

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60F93		

D-91-290-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

F.A.P. ROUTE 303 IL ROUTE 173 OVER DES PLAINES RIVER
(0.2 MILES EAST OF US ROUTE 41)

SECTION: 136 B-1 PROJECT: ACNHF-0303(048)

LAKE COUNTY

C-91-290-09

PPC DECK BEAM REPLACEMENT PROJECT

SN 049-0059



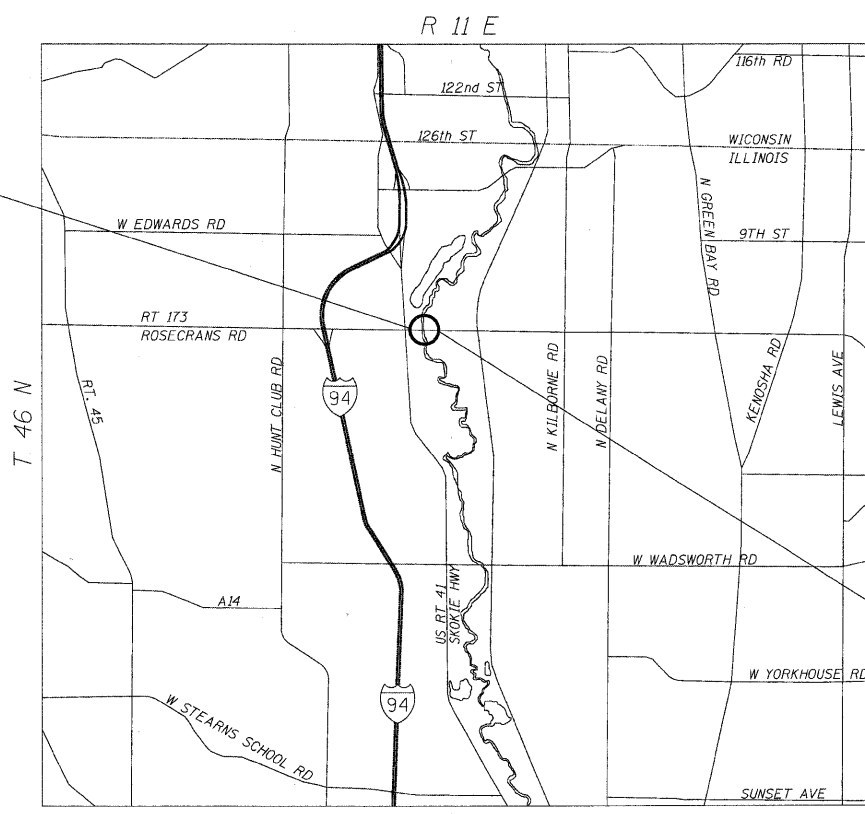
PROJECT LOCATED IN THE VILLAGE OF
WADSWORTH IN LAKE COUNTY, IL

FOR INDEX OF SHEETS, SEE SHEET NO. 2

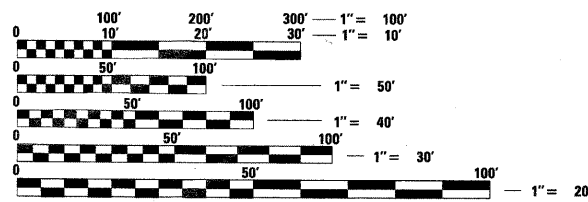
DESIGN DESIGNATION
OTHER PRINCIPAL ARTERIAL

ADT 11300 (2007)
POSTED SPEED LIMIT 45 MPH

PROJECT BEGINS
STA. 98+00



PROJECT ENDS
STA. 101+80

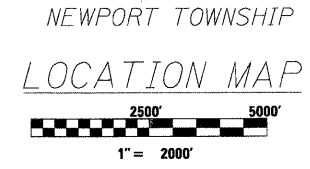


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT MANAGER: KIM HARVEY (847) 705-4055
PROJECT ENGINEER:

CONTRACT NO. 60F93



NET AND GROSS LENGTH OF PROJECT = 380' = 0.072 MI

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JUNE 25, 2010

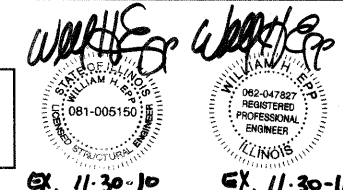
Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 13 2010
Scott E. Stitt, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

August 13 2010
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH 6301 577-9100



EX. 11-30-10 EX. 11-30-10

STATE STANDARDS

SHEET NO. TITLE

1	TITLE SHEET
2	GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS
3-4	SUMMARY OF QUANTITIES
5	TYPICAL SECTIONS
6	STAGING TYPICAL SECTIONS
7	CONSTRUCTION STAGING PLAN - STAGE 1
8	CONSTRUCTION STAGING PLAN - STAGE 2
9	PLAN AND PROFILE
10	PAVEMENT MARKING PLAN
11	EROSION CONTROL PLAN
12-13	TEMPORARY TRAFFIC SIGNAL PLAN
14	CABLE PLAN
15	ELECTRICAL PLAN
16-35	STRUCTURAL PLANS
36	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
37	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
38	BUTT JOINT AND HMA TAPER DETAILS
39	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
40	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
41	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
42	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
43	ARTERIAL ROAD INFORMATION SIGN
	HIGHWAY STANDARDS

SHEET NO. TITLE

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT REBARS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
442201-03	CLASS C AND CLASS D PATCHES
515001-03	NAME PLATE FOR BRIDGE
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-08	STEEL PLATE BEAM GUARD RAIL
631031-08	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701201-03	LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEEDS > 45 MPH
701301-03	LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS
701321-10	LANE CLOSURE 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
729001-01	APPLICATION OF TYPES A & B METAL POSTS (FOR SIGN & MARKERS)
780001-02	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

ALL ELEVATIONS ARE BASED ON UNITED STATES COAST AND GEODETIC SURVEY DATUM.

DIMENSIONS ARE IN ENGLISH UNITS UNLESS OTHERWISE NOTED.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

ANY REFERENCE TO STANDARDS IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT LISTED IN THE PLANS WITH THE LATEST NUMBERS.

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING PROPERTIES.

THE RESIDENT ENGINEER SHALL CONTACT MS. DEBBIE HANLON, AREA TRAFFIC ENGINEER, AT (847) 438-2300 AT A MINIMUM OF 2 WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKING.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE DIRECTED BY THE ENGINEER.

ALL WORK IS TO BE COMPLETED BY THE COMPLETION DATE. THE COMPLETION DATE FOR THIS CONTRACT IS JULY 31, 2011

SUMMARY OF QUANTITIES			80% FEDERAL, 20% STATE			SUMMARY OF QUANTITIES			80% FEDERAL, 20% STATE		
CODE NO.	ITEM	UNIT	URBAN TOTAL	ROADWAY 1000-2A	BRIDGE X081-2A	CODE NO.	ITEM	UNIT	URBAN TOTAL	ROADWAY 1000-2A	BRIDGE X081-2A
20200100	EARTH EXCAVATION	CU YD	119	119		44004250	PAVED SHOULDER REMOVAL	SQ YD	54	54	
21101815	COMPOST FURNISH AND PLACE, 4"	SQ YD	734	734		20004552	APPROACH SLAB REMOVAL	SQ YD	107		107
25000310	SEEDING, CLASS 4	ACRE	0.2	0.2		20004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	506	506	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	18	18		44002209	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 2 1/4"	SQ YD	100	100	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	18	18		44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	27	27	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	18	18		44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	33	33	
25100630	EROSION CONTROL BLANKET	SQ YD	734	734		44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	40	40	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	20	20		50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
28000305	TEMPORARY DITCH CHECKS	FOOT	100	100		50102400	CONCRETE REMOVAL	CU YD	0.8		0.8
28000400	PERIMETER EROSION BARRIER	FOOT	554	554		50300100	FLOOR DRAINS	EACH	12		12
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	1	1		50300225	CONCRETE STRUCTURES	CU YD	24.7		24.7
40600300	AGGREGATE (PRIME COAT)	TON	4	4		50300255	CONCRETE SUPERSTRUCTURE	CU YD	121.2		121.2
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	2	2		50300260	BRIDGE DECK GROOVING	SQ YD	490		490
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	34	34		50300300	PROTECTIVE COAT	SQ YD	829		829
40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQ YD	42	42		50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	4637		4637
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	13	13		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	36520		36520
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	73	73		50800515	BAR SPLICERS	EACH	336		336
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	54	54		50900305	STEEL RAILING, TYPE T1	FOOT	227		227
44000100	PAVEMENT REMOVAL	SQ YD	165	165		51500100	NAME PLATES	EACH	1		1
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	659	659		59000200	EPOXY CRACK INJECTION	FOOT	78		78

* SPECIALTY ITEMS

LONCO INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 06/25/2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
IL ROUTE 173 OVER DES PLAINES RIVER**

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. 98+00 TO STA. 101+80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	3
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES			80% FEDERAL, 20% STATE			SUMMARY OF QUANTITIES			80% FEDERAL, 20% STATE		
CODE NO.	ITEM	UNIT	URBAN TOTAL	ROADWAY 1000-2A	BRIDGE X081-2A	CODE NO.	ITEM	UNIT	URBAN TOTAL	ROADWAY 1000-2A	BRIDGE X081-2A
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	330	330		78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	4	4
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		* 81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA, GALVANIZED STEEL	FOOT	114	114	
63200310	GUARDRAIL REMOVAL	FOOT	583	583		* 81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" x 12" x 6"	EACH	2	2	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	9		* 81306500	REMOVE EXISTING JUNCTION BOX	EACH	2	2	
67100100	MOBILIZATION	L SUM	1	1		Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	103	103	
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		* X0323710	REMOVE CONDUIT ATTACHED TO STRUCTURE	FOOT	114	114	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		* Z0033024	MAINTAIN EXISTING LIGHTING SYSTEM	L SUM	1	1	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	24	24		Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	40		40
70400100	TEMPORARY CONCRETE BARRIER	FOOT	514	514		X7030104	PAVEMENT MARKING WET TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	4057	4057	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	514	514		X7030106	PAVEMENT MARKING WET TEMPORARY TAPE, TYPE III, 6 INCH	FOOT	203	203	
78000100	THERMOPLASTIC PAVEMENT MARKING-LETTERS AND SYMBOLS	SQ FT	110	110		X7030124	PAVEMENT MARKING WET TEMPORARY TAPE, TYPE III, 24 INCH	FOOT	64	64	
* 78000200	THERMOPLASTIC PAVEMENT MARKING-LINE 4"	FOOT	3733	3733		X7030120	PAVEMENT MARKING WET TEMPORARY TAPE, TYPE III, LETTERS AND SYMBOLS	SQ FT	110	110	
* 78000400	THERMOPLASTIC PAVEMENT MARKING-LINE 6"	FOOT	289	289		X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	490		490
* 78000600	THERMOPLASTIC PAVEMENT MARKING-LINE 12"	FOOT	234	234		Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	36		36
* 78000650	THERMOPLASTIC PAVEMENT MARKING-LINE 24"	FOOT	32	32		Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
* 78008210	POLYUREA PAVEMENT MARKING ^{TYPE I} - LINE 4"	FOOT	454	454		Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4		Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4		4	* Z0076600	TRAINEES	Hour	500	500	
* 78200500	BARRIER WALL MARKERS	EACH	22	22							
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1804	1804							

© Yogo
* SPECIALTY ITEMS

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: 16301 577-9100

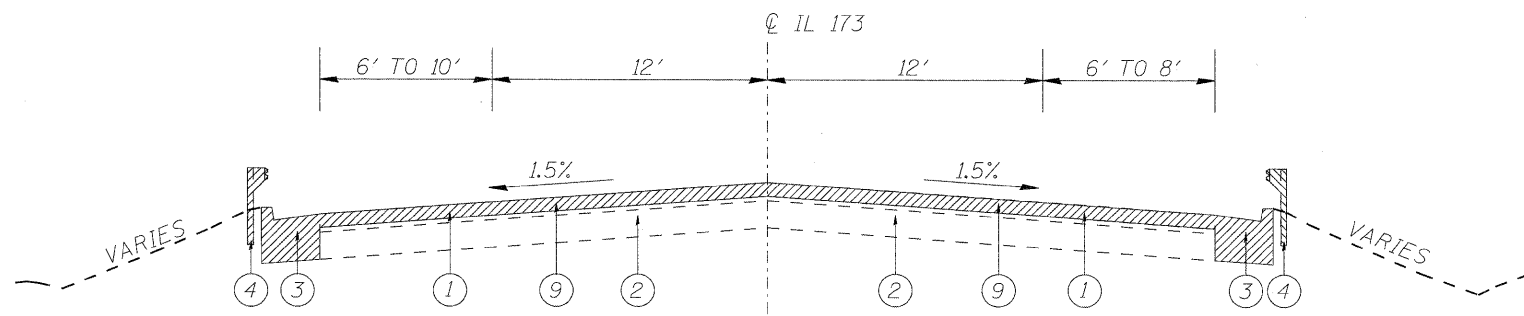
DESIGNED - MJY	
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 06/25/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

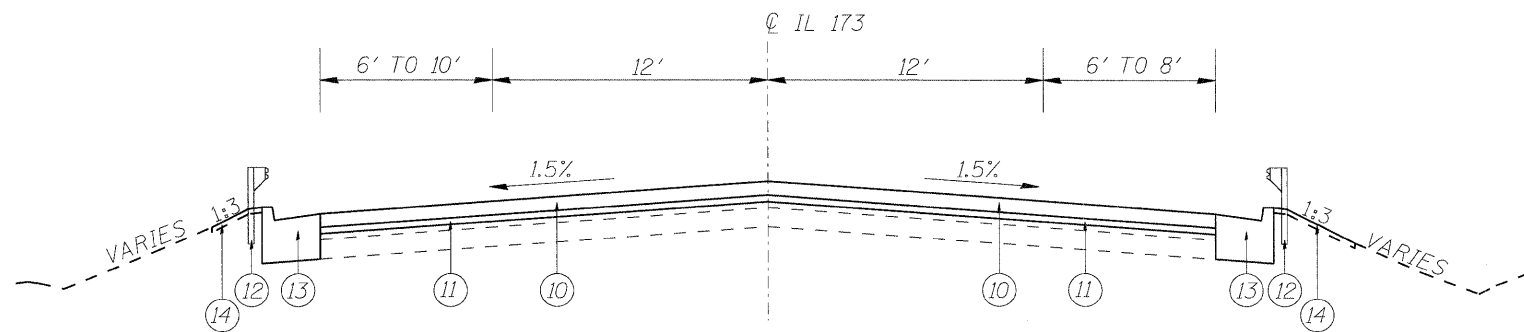
SUMMARY OF QUANTITIES
IL ROUTE 173 OVER DES PLAINES RIVER

SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. 98+00 TO STA. 101+80

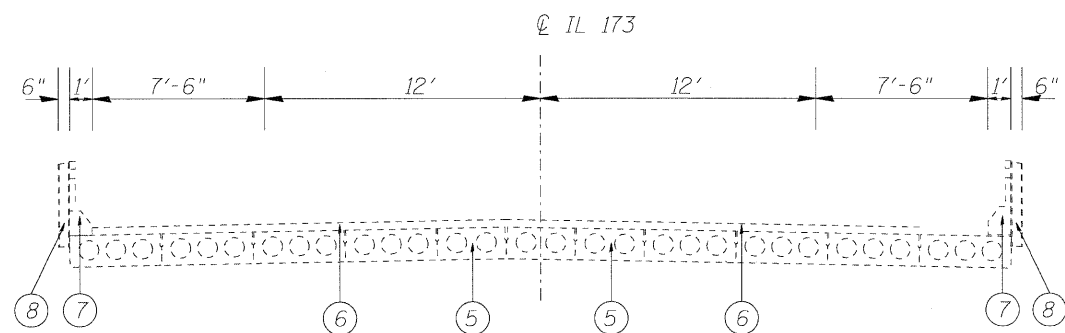
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	4
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



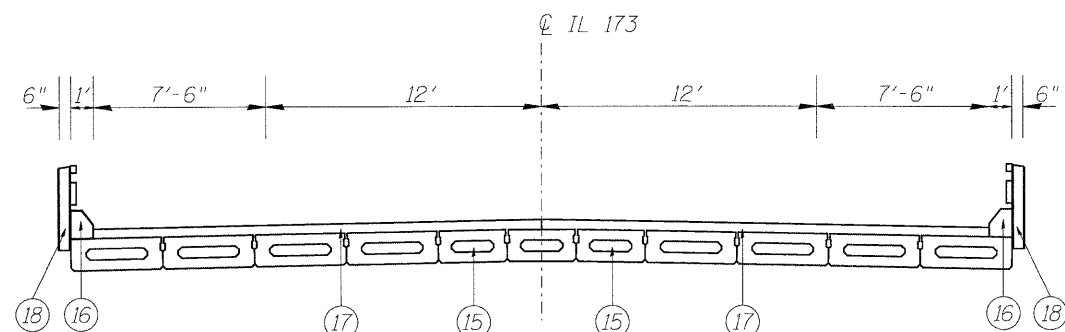
EXISTING TYPICAL SECTION
STA. 98+00 TO STA. 99+43.31
STA. 100+56.70 TO STA 101+80



PROPOSED TYPICAL SECTION
STA. 98+00 TO STA. 99+43.31
STA. 100+56.70 TO STA 101+80



EXISTING TYPICAL SECTION
STA. 99+43.31 TO STA. 100+56.70



PROPOSED TYPICAL SECTION
STA. 99+43.31 TO STA. 100+56.70

LEGEND

- ① EXISTING HMA OVERLAY, 3 1/4"
- ② EXISTING HMA BINDER COURSE, 10"
- ③ EXISTING CONCRETE CURB AND GUTTER, B-6.24 TO BE REMOVED
- ④ EXISTING STEEL PLATE BEAM GUARDRAIL TO BE REMOVED
- ⑤ EXISTING PPC DECK BEAMS
- ⑥ EXISTING CONCRETE WEARING SURFACE (4")
- ⑦ EXISTING CONCRETE CURB
- ⑧ EXISTING STEEL RAILING TO BE REMOVED PAID AS REMOVAL OF EXISTING STRUCTURES
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
- ⑩ PROPOSED HMA SURFACE CSE., MIX "D", N70, 1 1/2"
- ⑪ PROPOSED LEVELING BINDER (MACHINE METHOD), N70, 3/4"
- ⑫ PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑬ PROPOSED COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.24
- ⑭ PROPOSED COMPOST FURNISH AND PLACE, 4"
- ⑮ PROPOSED PPC DECK BEAMS (17" DEPTH)
- ⑯ PROPOSED CURB WALL PAID AS CONCRETE SUPERSTRUCTURE
- ⑰ PROPOSED CONCRETE WEARING SURFACE (5")
- ⑱ PROPOSED STEEL RAILING

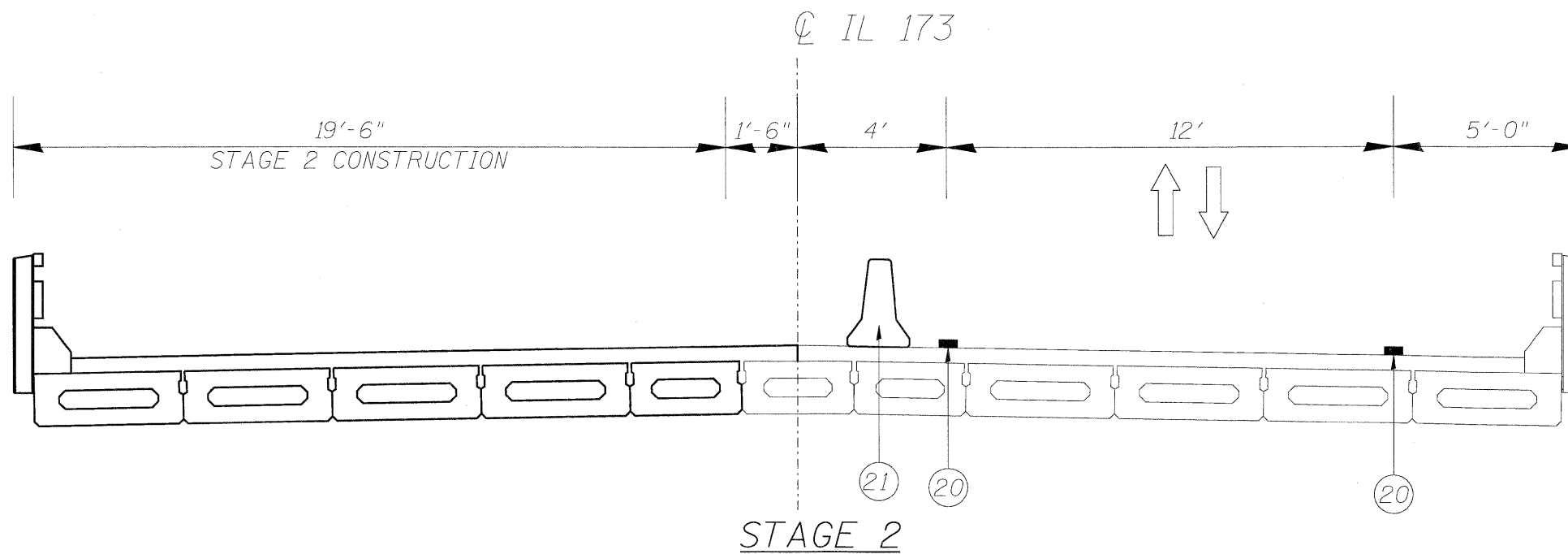
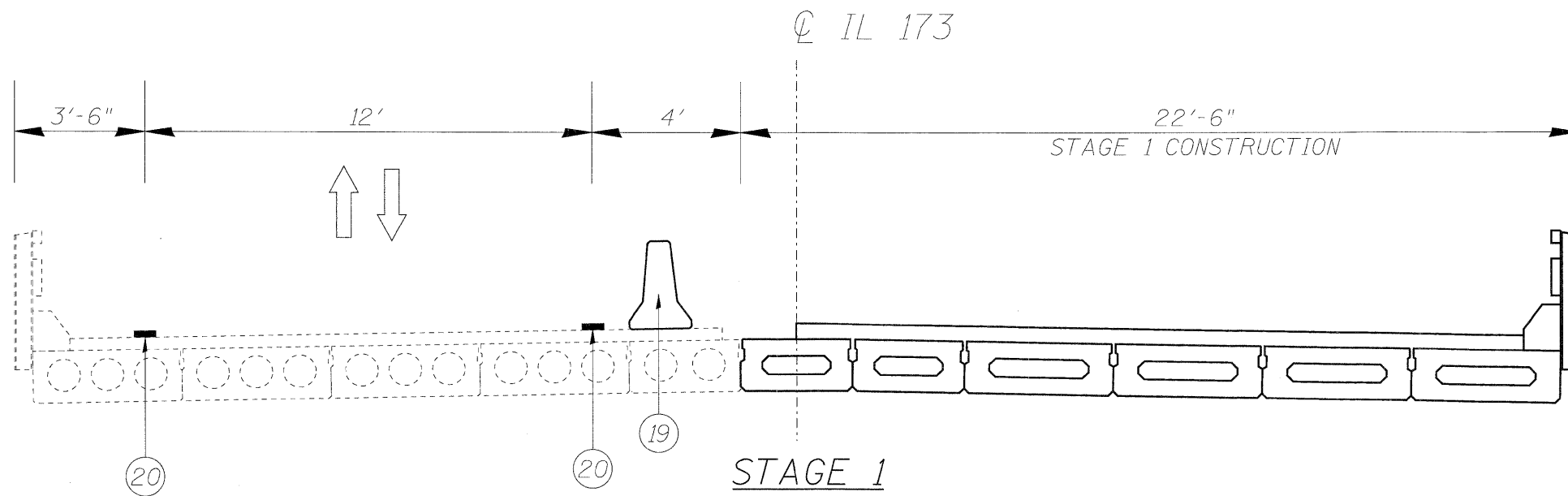
HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
OPERATION	MIXTURE TYPE	DESIGN AIR VOIDS
ROADWAY	HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR
	LEVELING MACHINE (MACHINE METHOD), N70	4% @ 70 GYR
	CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 GYR
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR
SHOULDER	HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR
	LEVELING MACHINE (MACHINE METHOD), N70	4% @ 70 GYR
BRIDGE APPROACH PAVEMENT CONNECTOR FLEXIBLE, 15"	HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR
	LEVELING MACHINE (MACHINE METHOD), N70	4% @ 70 GYR

NOTES:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ-YD/IN.

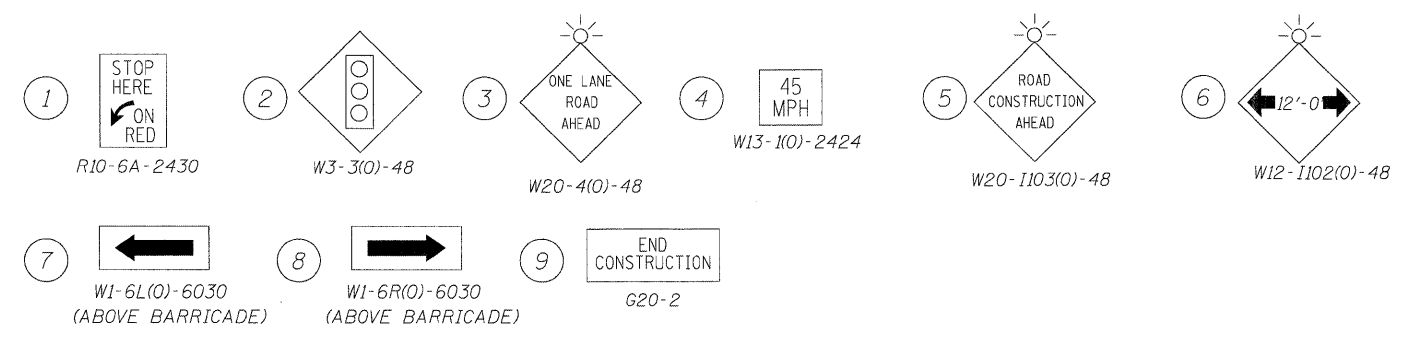
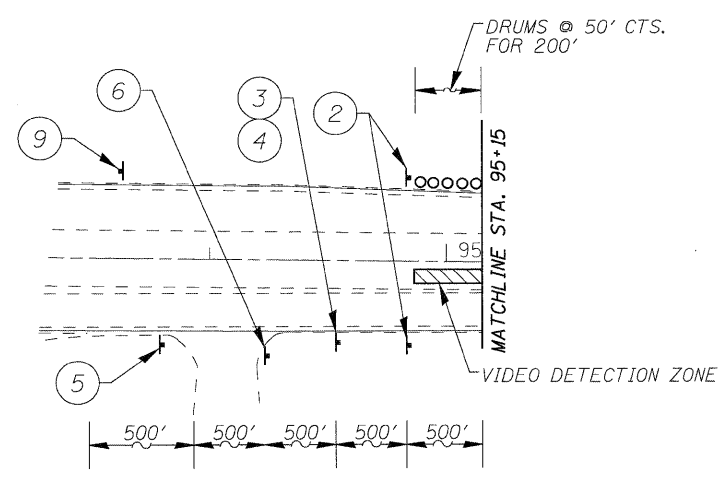
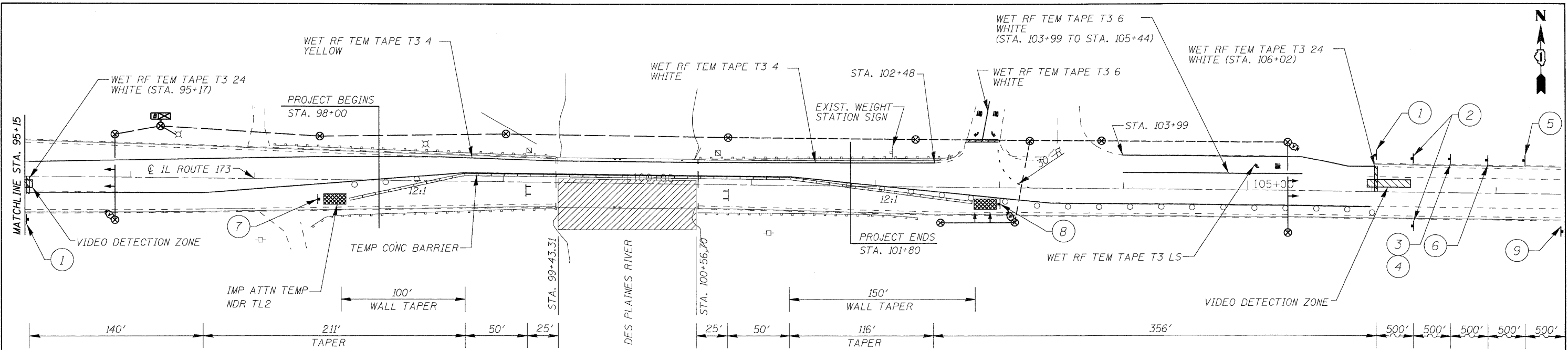
THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING

FOR "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.



LEGEND

- (19) TEMPORARY CONCRETE BARRIER
- (20) WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4"
- (21) RELOCATE TEMPORARY CONCRETE BARRIER



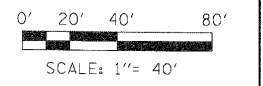
- LEGEND**
- WORK ZONE
 - BARRICADE W/ STEADY BURN LIGHT
 - TYPE III BARRICADE WITH FLASHING LIGHTS
 - SIGN
 - IMPACT ATTENUATORS
 - CONCRETE BARRIER
 - VIDEO DETECTION ZONE

NOTES:

BARRICADE, BARREL AND PANEL SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

ALL SIGNS, BARRICADES, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND THE MANUAL UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE PAID FOR SEPARATELY.

- STAGE 1**
1. INSTALL TRAFFIC CONTROL, TEMPORARY CONCRETE BARRIER, AND TEMPORARY BRIDGE TRAFFIC SIGNALS IN ACCORDANCE WITH STANDARD 701321 AND STAGE 1 MAINTENANCE OF TRAFFIC.
 2. REMOVE EXISTING PAVEMENT ON EAST BOUND SIDE OF IL ROUTE 173.
 3. REMOVE EAST BOUND (SOUTH) HALF OF EXISTING SUPERSTRUCTURE.
 4. INSTALL NEW DECK AND CONSTRUCT NEW PARAPET WALLS.
 5. CONSTRUCT APPROACH ROADWAY IMPROVEMENTS ON SOUTH SIDE OF IL ROUTE 173.



LOCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

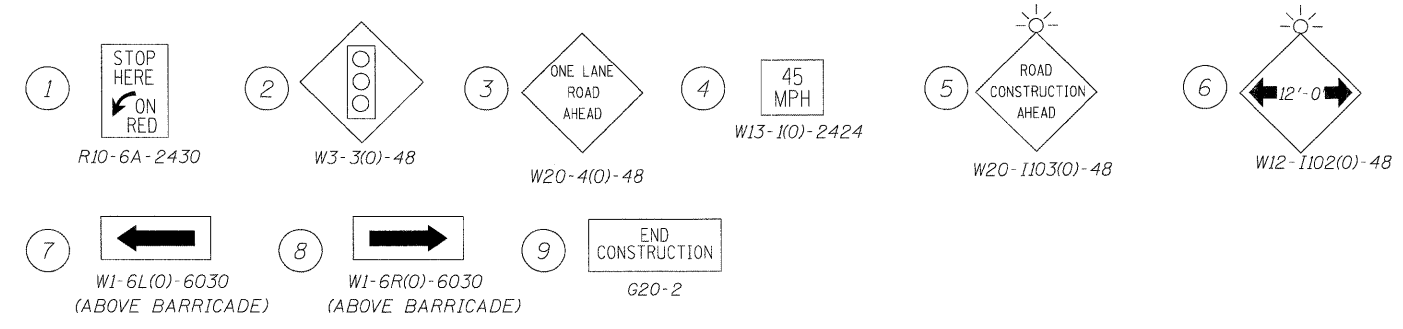
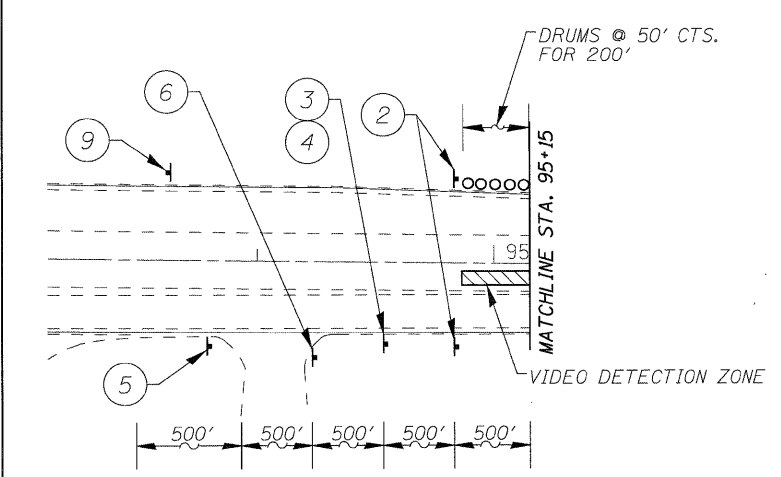
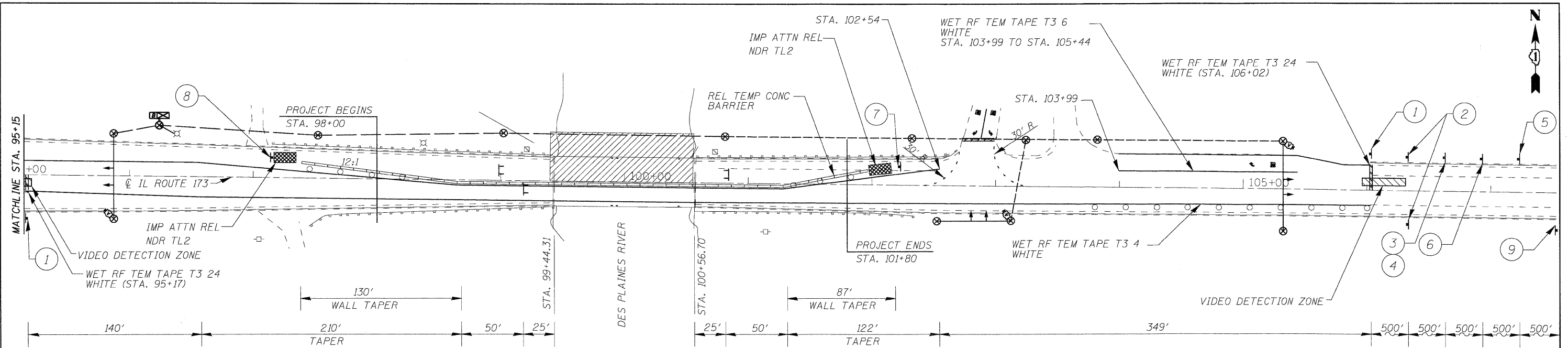
DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 06/25/2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 1
IL ROUTE 173 OVER DES PLAINES RIVER**

SCALE: 1" = 40' SHEET NO. 1 OF 2 SHEETS STA. 98+00 TO STA. 101+80

F.A.I. RTE. 303	SECTION 136 B-1	COUNTY LAKE	TOTAL SHEETS 43	SHEET NO. 7
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



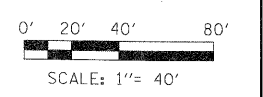
- LEGEND**
- WORK ZONE
 - BARRICADE W/ STEADY BURN LIGHT
 - TYPE III BARRICADE WITH FLASHING LIGHTS
 - SIGN
 - IMPACT ATTENUATORS
 - CONCRETE BARRIER
 - VIDEO DETECTION ZONE

NOTES:

BARRICADE, BARREL AND PANEL SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

ALL SIGNS, BARRICADES, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND THE MANUAL UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE PAID FOR SEPARATELY.

- STAGE 2**
1. INSTALL TRAFFIC CONTROL, TEMPORARY CONCRETE BARRIER, AND TEMPORARY BRIDGE TRAFFIC SIGNALS IN ACCORDANCE WITH STANDARD 701321 AND STAGE 2 MAINTENANCE OF TRAFFIC.
 2. REMOVE EXISTING PAVEMENT ON WEST BOUND SIDE OF IL ROUTE 173.
 3. REMOVE WEST BOUND (NORTH) HALF OF EXISTING SUPERSTRUCTURE.
 4. INSTALL NEW DECK AND CONSTRUCT NEW PARAPET WALLS.
 5. CONSTRUCT ROADWAY ON NORTH SIDE OF IL ROUTE 173.

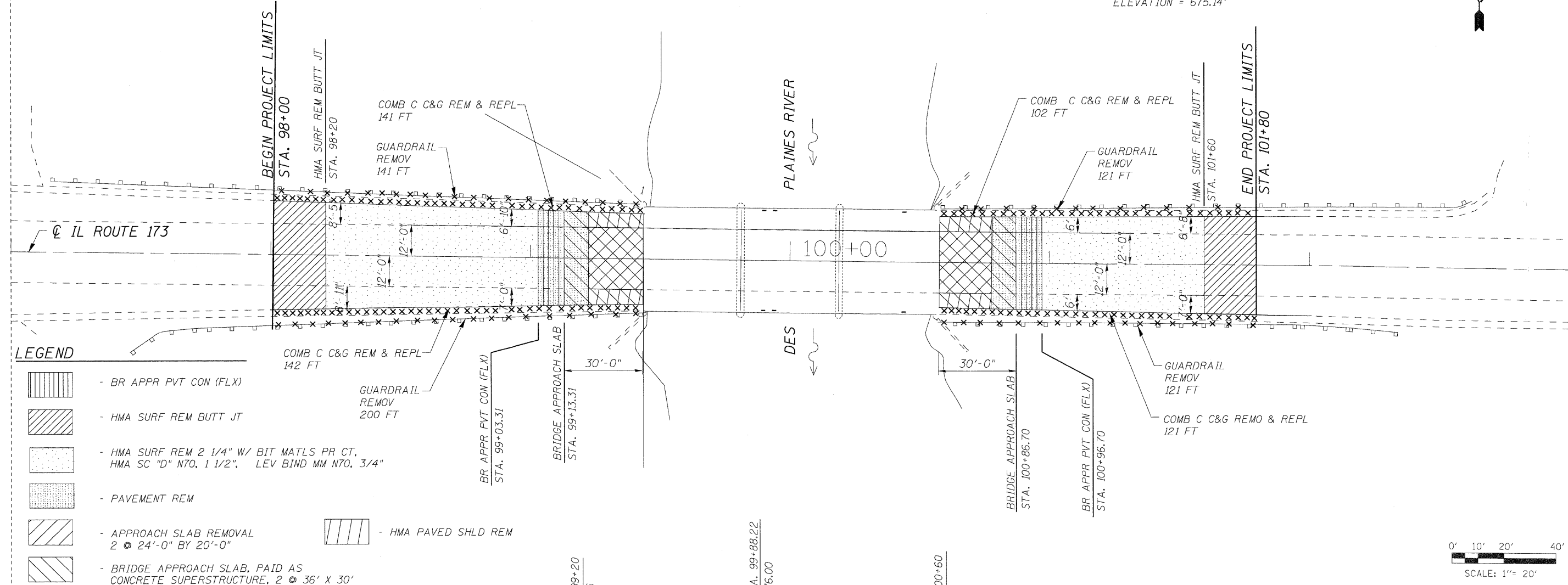


	DESIGNED - MJY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONSTRUCTION STAGING PLAN - STAGE 2 IL ROUTE 173 OVER DES PLAINES RIVER	F.A.I. RTE. 303	SECTION 136 B-1	COUNTY LAKE	TOTAL SHEETS 43	SHEET NO. 8	
	DRAWN - ST, TSC	REVISED -			D-91-290-09			CONTRACT NO. 60F93		
	CHECKED - MJY, SLV	REVISED -	SCALE: 1" = 40'			SHEET NO. 2 OF 2 SHEETS			STA. 98+00 TO STA. 101+80	
	DATE - 06/25/2010	REVISED -	FED. ROAD DIST. NO.			[ILLINOIS] FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
	CLOSED		
	ALIGNED		
	CHECKED		
	PT. OF WAY		
	CHECKED		
	PAID FILE NAME		
	NO.		

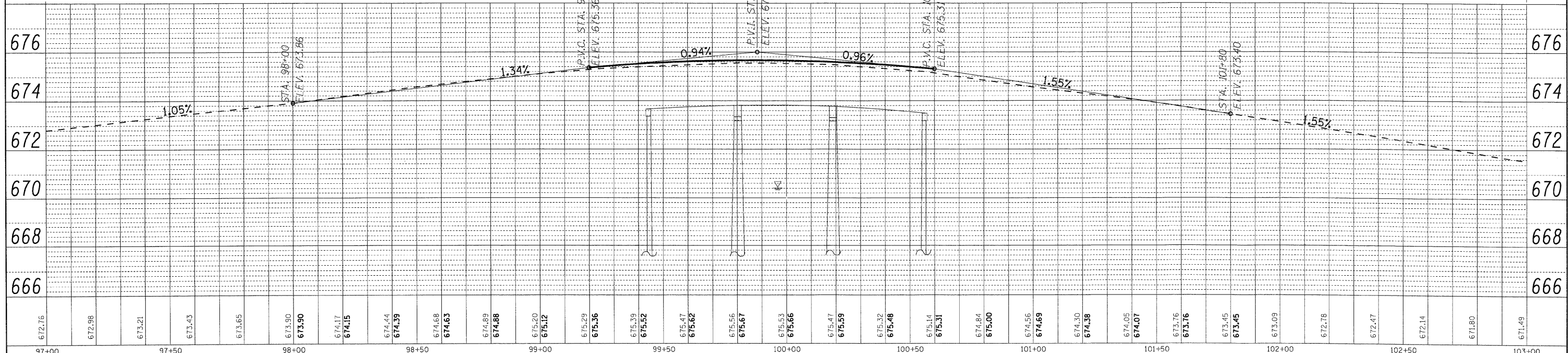
FILE	SURVEYED	BY	DATE
	CLOSED		
	ALIGNED		
	CHECKED		
	PT. OF WAY		
	CHECKED		
	STRUCTURE NOTATIONS		
	NO.		

NOTE:
1 - BENCHMARK #1 - CHISELED ON TOP OF NW WINGWALL OF IL 173 OVER DES PLAINES RIVER. ELEVATION = 675.14'



LEGEND

- BR APPR PVT CON (FLX)
- HMA SURF REM BUTT JT
- HMA SURF REM 2 1/4" W/ BIT MATLS PR CT, HMA SC "D" N70, 1 1/2", LEV BIND MM N70, 3/4"
- PAVEMENT REM
- APPROACH SLAB REMOVAL 2 @ 24'-0" BY 20'-0"
- BRIDGE APPROACH SLAB, PAID AS CONCRETE SUPERSTRUCTURE, 2 @ 36' X 30'
- HMA PAVED SHLD REM



LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: 630/577-9100

DESIGNED	- MJJ	REVISED	-
DRAWN	- ST, TSC	REVISED	-
CHECKED	- MJJ, SLV	REVISED	-
DATE	- 06/25/2010	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

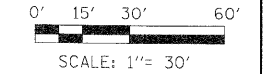
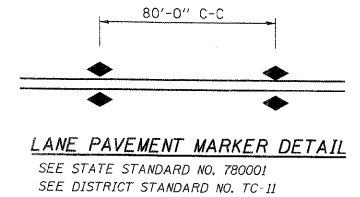
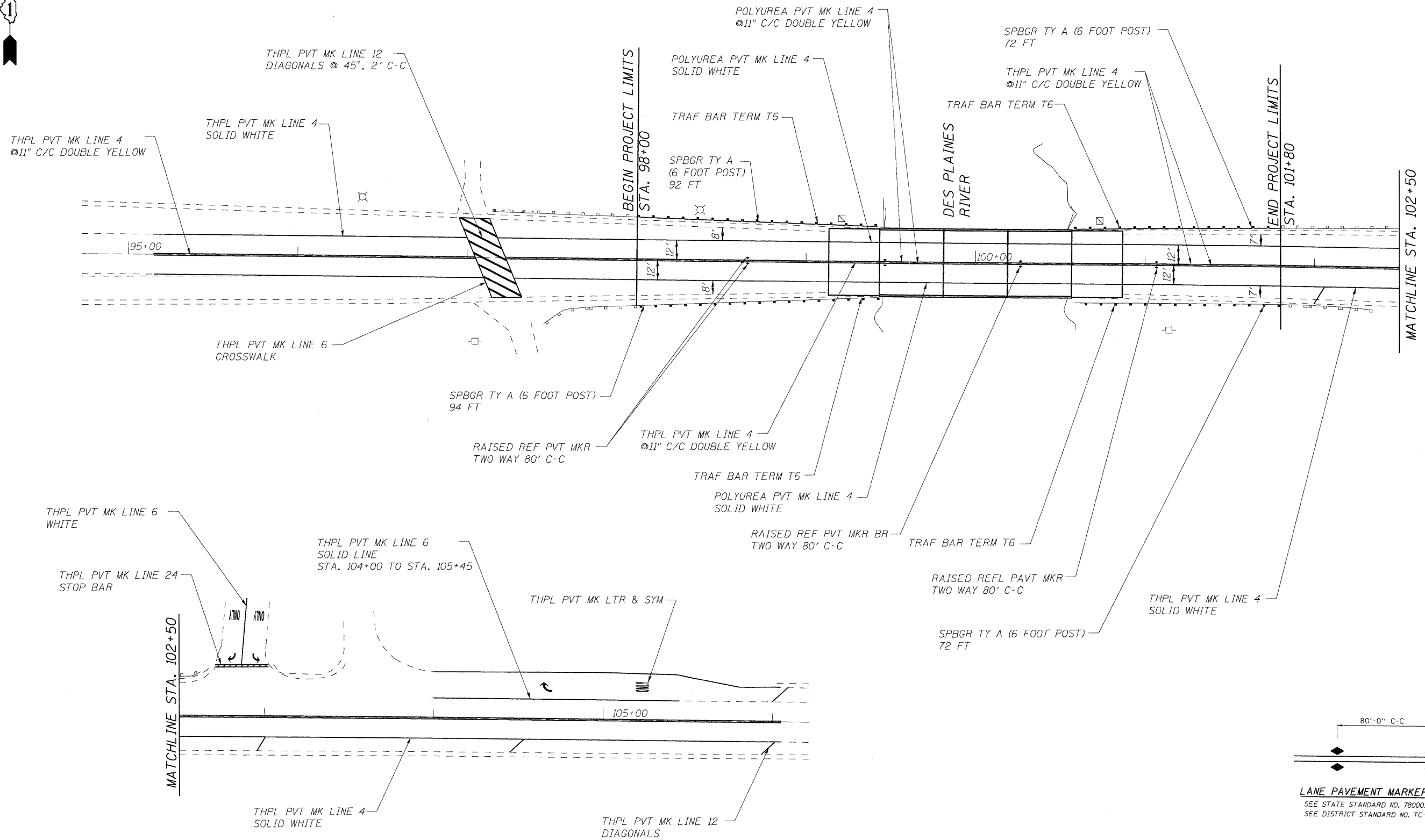
**PLAN AND PROFILE
IL ROUTE 173 OVER DES PLAINES RIVER**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	9
D-91-290-09		CONTRACT NO. 60F93		
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEET STA. 98+00 TO STA. 101+80



NOTE:
 REPLACE ANY EXISTING PAVEMENT MARKING THAT IS REMOVED OR DAMAGED DURING CONSTRUCTION.



LOCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST, SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: 6301 577-9100

DESIGNED - MJY	REVISION
DRAWN - ST, TSC	REVISION
CHECKED - MJY, SLV	REVISION
DATE - 06/25/2010	REVISION

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
 IL ROUTE 173 OVER DES PLAINES RIVER**

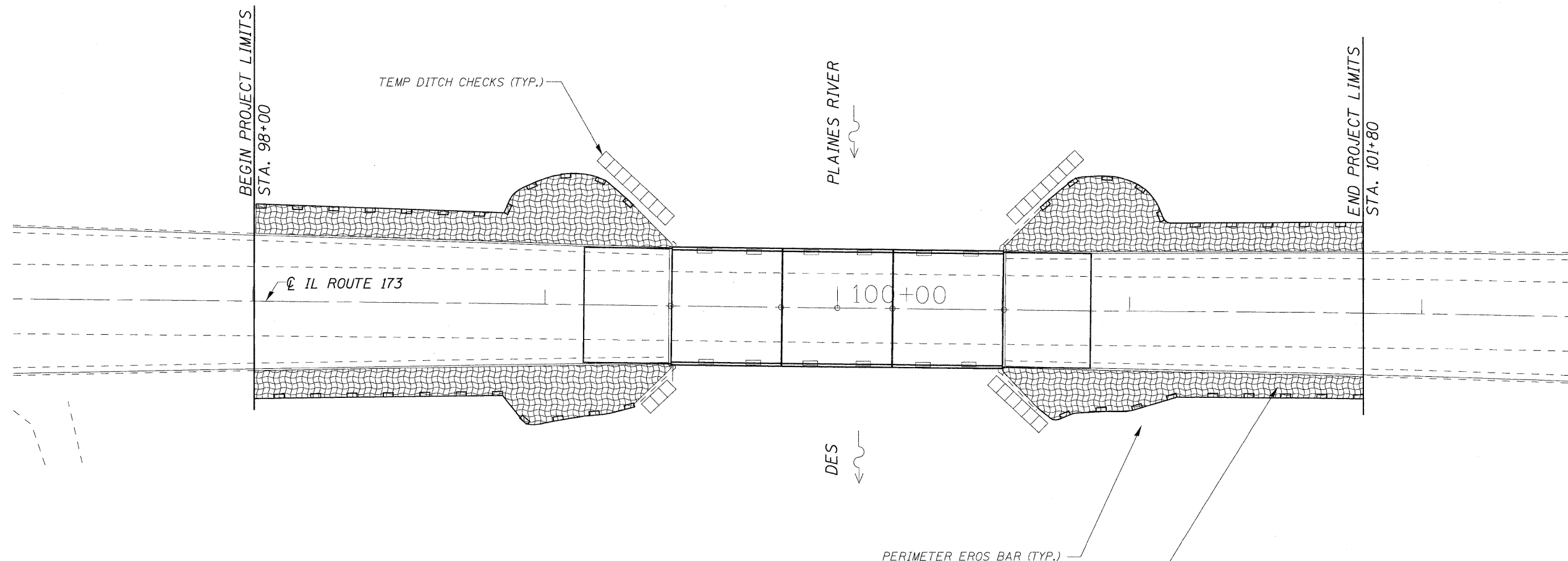
SCALE: 1" = 30' SHEET NO. 1 OF 1 SHEET STA. 98+00 TO STA. 101+80

F.A.P. RTE. 303	SECTION 136 B-1	COUNTY LAKE	TOTAL SHEETS 43	SHEET NO. 10
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



TEMPORARY EROSION CONTROL NOTES

1. ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER POLICY.
2. THE CONTRACTOR SHALL INSTALL PERIMETER EROSION BARRIER PRIOR TO STRIPPING OF VEGETATION.
3. THE CONTRACTOR SHALL SURROUND ANY NECESSARY EARTH STOCKPILES WITH PERIMETER EROSION BARRIER.
4. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AT ALL TIMES. EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS OR WITHIN 24 HOURS AFTER A 13 MM (0.5 INCH) RAINFALL OR SNOWFALL.
5. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE BEEN CONCLUDED. AREAS THAT HAVE STEEP SLOPES OR WILL NOT RECEIVE PERMANENT LANDSCAPING SHALL BE TEMPORARILY SEEDED. ALL FLATTER AREAS OR AREAS WHERE NO FURTHER WORK IS TO OCCUR FOR ONE MONTH OR MORE SHALL BE SEEDED AND EXCELSIOR BLANKET WITHIN SEVEN (7) CALENDAR DAYS.
6. THE PERMIT ISSUED TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION DOES NOT COVER IN-STREAM WORK BY THE CONTRACTOR. AFTER AWARD, THE CONTRACTOR WILL NEED TO COORDINATE AND HAVE A WORK PLAN APPROVED BY THE US ARMY CORPS OF ENGINEERS (USACE). GUIDELINES ON ACCEPTABLE IN STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE: <http://www.lrc.usace.army.mil/>.

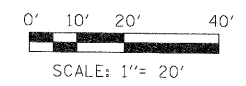


TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION

1. ESTABLISH TEMPORARY EROSION CONTROL AND ERECT PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THE THE PLANS PROIR TO EARTHWORK.
2. IMPLEMENT SEDIMENT AND EROSION CONTROL DEVICES FOR STOCKPILE AREAS AS REQUIRED.
3. INSTALL PERMANENT LANDSCAPING IN CONJUNCTION WITH CONSTRUCTION STAGING.
4. CLEAN DRAINAGE FACILITIES AND REMOVE TEMPORARY EROSION DEVICES WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED.

LEGEND

- COMPOST FURNISH AND PLACE, 4" W/ SEEDING, CL 4 AND EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECKS



LOCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST, SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: 630 577-9100

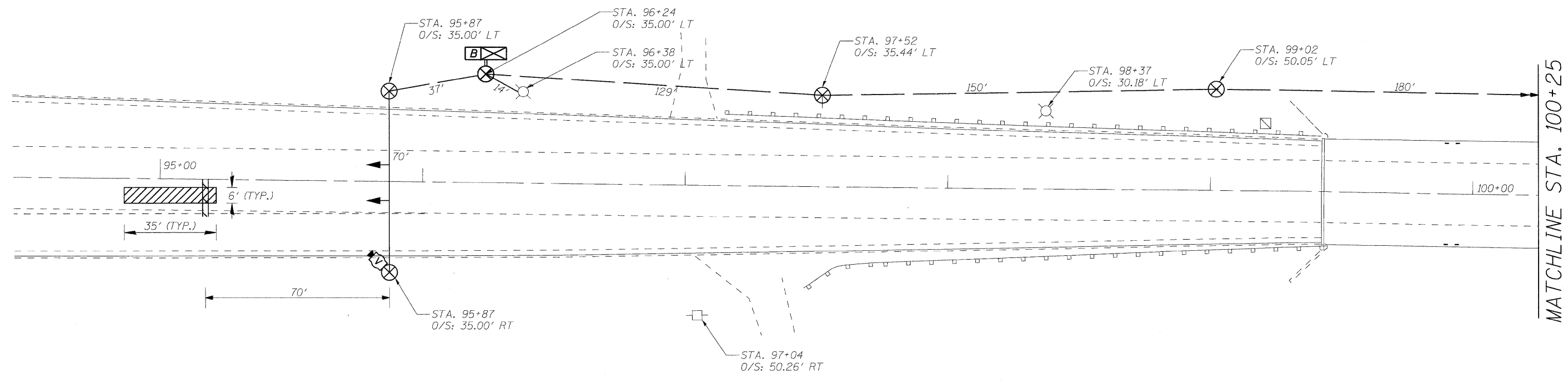
DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 06/25/2010	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL PLAN
 IL ROUTE 173 OVER DES PLAINES RIVER**

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEET STA. 98+00 TO STA. 101+80

F.A.P. RTE. 303	SECTION 136 B-1	COUNTY LAKE	TOTAL SHEETS 43	SHEET NO. 11
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

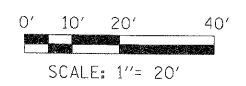


TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- CT - COMMON TRENCH
- UD - UNIT DUCT
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- HANDHOLE
- HEAVY DUTY HANDHOLE
- VIDEO DETECTOR SENSOR
- UN-INTERRUPTABLE POWER SUPPLY (UPS)
- VIDEO DETECTION ZONE

NOTES FOR TEMPORARY TRAFFIC SIGNALS

- ① ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ② ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ③ ALL TRAFFIC SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD. ALL SIGNAL HEADS SHALL BE L.E.D.
- ④ ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ⑤ ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- ⑥ THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS. SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC SIGNAL IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- ⑦ CONTROLLER WITH STEEL BASE CABINET AND BATTERY BACK-UP CABINET SHALL BE MOUNTED ON A WOOD STAND.
- ⑧ UN-INTERRUPTABLE POWER SUPPLY (UPS) SHALL BE INCLUDED IN "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION" PAY ITEM.
- ⑨ 10 WOOD POLES INSTALLED BY THE TRAFFIC CONTRACTOR (SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR LOCATIONS).



LOWCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH 630/577-9100

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 06/25/2010	REVISED -

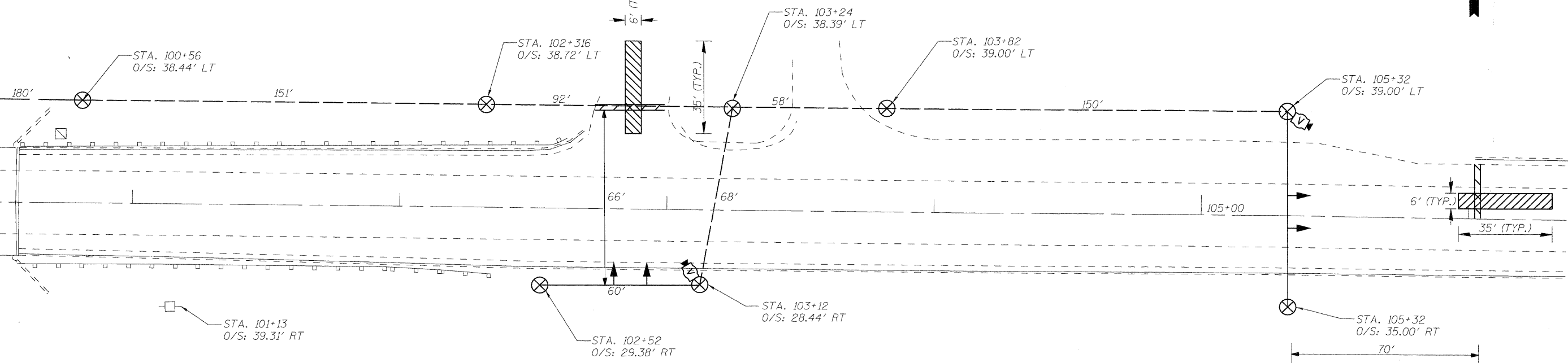
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY TRAFFIC SIGNAL IL ROUTE 173 OVER DES PLAINES RIVER	
SCALE: 1" = 20'	SHEET NO. 1 OF 2 SHEETS
STA. 98+00 TO STA. 101+80	

F.A.I. RTE. 303	SECTION 136 B-1	COUNTY LAKE	TOTAL SHEETS 43	SHEET NO. 12
D-91-290-09		CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

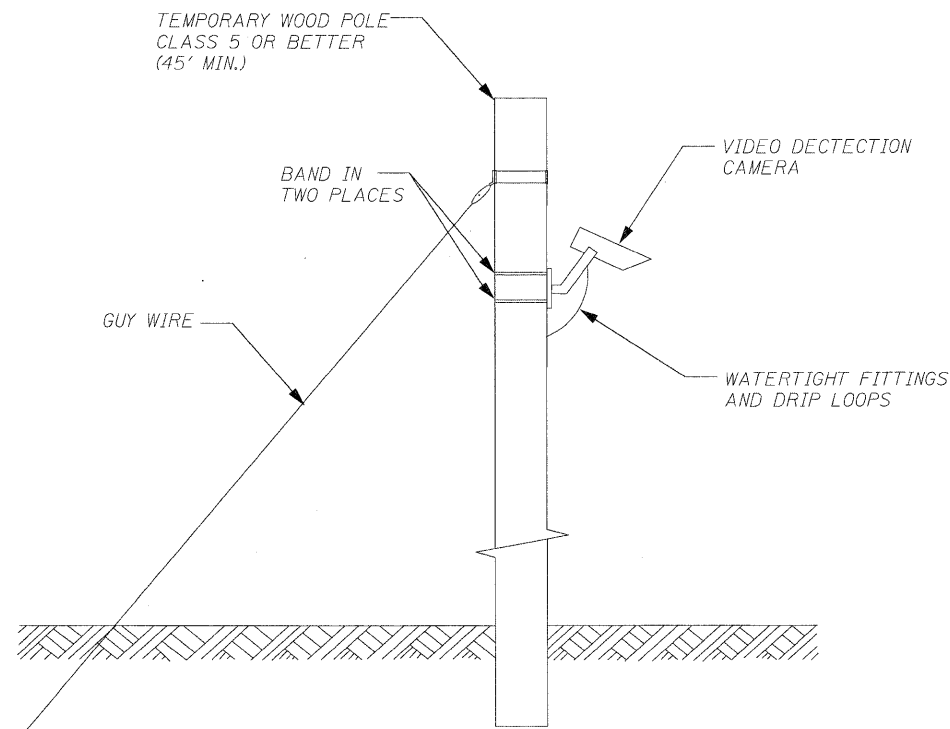


MATCHLINE STA. 100+25



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- CT - COMMON TRENCH
- UD - UNIT DUCT
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- HANDHOLE
- HEAVY DUTY HANDHOLE
- VIDEO DETECTOR SENSOR
- UN-INTERRUPTIBLE POWER SUPPLY (UPS)
- VIDEO DETECTION ZONE

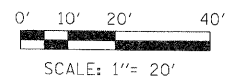


TEMPORARY VIDEO DETECTION MOUNTING DETAIL

NOT TO SCALE

RESTORATION OF WORK AREA

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



LOVCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

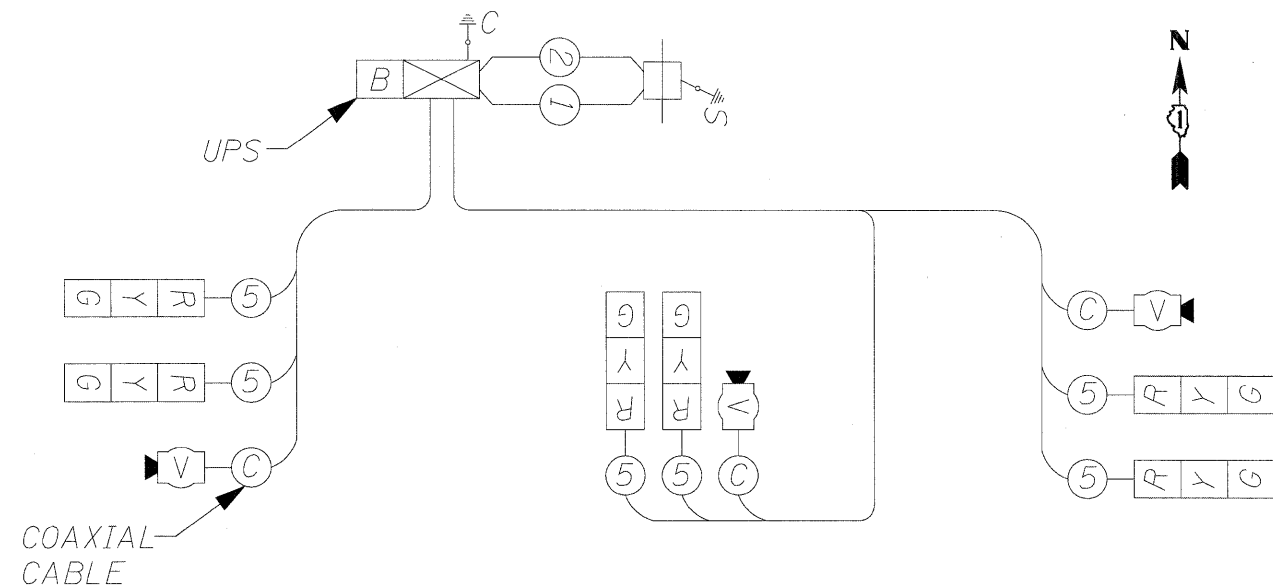
DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 06/25/2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL
IL ROUTE 173 OVER DES PLAINES RIVER**

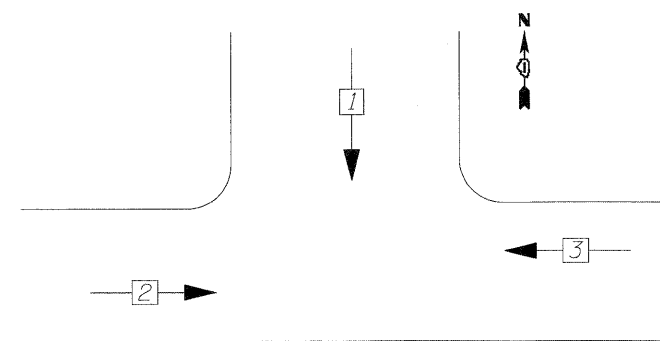
SCALE: 1" = 20' SHEET NO. 2 OF 2 SHEETS STA. 98+00 TO STA. 101+80

F.A.I. RTE. 303	SECTION 136 B-1	COUNTY LAKE	TOTAL SHEETS 43	SHEET NO. 13
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TEMPORARY CABLE PLAN
NOT TO SCALE

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM
STAGE 1 AND STAGE 2

LEGEND

←[*]← DUAL ENTRY PHASE

TEMPORARY CABLE LEGEND

⑤ - INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.

R
Y
G

 - SIGNAL FACE

⌚-S- TEMPORARY GROUND ROD AT POST OR MAST ARM POLE

⌚-C- TEMPORARY GROUND ROD AT CONTROLLER

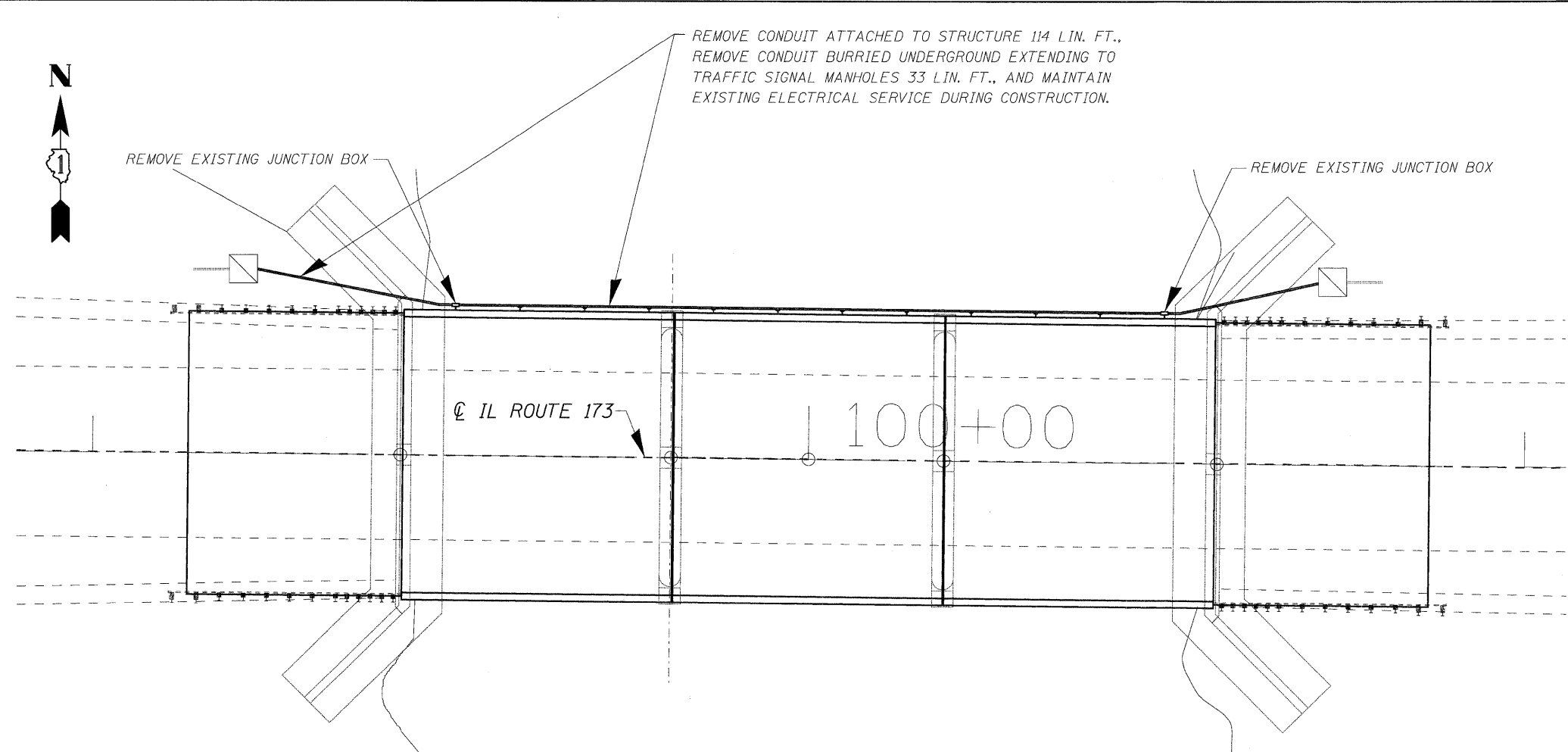
CONSTRUCTION NOTES

- ① THE PHASING SHALL BE DEACTIVATED AS REQUIRED DURING CONSTRUCTION STAGING.
- ② LED SIGNAL HEADS SHALL BE USED FOR ALL TEMPORARY TRAFFIC SIGNALS.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND	LED		
SIGNAL (RED)	6	135	17	0.50	51.00
(YELLOW)	6	135	25	0.25	37.50
(GREEN)	6	135	15	0.25	22.50
VIDEO CAMERA	3	15	1	1.00	45.00
CONTROLLER	1	100	100	1.00	100.00
TOTAL =					256.00

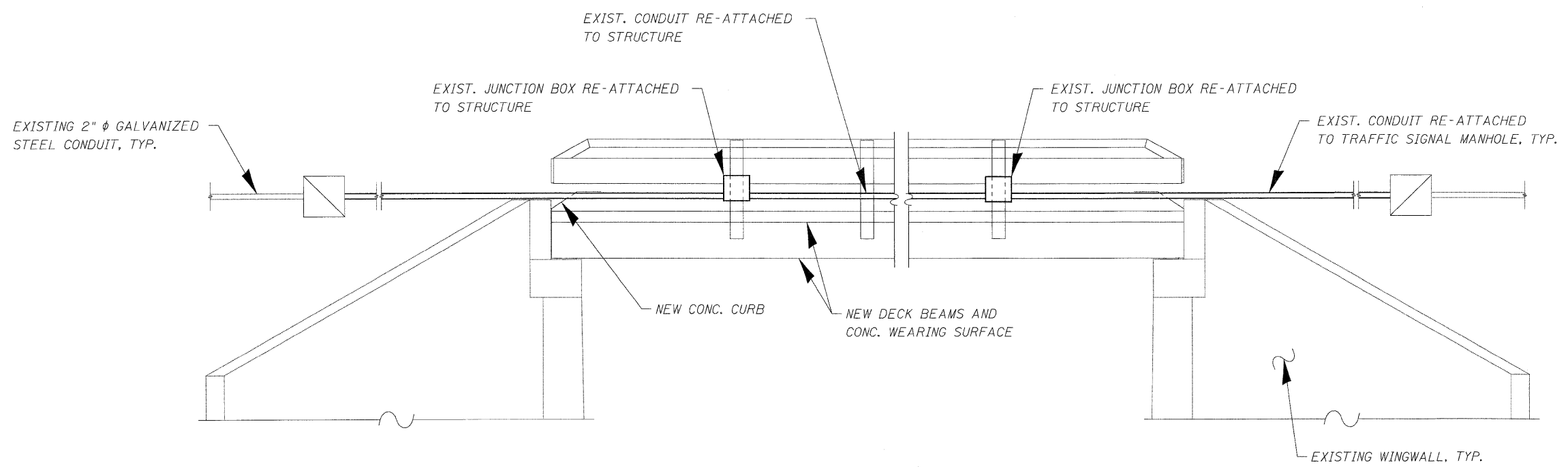
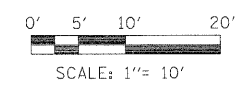
ENERGY COST TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
CONTACT: MR. DALE BALLINGER
PHONE: 815 724 5717
COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (0.2)	HANHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (0.2)	DOUBLE HANHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (0.5)
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750 mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)



NOTES

1. REMOVE EXISTING CONDUIT & EXISTING JUNCTION BOXES FROM THE EXISTING STEEL RAILING, AND MAINTAIN EXISTING ELECTRIC SERVICE DURING THE INSTALLATION OF THE BRIDGE SCOPE OF WORK. AFTER THE BRIDGE WORK IS COMPLETE, THE CONTRACTOR SHALL RE-ATTACH THE EXISTING SYSTEM TO THE NEW STEEL RAILING. COST SHALL BE INCLUDED IN REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE AND REMOVE EXISTING JUNCTION BOX. THE PAY ITEMS FOR CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL AND JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12"x12"x6" ARE TO BE USED ONLY IF THE ENGINEER DETERMINES THAT REPLACEMENT ITEMS ARE NECESSARY.
2. HOLES SHALL BE FIELD DRILLED IN THE RAIL POSTS TO RE-ATTACH THE CONDUIT TO THE STRUCTURE.
3. IF THE ENGINEER DEEMS NECESSARY TO USE NEW HARDWARE TO RE-ATTACH THE CONDUIT, THIS SHALL BE INCLUDED IN THE COST OF REMOVE CONDUIT ATTACHED TO STRUCTURE, AT NO EXTRA COST TO THE DEPARTMENT.



LOCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST., SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH 6301 577-9100

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 06/25/2010	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ELECTRICAL PLAN
 IL ROUTE 173 OVER DES PLAINES RIVER**

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEET STA. 98+00 TO STA. 101+80

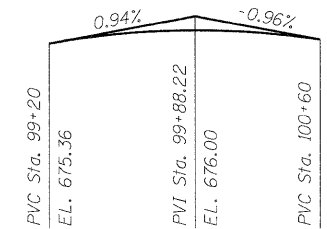
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	15
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Benchmark : Benchmark #1 - cut "□" in top of northwest wingwall.
Assumed elevation = 675.14'

Existing Structure: S.N. 049-0059 built in 1929 and completely replaced in 1978 as a three span 17"x36" PPC Deck Beam bridge with 2" bituminous wearing surface on closed abutments and 2 piers on spread footings. The structure measures 114'-0 1/2" back to back abutments and 41'-0" out to out. Bridge was rehabilitated in 2002 with a new 4" concrete wearing surface. Traffic is to be maintained utilizing stage construction. One lane of alternating two-way traffic is to be maintained using traffic signals.

Salvage: None



PROFILE GRADE

LOADING HL-93
Allow 50 psf for future wearing surface

DESIGN SPECIFICATIONS

2007 AASHTO LRFD 4th Edition

DESIGN STRESSES

FIELD UNITS

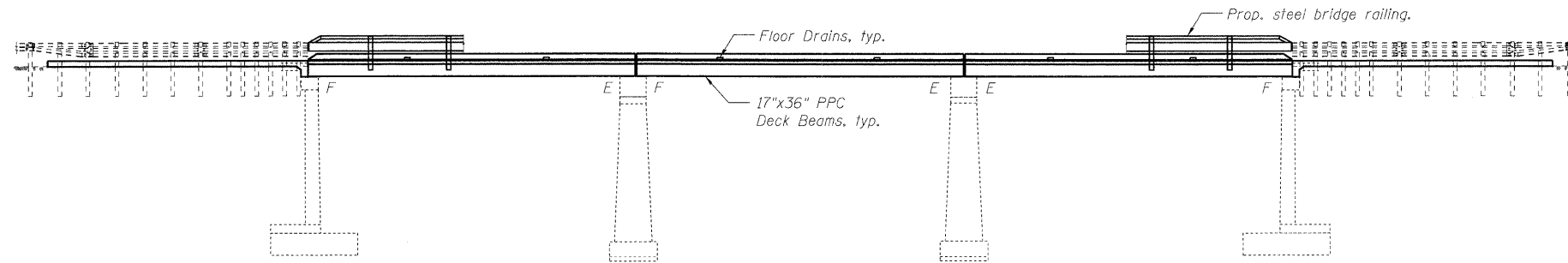
f'c = 3,500 psi
f'c = 5000 psi (Concrete Wearing Surface)
fy = 60000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6000 psi
f'ci = 5000 psi
f's = 270,000 psi (1/2" φ low lax. strands)
f'si = 201,900 psi (1/2" φ low lax. strands)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock acceleration coefficient (A) = .04
Site Coefficient (S) = 1.2



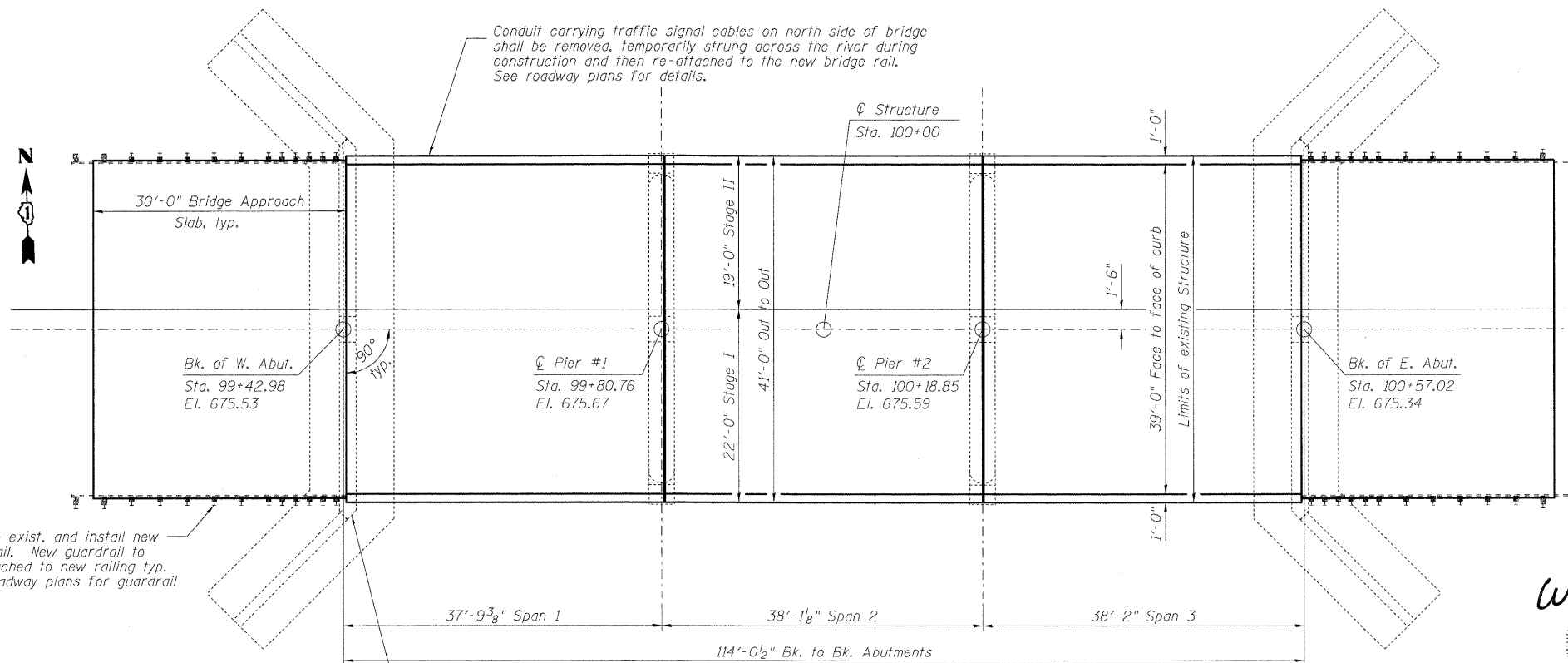
ELEVATION

STATION 100+00.00
REBUILT 20_ _ BY
STATE OF ILLINOIS
F.A.P. ROUTE 303 SEC 136 B-1
LOADING HL-93
STRUCTURE NO. 049-0059

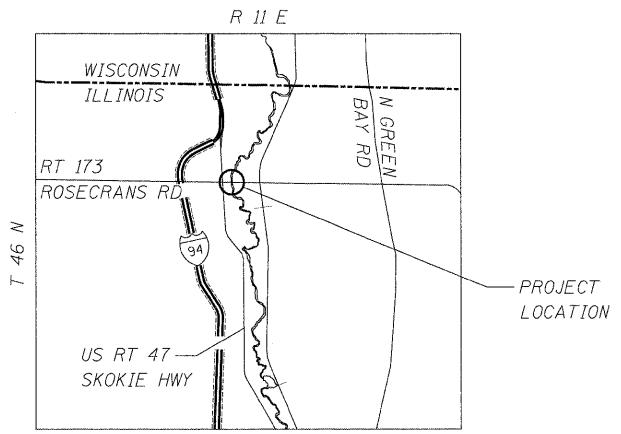
NAME PLATE

See Std. 515001

NOTE:
Existing Name Plate shall be cleaned and relocated next to new Name Plate.
Cost included with Name Plates.



PLAN



LOCATION SKETCH

Remove exist. and install new guardrail. New guardrail to be attached to new railing typ. See roadway plans for guardrail details.

Locate name plate on outside face of wingwall at southwest corner of bridge.

WHELFOP
EX. 11/30/10

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

**GENERAL PLAN AND ELEVATION
IL 173 OVER DES PLAINES RIVER**

F.A.P. RT. 303
SECTION 136 B-1
LAKE COUNTY
STA. 100+00.00

STRUCTURE NO. 049-0059

DESIGNED	-	SLV
CHECKED	-	DJB
DRAWN	-	SLV
CHECKED	-	DJB

LONGCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

SHEET NO. S1	F.A.P. RTE. 303	SECTION 136 B-1	COUNTY LAKE	TOTAL SHEETS 43	SHEET NO. 16
OF S20 SHEETS	D-91-290-09		CONTRACT NO. 60F93		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60. See Special Provisions.

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.

Reinforcement Bars designated (E) shall be epoxy coated.

Slip forming of the parapets is not allowed.

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

Repair of the substructure shall be completed prior to placement of the new deck beams.

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

If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the existing or new 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.

INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. General Data & Bill of Material
- S3. Stage Construction Details
- S4. Temporary Concrete Barrier Details
- S5. Top of West Approach Slab Elevations
- S6. Top of East Approach Slab Elevations
- S7. Superstructure
- S8. Superstructure Details
- S9. Steel Railing
- S10. Steel Railing & Drain Details
- S11. Bridge Approach Slab Details 1 of 2
- S12. Bridge Approach Slab Details 2 of 2
- S13. 17"x48" PPC Deck Beams
- S14. 17"x48" PPC Deck Beam Details
- S15. 17"x36" PPC Deck Beams
- S16. 17"x36" PPC Deck Beam Details
- S17. West Abutment Details
- S18. East Abutment Details
- S19. Piers 1 & 2 Details
- S20. Bar Splicer Assembly Details

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	APPR. SLAB	TOTAL
Approach Slab Removal	Sq. Yd.			107	107
Removal of Existing Superstructures	Each	1			1
Concrete Removal	Cu. Yd.		0.8		0.8
Floor Drains	Each	12			12
Concrete Structures	Cu. Yd.			24.7	24.7
Concrete Superstructure	Cu. Yd.	8.6	0.8	111.8	121.2
Bridge Deck Grooving	Sq. Yd.	490			490
Protective Coat	Sq. Yd.	558		271	829
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	4637			4637
Reinforcement Bars, Epoxy Coated	Pound	6470	140	29910	36520
Bar Splicers	Each	114		222	336
Steel Railing, Type T1	Foot	227			227
Name Plates	Each	1			1
Epoxy Crack Injection	Foot		78		78
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		40		40
Concrete Wearing Surface, 5"	Sq. Yd.	490			490
Asbestos Bearing Pad Removal	Each	36			36

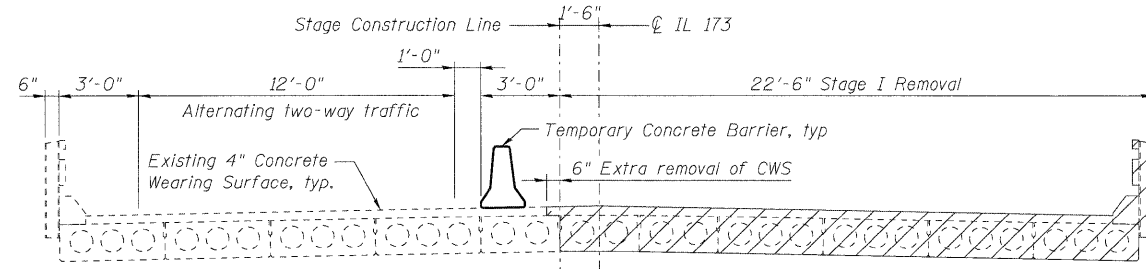
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

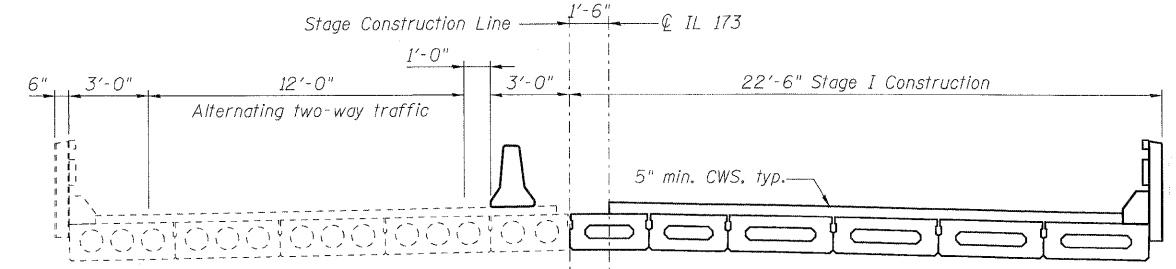
**GENERAL DATA & Bill of Material
STRUCTURE NO. 049-0059**

SHEET NO. S2 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	17
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

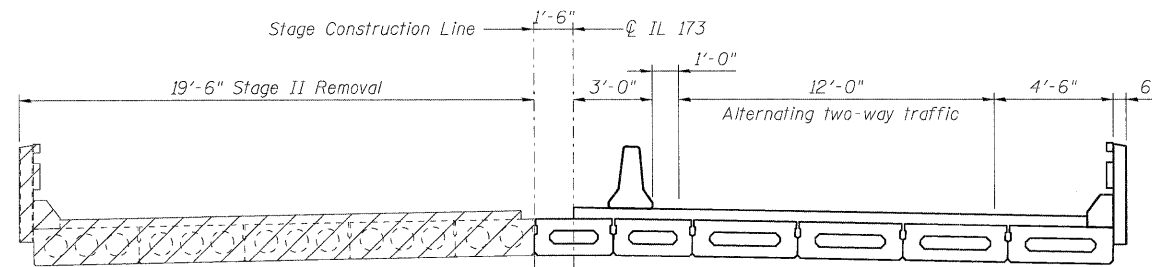
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



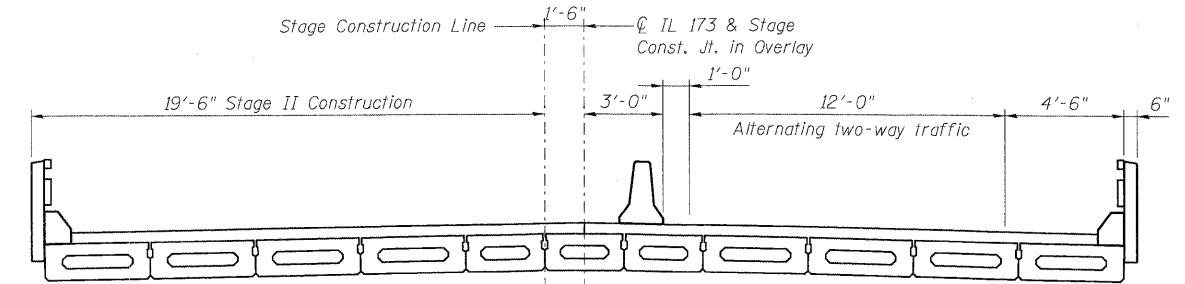
STAGE I REMOVAL



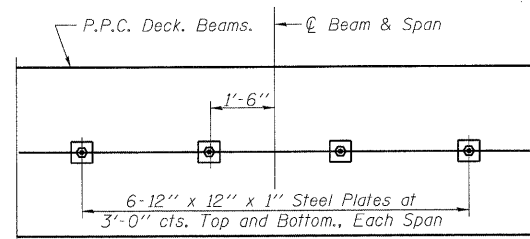
STAGE I CONSTRUCTION



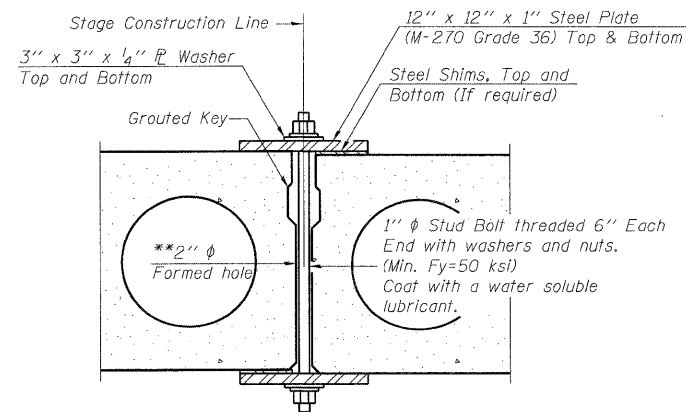
STAGE II REMOVAL



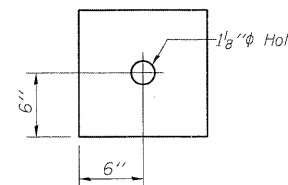
STAGE II CONSTRUCTION



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.

** 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.

NOTES

All Cross Sections looking East.
Hatched area indicates Removal of Existing Superstructures.
Cost of removing existing concrete wearing surface, joints in deck, floor drains, steel railing and concrete curb are included with Removal of Existing Superstructures.
For quantity of Temporary Concrete Barrier see Roadway Plans.
For Temporary Concrete Barrier details see Sheet S4 of S20.

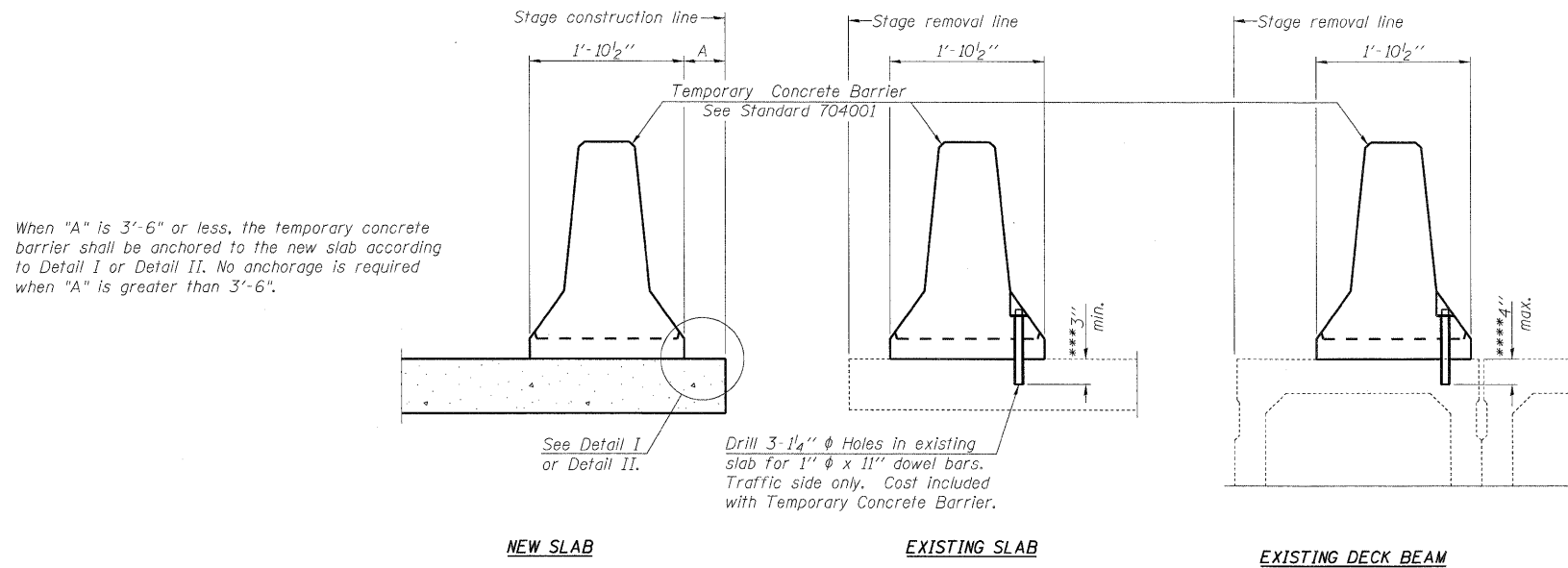
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 049-0059**

SHEET NO. S3 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	18
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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

See Detail I or Detail II.

Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NOTES

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

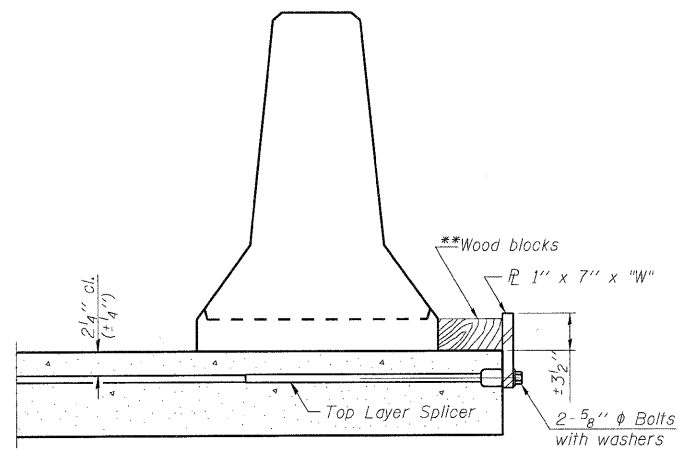
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

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

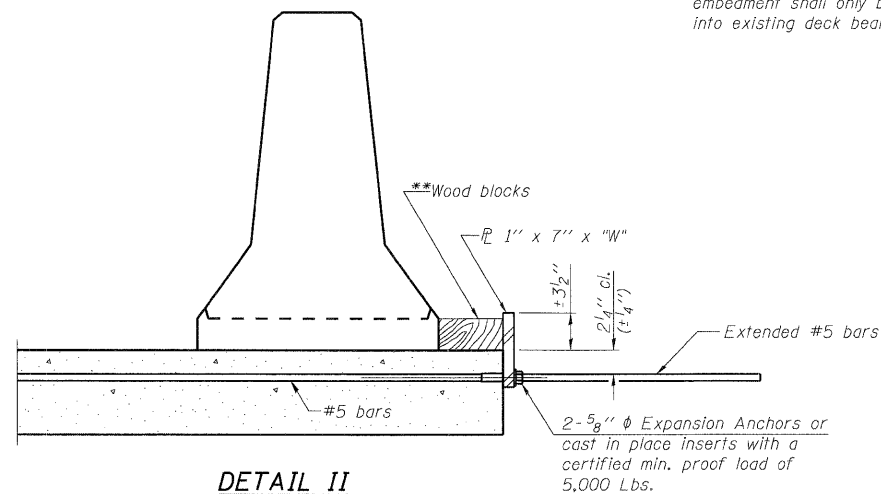
SECTIONS THRU SLAB OR DECK BEAM

*** 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.

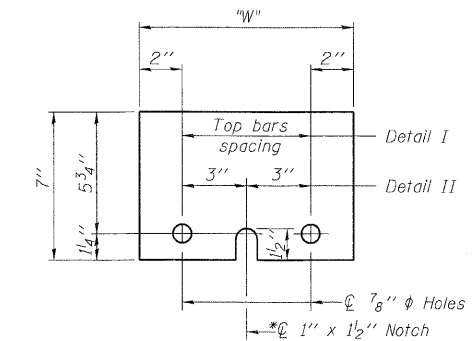
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 1" x 7" x 10"

* Required only with Detail II

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

"W" = Top bars spacing + 4"

DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

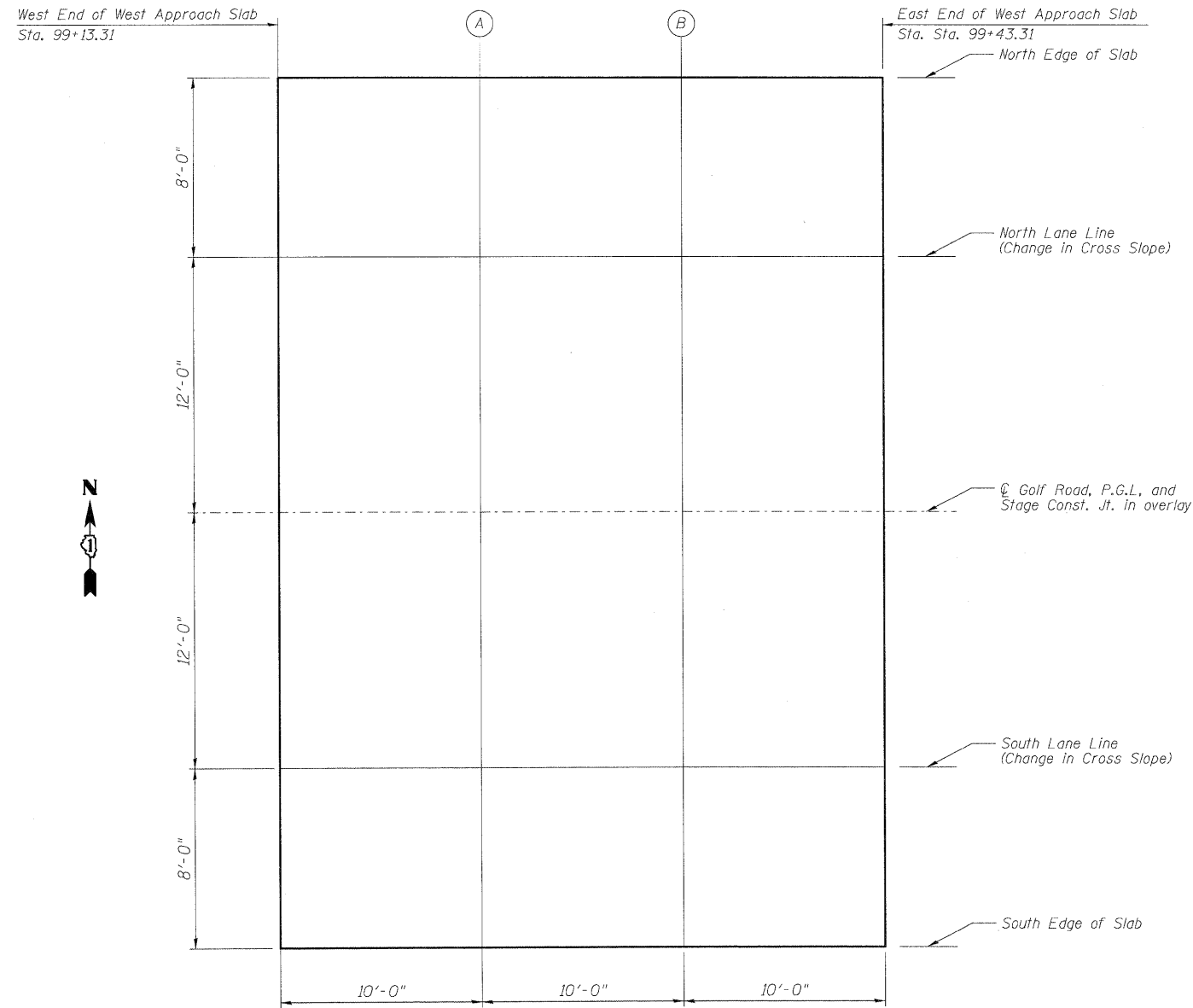
R-27

11-1-09

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 049- 0059**

SHEET NO. S4 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	19
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

North Edge of Slab

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	99+13.31	-20.00'	674.93
A	99+23.31	-20.00'	675.03
B	99+33.31	-20.00'	675.11
E. End W. Appr Slab	99+43.31	-20.00'	675.18

South Lane Line (Change in Cross Slope)

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	99+13.31	12.00'	675.09
A	99+23.31	12.00'	675.20
B	99+33.31	12.00'	675.28
E. End W. Appr Slab	99+43.31	12.00'	675.35

North Lane Line (Change in Cross Slope)

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	99+13.31	-12.00'	675.09
A	99+23.31	-12.00'	675.20
B	99+33.31	-12.00'	675.28
E. End W. Appr Slab	99+43.31	-12.00'	675.35

South Edge of Slab

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	99+13.31	20.00'	674.93
A	99+23.31	20.00'	675.03
B	99+33.31	20.00'	675.11
E. End W. Appr Slab	99+43.31	20.00'	675.18

Centerline of Golf Road and P.G.L. & Stage Const. Jt. in Overlay

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	99+13.31	0.00'	675.28
A	99+23.31	0.00'	675.39
B	99+33.31	0.00'	675.47
E. End W. Appr Slab	99+43.31	0.00'	675.54

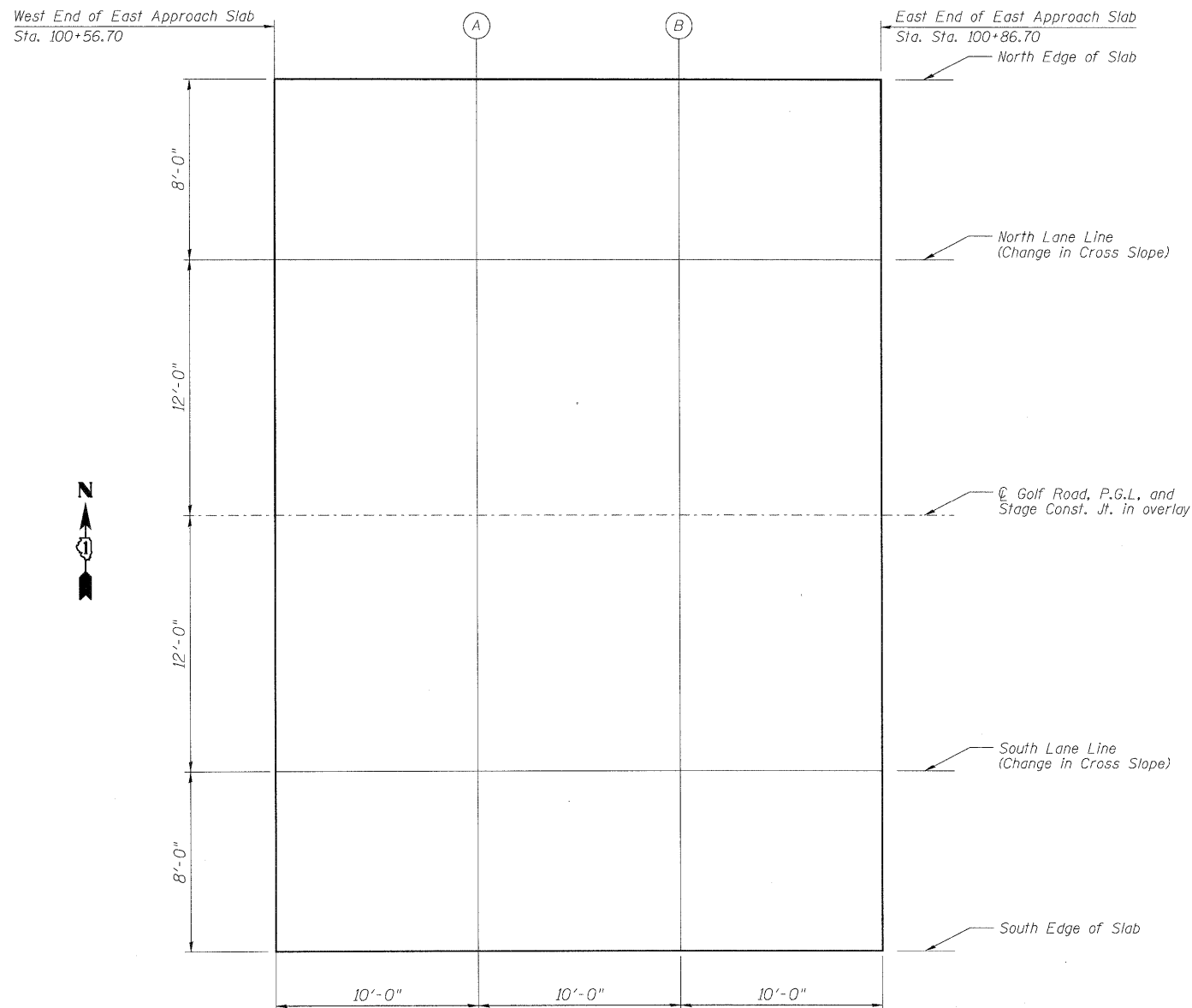
DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

TOP OF WEST
APPROACH SLAB ELEVATIONS
STRUCTURE NO. 049-0059

SHEET NO. S5 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	20
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

North Edge of Slab

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	100+56.70	-20.00'	674.98
A	100+66.70	-20.00'	674.85
B	100+76.70	-20.00'	674.70
E. End E. Appr Slab	100+86.70	-20.00'	674.54

South Lane Line (Change in Cross Slope)

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	100+56.70	12.00'	675.15
A	100+66.70	12.00'	675.02
B	100+76.70	12.00'	674.86
E. End E. Appr Slab	100+86.70	12.00'	674.71

North Lane Line (Change in Cross Slope)

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	100+56.70	-12.00'	675.15
A	100+66.70	-12.00'	675.02
B	100+76.70	-12.00'	674.86
E. End E. Appr Slab	100+86.70	-12.00'	674.71

South Edge of Slab

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	100+56.70	20.00'	674.98
A	100+66.70	20.00'	674.85
B	100+76.70	20.00'	674.70
E. End E. Appr Slab	100+86.70	20.00'	674.54

Centerline of Golf Road and P.G.L. & Stage Const. Jt. in Overlay

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	100+56.70	0.00'	675.34
A	100+66.70	0.00'	675.21
B	100+76.70	0.00'	675.05
E. End E. Appr Slab	100+86.70	0.00'	674.90

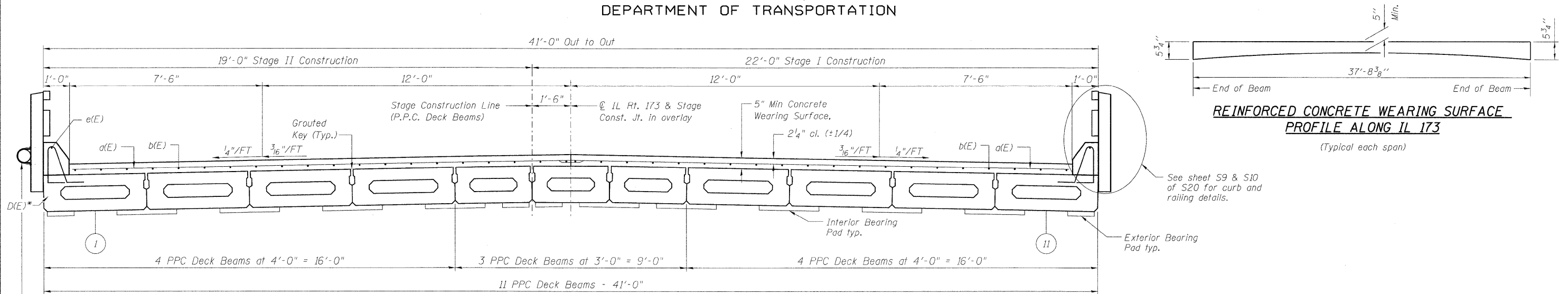
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

TOP OF EAST
APPROACH SLAB ELEVATIONS
STRUCTURE NO. 049-0059

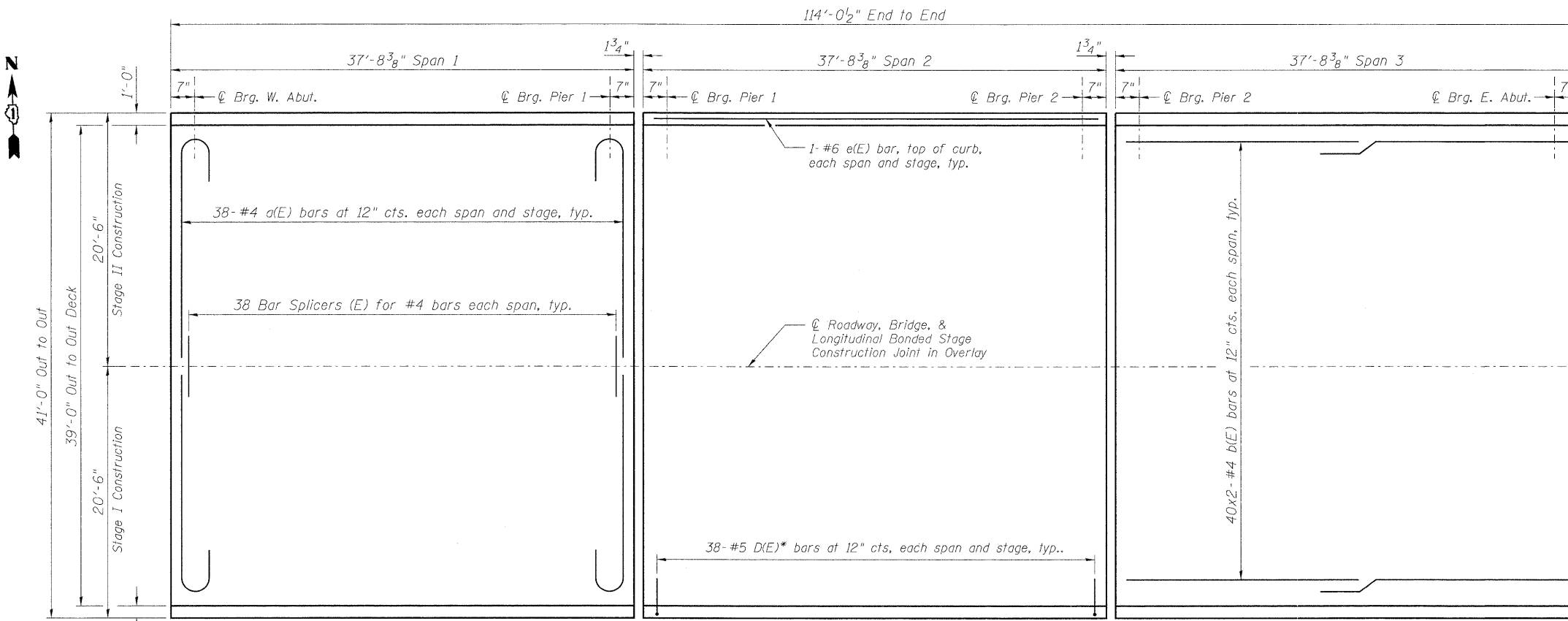
SHEET NO. S6 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	21
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CROSS SECTION

Remove and Re-attach existing conduit to new bridge rail. All new hardware shall be used to re-install the exist. conduit. See roadway plans.



MIN. BAR LAP
#4 bars = 2'-1"

CONCRETE WEARING SURFACE PLAN

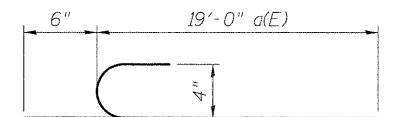
*D(E) bars cast-in-place in each outside beam. See shl. S13 of S20 for details.

NOTES

For remainder of Superstructure Details see Sheet S8 of S20.
Bars indicated thus 40x2-#4, etc, indicates 40 lines of bars with 2 lengths per line.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a(E)	228	#4	19'-6"	C	
b(E)	240	#4	19'-9"		
e(E)	6	#6	37'-3"		
Concrete Wearing Surface 5"				Sq. Yd.	490
Bar Splicers				Each	114
Concrete Superstructure				Cu. Yd.	8.6
Reinforcement Bars, Epoxy Coated				Pound	6470



BAR a(E)

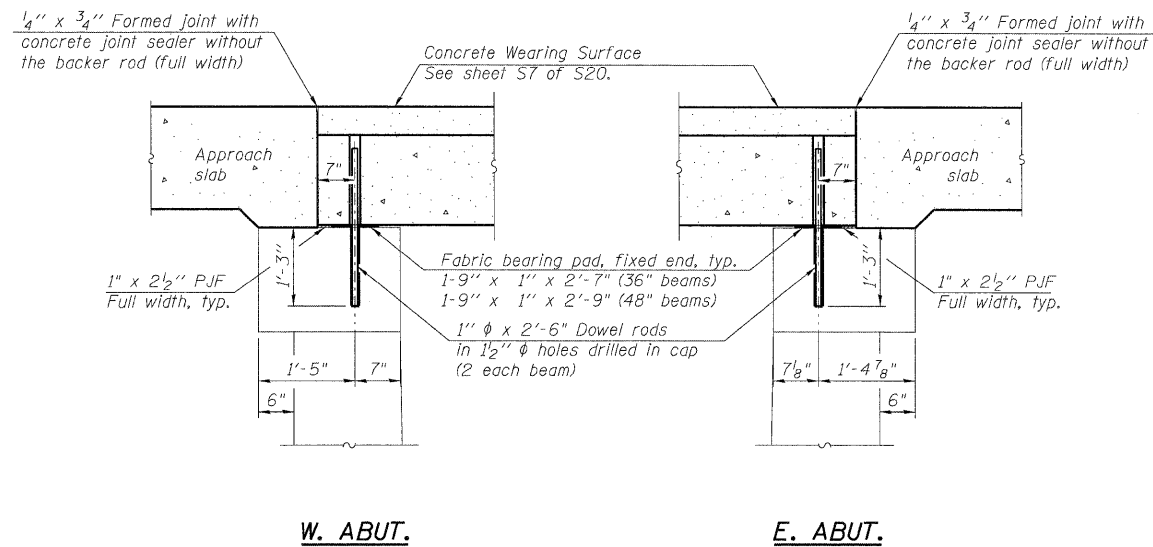
DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

LONGCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**SUPERSTRUCTURE
STRUCTURE NO. 049-0059**

SHEET NO. S7 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	22
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

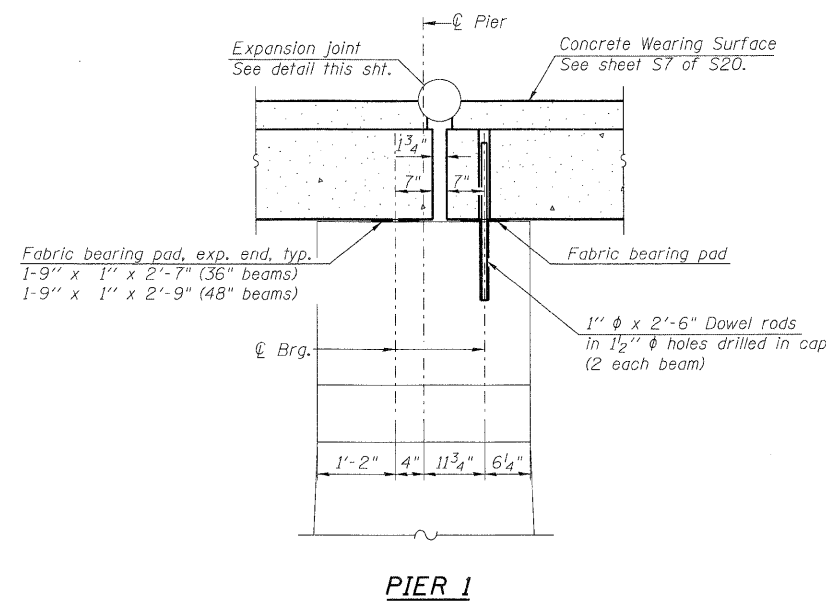
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION THRU FIXED ABUTMENT

Notes:

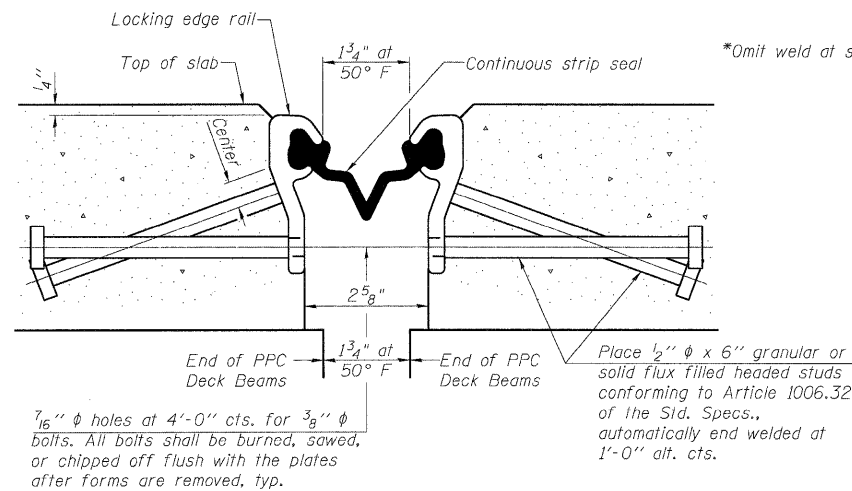
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys. All horizontal dimensions are at right angles to beam ends. See sheet S14 & S16 of S20 for 48" and 36" beams bearing pad details.



SECTION THRU PIER

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. See sheet S14 & S16 of S20 for 48" and 36" beams bearing pad details.

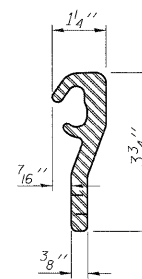


SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS

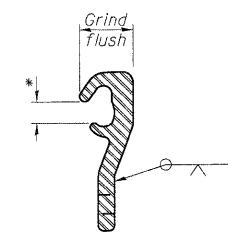
*Omit weld at seal opening.

$\frac{7}{16}$ " ϕ holes at 4'-0" cts. for $\frac{3}{8}$ " ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place $\frac{1}{2}$ " ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.



LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". 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.

All Steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

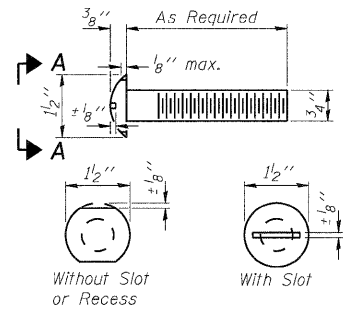
DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

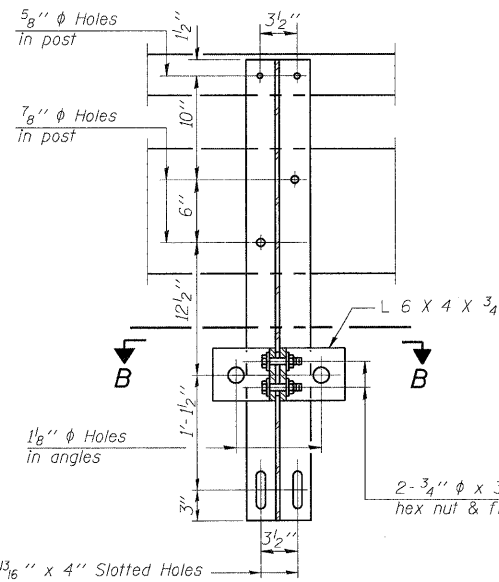
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 049-0059

SHEET NO. S8 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	23
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

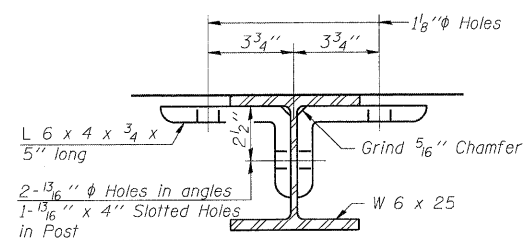
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



**VIEW A-A
ROUND HEAD BOLT**



SECTION A-A



SECTION B-B

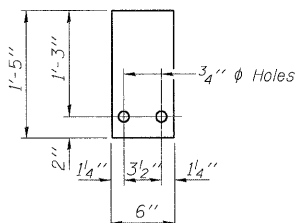
2-1/2" ϕ x 6" Round Head Bolts
(With slot or approved recess in head.)
with locknut & flat washer
5/8" ϕ Holes in hollow structural
section may be drilled in the field.

2-3/4" ϕ x 6" Round Head Bolts
(With slot or approved recess in head.)
with locknut & flat washer
7/8" ϕ Holes in hollow structural
section may be drilled in the field.

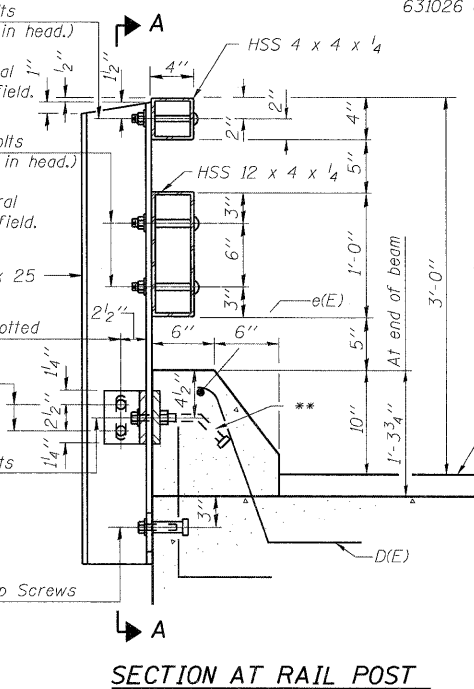
2-1" ϕ x 3 3/4" H.S. Bolts
with flat washer

2-3/4" ϕ x 3 3/4" H.S. Bolts with
hex nut & flat washers

2-5/8" ϕ x 1 3/4" Cap Screws
with flat washer



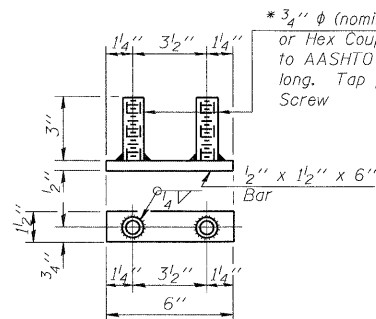
1/4" SHIM PLATE



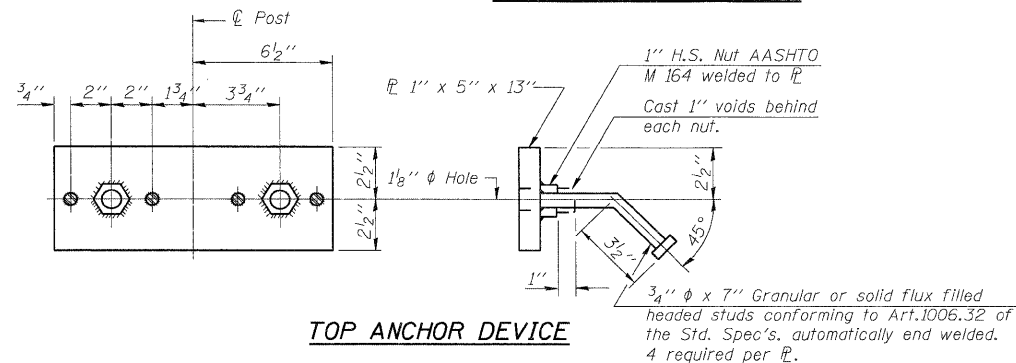
SECTION AT RAIL POST

1/8" ϕ Holes for 1" ϕ x 4" Round Head Bolts
Provide 2 flat washers & locknuts for
guard rail connection shown on Hwy. Std.
631026 or BLR 27-1.

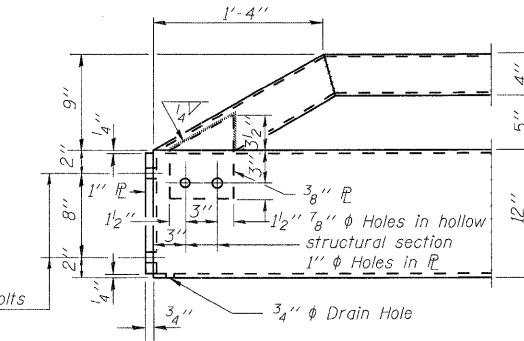
* Threaded areas shall be plugged or
blocked off during casting of beam.



BOTTOM ANCHOR DEVICE



TOP ANCHOR DEVICE



END OF RAIL DETAILS

PL 3/8" x 2 3/8" x 20"
Top & Bottom

PL 3/8" x 2 7/8" x 20"
Each Side

5/8" ϕ x 1 3/4" Cap Screw
with flat washer

TOP RAIL

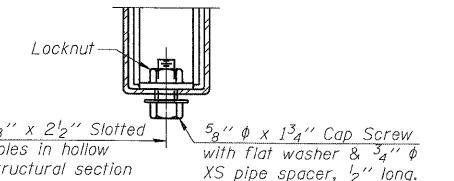
PL 3/8" x 2 1/2" x 20"
Top & Bottom

PL 3/8" x 10 7/8" x 20"
Each Side

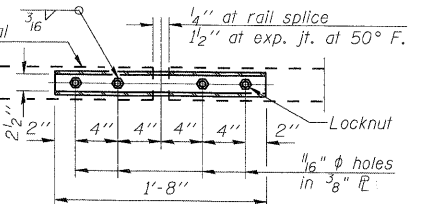
5/8" ϕ x 1 3/4" Cap Screw
with flat washer

BOTTOM RAIL

SECTIONS AT RAIL SPLICE



**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE P
TYPICAL**

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type T-1	Foot	227

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'-5" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type T-1.
- All 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. See sh. S10 of S20 for steel railing elevation.

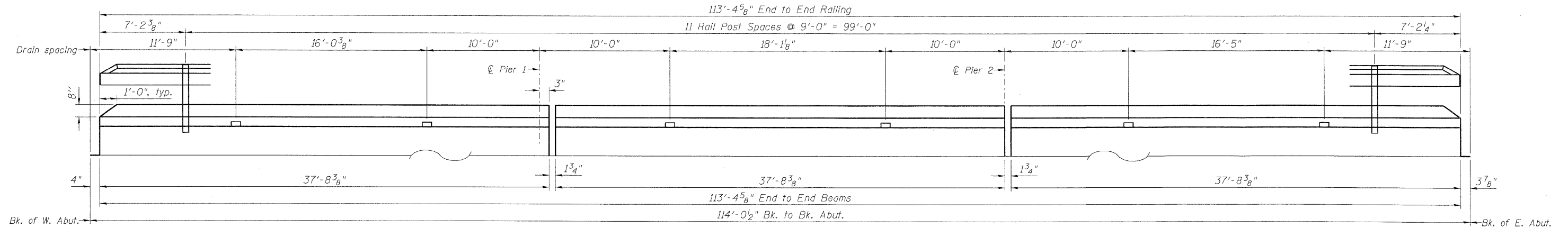
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**STEEL RAILING, TYPE T-1
STRUCTURE NO. 049-0059**

SHEET NO. S9 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	24
		D-91-290-09	CONTRACT NO. 60F93		
		FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT	

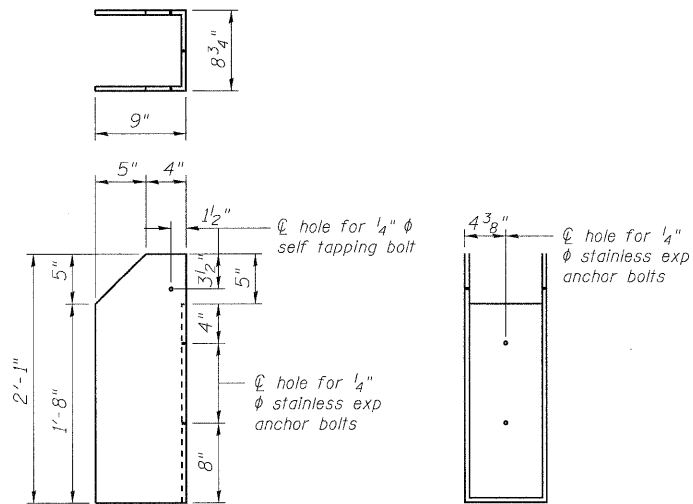
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



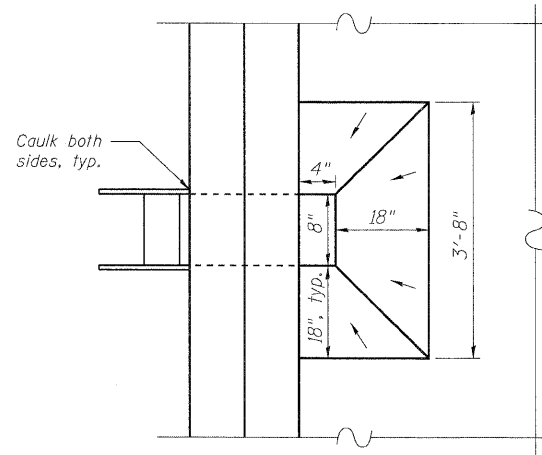
Curb, Drain & Railing Elevation

NOTES

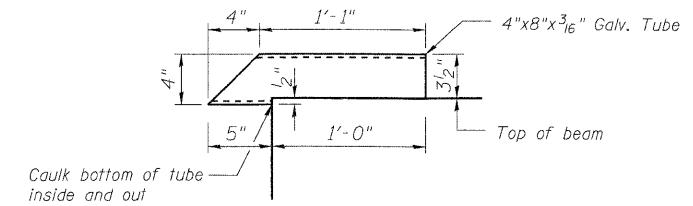
All field drilled holes shall be coated with an approved zinc rich paint before erection.
Floor drains and floor drain extensions shall be included in the cost of floor drains.
See shf. S9 of S20 for steel railing details.



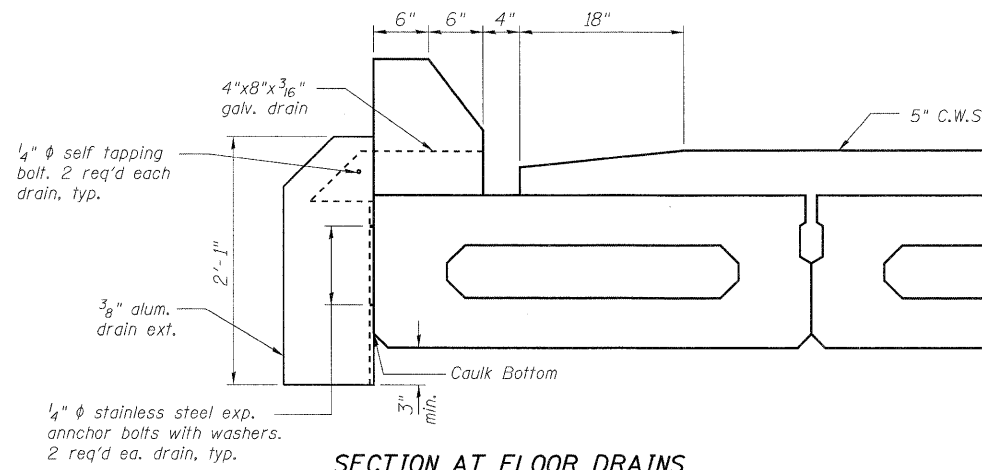
FLOOR DRAIN EXTENSION DETAILS



PLAN AT FLOOR DRAINS



DRAIN DETAIL



SECTION AT FLOOR DRAINS

BILL OF MATERIAL

Item	Unit	Quantity
Floor Drains	Each	12

DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

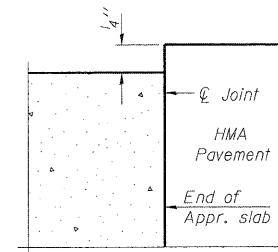
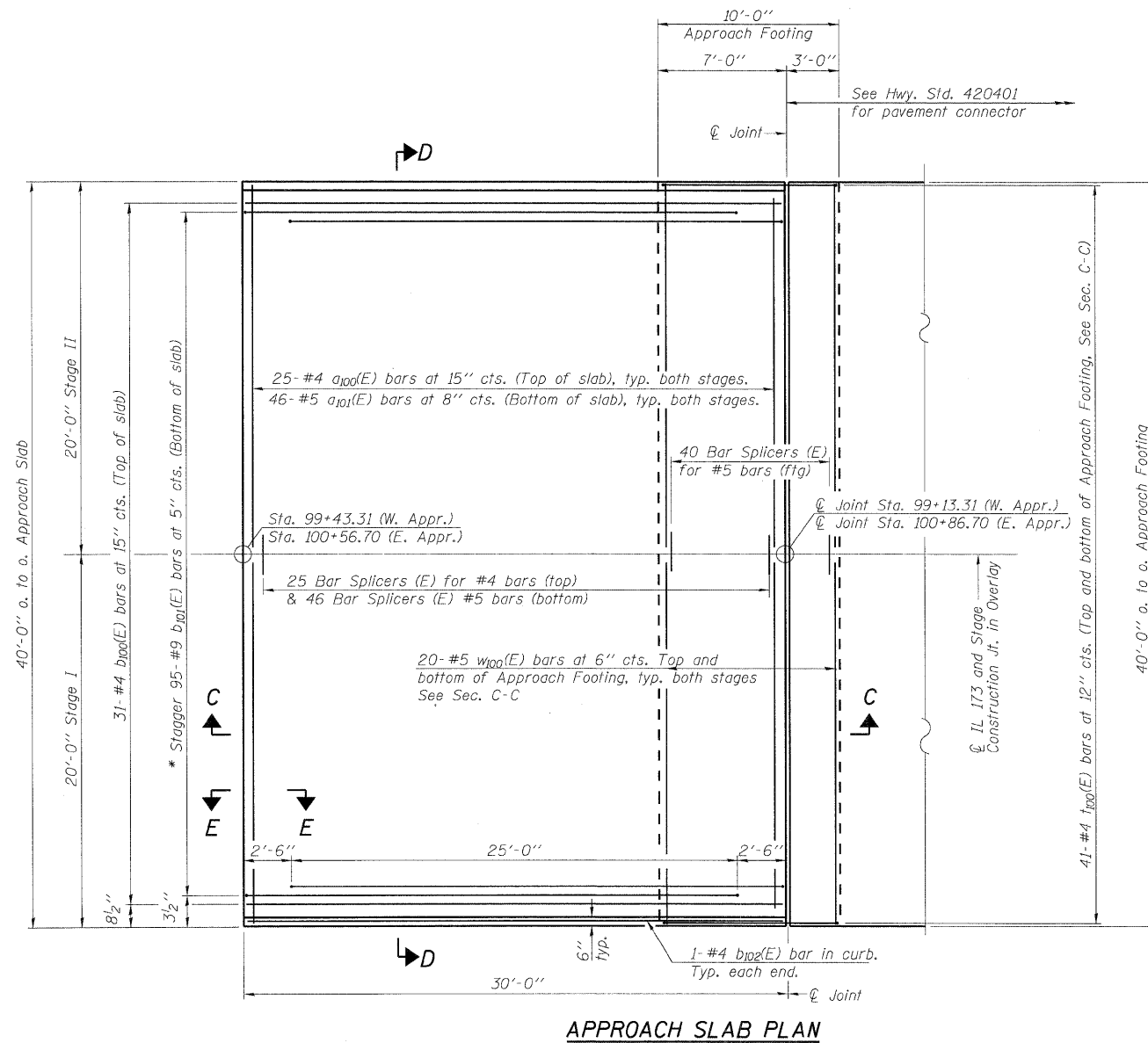
LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST. SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**STEEL RAILING & DRAIN DETAILS
STRUCTURE NO. 049-0059**

SHEET NO. S10 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	25
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet S12 of S19 for Sections C-C & D-D and View E-E.
All a(E) and w(E) bar spacings measured parallel to ϕ Rdwy.
East Approach Slab Shown, West Approach Slab is similar and opposite hand.



FLEXIBLE PAVEMENT

DETAIL A

* Tilt #9 $b_{101}(E)$ bars as required to maintain clearance.

DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

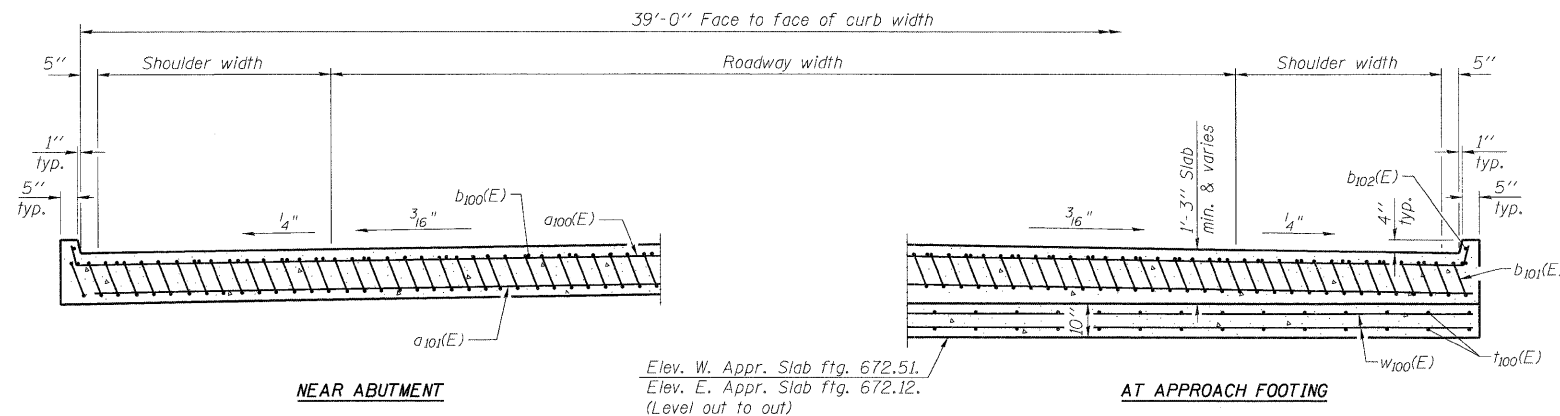
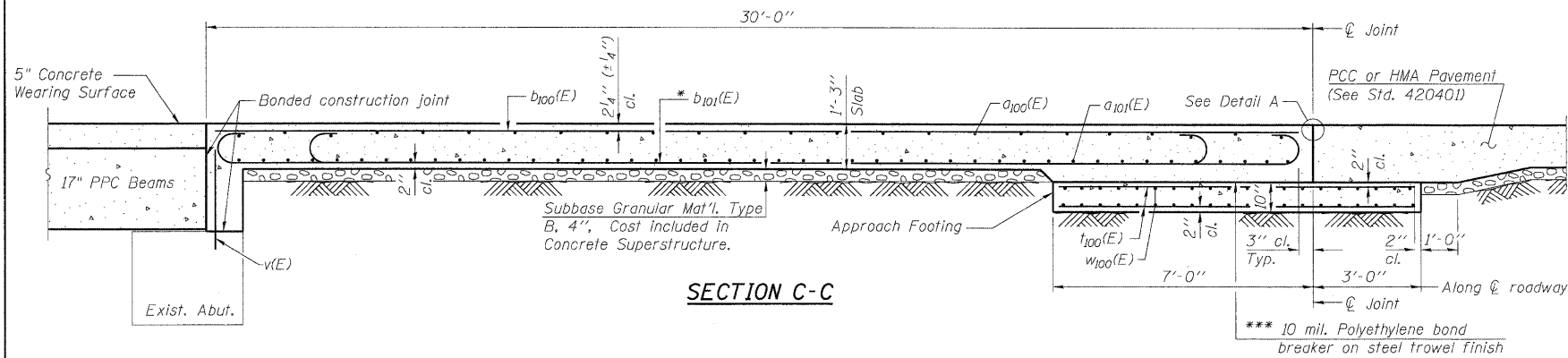
LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

(Sheet 1 of 2)
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 049-0059

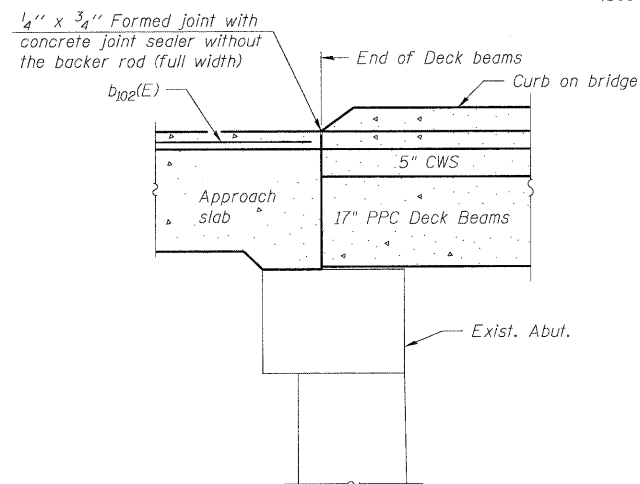
SHEET NO. S11 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	26
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

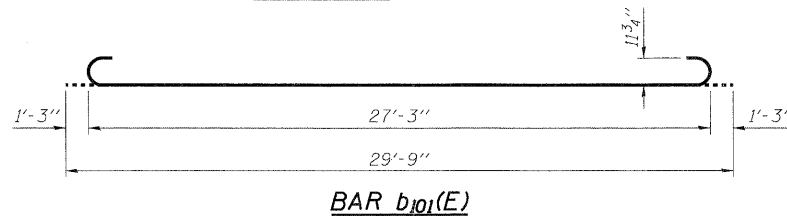
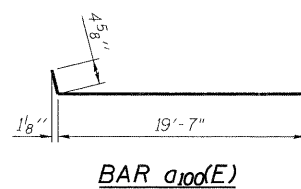
Notes:
See sheet S11 of S20 for Detail A.
Approach slab shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet S17 and S18 of S20.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet S20 of S20.
Cost of excavation for approach footing included with Concrete Structures.



* Tilt #9 b₁₀₁(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.



VIEW E-E



TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₁₀₀ (E)	100	#4	19'-8"	—
a ₁₀₁ (E)	184	#5	19'-8"	—
b ₁₀₀ (E)	62	#4	29'-8"	—
b ₁₀₁ (E)	190	#9	29'-9"	—
b ₁₀₂ (E)	4	#4	29'-8"	—
t ₁₀₀ (E)	164	#4	9'-6"	—
w ₁₀₀ (E)	160	#5	19'-6"	—
Concrete Superstructure		Cu. Yd.	111.8	
Concrete Structures		Cu. Yd.	24.7	
Reinforcement Bars, Epoxy Coated		Pound	29910	
Bar Splicers		Each	222	

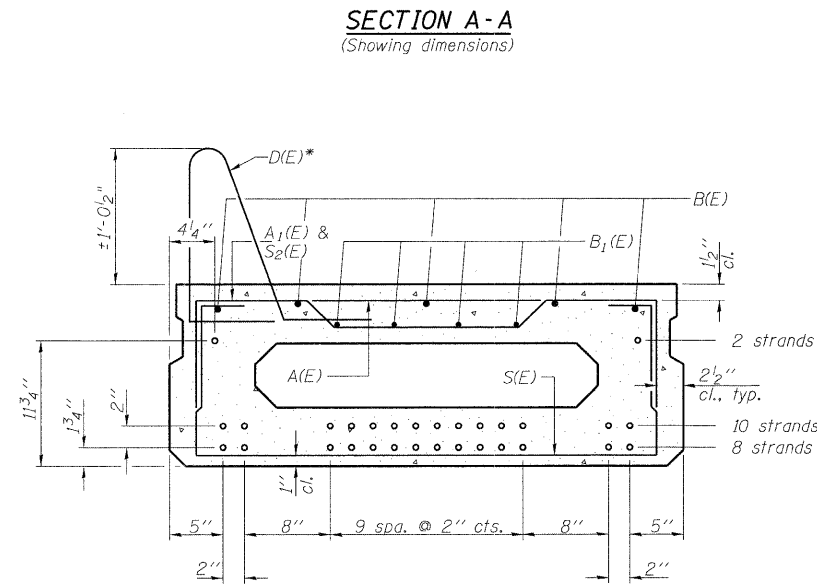
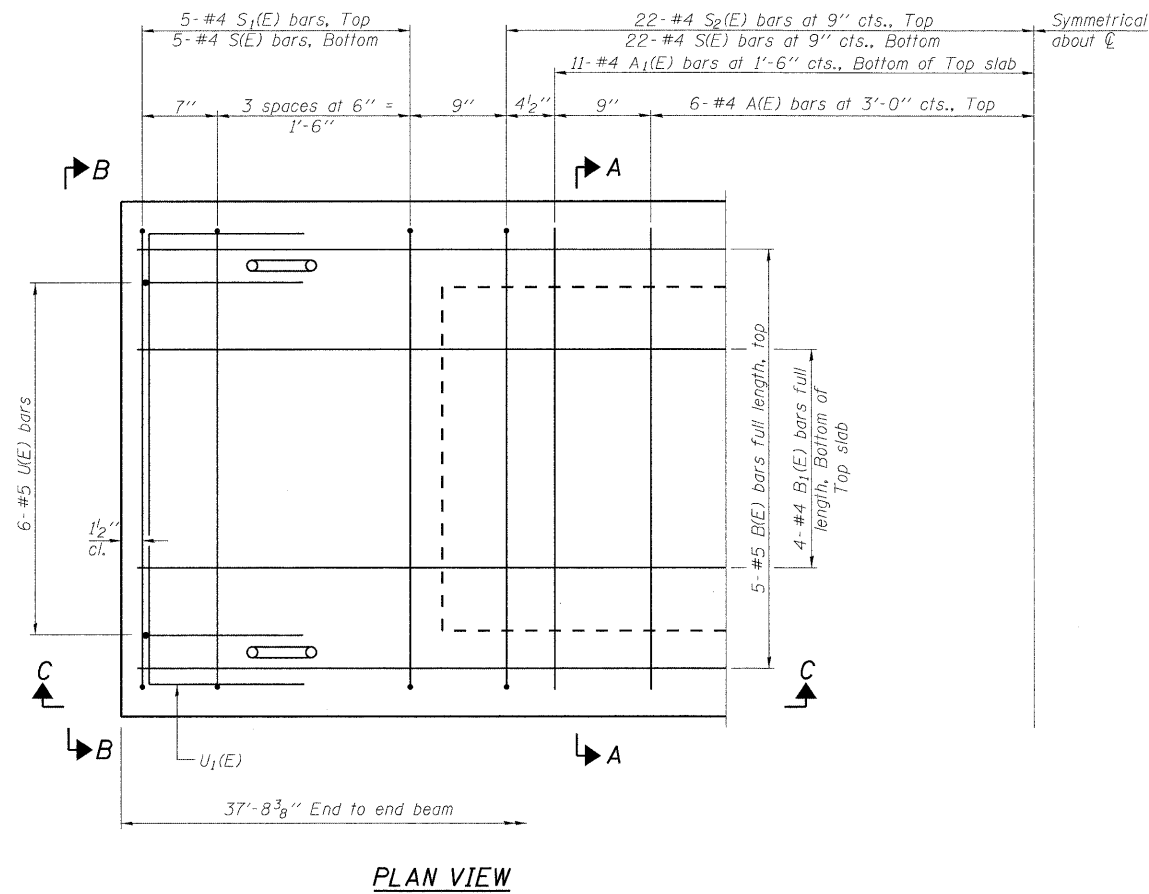
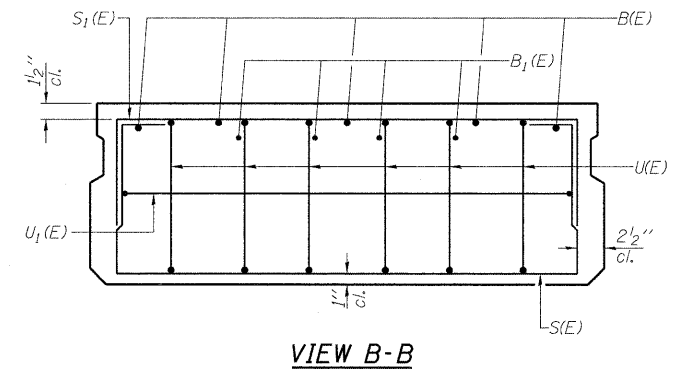
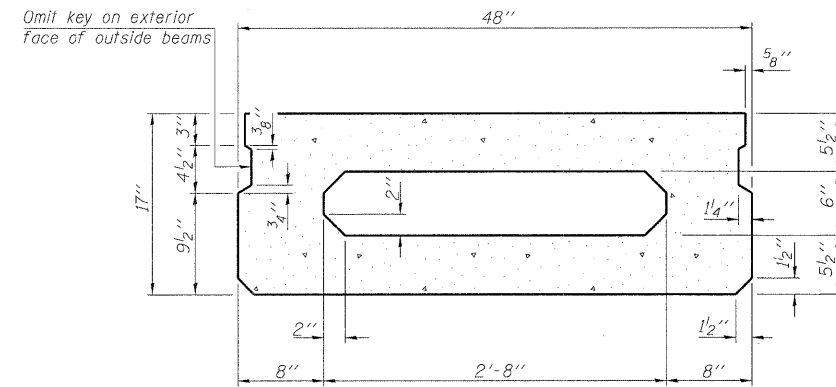
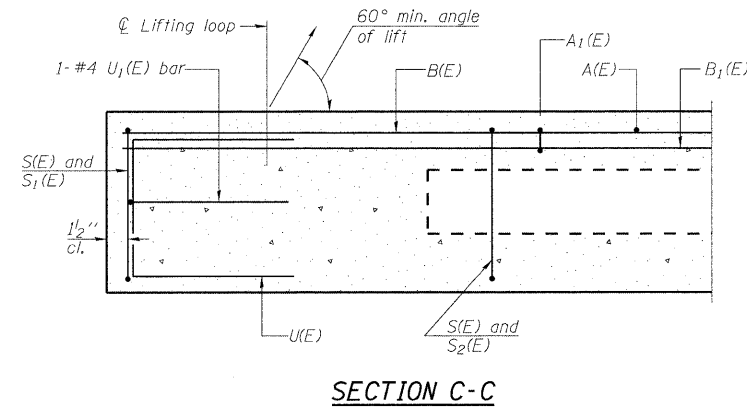
DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

(Sheet 2 of 2)
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 049-0059

SHEET NO. S12 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	27
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	3'-7"	—
A1(E)	22	#4	3'-10"	—
B(E)	5	#5	37'-5"	—
B1(E)	4	#4	37'-5"	—
D(E)*	38	#5	4'-4"	—
S(E)	54	#4	6'-9"	U
S1(E)	10	#4	5'-3"	U
S2(E)	44	#4	5'-6"	U
U(E)	12	#5	3'-8"	U
U1(E)	2	#4	6'-0"	U

SECTION A-A
(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

NOTES
Contractor may use bar splicers instead of cast-in-place dowel D(E) at no extra cost to the project. If bar splicers are to be used, then they need to be incorporated into the shop drawings for approval.

Note: See sheet S14 of S20 for additional details and Bill of Material.
*D(E) bar to be cast into outside beams only. See shf. S7 & S14 of S20 for details.

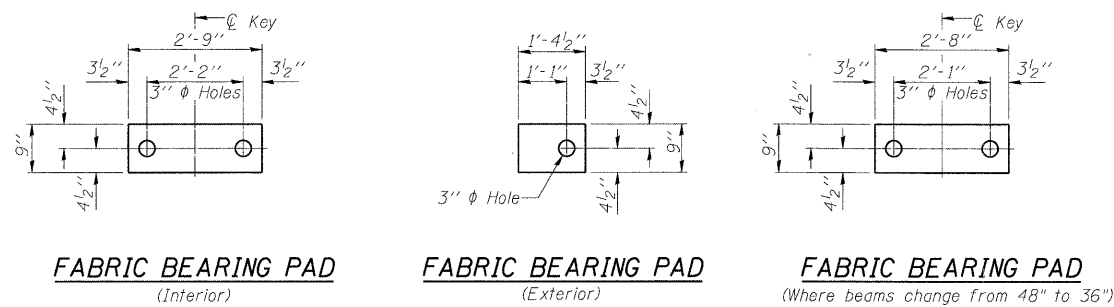
DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

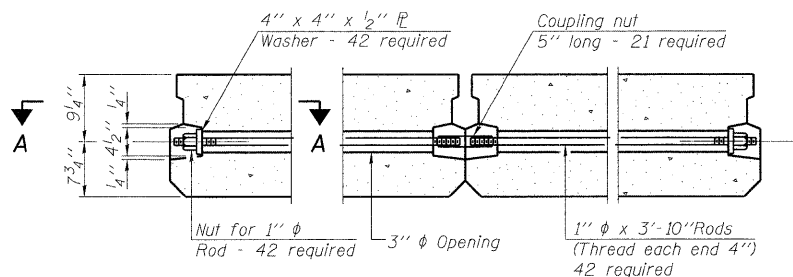
17" x 48" PPC DECK BEAMS
STRUCTURE NO. 049-0059

SHEET NO. S13 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	28
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

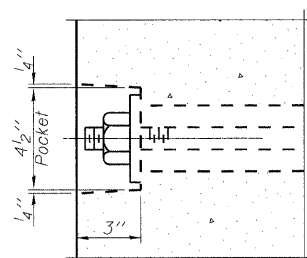
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



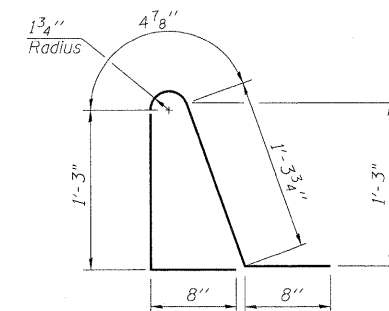
FIXED
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



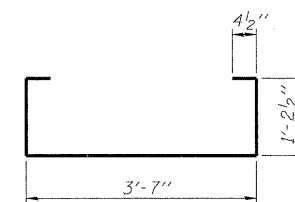
TYPICAL TRANSVERSE TIE ASSEMBLY



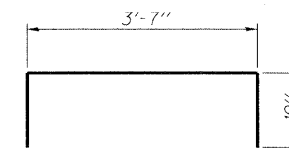
SECTION A-A



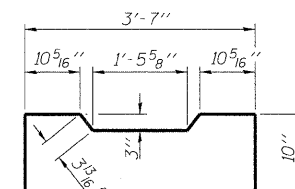
BAR D(E)



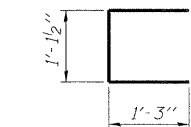
BAR S(E)



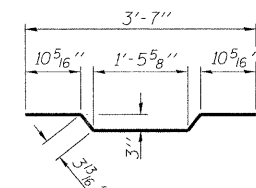
BAR S1(E)



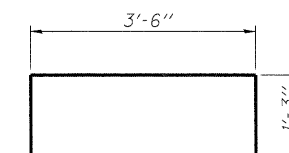
BAR S2(E)



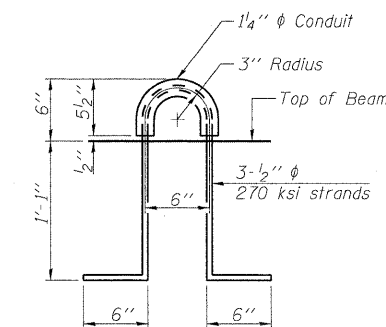
BAR U(E)



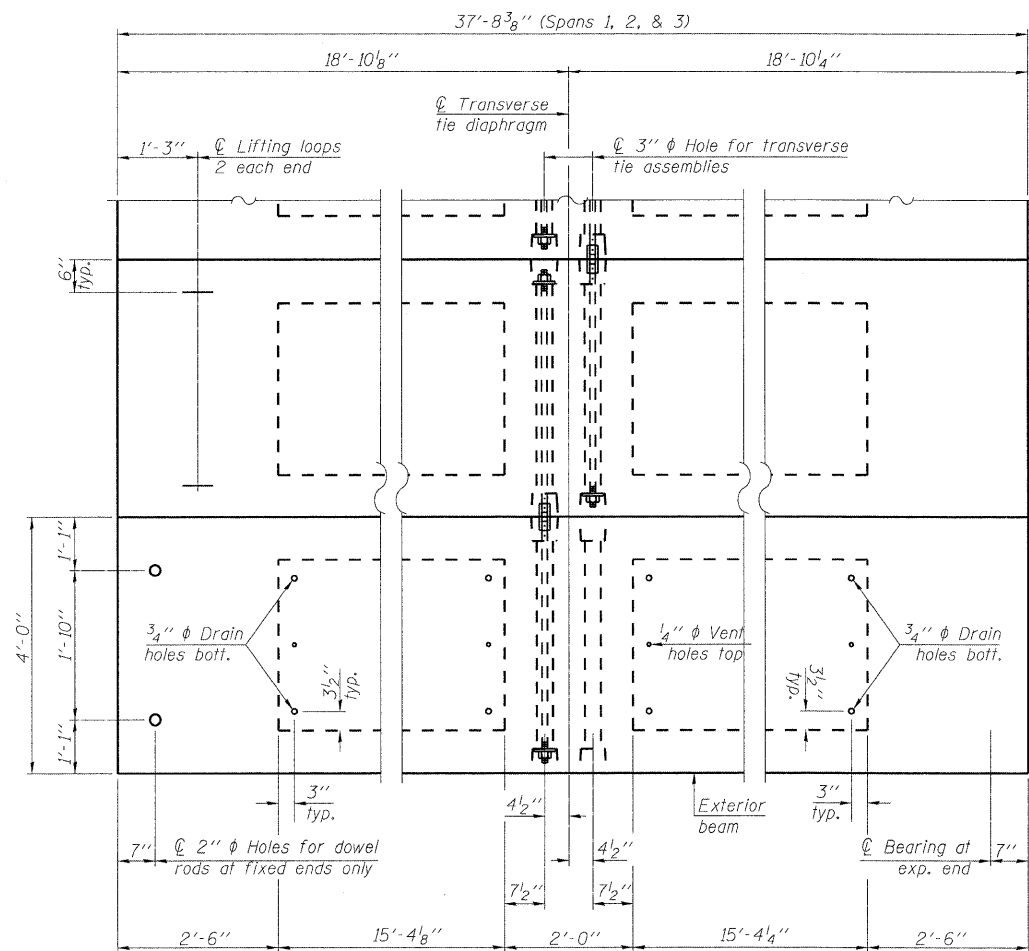
BAR A1(E)



BAR U1(E)



LIFTING LOOP DETAIL



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" phi lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
See sht. S15 of S20 for 36" PPC Deck Beam Details.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	3619

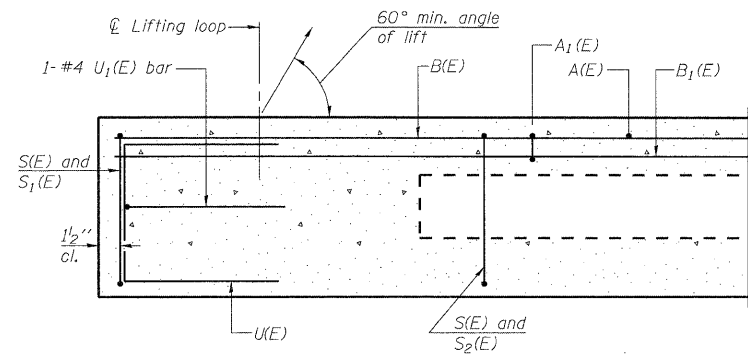
DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

LONGCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

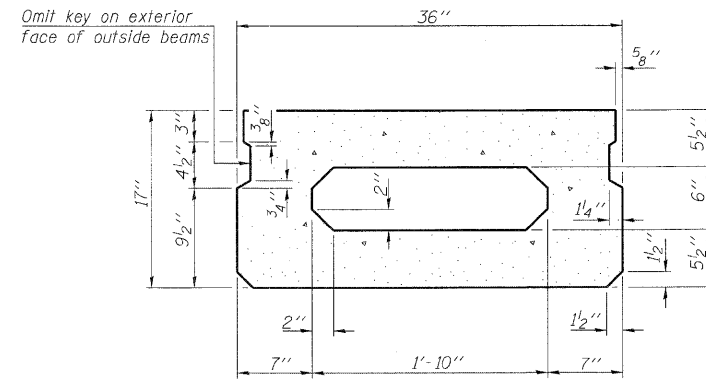
17" x 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 049-0059

SHEET NO. S14 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	29
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		

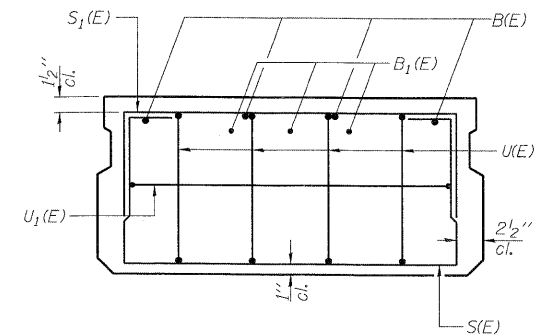
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



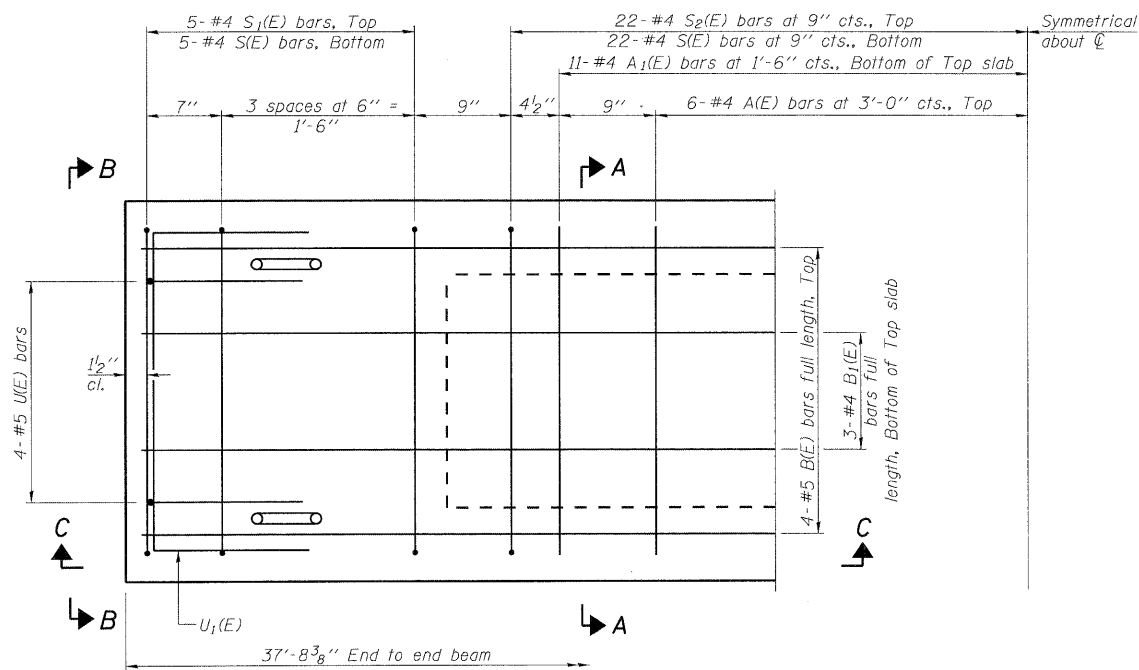
SECTION C-C



SECTION A-A
(Showing dimensions)

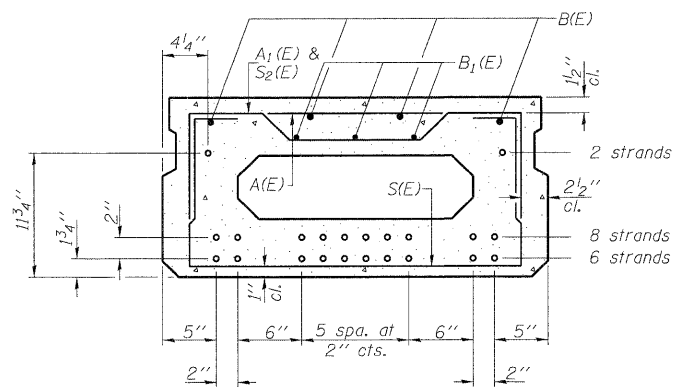


VIEW B-B



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION A-A
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	2'-7"	—
A1(E)	22	#4	2'-10"	—
B(E)	4	#5	37'-5"	—
B1(E)	3	#4	37'-5"	—
S(E)	54	#4	5'-9"	□
S1(E)	10	#4	4'-3"	□
S2(E)	44	#4	4'-6"	□
U(E)	8	#5	3'-8"	□
U1(E)	2	#4	5'-0"	□

Note: See sheet S16 of S20 for additional details and Bill of Material.

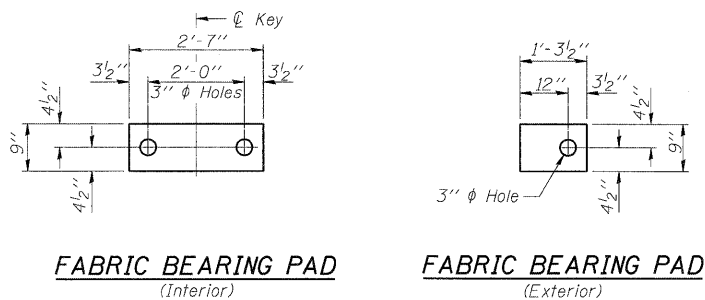
DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

17" x 36" PPC DECK BEAMS
STRUCTURE NO. 049-0059

SHEET NO. S15 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	30
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



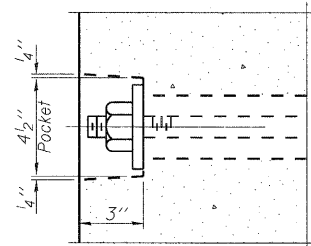
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

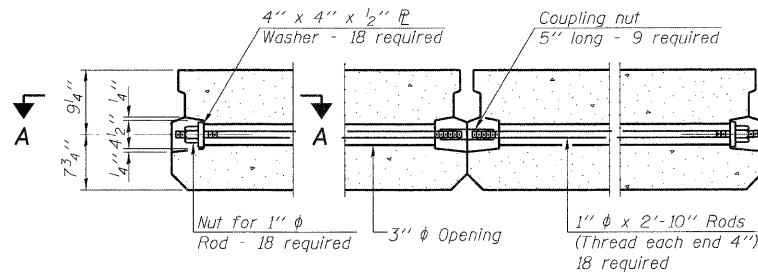
FIXED

Notes:

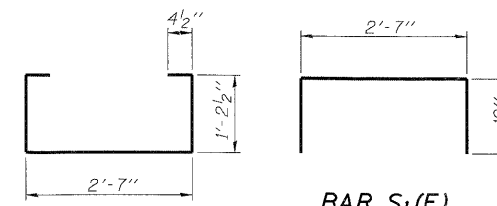
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

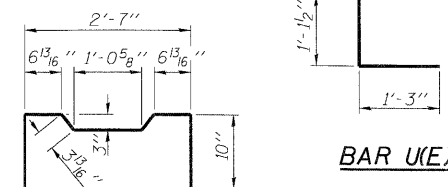


TYPICAL TRANSVERSE TIE ASSEMBLY



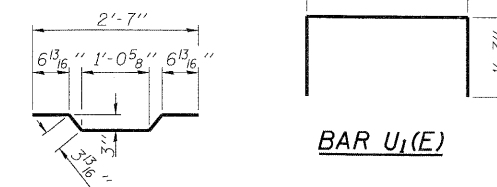
BAR S(E)

BAR S1(E)



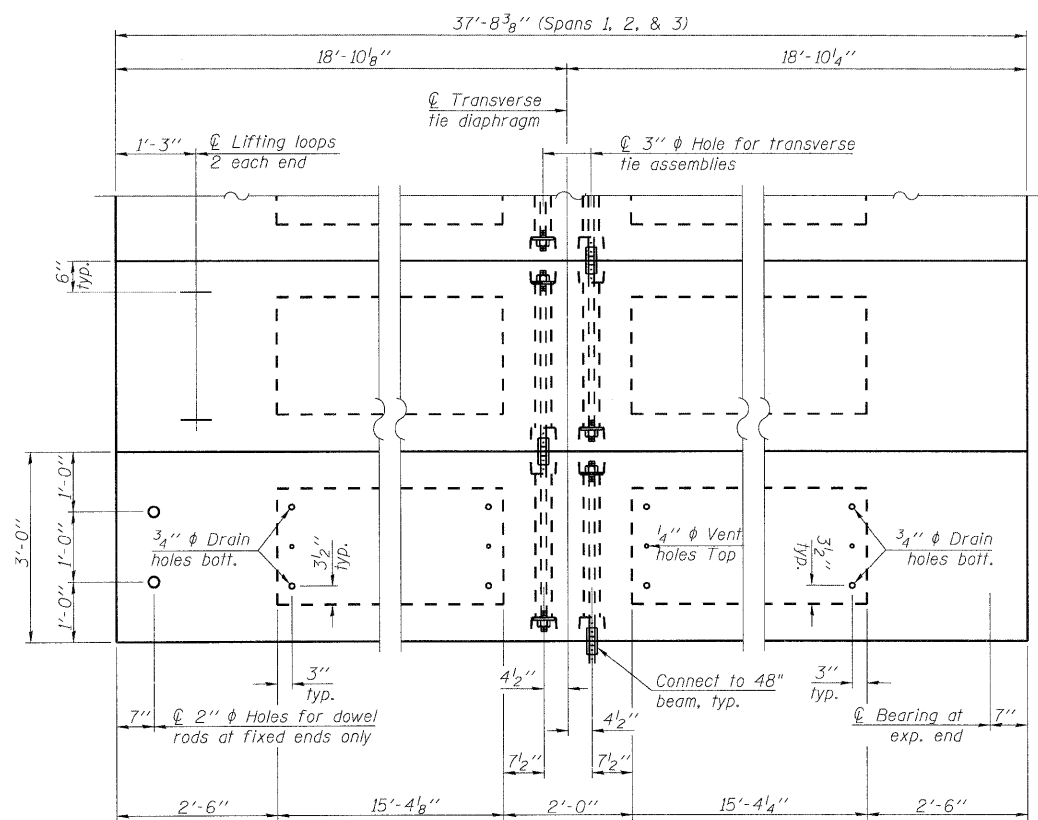
BAR S2(E)

BAR U(E)



BAR A1(E)

BAR U1(E)

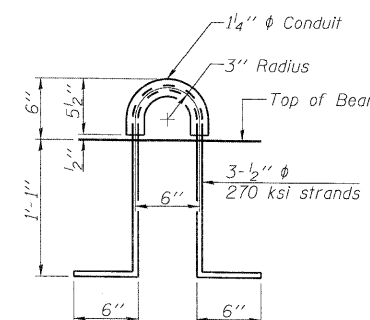


PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
See sh. S13 of S20 for 48" PPC Deck Beam Details.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1018

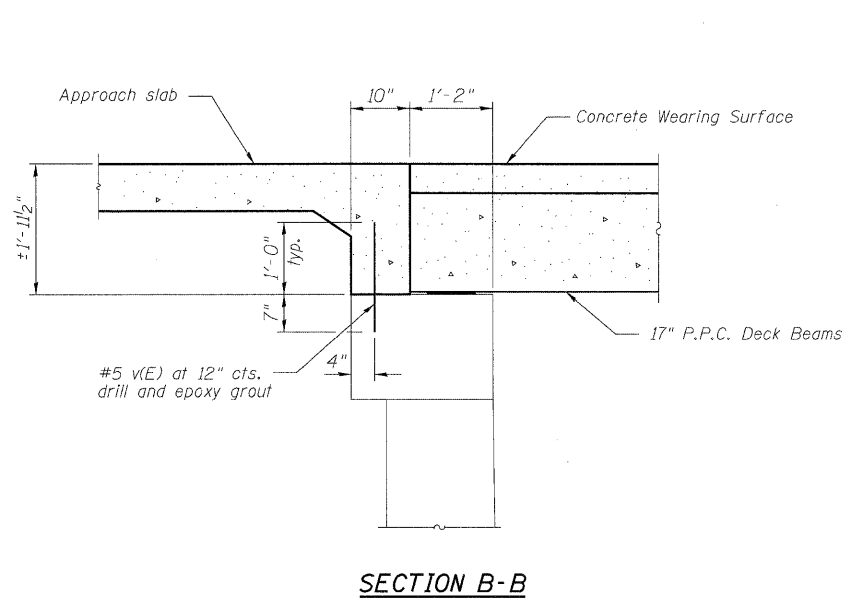
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

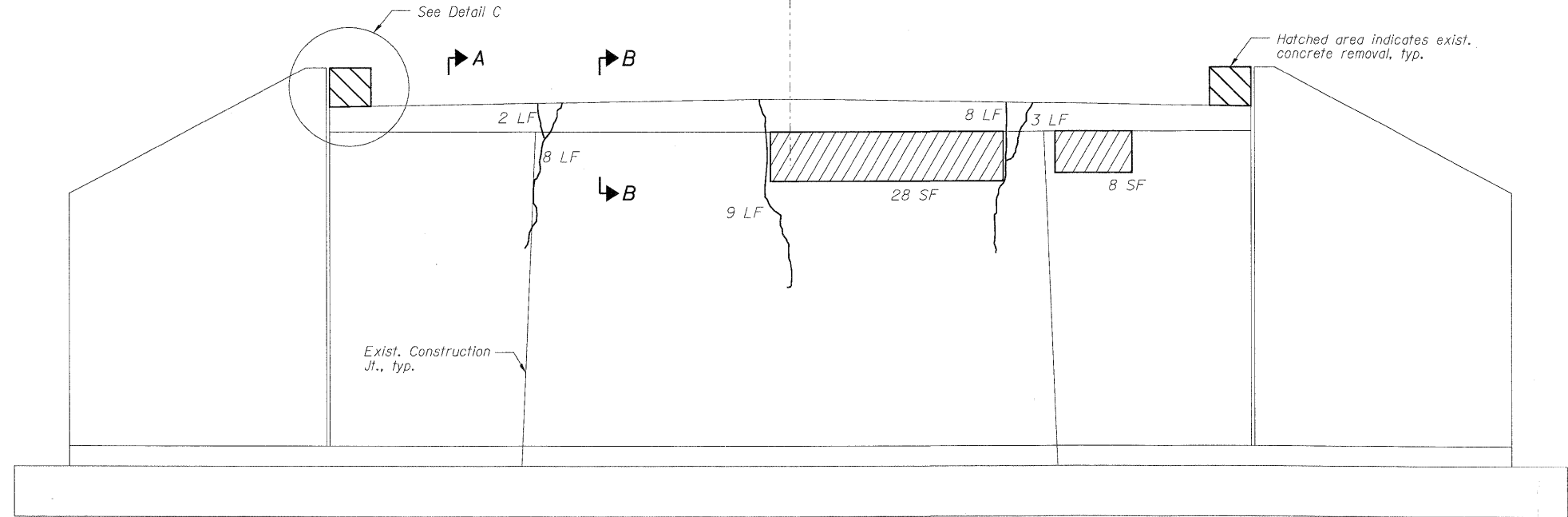
17" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 049-0059

SHEET NO. S16	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OF S20 SHEETS	303	136 B-1	LAKE	43	31
		D-91-290-09	CONTRACT NO. 60F93		
		FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

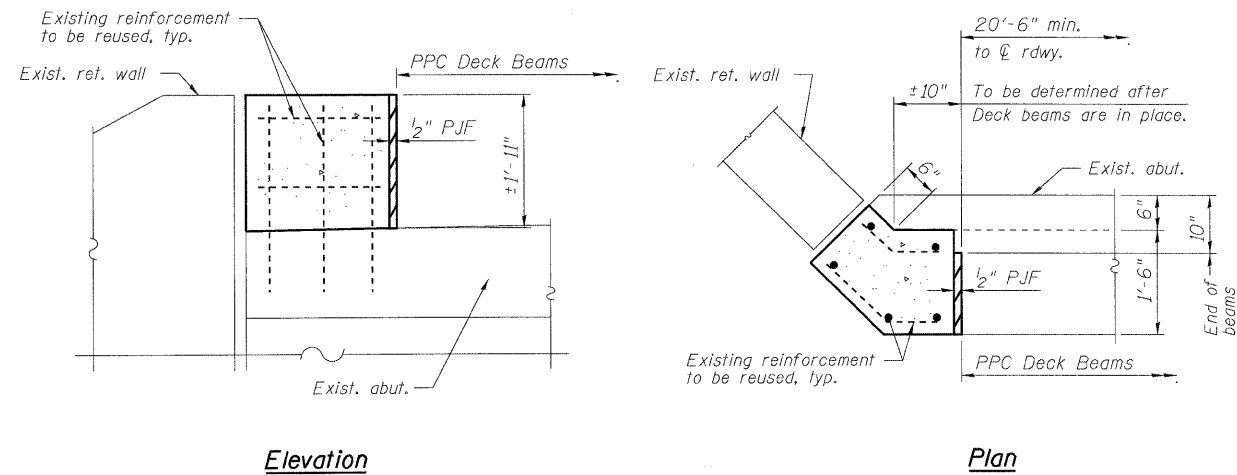


SECTION B-B



ELEVATION - REMOVAL AND REPAIR
(Looking West)

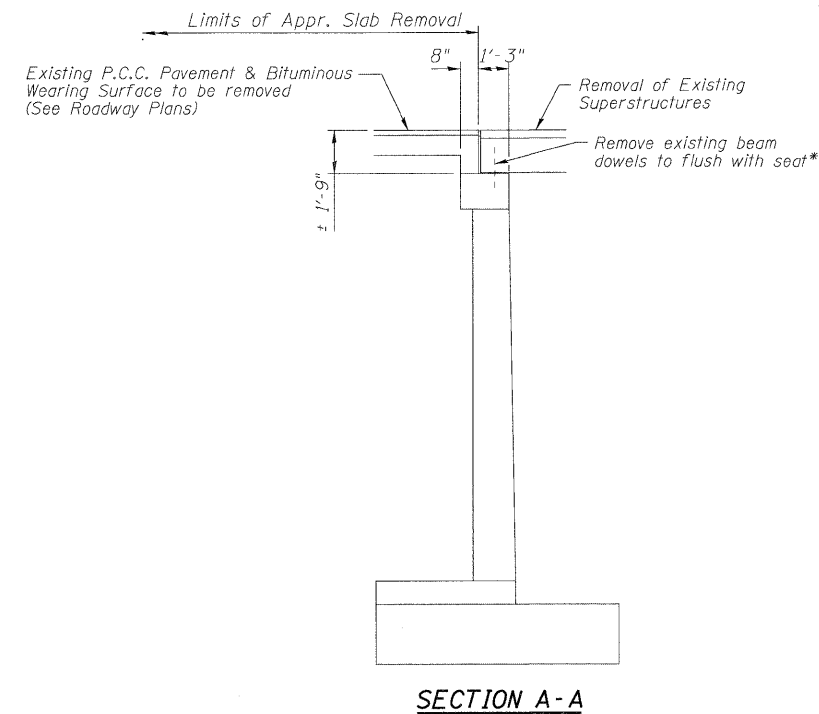
— Epoxy Crack Injection
 Formed Concrete Repair Depth < 5"



Elevation

Plan

DETAIL C



SECTION A-A

*Exist. dowels for exterior beams on all three spans may need to be completely cored out of abutment so dowels for new beams can be installed, V.I.F., to be included with cost of Removal of Exist. Superstructures. If exist. dowels are in correct location for new outside beams, they may be re-used, see notes below for re-using exist. dowels.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v(E)	41	#5	1'-7"	—
Concrete Removal			Cu. Yd.	0.4
Concrete Superstructure			Cu. Yd.	0.4
Epoxy Crack Injection			Foot	30
Structural Repair of Concrete (Depth less than equal to 5")			Sq. Ft.	36
Reinforcement Bars, Epoxy Coated			Pound	70

NOTES

Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
 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. New bars shall be drilled and epoxy grouted in place adjacent to the original bars, as directed by the Engineer.
 Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications.
 See sht. S8 of S20 for proposed section thru abutment.

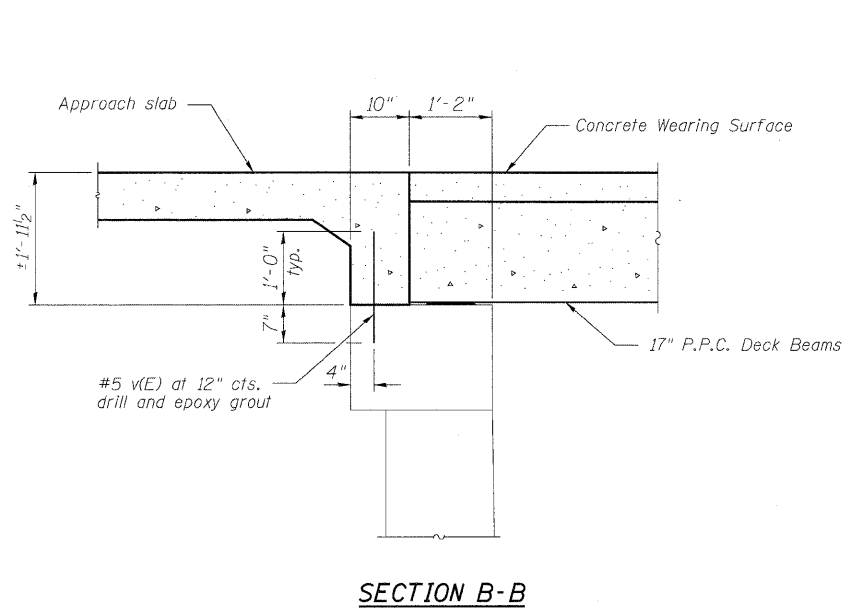
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST., SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

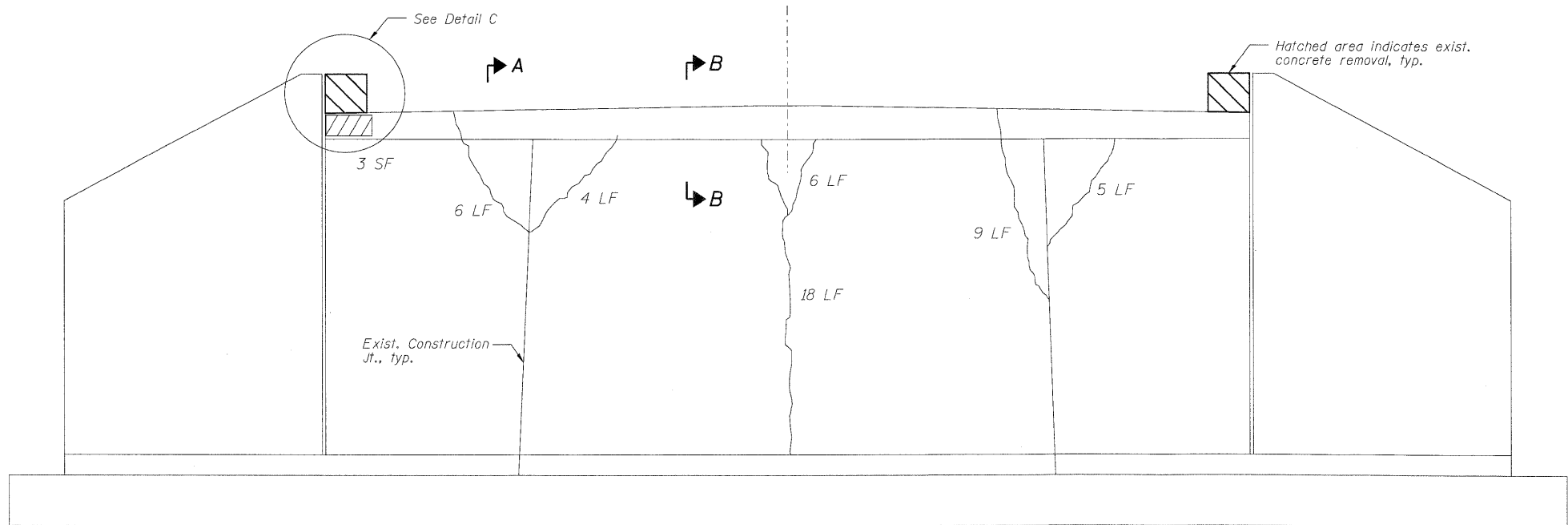
WEST ABUTMENT DETAILS
STRUCTURE NO. 049-0059

SHEET NO. S17 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	32
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

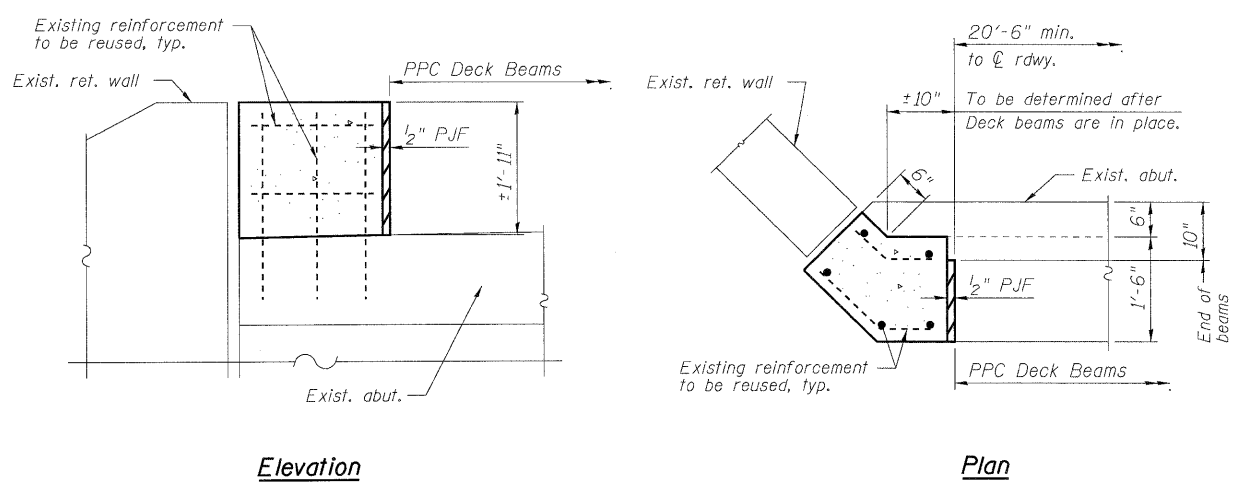


SECTION B-B



ELEVATION - REMOVAL AND REPAIR
(Looking West)

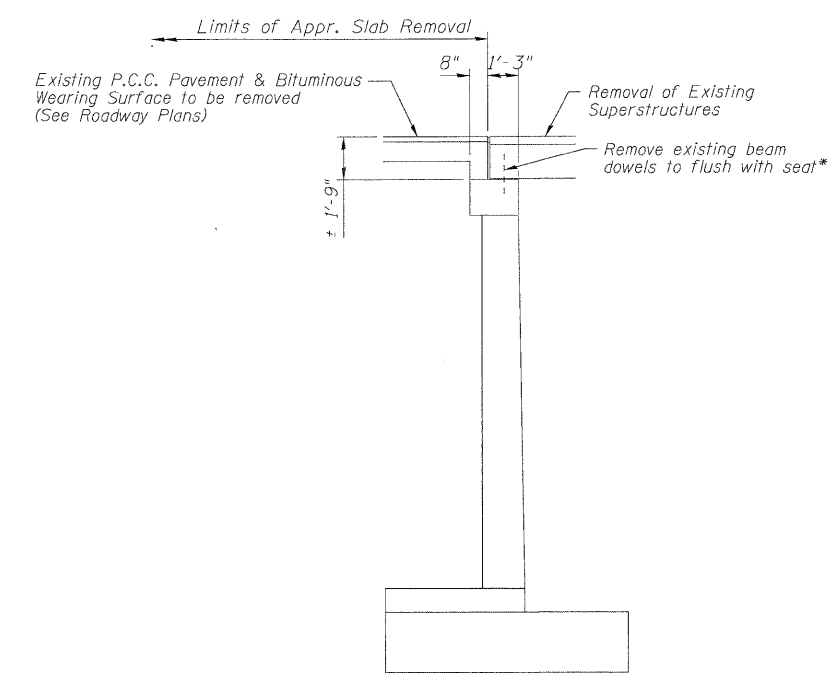
— Epoxy Crack Injection
 Formed Concrete Repair Depth < 5"



Elevation

Plan

DETAIL C



SECTION A-A

*Exist. dowels for exterior beams on all three spans may need to be completely cored out of abutment so dowels for new beams can be installed, V.I.F., to be included with cost of Removal of Exist. Superstructures. If exist. dowels are in correct location for new outside beams, they may be re-used, see notes below for re-using exist. dowels.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v(E)	41	#5	1'-7"	—
Concrete Removal			Cu. Yd.	0.4
Concrete Superstructure			Cu. Yd.	0.4
Epoxy Crack Injection			Foot	48
Structural Repair of Concrete (Depth less than equal to 5")			Sq. Ft.	3
Reinforcement Bars, Epoxy Coated			Pound	70

NOTES

Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
 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. New bars shall be drilled and epoxy grouted in place adjacent to the original bars, as directed by the Engineer.
 Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications.
 See sht. S8 of S20 for proposed section thru abutment.

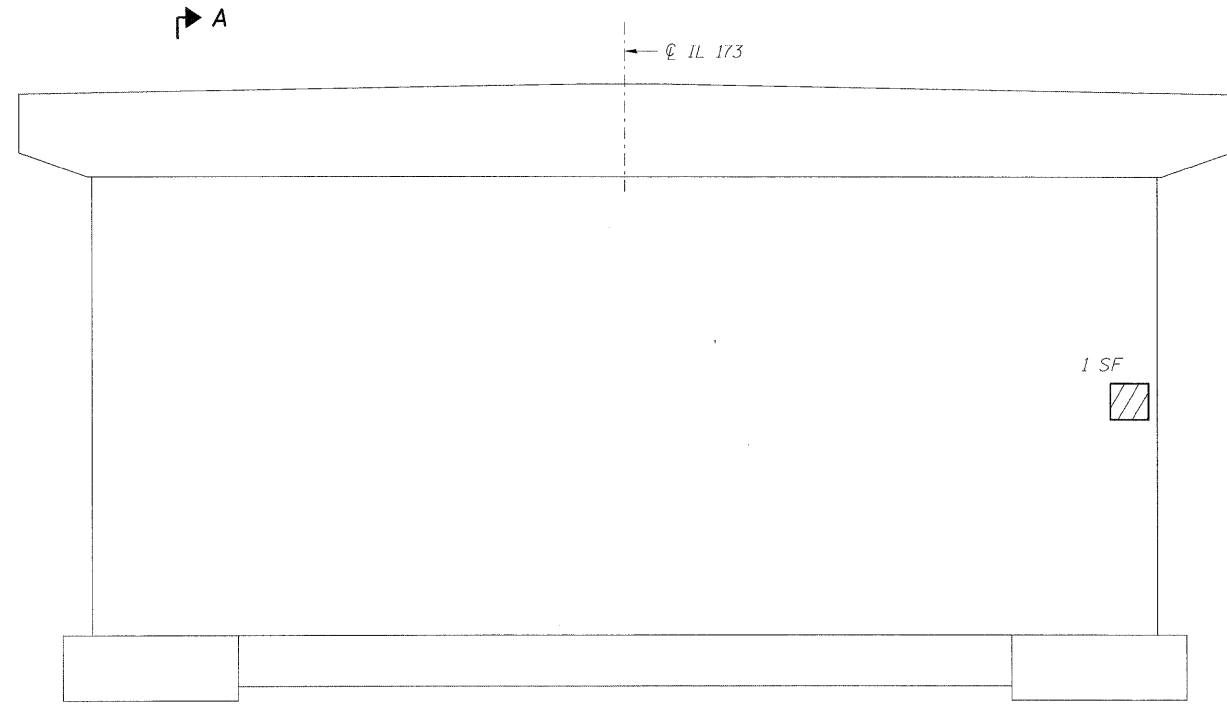
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST., SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100


EAST ABUTMENT DETAILS
STRUCTURE NO. 049-0059

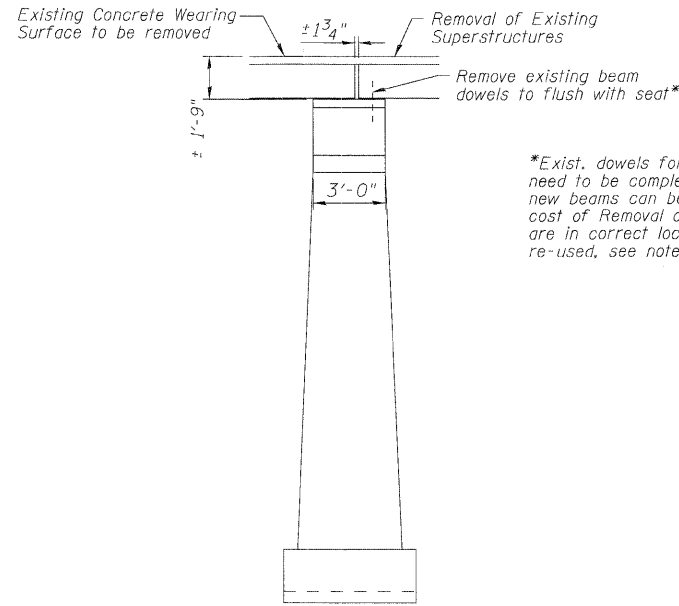
SHEET NO. S18 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	33
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION - REMOVAL AND REPAIR
West Face
(Looking East)

— Epoxy Crack Injection
 Formed Concrete Repair Depth < 5"



SECTION A-A

*Exist. dowels for exterior beams on all three spans may need to be completely cored out of piers so dowels for new beams can be installed, V.I.F., to be included with cost of Removal of Exist. Superstructures. If exist. dowels are in correct location for new outside beams, they may be re-used, see notes below for re-using exist. dowels.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete (Depth less than equal to 5")	Sq. Ft.	1

NOTES

Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
 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. New bars shall be drilled and epoxy grouted in place adjacent to the original bars, as directed by the Engineer.
 Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications.
 Pier 1 shown, pier 2 similar. There is no noteworthy damage to any piers, except what is shown on west face of pier 1
 See sht. S8 of S20 for proposed section thru piers 1 & 2.

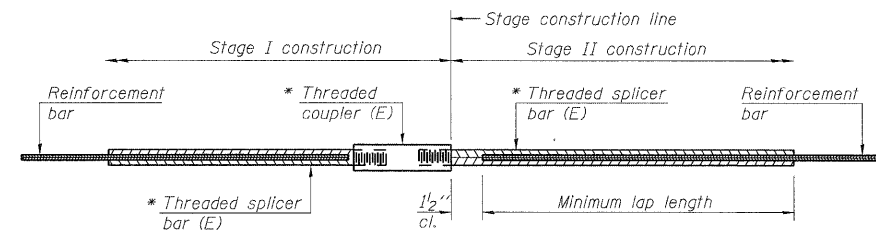
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONGO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST, SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

PIERS 1 & 2 DETAILS
STRUCTURE NO. 049-0059

SHEET NO. S19 OF S20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	34
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

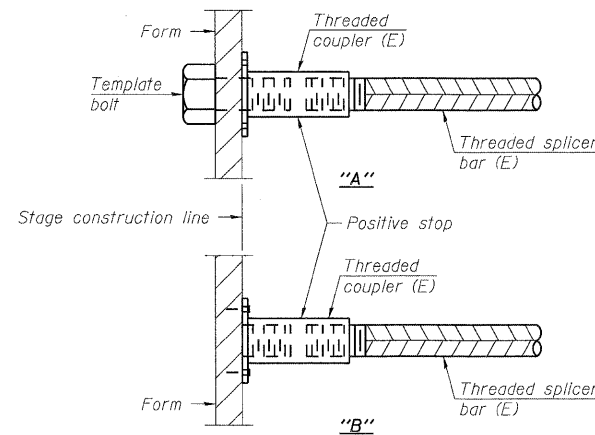
Bar size to be spliced	Minimum Lap Lengths			
	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

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

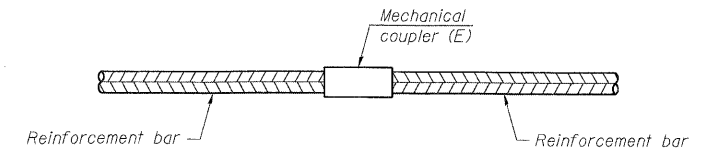
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Concrete Wearing Surface	#4	114	Table 3
Top of Approach Slabs	#4	50	Table 3
Bottom of Approach Slabs	#5	92	Table 3
Approach Slab Foundations	#5	80	Table 3



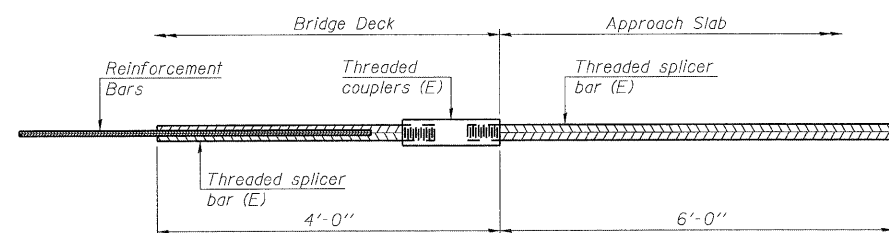
INSTALLATION AND SETTING METHODS

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



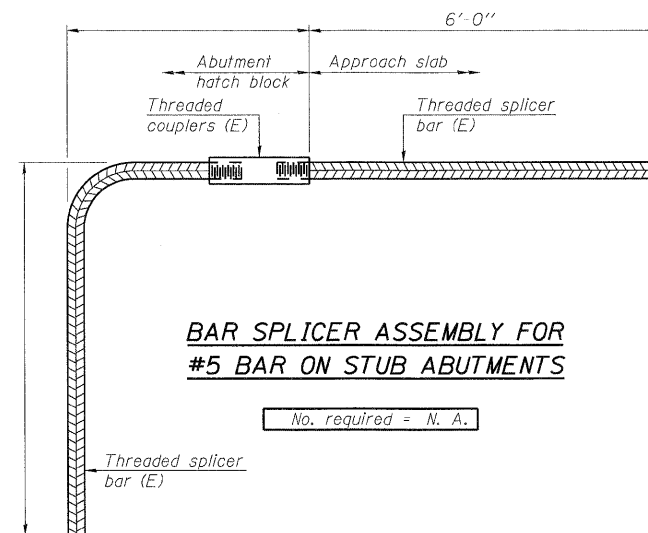
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = N. A.



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = N. A.

NOTES

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

DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

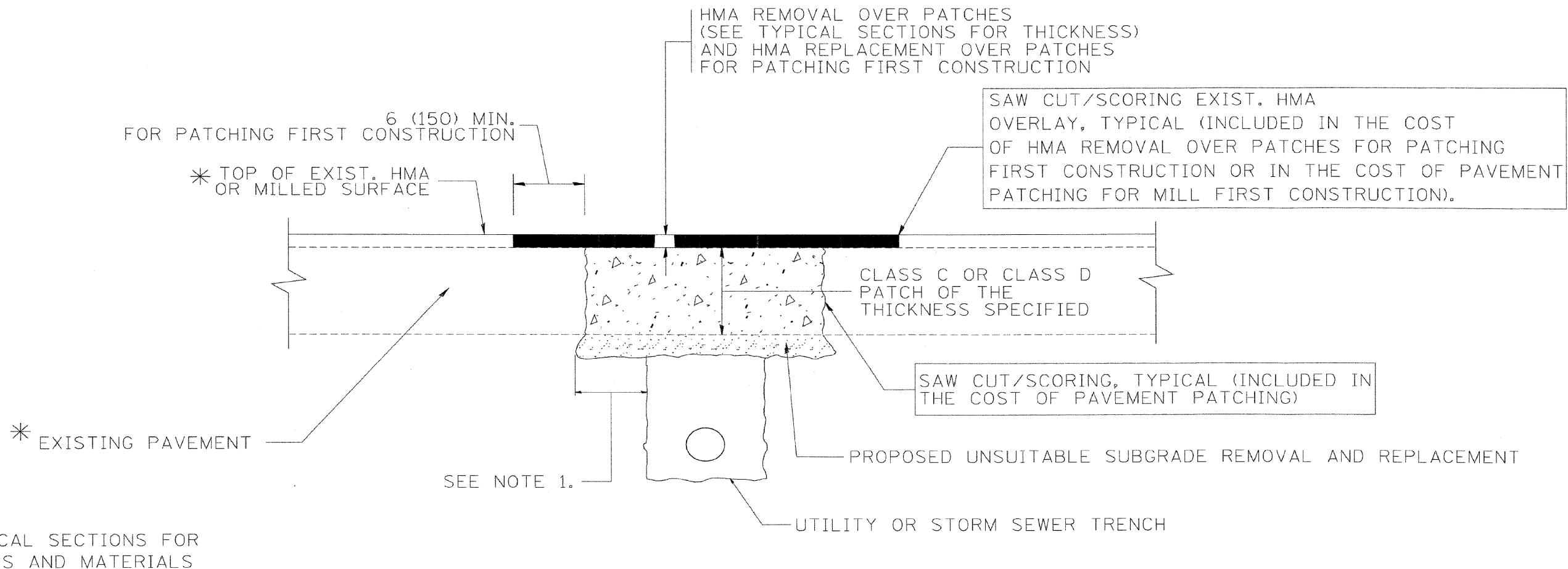
LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

BSD-1

11-1-09

**BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 049-0059**

SHEET NO. S20	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	303	136 B-1	LAKE	43	35
OF S20 SHEETS	D-91-290-09		CONTRACT NO. 60F93		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

REVISED	-	A. ABBAS 04-27-98
REVISED	-	R. BORO 01-01-07
REVISED	-	R. BORO 09-04-07
REVISED	-	K. ENG 10-27-08

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

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

LOVCO, INC.
CONSULTING ENGINEERS
1560 WALL ST. SUITE 222
NAPERVILLE, ILLINOIS 60563 PH 630/577-9100

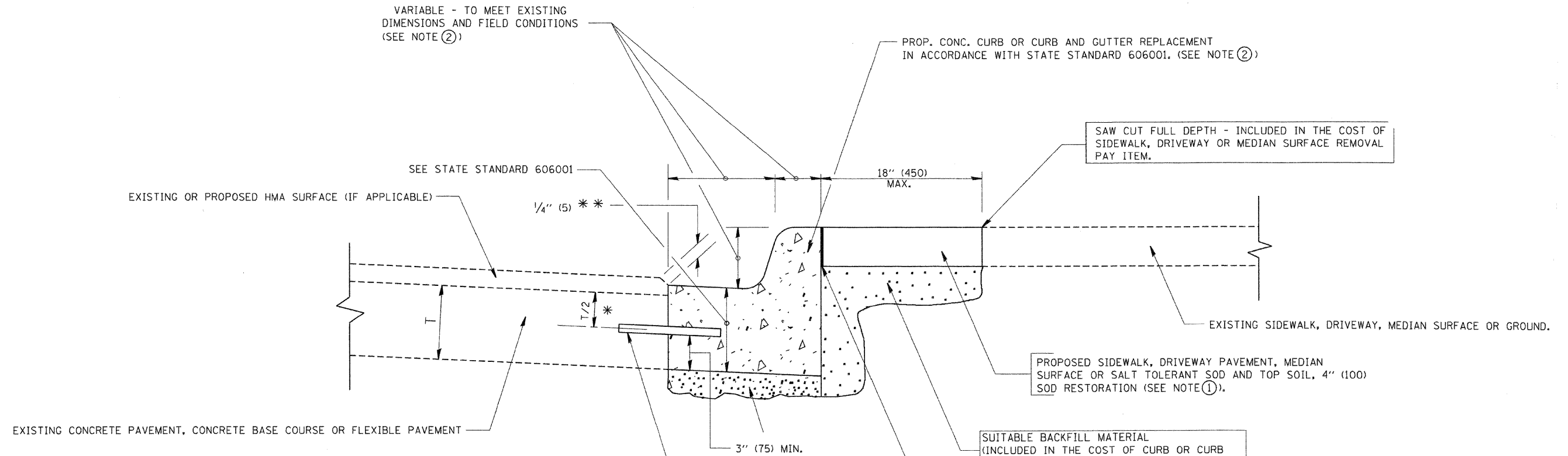
DESIGNED	-	MJY	REVISED	-	
DRAWN	-	ST, TSC	REVISED	-	
CHECKED	-	MJY, SLV	REVISED	-	
DATE	-	06/25/2010	REVISED	-	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAIL SHEETS
IL ROUTE 173 OVER DES PLAINES RIVER**

SCALE: NONE	SHEET NO. 1 OF 8 SHEETS	STA. 98+00 TO STA. 101+80
-------------	-------------------------	---------------------------

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	36
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

REVISED	-	R. SHAH	10-03-96
REVISED	-	A. ABBAS	03-21-97
REVISED	-	M. GOMEZ	01-22-01
REVISED	-	R. BORO	01-01-07

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

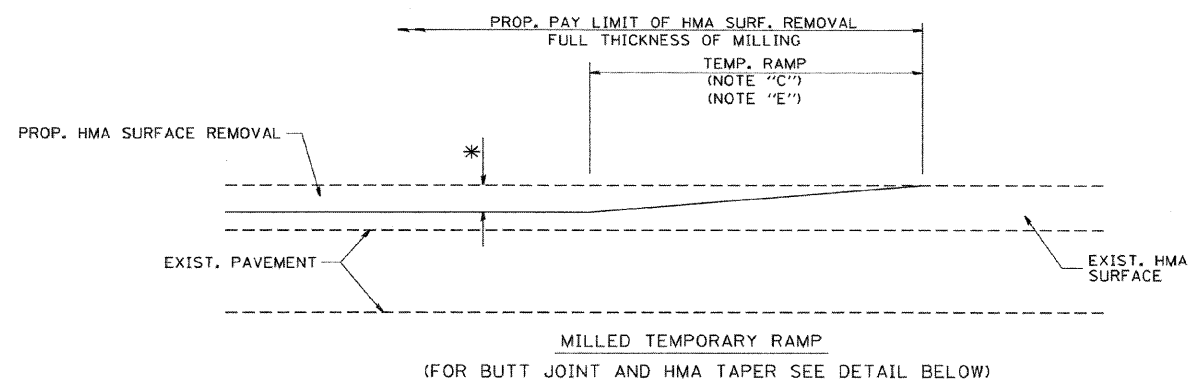
DESIGNED	-	MJY	REVISED	-	
DRAWN	-	ST, TSC	REVISED	-	
CHECKED	-	MJY, SLV	REVISED	-	
DATE	-	06/25/2010	REVISED	-	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

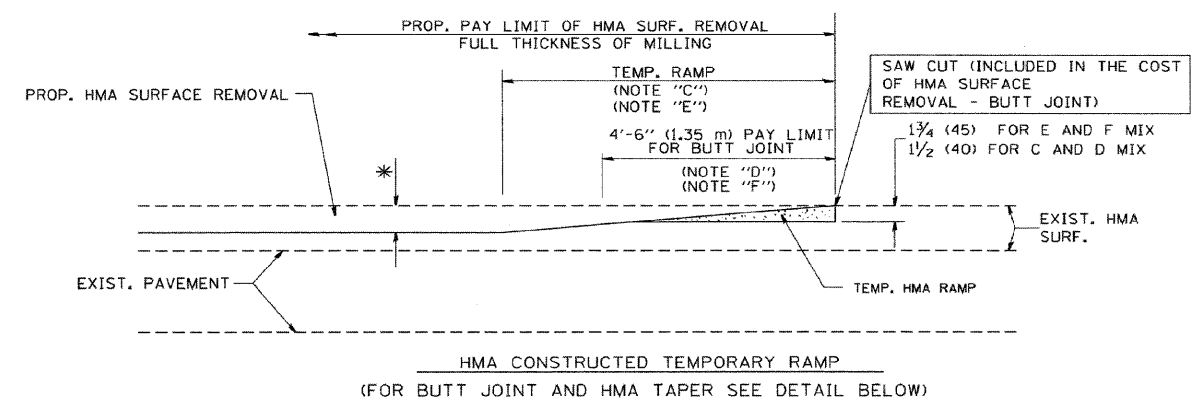
**DISTRICT ONE DETAIL SHEETS
IL ROUTE 173 OVER DES PLAINES RIVER**

SCALE: NONE SHEET NO. 2 OF 8 SHEETS STA. 98+00 TO STA. 101+80

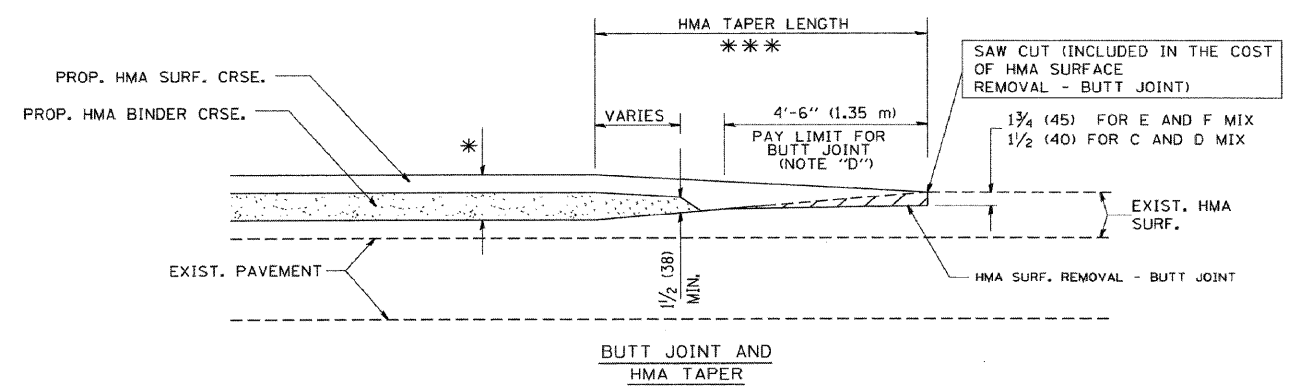
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	37
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



OPTION 1

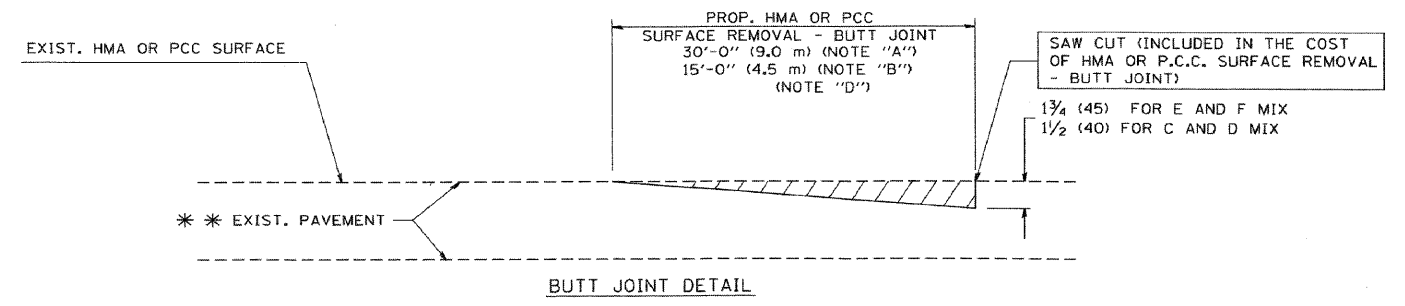


**OPTION 2
TYPICAL TEMPORARY RAMP**

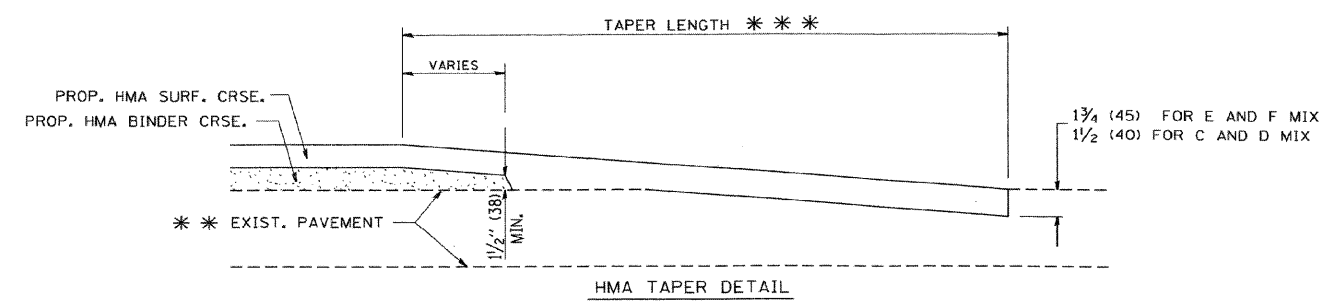


**TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING**

REVISED	-	R. SHAH	10-25-94
REVISED	-	A. ABBAS	03-21-97
REVISED	-	M. GOMEZ	04-06-01
REVISED	-	R. BORO	01-01-07



BUTT JOINT DETAIL



HMA TAPER DETAIL

**TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY**

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

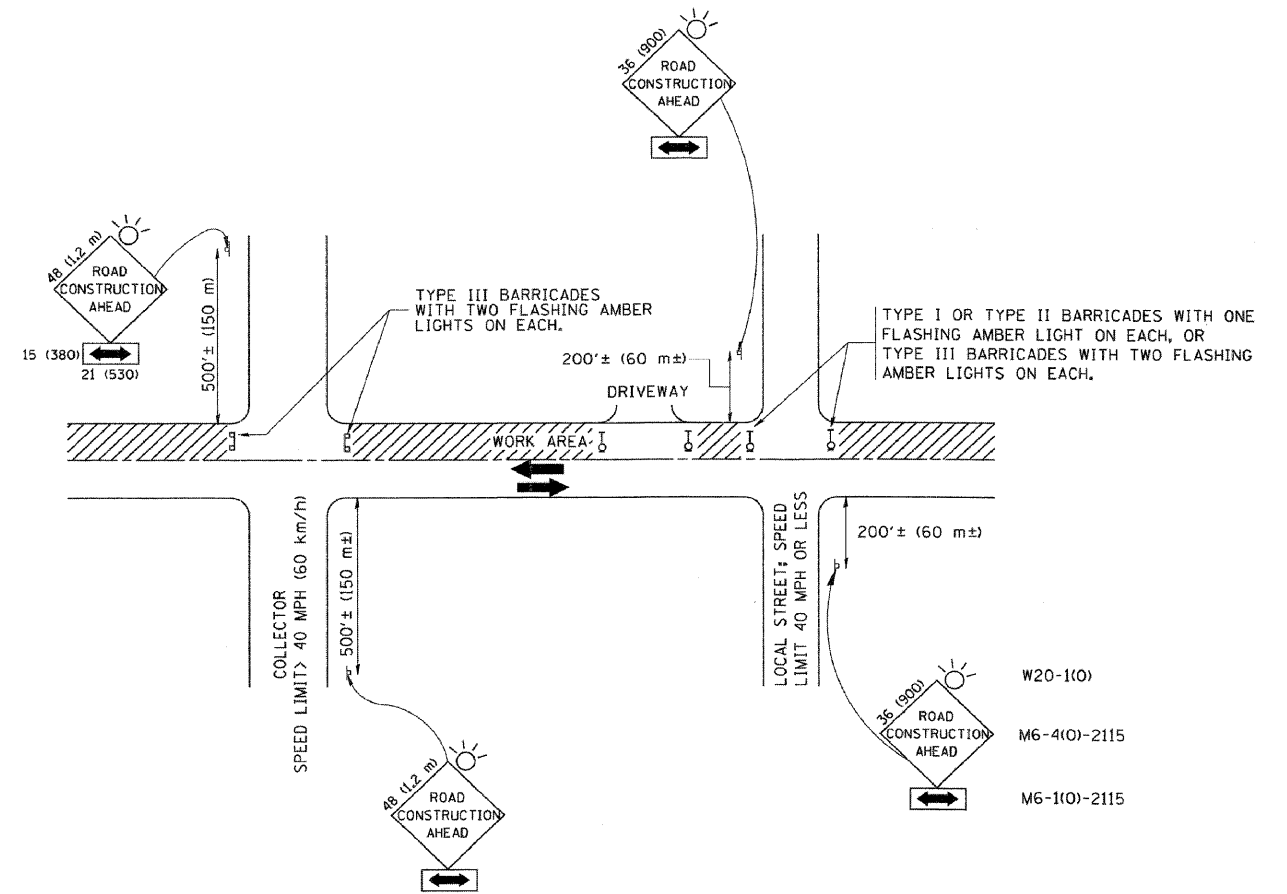
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- * * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

BUTT JOINT AND HMA TAPER DETAILS



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

REVISED	- J. OBERLE	10-18-95
REVISED	- A. HOUSEH	03-06-96
REVISED	- A. HOUSEH	10-15-96
REVISED	- T. RAMMACHER	01-06-00

All dimensions are in millimeters (Inches) unless otherwise shown.

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

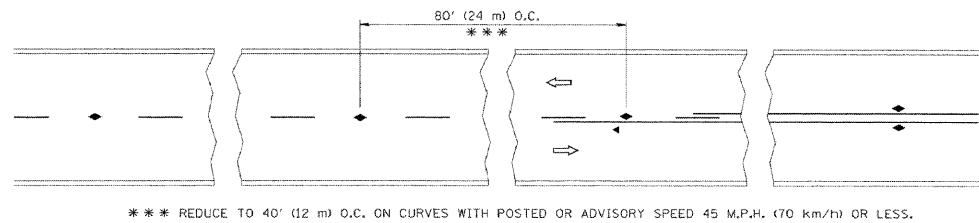
LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 Ph: (630) 577-9100

DESIGNED	- MJY	REVISED	-
DRAWN	- ST, TSC	REVISED	-
CHECKED	- MJY, SLV	REVISED	-
DATE	- 06/25/2010	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

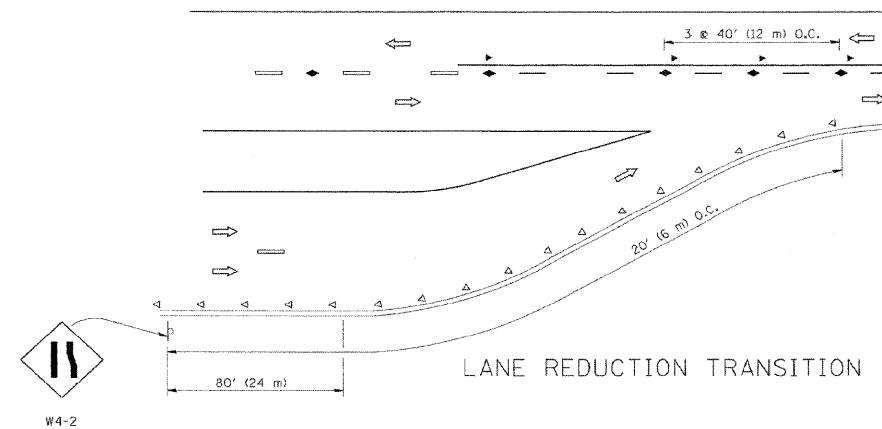
DISTRICT ONE DETAIL SHEETS
IL ROUTE 173 OVER DES PLAINES RIVER
SCALE: NONE SHEET NO. 4 OF 8 SHEETS STA. 98+00 TO STA. 101+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	39
D-91-290-09		CONTRACT NO. 60F93		
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

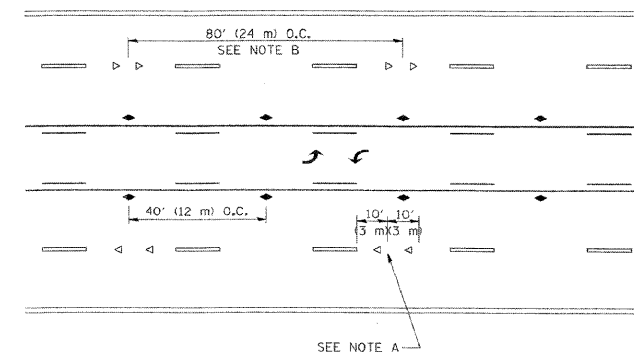


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

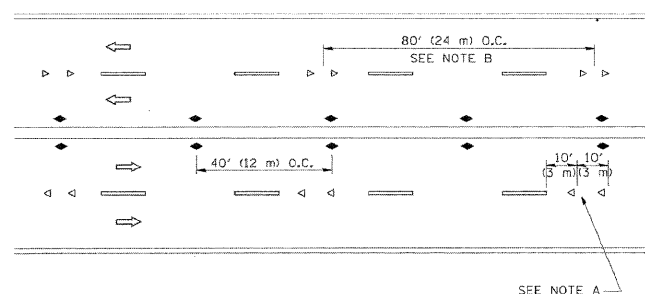
TWO-LANE/TWO-WAY



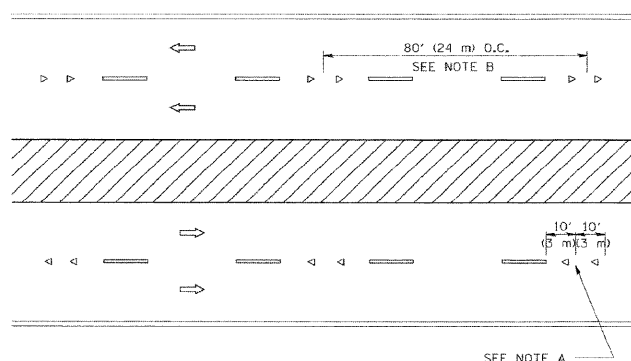
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

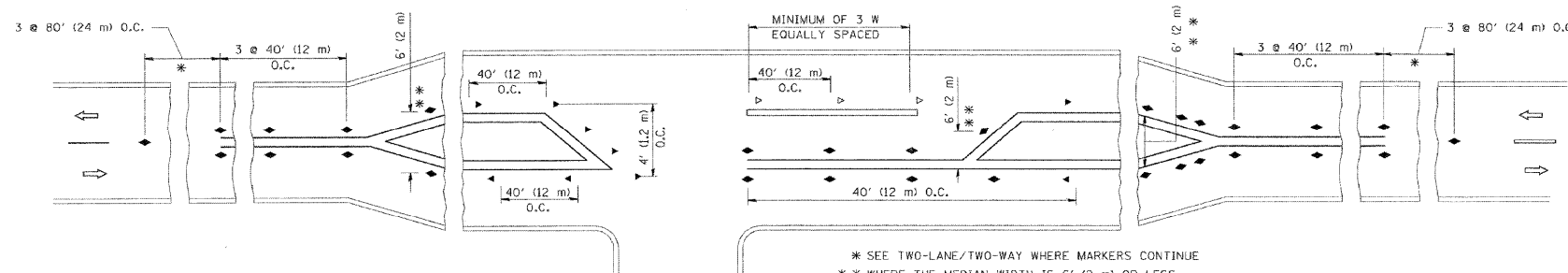
LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

REVISED	- T. RAMMACHER	09-19-94
REVISED	- T. RAMMACHER	03-12-99
REVISED	- T. RAMMACHER	01-06-00
REVISED	- C. JUCIUS	09-09-09

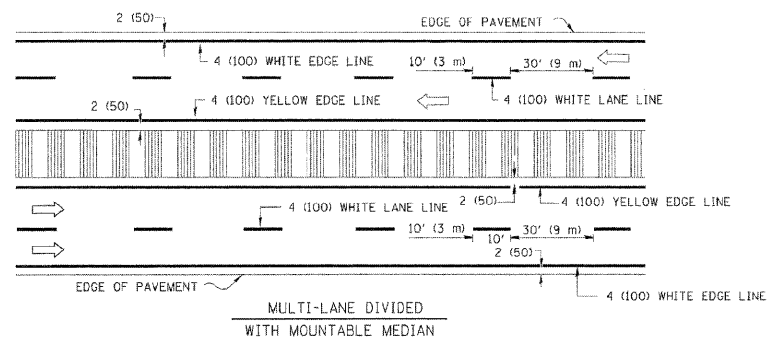
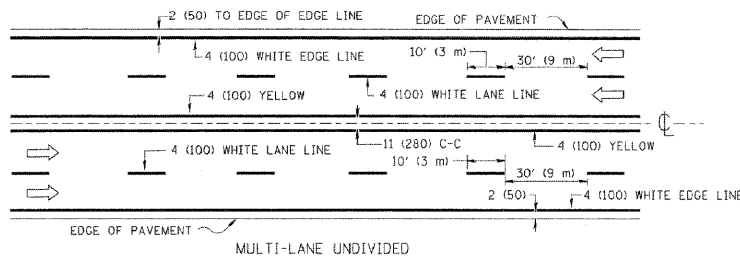
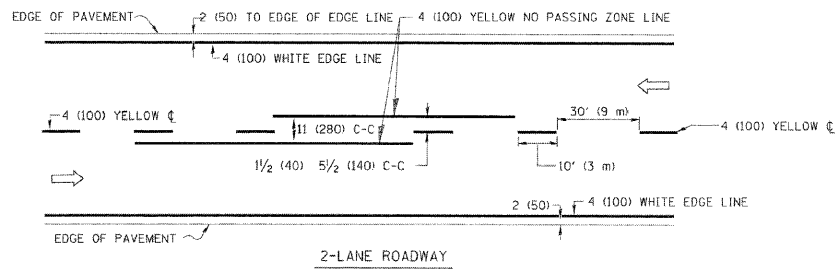


LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

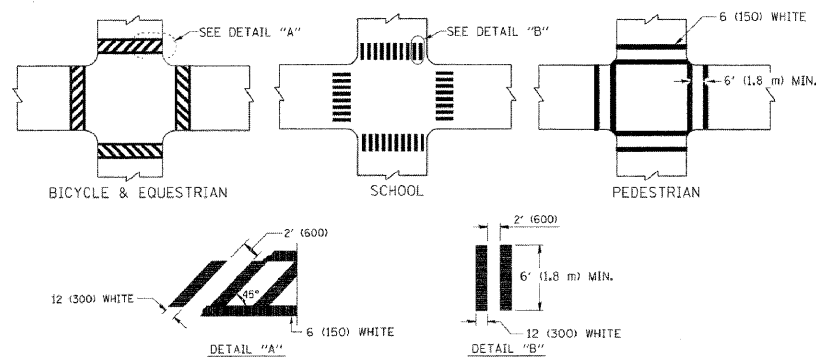
All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

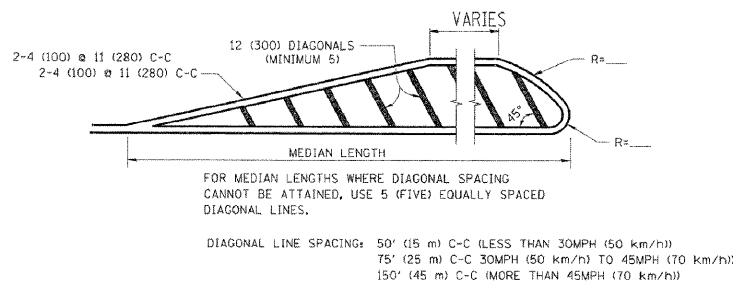
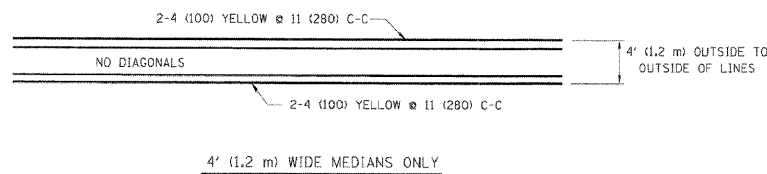


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE.

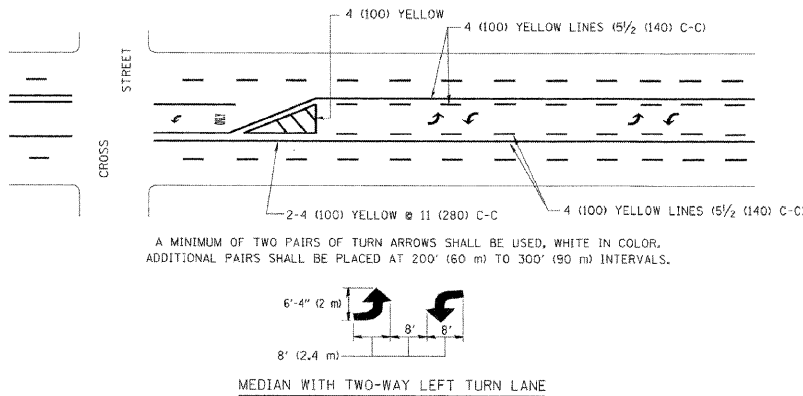
TYPICAL LANE AND EDGE LINE MARKING



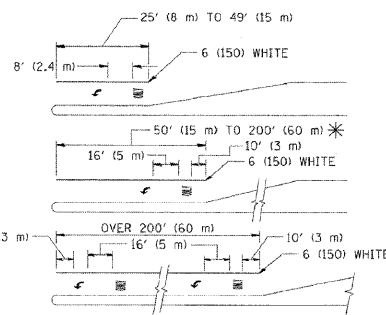
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE



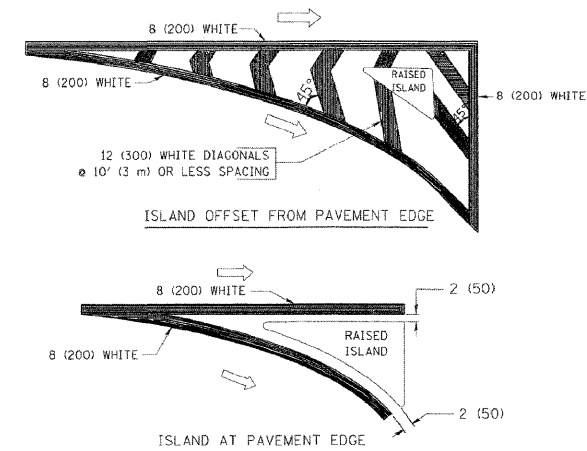
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

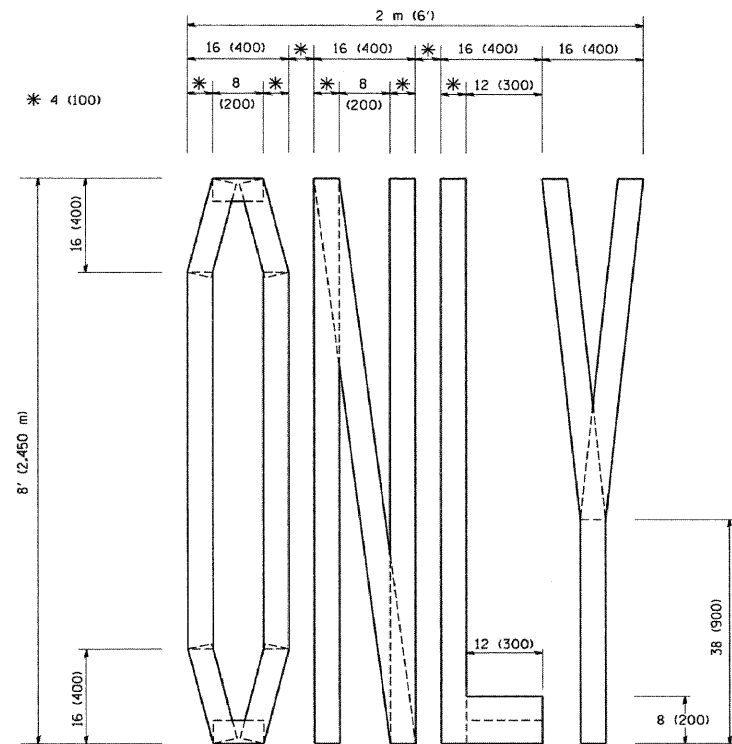
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2' (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125)	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS 16' (4.9 m)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2' (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

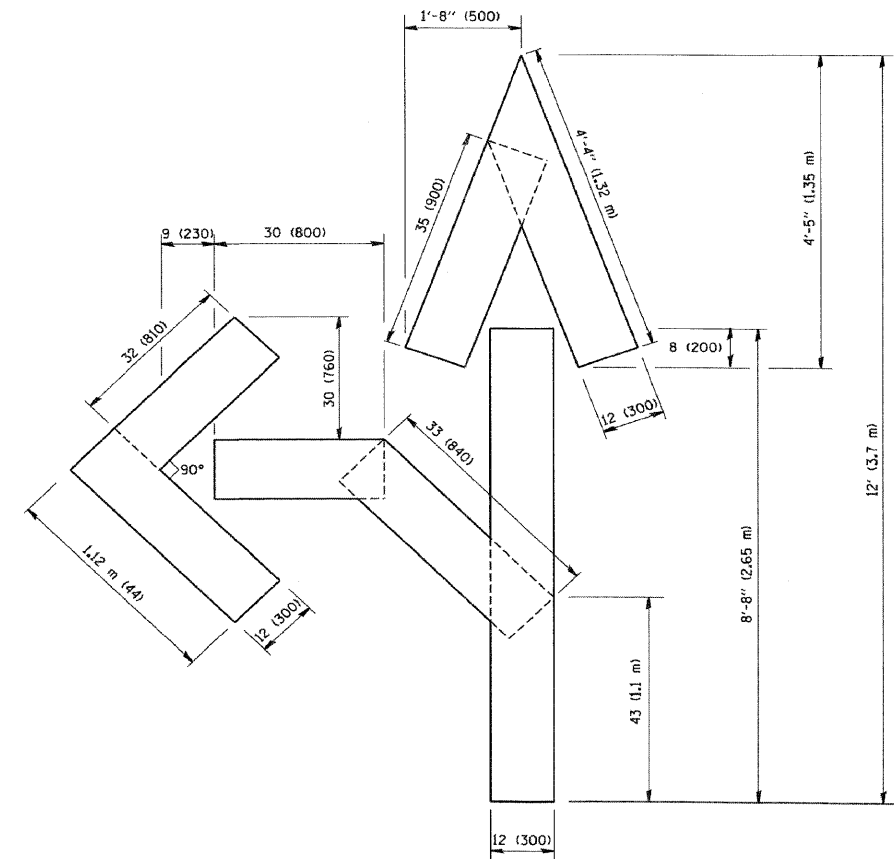
All dimensions are in inches (millimeters) unless otherwise shown.

REVISED	-T. RAMMACHER	10-27-94
REVISED	-C. JUCIUS	09-09-09
REVISED	-	
REVISED	-	

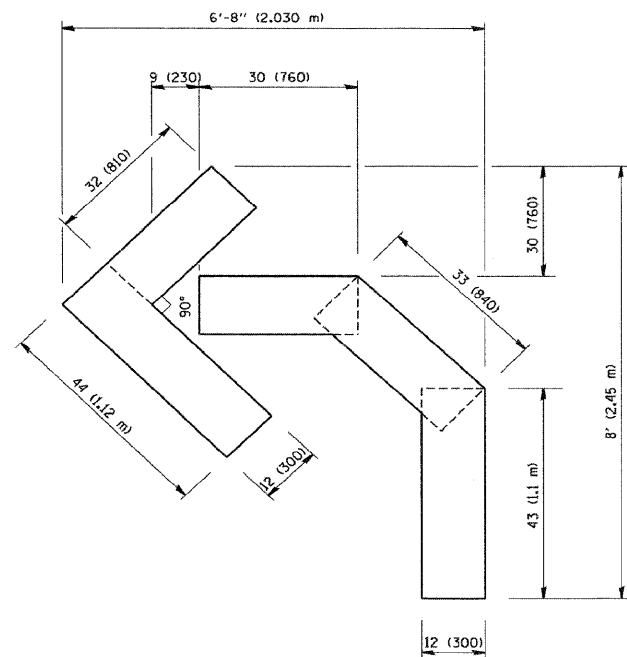
DISTRICT ONE TYPICAL PAVEMENT MARKINGS



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

REVISED	- T. RAMMACHER 06-05-96
REVISED	- T. RAMMACHER 11-04-97
REVISED	- T. RAMMACHER 03-02-98
REVISED	- E. GOMEZ 08-28-00

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

LONCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST., SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY
 DRAWN - ST, TSC
 CHECKED - MJY, SLV
 DATE - 06/25/2010

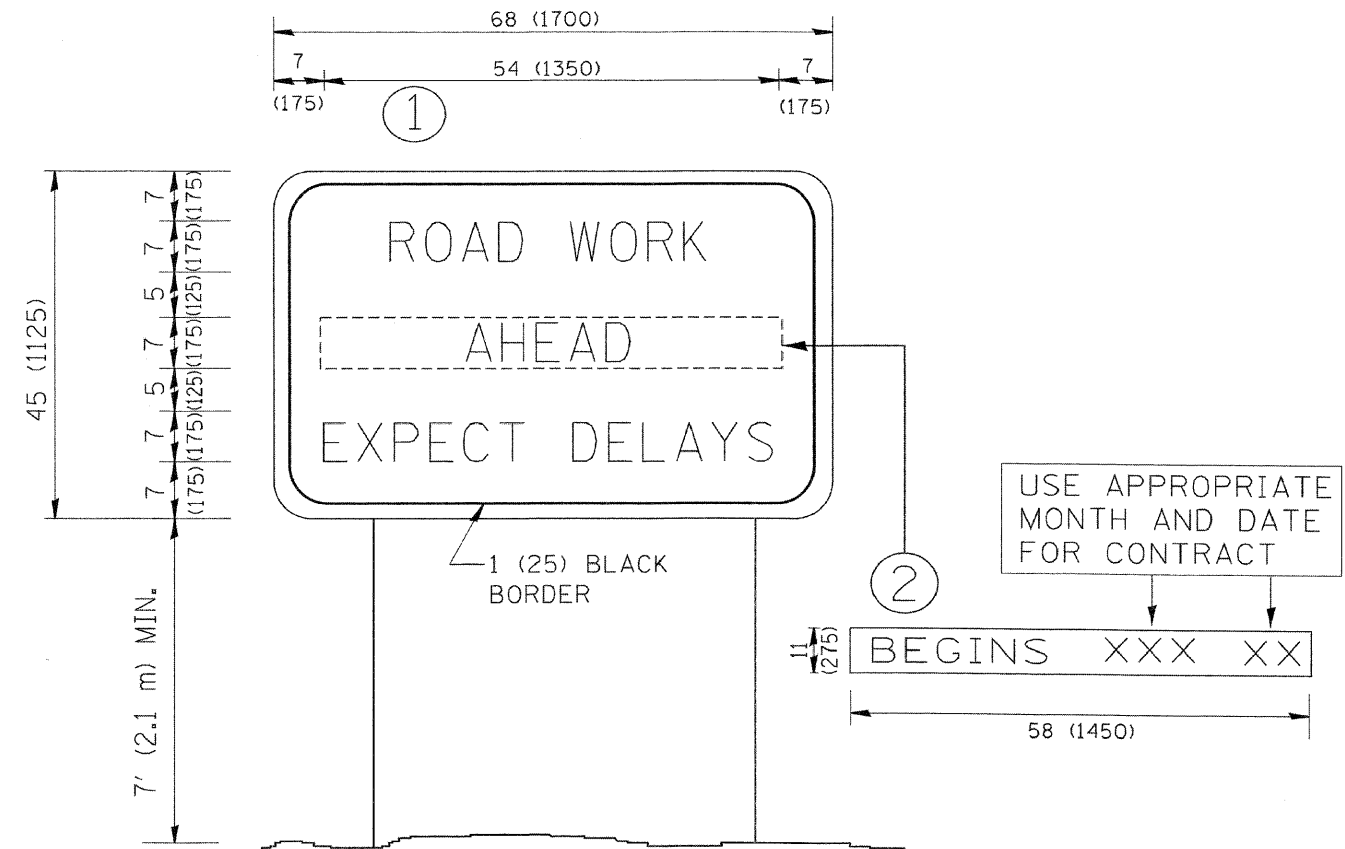
REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
 IL ROUTE 173 OVER DES PLAINES RIVER

SCALE: NONE SHEET NO. 7 OF 8 SHEETS STA. 98+00 TO STA. 101+80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	42
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

REVISED	-	R. MIRS 09-15-97
REVISED	-	R. MIRS 12-11-97
REVISED	-	T. RAMMACHER 02-02-99
REVISED	-	C. JUCIUS 01-31-07

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

ARTERIAL ROAD INFORMATION SIGN

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH (630) 577-9100

DESIGNED	-	MJY
DRAWN	-	ST, TSC
CHECKED	-	MJY, SLV
DATE	-	06/25/2010

REVISED	-	
REVISED	-	
REVISED	-	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAIL SHEETS
IL ROUTE 173 OVER DES PLAINES RIVER**

SCALE: NONE SHEET NO. 8 OF 8 SHEETS STA. 98+00 TO STA. 101+80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	136 B-1	LAKE	43	43
D-91-290-09			CONTRACT NO. 60F93	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		