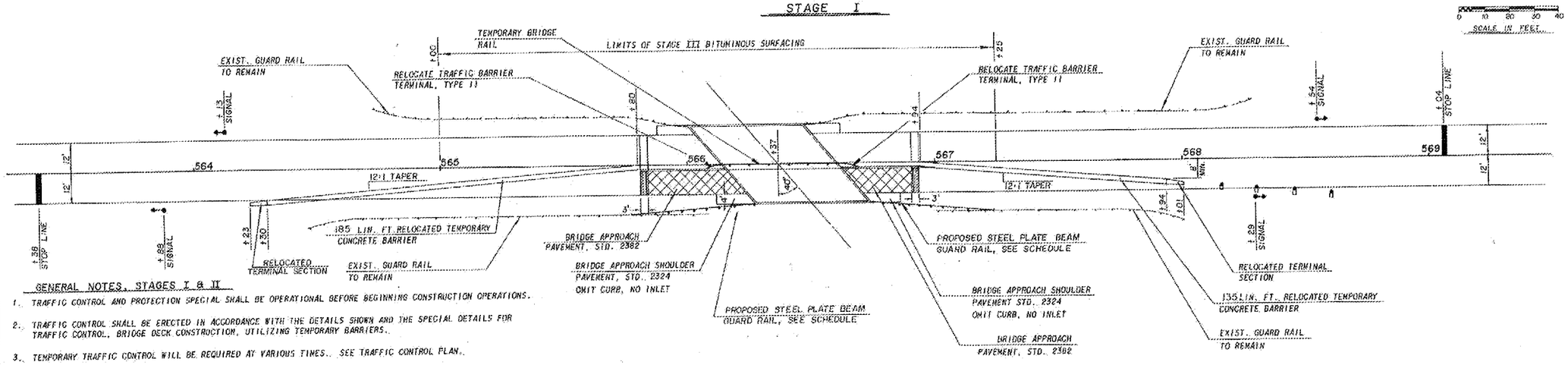
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	1048Y-1BR	CARROLL	40	29

LEGEND

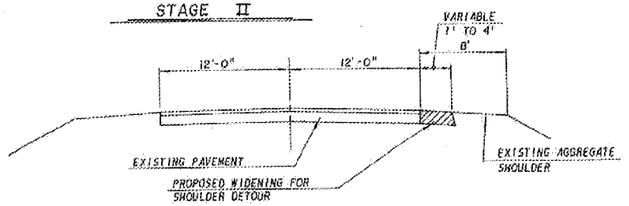
- BRIDGE APPROACH PAVEMENT
- WIDENING FOR SHOULDER DETOURS
- TYPE 2 BARRICADES WITH STEADY BURNING LIGHTS
- EXISTING GUARD RAIL
- PROPOSED GUARD RAIL
- PAVEMENT REMOVAL & BITUMINOUS REPLACEMENT, TYPE 1, 9 INCH



STAGE I



STAGE II



TYPICAL SECTION, WIDENING

0 10 20 30 40
SCALE IN FEET

GENERAL NOTES, STAGES I & II

1. TRAFFIC CONTROL AND PROTECTION SPECIAL SHALL BE OPERATIONAL BEFORE BEGINNING CONSTRUCTION OPERATIONS.
2. TRAFFIC CONTROL SHALL BE ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN AND THE SPECIAL DETAILS FOR TRAFFIC CONTROL, BRIDGE DECK CONSTRUCTION, UTILIZING TEMPORARY BARRIERS.
3. TEMPORARY TRAFFIC CONTROL WILL BE REQUIRED AT VARIOUS TIMES. SEE TRAFFIC CONTROL PLAN.
4. FURNISHING AND MAINTAINING THE TYPE 2 BARRICADES AS SHOWN SHALL BE INCIDENTAL TO TRAFFIC CONTROL AND PROTECTION SPECIAL.
5. RELOCATION OF TRAFFIC BARRIER TERMINALS, TYPE II SHALL BE INCIDENTAL TO RELOCATE TEMPORARY CONCRETE BARRIERS.
6. RELOCATED TEMPORARY CONCRETE BARRIERS AND TERMINAL SECTIONS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER L.IN. FT. FOR RELOCATED TEMPORARY CONCRETE BARRIER.
7. REMOVE STAGE I BITUMINOUS CONCRETE BASE COURSE WIDENING DURING STAGE II CONSTRUCTION AND REPLACE WITH AGGREGATE SURFACE COURSE, TYPE B.

STANDARDS REQUIRED FOR TRAFFIC CONTROL

2298	2302
2299	2305
2300	2383
2301	2388

ALSO SEE:
TEMPORARY BRIDGE RAIL DETAILS
SPECIAL DETAIL FOR TRAFFIC CONTROL BRIDGE DECK CONSTRUCTION UTILIZING TEMPORARY BARRIERS.
SPECIAL DETAIL OF SEQUENCE FOR CHANGING FROM STAGE I TO STAGE II TRAFFIC CONTROL.

TRAFFIC CONTROL STAGE CONSTRUCTION

H.M.B.S. NO. 1932/0016

Revised 6/80

ROUTE NO	SEC.	COUNTY	TOTAL SHEETS	SHEET NO
F.A. 18	104-BY-1BR	CARROLL	40	30
F.H.W.A. REG. NO. 4	ILLINOIS PROJECT			

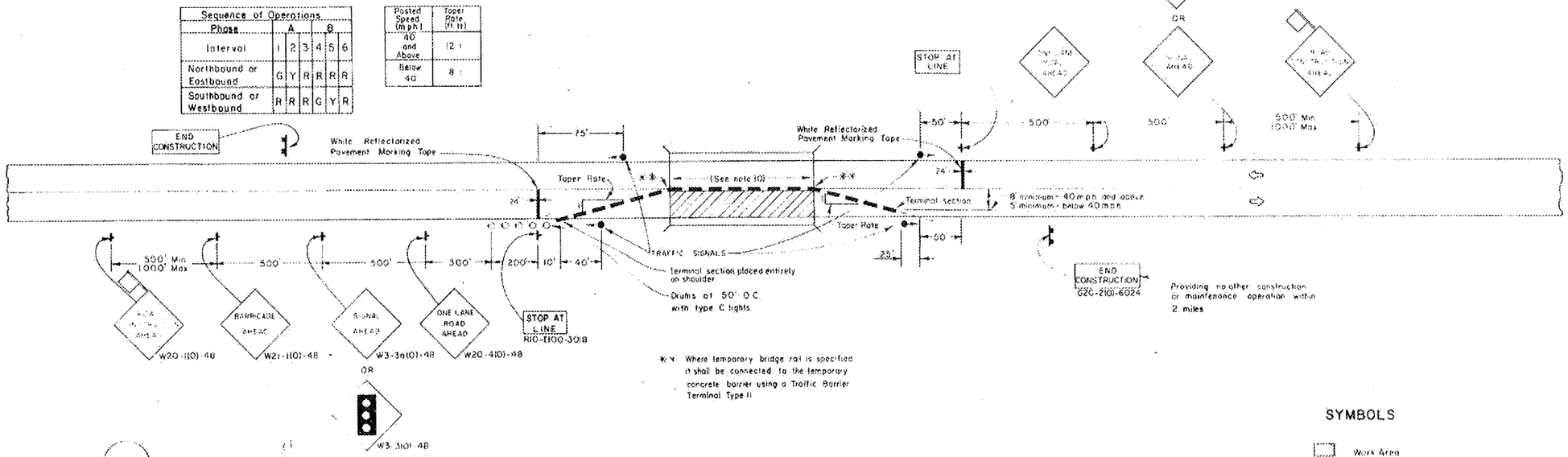
SPECIAL DETAIL FOR TRAFFIC CONTROL BRIDGE DECK CONSTRUCTION UTILIZING TEMPORARY BARRIERS

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

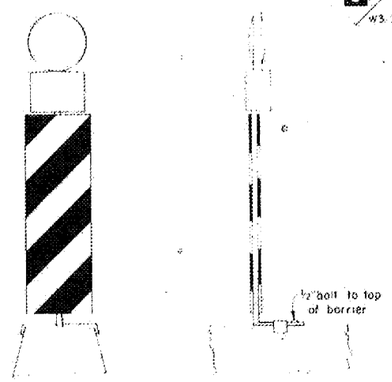
FOR INFORMATION ONLY

Sequence of Operations						
Phase	A			B		
Interval	1	2	3	4	5	6
Northbound or Eastbound	G	Y	R	R	R	R
Southbound or Westbound	R	R	R	G	Y	R

Posted Speed (mph)	Taper Rate (ft:ft)
40 and Above	12 : 1
Below 40	8 : 1



** Where temporary bridge rail is specified it shall be connected to the temporary concrete barrier using a Traffic Barrier Terminal Type II



DETAIL A

suggested mounting detail

GENERAL NOTES

1. The Engineer must be notified at least 72 hours prior to placing the temporary signals in operation so that arrangements can be made to inspect the installation and set the timing of the signals. The Contractor must furnish timing cycle gears of 60, 65, 70, 80 90, 100, and 110 seconds for the controller.
2. At any time that the signals are not operating the signal head shall be hooded and the SIGNAL AHEAD sign covered or removed.
3. The left signal head shall normally be mounted at a height of 10 feet above the road surface measured to the bottom of the signal head. The right head shall normally be mounted at height of 14 feet above the road surface. Baffle plates will be required on all signals.
4. All red lenses shall normally be 12 inch nominal diameter. The right signal head shall be aimed so the centers of the light beams of the indications are directed toward a point in the center of the approach lane 500 feet in advance of the signal. The left indication shall be aimed at a point in the center of the approach lane 100 feet in advance of the stop line.
5. Bidirectional steady burning lights and double vertical panels shall be mounted on the barrier or bridge rail at 20 foot centers. Detail A shows a suggested mounting for the temporary concrete barrier. Other methods of mounting may be used upon the approval of the Engineer.
6. All signs shall be post mounted if the closure time exceeds four days.
7. High intensity flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
8. Longitudinal dimensions may be adjusted slightly to fit field conditions.
9. All vehicles, equipment, men and their activities are restricted to all times to one side of the pavement unless otherwise authorized by the Engineer.
10. Temporary Bridge Rail shall be used across the bridge when specified in the plans.
11. Form BT 725 is required.

WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, MEN OR THEIR ACTIVITIES WILL ENCROACH ON ONE LANE OF A BRIDGE DECK AND TRAFFIC SIGNALS ARE REQUIRED.

SYMBOLS

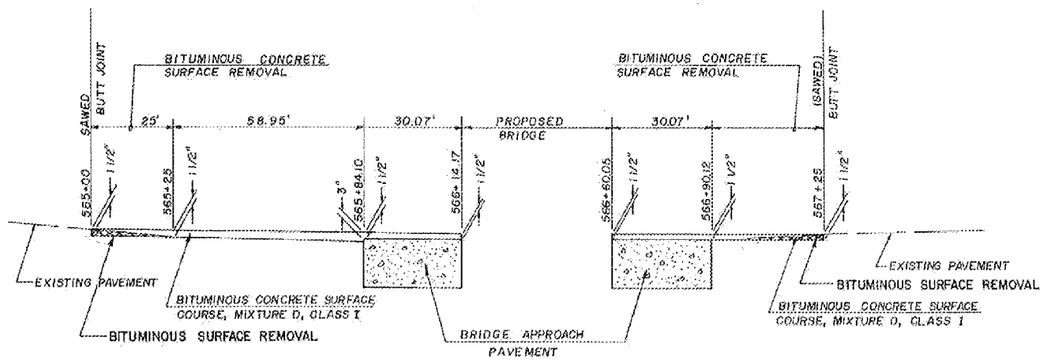
- Work Area
- 18 in. by 18 in. (maximum) Orange Flag
- Sign (with arrow if permanent) Support
- Drum with steady burning light
- Temporary concrete barrier
- Traffic Signal

TWO-LANE, TWO WAY TRAFFIC, ONE LANE CLOSURE ON A BRIDGE DECK DAY OR NIGHT OPERATIONS.

SPECIAL DETAILS

F.H.W.A. REG. NO. 1932/0006

FOR INFORMATION ONLY

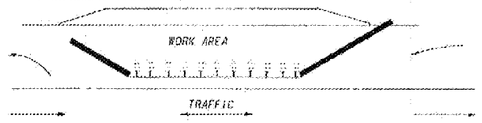


DETAIL OF BITUMINOUS SURFACING

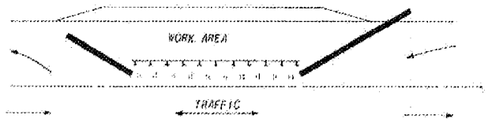
NO SCALE

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 18	104-8Y-18R	CARROLL	40	31
F.H.W.A. REG NO. 4	ILLINOIS PROJECT			

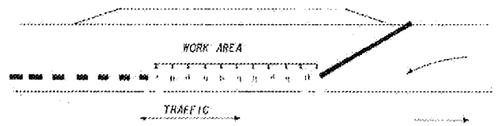
SPECIAL DETAIL OF SEQUENCE FOR CHANGING FROM STAGE I TO STAGE II TRAFFIC CONTROL



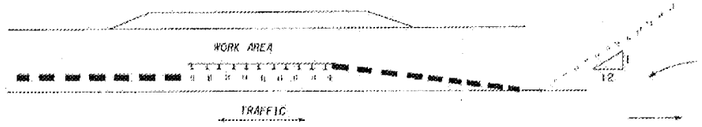
1. (A) WITH STAGE I TRAFFIC CONTROL IN PLACE PREPARE & CORE ANCHORAGE FOR STAGE II TEMPORARY BRIDGE RAIL.
(B) SUPPLY TEMPORARY TRAFFIC CONTROL FOR CHANGING FROM STAGE I TO STAGE II TRAFFIC CONTROL. (SEE SPECIAL PROVISIONS)



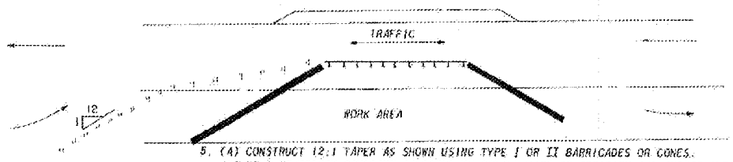
2. MOVE TEMPORARY BRIDGE RAIL TO STAGE II POSITION, AND PLACE TYPE I OR II BARRICADES OR CONES AS SHOWN.



3. MOVE DEPARTING TAPER OF TEMPORARY CONCRETE BARRIERS AS SHOWN AND SUPPLY ADDITIONAL BARRIER UNITS REQUIRED FOR STAGE II.



4. (A) CONSTRUCT 12:1 TAPER AS SHOWN USING TYPE I OR II BARRICADES OR CONES.
(B) MOVE APPROACHING TAPER OF TEMPORARY CONCRETE BARRIERS AS SHOWN AND SUPPLY ADDITIONAL BARRIER UNITS REQUIRED FOR STAGE II.
(C) REMOVE TAPER CONSTRUCTED IN STEP 4 (A).



5. (A) CONSTRUCT 12:1 TAPER AS SHOWN USING TYPE I OR II BARRICADES OR CONES.
(B) MOVE TEMPORARY CONCRETE BARRIERS TO FINAL STAGE II POSITION AND ANCHOR INTO PLACE.
(C) RELOCATE TEMPORARY TRAFFIC SIGNALS TO STAGE II POSITION.
(D) REMOVE TAPER CONSTRUCTED IN STEP 5 (A) & ACTIVATE STAGE II TRAFFIC CONTROL.

LEGEND

- ANCHORAGE FOR TEMPORARY BRIDGE RAIL
- TYPE I OR II BARRICADES OR CONES
- TEMPORARY CONCRETE BARRIERS IN STAGE POSITION
- INTERMEDIATE LOCATION OF TEMPORARY CONCRETE BARRIERS

NOTE: (A) STEPS 2 THROUGH 5 INCLUSIVE SHALL BE COMPLETED DURING ONE DAYLIGHT PERIOD.
(B) COMPATABLE STEPS 2, 3 AND 4(A) ARE SHOWN FOR CLARITY AND MAY BE ACCOMPLISHED SIMULTANEOUSLY.
(C) USE ONE BARRICADE OR CONE PER FOOT OF LANE WIDTH WHEN CONSTRUCTING 12:1 TAPERS IN STEPS 4(A) & 5(A).

SPECIAL DETAILS

F.M. 8-6 NO. 1932/0016

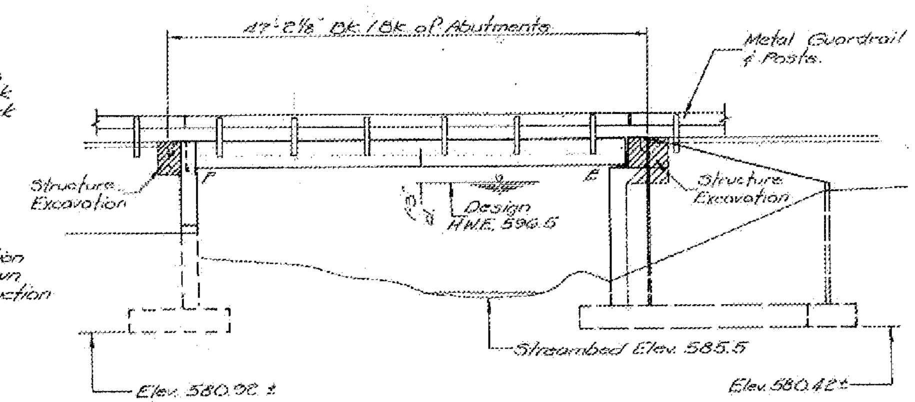
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 18	104-BY-IBR	CARROLL	40	32

SHEET 1 OF 9

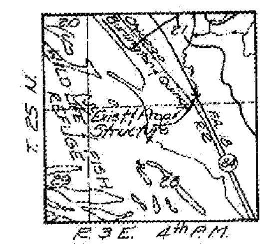
EXISTING STRUCTURE: Structure No. 008-0016; Original Structure built in 1927 as S.B.I. Rt. 80; Section 104 B, consisted of one span concrete tee beams superstructure on closed concrete abutments, measuring 24'-8" out/out of deck and 43'-11" back/back of abutments. Improved in 1959 as S.B.I. Rt. 80, Section 104 BY-1. The 1959 Improvements consisted of partial removal of existing superstructure deck and widening with 27" deep precast prestressed concrete deck beams to 48'-8" out/out and the construction of new cantilevered wingwalls. Work under this section will consist of the complete removal and disposal of the existing superstructure and partial removal and disposal of portions of the existing abutment backwalls all in accordance with Section 501 of the Standard Specifications and as shown in the Detail Plans. Removal and reconstruction will be done in two stages. Stage I removal and reconstruction of the North portion of the structure to the limits shown on the Detail Plans and Stage II removal and reconstruction of the remaining portion of the structure.

No Salvage.

BENCHMARK: U.S.G.S. Brass Disc in top of Northwest Wingwall of Exist. Struct. Elev. 599.72



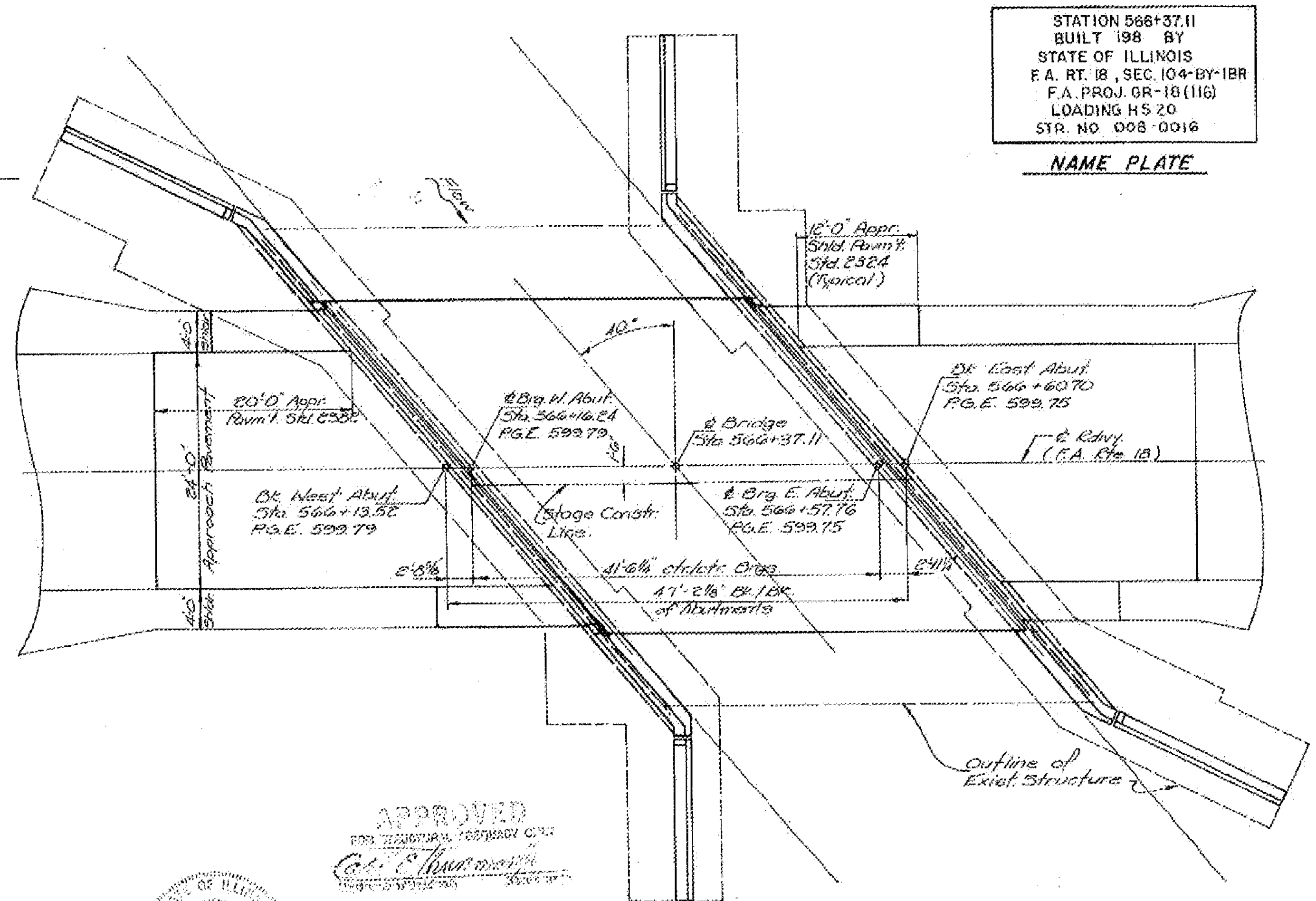
ELEVATION

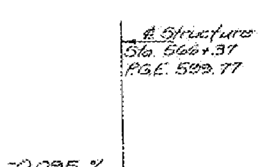


LOCATION SKETCH

STATION 566+37.11
BUILT 198 BY
STATE OF ILLINOIS
F.A. RT. 18, SEC. 104-BY-IBR
F.A. PROJ. GR-18 (116)
LOADING HS 20
STR. NO. 008-0016

NAME PLATE





PROFILE GRADE

PLAN

GENERAL NOTES:

1. Name Plate to be located as directed by the Engineer.
2. Reinforcement Bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-53, Grade 60, unless otherwise noted.
3. The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 1/4".
4. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
5. Expansion bolts shall consist of approved expansion anchors providing minimum certified proof load = 4,060 lbs. and 3/4"φ x 12" hooked bolts.
6. A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

WATERWAY INFORMATION

Drainage Area = 2.3 Sq. Mi. Low Grade Elev. 598.4 ± at Sta. 573 + 00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat.* H.W.E.	Head-FT. Exist.	Head-FT. Prop.	Headwater El. Exist.	Headwater El. Prop.	Mississippi River Backwater
Design	50	1902	226	226	594.5	1.26	1.26	595.76	595.76	596.5
Base	100	2207	238	238	594.9	2.08	2.08	596.98	596.98	597.6
Overtopping	200	2518	282	282	596.4	2.14	2.14	598.54	598.54	598.6
Max. Calc.	500									

* Controlled by Stage Elevation of Mississippi River

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Structure Excavation	C.Y.	-----	96	96
Removal of Exist. Super.	Each	-----	-----	1
Concrete Removal	C.Y.	-----	31.0	31.0
Prec. Prest. Conc. Dk. Bms. 21" deep	S.F.	1400	-----	1400
Class X Concrete	C.Y.	13.0	42.3	55.3
Reinforcement Bars	Lbs.	550	2690	3240
Steel Railing, Type S-1	L.F.	86	-----	86
Name Plates	Ea.	-----	-----	1
Portland Cem. Mortar Fr'g Crs.	L.F.	430	-----	430
Waterproof. Membrane Sys.	S.Y.	158	-----	158
Temporary Bridge Rail	L.F.	43	-----	43
Neoprene Exp. Joints (2")	L.F.	47	-----	47
Bit. Conc. Surf. Crse. Mix D, Cl. I	Ton	15	-----	15
Expan. Bolts ¾"φ	Ea.	-----	56	56

FOR INFORMATION ONLY

APPROVED

KENNETH L. FIGGE
REGISTERED STRUCTURAL ENGINEER IN ILLINOIS
NO. 2992

DATE 3/27/81

DESIGNED:	D.H.C.
CHECKED:	K.L.F.
DRAWN:	R.A.W. & MD
CHECKED:	K.L.F.

DESIGN STRESSES

PRECAST PRESTRESSED UNITS

f'_c = 5,000 p.s.i.
f'_{ci} = 4,000 p.s.i.
f'_s = 270,000 p.s.i. (½" φ Strands)
f_{si} = 189,000 p.s.i. (½" φ Strands)

CAST IN PLACE CONCRETE

f'_c = 3,500 p.s.i.
f_y = 60,000 p.s.i. (Reinf.)
n = 9

LOADING HS 20-44

Design Specifications: 1977 A.A.S.H.T.O. 1978, 1979, 1980 Interim Specifications (Allow 25 p.s.f. for future wearing surface.)

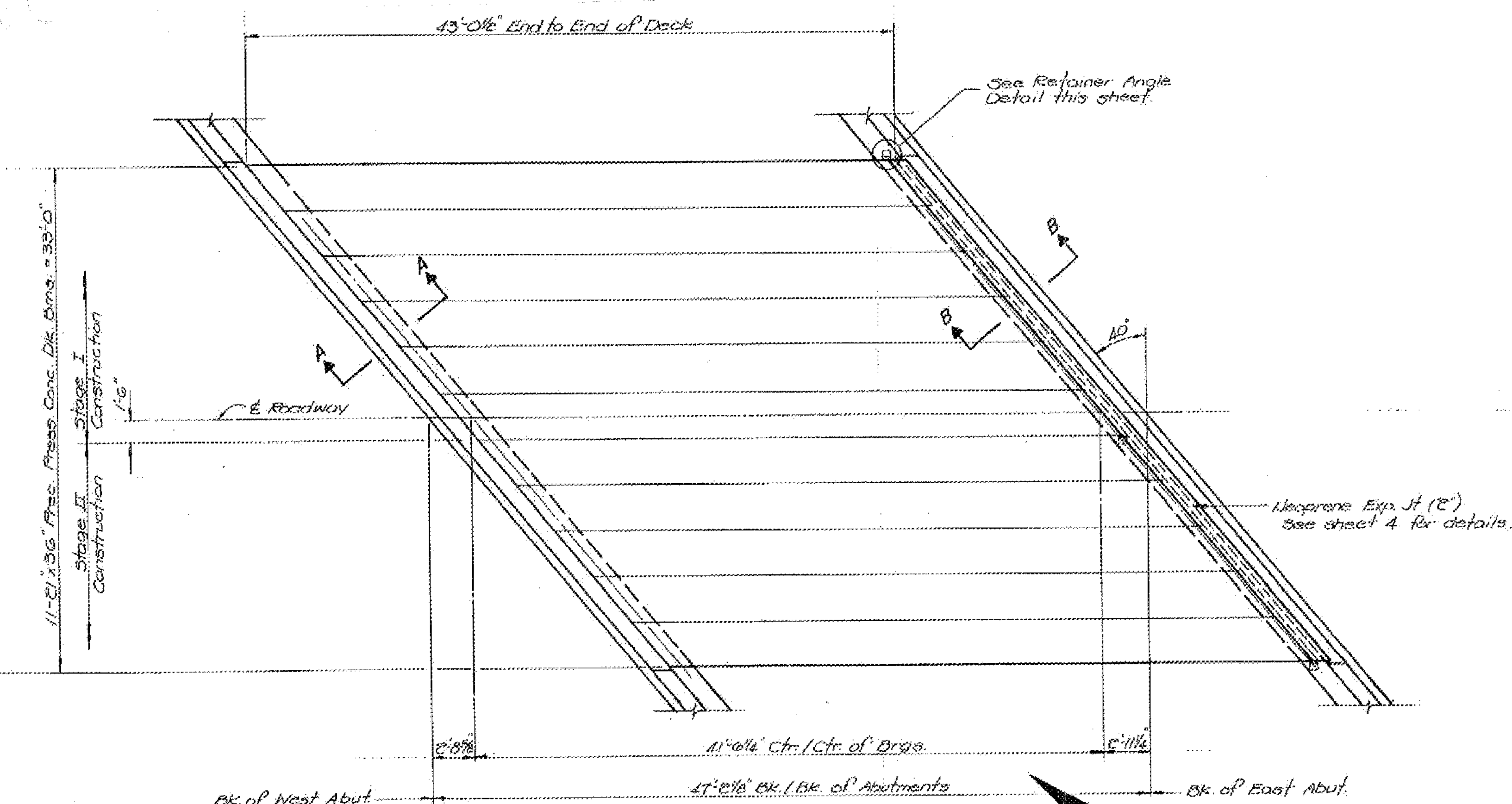
GENERAL PLAN & ELEVATION

F.A. RTE. 18, SEC. 104-BY-IBR
CARROLL COUNTY
STATION 566+37.11

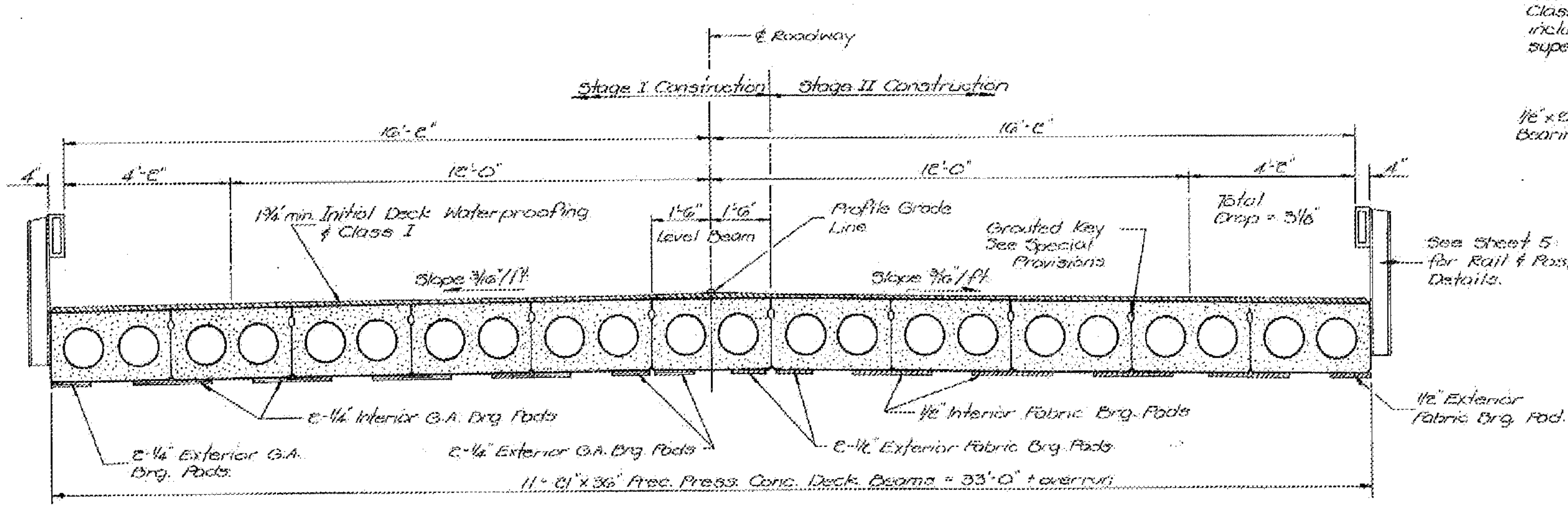
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	104-BY-1BR	CARROL	40	33

SHEET 2 OF 9

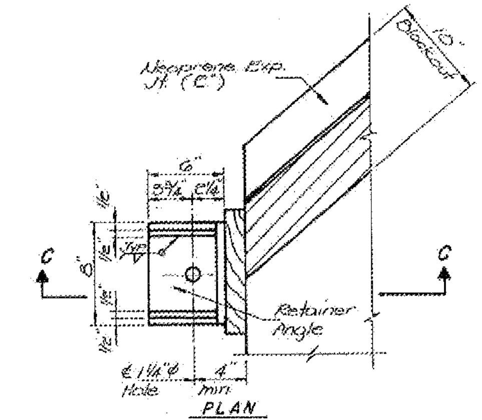


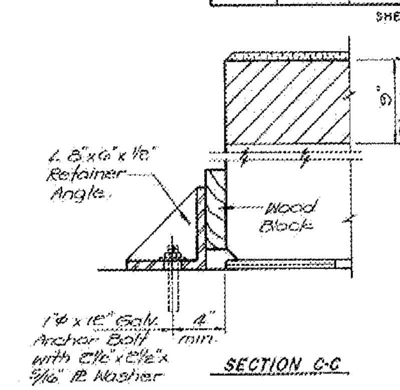
PLAN



(NEAR EXPANSION BRGS.) (NEAR FIXED BEARINGS)

CROSS SECTION
(Looking East)

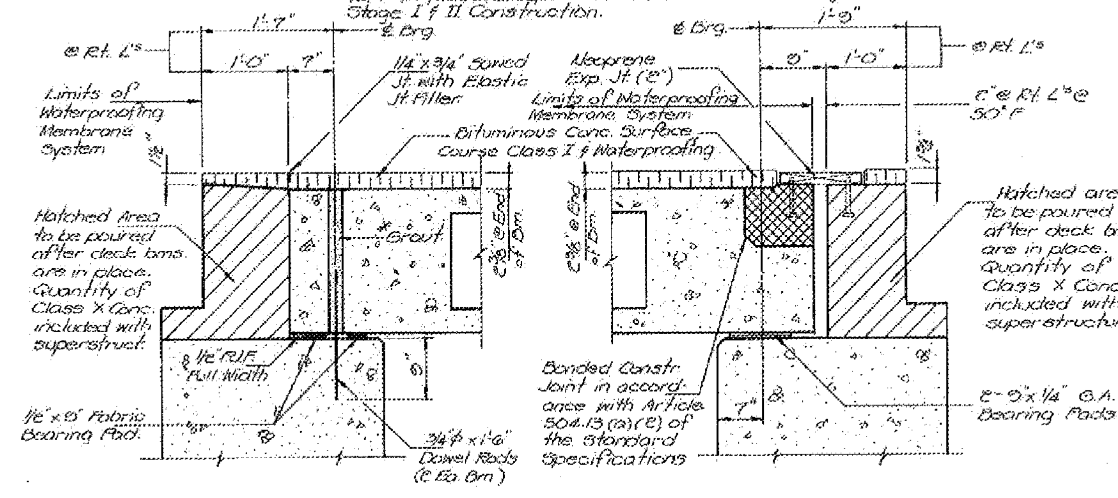




RETAINER ANGLE DETAIL
AT EXPANSION END

NOTES:

1. Anchor bolts may be cast into the masonry or placed in drilled holes & grouted in place. Cost including retainer angles & accessories incidental to beams.
2. After blockouts are poured & cured, the retainer angles shall be removed. Anchor bolts may be left in place, except at intermediate retainer angle between Stage I & II Construction.

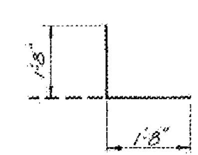


SECTION A-A

* Nonshrink, nonmetallic grout. See BSP 15.

SECTION B-B

Note:
The ends of the beams shall be aligned at the expansion joint. Any lineal variations in the beam lengths shall be placed at the fixed joint.



BAR f_3

Note: f_3 bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 40, except that the elongation shall not be less than 20%.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
* f_1	3	#6	23'-3"	——
* f_2	3	#5	15'-3"	——
* f_3	3	#5	3'-4"	⌊
** h	16	#4	15'-8"	——
** h_1	16	#4	17'-0"	——
** h_4	8	#4	3'-4"	⌊
Prec. Press. Conc. Dk. Bm. 21x36			Sq. Ft.	1480
Reinforcement Bars			Lbs.	550
Class X Concrete			Cu. Yd.	18.0

* See sht. 3 for location & details of these bars.
** See shts. 6 & 7 for location & details of these bars.

SUPERSTRUCTURE DECK

F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI RIVER
F.A. RTE. 18, SECTION 104 BY-1BR
CARROLL COUNTY
STA. 566 + 37.11

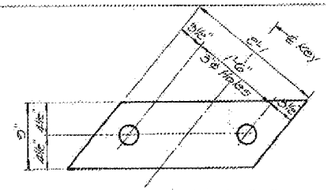
DESIGNED:	DHC
CHECKED:	K.L.F.
DRAWN:	MB
CHECKED:	K.L.F.

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 18	104-BY-1BR	CARROLL	40	34

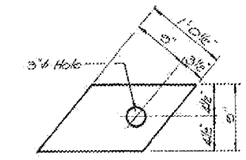
SHEET 3 OF 9

FOR INFORMATION ONLY

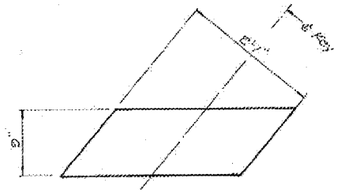
NOTE: Omit longitudinal shear key on outside face of exterior beams.



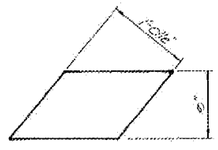
FABRIC BEARING PAD
(Interior)



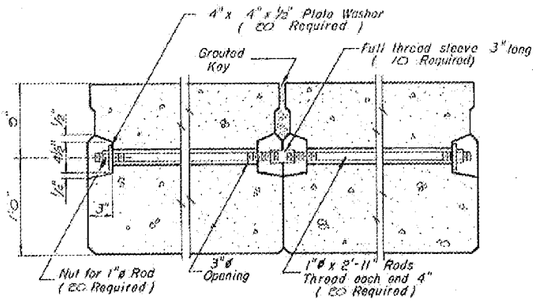
FABRIC BEARING PAD
(Exterior)



GRAPHITED ASBESTOS BEARING PAD
(Interior)

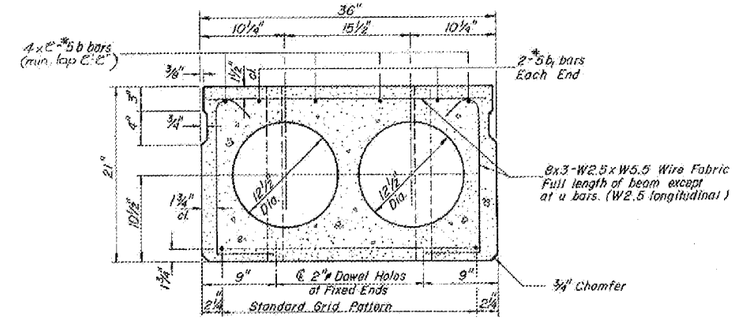


GRAPHITED ASBESTOS BEARING PAD
(Exterior)



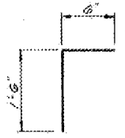
TYPICAL TRANSVERSE TIE ASSEMBLY

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

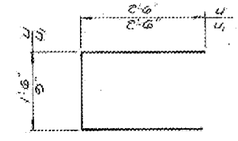


TYPICAL SECTION

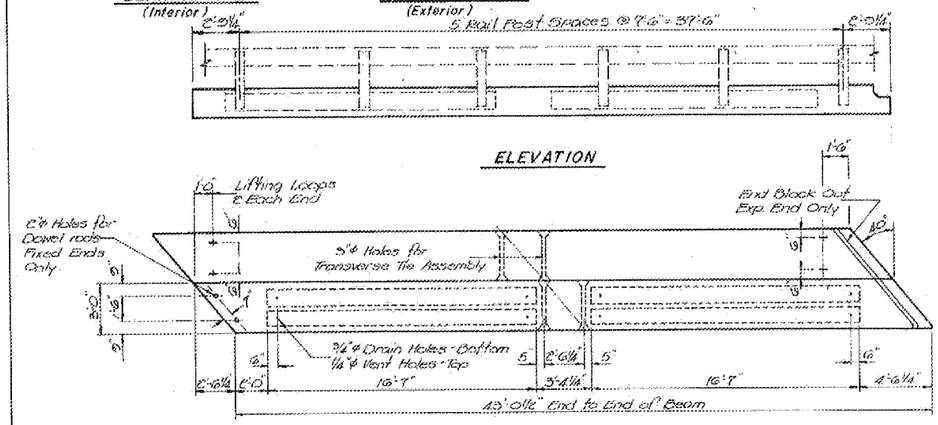
9-1/2"ø Strands, Each Strand Stressed to 28,900 lbs.
9-Strands 1 3/4" up, from bottom of beam. Place strands symmetrically about ℄ of beam.



e BAR

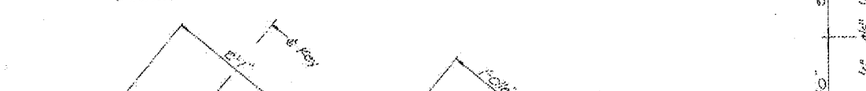


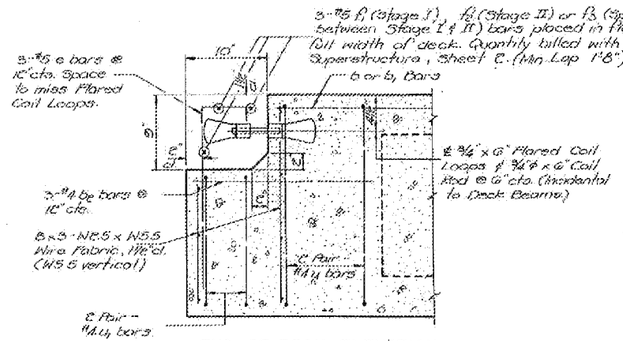
u & u1 BARS



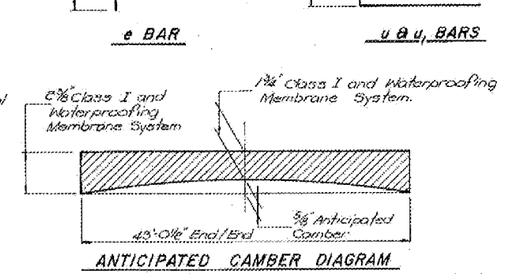
PLAN

ELEVATION

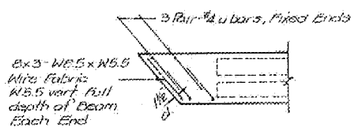




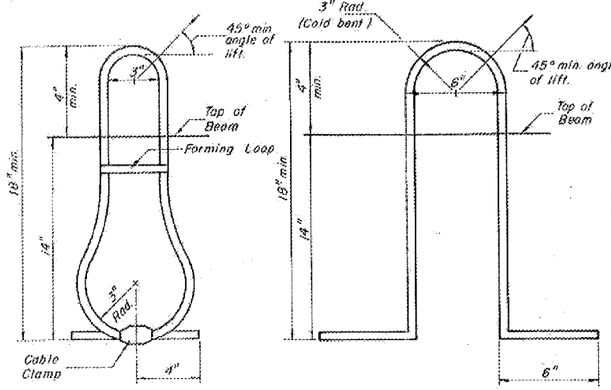
END OF BEAM ELEVATION
EXPANSION END
(Dimensions are at right 4's)



ANTICIPATED CAMBER DIAGRAM



END PLAN



LIFTING LOOP DETAIL
ALTERNATE (2)

LIFTING LOOP DETAIL
ALTERNATE (1)

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

Lifting loops shall be 5/8" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs. or 2-1/2"ø-270 ksi strands. Loops shall be burned off after beams have been erected.

The 1"ø rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

After beams have been erected, holes for the dowel anchors shall be drilled into the substructure and the anchor dowels shall be grouted in place prior to grouting the shear keys.

Reinforcement bars shall conform to AASHTO M-31 or M-53, Grade 60.

Cost of reinforcement and accessories cast into the beam, of bearing pads, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams."

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims, of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Note: The loop shall be formed in a manner such that all strands are engaged during lifting.

ONE BEAM
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b	5	#5	62'-0"	——
b1	4	#5	5'-8"	——
* b2	3	#4	1'-8"	——
* e	3	#5	2'-0"	⌐
u	10	#4	6'-6"	⊏
* u1	4	#4	5'-5"	⊏
Class X Concrete			Cu. Yd.	6.2
Reinforcement Bars			Lbs.	290
Weight of Beam			Lbs.	25,140

* Indicates bars required at Expansion Ends only.

DETAILS PRECAST PRESTRESSED
CONCRETE DECK BEAMS

F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI RIVER
F.A. RTE. 18, SECTION 104 BY-1BR
CARROLL COUNTY
STA. 566+37.11

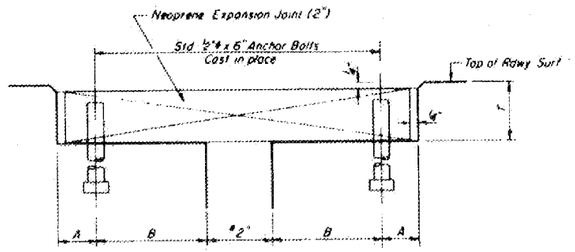
DESIGNED:	PHC
CHECKED:	K.L.P.
DRAWN:	DES
CHECKED:	K.L.P.

F.A. RTE. NO. 18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 9
F.A. RTE. 18	SECTION 104 BY-1BR	CARROLL	PROJECT NUMBER 40	SHEET NO. 35	SHEETS 9

FOR INFORMATION ONLY



CROSS SECTION
@ 50°F
Dimensions are at right angles

NOTE
Joint openings shall be adjusted in accordance with Article 503.07(c) of the Std Specs when the deck is poured at an ambient temperature other than 50°F

ALTERNATE NEOPRENE EXPANSION JOINTS (2")
(See Special Provisions)

Model	Supplier	Blockout Dimensions
TRANSFLEX, MODEL 200A	General Tire Company	T = 1 3/16", A = 1 1/8", B = 3 5/16"
FEL-SPAN, MODEL T-30 Set joint seal 1 3/8" at 50°F	Fel-Pro Building Products Inc	T = 1 3/4", A = 2 1/4", B = 2 13/16"
WABO ELASTODAM, TYPE 300 Set joint seal 1 3/8" at 50°F	Watson Bowman Associates, Inc	T = 1 3/4", A = 2 1/4", B = 2 13/16"
WABO ALU-STRIP, TYPE III S300 Set joint seat 1 1/2" at 50°F Permitted for up to 50° Skew	Watson Bowman Associates, Inc	T = 1 3/4", A = 1 5/8", B = 2 3/4"
LOW PROFILE ONFLEX-25 Set joint seat 1 1/2" at 50°F Roadway butt channel shall be filled with approved grout Permitted for up to 50° skew	Structural Accessories, Inc	T = 1 3/4", A = 1 5/8", B = 2 3/8"

DESIGNED	D.H.C.
CHECKED	K.L.F.
DRAWN	-NB-
CHECKED	K.L.F.

EJ-1 2-10-77

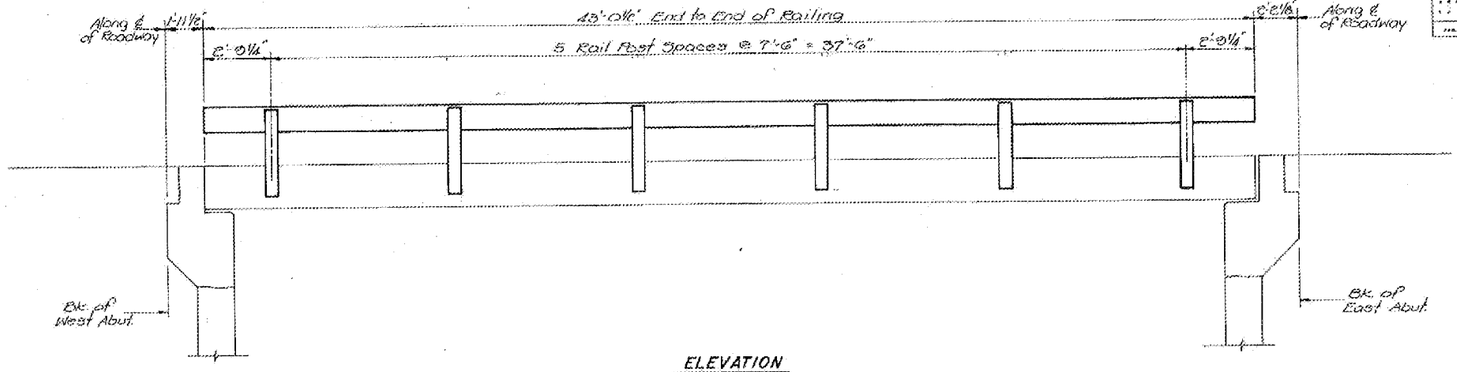
NEOPRENE EXPANSION JOINTS (2")
FOR EXPANSION LENGTH OF DECK = 0 to 160 ft

F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI R.
F.A. RTE. 18, SECTION 104 BY-1BR
CARROLL COUNTY
STA. 566 + 37.11

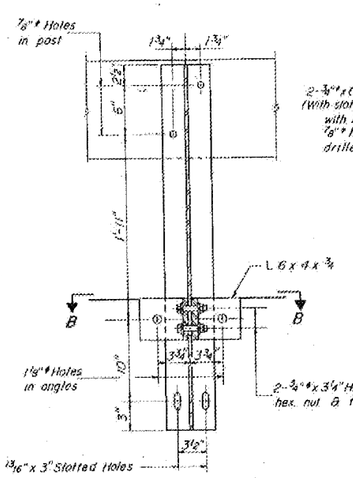
HMES LD. 1932

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S. 18	104-BY-1BR	CARROLL	40	36
FED. ROAD DIST. NO. 5	STATE	FED. AID PROJECT		

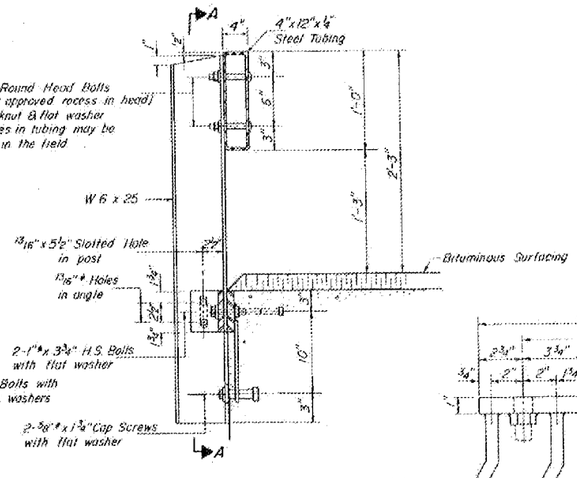
SHEET NO. 5
SHEETS 9



ELEVATION

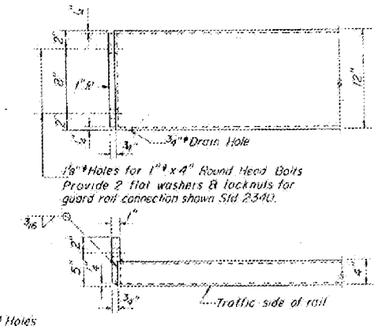


SECTION A-A

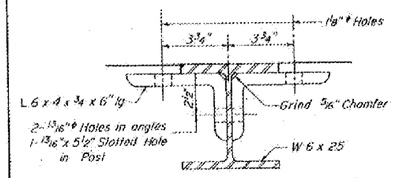


SECTION AT RAIL POST

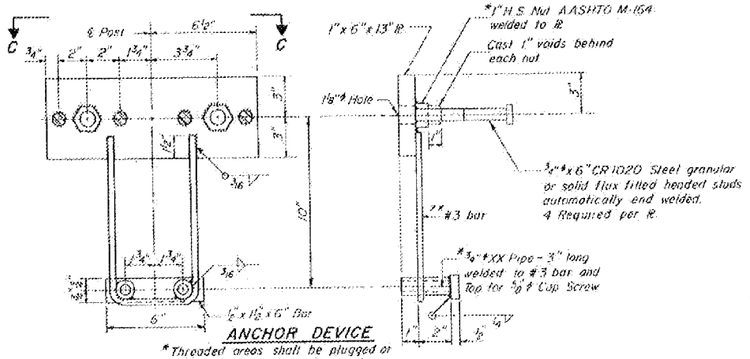
VIEW C-C



END OF RAIL DETAILS



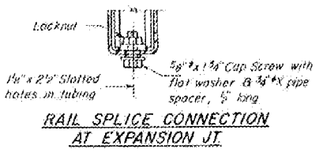
SECTION B-B



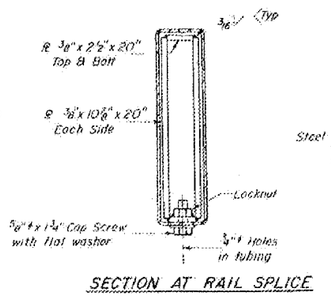
ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam.

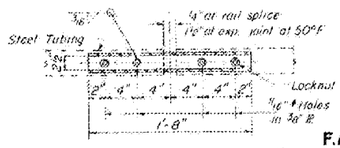
** Wherever the lower inset assemblies interfere with strand locations, the #3 bars shall be cut and adjusted inorder to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed ½".



RAIL SPLICE CONNECTION AT EXPANSION JT



SECTION AT RAIL SPLICE



PLAN - BOTT. SPLICE PL. TYPICAL

NOTES

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts and angles shall conform to AASHTO M-223, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirement of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and A.S.T.M. A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE S-1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.09 Type B or place ⅛" fabric bearing pad between the post and concrete.

The ¾"ø high strength bolts used to connect the 6 x 4 x ¾ angles to the post shall be tightened in accordance with Article 507.04(g)(13) of the Standard Specifications. The 1"ø high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional ⅛ turn. The ⅝"ø cap screws in bottom of posts shall be tightened to a snug fit only.

FOR INFORMATION ONLY

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Lin. Ft.	86

RAILING

F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI R.
F.A. RTE. 18, SECTION 104 BY-1BR
CARROLL COUNTY
STA. 566+37.11

DESIGNED	P.H.C.
CHECKED	K.L.F.
DRAWN	M.D.
CHECKED	K.L.F.

R-23A 8-30-60 (10'-9" Maximum Post Spacing)

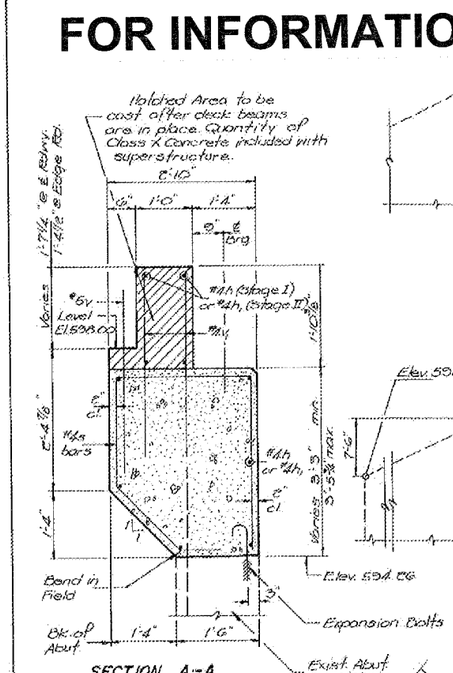
H.M.G. No. 1932

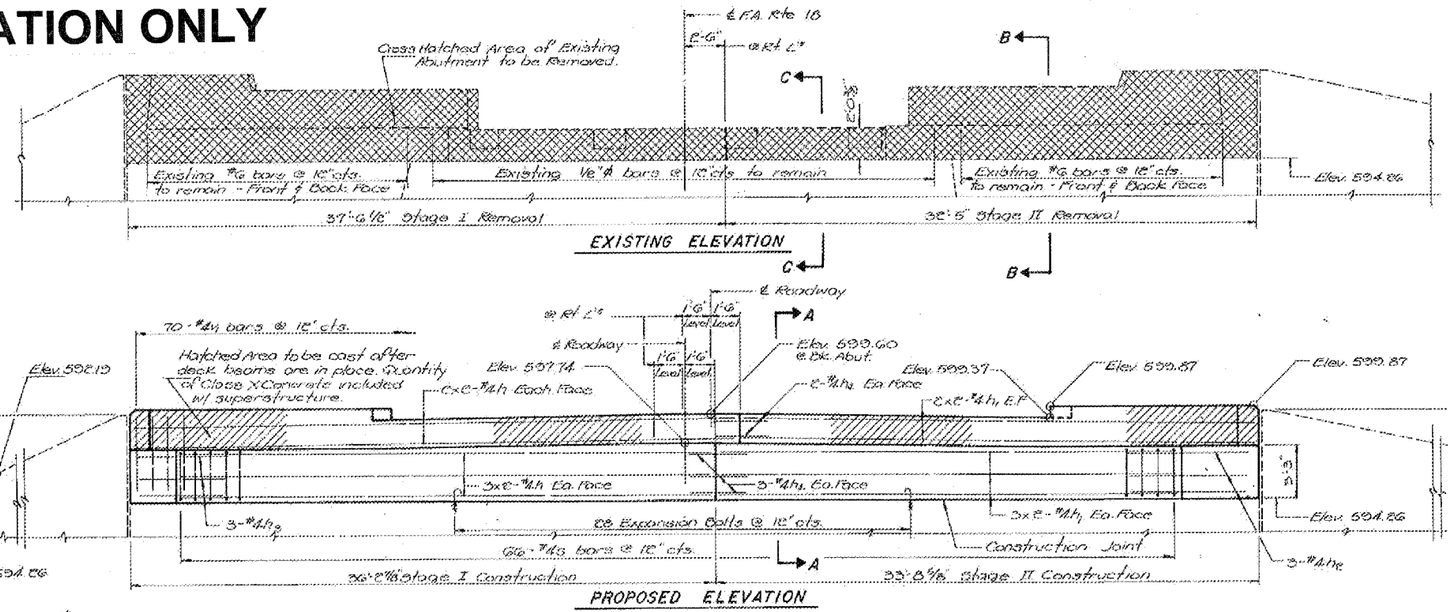
1

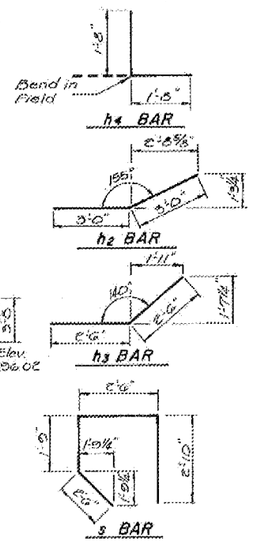
FOR INFORMATION ONLY

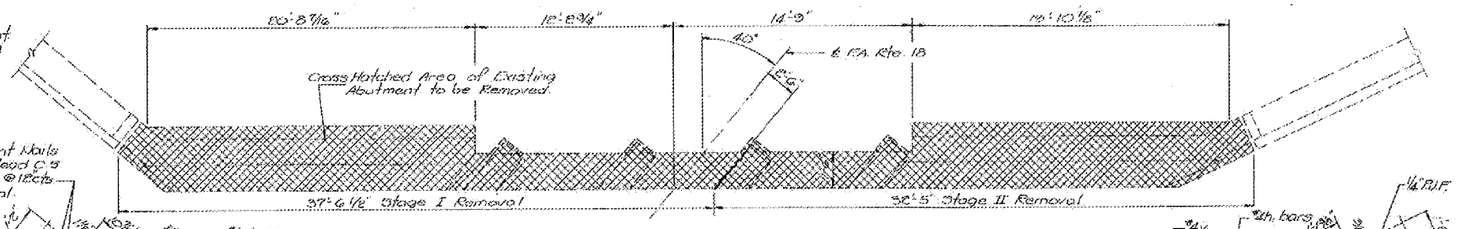
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	104-BY-1BR	CARROLL	40	37

SHEET 6 OF 9

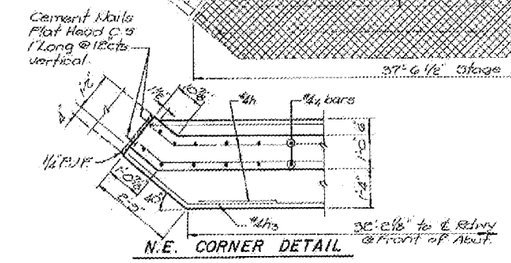


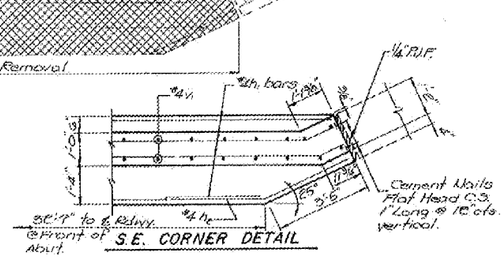


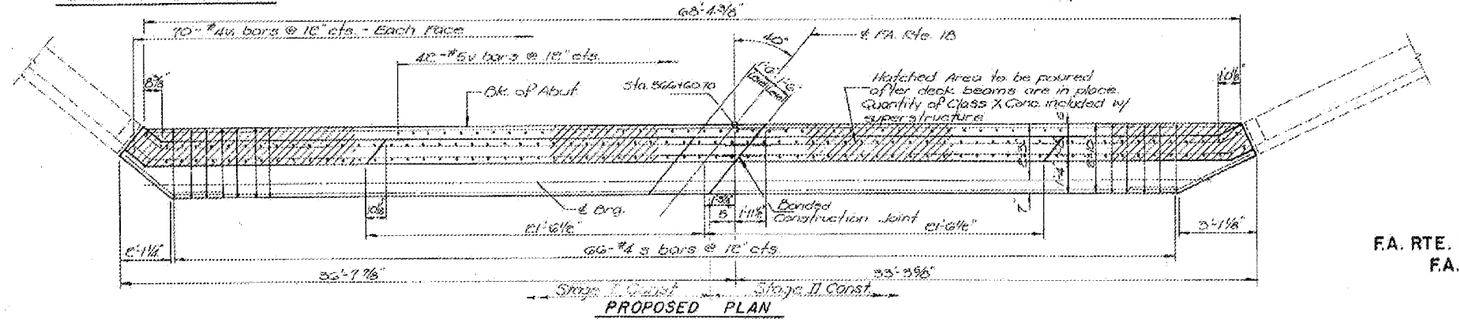




NOTE: Any existing vertical reinforcement encountered during removal of existing abutment shall remain in place to act as tie between existing and proposed construction. Reinforcement so encountered shall be completely exposed and thoroughly cleaned before placement of new concrete.







BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	12	#4	19'8	
h2	12	#4	17'0	
h3	3	#4	6'0	
h4	3	#4	5'0	
Xh4	6	#4	3'4"	
s	66	#4	6'7"	
v	42	#5	5'2"	
v1	140	#4	4'4"	
Class X Concrete			C.Y.	82.0
Reinforcement Bars			Lbs.	1350
Conc. Removal			C.Y.	15.6
Exp. Bolts 3/4" ø			Ea.	88

* h4 bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 40 except that the elongation shall not be less than 20%.

Note: Volume of Class X Concrete & weight of Reinforcement Bars included in hatched area of proposed abutment are listed with quantities for the superstructure on sheet 8.

DESIGNED	DHC
CHECKED	KLF
DRAWN	JMB
CHECKED	KLF

EAST ABUTMENT

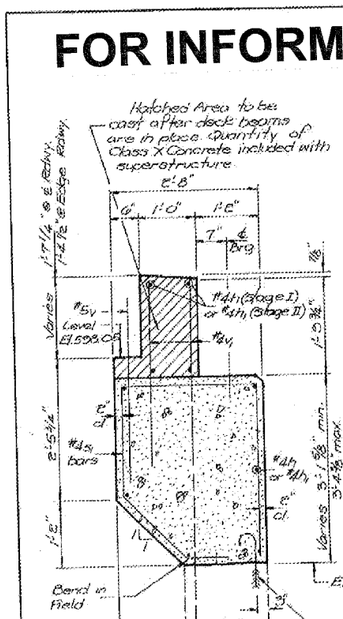
F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI RIVER
F.A. RTE. 18, SECTION 104 BY-1BR
CARROLL COUNTY
STA. 566+37.11

H.M.F.S. 10 1992

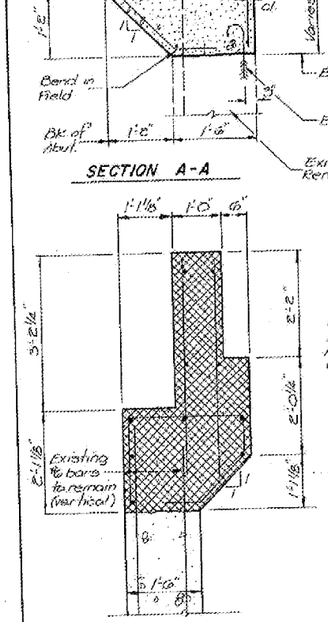
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	104-BY-1BR	CARROLL	40	38

SHEET 7 OF 9

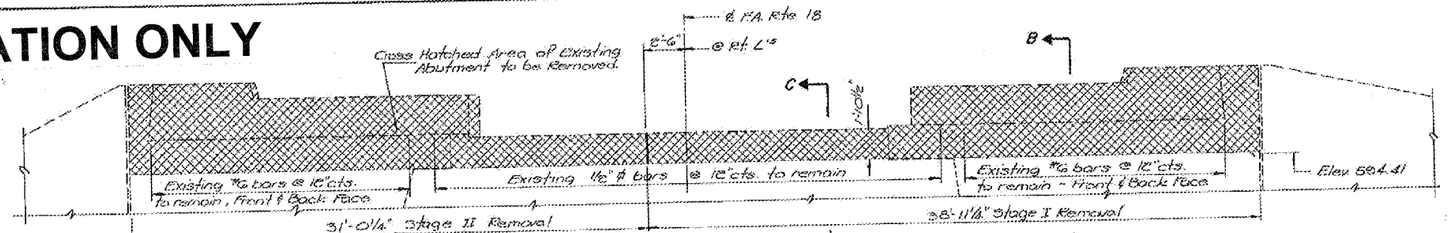


SECTION A-A

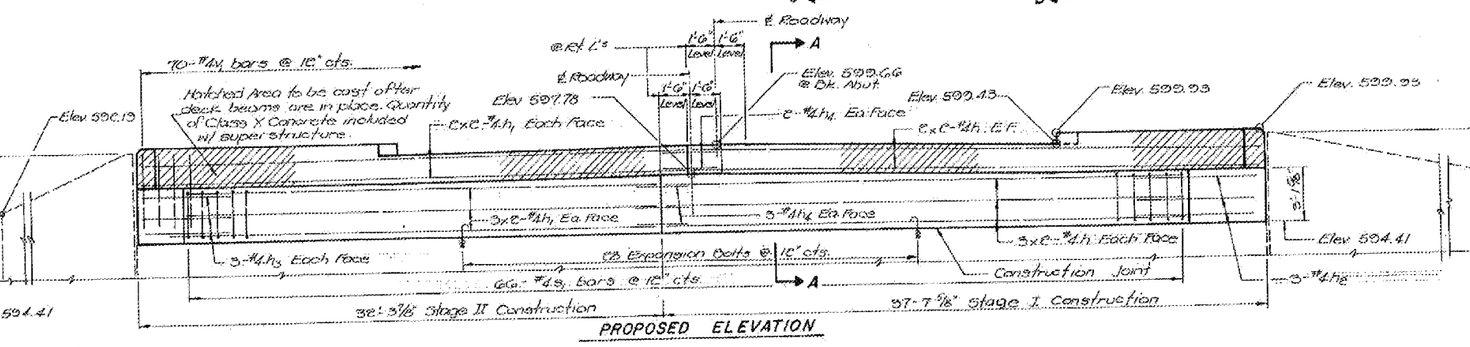


SECTION B-B

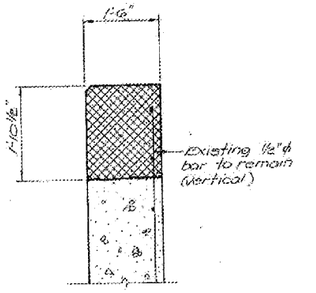
DESIGNED	BHC
CHECKED	KLF
DRAWN	JMB
CHECKED	KLF



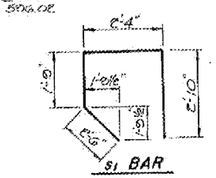
EXISTING ELEVATION



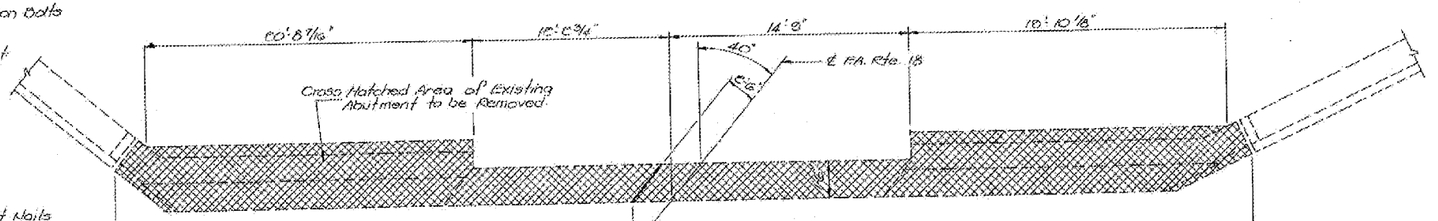
PROPOSED ELEVATION



SECTION C-C

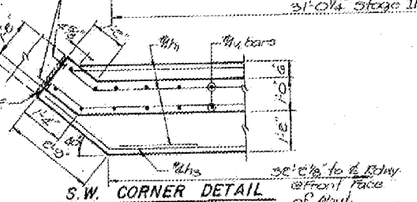


S1 BAR

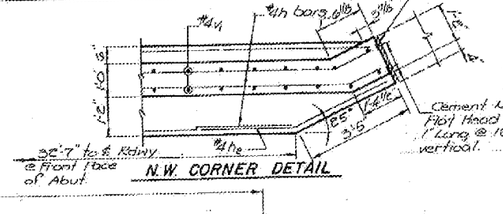


EXISTING PLAN

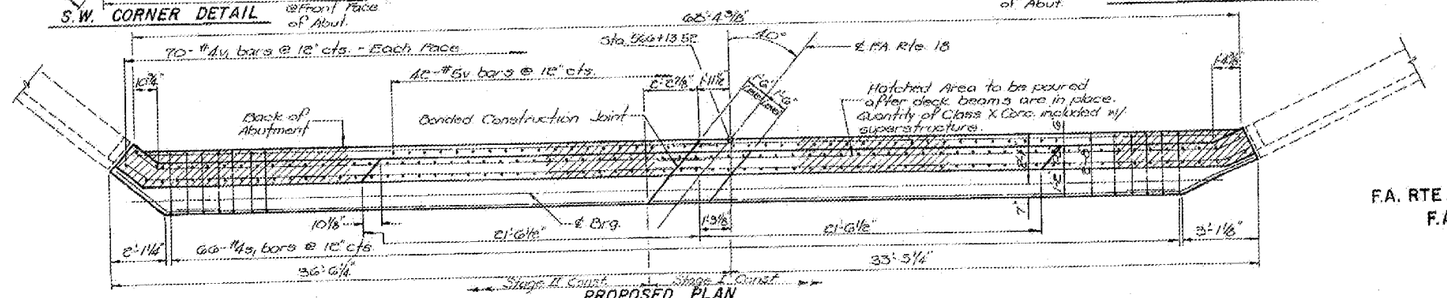
Note: Any existing vertical reinforcement encountered during removal of existing abutment shall remain in place to act as tie between existing and proposed construction. Reinforcement so encountered shall be completely exposed and thoroughly cleaned before placement of new concrete.



S.W. CORNER DETAIL



N.W. CORNER DETAIL



PROPOSED PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	18	#4	19'-8"	——
hv	18	#4	17'-0"	.....
hz	3	#4	6'-0"	——
h3	3	#4	5'-0"	——
kh4	6	#4	3'-4"	⌊⌋
s1	66	#4	0'-5"	C1
v	40	#6	3'-4"	.....
vi	140	#4	4'-4"	——
Class X Concrete			C.Y.	20.3
Reinforcement Bars			Lbs.	1340
Conc. Removal			C.Y.	15.4
Exp. Bolts ¾"Ø			Ea.	88

*(See note sheet 6)

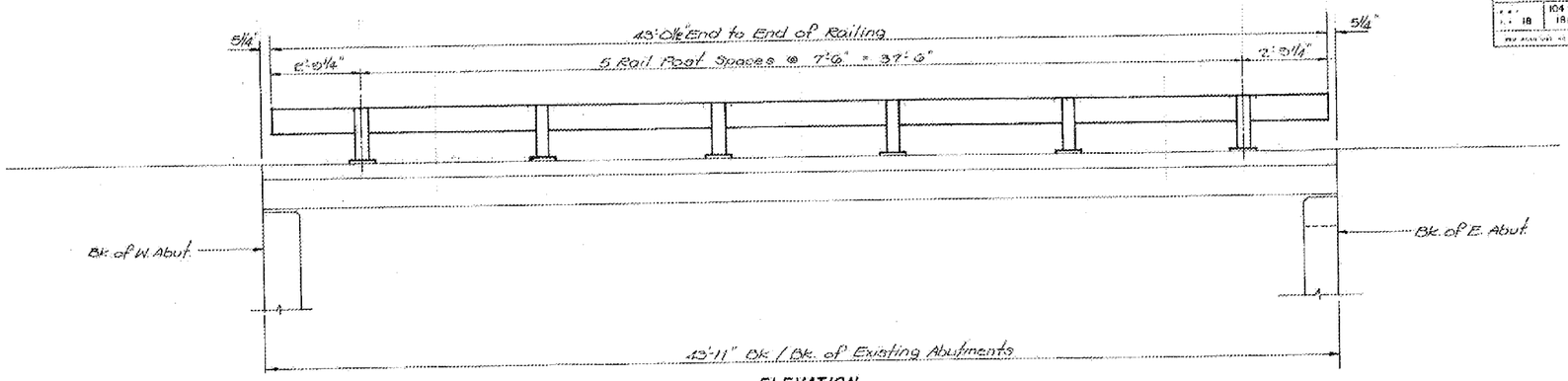
Note: Volume of Class X Concrete & weight of Reinforcement Bars included in hatched area of proposed Abutment are listed with quantities for the superstructure on sheet 8.

WEST ABUTMENT

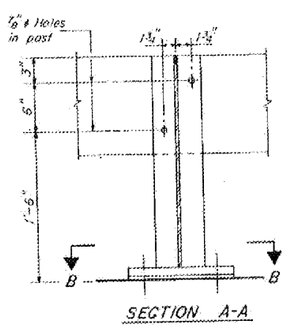
F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI RIVER
F.A. RTE. 18, SECTION 104 BY-1BR
CARROLL COUNTY
STA. 566+37.11

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 18	104 BY-18R	CARROLL	40	39

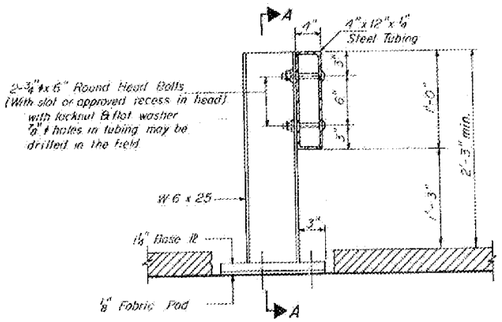
SHEET NO. 8
SHEETS 9



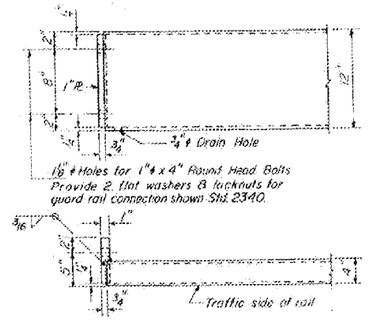
ELEVATION



SECTION A-A



SECTION AT RAIL POST



END OF RAIL DETAILS

NOTES

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of A.A.S.H.T.O. M-183 except posts shall conform to A.A.S.H.T.O. M-223 Grade 50.

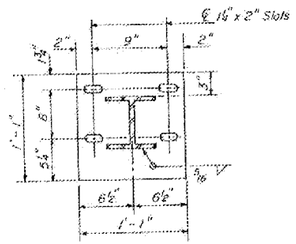
Bolts, cap screws, and nuts shall conform to the requirement of A.S.T.M. designation A-307 except for high strength bolts, threaded rods, nuts and washers noted which shall conform to A.A.S.H.T.O. M-164.

The bridge rail shall receive one shop coat of a steel prime paint.

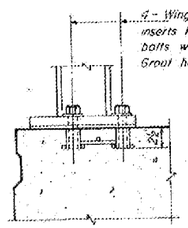
The 1" ϕ high strength bolts or threaded rods used to connect the railposts shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specification.

See Special Provisions for Temporary Bridge Rail.

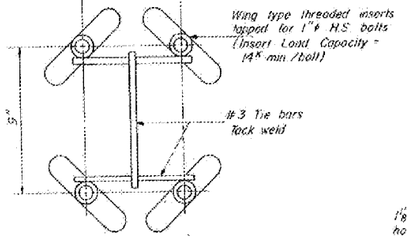
The Temporary Bridge Rail steel tubing may be used for one rail element of the permanent steel railing, Type S-1 provided the tubing is maintained in good condition during the course of the work as determined by the Engineer in the field.



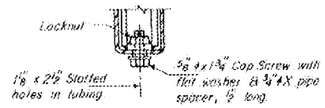
SECTION B-B



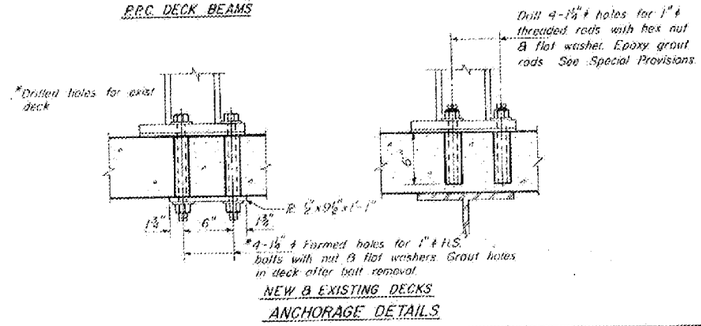
PPC DECK BEAMS



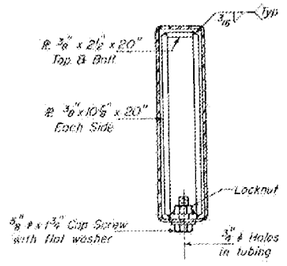
INSERT DETAIL



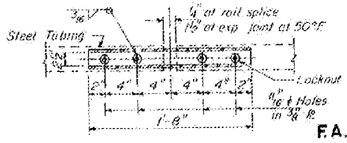
RAIL SPLICE CONNECTION AT EXPANSION JT.



NEW & EXISTING DECKS ANCHORAGE DETAILS



SECTION AT RAIL SPLICE



PLAN - BOTT. SPLICE PL. TYPICAL

FOR INFORMATION ONLY

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Bridge Rail	Lin Ft	45

TEMPORARY BRIDGE RAIL
F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI R.
F.A. RTE. 18, SECTION 104 BY-18R
CARROLL COUNTY
STA. 566+37.11

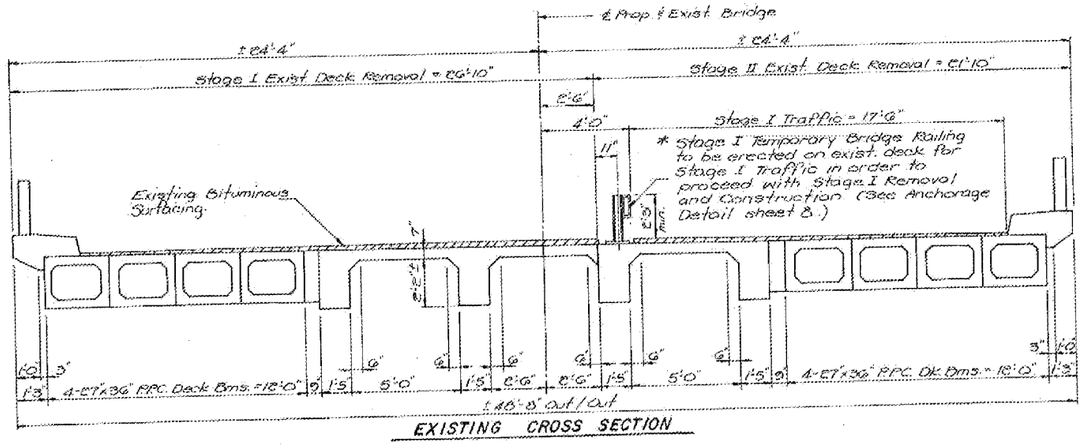
DESIGNED	DHC
CHECKED	KLF
DRAWN	MD
CHECKED	KLF

R-25 8-30-80 (10'-9" Maximum Post Spacing)

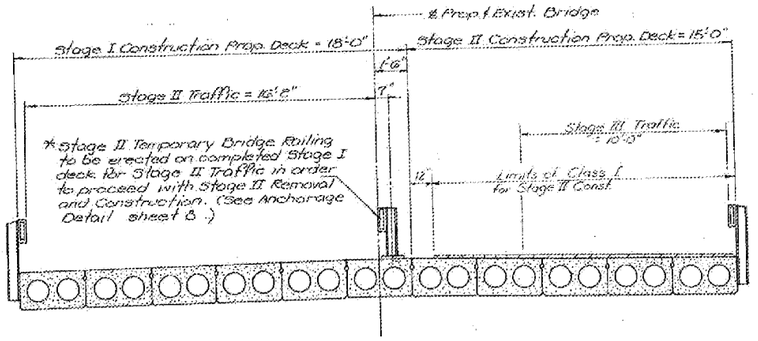
H.M. & C. NO. 1952

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 18	104 BY-1BR	CARROLL	40	40

SHEET 9 OF 9

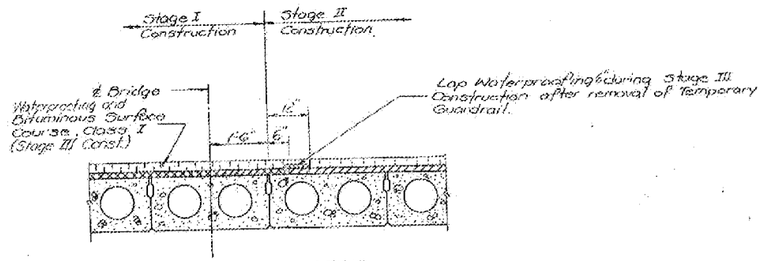


EXISTING CROSS SECTION

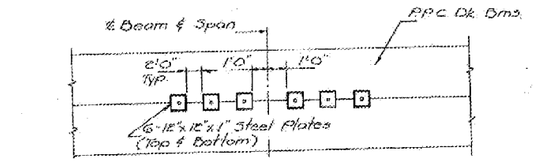


PROPOSED CROSS SECTION

* Remove Rail & Post material from Stage I Temporary Bridge Railing for reuse on the Stage II Temporary Bridge Railing.

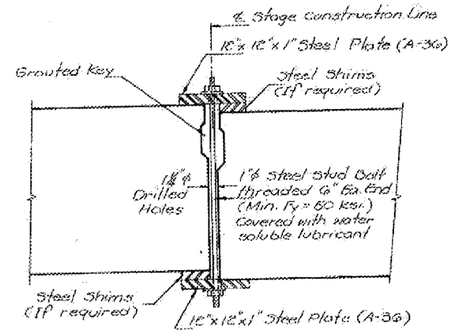


DECK WATERPROOFING TREATMENT

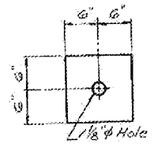


PLAN

Space Steel Plates to miss Temporary Bridge Rail Posts.



SECTION



TOP & BOTTOM PLATE DETAIL

Note: Key of Stage Construction Line shall be the last key-way to be grouted, and after traffic has been redirected as far as possible from the Stage Construction Line.

SHEAR KEY CLAMPING DETAIL AT STAGE CONSTRUCTION JOINT

(Cost incidental to Prec. Press. Conc. Deck Bms.)

FOR INFORMATION ONLY

STAGE CONSTRUCTION DETAILS

F.A. RTE. 18 OVER TRIB. OF MISSISSIPPI RIVER
F.A. RTE. 18, SECTION 104 BY-1BR
CARROLL COUNTY
STA. 566+37.11

DESIGNED	DHC
CHECKED	KLF
DRAWN	JMB
CHECKED	KLF

Effective Jan. 1936