

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	60F92	

D-91-289-09

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

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

F.A.P. ROUTE 338 (IL ROUTE 59) HOUGH ROAD  
OVER FLINT CREEK TRIBUTARY (0.1 MI SOUTH OF US ROUTE 14)

SECTION: 108 B-1

LAKE COUNTY

C-91-289-09

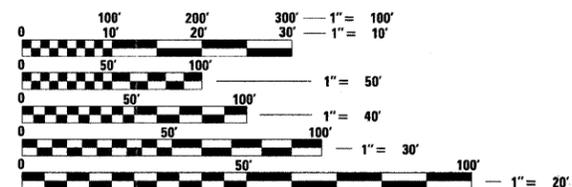
PPC DECK BEAM REPLACEMENT PROJECT

SN 049-0152



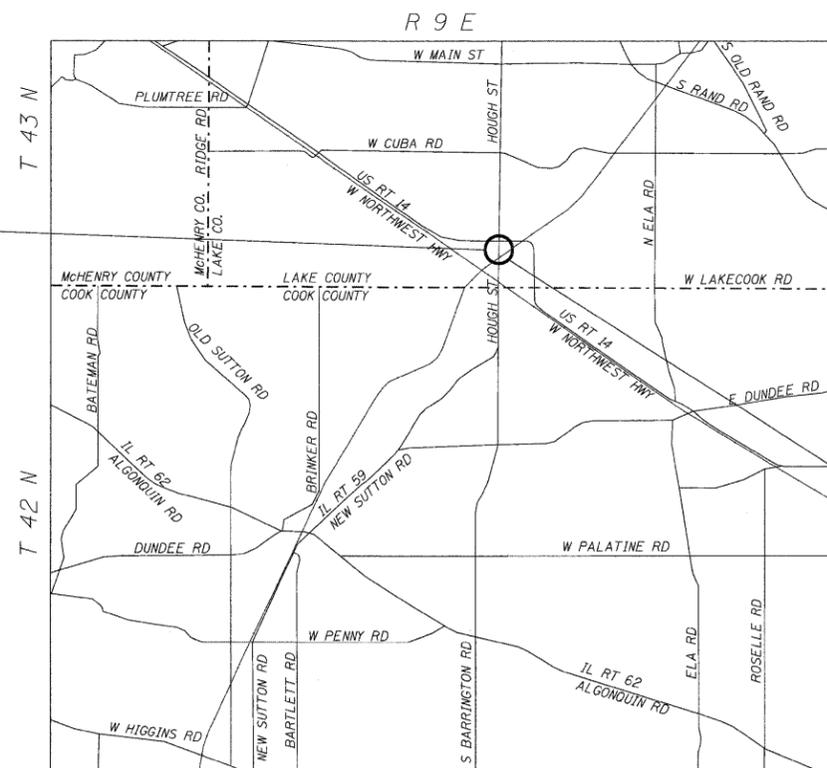
DESIGN DESIGNATION  
OTHER PRINCIPAL ARTERIAL  
  
ADT 17,800 (2007)  
POSTED SPEED LIMIT 30 MPH

PROJECT BEGINS  
STA. 98+00



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

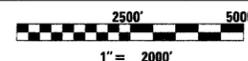


PROJECT ENDS  
STA. 101+60

PROJECT MANAGER: KIM HARVEY (847) 705-4055  
PROJECT ENGINEER: ERSKINE W. KLYCE (847) 705-4594

CONTRACT NO. 60F92

LOCATION MAP



NET AND GROSS LENGTH OF PROJECT = 360' = 0.068 MI

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
  
SUBMITTED March 26, 2010  
Diana M. O'Keefe  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
  
May 7, 2010  
Scott E. Still, PE, Inc.  
ENGINEER OF DESIGN AND ENVIRONMENT  
  
May 7, 2010  
Christine M. Reed, Inc.  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

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



*W.H. Reed*  
Expires 11/20/10  
*S.E. Still*  
Expires 11/30/14

STATE STANDARDS

<u>SHEET NO.</u>	<u>TITLE</u>
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	ELECTRICAL PLAN
13-29	STRUCTURAL PLANS
30	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND CURB OR EDGE GREATER THAN OR EQUAL TO 15'
31	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB IS LESS THAN 15'
32	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
33	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
34	BUTT JOINT AND HMA TAPER DETAILS
35	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
36	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLow RESISTANT)
37	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
38	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
39	ARTERIAL ROAD INFORMATION SIGN
40	SIGNING AND PAVEMENT MARKINGS TREATMENT FOR RAILROAD CROSSINGS
	HIGHWAY STANDARDS

<u>SHEET NO.</u>	<u>TITLE</u>
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
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)

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.

ALL WORK IS TO BE COMPLETED WITHIN 30 WORKING DAYS.

SUMMARY OF QUANTITIES			URBAN 100% STATE		100% STATE		SUMMARY OF QUANTITIES			URBAN 100% STATE		100% STATE					
CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BRIDGE X081-2A	CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BRIDGE X081-2A	CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BRIDGE X081-2A
20101100	TREE TRUNK PROTECTION	EACH	3	3		44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	76	76		44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	76	76	
20200100	EARTH EXCAVATION	CU YD	157	157		44000700	APPROACH SLAB REMOVAL	SQ YD	249		249	44000700	APPROACH SLAB REMOVAL	SQ YD	249		249
21101815	COMPOST FURNISH AND PLACE, 4"	SQ YD	232	232		44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	553	553		44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	553	553	
25000310	SEEDING, CLASS 4	ACRE	0.1	0.1		44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	220	220		44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	220	220	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	9	9		44004600	SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	3624	3624		44004600	SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	3624	3624	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	9	9		44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	73	73		44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	73	73	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	9	9		44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	88	88		44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	88	88	
25100630	EROSION CONTROL BLANKET	SQ YD	232	232		44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	59	59		44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	59	59	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	10	10		50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1	50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
28000305	TEMPORARY DITCH CHECKS	FOOT	60	60		50102400	CONCRETE REMOVAL	CU YD	12.0		12.0	50102400	CONCRETE REMOVAL	CU YD	12.0		12.0
28000400	PERIMETER EROSION BARRIER	FOOT	544	544		50300225	CONCRETE STRUCTURES	CU YD	37.4		37.4	50300225	CONCRETE STRUCTURES	CU YD	37.4		37.4
28000510	INLET FILTERS	EACH	6	6		50300255	CONCRETE SUPERSTRUCTURE	CU YD	188.3		188.3	50300255	CONCRETE SUPERSTRUCTURE	CU YD	188.3		188.3
35501300	HOT-MIX ASPHALT BASE COURSE, 4"	SQ YD	76	76		50300260	BRIDGE DECK GROOVING	SQ YD	184		184	50300260	BRIDGE DECK GROOVING	SQ YD	184		184
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	1	1		50300300	PROTECTIVE COAT	SQ YD	688		688	50300300	PROTECTIVE COAT	SQ YD	688		688
40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQ YD	52	52		50400205	PRECAST PRESTRESSED CONCRETE DECK BEAMS (11" DEPTH)	SQ FT	1650		1650	50400205	PRECAST PRESTRESSED CONCRETE DECK BEAMS (11" DEPTH)	SQ FT	1650		1650
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	37	37		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	50390		50390	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	50390		50390
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	183	183		50800515	BAR SPLICERS	EACH	247		247	50800515	BAR SPLICERS	EACH	247		247
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	9	9		50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	97		97	50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	97		97
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	122	122		51500100	NAME PLATES	EACH	1		1	51500100	NAME PLATES	EACH	1		1
42001430	BRIDGE APPROACH CONNECTOR (FLEXIBLE)	SQ YD	86	86		59000200	EPOXY CRACK INJECTION	FOOT	6		6	59000200	EPOXY CRACK INJECTION	FOOT	6		6
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	56	56		60257900	MANHOLES TO BE RECONSTRUCTED	EACH	4	2	2	60257900	MANHOLES TO BE RECONSTRUCTED	EACH	4	2	2
44000100	PAVEMENT REMOVAL	SQ YD	183	183													
44000161	HOT-MIX ASPHALT SURFACE REMOVAL, 3"	SQ YD	1116	1116													

\* SPECIALTY ITEMS

**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 - 03/26/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. 98+00 TO STA. 101+60

F.A.P. RTE. 338	SECTION 108 B-1	COUNTY LAKE	TOTAL SHEETS 40	SHEET NO. 3
D-91-289-09		CONTRACT NO. 60F92		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Rev.

SUMMARY OF QUANTITIES			100% STATE			SUMMARY OF QUANTITIES			100% STATE		
CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BRIDGE X081-2A	CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BRIDGE X081-2A
60262700	INLETS TO BE RECONSTRUCTED	EACH	2	1	1	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	46	38	8
60300105	FRAME AND GRATES TO BE ADJUSTED	EACH	4		4	* 81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	45	45	
60300305	FRAME AND LIDS TO BE ADJUSTED	EACH	2	2		* 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		* 81400115	HANDHOLE TO BE ADJUSTED	EACH	1	1	
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	78	78	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12		* X0323710	REMOVE CONDUIT ATTACHED TO STRUCTURE	FOOT	45	45	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	364	364		* X0324223	MAINTAIN EXISTING LIGHTING SYSTEM	L SUM	1	1	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	220	220		X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS 5 INCHES)	SQ FT	8		8
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	131	131		X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	5626	5626	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2551	2551		X0325837	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 6 INCH	FOOT	220	220	
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	436	436		X0325841	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 24 INCH	FOOT	81	81	
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	52	52		X0325842	WET REFLECTIVE TEMPORARY TAPE, TYPE III, LETTERS AND SYMBOLS	SQ FT	115	115	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	33	33		X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	184		184
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	507	507		X7240500	RELOCATE EXISTING SIGNS	EACH	1	1	
* 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	46	46		X2800510	INLET FILTER CLEANING	EACH	6	6	
* 78005150	EPOXY PAVEMENT MARKING - LINE 12"	FOOT	13	13		Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	38	38		Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	8		8	Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2	
* 78200500	BARRIER WALL MARKERS	EACH	16	16		X0320863	BRICK SIDEWALK	SQ FT	753	753	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	561	561		X0320864	BRICK SIDEWALK REMOVAL	SQ FT	753	753	

\* SPECIALTY ITEMS

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

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 03/26/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

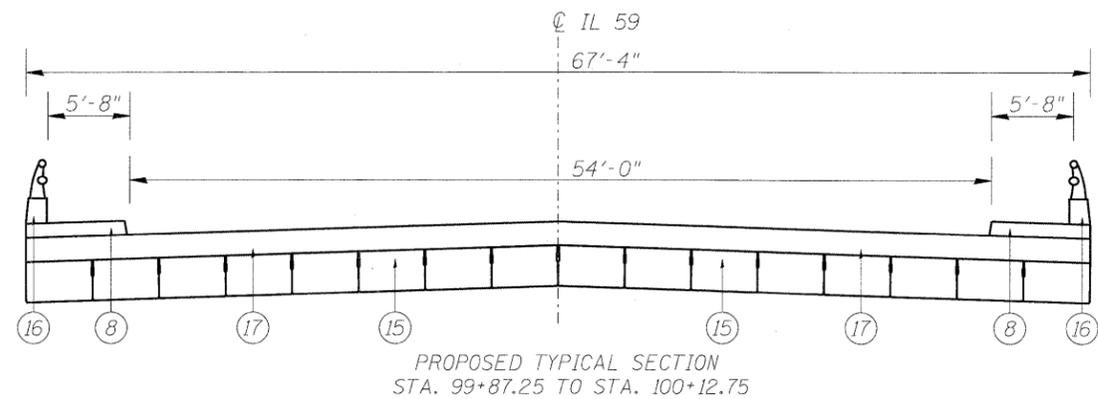
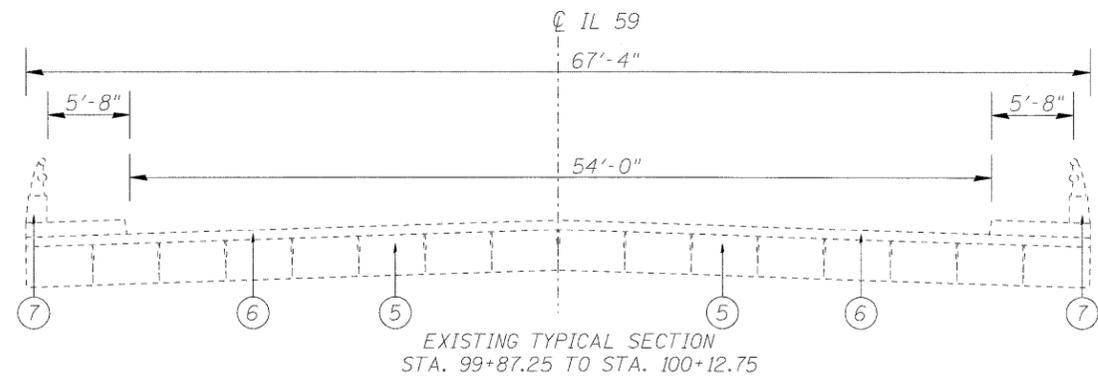
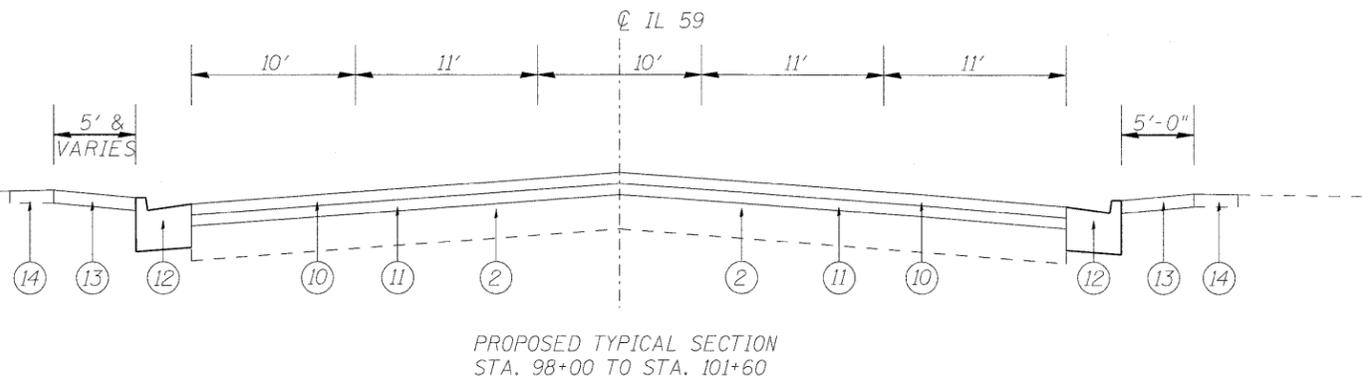
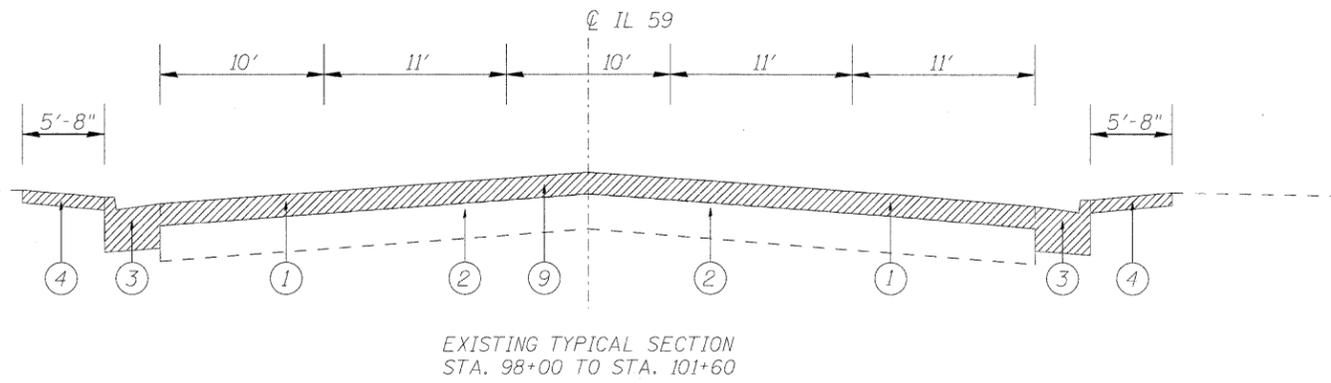
SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. 98+00 TO STA. 101+60

F.A.P. RTE. 338	SECTION 108 B-1	COUNTY LAKE	TOTAL SHEETS 40	SHEET NO. 4
D-91-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

Rev.

**LEGEND**

- ① EXISTING HMA OVERLAY
- ② EXISTING PCC BASE COURSE, 10"
- ③ EXISTING CONCRETE CURB AND GUTTER, B-6.12 TO BE REMOVED (STA. 98+00 TO STA. 101+60)
- ④ EXISTING PCC SIDEWALK, 5" TO BE REMOVED (STA. 98+00 TO STA. 101+60)
- ⑤ EXISTING PPC DECK BEAMS
- ⑥ EXISTING HMA WEARING SURFACE (2")
- ⑦ EXISTING PARAPET WALLS
- ⑧ PROPOSED PCC SIDEWALK, 5" (PAID AS CONCRETE SUPERSTRUCTURE)
- ⑨ PROPOSED HMA SURFACE REMOVAL, 3"
- ⑩ PROPOSED HMA SURFACE CSE., MIX "D", N70, 1 1/2"
- ⑪ PROPOSED HMA BINDER COURSE, IL-19.0, N70, 2 1/4"
- ⑫ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, B-6.12 REDUCE SPACE REPLACEMENT
- ⑬ PROPOSED PCC SIDEWALK, 5" REPLACEMENT
- ⑭ PROPOSED COMPOST FURNISH AND PLACE, 4", WITH SEEDING, CLASS 4
- ⑮ PROPOSED PPC DECK BEAMS (11" DEPTH)
- ⑯ PROPOSED PARAPET WALL (PAID AS CONCRETE SUPERSTRUCTURE)
- ⑰ PROPOSED CONCRETE WEARING SURFACE, 5"



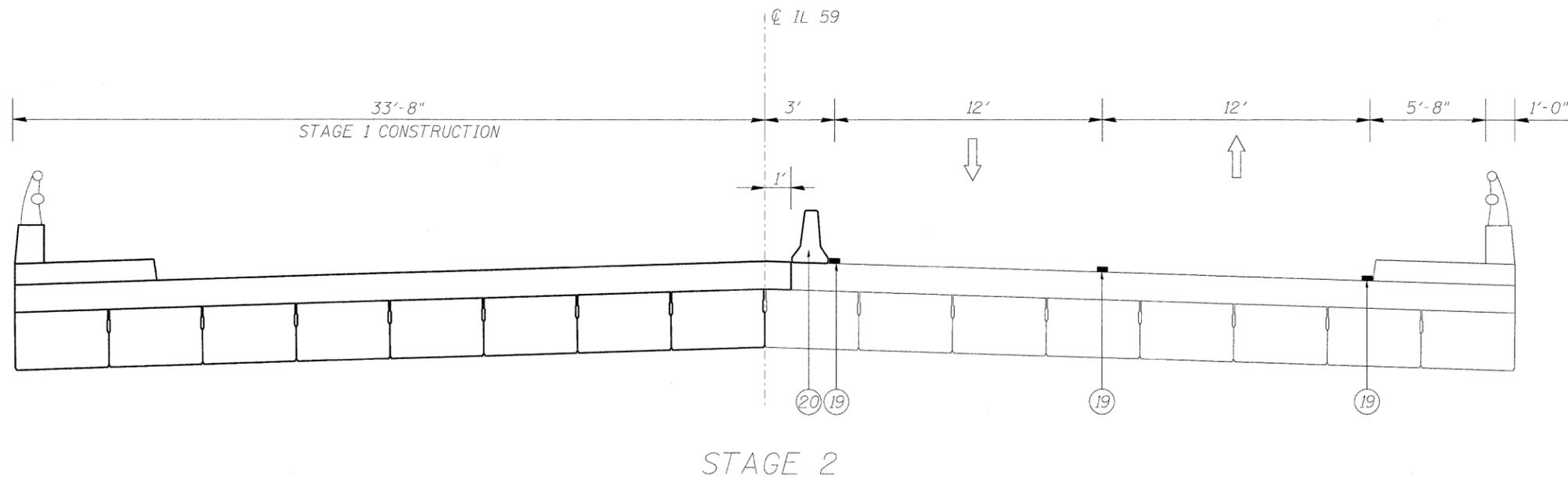
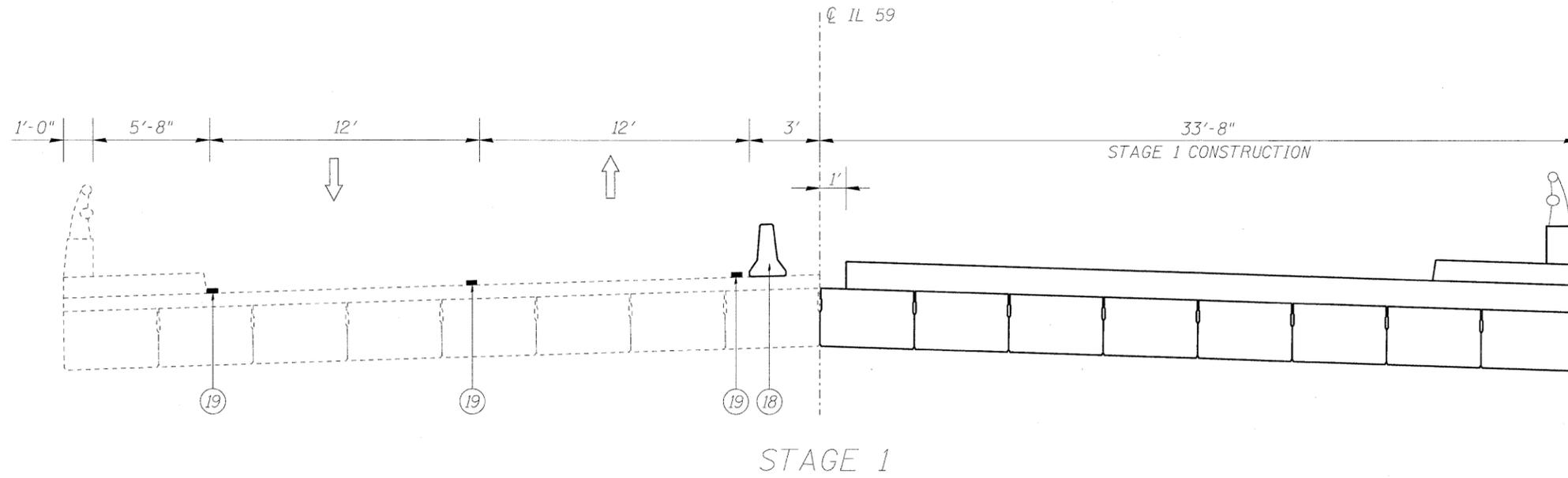
HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
OPERATION	MIXTURE TYPE	DESIGN AIR VOIDS
ROADWAY	HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR
	HMA BINDER COURSE, IL-19.0, N70	4% @ 70 GYR
	CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 GYR
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR
BRIDGE APPROACH PAVEMENT CONNECTOR FLEXIBLE, 15"	HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm), 2"	4% @ 70 GYR
	HMA BINDER COURSE, IL-19.0, N70, 13"	4% @ 70 GYR
DRIVEWAY	HMA SURFACE COURSE, MIX "C", N50 (IL-9.5 mm), 2"	4% @ 50 GYR
	HMA BASE COURSE (HMA BINDER IL-19.0), 4"	4% @ 50 GYR

**NOTES:**

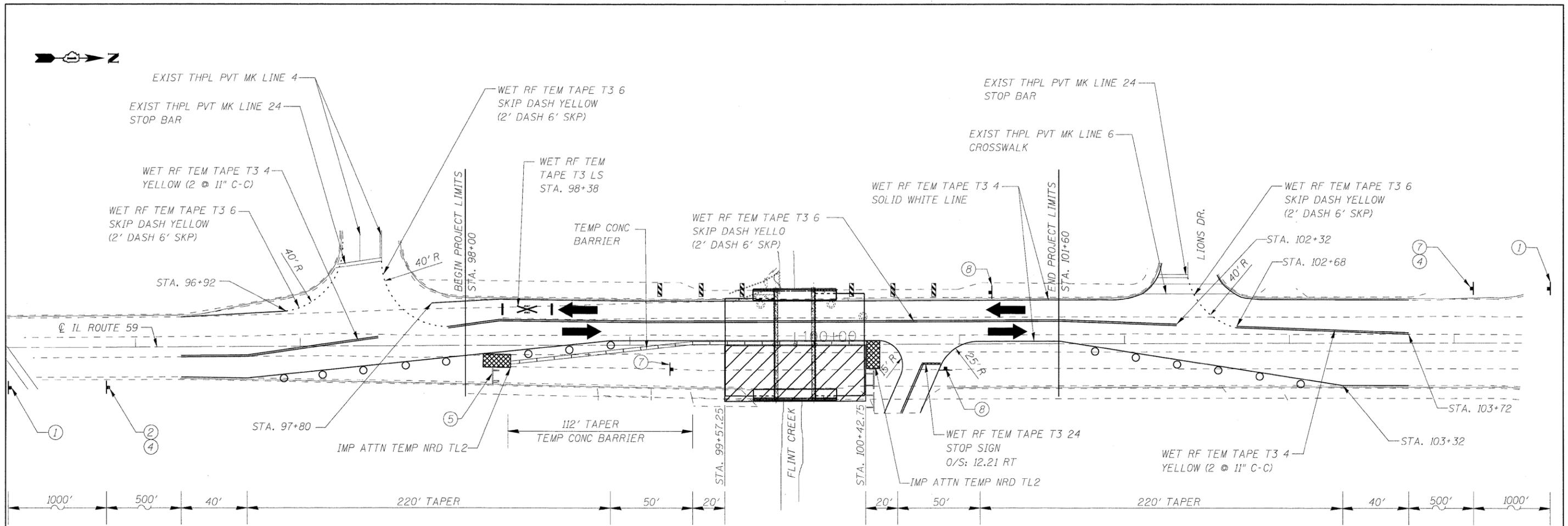
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ-YD/IN.

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.



- ⓑ TEMPORARY CONCRETE BARRIER
- Ⓒ WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4"
- Ⓓ RELOCATE TEMPORARY CONCRETE BARRIER



**LEGEND**

- WORK ZONE
- BARRICADE W/ STEADY BURN LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- SIGN
- IMPACT ATTENUATORS
- CONCRETE BARRIER
- DOUBLE VERTICAL PANEL

**NOTES:**

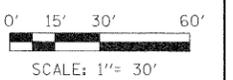
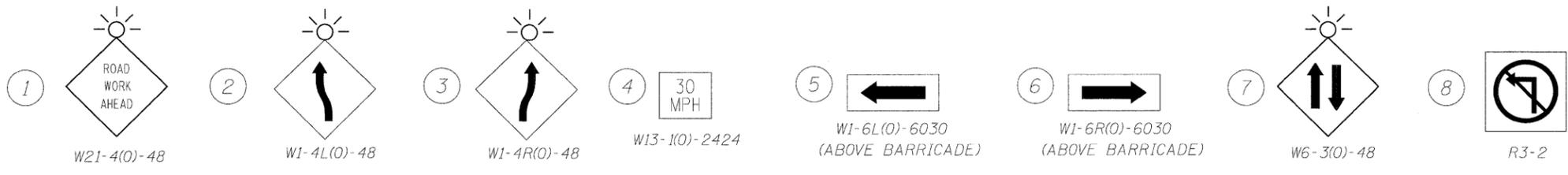
BARRICADE AND PANEL SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

VERTICAL PANELS SHALL BE USED WHEN BARRICADES CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL AND PROTECTION, SPECIAL."

**STAGE 1**

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 1 MAINTENANCE OF TRAFFIC.
2. REMOVE EAST PORTION (8 DECK BEAMS) OF EXISTING SUPERSTRUCTURE, AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW BEAMS, CONCRETE WEARING SURFACE AND PARAPET WALLS.
4. CONSTRUCT NEW CONCRETE APPROACH SLABS AND APPROACH PAVEMENT.
5. CONSTRUCT ROADWAY ON EAST SIDE OF IL ROUTE 59 IN ACCORDANCE WITH SHEET 9.



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

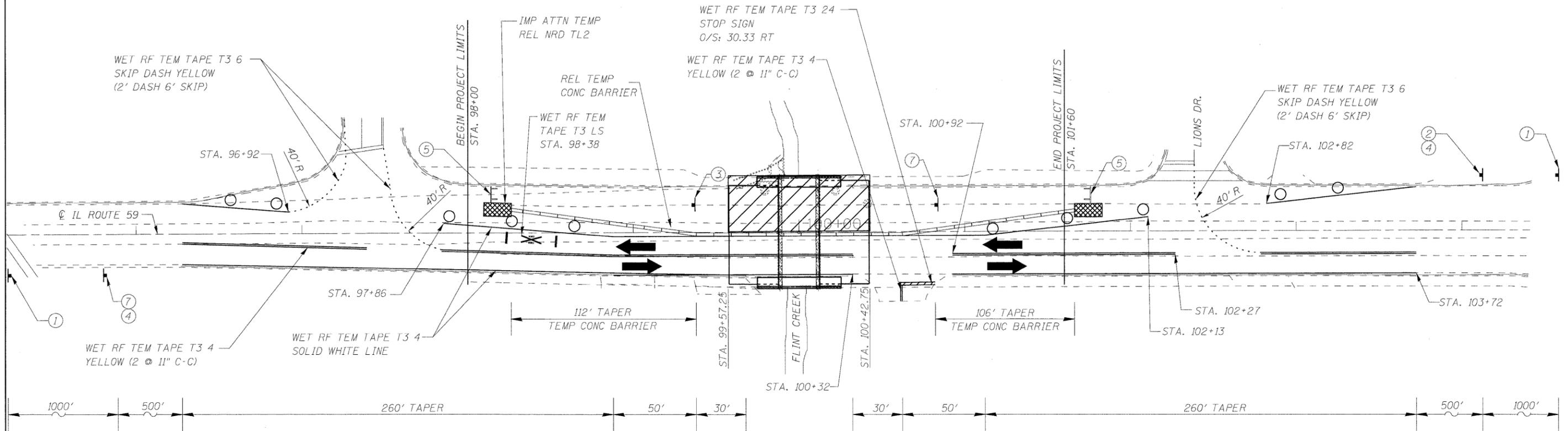
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DATE - 03/26/2010	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 1  
 IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

SCALE: 1" = 30' SHEET NO. 1 OF 2 SHEETS STA. 98+00 TO STA. 101+60

F.A.P. RTE. 338	SECTION 108 B-1	COUNTY LAKE	TOTAL SHEETS 40	SHEET NO. 7
D-91-289-09			CONTRACT NO. 60F92	
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
- DOUBLE VERTICAL PANEL
- ATTENUATOR WATER FILLED

**NOTES:**

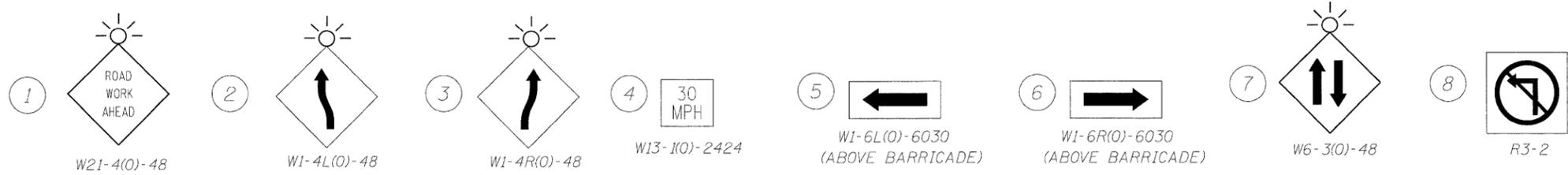
BARRICADE AND PANEL SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

VERTICAL PANELS SHALL BE USED WHEN BARRICADES CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL AND PROTECTION, SPECIAL."

**STAGE 2**

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 2 MAINTENANCE OF TRAFFIC.
2. REMOVE WEST PORTION (8 DECK BEAMS) OF EXISTING SUPERSTRUCTURE, AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW BEAMS, CONCRETE WEARING SURFACE AND PARAPET WALLS.
4. CONSTRUCT NEW CONCRETE APPROACH SLABS AND APPROACH PAVEMENT.
5. CONSTRUCT ROADWAY ON WEST SIDE OF IL ROUTE 59 IN ACCORDANCE WITH SHEET 9.



**LOXCO, 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 - 03/26/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

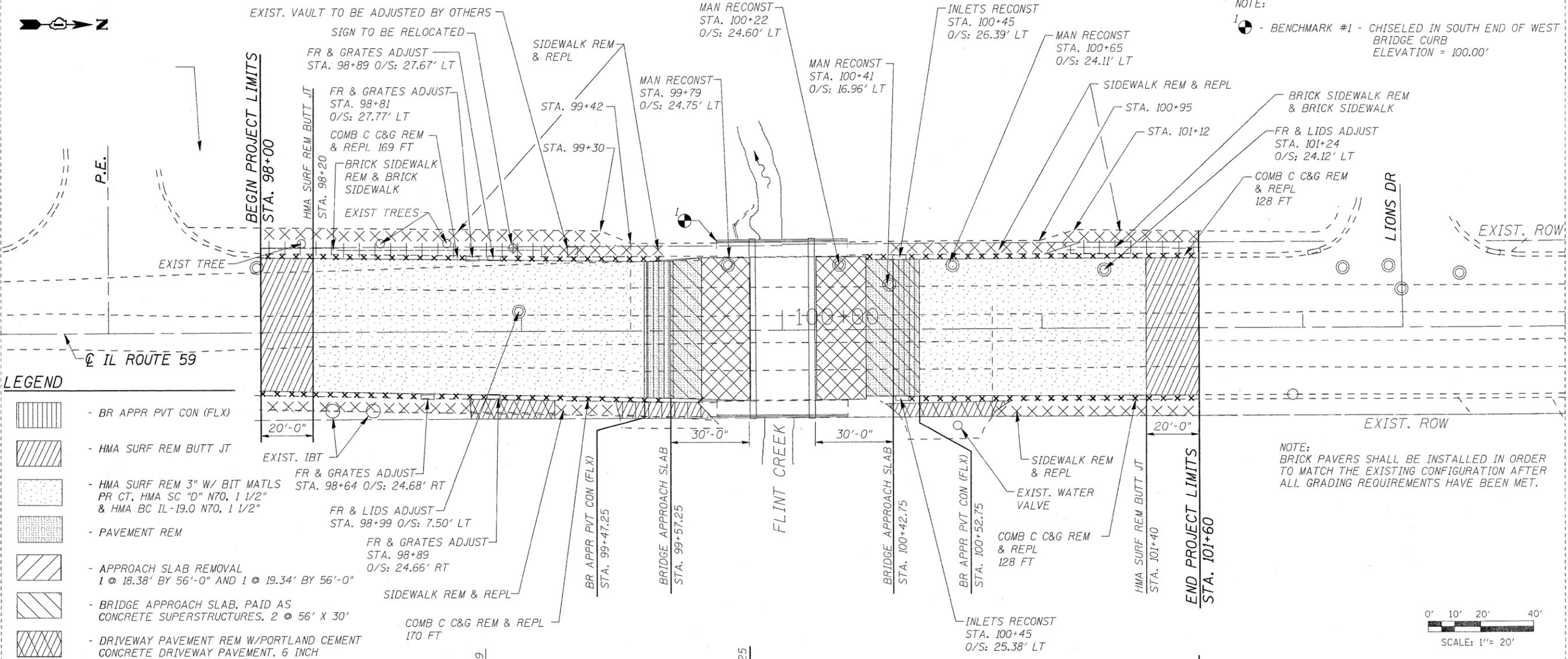
**CONSTRUCTION STAGING PLAN - STAGE 2  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	8
D-91-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALE: 1" = 30' SHEET NO. 2 OF 2 SHEETS STA. 98+00 TO STA. 101+60

PLAN  
 SURVEYED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 ALIGNED AND CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 CAD FILE NAME: \_\_\_\_\_

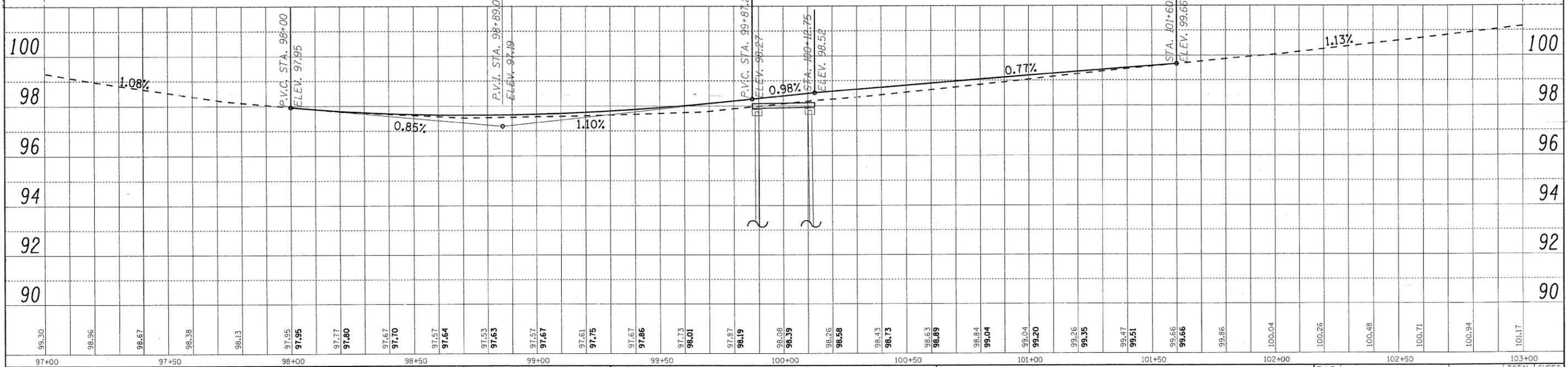
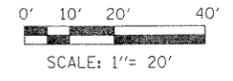
PROF/1  
 SURVEYED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 PROFILE CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 STRUCTURE NOTATIONS CHFD: \_\_\_\_\_



- LEGEND**
- BR APPR PVT CON (FLX)
  - HMA SURF REM BUTT JT
  - HMA SURF REM 3" W/ BIT MATLS PR CT, HMA SC "D" N70, 1 1/2" & HMA BC IL-19.0 N70, 1 1/2"
  - PAVEMENT REM
  - APPROACH SLAB REMOVAL 1 @ 18.38' BY 56'-0" AND 1 @ 19.34' BY 56'-0"
  - BRIDGE APPROACH SLAB, PAID AS CONCRETE SUPERSTRUCTURES, 2 @ 56' X 30'
  - DRIVEWAY PAVEMENT REM W/PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH

NOTE:  
 1 - BENCHMARK #1 - CHISELED IN SOUTH END OF WEST BRIDGE CURB ELEVATION = 100.00'

NOTE:  
 BRICK PAVERS SHALL BE INSTALLED IN ORDER TO MATCH THE EXISTING CONFIGURATION AFTER ALL GRADING REQUIREMENTS HAVE BEEN MET.



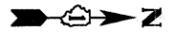
**LONGO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 03/26/2010	REVISED -

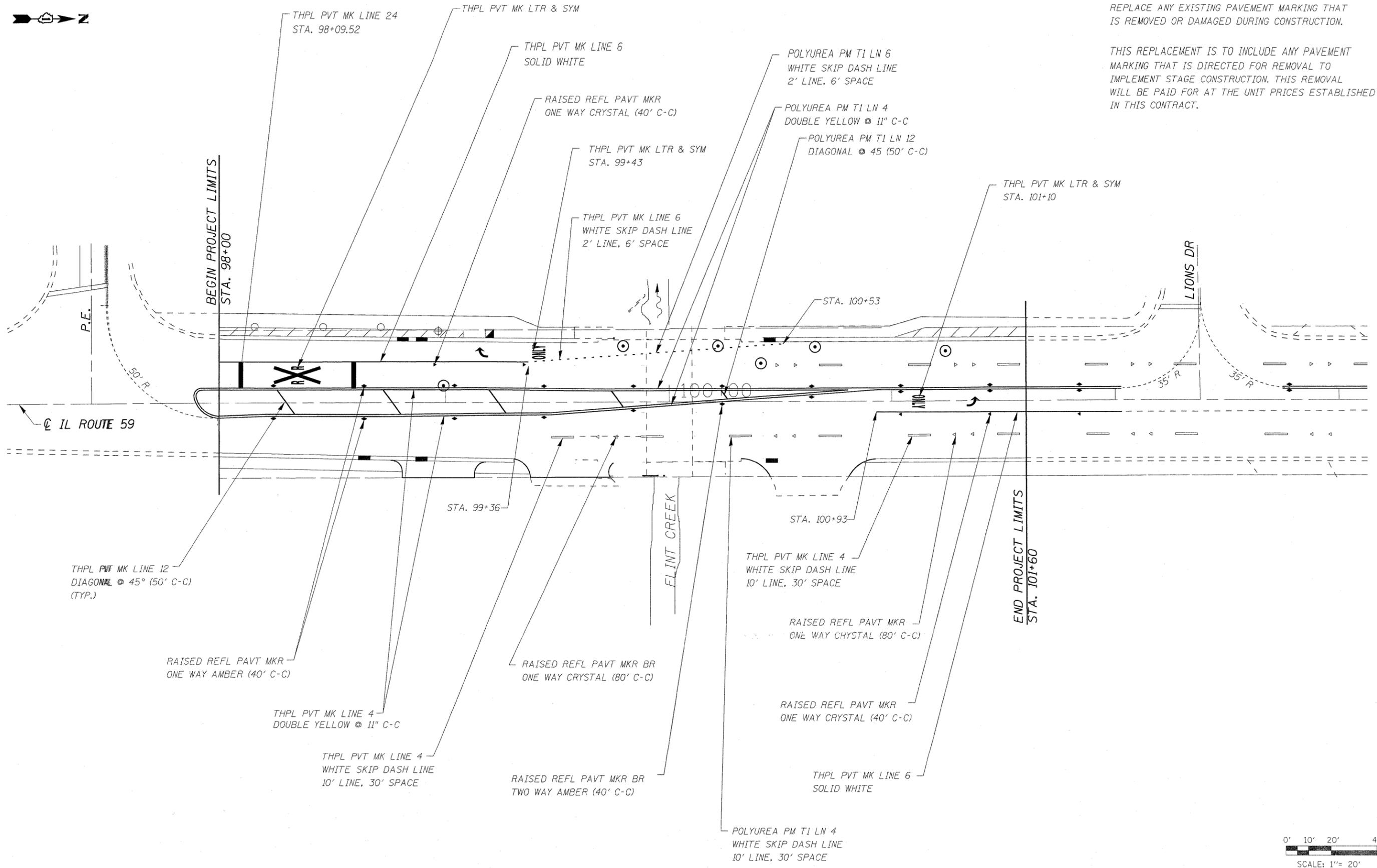
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PLAN AND PROFILE**  
**IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**  
 SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. 98+00 TO STA. 101+60

F.A.P. RTE. 338	SECTION 108 B-1	COUNTY LAKE	TOTAL SHEETS 40	SHEET NO. 9
D-91-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**NOTE:**  
 REPLACE ANY EXISTING PAVEMENT MARKING THAT IS REMOVED OR DAMAGED DURING CONSTRUCTION.  
 THIS REPLACEMENT IS TO INCLUDE ANY PAVEMENT MARKING THAT IS DIRECTED FOR REMOVAL TO IMPLEMENT STAGE CONSTRUCTION. THIS REMOVAL WILL BE PAID FOR AT THE UNIT PRICES ESTABLISHED IN THIS CONTRACT.



**LONCO INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: 630/577-9000

DESIGNED -	MJY	REVISED -	
DRAWN -	ST, TSC	REVISED -	
CHECKED -	MJY, SLV	REVISED -	
DATE -	03/26/2010	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
 IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

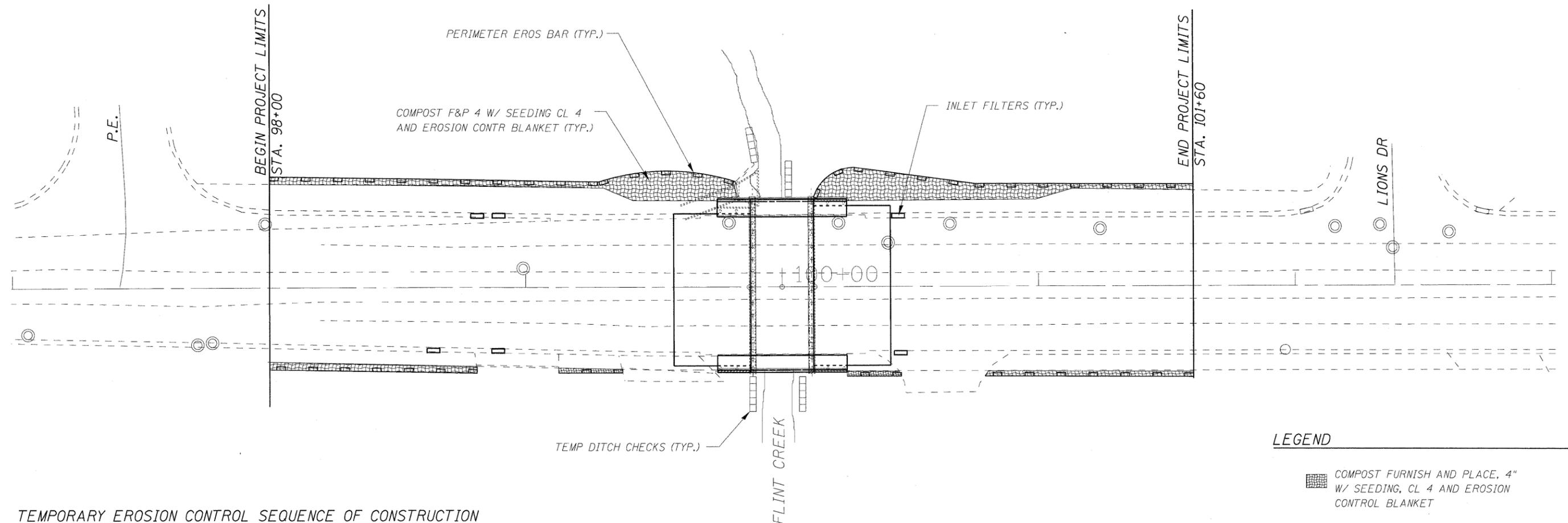
SCALE: 1" = 20'    SHEET NO. 1 OF 1 SHEETS    STA. 98+00 TO STA. 101+60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	10
D-91-289-09		CONTRACT NO. 60F92		
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.

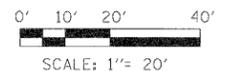


**TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION**

1. ESTABLISH TEMPORARY EROSION CONTROL AND ERECT PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THE THE PLANS PROIR TO EARTHWORK ACTIVITIES.
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 CONTROL 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
- INLET FILTERS



**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 - 03/26/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL PLAN  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

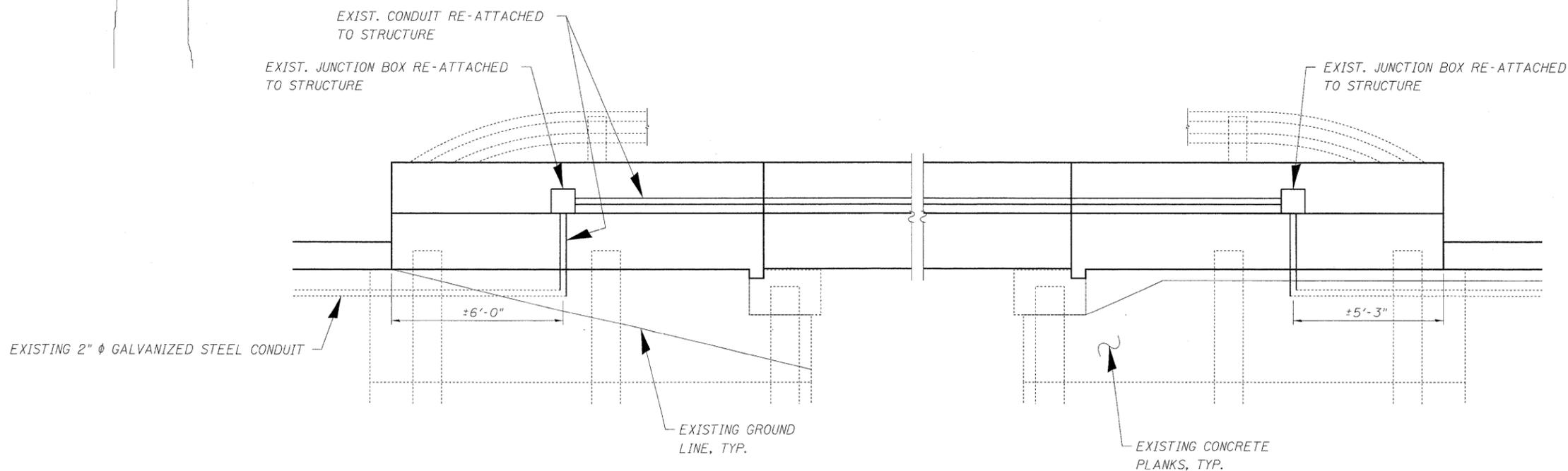
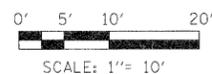
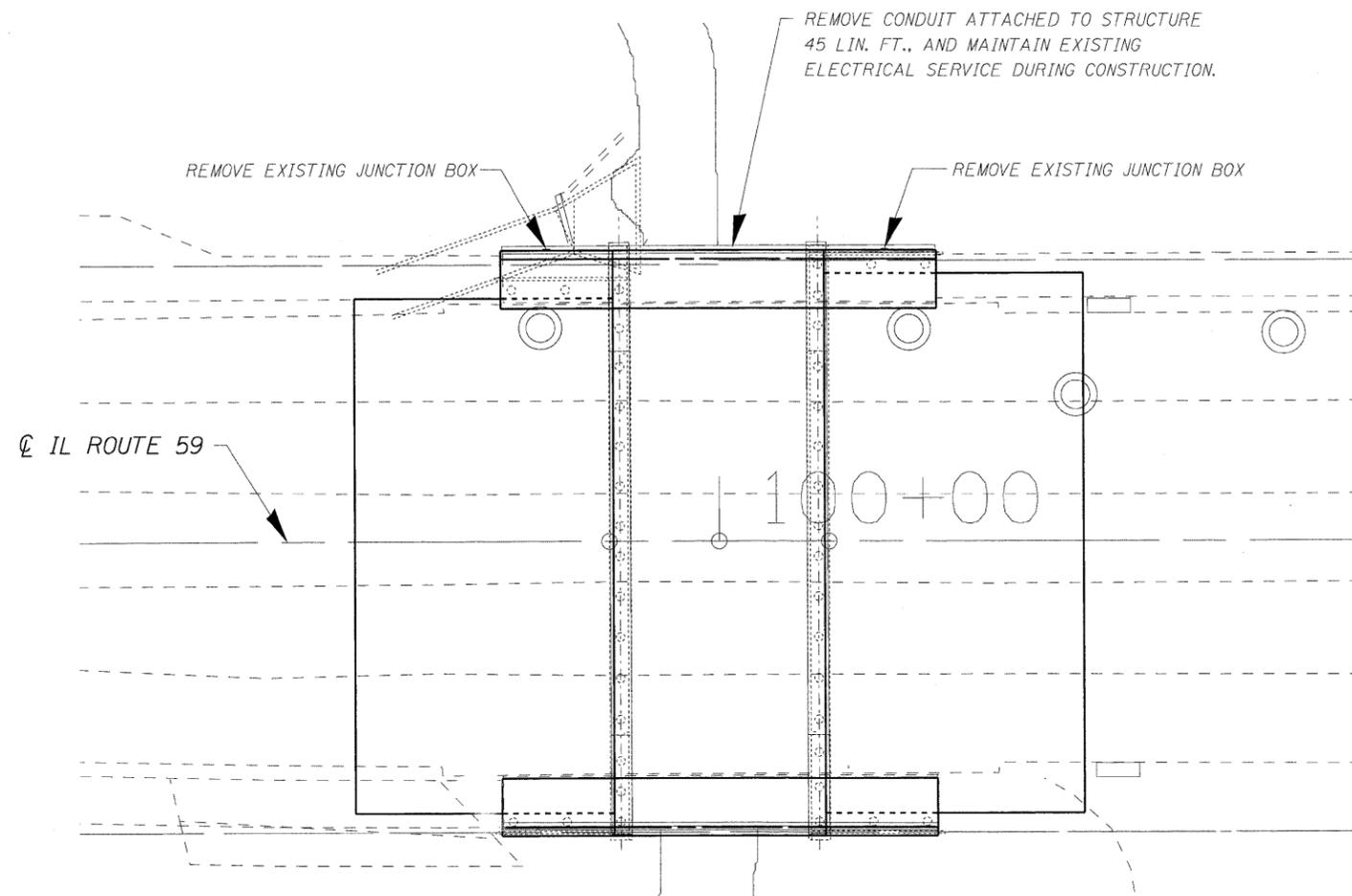
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. 98+00 TO STA. 101+60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	11
D-91-289-09		CONTRACT NO. 60F92		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**NOTES**

1. REMOVE EXISTING CONDUIT & EXISTING JUNCTION BOXES FROM THE EXISTING PARAPET WALL, 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 PARAPET WALL. 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.



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

DESIGNED - MJY	REVISED -
DRAWN - SLV	REVISED -
CHECKED - MJY	REVISED -
DATE - 03/26/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ELECTRICAL PLAN  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

SCALE: 1" = 30' SHEET NO. 1 OF 1 SHEETS STA. 98+00 TO STA. 101+60

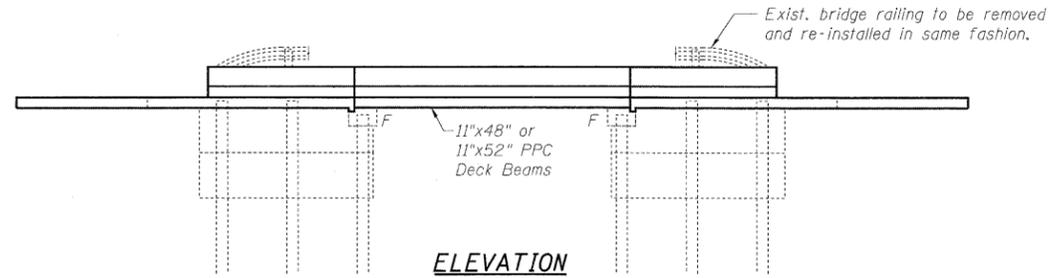
F.A.P. RTE. 338	SECTION 108 B-1	COUNTY LAKE	TOTAL SHEETS 40	SHEET NO. 12
D-91-289-09		CONTRACT NO. 60F92		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Benchmark : Benchmark #1 - cut "□" in south end of west bridge curb.  
Assumed elevation = 100.00'

Existing Structure: S.N. 049-0152 built in 1921 and completely replaced in 1977 as a single span 11"x52" PPC Deck Beam bridge with 2" bituminous wearing surface on closed abutments consisting of a concrete cap on concrete piles with concrete planks. The bridge was widened in 1990 using 11"x48" PPC Deck Beams. The structure measures 25'-6" back to back abutments and 67'-4" out to out. Traffic is to be maintained utilizing stage construction. One lane for each direction is to be provided.

Salvage: Steel Bridge Railing



STATION 100+00.00  
REBUILT 20\_ \_ BY  
STATE OF ILLINOIS  
F.A.P. ROUTE 338 SEC 108 B-1  
LOADING HL-93  
STRUCTURE NO. 049-0152

**NAME PLATE**  
See Std. 515001

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

**LOADING HL-93**  
Allow 50 psf for future wearing surface

**DESIGN SPECIFICATIONS**  
2007 AASHTO LRFD 4th Edition

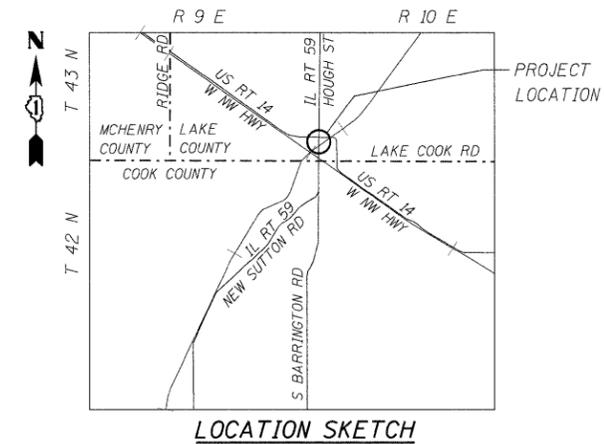
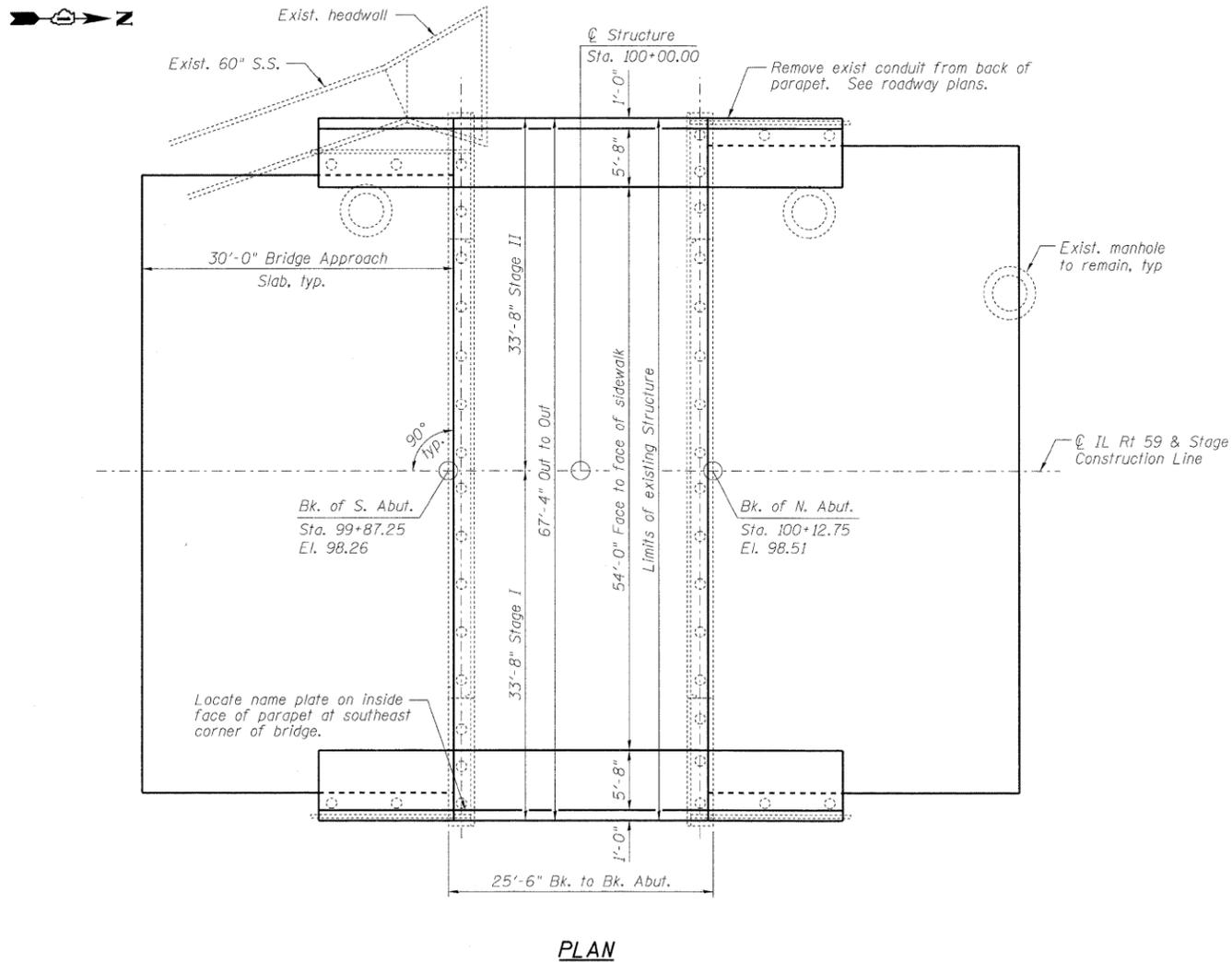
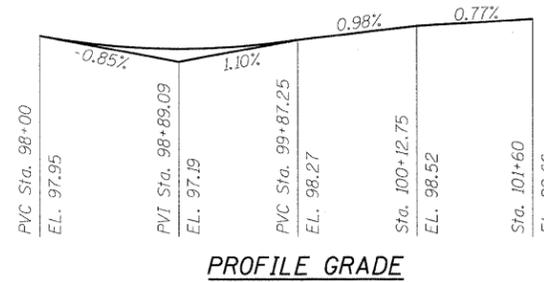
**DESIGN STRESSES**

**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



**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
Ralph E. Anderson (TJD)  
ENGINEER OF BRIDGES AND STRUCTURES

Expres 11/30/10

**GENERAL PLAN AND ELEVATION**  
**IL RT 59 OVER FLINT CREEK**  
F.A.P. RT. 338  
SECTION 108 B-1  
LAKE COUNTY  
STA. 100+00.00  
STRUCTURE NO. 049-0152

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 NO. S1 OF S17 SHEETS	F.A.P. RTE. 338	SECTION 108 B-1	COUNTY LAKE	TOTAL SHEETS 40	SHEET NO. 13
	D-91-289-09		CONTRACT NO. 60F92		
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.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

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 North Approach Slab Elevations
- S6. Top of South Approach Slab Elevations
- S7. Superstructure
- S8. Superstructure Details
- S9. Sidewalk Details
- S10. Railing Details
- S11. Bridge Approach Slab Details 1 of 2
- S12. Bridge Approach Slab Details 2 of 2
- S13. 11"x52" PPC Deck Beams
- S14. 17"x48" PPC Deck Beams
- S15. North Abutment Details
- S16. South Abutment Details
- S17. Bar Splicer Assembly Details

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	APPR. SLAB	TOTAL
Approach Slab Removal	Sq. Yd.			249	249
Removal of Existing Superstructures	Each	1			1
Concrete Removal	Cu. Yd.	12.0			12.0
Concrete Structures	Cu. Yd.			37.4	37.4
Concrete Superstructure	Cu. Yd.	8.1		180.2	188.3
Bridge Deck Grooving	Sq. Yd.	184			184
Protective Coat	Sq. Yd.	232		456	688
Precast Prestressed Concrete Deck Beams (11" Depth)	Sq. ft.	1650			1650
Reinforcement Bars, Epoxy Coated	Pound	4810		45580	50390
Bar Splicers	Each	25		222	247
Removing and Re-Erecting Existing Railing	Foot	97			97
Name Plates	Each	1			1
Epoxy Crack Injection	Foot		6		6
Structural Repair of Concrete (Depth Equal to or Less Than 5 inches)	Sq. Ft.		8		8
Concrete Wearing Surface, 5"	Sq. Yd.	184			184

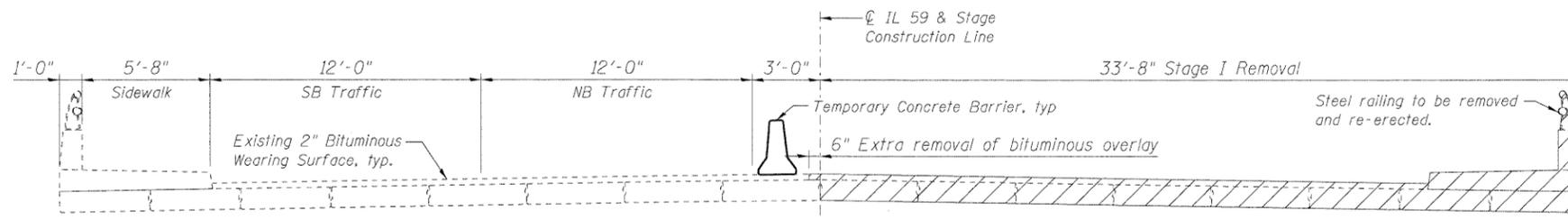
DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

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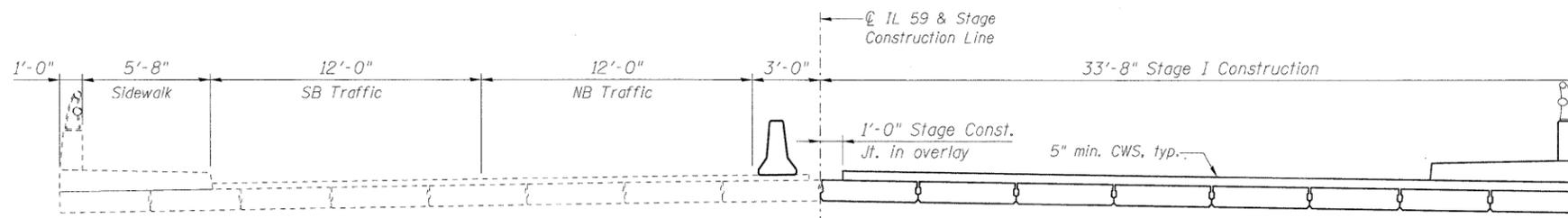
**GENERAL DATA & BILL OF MATERIAL  
STRUCTURE NO. 049-0152**

SHEET NO. S2 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	14
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		

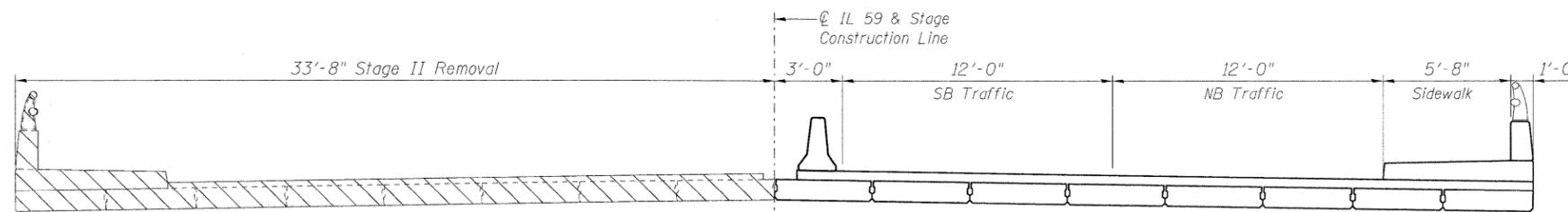
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



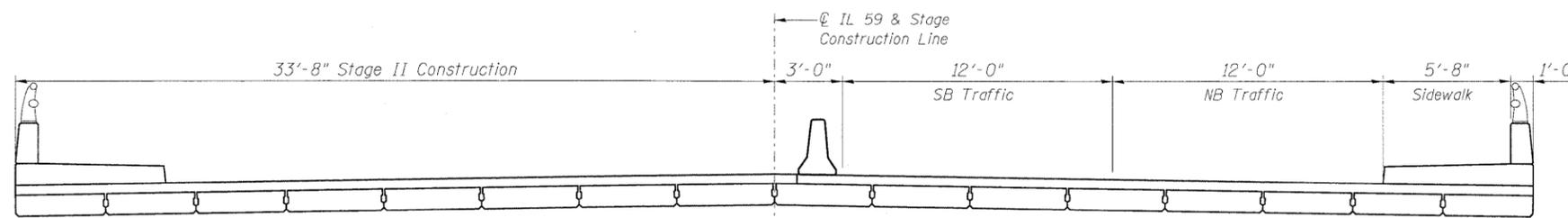
STAGE I REMOVAL



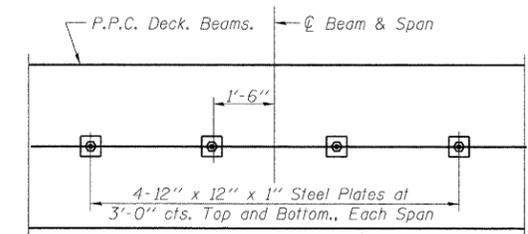
STAGE I CONSTRUCTION



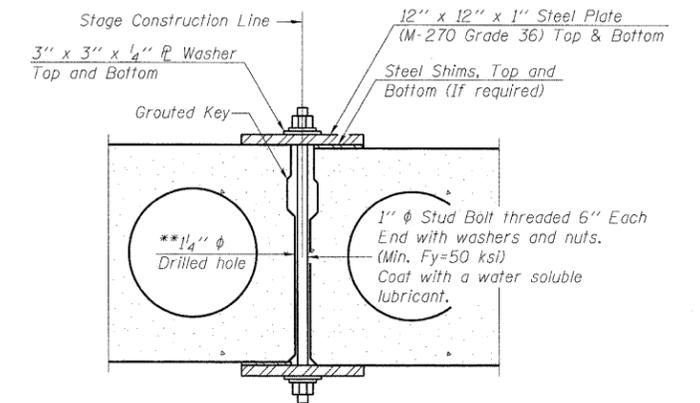
STAGE II REMOVAL



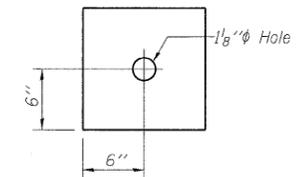
STAGE II CONSTRUCTION



PLAN



SECTION



CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams.

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

NOTES

All Cross Sections looking North.  
Hatched area indicates Removal of Existing Superstructures.  
Cost of removing existing bituminous wearing surface, parapet, and sidewalk 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 S17.

DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

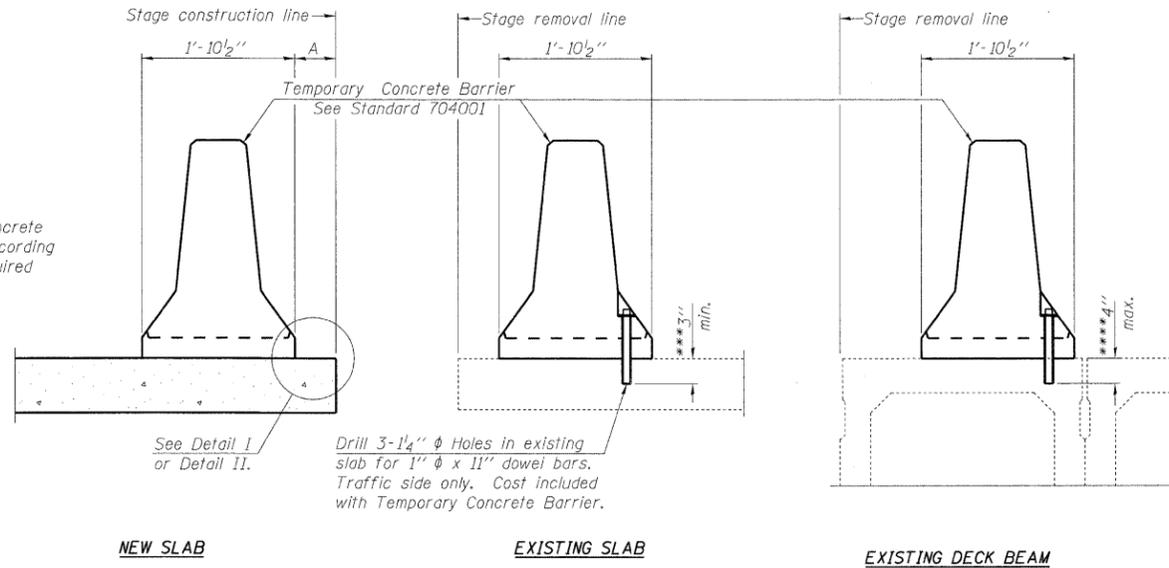
**LONCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST. SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 049-0152

SHEET NO. S3 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	15
D-91-289-09			CONTRACT NO. 60F92		
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".



SECTIONS THRU SLAB OR DECK BEAM

**NOTES**

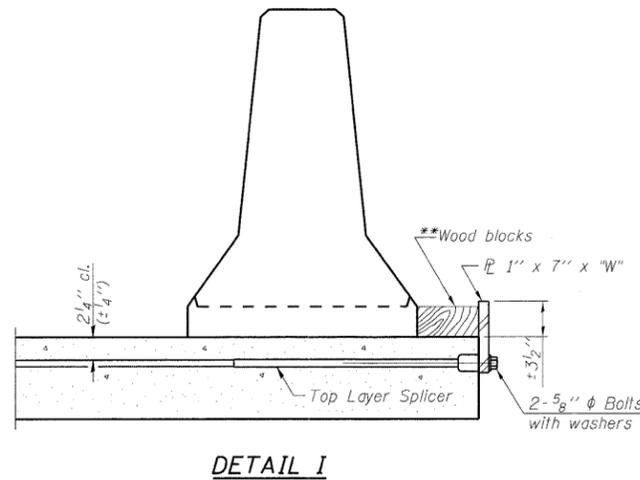
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

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

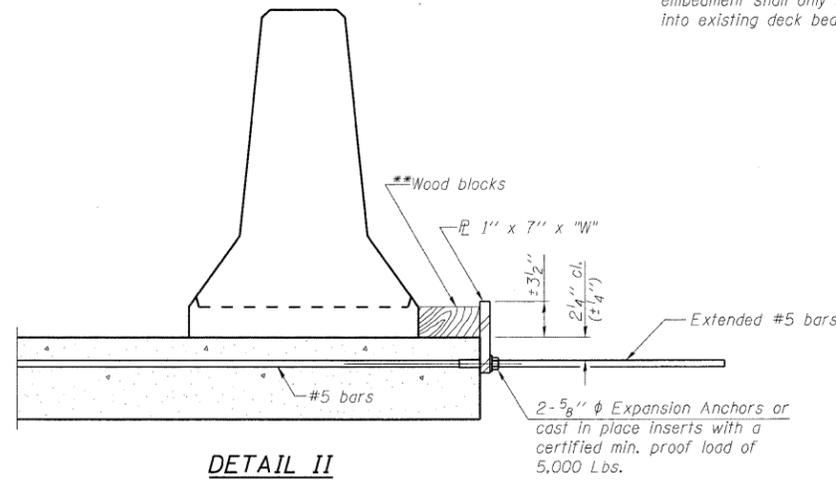
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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



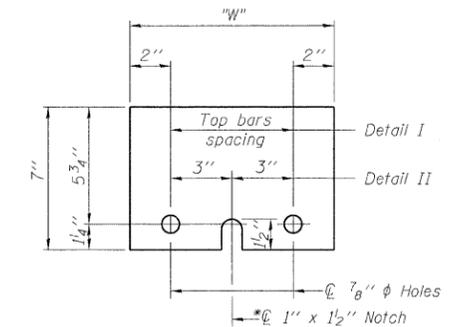
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4"



STEEL RETAINER  $\bar{P}$  1" x 7" x 10"

\* Required only with Detail II

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. 049-0152**

SHEET NO. S4 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	16
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

West Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr Slab	100+12.25	-31.00'	98.02
A	100+22.25	-31.00'	98.11
B	100+32.25	-31.00'	98.19
N. End N. Appr Slab	100+42.25	-31.00'	98.26

IL 59 & P.G.L.

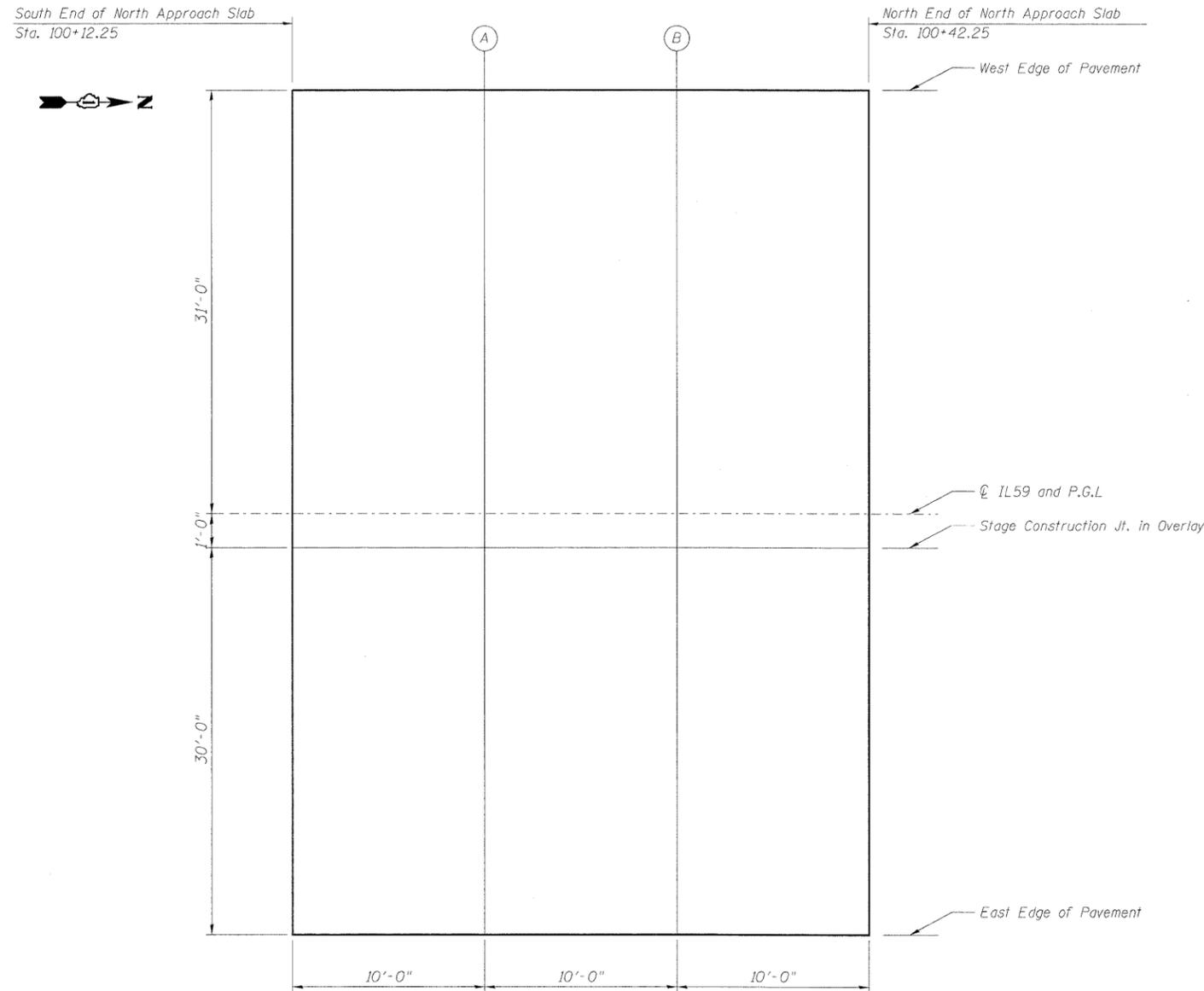
Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr Slab	100+12.25	0.00'	98.51
A	100+22.25	0.00'	98.60
B	100+32.25	0.00'	98.67
N. End N. Appr Slab	100+42.25	0.00'	98.75

Stage Construction Joint in Overlay

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr Slab	100+12.25	1.00'	98.49
A	100+22.25	1.00'	98.58
B	100+32.25	1.00'	98.66
N. End N. Appr Slab	100+42.25	1.00'	98.73

East Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr Slab	100+12.25	31.00'	98.02
A	100+22.25	31.00'	98.11
B	100+32.25	31.00'	98.19
N. End N. Appr Slab	100+42.25	31.00'	98.26



PLAN

TOP OF NORTH  
APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 049-0152

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 NO. S5 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	17
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

West Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr Slab	99+57.75	-28.17'	97.55
A	99+67.75	-28.17'	97.64
B	99+77.75	-28.17'	97.73
N. End S. Appr Slab	99+87.75	-28.17'	97.83

CL IL 59 & P.G.L.

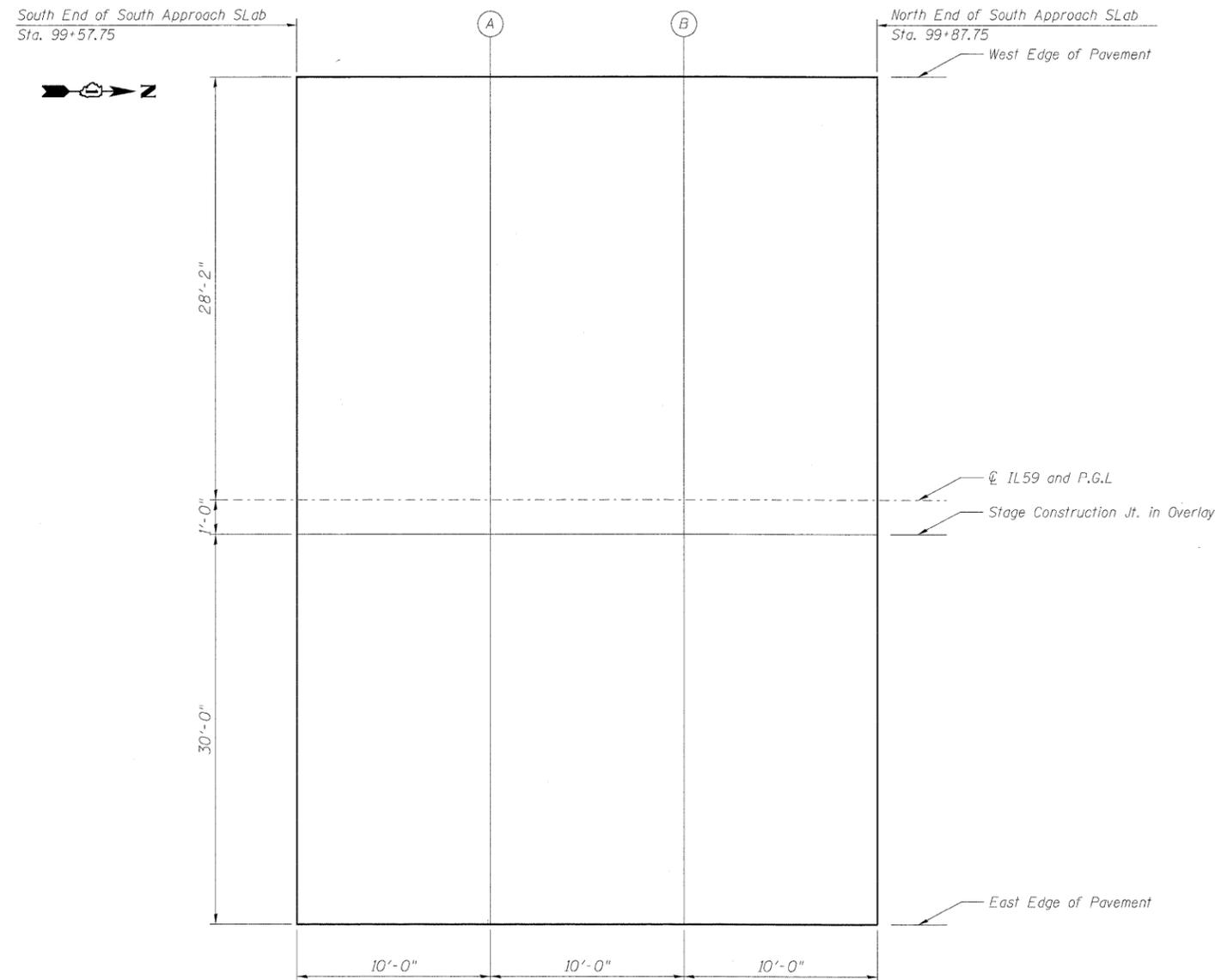
Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr Slab	99+57.75	0.00'	97.99
A	99+67.75	0.00'	98.08
B	99+77.75	0.00'	98.17
N. End S. Appr Slab	99+87.75	0.00'	98.27

Stage Construction Joint in Overlay

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr Slab	99+57.75	1.00'	97.98
A	99+67.75	1.00'	98.06
B	99+77.75	1.00'	98.15
N. End S. Appr Slab	99+87.75	1.00'	98.25

East Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr Slab	99+57.75	31.00'	97.51
A	99+67.75	31.00'	97.60
B	99+77.75	31.00'	97.69
N. End S. Appr Slab	99+87.75	31.00'	97.78



PLAN

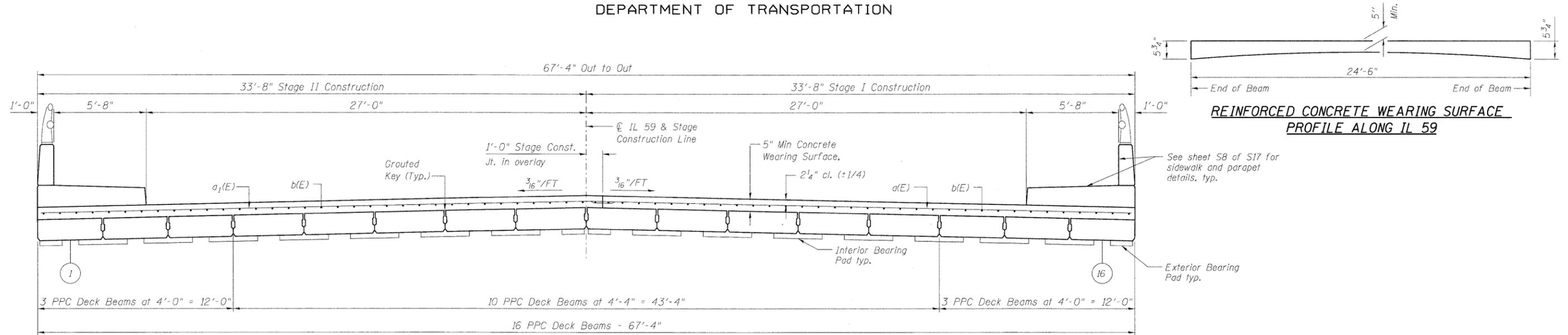
TOP OF SOUTH  
APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 049-0152

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

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1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

SHEET NO. S6 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	18
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



CROSS SECTION

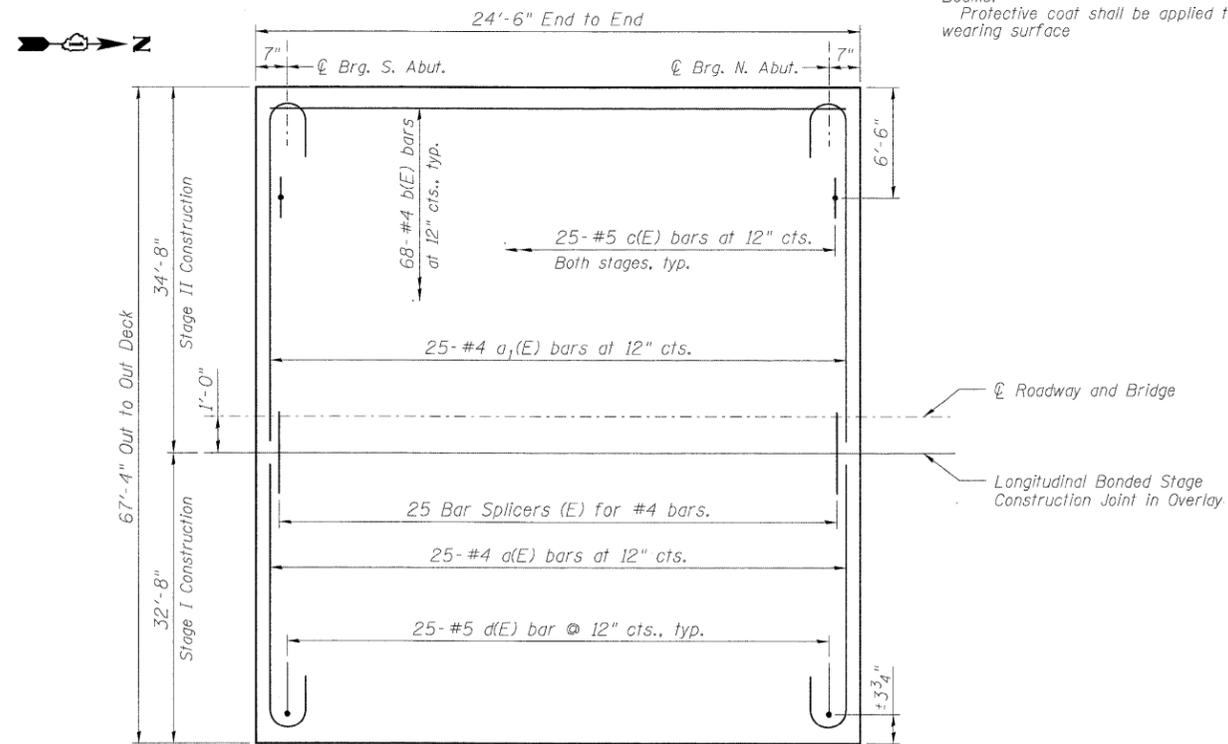
REINFORCED CONCRETE WEARING SURFACE  
PROFILE ALONG IL 59

NOTES

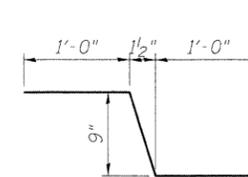
For remainder of Superstructure Details see Sheet S8 & S9 of S17.  
See sht. S13 & S14 of S17 for PPC Deck Beams.  
Protective coat shall be applied to new concrete wearing surface

BILL OF MATERIAL

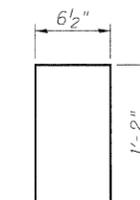
Bar	No.	Size	Length	Shape
a(E)	25	#4	32'-8"	C
a1(E)	25	#4	34'-8"	C
b(E)	68	#4	24'-2"	—
b1(E)	16	#5	24'-2"	—
b2(E)	28	#5	12'-8"	—
c(E)	106	#5	2'-9"	—
c1(E)	106	#5	5'-2"	—
d(E)	50	#5	3'-8"	—
d1(E)	56	#5	2'-11"	—
d2(E)	60	#5	2'-11"	—
e(E)	24	#4	11'-11"	—
e1(E)	24	#4	12'-8"	—
Concrete Wearing Surface	5"	Sq. Yd.	184	
Bar Splicers		Each	25	
Concrete Removal		Cu. Yd.	12.0	
Concrete Superstructure		Cu. Yd.	8.1	
Reinforcement Bars, Epoxy Coated		Pound	4810	



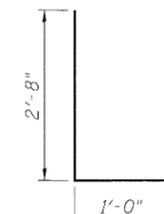
CONCRETE WEARING SURFACE PLAN



BAR c(E)



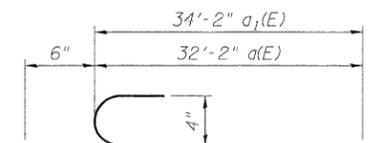
BAR d1(E)



BAR d(E)



BAR d2(E)



BAR a(E) & a1(E)

DESIGNED	SLV
CHECKED	DJB
DRAWN	SLV
CHECKED	DJB

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NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

SUPERSTRUCTURE  
STRUCTURE NO. 049-0152

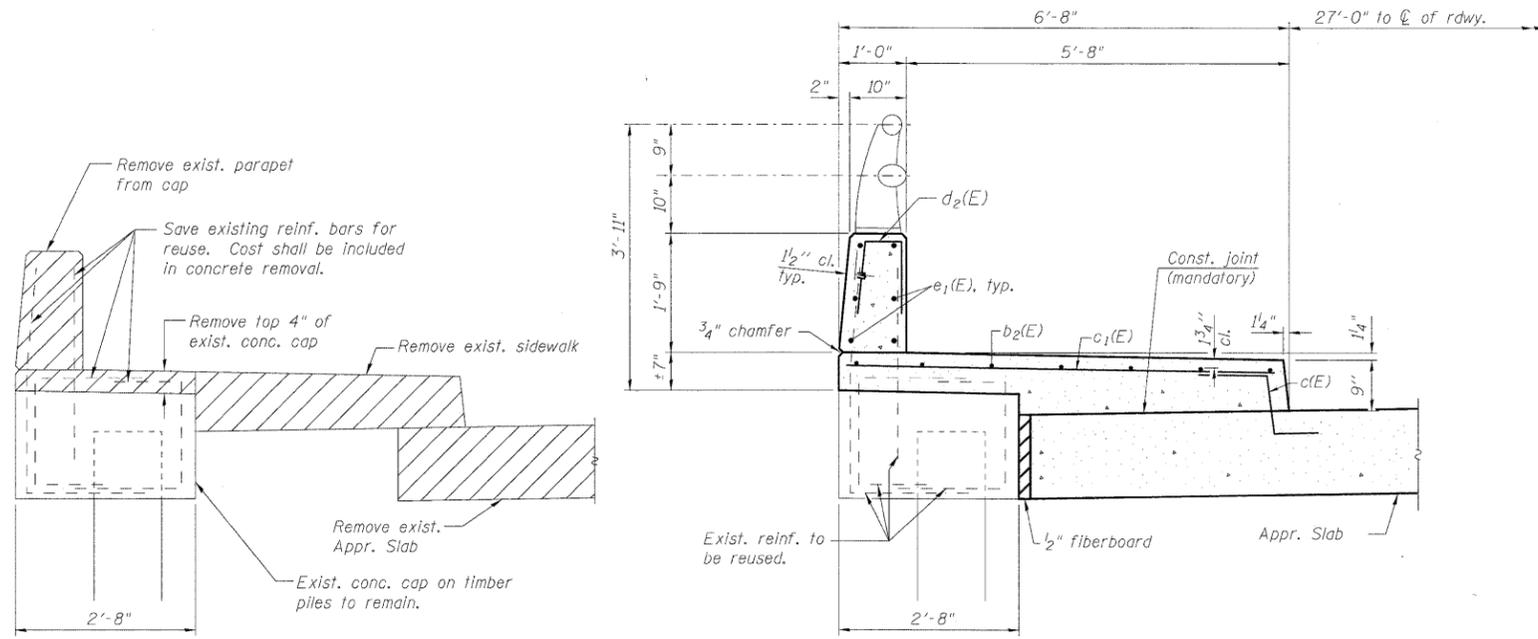
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	D-91-289-09		CONTRACT NO. 60F92		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

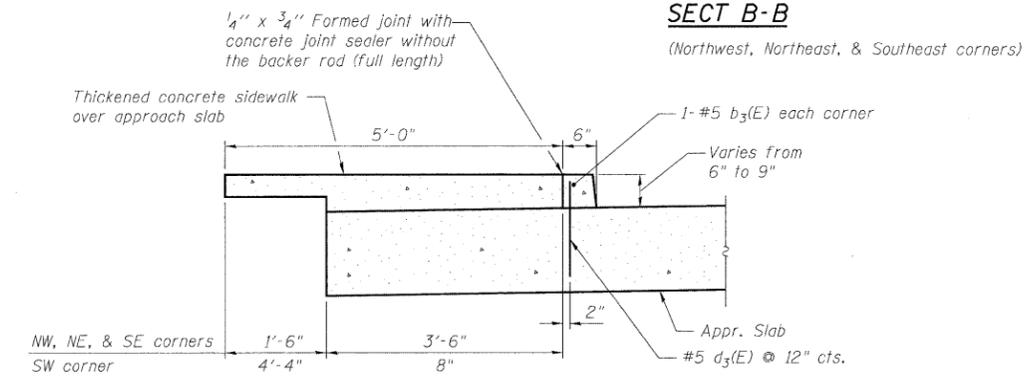
NOTES

- Exist. 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 S17 for Section thru Sidewalk (Sect A-A), Parapet Joint Details, and Inside Parapet Elevation.
- See sht. S7 of S17 for Bill of Material.
- Fiberboard shall be included in Approach Slab, which shall be paid for as Concrete Superstructure.
- See sht. S10 of S17 for Railing Details.
- See sht. S11 & S12 of S17 for Approach Slab Plan & Details.



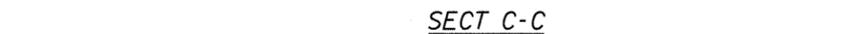
EXISTING

PROPOSED

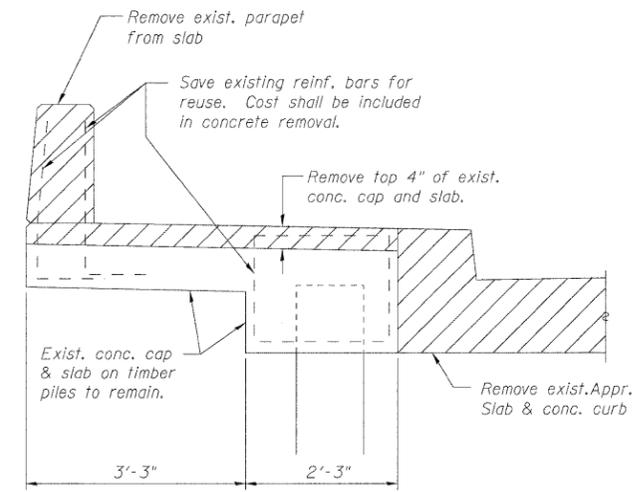


SECT B-B

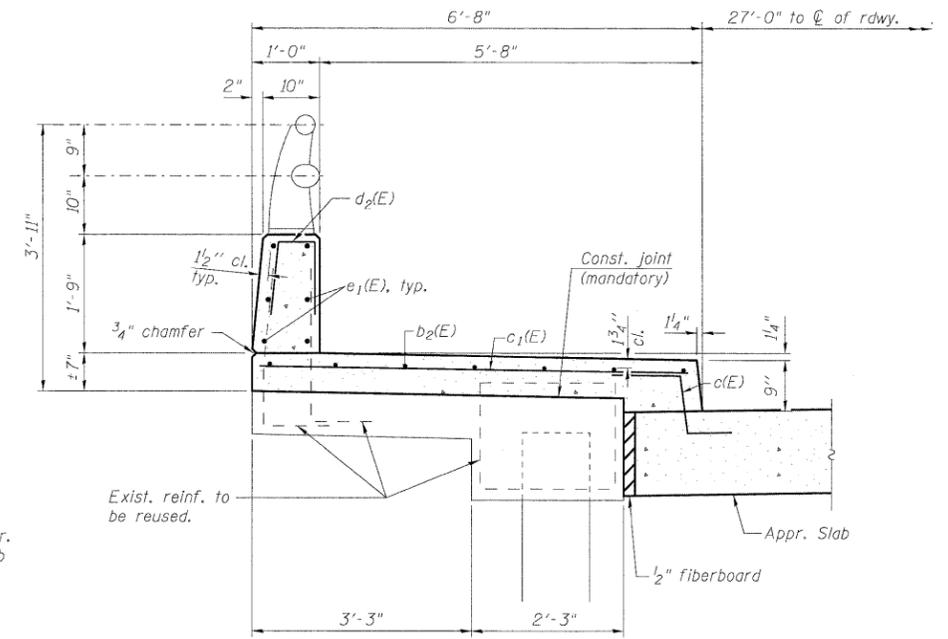
(Northwest, Northeast, & Southeast corners)



SECT C-C



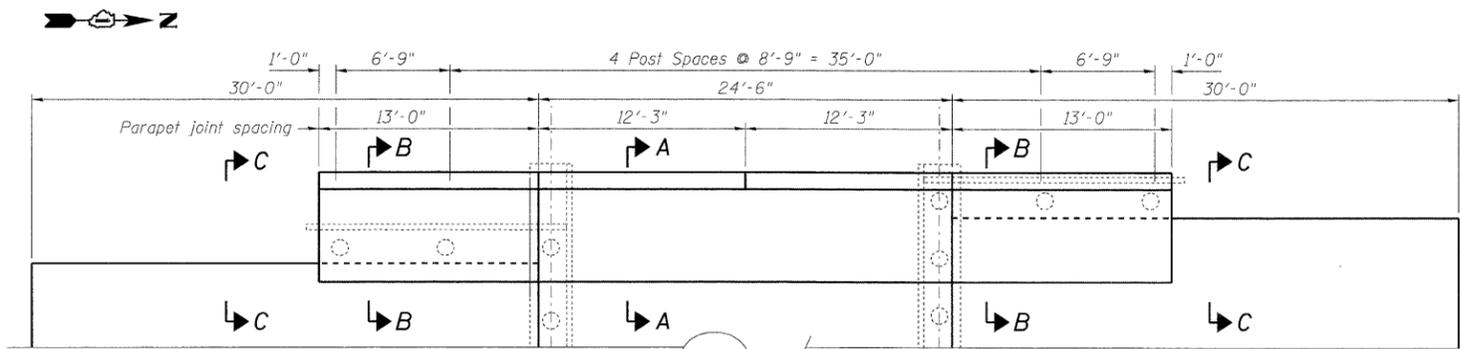
EXISTING



PROPOSED

SECT B-B

(Southwest corner)



SIDEWALK & PARAPET PLAN

(West side shown, East side similar)

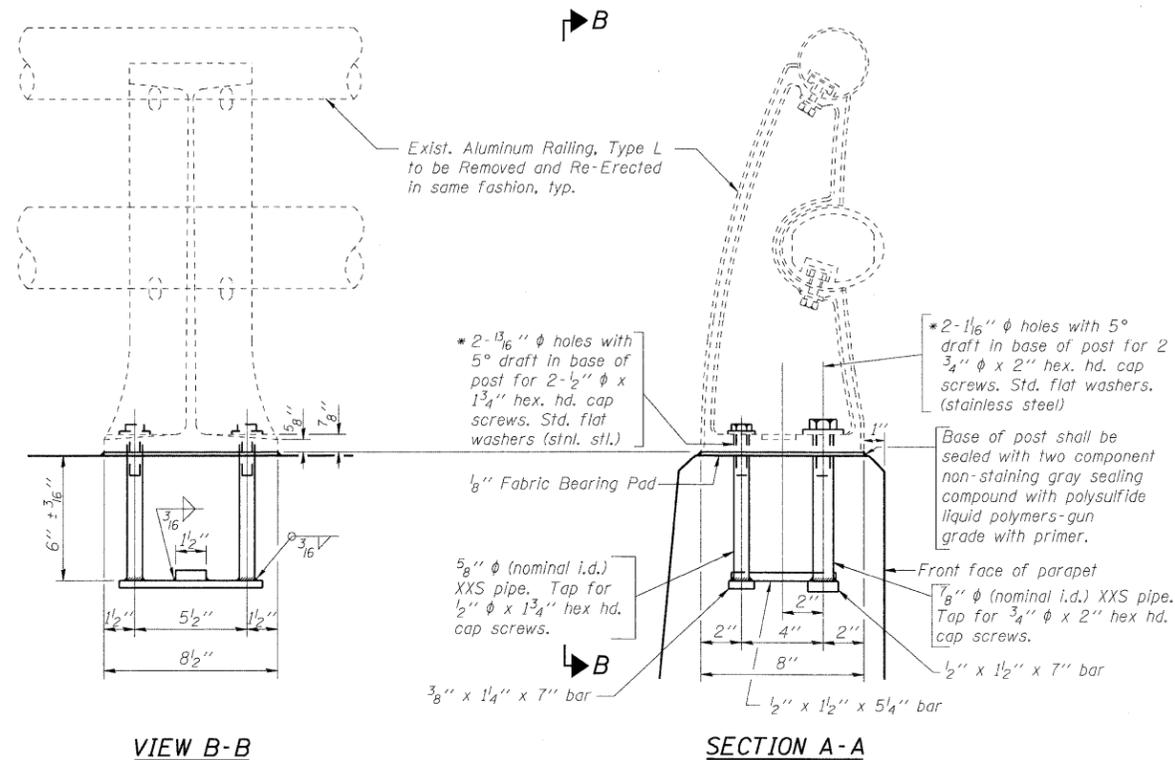
DESIGNED	-	SLV
CHECKED	-	DJB
DRAWN	-	SLV
CHECKED	-	DJB

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1560 WALL ST, SUITE 222  
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SIDEWALK DETAILS  
STRUCTURE NO. 049-0152

SHEET NO. S9 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	21
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

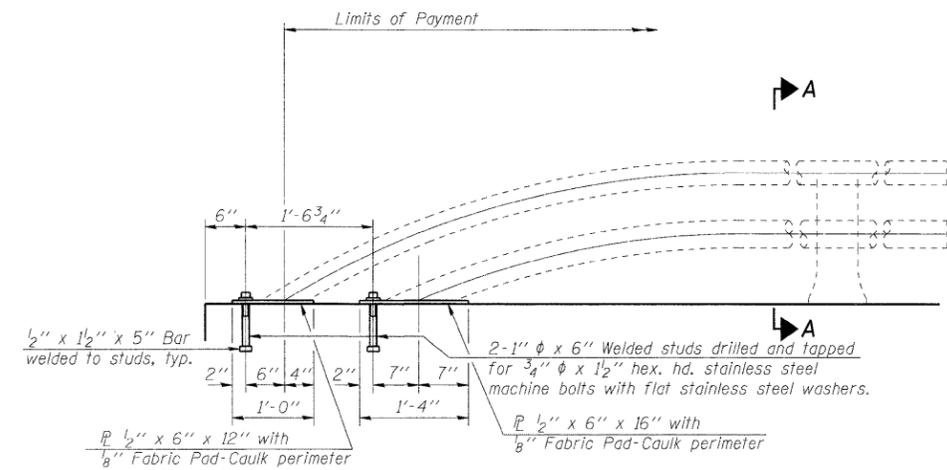


VIEW B-B

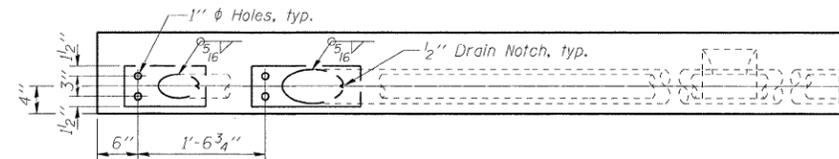
RAIL POST DETAILS

SECTION A-A

\* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



RAIL TERMINAL SECTION



BILL OF MATERIAL

Item	Unit	Quantity
Removing and Re-Erecting Existing Railing	Foot	97

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

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

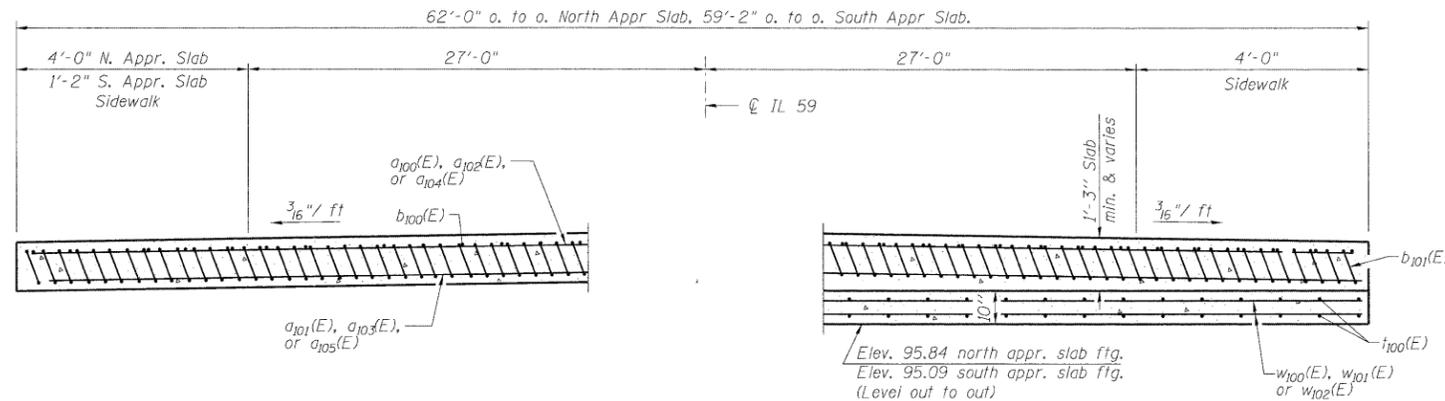
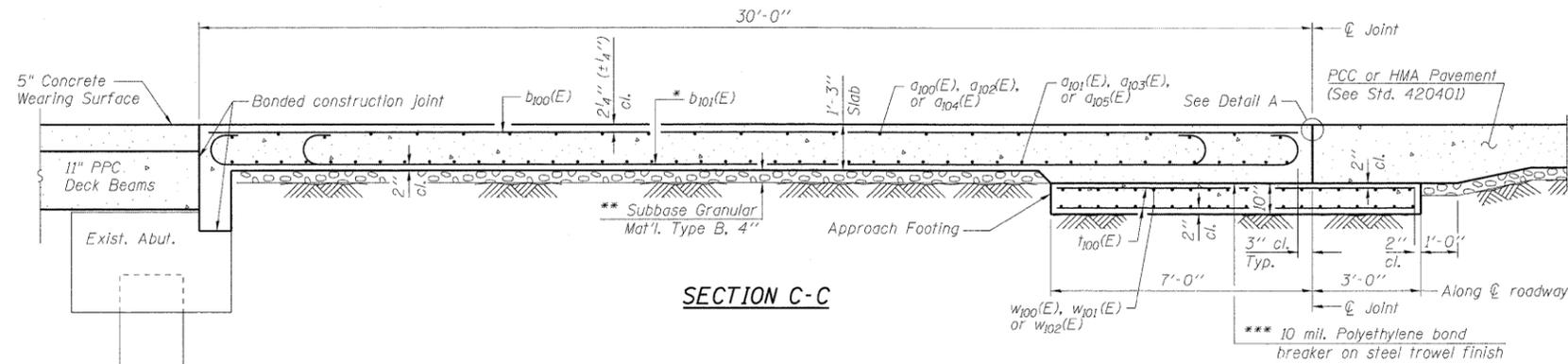
RAILING DETAILS  
STRUCTURE NO. 049-0152

SHEET NO. S10	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OF S17 SHEETS	338	108 B-1	LAKE	40	22
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
See sheet S11 of S17 for Plan Views and Detail.  
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.  
The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
For bar splicer details, see sheet S17 of S17.  
Cost of excavation for approach footing included with Concrete Structures.

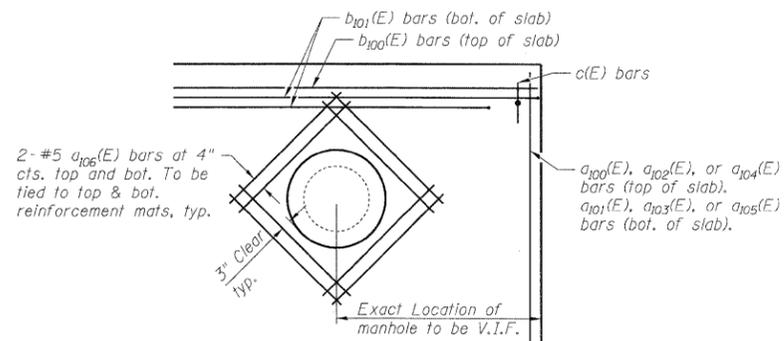


\* Tilt #9  $b_{101}(E)$  bars as required to maintain clearance.  
\*\*\* Cost included with Concrete Superstructure.

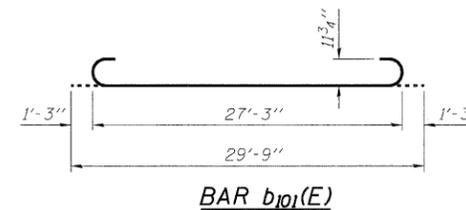
NEAR ABUTMENT

SECTION D-D  
(See Plan for dimensions not shown)

AT APPROACH FOOTING



DETAIL E  
PARTIAL PLAN FOR  
MANHOLE REINFORCEMENT



TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_{100}(E)$	50	#4	29'-6"	—
$a_{101}(E)$	92	#5	29'-6"	—
$a_{102}(E)$	25	#4	31'-6"	—
$a_{103}(E)$	46	#5	31'-6"	—
$a_{104}(E)$	25	#4	28'-8"	—
$a_{105}(E)$	46	#5	28'-8"	—
$a_{106}(E)$	48	#5	4'-0"	—
$b_{100}(E)$	96	#4	29'-8"	—
$b_{101}(E)$	289	#9	29'-9"	⌋
$i_{100}(E)$	246	#4	9'-6"	—
$w_{100}(E)$	80	#5	29'-6"	—
$w_{101}(E)$	40	#5	31'-6"	—
$w_{102}(E)$	40	#5	28'-8"	—
Concrete Superstructure			Cu. Yd.	180.2
Concrete Structures			Cu. Yd.	37.4
Reinforcement Bars, Epoxy Coated			Pound	45580
Bar Splicers			Each	222

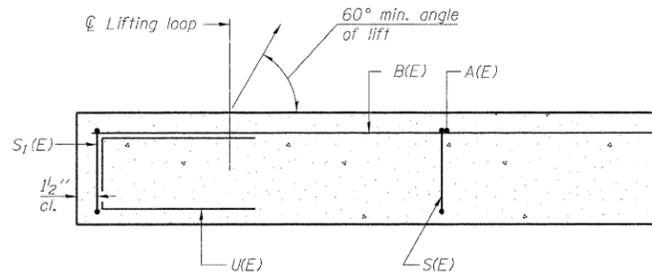
DESIGNED	-	SLV
CHECKED	-	DJB
DRAWN	-	SLV
CHECKED	-	DJB

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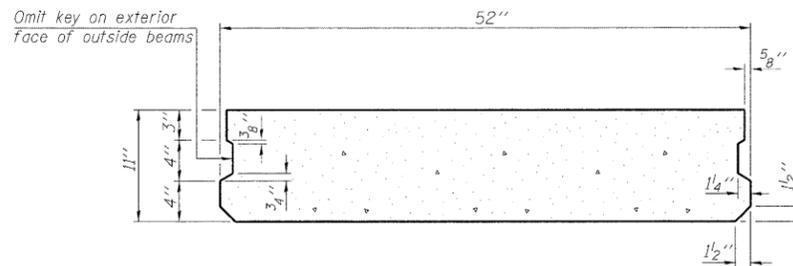
(Sheet 2 of 2)  
BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 049-0152

SHEET NO. S12 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	24
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

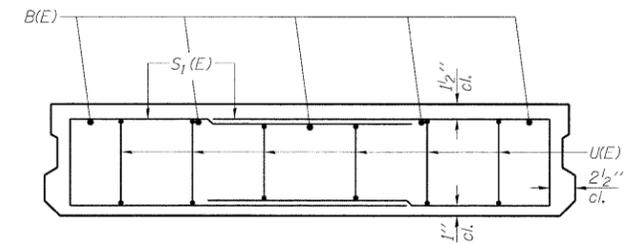
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



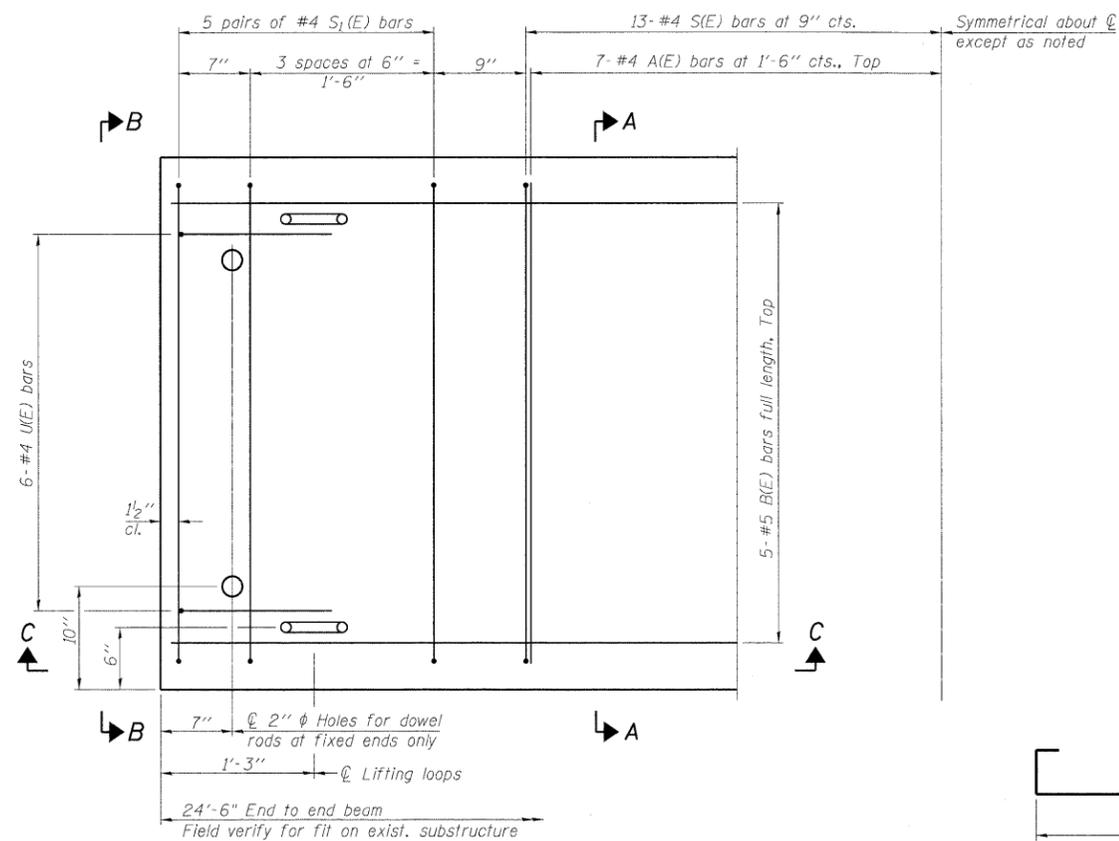
SECTION C-C



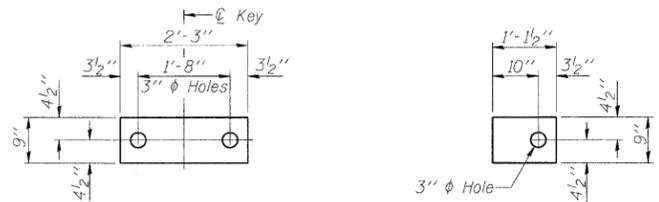
SECTION A-A  
(Showing dimensions)



VIEW B-B



PLAN VIEW

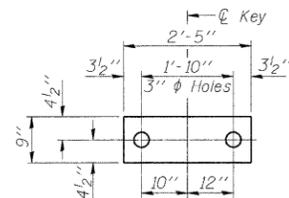


FABRIC BEARING PAD  
(Interior)

FABRIC BEARING PAD  
(Exterior)

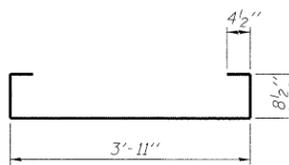
FIXED

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

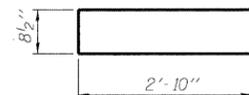


FABRIC BEARING PAD

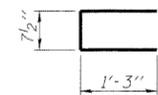
(Where beams change from 52" to 48")



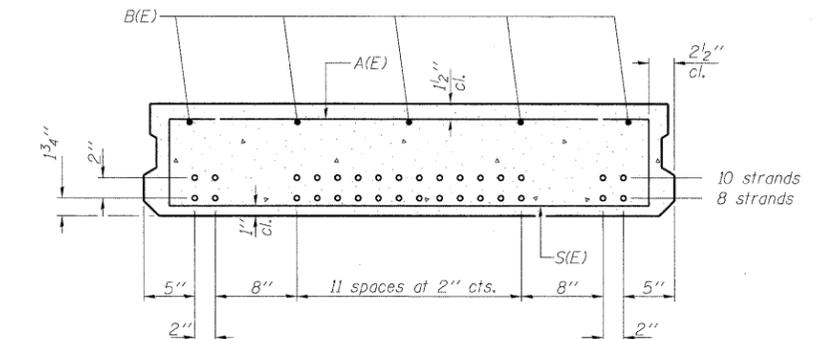
BAR S(E)



BAR S1(E)

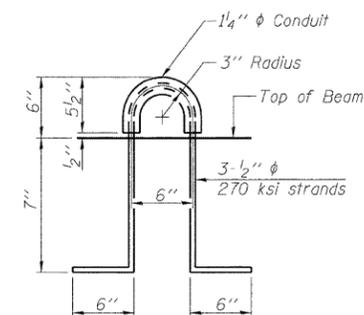


BAR U(E)



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.



LIFTING LOOP DETAIL

BAR LIST  
ONE BEAM ONLY  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	14	#4	3'-11"	—
B(E)	5	#5	24'-2"	—
S(E)	26	#4	6'-1"	⌊
S1(E)	20	#4	6'-5"	⌊
U(E)	12	#4	3'-2"	⌊

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (11" depth)	Sq. Ft.	1062
---	---------	------

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. 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 sheet S14 of S17 for 11"x48" PPC Deck Beams.

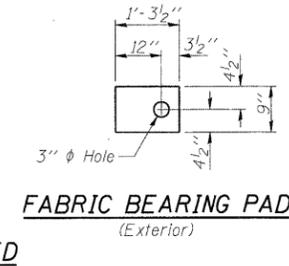
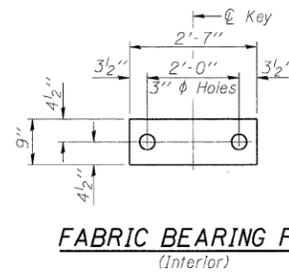
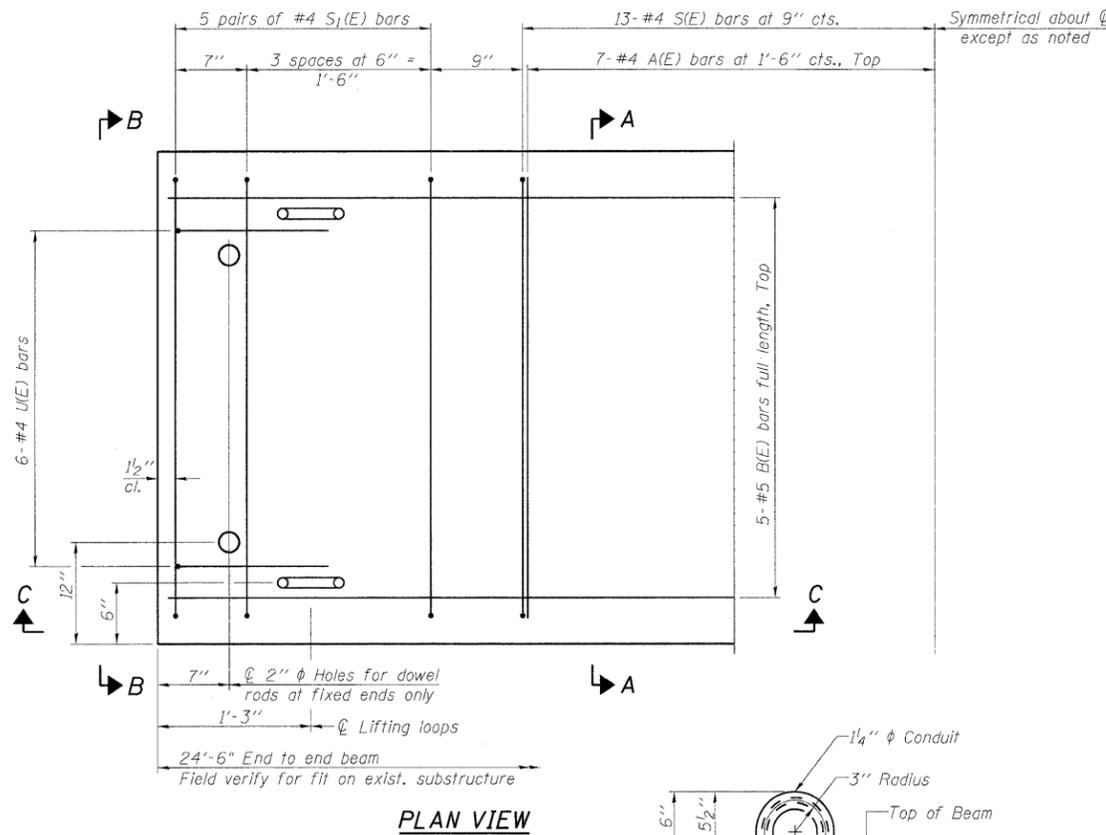
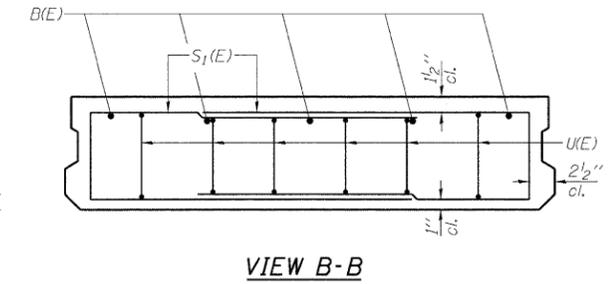
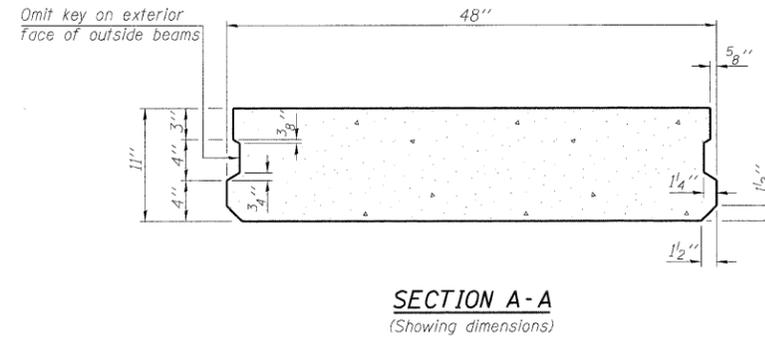
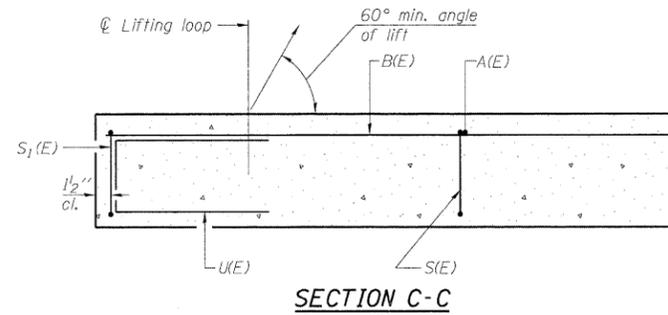
DESIGNED	-	SLV
CHECKED	-	DJB
DRAWN	-	SLV
CHECKED	-	DJB

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

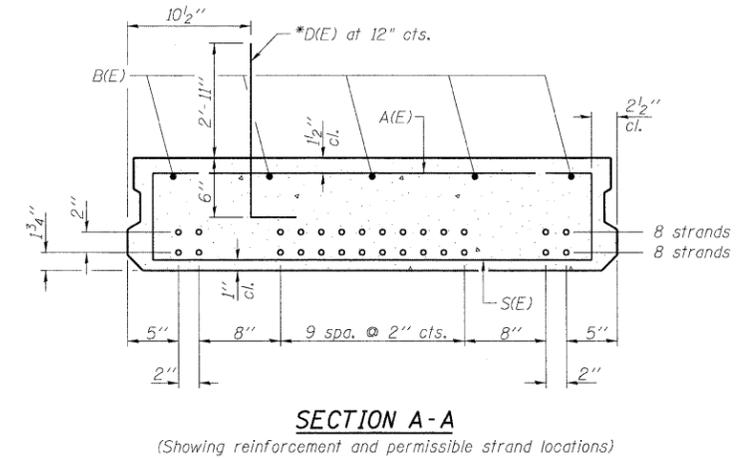
11" x 52" PPC DECK BEAMS  
STRUCTURE NO. 049-0152

SHEET NO. S13 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	25
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

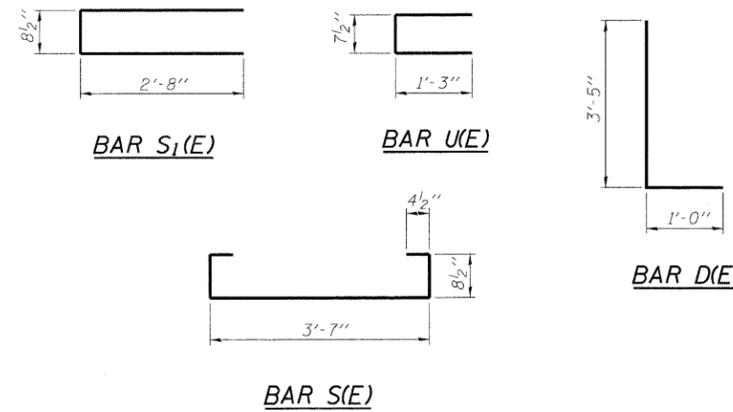
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



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



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

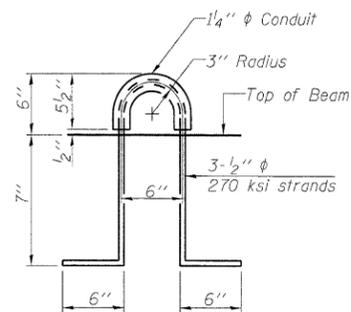


Bar	No.	Size	Length	Shape
A(E)	14	#4	3'-7"	—
B(E)	5	#5	24'-2"	—
*D(E)	25	#5	4'-5"	┌┐
S(E)	26	#4	5'-9"	┌┐
S1(E)	20	#4	6'-1"	┌┐
U(E)	12	#4	3'-2"	┌┐

\*D(E) bar to be cast into outside beams only. See sht. S8 of S17 for details.

BILL OF MATERIAL

Material	Sq. Ft.	588
Precast Prestressed Conc. Deck Bms. (11" depth)		



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. 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 sheet S13 of S17 for 11"x52" PPC Deck Beams.

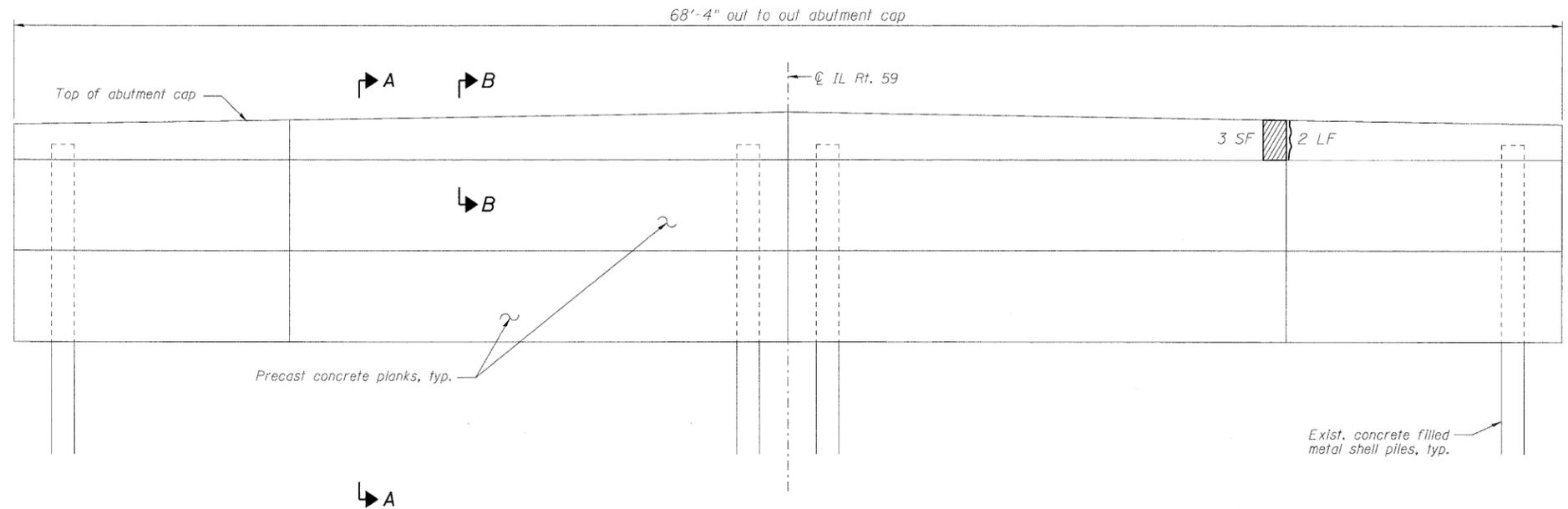
DESIGNED	-	SLV
CHECKED	-	DJB
DRAWN	-	SLV
CHECKED	-	DJB

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

11" x 48" PPC DECK BEAMS  
STRUCTURE NO. 049-0152

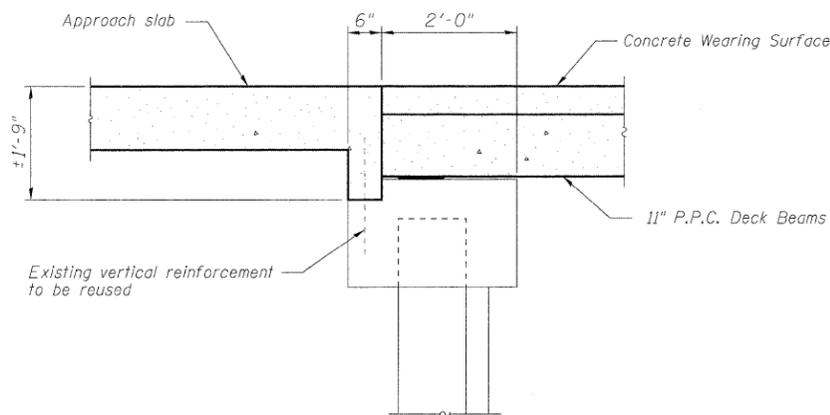
SHEET NO. S14	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	26
OF S17 SHEETS	D-91-289-09		CONTRACT NO. 60F92		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

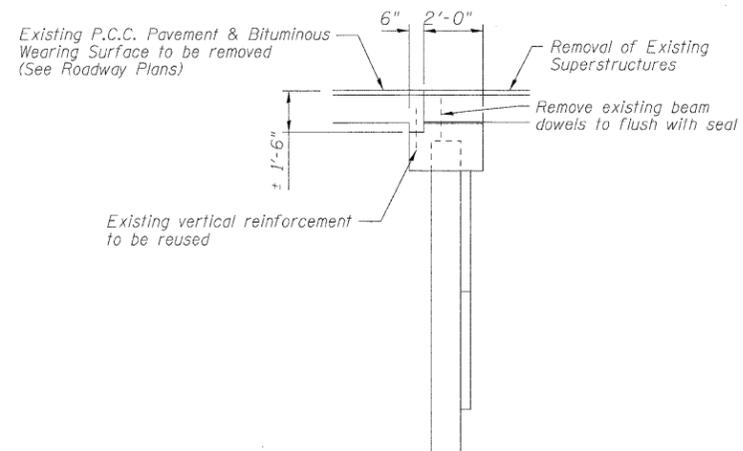


**ELEVATION - REMOVAL AND REPAIR**  
(Looking North)

— Epoxy Crack Injection  
 Formed Concrete Repair Depth < 5"



**SECTION B-B**



**SECTION A-A**

**BILL OF MATERIAL**

Epoxy Crack Injection	Foot	2
Structural Repair of Concrete (Depth less than equal to 5')	Sq. Ft.	3

**NOTES**

Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications and shall be paid for as Reinforcement Bars, Epoxy Coated

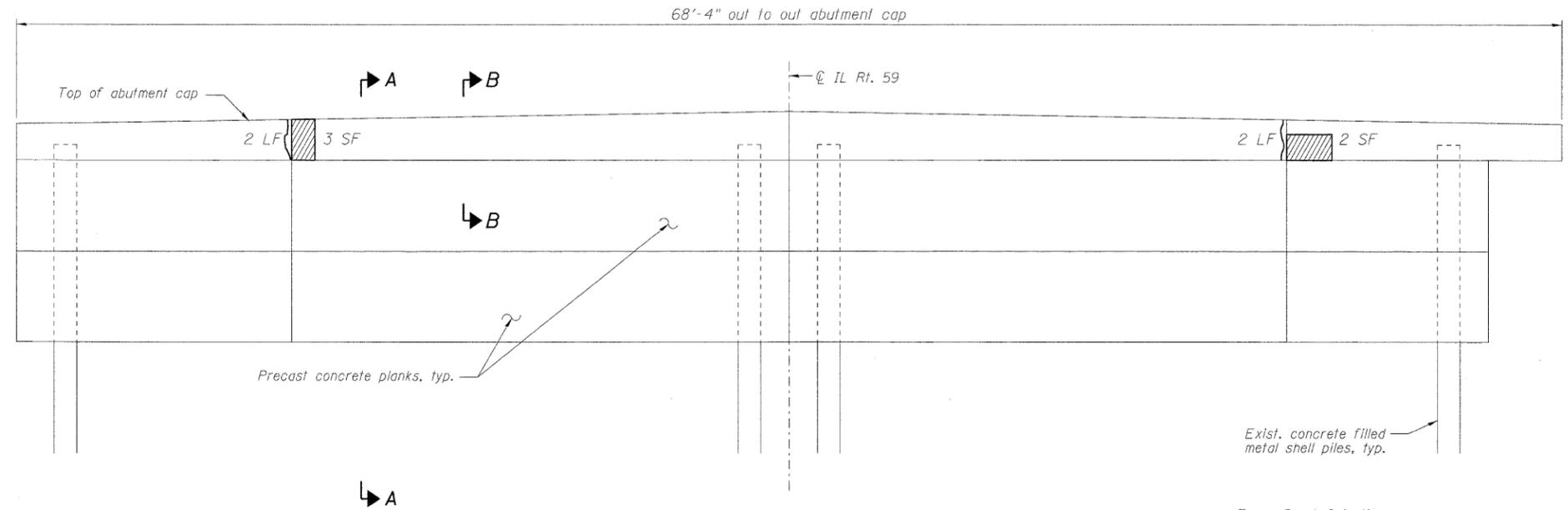
DESIGNED	-	SLV
CHECKED	-	DJB
DRAWN	-	SLV
CHECKED	-	DJB

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NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**NORTH ABUTMENT DETAILS**  
**STRUCTURE NO. 049-0152**

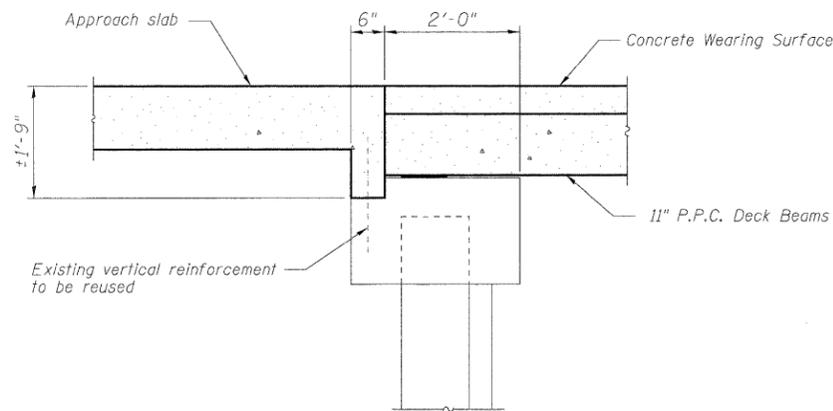
SHEET NO. S15 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	27
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

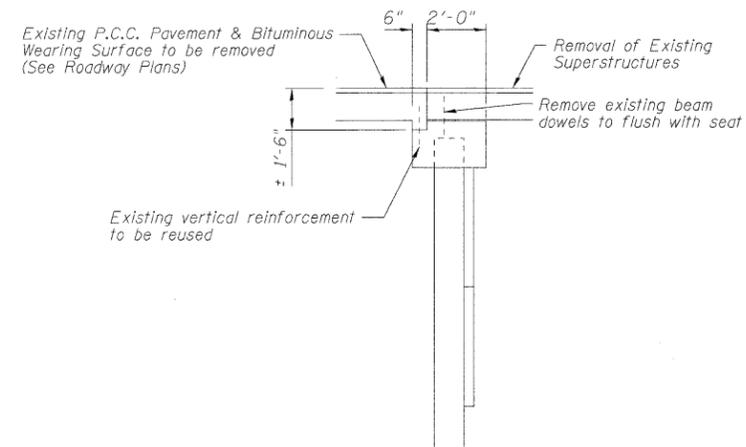


**ELEVATION - REMOVAL AND REPAIR**  
(Looking North)

— Epoxy Crack Injection  
 Formed Concrete Repair Depth < 5"



**SECTION B-B**



**BILL OF MATERIAL**

Epoxy Crack Injection	Foot	4
Structural Repair of Concrete (Depth less than equal to 5")	Sq. Ft.	5

**NOTES**

Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications and shall be paid for as Reinforcement Bars, Epoxy Coated

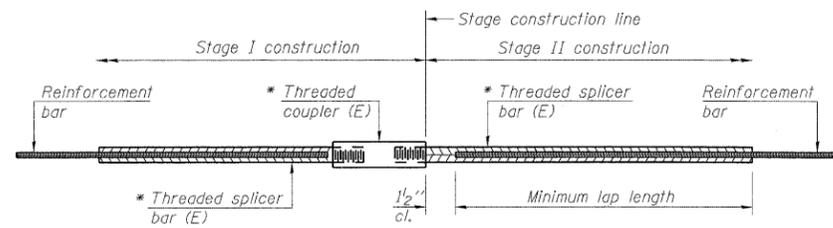
DESIGNED	-	SLV
CHECKED	-	DJB
DRAWN	-	SLV
CHECKED	-	DJB

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

**SOUTH ABUTMENT DETAILS**  
**STRUCTURE NO. 049-0152**

SHEET NO. S16 OF S17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	338	108 B-1	LAKE	40	28
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**STANDARD BAR SPLICER ASSEMBLY**

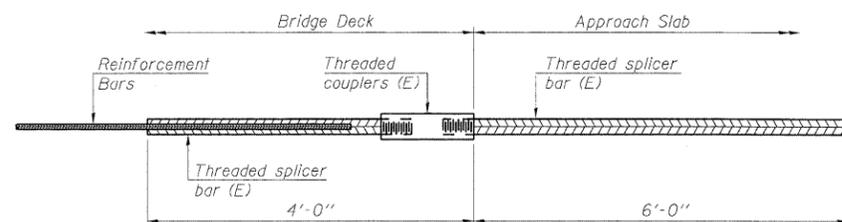
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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 + 1/2" + thread length

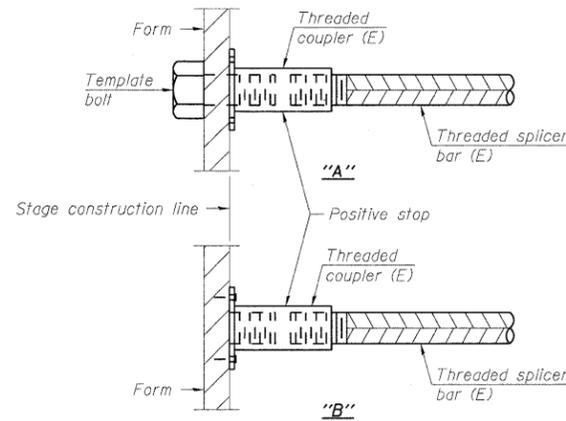
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Concrete Wearing Surface	#4	25	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



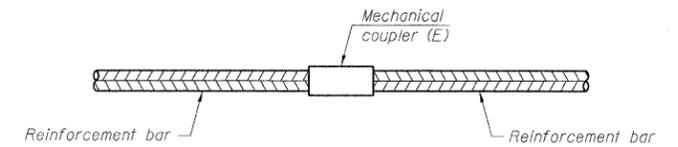
**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required = N. A.



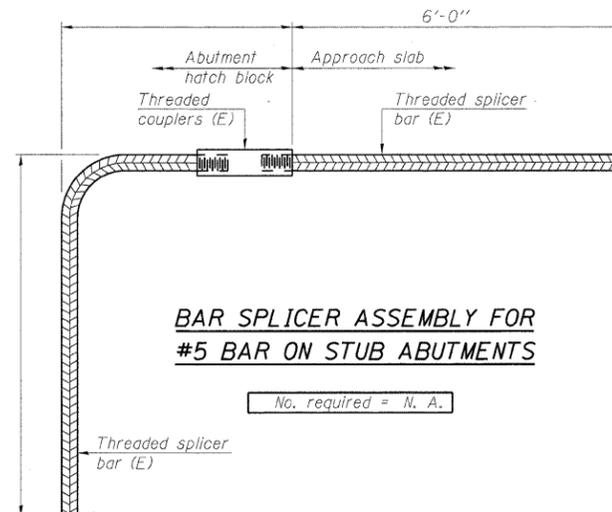
**INSTALLATION AND SETTING METHODS**

"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 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

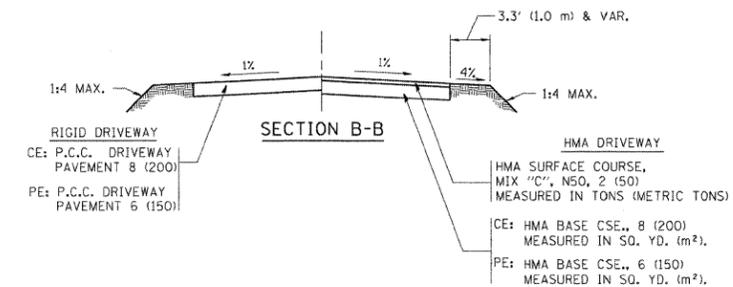
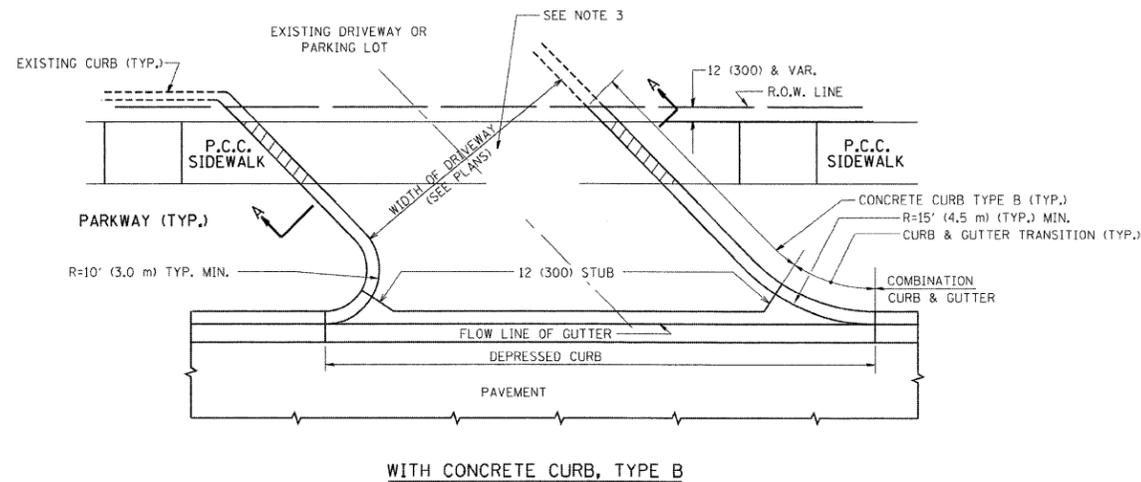
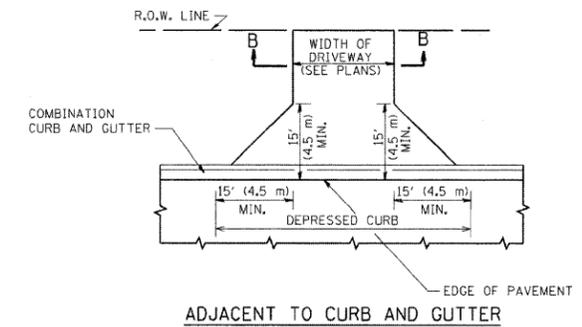
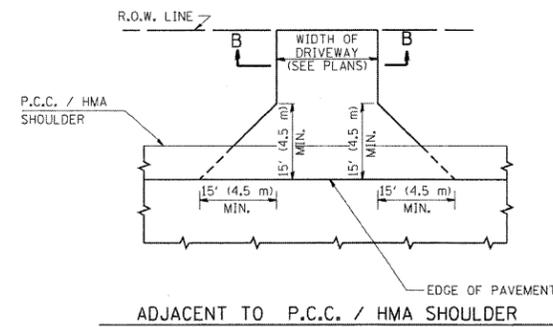
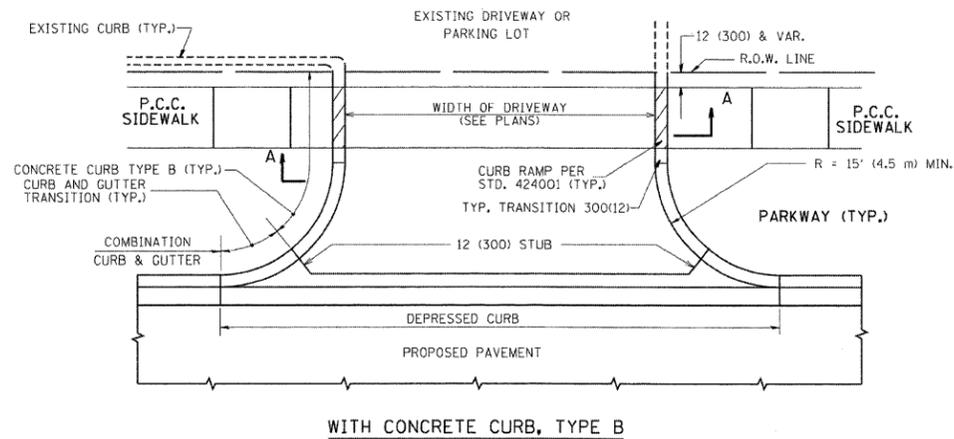
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1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563    PH: (630) 577-9100

BSD-1

11-1-09

**BAR SPLICER ASSEMBLY DETAILS  
STRUCTURE NO. 049-0152**

SHEET NO. S17	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OF S17 SHEETS	338	108 B-1	LAKE	40	29
D-91-289-09			CONTRACT NO. 60F92		
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT			



**RURAL FIELD ENTRANCE (FE)**  
HMA SURFACE COURSE, MIX "C", NSO, 2 (50) MEASURED IN TONS (METRIC TONS)  
AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m<sup>2</sup>).

**GENERAL NOTES:**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

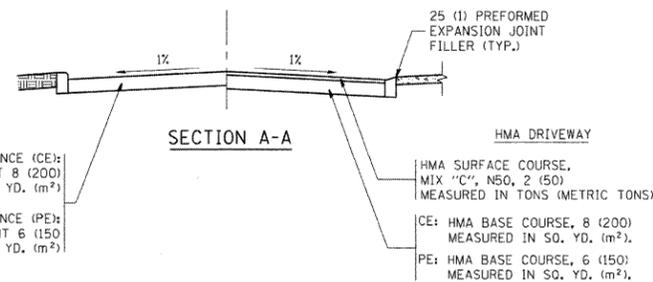
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS, SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

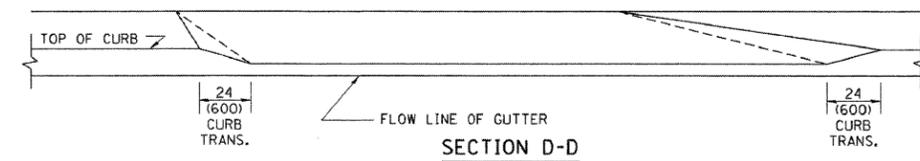
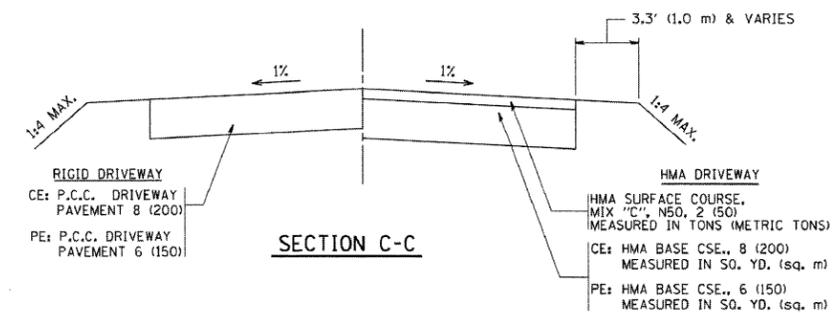
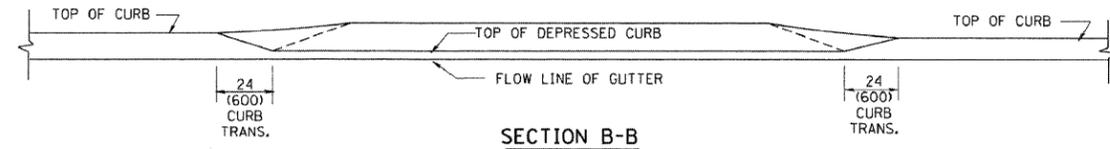
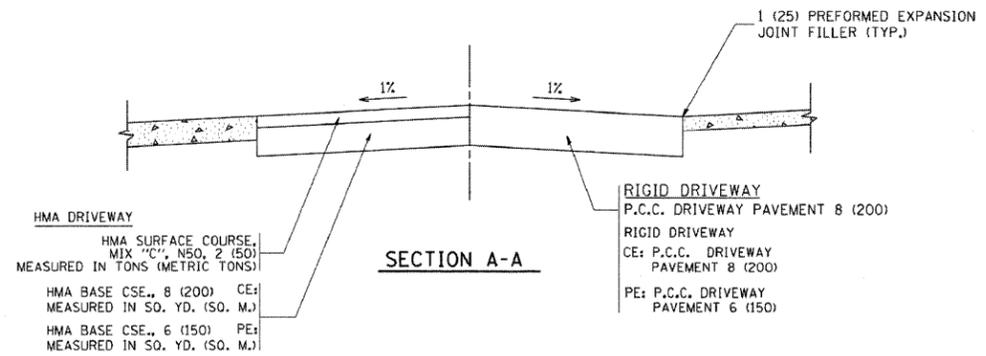
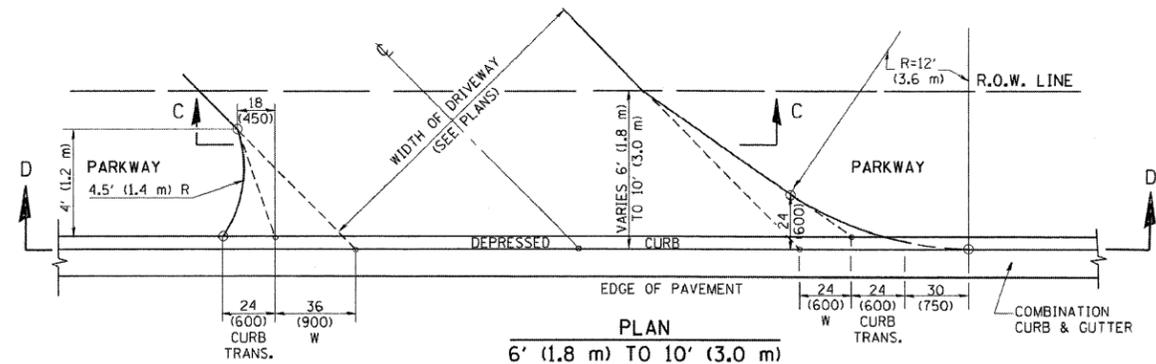
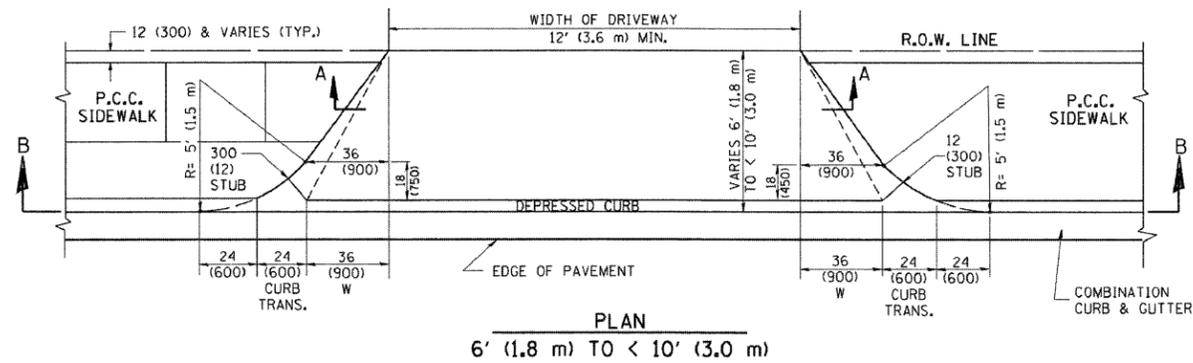
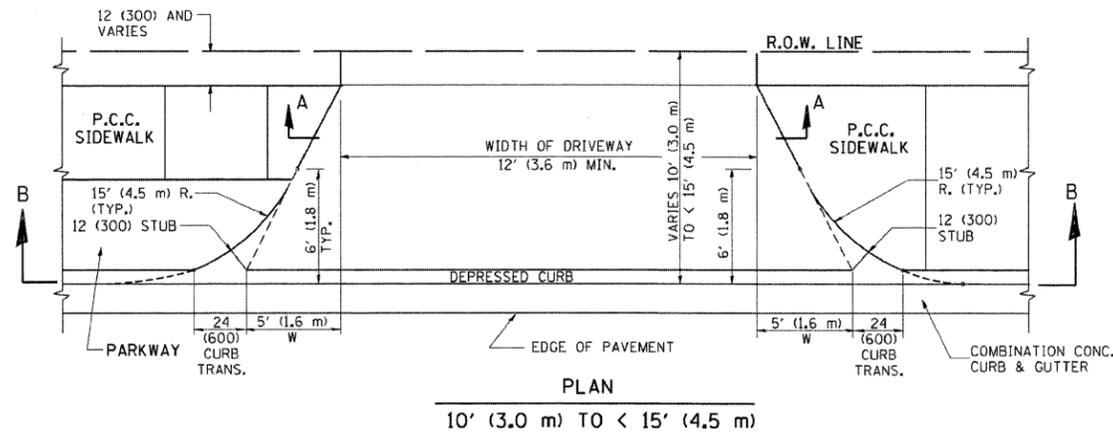


REVISED	- M. GOMEZ	04-06-01
REVISED	- P. LOFLUER	04-15-03
REVISED	- R. BORO	01-01-07
REVISED	- R. BORO	06-11-08

**DRIVEWAY DETAILS – DISTANCE BETWEEN R.O.W. AND CURB OR EDGE GREATER THAN OR EQUAL TO 15'**

DESIGNED	- MJY	REVISED	-
DRAWN	- ST, TSC	REVISED	-
CHECKED	- MJY, SLV	REVISED	-
DATE	- 03/26/2010	REVISED	-

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	30
D-90-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**GENERAL NOTES**

REVISED	-	T. HOLTZ	04-08-97
REVISED	-	M. GOMEZ	04-06-01
REVISED	-	P. LAFLEUR	04-15-03
REVISED	-	R. BORO	01-01-07

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 6' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

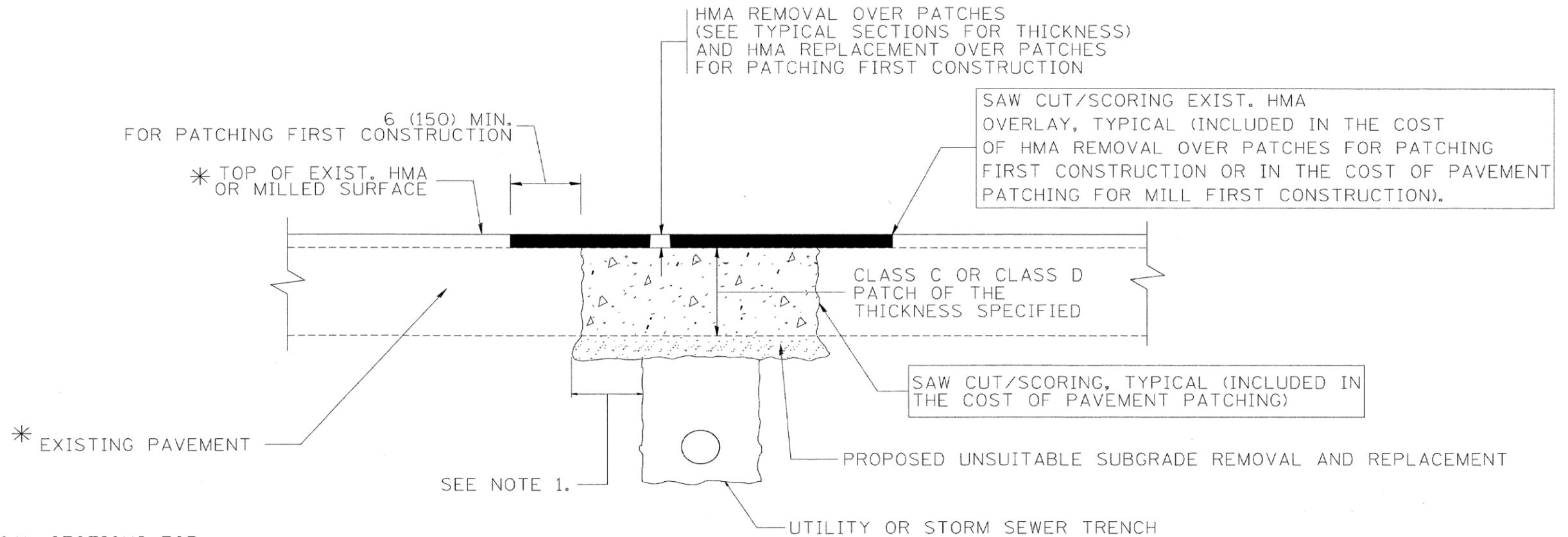
COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

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

**DRIVEWAY DETAILS – DISTANCE BETWEEN R.O.W. AND FACE OF CURB IS LESS THAN 15'**



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**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**

**LONCO, INC.**  
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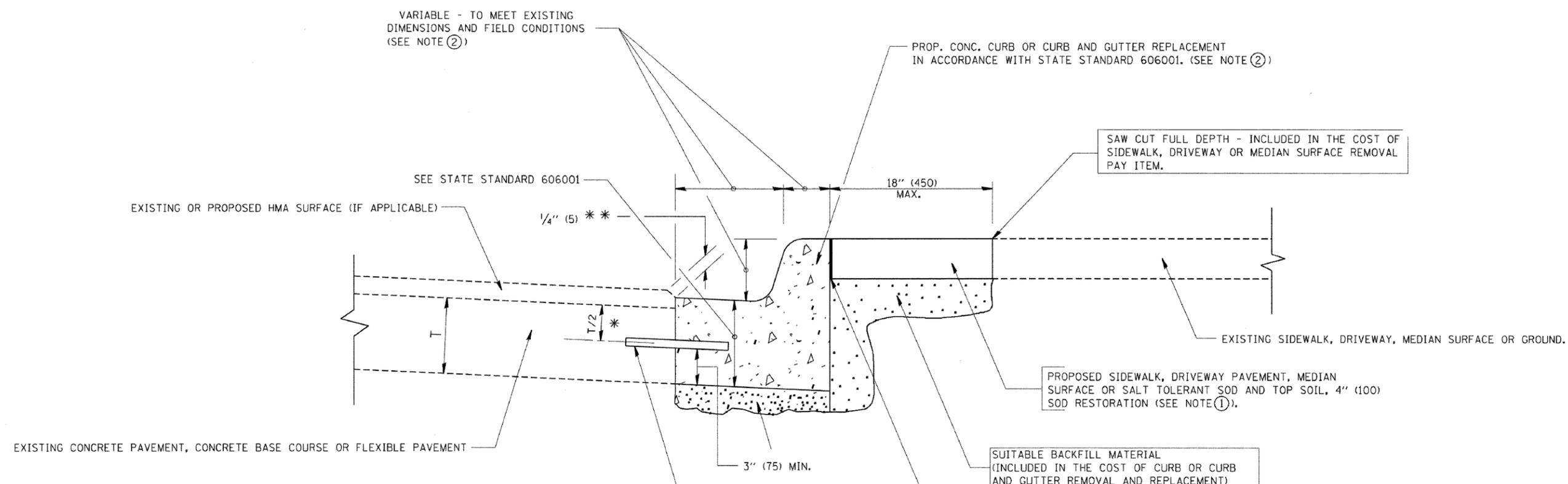
DESIGNED	-	MJY	
DRAWN	-	ST, TSC	REVISED -
CHECKED	-	MJY, SLV	REVISED -
DATE	-	03/26/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAIL SHEETS  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

SCALE: NONE | SHEET NO. 3 OF 11 SHEETS | STA. 98+00 TO STA. 101+60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	32
D-90-289-09			CONTRACT NO. 60F92	
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.

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

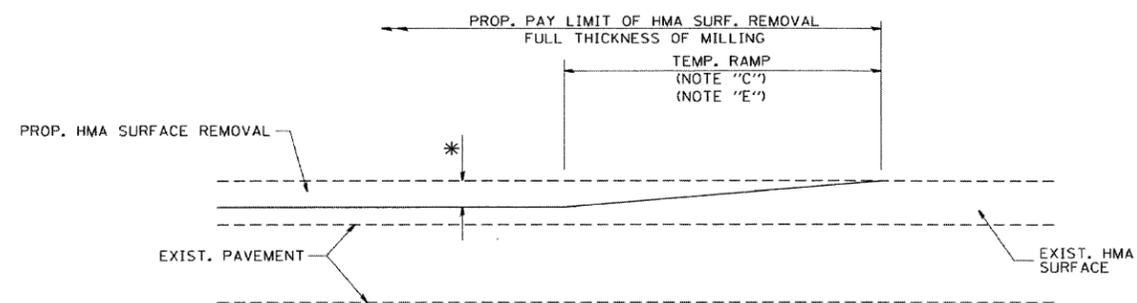
DESIGNED	-	MJY	
DRAWN	-	ST, TSC	REVISED -
CHECKED	-	MJY, SLV	REVISED -
DATE	-	03/26/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

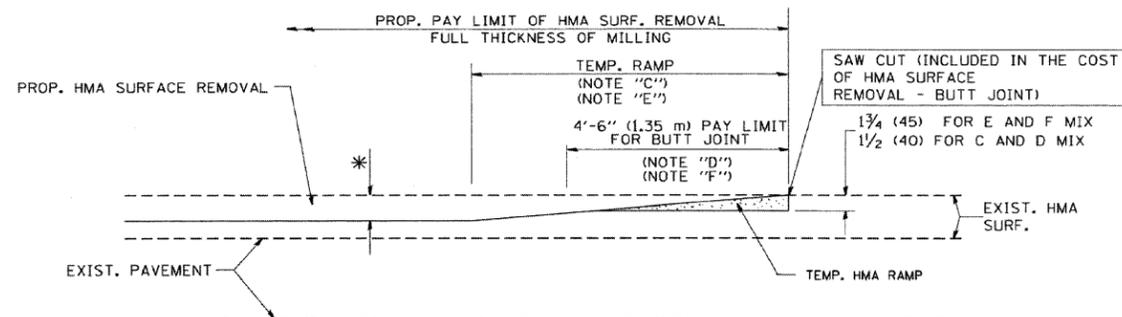
**DISTRICT ONE DETAIL SHEETS  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

SCALE: NONE    SHEET NO. 4 OF 11 SHEETS    STA. 98+00 TO STA. 101+60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	33
D-90-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



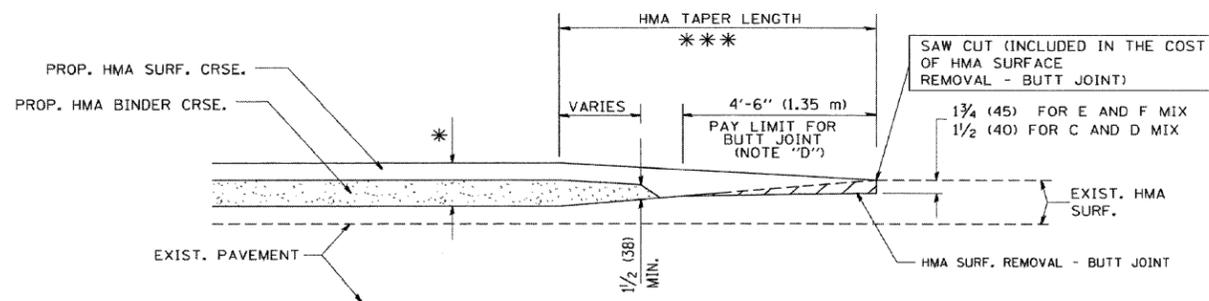
**OPTION 1**



**HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)**

**OPTION 2**

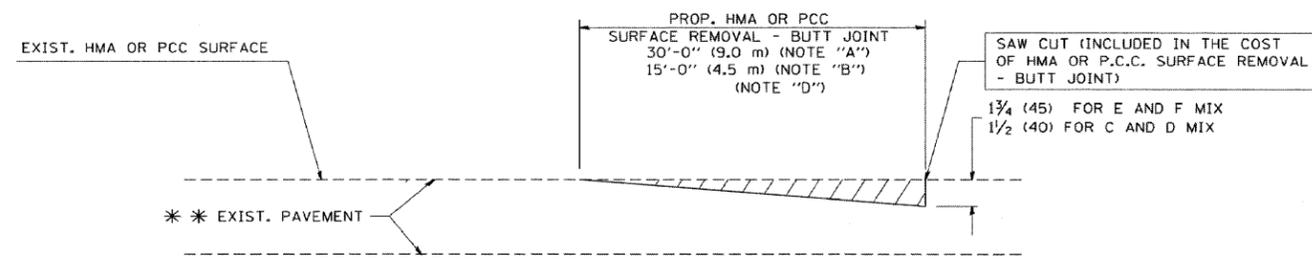
**TYPICAL TEMPORARY RAMP**



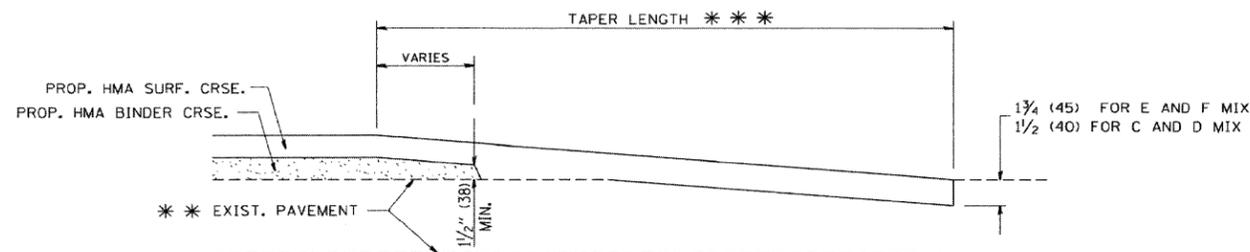
**BUTT JOINT AND  
HMA TAPER**

**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:**

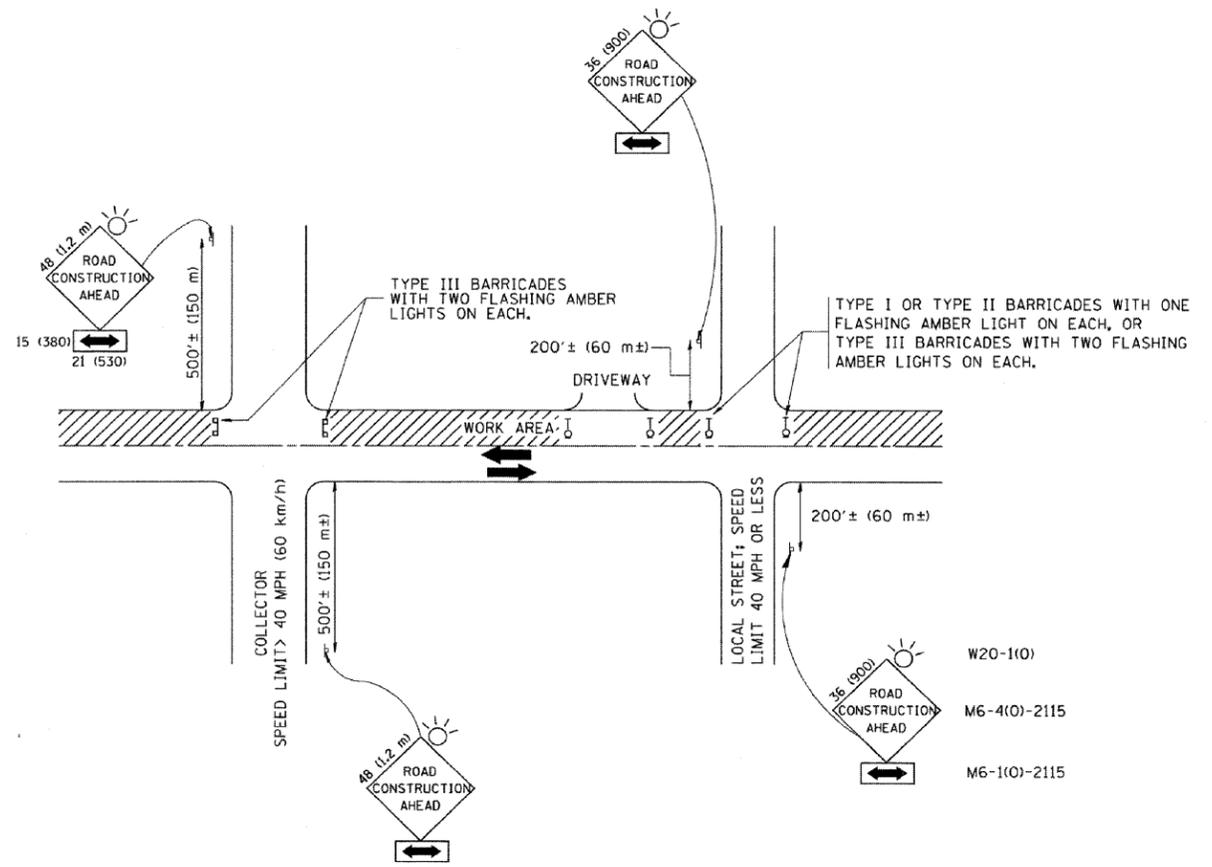
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

**BUTT JOINT AND HMA TAPER DETAILS**

DESIGNED	-	MJY	REVISED	-
DRAWN	-	ST, TSC	REVISED	-
CHECKED	-	MJY, SLV	REVISED	-
DATE	-	03/26/2010	REVISED	-

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	34
D-90-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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.

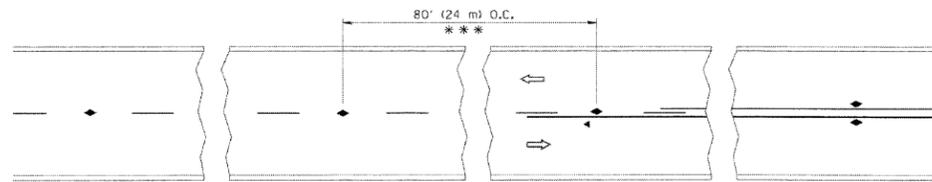
REVISED	- J. OBERLE 10-18-95
REVISED	- A. HOUSEH 03-06-96
REVISED	- A. HOUSEH 10-15-96
REVISED	- T. RAMMACHER 01-06-00

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

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

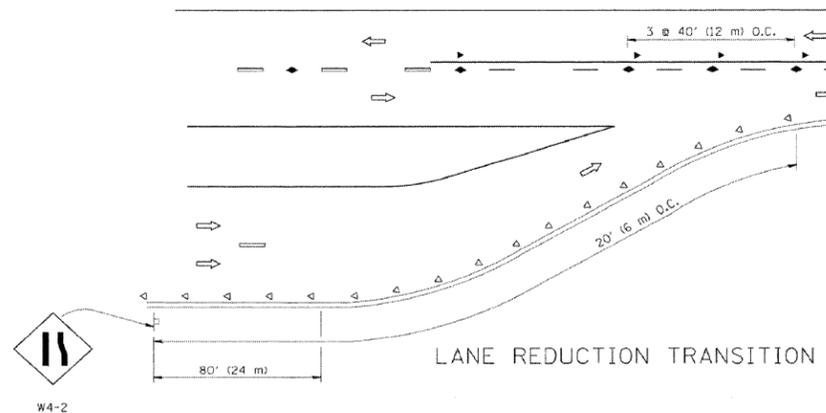
DESIGNED	- MJY	REVISED	-
DRAWN	- ST, TSC	REVISED	-
CHECKED	- MJY, SLV	REVISED	-
DATE	- 03/26/2010	REVISED	-

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	35
D-90-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

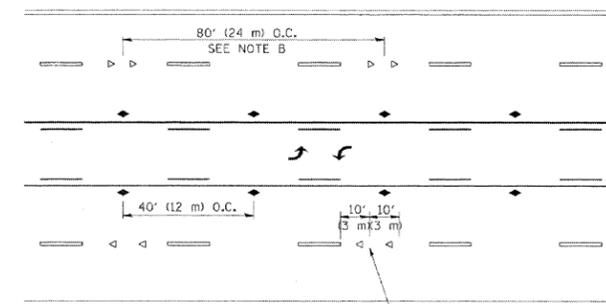


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

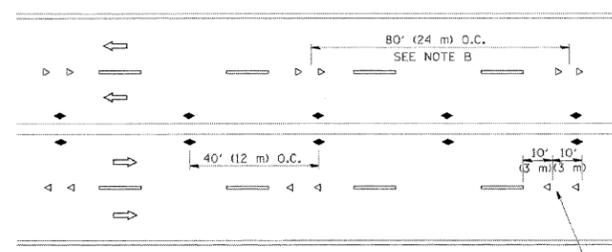
TWO-LANE/TWO-WAY



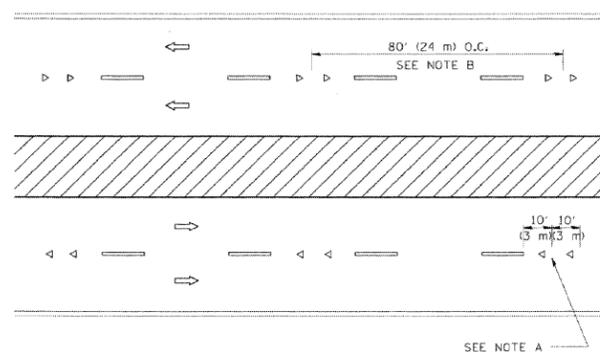
LANE REDUCTION TRANSITION



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

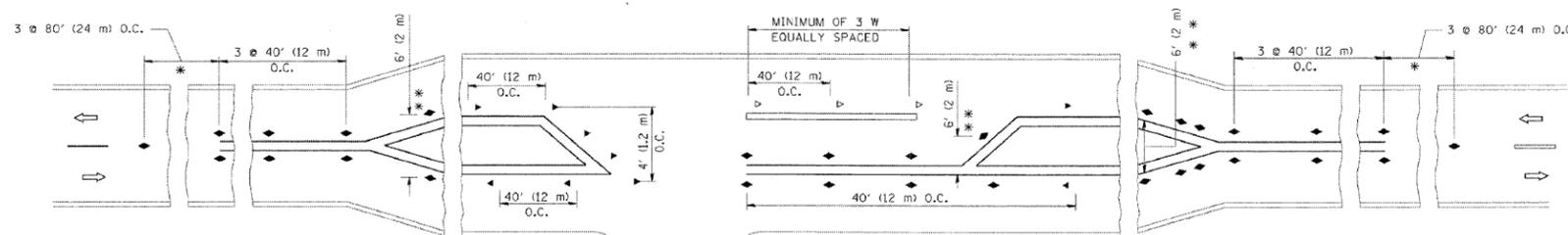
LANE MARKER NOTES

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



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

LEFT TURN

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

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

**LOCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH 630/511-9100

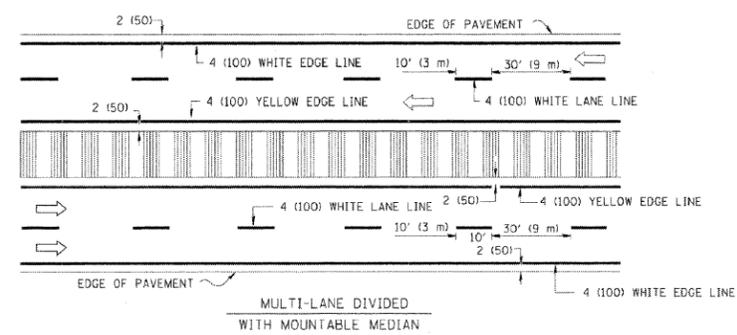
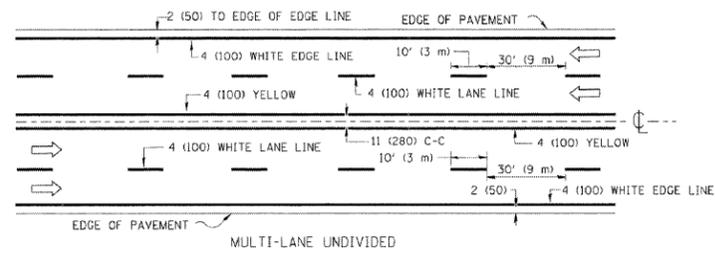
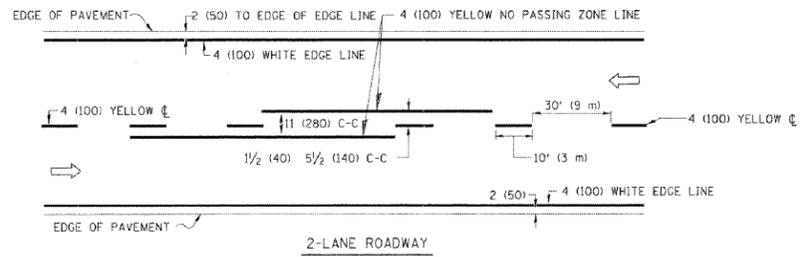
DESIGNED	- M.JY	REVISED	-
DRAWN	- ST, TSC	REVISED	-
CHECKED	- M.JY, SLV	REVISED	-
DATE	- 03/26/2010	REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAIL SHEETS  
 IL ROUTE 59 OVER FLINT CREEK TRIBUTARY**

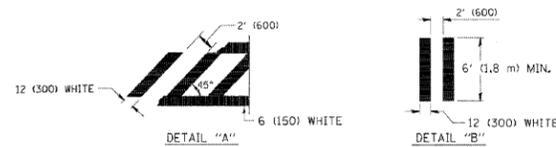
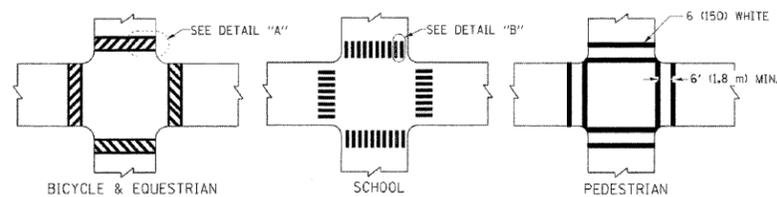
SCALE: NONE SHEET NO. 7 OF 11 SHEETS STA. 98+00 TO STA. 101+60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	36
D-90-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

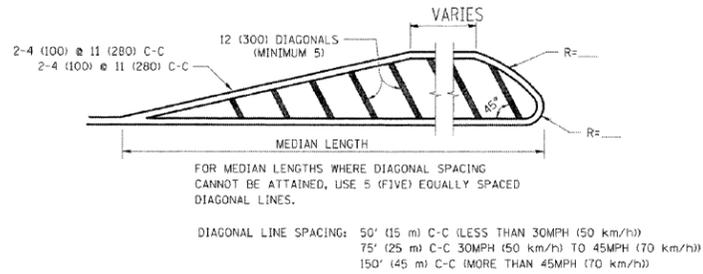
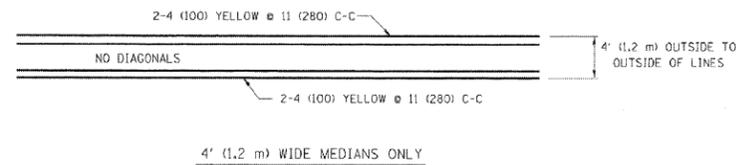


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

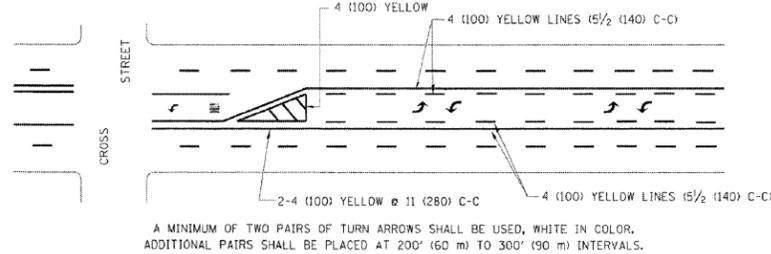
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

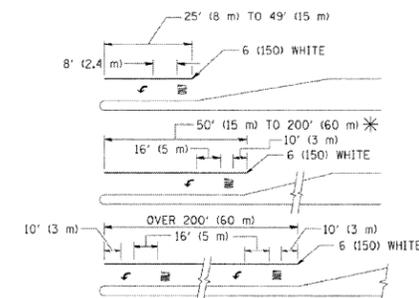


MEDIANS OVER 4' (1.2 m) WIDE



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

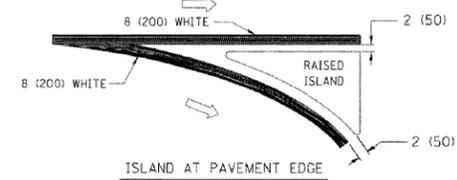
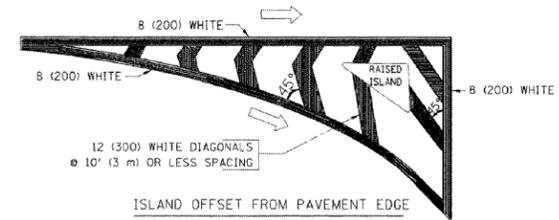


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

\* 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

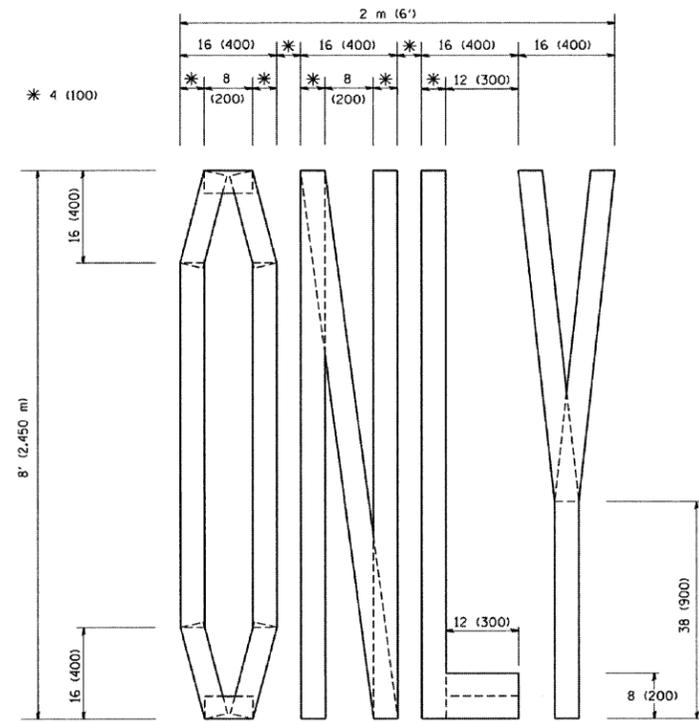
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (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 <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
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.

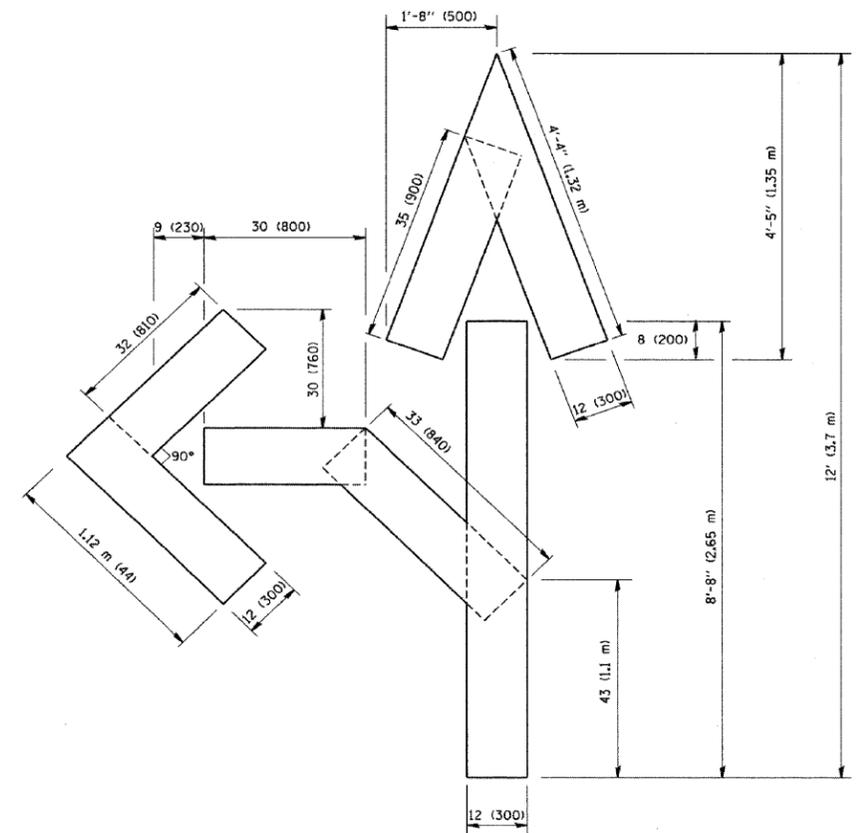
All dimensions are in inches (millimeters) unless otherwise shown.

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

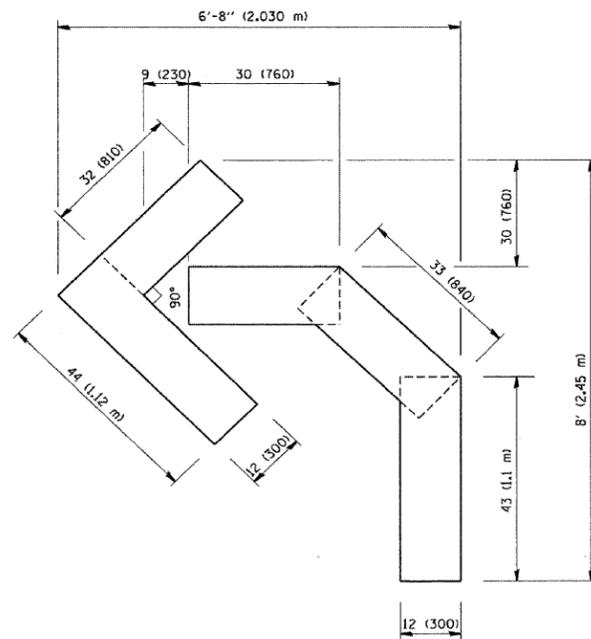
## DISTRICT ONE TYPICAL PAVEMENT MARKINGS



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



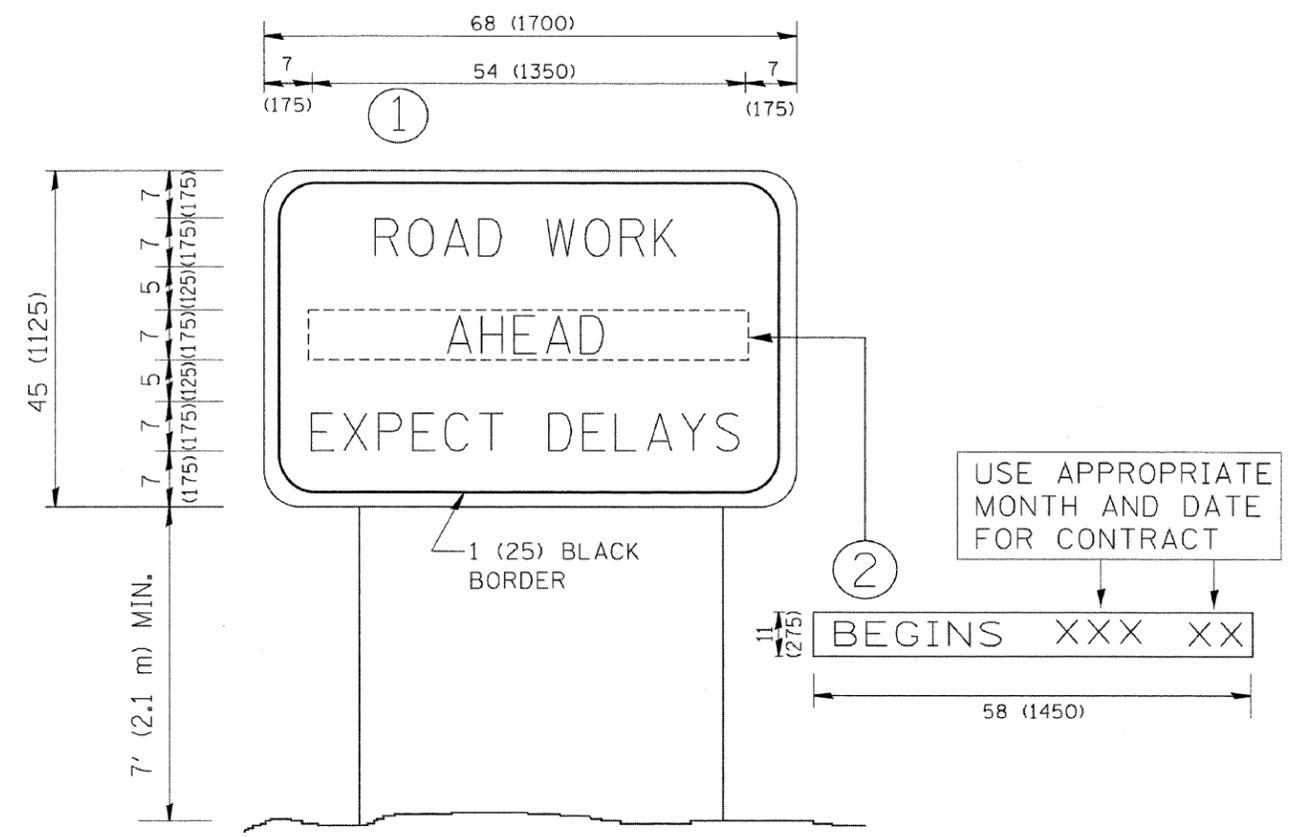
QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)



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. GÓMEZ	08-28-00

## PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING



**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

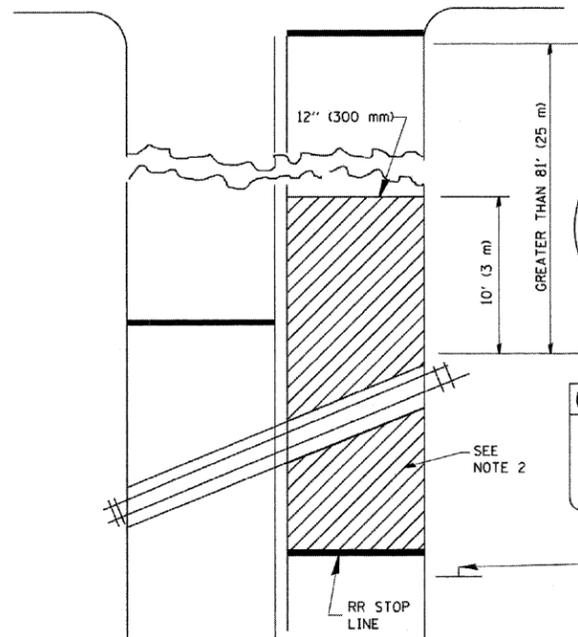
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

**ARTERIAL ROAD INFORMATION SIGN**

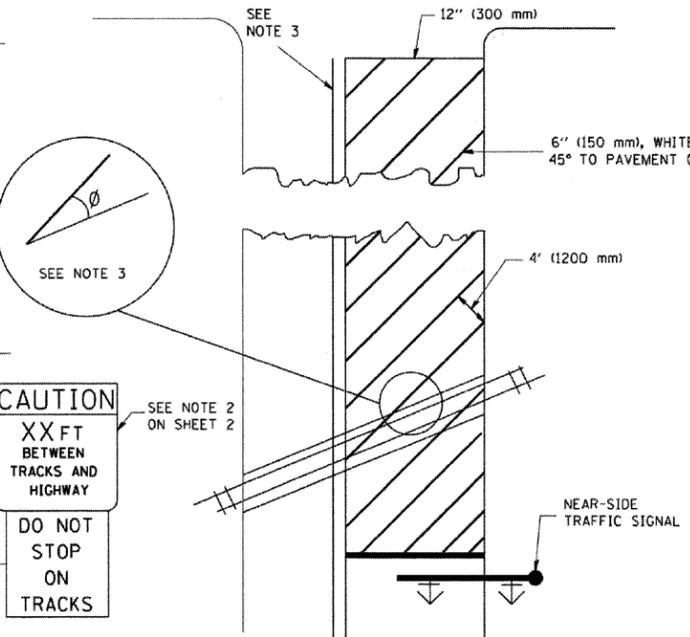
DESIGNED	-	MJY	
DRAWN	-	ST, TSC	REVISED -
CHECKED	-	MJY, SLV	REVISED -
DATE	-	03/26/2010	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	39
D-90-289-09			CONTRACT NO. 60F92	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

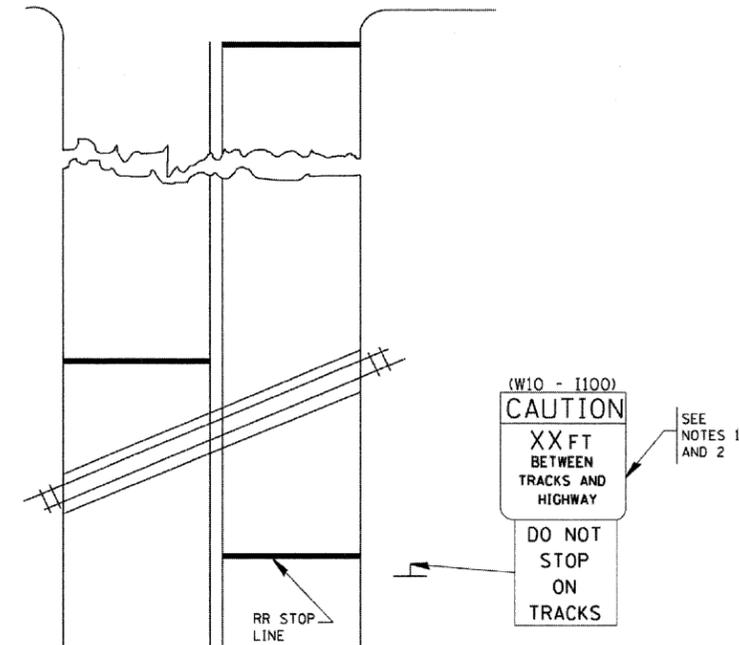
WITH INTERSECTION TRAFFIC SIGNALS



WITH NEAR-SIDE TRAFFIC SIGNALS



WITH NONSIGNALIZED INTERSECTION  
81' (25 m) OR LESS TO CLOSEST RAIL



- NOTES:
1. PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
  2. WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED, THE PAVEMENT MARKINGS EXTENDS TO THE INTERSECTION.
  3. WHERE THE ANGLE BETWEEN THE DIAGONAL STRIPES AND THE TRACK (Ø) WOULD BE LESS THAN APPROXIMATELY 20°, THE STRIPES SHOULD BE SLOPED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

- NOTE :
1. DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET (1.8 m) FROM THE RAIL CLOSEST TO THE INTERSECTION TO THE STOP LINE OR CROSSWALK, WHICHEVER IS CLOSEST, ROUNDED DOWN TO THE NEAREST 5 FEET (1.5 m). WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE THE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
  2. THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6-FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS EXTEND TO THE INTERSECTION.

REVISED	-	01-01-07
REVISED	-	
REVISED	-	
REVISED	-	

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

**SIGNING AND PAVEMENT MARKINGS TREATMENT FOR RAILROAD CROSSINGS**

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

DESIGNED	-	MJY	
DRAWN	-	ST, TSC	REVISED -
CHECKED	-	MJY, SLV	REVISED -
DATE	-	03/26/2010	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS  
IL ROUTE 59 OVER FLINT CREEK TRIBUTARY

SCALE: NONE SHEET NO. 11 OF 11 SHEETS STA. 98+00 TO STA. 101+60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	108 B-1	LAKE	40	40
D-90-289-09		CONTRACT NO. 60F92		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		