

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60F91		

D-91-288-09

IMPROVEMENT LOCATED IN THE VILLAGE OF HOFFMAN ESTATES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

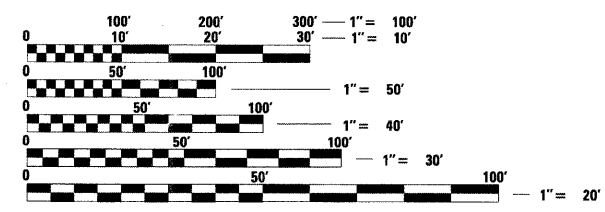
PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

F.A.U. ROUTE 1320 (IL ROUTE 58 /GOLF ROAD)  
OVER POPLAR CREEK  
SECTION: 581 B-1  
PPC DECK BEAM REPLACEMENT  
COOK COUNTY  
C-91-288-09



FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION  
MINOR ARTERIAL (URBAN)  
ADT 13,600 (2008)  
SPEED LIMIT 55 MPH



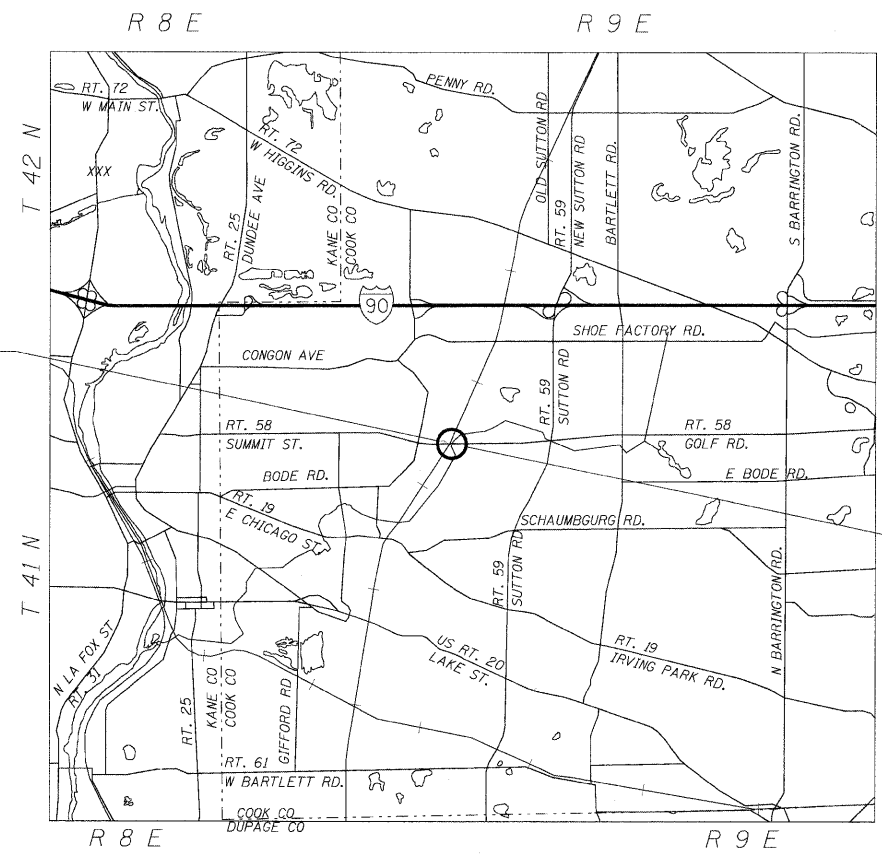
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

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

CONTRACT NO. 60F91

PROJECT BEGINS  
STA. 492+55



PROJECT ENDS  
STA. 498+45

LOCATION SKETCH  
NET AND GROSS LENGTH OF PROJECT = 590' = 0.112 MI

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED June 24 20 09  
De O'Leary  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 14, 20 09  
Charles J. Ingersoll  
ENGINEER OF DESIGN AND ENVIRONMENT

August 14, 20 09  
Christine M. Reed  
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

STATE OF ILLINOIS  
REGISTERED PROFESSIONAL ENGINEER  
WILLIAM H. EUBANK  
081-005150

Expires 11-30-10 11/30/09

SHEET NO. TITLE

1	TITLE SHEET
2	GENERAL NOTES, 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
12-26	STRUCTURAL PLANS
27	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
28	BUTT JOINT AND HMA TAPER DETAILS
29	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
30	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
31	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
32	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
33	ARTERIAL ROAD INFORMATION SIGN HIGHWAY STANDARDS

STATE STANDARDS

SHEET NO. TITLE

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT REBARS
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
420401-07	BRIDGE APPROACH PAVEMENT CONNECTOR
442201-03	CLASS C AND CLASS D PATCHES
515001-03	NAME PLATE FOR BRIDGE
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701301-03	LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS
<del>701320-03</del>	<del>LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH</del>
701331-03	LANE CLOSURE, 2L, 2W, WITH RUN-AROUND FOR SPEEDS ≥ 45 MPH
<del>701431-03</del>	<del>LANE CLOSURE, MULTILANE, UNDIV. W/ CROSSOVER, FOR SPEEDS ≥ 45 MPH TO 55 MPH</del>
701901-01	TRAFFIC CONTROL DEVICES
704001-05	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
729001-01	APPLICATION OF TYPES A & B METAL POSTS (FOR SIGN & MARKERS)
780001-02	TYPICAL PAVEMENT MARKINGS
631031-07	

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.

DURING CONSTRUCTION OPERATIONS, LOOSE MATERIAL DEPOSITS THAT OBSTRUCT THE FLOW OF WATER IN DRAINING THE AREA SHALL BE REMOVED BEFORE THE END OF EACH WORK DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES (NEW AND EXISTING) SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF COMPOST FINISH AND PLACE 4".

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 CONTRACTOR SHALL NOTIFY THE AREA TRAFFIC FIELD ENGINEER, DON CHIARUGI, AT (847) 741-9857 AT LEAST 72 HOURS PRIOR TO FINAL PAVEMENT MARKING INSTALLATION.

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 UNBALLASTED TYPE I AND TYPE II BARRICADES SHALL HAVE TWO (2) SANDBAGS ON THE BOTTOM RAIL.

ALL WORK IS TO BE COMPLETED WITHIN 45 WORKING DAYS. THE COMPLETION DATE FOR THIS CONTRACT IS SEPTEMBER 3, 2010.

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE		SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE	
CODE NO.	ITEM	UNIT	URBAN 100% STATE TOTAL QUANTITIES	1000	X080-2A	CODE NO.	ITEM	UNIT	URBAN 100% STATE TOTAL QUANTITIES	1000	X080-2A
20200100	EARTH EXCAVATION	CU YD	220	220		44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	60	60	
21101815	COMPOST FURNISH AND PLACE, 4"	SQ YD	1611	1611		44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	75	75	
25000310	SEEDING, CLASS 4	ACRE	0.3	0.3		44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1815	1815	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	27	27		50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	27	27		50102400	CONCRETE REMOVAL	CU YD	11		11
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	27	27		50300225	CONCRETE STRUCTURES	CU YD	53		53
25100630	EROSION CONTROL BLANKET	SQ YD	1611	1611		50300255	CONCRETE SUPERSTRUCTURE	CU YD	272		272
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	30	30		50300260	BRIDGE DECK GROOVING	SQ YD	524		524
28000300	TEMPORARY DITCH CHECKS	EACH	2	2		50300300	PROTECTIVE COAT	SQ YD	1201		1201
28000400	PERIMETER EROSION BARRIER	FOOT	1089	1089		50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	4894		4894
31101100	SUB-BASE GRANULAR MATERIAL, TYPE B	CU YD	49		49	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	72,930		72,930
35600704	HOT-MIX ASPHALT BASE COURSE WIDENING, 7"	SQ YD	248	248		50800515	BAR SPLICERS	EACH	291		291
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	3	3		51500100	NAME PLATES	EACH	1		1
40600300	AGGREGATE (PRIME COAT)	TON	11	11		52000110	PREFORMED JOINT STRIP SEAL	FOOT	87		87
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	4	4		59000200	EPOXY CRACK INJECTION	FOOT	161		161
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	102	102		* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	46	46		* 63100167	TRAFFIC BARRIER TERMINAL, TYPE I (SPECIAL) TANGENT	EACH	4	4	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	28	28		67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	160	160		67100100	MOBILIZATION	L SUM	1	1	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	54	54		<del>70100100</del>	<del>TRAFFIC CONTROL AND PROTECTION, STANDARD 701431</del>	<del>EACH</del>	<del>1</del>	<del>1</del>	
44000100	PAVEMENT REMOVAL	SQ YD	221	221		<del>70100500</del>	<del>TRAFFIC CONTROL AND PROTECTION, STANDARD 701326</del>	<del>L SUM</del>	<del>1</del>	<del>1</del>	
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	2219	2219		70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
44000700	APPROACH SLAB REMOVAL	SQ YD	107		107	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	150	150	
44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	165	165		70300100	SHORT-TERM PAVEMENT MARKING	FOOT	669	669	
44004250	PAVED SHOULDER REMOVAL	SQ YD	369	369		70300625	TEMPORARY PAINT PAVEMENT MARKING LINE 4"	FOOT	1324	1324	
44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	30	30		70400100	TEMPORARY CONCRETE BARRIER	FOOT	300	300	

\*Specialty Items

\* SPECIALTY ITEMS

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

DESIGNED - MJY  
DRAWN - ST  
CHECKED - MJY  
DATE - 07/08/2009

REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD)**

SCALE: NONE SHEET NO. 3 OF 33 SHEETS STA. 492+55 TO STA. 498+45

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	3
D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Rev

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE		SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE	
CODE NO.	ITEM	UNIT	<i>LIBRAN</i> TOTAL	1000	X080-2A	CODE NO.	ITEM	UNIT	TOTAL	1000	X080-2A
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	300	300							
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1202	1202							
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	263	263							
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	24	24							
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4	4							
* 78200500	BARRIER WALL MARKERS	EACH	26	26							
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	16	16							
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52							
X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	6515	6515							
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	544		544						
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12							
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	58		58						
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1							
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2							
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2							
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1							

\* SPECIALTY ITEMS

**LONCO, INC.**  
CONSULTING ENGINEERS  
1960 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

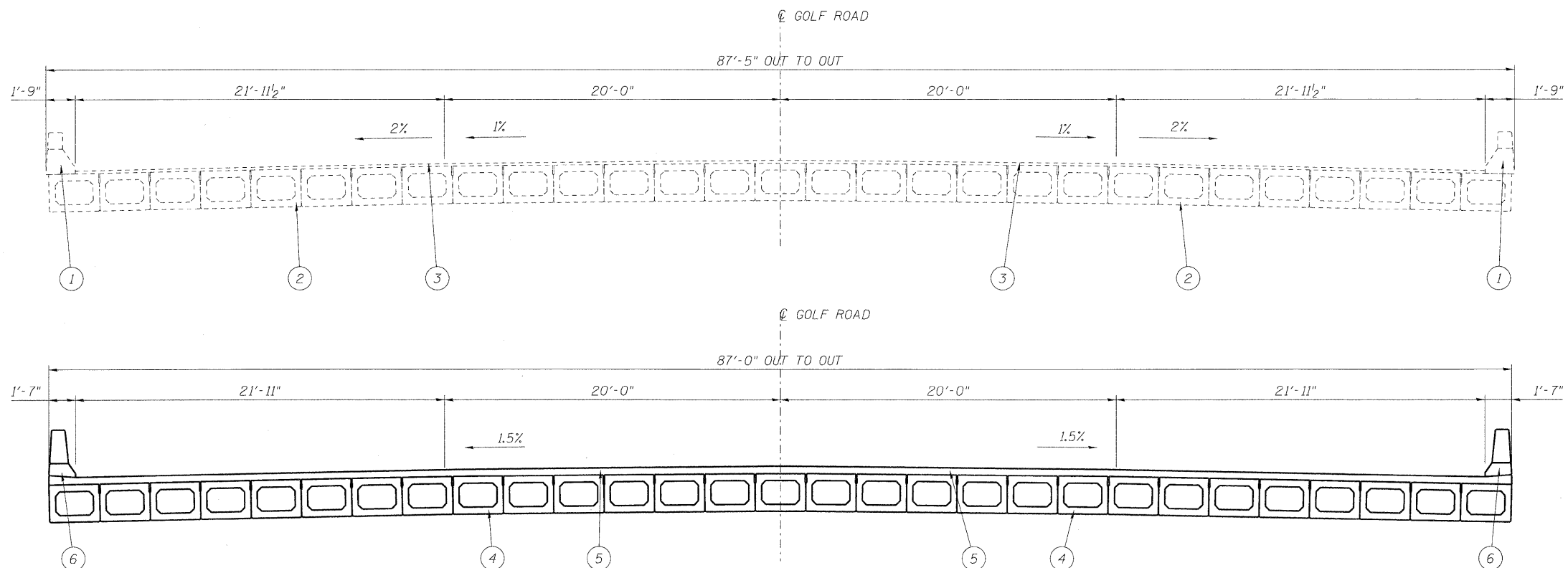
DESIGNED - MJY	REVISED -
DRAWN - ST	REVISED -
CHECKED - MJY	REVISED -
DATE - 07/08/2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

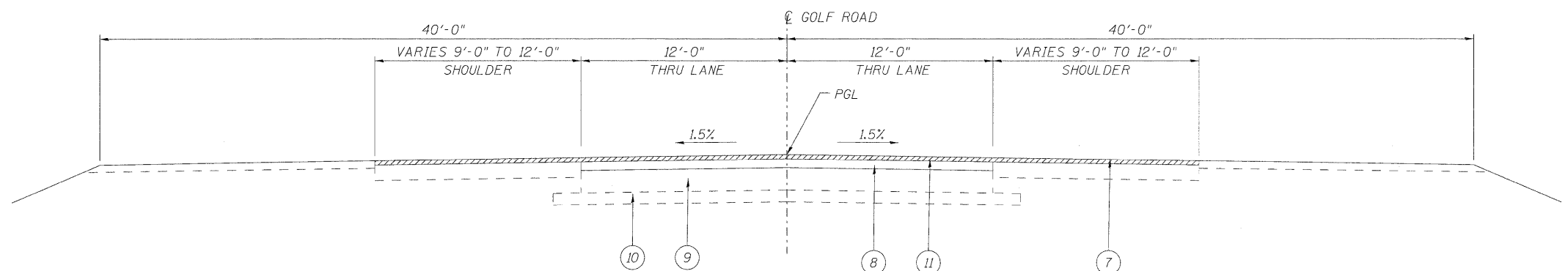
**SUMMARY OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD)**

SCALE: NONE SHEET NO. 4 OF 31 SHEETS STA. 492+55 TO STA. 498+45

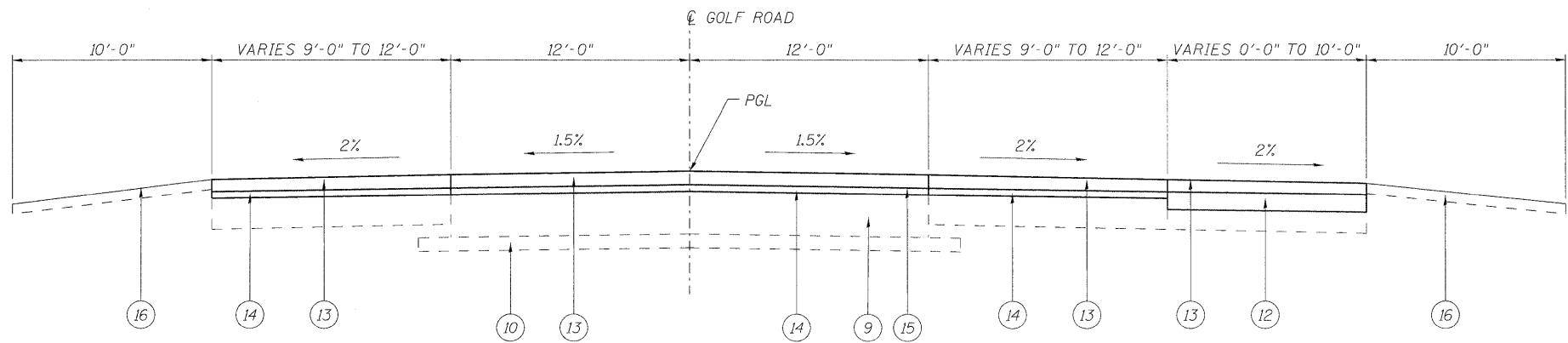
F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	4
D-91-288-09		CONTRACT NO. 60F91		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**PROPOSED TYPICAL SECTION**  
NO SCALE



**EXISTING TYPICAL SECTION - GOLF ROAD**  
NO SCALE



**PROPOSED TYPICAL SECTION - GOLF ROAD**  
NO SCALE

**LEGEND**

- ① EXISTING PARAPET WALLS
- ② EXISTING PPC DECK BEAMS
- ③ EXISTING HMA WEARING SURFACE (2")
- ④ PROPOSED PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)
- ⑤ PROPOSED CONCRETE WEARING SURFACE (5")
- ⑥ PROPOSED PARAPET WALL, TYPE F, PAID AS CONCRETE SUPERSTRUCTURE
- ⑦ EXISTING HMA SHOULDER
- ⑧ EXISTING HMA SURFACE AND BINDER COURSES
- ⑨ EXISTING PCC BASE COURSE, 9"
- ⑩ EXISTING SUBBASE GRANULAR MATERIAL, TYPE A, 6"
- ⑪ HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- ⑫ HOT-MIX ASPHALT BASE COURSE WIDENING, 7" (3 LIFTS)
- ⑬ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑭ LEVELING BINDER (MACHINE METHOD), N70, 3/4"
- ⑮ BITUMINOUS MATERIALS (PRIME COAT)
- ⑯ COMPOST FURNISH AND PLACE, 4" W/ SEEDING, CL 4
- ⑰ TEMPORARY CONCRETE BARRIER
- ⑱ PAVEMENT MARKING TAPE, TYPE III, 4", WHITE, 2 @ 10" C-C
- ⑳ RELOCATE TEMPORARY CONCRETE BARRIER

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

MIXTURE TYPE	AC/PG	DESIGN AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE MIX "D", N70	PG 64-22	4% @ 70 GYR
LEVELING BINDER (MACHINE METHOD), N70	PG 64-22*	4% @ 70 GYR
CLASS D PATCHES (HMA BINDER IL 19 mm)	PG 64-22*	4% @ 70 GYR
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	PG 64-22*	4% @ 70 GYR
HOT-MIX ASPHALT BASE COURSE WIDENING, 7" (HMA BINDER IL-19mm)	PG 64-22*	4% @ 70 GYR

**PAVEMENT CONNECTOR MIXTURE REQUIREMENTS**

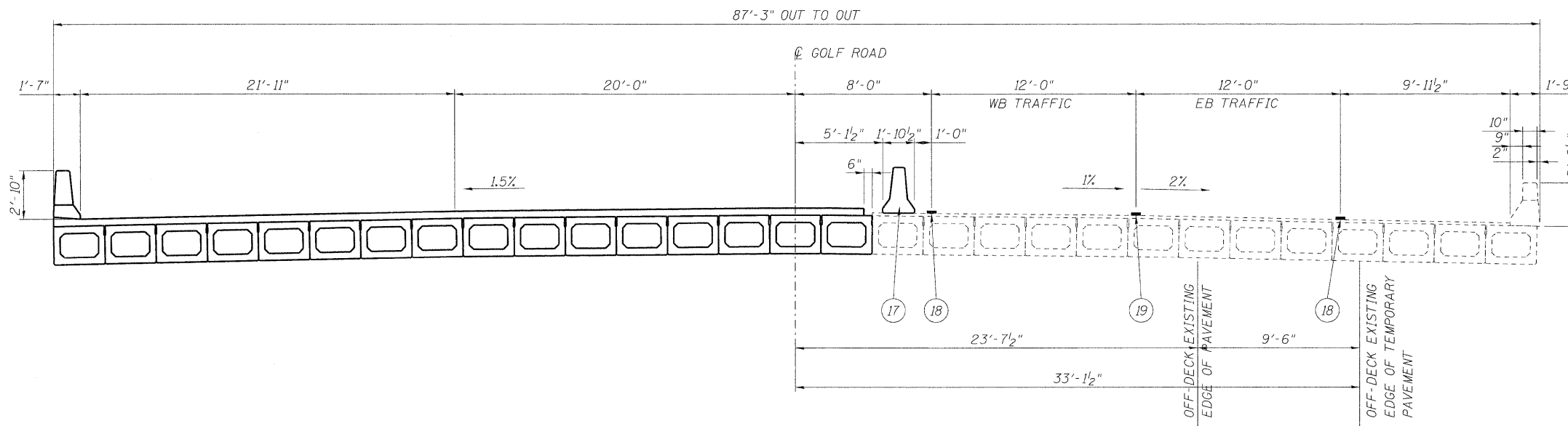
MIXTURE TYPE	AC/PG	DESIGN AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE MIX "D", N70	PG 64-22	4% @ 70 GYR
LEVELING BINDER (MACHINE METHOD), N70	PG 64-22*	4% @ 70 GYR

**NOTES:**

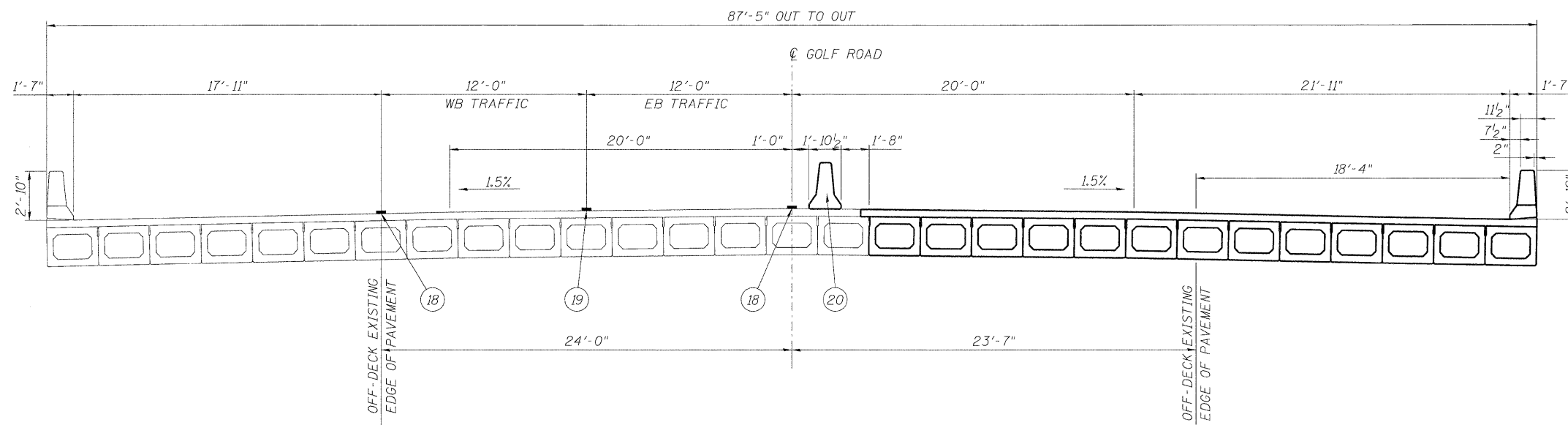
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LSB/SQYD/IN.

\*WHEN RAP EXCEEDS 20%. THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING



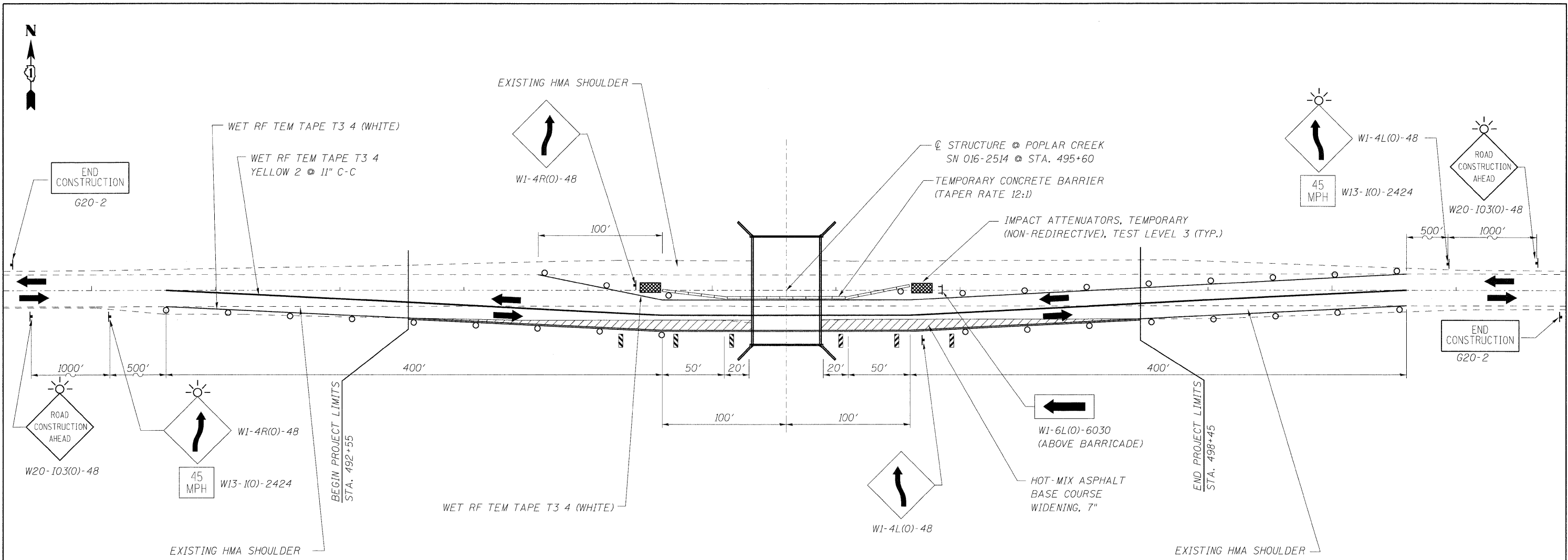
STAGE 1 @ STA. 495+60.00 LOOKING EAST  
NO SCALE



STAGE 2 @ STA. 495+60.00 LOOKING EAST  
NO SCALE

**LEGEND**

- ① EXISTING PARAPET WALLS
- ② EXISTING PPC DECK BEAMS
- ③ EXISTING HMA WEARING SURFACE (2")
- ④ PROPOSED PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)
- ⑤ PROPOSED CONCRETE WEARING SURFACE (5")
- ⑥ PROPOSED PARAPET WALL, TYPE F, PAID AS CONCRETE SUPERSTRUCTURE
- ⑦ EXISTING HMA SHOULDER
- ⑧ EXISTING HMA SURFACE AND BINDER COURSES
- ⑨ EXISTING PCC BASE COURSE, 9"
- ⑩ EXISTING SUBBASE GRANULAR MATERIAL, TYPE A, 6"
- ⑪ HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- ⑫ HOT-MIX ASPHALT BASE COURSE WIDENING, 7" (3 LIFTS)
- ⑬ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑭ LEVELING BINDER (MACHINE METHOD), N70, 3/4"
- ⑮ BITUMINOUS MATERIALS (PRIME COAT)
- ⑯ COMPOST FURNISH AND PLACE, 4" W/ SEEDING, CL 4
- ⑰ TEMPORARY CONCRETE BARRIER
- ⑱ PAVEMENT MARKING TAPE, TYPE III, 4", WHITE, 2 @ 10" C-C
- ⑲ PAVEMENT MARKING TAPE, TYPE III, 4", YELLOW, 2 @ 10" C-C
- ⑳ RELOCATE TEMPORARY CONCRETE BARRIER



**LEGEND**

- ▨ - DOUBLE VERTICAL PANEL
- - BARRICADE W/ STEADY BURN LIGHT
- ┌ - TYPE III BARRICADE
- └ - SIGN
- ▩ - IMPACT ATTENUATOR

**NOTES:**

ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH CONSTRUCTION TRAFFIC CONTROL SHALL BE COVERED WITH BLACK TYPE III PAVEMENT MARKING TAPE.

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

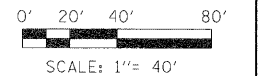
VERTICAL PANELS SHALL BE USED WHEN BARRELS CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES, BARRELS 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."

THE CONTRACTOR SHALL REPLACE ALL TEMPORARY PAVEMENT MARKING REFLECTORS AND EXISTING SIGNS THAT ARE REMOVED OR DAMAGED DURING CONSTRUCTION.

**STAGE 1**

1. INSTALL HOT-MIX ASPHALT BASE COURSE WIDENING, 7".
2. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 1 MAINTENANCE OF TRAFFIC.
3. REMOVE EXISTING PAVEMENT ON WESTBOUND SIDE OF IL ROUTE 58.
4. REMOVE NORTH HALF OF EXISTING SUPERSTRUCTURE.
5. INSTALL NEW BEAMS AND DECK AND CONSTRUCT NEW PARAPET WALLS.
6. CONSTRUCT ROADWAY ON NORTH SIDE OF IL ROUTE 58 IN ACCORDANCE WITH SHEET 9.



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

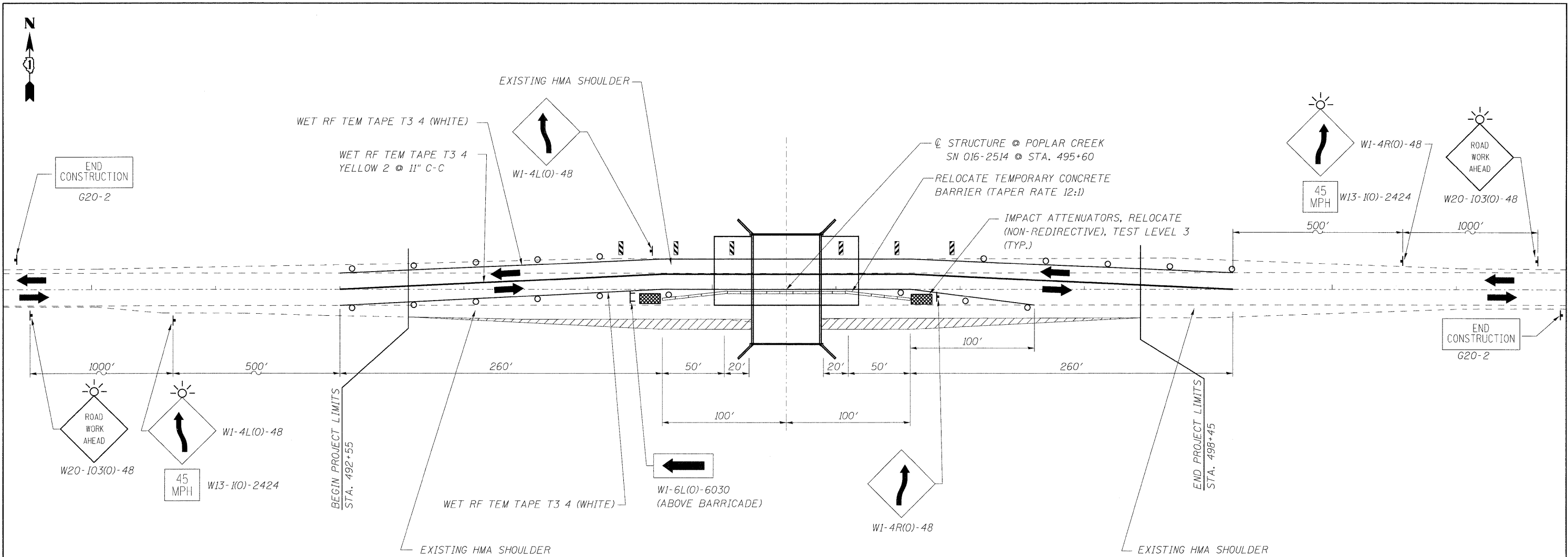
DESIGNED - MJY	REVISED - ---
DRAWN - ST	REVISED - ---
CHECKED - MJY	REVISED - ---
DATE - 07/08/2009	REVISED - ---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 1  
IL ROUTE 58 (GOLF ROAD)**

SCALE: 1" = 40' SHEET NO. 7 OF 33 SHEETS STA. 492+55 TO STA. 498+45

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	7
D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO. [ ] ILLINOIS FED. AID PROJECT				



**LEGEND**

- ▨ - DOUBLE VERTICAL PANEL
- - BARRICADE W/ STEADY BURN LIGHT
- ┌ - TYPE III BARRICADE
- └ - SIGN
- ▩ - IMPACT ATTENUATOR

**NOTES:**

ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH CONSTRUCTION TRAFFIC CONTROL SHALL BE COVERED WITH BLACK TYPE III PAVEMENT MARKING TAPE.

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

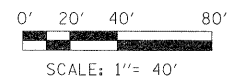
VERTICAL PANELS SHALL BE USED WHEN BARRELS CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES, BARRELS 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."

THE CONTRACTOR SHALL REPLACE ALL TEMPORARY PAVEMENT MARKING REFLECTORS AND EXISTING SIGNS THAT ARE REMOVED OR DAMAGED DURING CONSTRUCTION.

**STAGE 2**

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 2 MAINTENANCE OF TRAFFIC.
2. REMOVE EXISTING PAVEMENT ON EASTBOUND SIDE OF IL ROUTE 58.
3. REMOVE SOUTH HALF OF EXISTING SUPERSTRUCTURE.
4. INSTALL NEW BEAMS AND DECK AND CONSTRUCT NEW PARAPET WALLS.
5. CONSTRUCT ROADWAY ON SOUTH SIDE OF IL ROUTE 58 IN ACCORDANCE WITH SHEET 9.



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

DESIGNED - MJY  
 DRAWN - ST  
 CHECKED - MJY  
 DATE - 07/08/2009

REVISED - ---  
 REVISED - ---  
 REVISED - ---  
 REVISED - ---

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 2  
 IL ROUTE 58 (GOLF ROAD)**

SCALE: 1" = 40' SHEET NO. 8 OF 33 SHEETS STA. 492+55 TO STA. 498+45

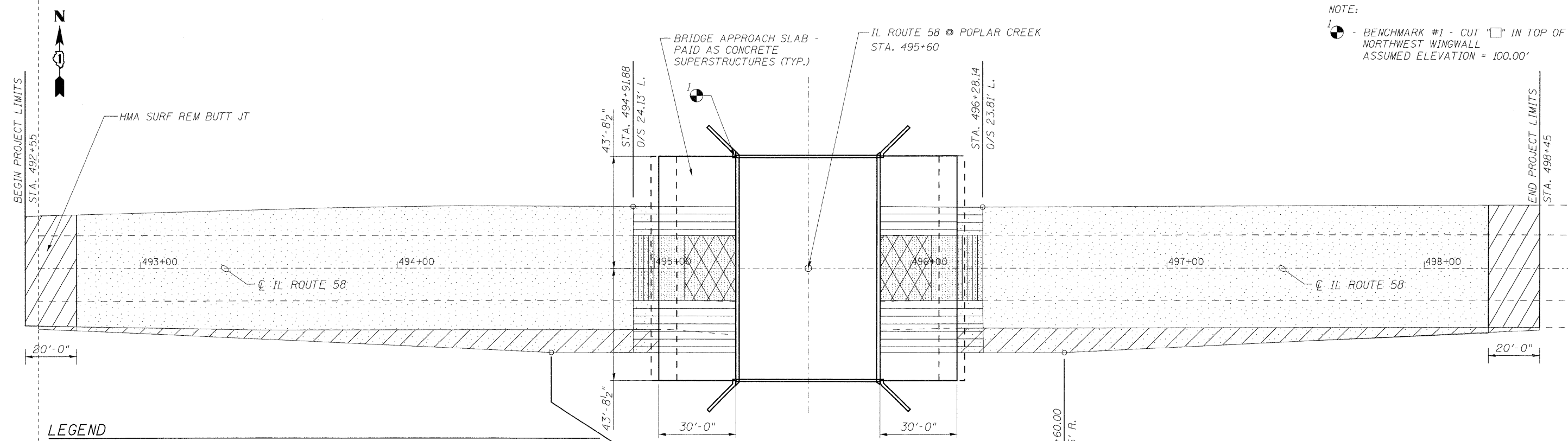
F.A.U. RTE. 1320	SECTION 581 B-1	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 8
D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PLAN	SURVEYED	BY	DATE
	ALIGNED		
	CHECKED		
	NOTE BOOK		
	NO.		
	CADD FILE NAME		

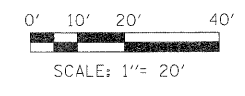
PROFILE	SURVEYED	BY	DATE
	PLotted		
	CHECKED		
	NOTE BOOK		
	NO.		
	STRUCTURE NOTATIONS CHECKED		

NOTE:  
 - BENCHMARK #1 - CUT "□" IN TOP OF NORTHWEST WINGWALL ASSUMED ELEVATION = 100.00'



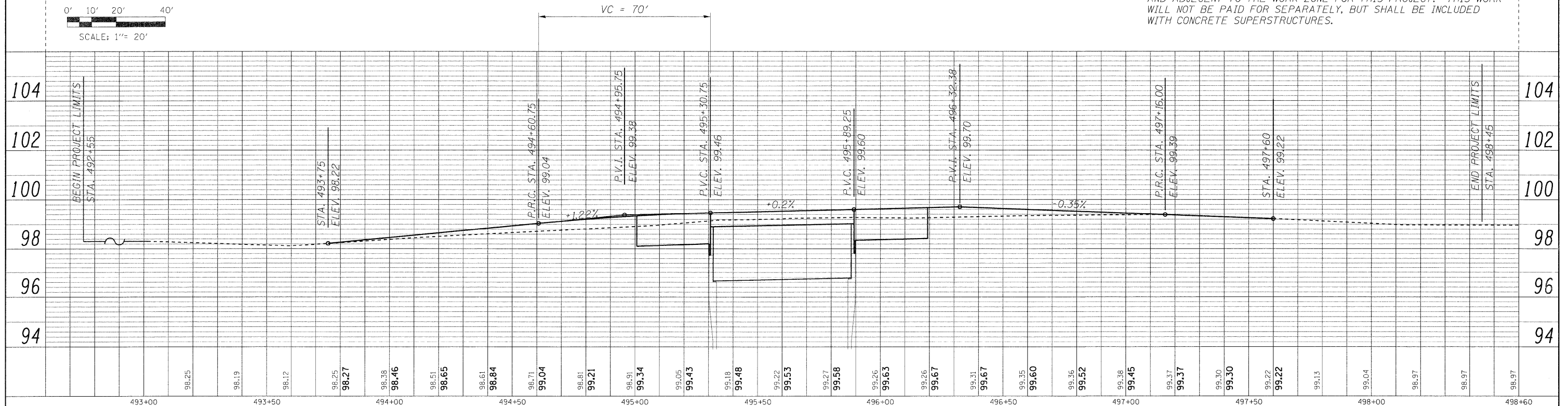
**LEGEND**

- HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2" W/ BITUMINOUS MATERIALS (PRIME COAT), HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2" & LEVELING BINDER (MACHINE METHOD), N70, 3/4"
- PAVEMENT REM
- BR APPR PVT CON (FLX)
- PAVED SHLD REMOVAL
- HMA SURF REM BUTT JT
- APPROACH SLAB REMOVAL 2 @ 24'-0" BY 20'-0"
- HOT-MIX ASPHALT BASE COURSE WIDENING, 7"



**NOTES:**

1. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES. THIS WORK WILL NOT BE PAID FOR SEPARATELY, THE COST OF PROTECTING AND MAINTAINING UTILITIES SHALL BE INCLUDED WITH CONCRETE SUPERSTRUCTURES.
2. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL TREES WITHIN AND ADJACENT TO THE WORK ZONE FOR THIS PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH CONCRETE SUPERSTRUCTURES.



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

DESIGNED	- MJJ	REVISED	-
DRAWN	- ST	REVISED	-
CHECKED	- MJJ	REVISED	-
DATE	- 07/08/2009	REVISED	-

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

**PLAN AND PROFILE**  
**IL ROUTE 58 (GOLF ROAD)**  
 SCALE: 1" = 20' SHEET NO. 9 OF 33 SHEETS STA. 492+55 TO STA. 498+45

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	9
D-91-215-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

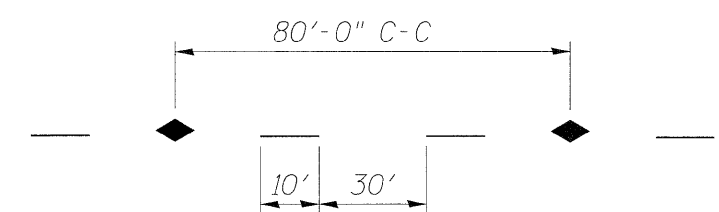
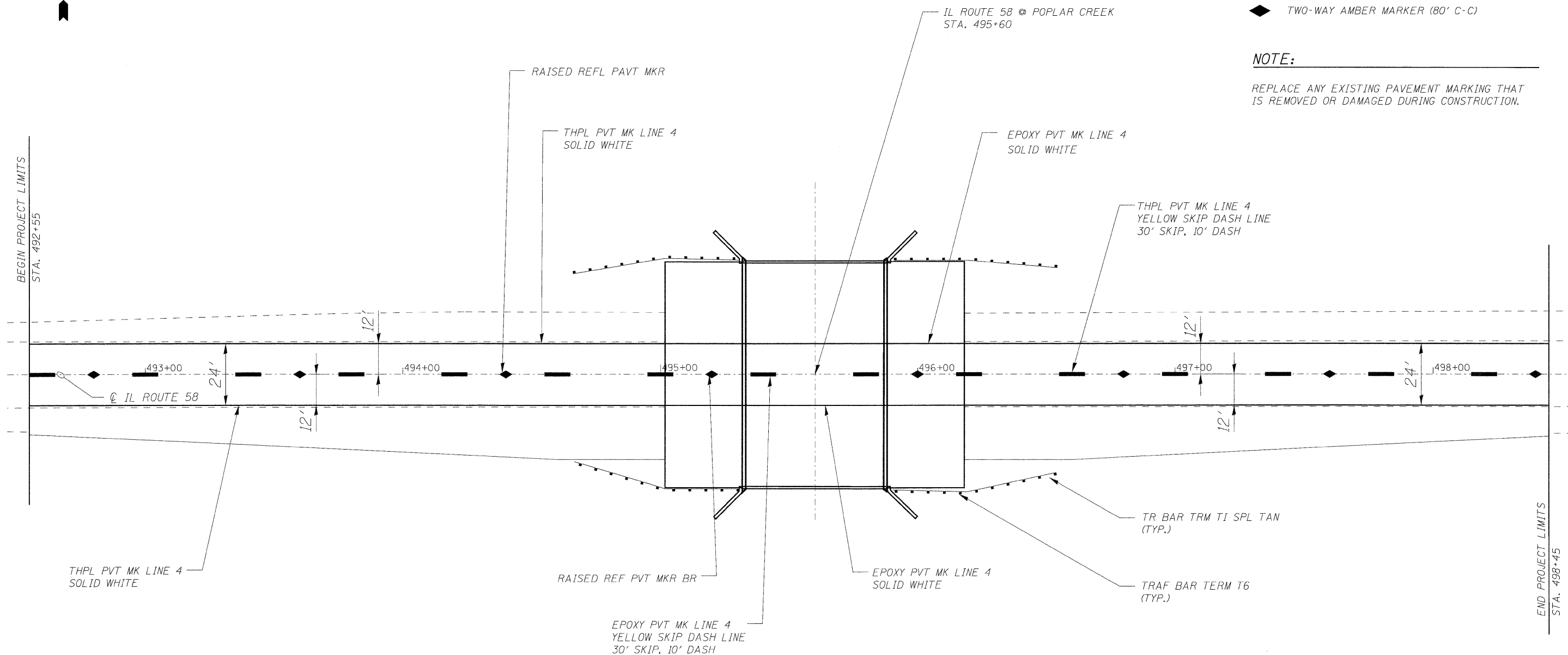


**LEGEND**

◆ TWO-WAY AMBER MARKER (80' C-C)

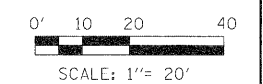
**NOTE:**

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



**LANE PAVEMENT MARKER DETAIL**

SEE STATE STANDARD NO. 780001-01  
SEE DISTRICT STANDARD NO. TC-11



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

DESIGNED - MJY	REVISIONS
DRAWN - ST	REVISIONS -
CHECKED - MJY	REVISIONS -
DATE - 07/08/2009	REVISIONS -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
IL ROUTE 58 (GOLF ROAD)**

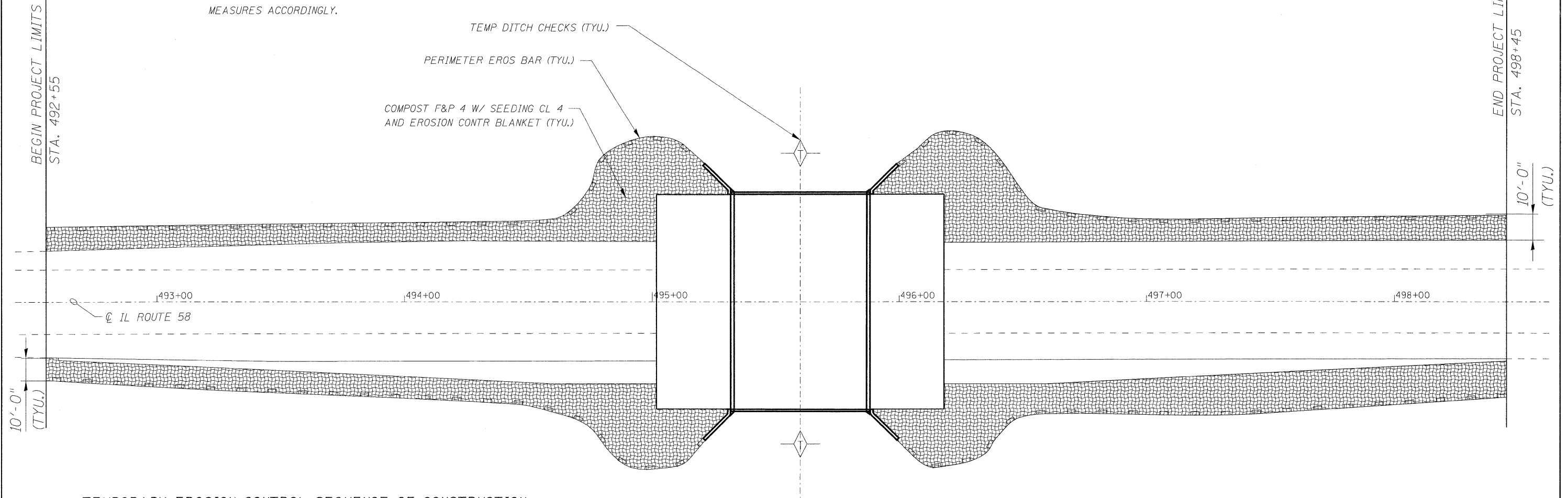
SCALE: 1" = 20'    SHEET NO. 10 OF 33 SHEETS    STA. 492+55 TO STA. 498+45

F.A.U. RTE. 1320	SECTION 581 B-1	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 10
D-91-288-09			CONTRACT NO. 60F91	
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. TEMPORARY DITCH CHECKS SHALL BE INSTALLED IMMEDIATELY AFTER GRADING IS COMPLETED. DITCH CHECKS ARE BASED ON ONE (1) INSTALLATION AND THREE (3) REPLACEMENTS OVER THE DURATION OF THE CONTRACT. THESE ITEMS WILL BE PAID FOR AS EACH, REGARDLESS OF THE TYPE OF CONFIGURATION USED.
4. RUNOFF FROM EXCAVATION AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL ADJUST HIS OPERATION AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
5. THE CONTRACTOR SHALL SURROUND ANY NECESSARY EARTH STOCKPILES WITH PERIMETER EROSION BARRIER.
6. 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.
7. 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 COVERED WITH EROSION CONTROL BLANKET WITHIN SEVEN (7) CALENDAR DAYS.

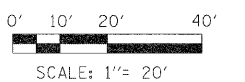


**TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION**

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

**LEGEND**

- COMPOST FURNISH AND PLACE, 4" W/ SEEDING, CL 4 AND EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECKS (STD 280001-04)



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

USER NAME = #USER#	DESIGNED - MJY	REVISIONS
	DRAWN - ST	REVISIONS
PLOT SCALE = #SCALE#	CHECKED - MJY	REVISIONS
PLOT DATE = #DATE#	DATE - 07/08/2009	REVISIONS

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL PLAN  
IL ROUTE 58 (GOLF ROAD)**

SCALE: 1" = 20' SHEET NO. 11 OF 33 SHEETS STA. 492+55 TO STA. 498+45

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	11
D-91-288-09			CONTRACT NO. 60F91	
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.

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

Reinforcement Bars designated (E) shall be epoxy coated.

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

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 beam camber.

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

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

The amount of Structure Excavation behind each abutment that is required to complete this project shall be determined by the Contractor. Backfill material shall consist of Porous Granular Embankment, in accordance with Section 207. Structure Excavation and Porous Granular Embankment will not be measured and paid for separately. Instead, the cost of Structure Excavation and Porous Granular Embankment shall be included with Removal of Existing Superstructures.

The Contractor shall be responsible for maintaining the stability and structural integrity of the existing structure, in accordance with the project specifications. In addition, the Contractor shall not place heavy equipment loads, such as a crane load, within an 8 feet distance of the back of the existing abutment walls.

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
- S3. Stage Construction Details
- S4. Temporary Concrete Barrier Details
- S5. Top of West Approach Slab Elevations
- S6. Top of East Approach Slab Elevations
- S7. Superstructure
- S8. Superstructure Details
- S9. Bridge Approach Slab Details 1 of 2
- S10. Bridge Approach Slab Details 2 of 2
- S11. 27"x36" PPC Deck Beams
- S12. 27"x36" PPC Deck Beam Details
- S13. West Abutment Details
- S14. East Abutment Details
- S15. Bar Splicer Assembly Details

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	APPR. SLAB	TOTAL
SubBase Granular Material, Type B	Cu. Yd.			49	49
Approach Slab Removal	Sq. Yd.			107	107
Removal of Existing Superstructures	Each	1			1
Concrete Removal	Cu. Yd.		11		11
Concrete Structures	Cu. Yd.			53	53
Concrete Superstructures	Cu. Yd.	13	13	246	272
Bridge Deck Grooving	Sq. Yd.	524			524
Protective Coat	Sq. Yd.	591		610	1201
P.P.C. Deck Beams (27" Depth)	Sq. ft.	4894			4894
Reinforcement Bars, Epoxy Coated	Pound	8880	2360	61690	72930
Bar Splicers	Each	57	12	222	291
Name Plates	Each	1			1
Preformed Joint Strip Seal	Foot	87			87
Epoxy Crack Injection	Foot		161		161
Concrete Wearing Surface 5"	Sq. Yd.	544			544
Asbestos Bearing Pad Removal	Each	58			58

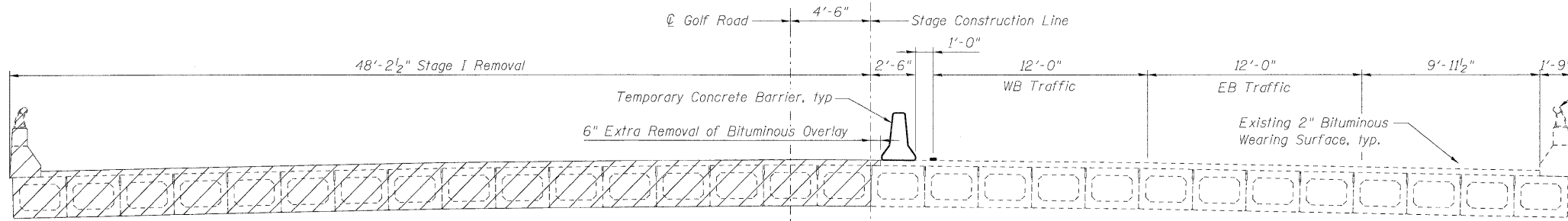
DESIGNED -	SLV
CHECKED -	MJM
DRAWN -	SLV
CHECKED -	MJM

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

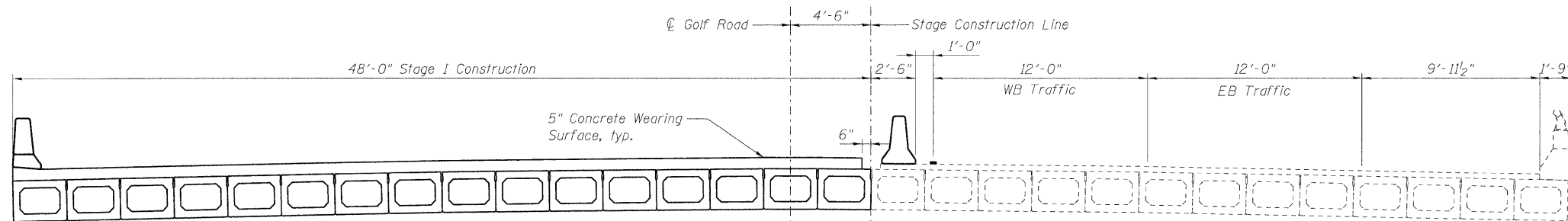
**GENERAL DATA**  
**STRUCTURE NO. 016-2514**

SHEET NO. S2 OF S15 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1320	581 B-1	COOK	33	13
D-91-288-09			CONTRACT NO. 60F91		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

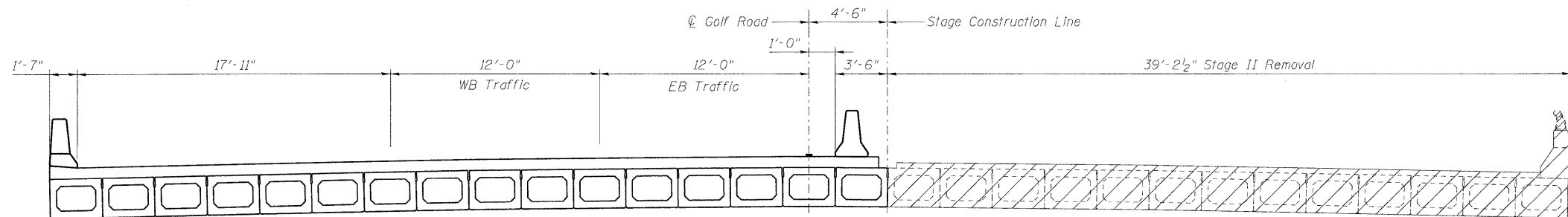
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



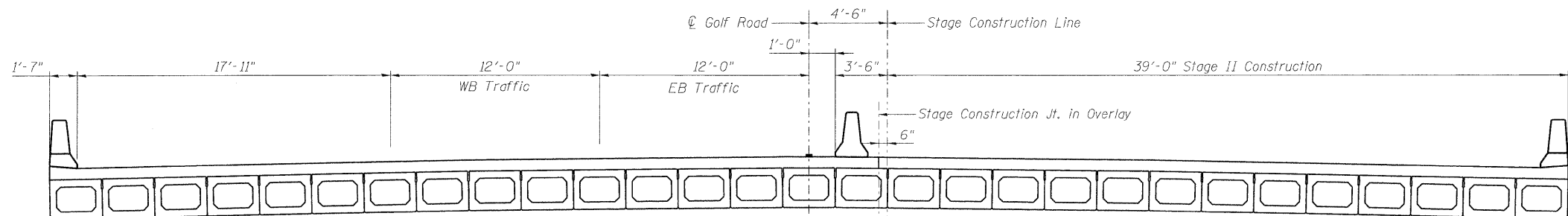
**STAGE I REMOVAL**



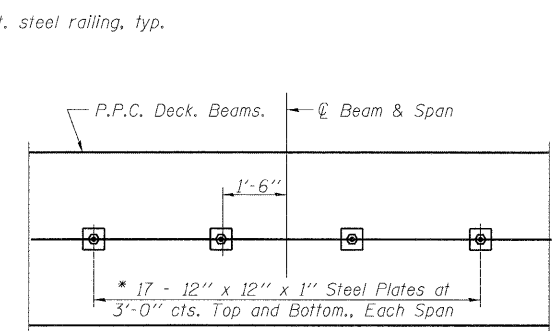
**STAGE I CONSTRUCTION**



**STAGE II REMOVAL**

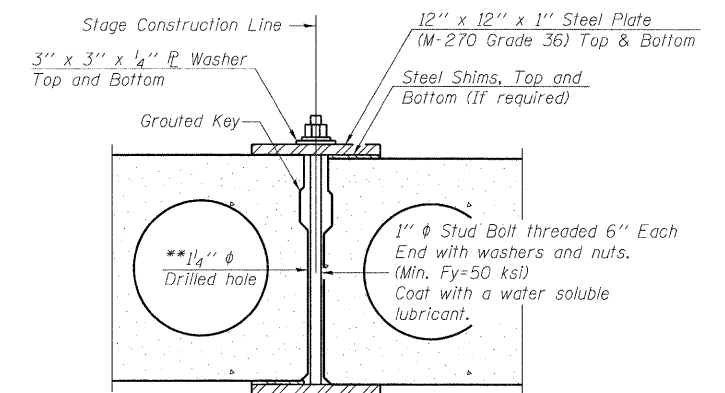


**STAGE II CONSTRUCTION**

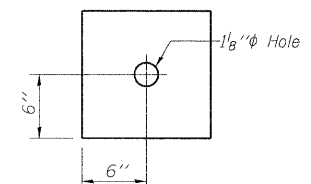


**PLAN**

\*Space plates to miss Temporary Bridge Rail Posts.



**SECTION**



**CLAMPING PLATE**

**SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.**

Cost included with Precast Prestressed Concrete Deck Beams.  
See Stage Construction Details for traffic lanes.

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

DESIGNED -	SLV
CHECKED -	MJM
DRAWN -	SLV
CHECKED -	MJM

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

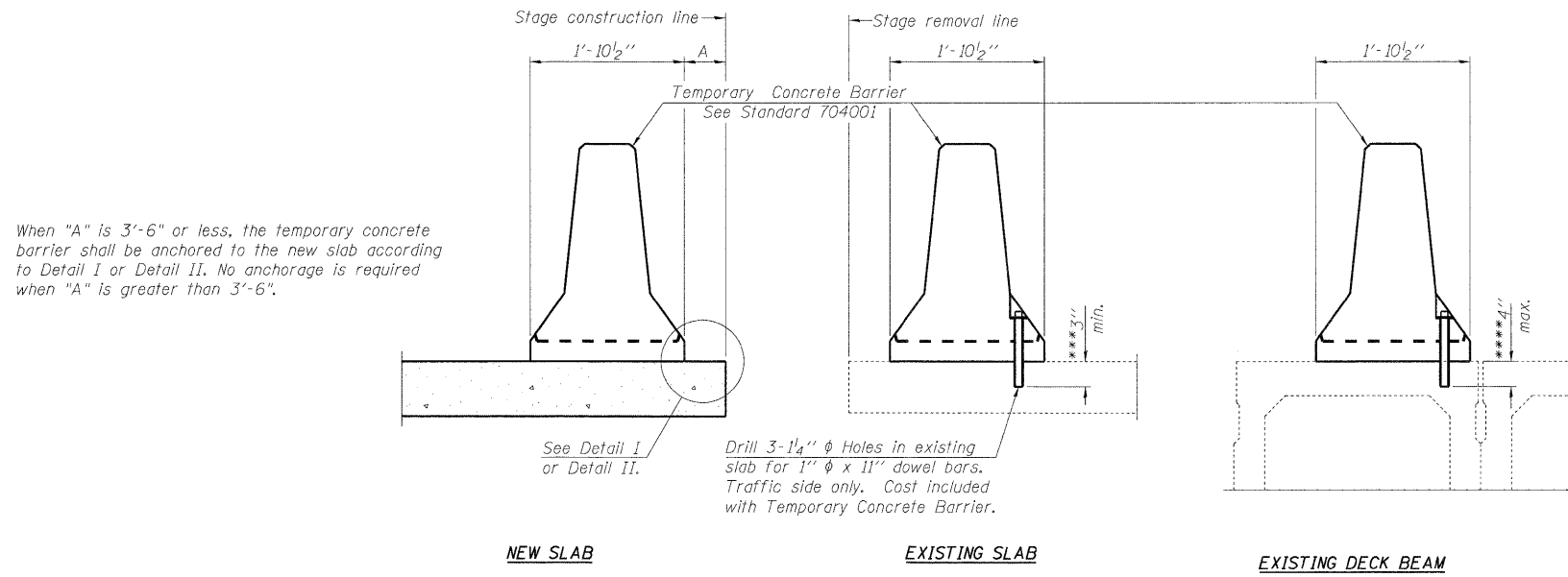
**NOTES**

All Cross Sections looking East.  
Hatched area indicates Removal of Existing Superstructures.  
Cost of removing existing bituminous wearing surface, parapet, and railing 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 S15.

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 016-2514**

SHEET NO. S3 OF S15 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1320	581 B-1	COOK	33	14
D-91-288-09			CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SECTIONS THRU SLAB OR DECK BEAM

**NOTES**

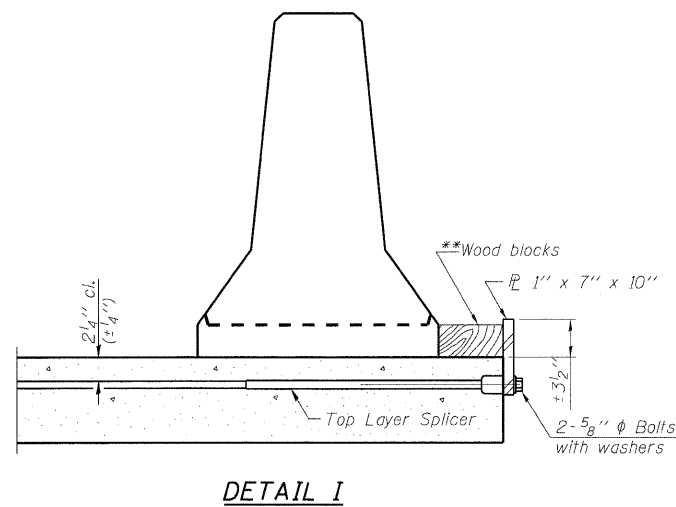
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

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.

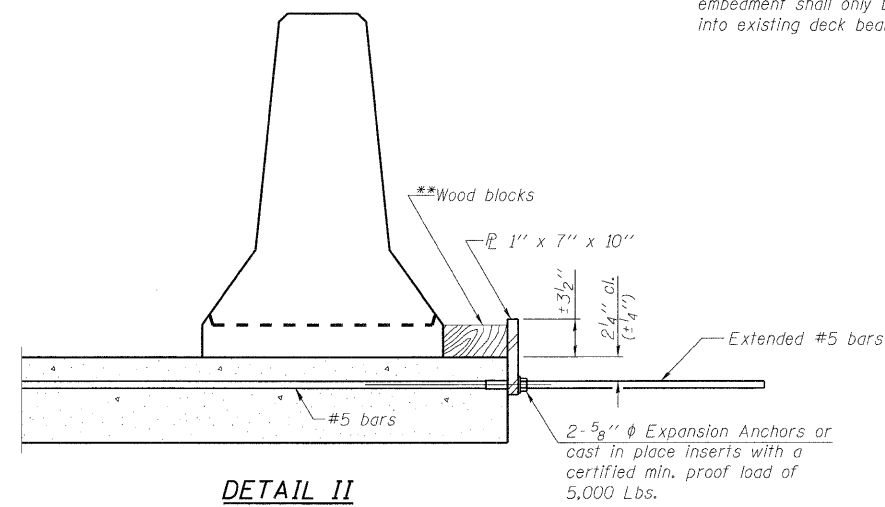
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* 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.

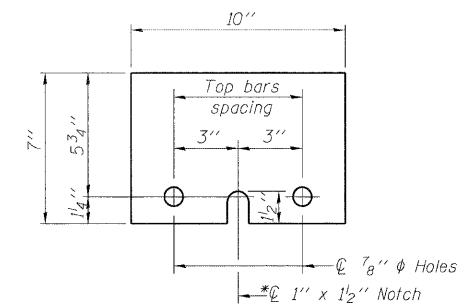


DETAIL I



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.



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

\* Required only with Detail II

DESIGNED	SLV
CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

R-27

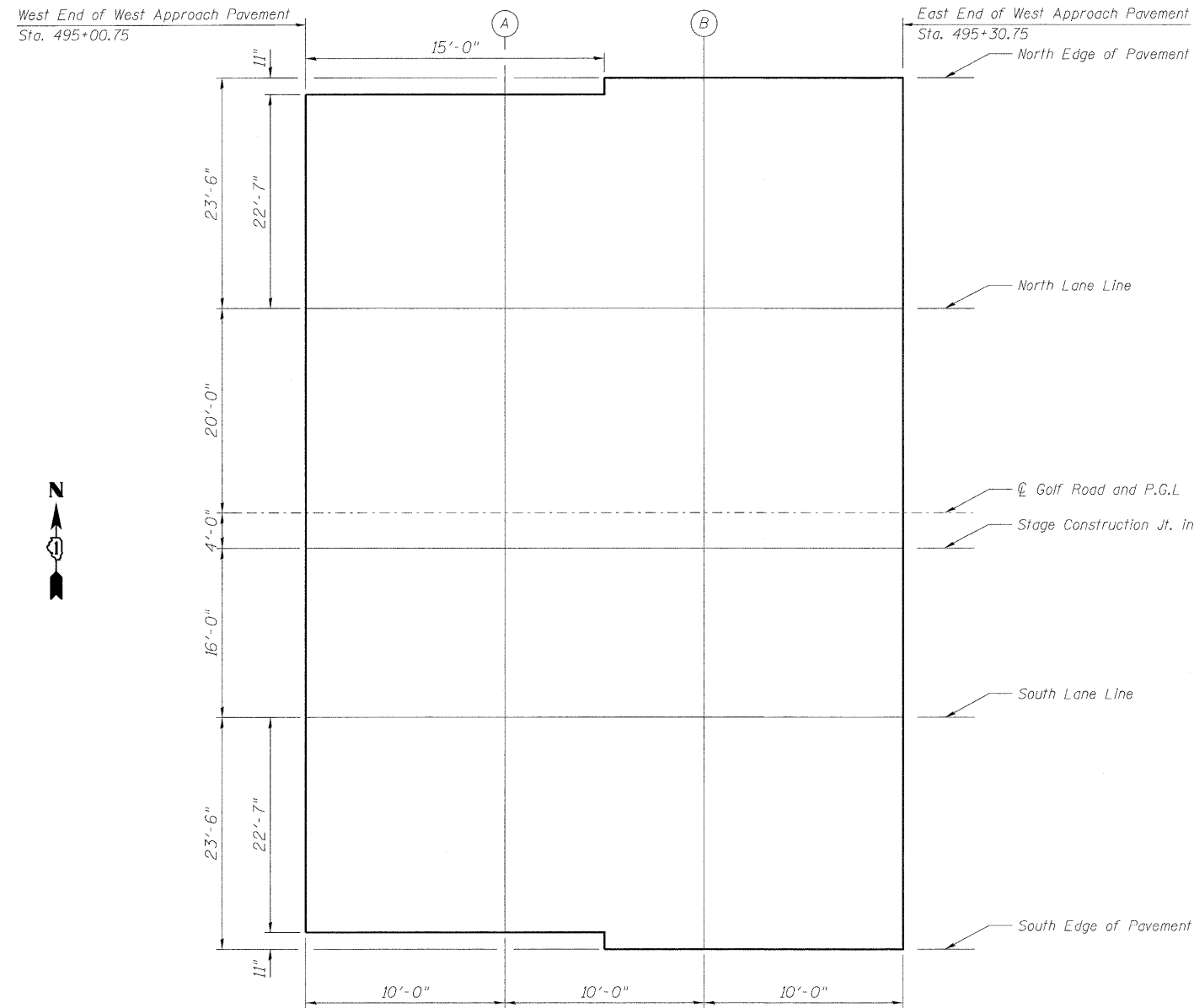
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**LONCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 016-2514**

SHEET NO. S4 OF S15 SHEETS	F.A.U. RTE. 1320	SECTION 581 B-1	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 15
	D-91-288-09		CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN

North Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Pvmt	495+00.75	-42.58'	98.56
A	495+10.75	-42.58'	98.61
B	495+20.75	-43.50'	98.63
E. End W. Appr Pvmt	495+30.75	-43.50'	98.65

Stage Construction Joint in Overlay

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Pvmt	495+00.75	4.00'	99.28
A	495+10.75	4.00'	99.33
B	495+20.75	4.00'	99.37
E. End W. Appr Pvmt	495+30.75	4.00'	99.39

North Lane Line

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Pvmt	495+00.75	-20.00'	99.03
A	495+10.75	-20.00'	99.08
B	495+20.75	-20.00'	99.12
E. End W. Appr Pvmt	495+30.75	-20.00'	99.14

South Lane Line

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Pvmt	495+00.75	20.00'	99.03
A	495+10.75	20.00'	99.08
B	495+20.75	20.00'	99.12
E. End W. Appr Pvmt	495+30.75	20.00'	99.14

☉ Golf Road and P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Pvmt	495+00.75	0.00'	99.34
A	495+10.75	0.00'	99.39
B	495+20.75	0.00'	99.43
E. End W. Appr Pvmt	495+30.75	0.00'	99.46

South Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Pvmt	495+00.75	42.58'	98.56
A	495+10.75	42.58'	98.61
B	495+20.75	43.50'	98.63
E. End W. Appr Pvmt	495+30.75	43.50'	98.65

DESIGNED	SLV
CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

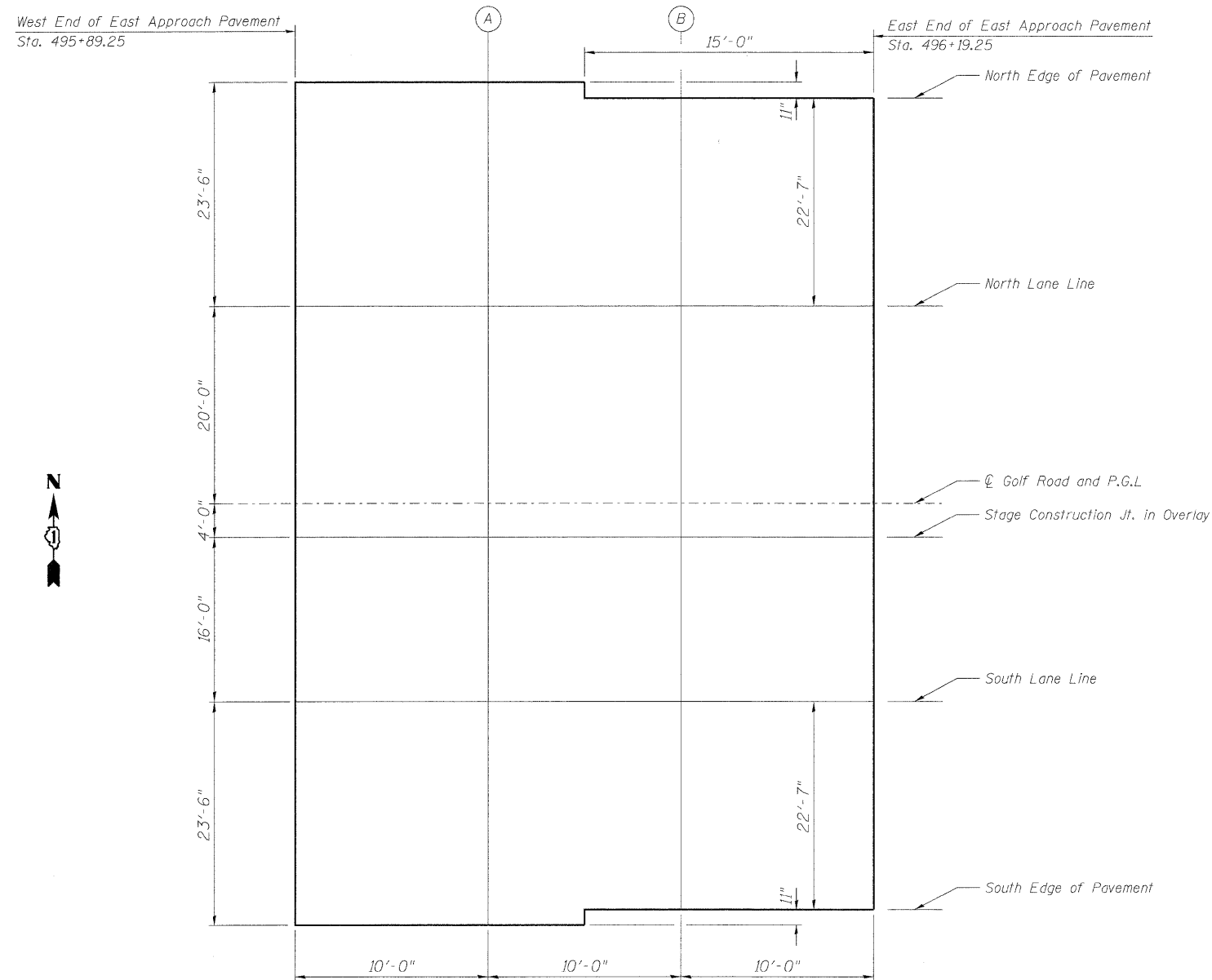
**LONCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST., SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

TOP OF WEST  
APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-2514

SHEET NO. S5 OF S15 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1320	581 B-1	COOK	33	16
D-91-288-09			CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN

North Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
W. End. of E. Appr Pvmt	495+89.25	-43.50'	98.80
A	495+99.25	-43.50'	98.82
B	496+09.25	-42.58'	98.85
E. End. of E. Appr Pvmt	496+19.25	-42.58'	98.86

Stage Construction Joint in Overlay

Location	Station	Offset	Theoretical Grade Elevations
W. End. of E. Appr Pvmt	495+89.25	4.00'	99.54
A	495+99.25	4.00'	99.56
B	496+09.25	4.00'	99.57
E. End. of E. Appr Pvmt	496+19.25	4.00'	99.58

North Lane Line

Location	Station	Offset	Theoretical Grade Elevations
W. End. of E. Appr Pvmt	495+89.25	-20.00'	99.29
A	495+99.25	-20.00'	99.31
B	496+09.25	-20.00'	99.32
E. End. of E. Appr Pvmt	496+19.25	-20.00'	99.33

South Lane Line

Location	Station	Offset	Theoretical Grade Elevations
W. End. of E. Appr Pvmt	495+89.25	20.00'	99.29
A	495+99.25	20.00'	99.31
B	496+09.25	20.00'	99.32
E. End. of E. Appr Pvmt	496+19.25	20.00'	99.33

☐ Golf Road and P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End. of E. Appr Pvmt	495+89.25	0.00'	99.60
A	495+99.25	0.00'	99.62
B	496+09.25	0.00'	99.63
E. End. of E. Appr Pvmt	496+19.25	0.00'	99.64

South Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
W. End. of E. Appr Pvmt	495+89.25	43.50'	98.80
A	495+99.25	43.50'	98.82
B	496+09.25	42.58'	98.85
E. End. of E. Appr Pvmt	496+19.25	42.58'	98.86

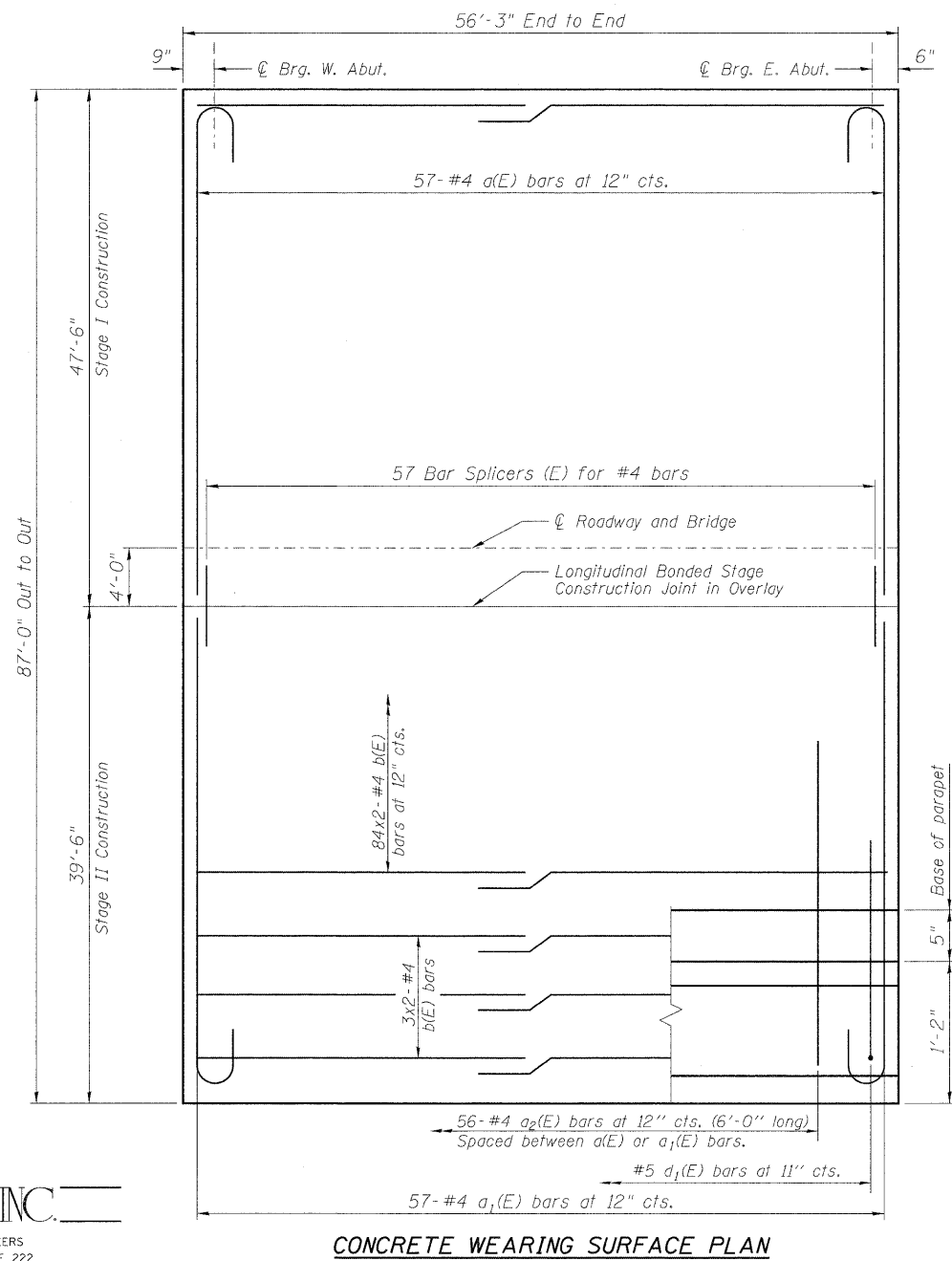
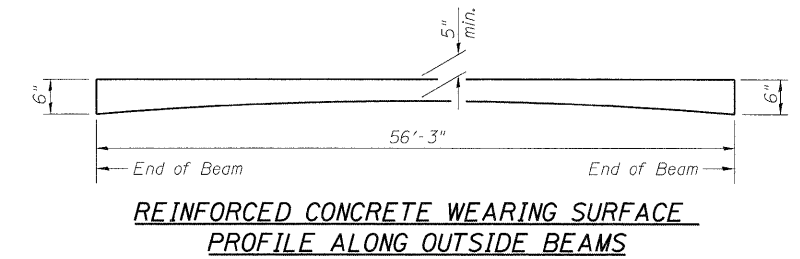
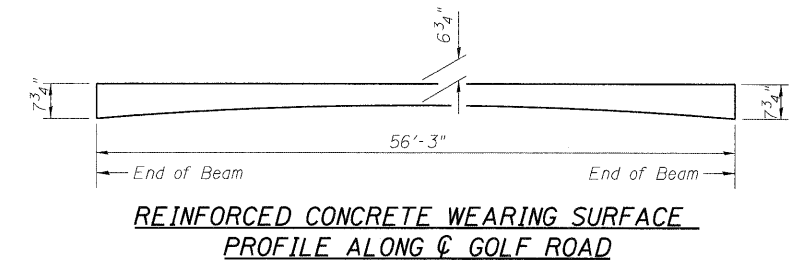
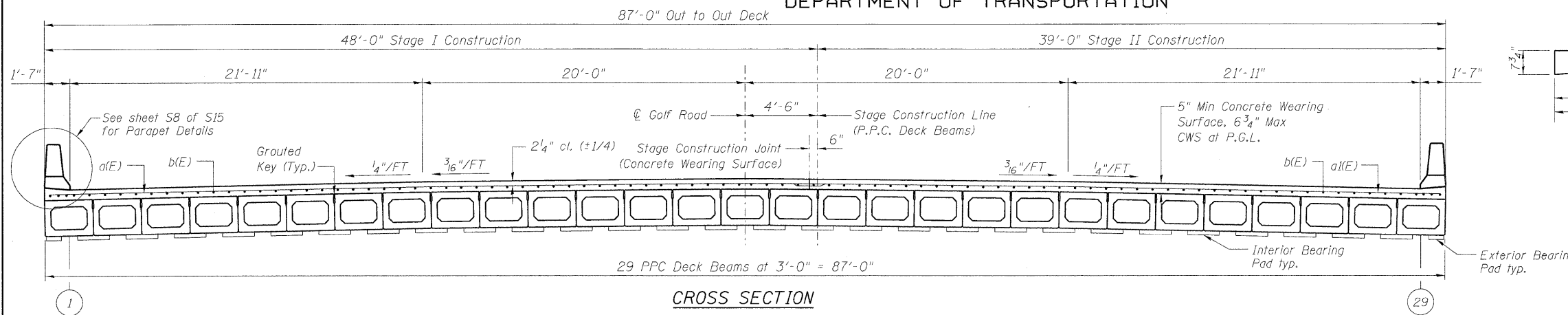
DESIGNED	SLV
CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

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

TOP OF EAST  
APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-2514

SHEET NO. S6	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OF S15 SHEETS	1320	581 B-1	COOK	33	17
D-91-288-09			CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

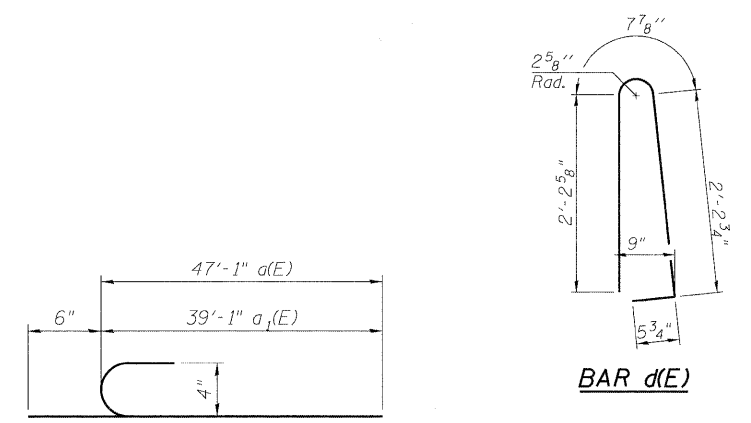
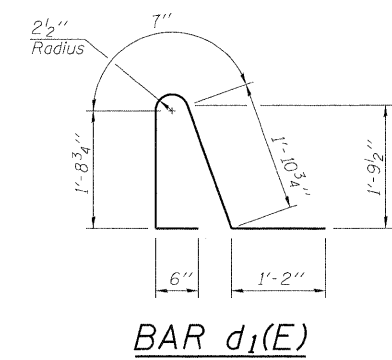
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**NOTES**  
For remainder of Superstructure Details see Sheet S8 of S15.  
Bars indicated thus 84x2-#4, etc. indicates 84 lines of bars with 2 lengths per line.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	57	#4	47'-7"	C
a1(E)	57	#4	39'-7"	C
a2(E)	112	#4	6'-0"	—
b(E)	180	#4	28'-9"	—
d(E)	61	#5	5'-7"	U
d1(E)	61	#5	5'-11"	U
e(E)	42	#4	18'-6"	—
e1(E)	4	#8	30'-2"	—
e2(E)	4	#4	28'-10"	—
Concrete Wearing Surface 5"	Sq. Yd.	544		
Bar Splicers	Each	57		
Concrete Superstructure	Cu. Yd.	13		
Reinforcement Bars, Epoxy Coated	Pound	8880		



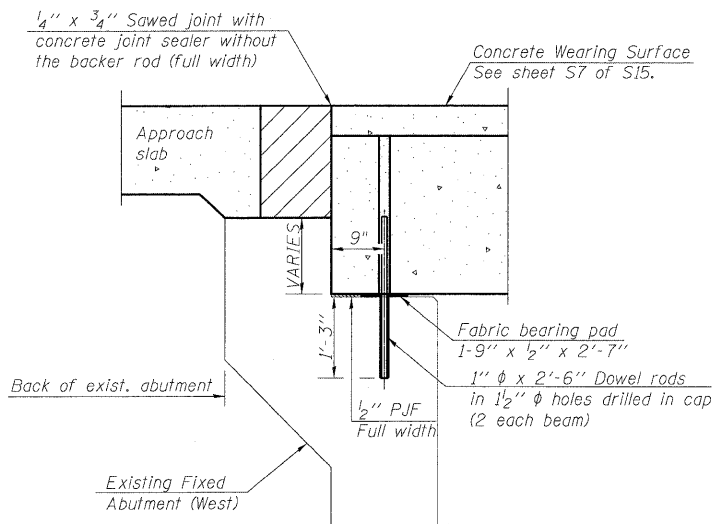
DESIGNED	SLV
CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

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SHEET NO. S7 OF S15 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1320	581 B-1	COOK	33	18
	D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

**SUPERSTRUCTURE  
STRUCTURE NO. 016-2514**

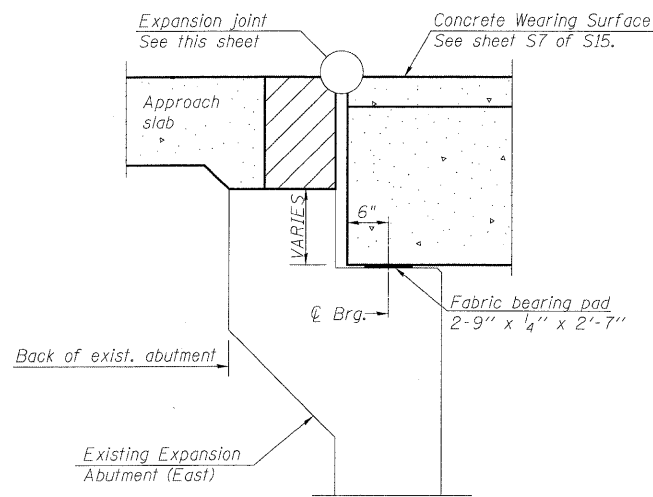
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SECTION THRU FIXED ABUTMENT

Notes:

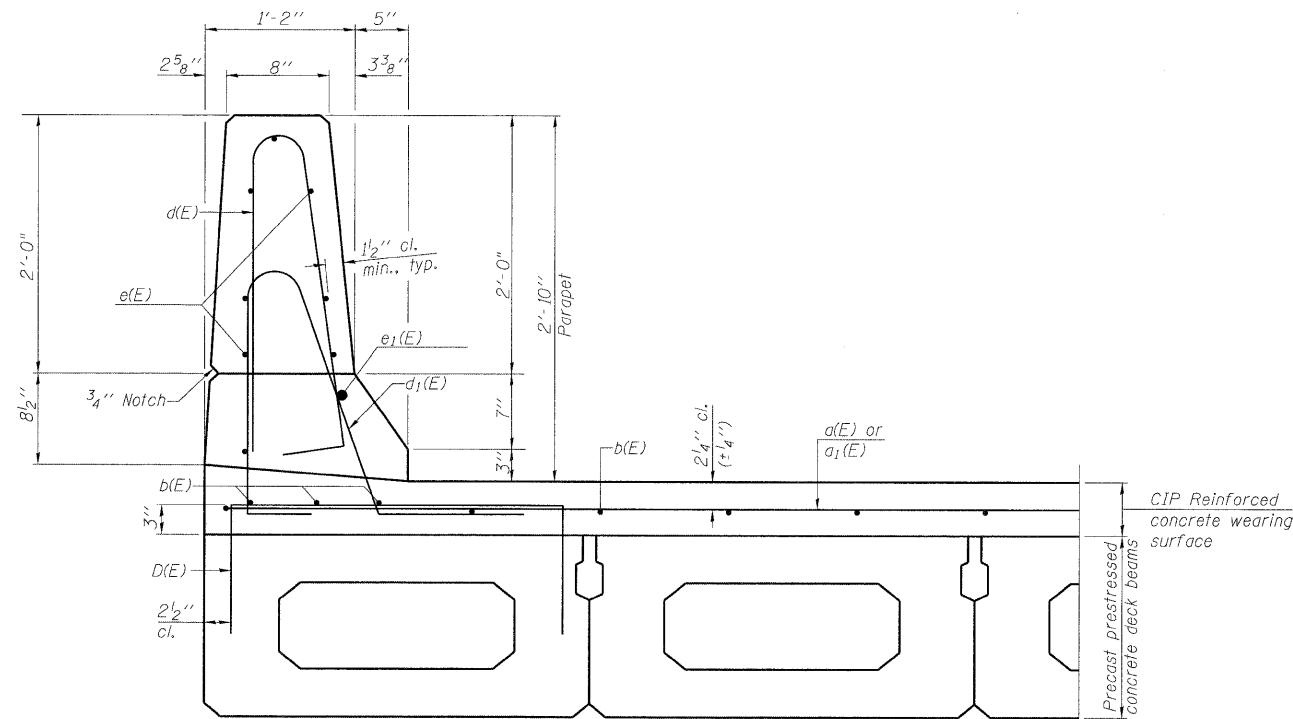
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys. All horizontal dimensions are at right angles to beam ends. Hatched area to be poured after concrete wearing surface is in place. See sheet S12 of S15 for bearing pad details.



SECTION THRU EXPANSION ABUTMENT

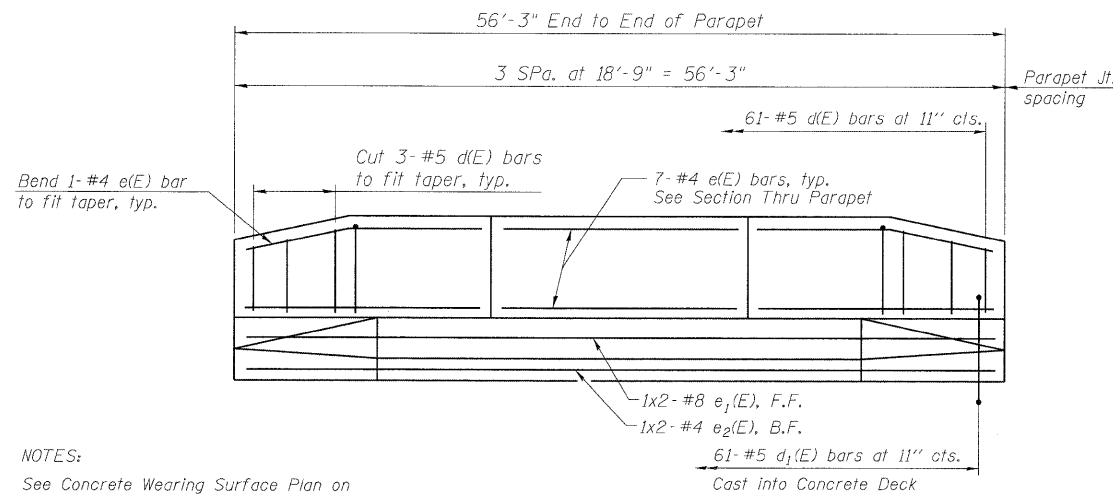
Notes:

All horizontal dimensions are at right angles to beam ends. Hatched area to be poured after concrete wearing surface is in place. See sheet S12 of S15 for bearing pad details.



SECTION THRU PARAPET

See sheet S-7 for Superstructure Bill of Materials



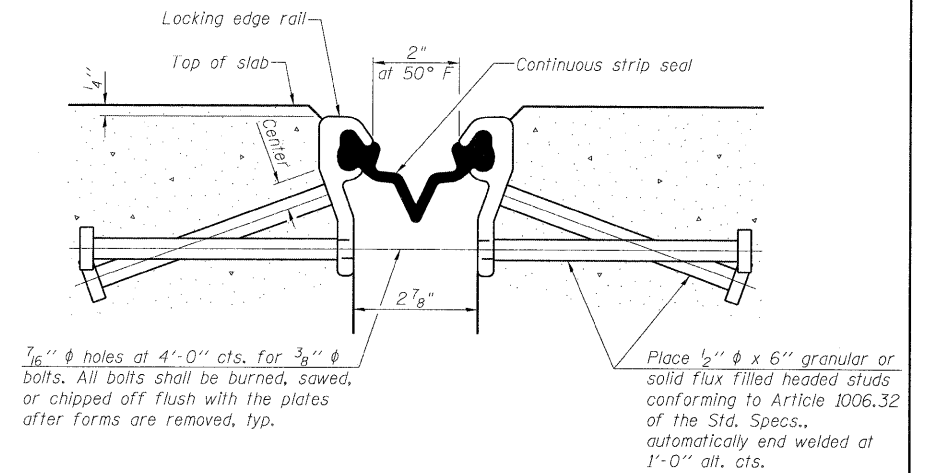
INSIDE PARAPET ELEVATION

(North side)  
(South side similar)

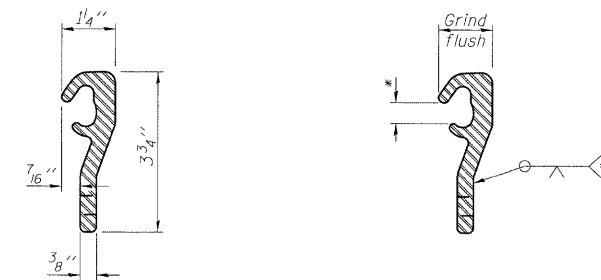
NOTES:

See Concrete Wearing Surface Plan on Sheet S7 of S15 for deck reinforcement and Bill of Material.  
Min bar lap: #4 = 1'-8"  
Min bar lap: #8 = 4'-6"  
See S10 of S15 for parapet joint details

\*Omit weld at seal opening.



SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS

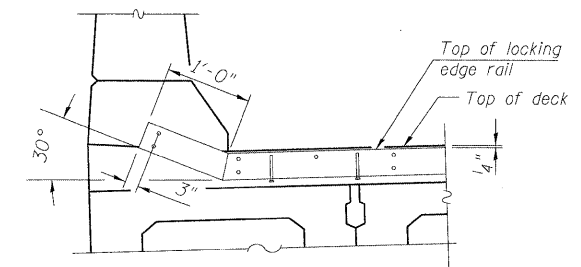


LOCKING EDGE RAIL

LOCKING EDGE RAIL SPLICE

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints. The manufacturer's recommended installation methods shall be followed. All Steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



STRIP SEAL DETAILS AT PARAPET

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 016-2514

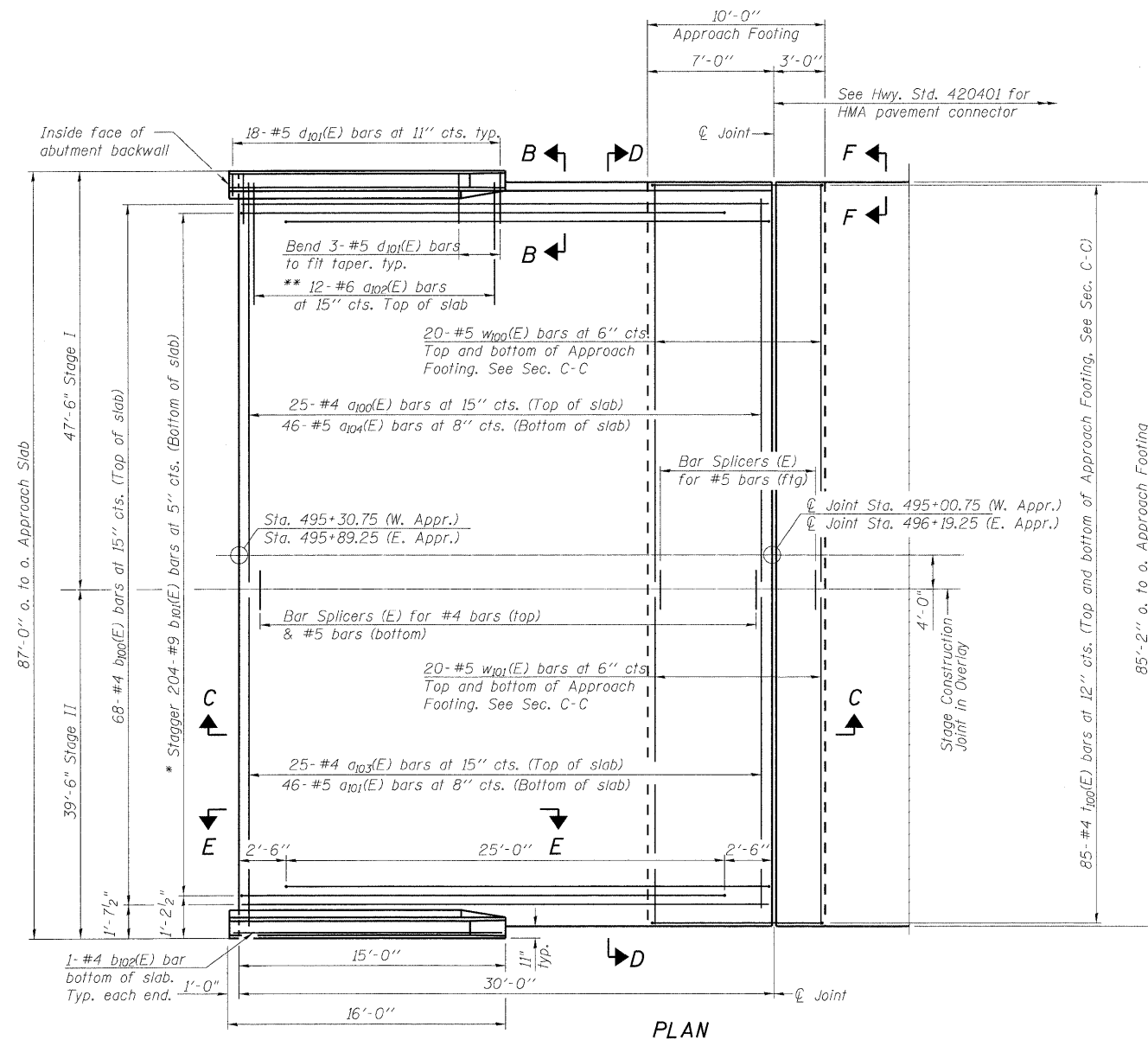
DESIGNED -	SLV
CHECKED -	MJM
DRAWN -	SLV
CHECKED -	MJM

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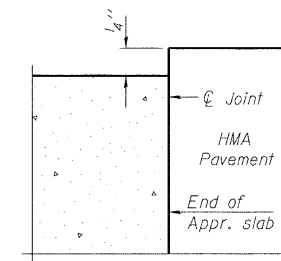
SHEET NO. S8 OF S15 SHEETS	F.A.U. RTE. 1320	SECTION 581 B-1	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 19
	D-91-288-09		CONTRACT NO. 60F91		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
See sheet S10 of S15 for Detail B, Sections C-C & D-D, and View E-E.  
a(E), a<sub>1</sub>(E), and w(E) bar spacings measured parallel to  $\bar{C}$  Rdwy.

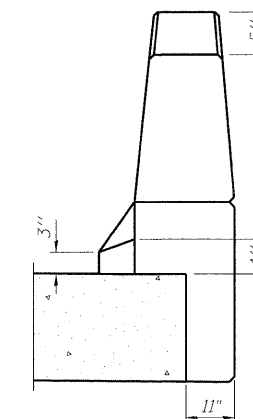


\* Tilt #9 b<sub>101</sub>(E) bars as required to maintain clearance.  
\*\* Alternate with a<sub>100</sub>(E) and a<sub>103</sub>(E) bars, typ. each parapet.  
East Approach Slab Shown.  
West Approach Slab is similar and opposite hand.



FLEXIBLE PAVEMENT

DETAIL A



VIEW B-B

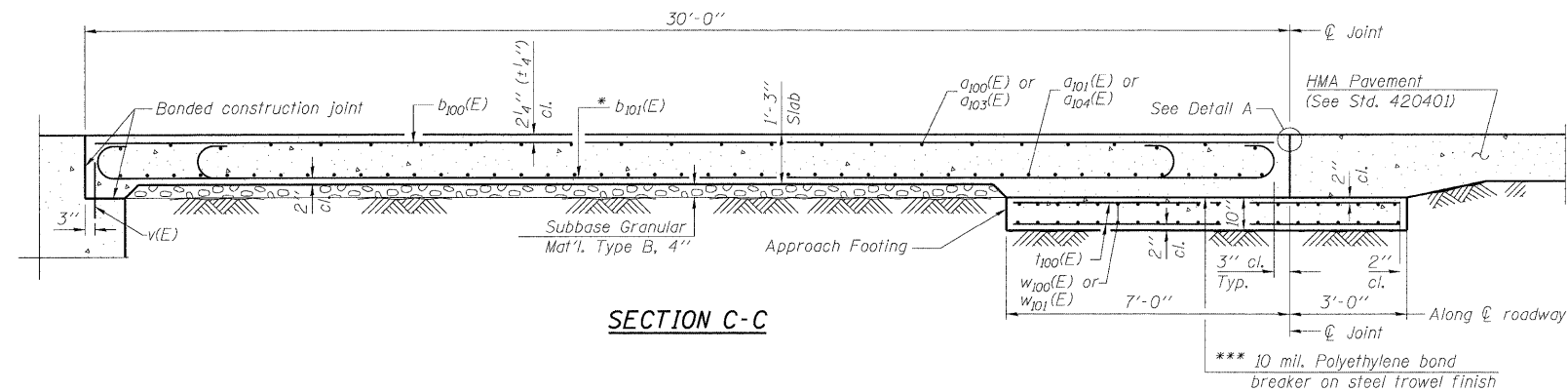
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CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

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(Sheet 1 of 2)  
**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 016-2514**

SHEET NO. S9 OF S15 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1320	581 B-1	COOK	33	20
	D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		

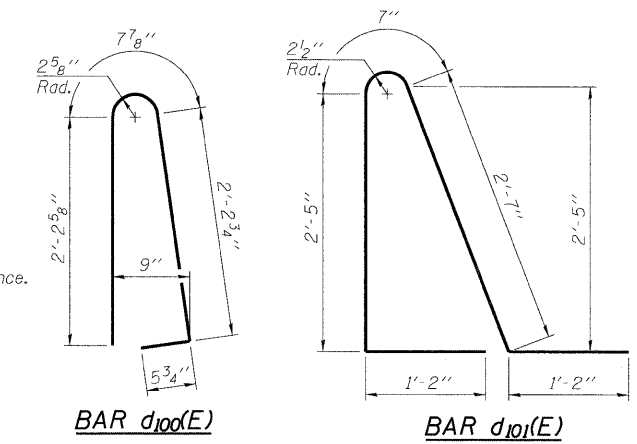
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SECTION C-C

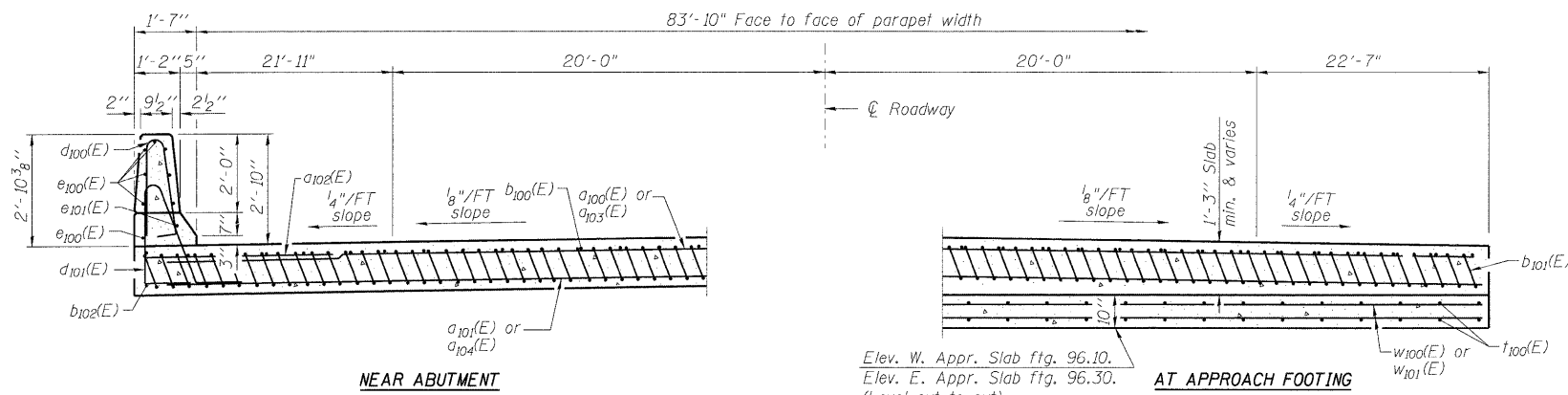
NOTES

See sheet S9 of S15 for Detail A and View B-B.  
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
Approach Footing concrete shall be paid for as Concrete Structures.  
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
For v(E) bar details, see sheet S13 and S14 of S15.  
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
For bar splicer details, see sheet S15 of S15.  
Cost of excavation for approach footing included with Concrete Structures.



BAR d100(E)

BAR d101(E)



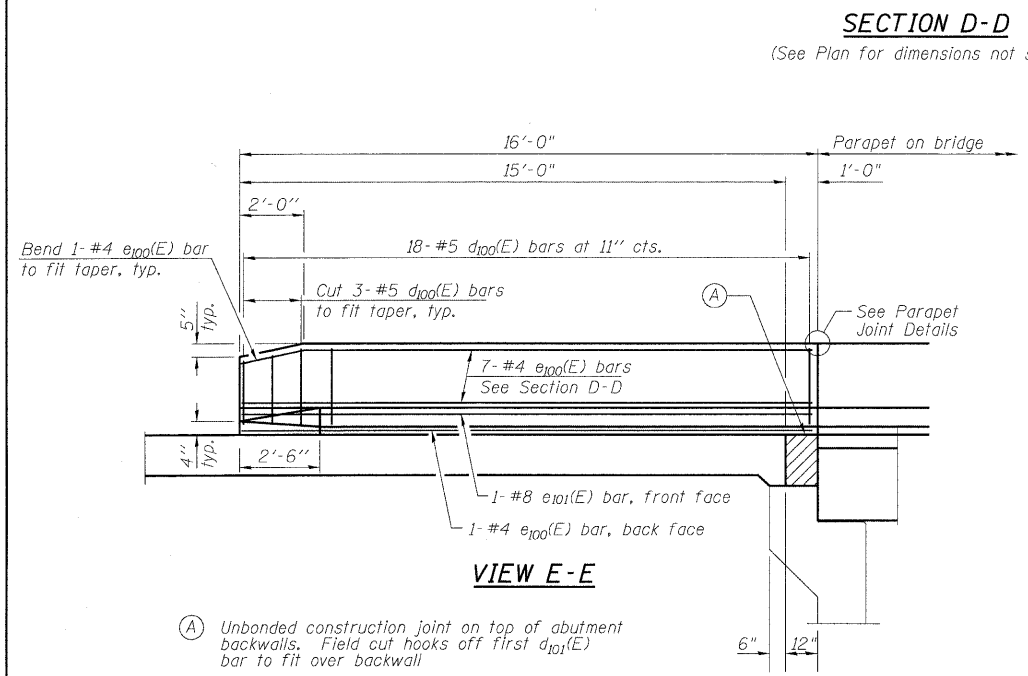
NEAR ABUTMENT

AT APPROACH FOOTING

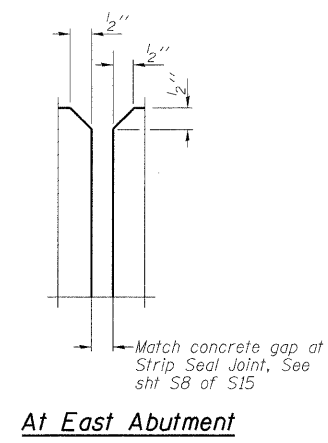
\* Tilt #9 b101(E) bars as required to maintain clearance.  
\*\*\* Cost included with Concrete Superstructure.

TWO APPROACHES  
BILL OF MATERIAL

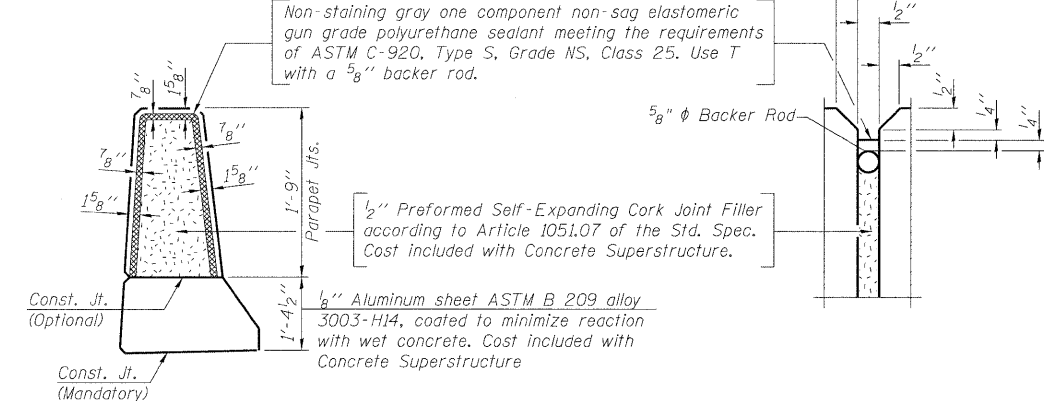
Bar	No.	Size	Length	Shape
a100(E)	50	#4	47'-0"	—
a101(E)	92	#5	39'-0"	—
a102(E)	48	#6	6'-0"	—
a103(E)	50	#4	39'-0"	—
a104(E)	92	#5	47'-0"	—
b100(E)	136	#4	29'-8"	—
b101(E)	408	#9	29'-9"	—
b102(E)	4	#4	15'-8"	—
d100(E)	72	#5	5'-7"	U
d101(E)	72	#5	7'-11"	U
e100(E)	32	#4	15'-8"	—
e101(E)	4	#8	15'-8"	—
f100(E)	170	#4	9'-8"	—
w100(E)	40	#5	46'-1"	—
w101(E)	40	#5	38'-1"	—
Concrete Superstructure		Cu. Yd.	246	
Concrete Structures		Cu. Yd.	53	
Reinforcement Bars, Epoxy Coated		Pound	61690	
Bar Splicers		Each	222	
Subbase Granular Material, Type B		Cu Yd	49	



VIEW E-E

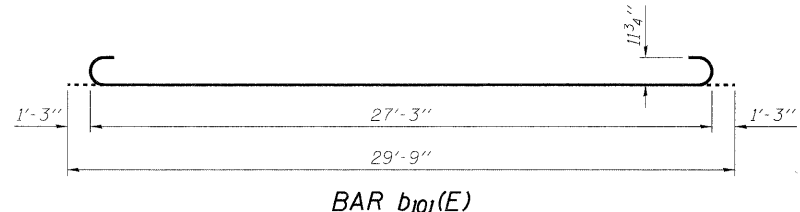


At East Abutment



At West Abutment

PARAPET JOINT DETAILS



BAR b101(E)

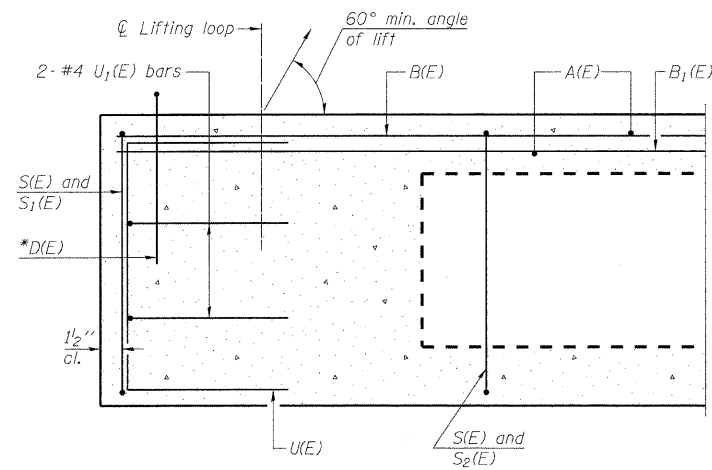
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D-91-288-09			CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DESIGNED	SLV
CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

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

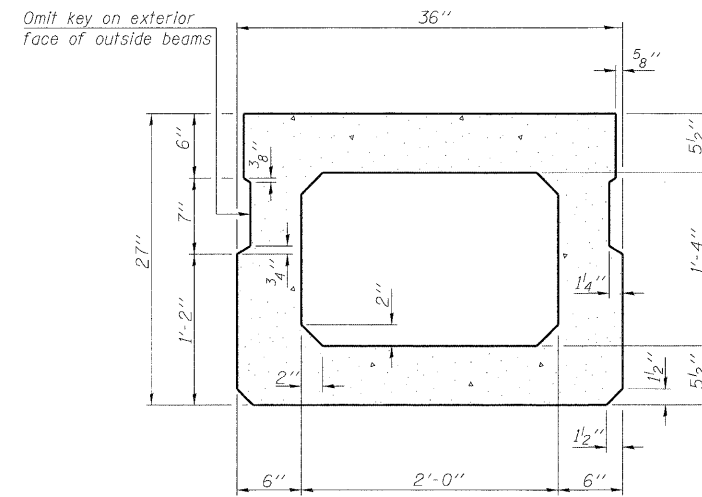
(Sheet 2 of 2)  
BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 016-2514

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



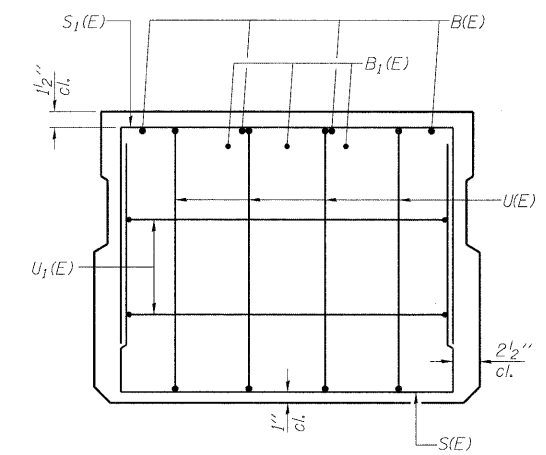
**SECTION C-C**

\* Bar D(E) for exterior beams only

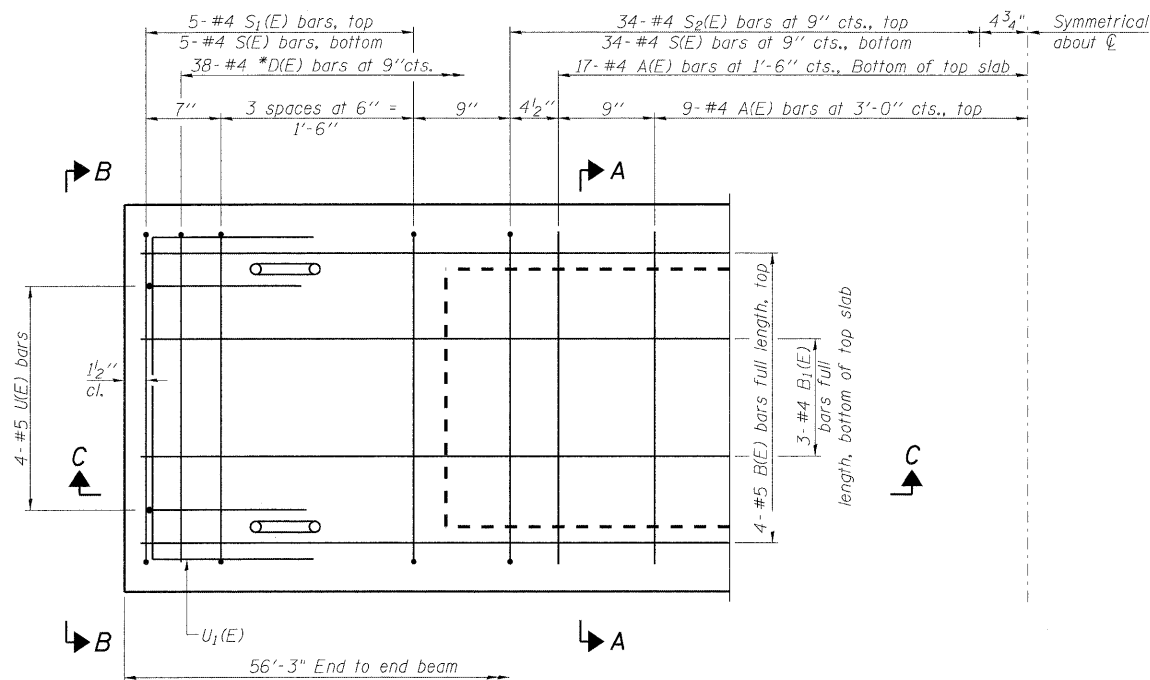


**SECTION A-A**

(Showing dimensions)



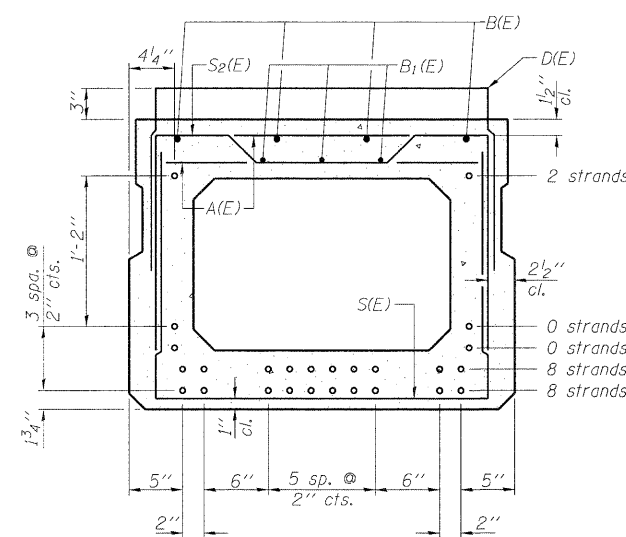
**VIEW B-B**



**PLAN VIEW**

\* Bar D(E) for exterior beams only

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



**SECTION A-A**

(Showing reinforcement and permissible strand locations)

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

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

(For information only)

Bar	No.	Size	Length	Shape
A(E)	52	#4	2'-7"	—
B(E)	4	#5	55'-10"	—
B1(E)	3	#4	55'-10"	—
*D(E)	76	#4	4'-6"	□
S(E)	78	#4	6'-5"	U
S1(E)	10	#4	5'-11"	—
S2(E)	68	#4	6'-2"	□
U(E)	8	#5	4'-6"	□
U1(E)	4	#4	5'-0"	□

Note: See sheet S12 of S15 for additional details and Bill of Material.

\* Bar D(E) for exterior beams only

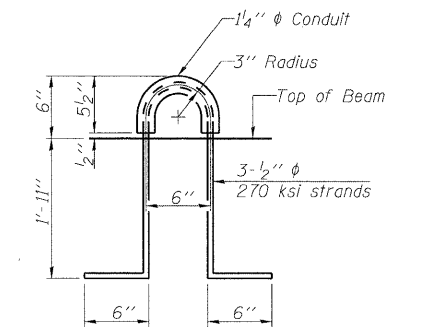
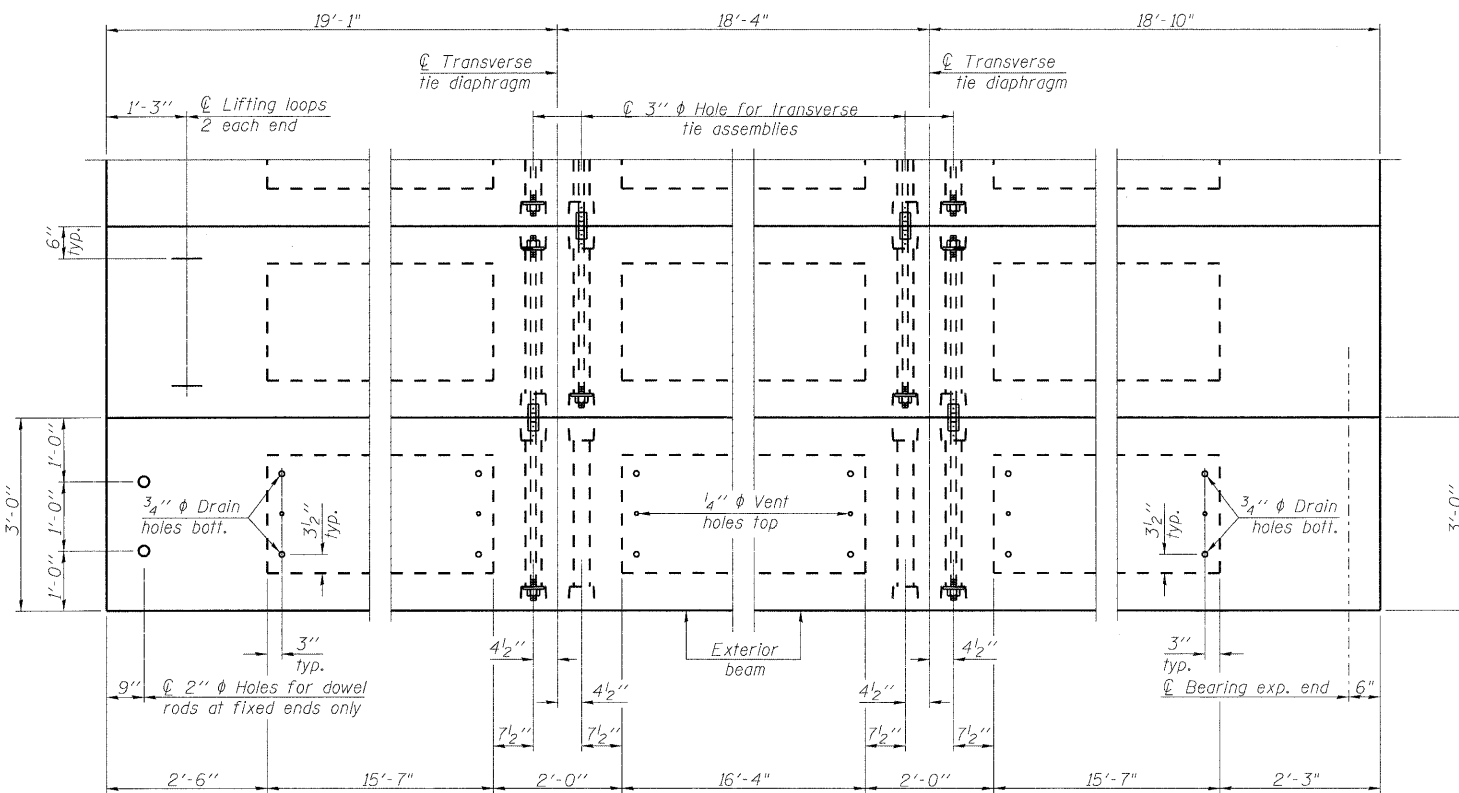
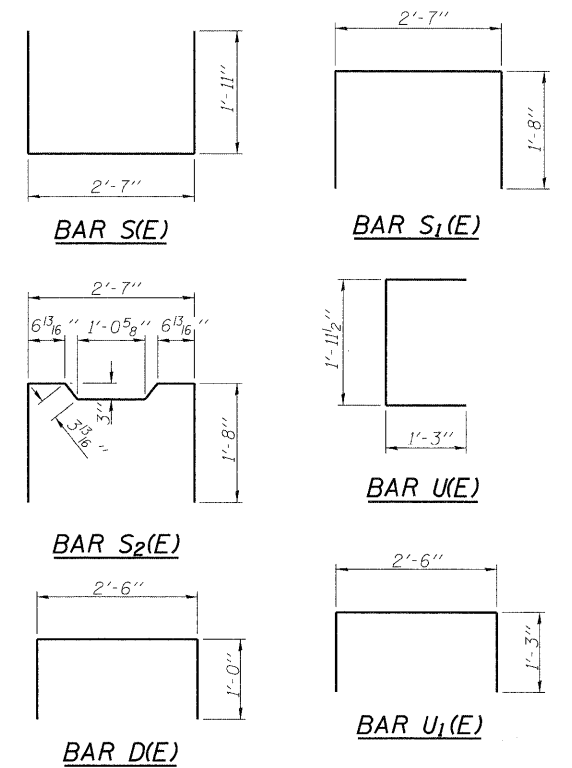
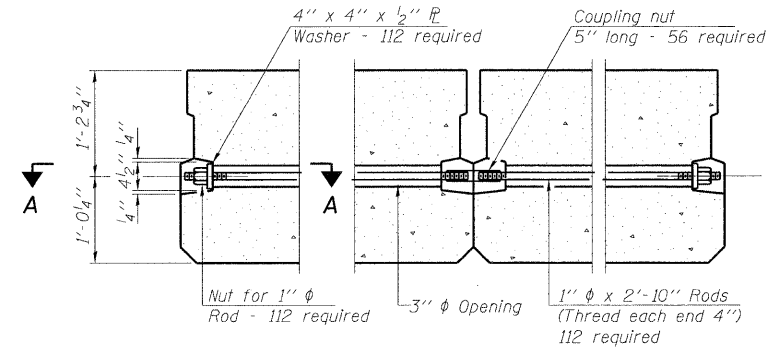
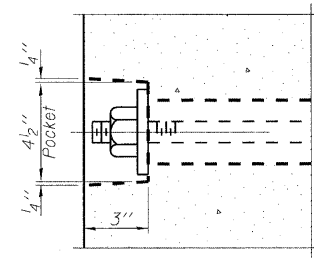
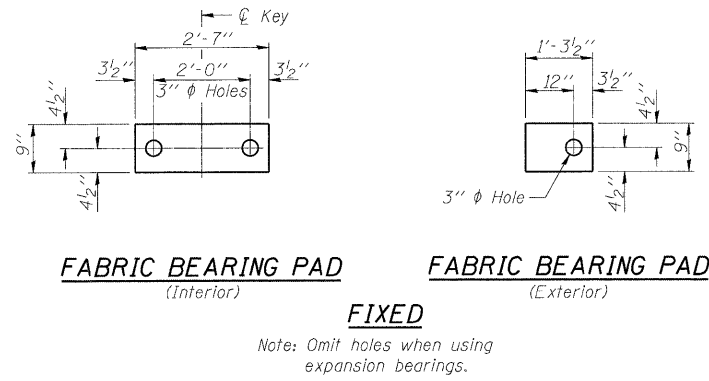
DESIGNED	SLV
CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

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

**27" x 36" PPC DECK BEAMS**  
**STRUCTURE NO. 016-2514**

SHEET NO. S11 OF S15 SHEETS	F.A.U. RTE. 1320	SECTION 581 B-1	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 22
	D-91-288-09		CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



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

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	4894
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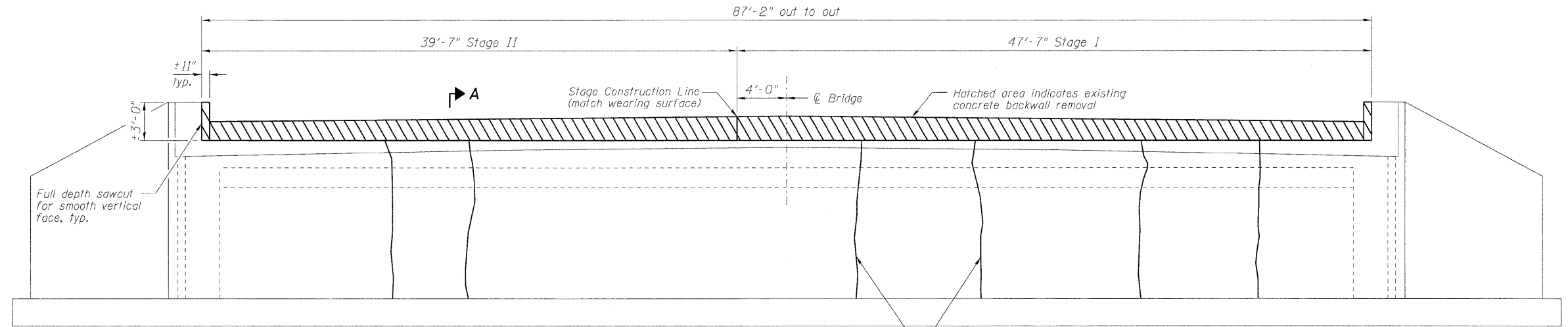
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CHECKED -	MJM
DRAWN -	SLV
CHECKED -	MJM

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

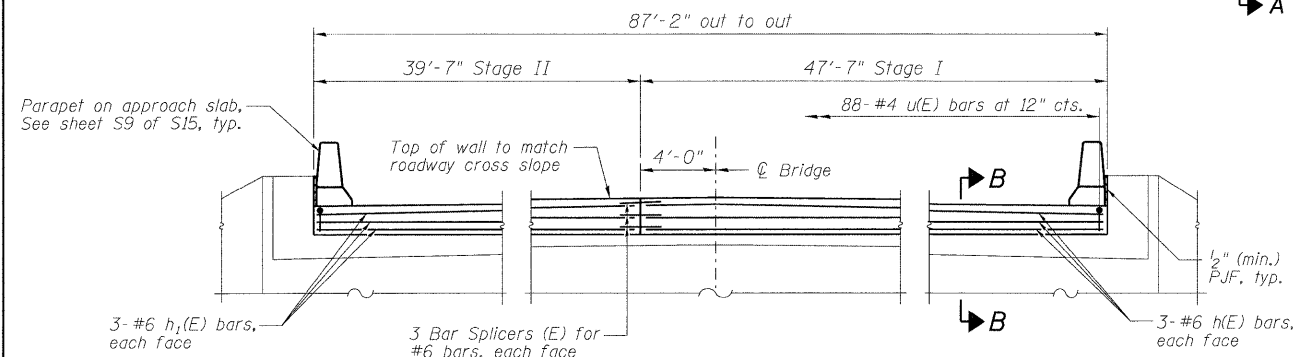
**27" x 36" PPC DECK BEAM DETAILS**  
**STRUCTURE NO. 016-2514**

SHEET NO. S12 OF S15 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1320	581 B-1	COOK	33	23
	D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

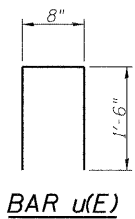
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



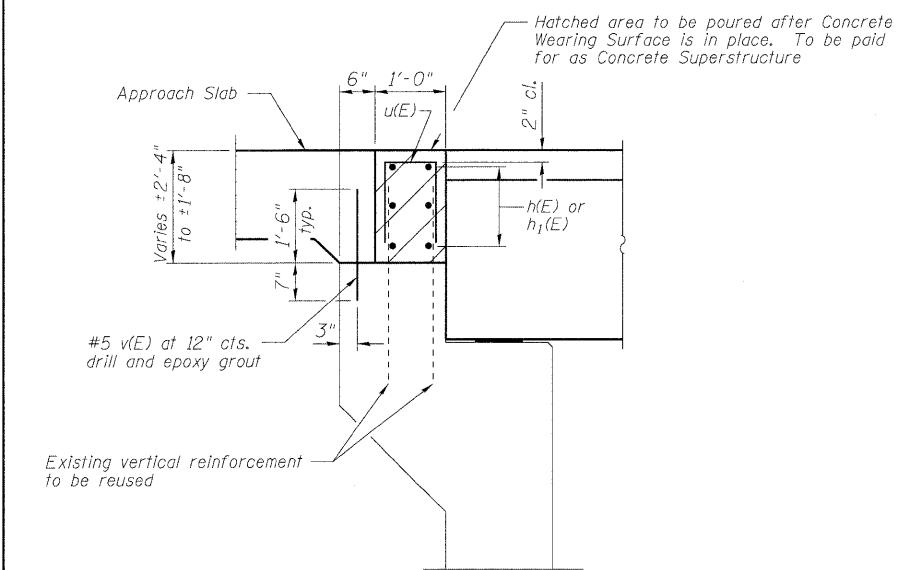
**ELEVATION - REMOVAL AND REPAIR  
(LOOKING WEST)**



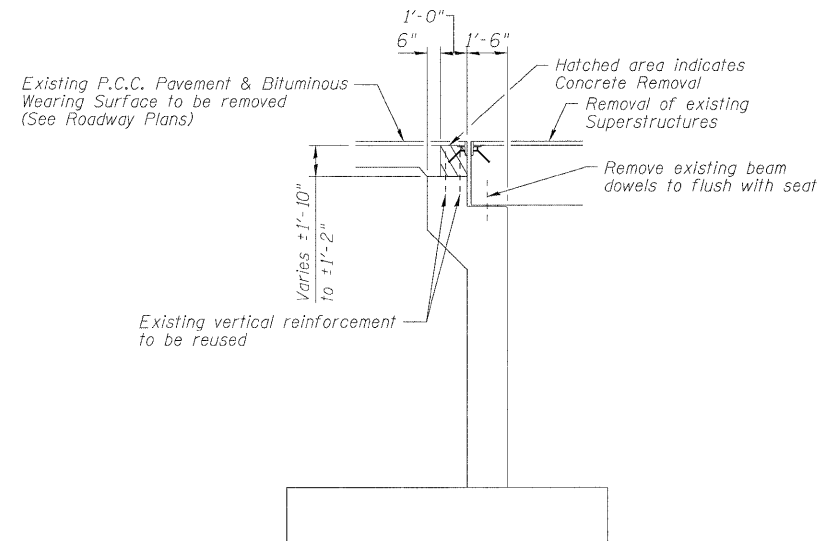
**PROPOSED ELEVATION  
(LOOKING WEST)**



**BAR u(E)**



**SECTION B-B**



**SECTION A-A**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	6	#6	47'-1"	—
h1(E)	6	#6	39'-1"	—
u(E)	88	#4	3'-8"	□
v(E)	88	#5	2'-1"	—
Concrete Removal			Cu. Yd.	5.5
Concrete Superstructure			Cu. Yd.	6.5
Bar Splicers			Each	6
Epoxy Crack Injection			Foot	69
Reinforcement Bars, Epoxy Coated			Pound	1180

**NOTES**

- Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
- Existing reinforcement bars which have lost 25% or more of their original diameter shall be supplemented by new epoxy coated bars of the same diameter. New bars shall be drilled and epoxy grouted in place adjacent to the original bars, as directed by the Engineer.
- Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications.
- Removal of the existing joint system is included with Concrete Removal.

DESIGNED -	SLV
CHECKED -	MJM
DRAWN -	SLV
CHECKED -	MJM

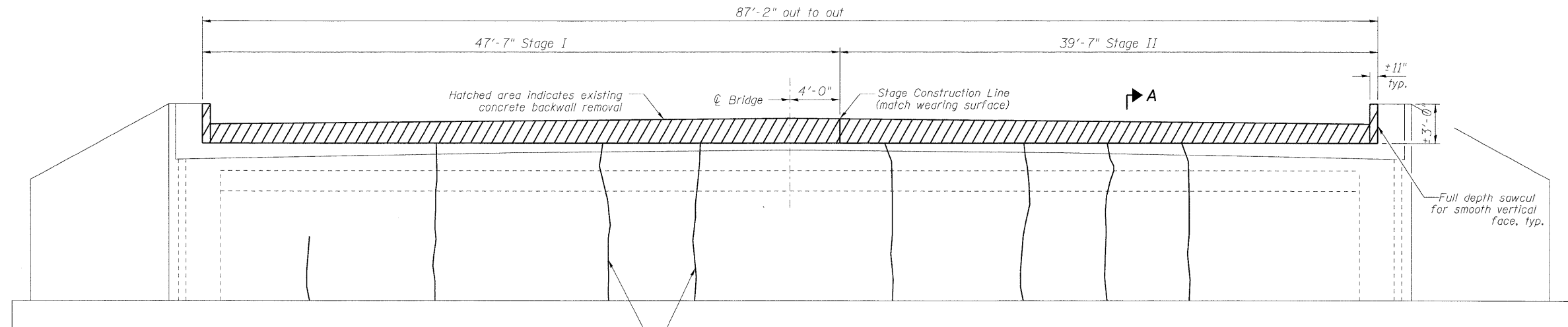
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**WEST ABUTMENT DETAILS  
STRUCTURE NO. 016-2514**

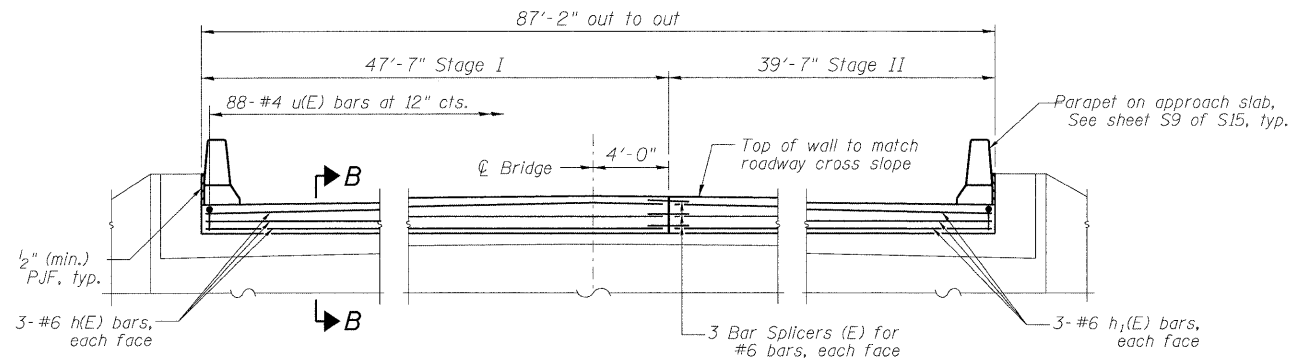
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	1320	581 B-1	COOK	33	24
D-91-288-09			CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



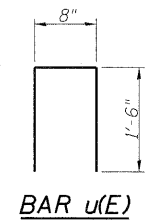
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



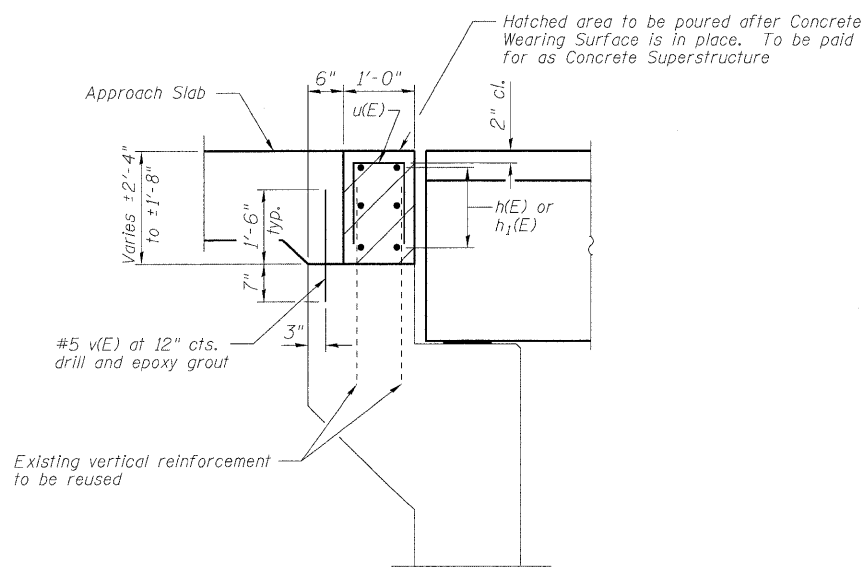
**ELEVATION - REMOVAL AND REPAIR  
(LOOKING EAST)**



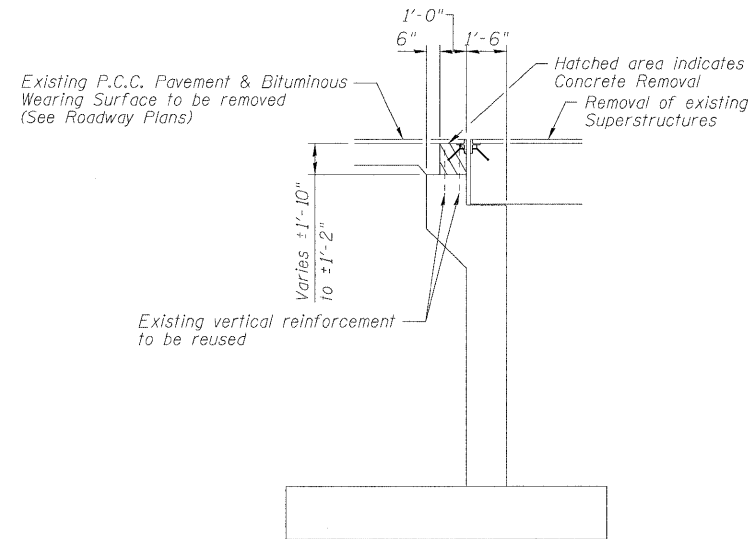
**PROPOSED ELEVATION  
(LOOKING EAST)**



**BAR u(E)**



**SECTION B-B**



**SECTION A-A**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	6	#6	47'-1"	—
h1(E)	6	#6	39'-1"	—
u(E)	88	#4	3'-8"	□
v(E)	88	#5	2'-1"	—
Concrete Removal			Cu. Yd.	5.5
Concrete Superstructure			Cu. Yd.	6.5
Bar Splicers			Each	6
Epoxy Crack Injection			Foot	92
Reinforcement Bars, Epoxy Coated			Pound	1180

**NOTES**

Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.  
Existing reinforcement bars which have lost 25% or more of their original diameter shall be supplemented by new epoxy coated bars of the same diameter. New bars shall be drilled and epoxy grouted in place adjacent to the original bars, as directed by the Engineer.  
Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications.  
Removal of the existing joint system is included with Concrete Removal

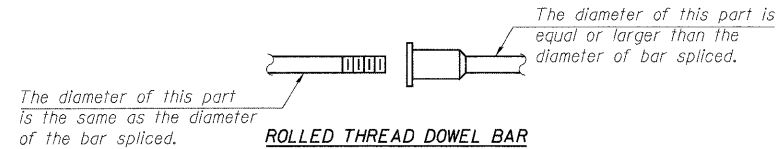
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CHECKED	MJM
DRAWN	SLV
CHECKED	MJM

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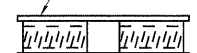
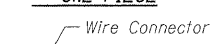
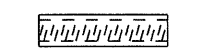
**EAST ABUTMENT DETAILS  
STRUCTURE NO. 016-2514**

SHEET NO. S14 OF S15 SHEETS	F.A.U. RTE. 1320	SECTION 581 B-1	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 25
	D-91-288-09		CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

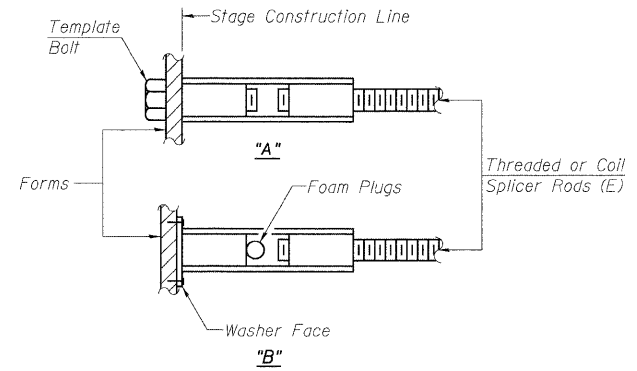


ROLLED THREAD DOWEL BAR



**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



**INSTALLATION AND SETTING METHODS**

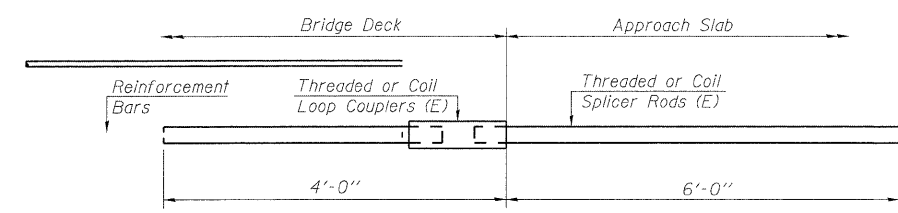
"A" : Set bar splicer assembly by means of a template bolt.  
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
 (E) : Indicates epoxy coating.

**NOTES**

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

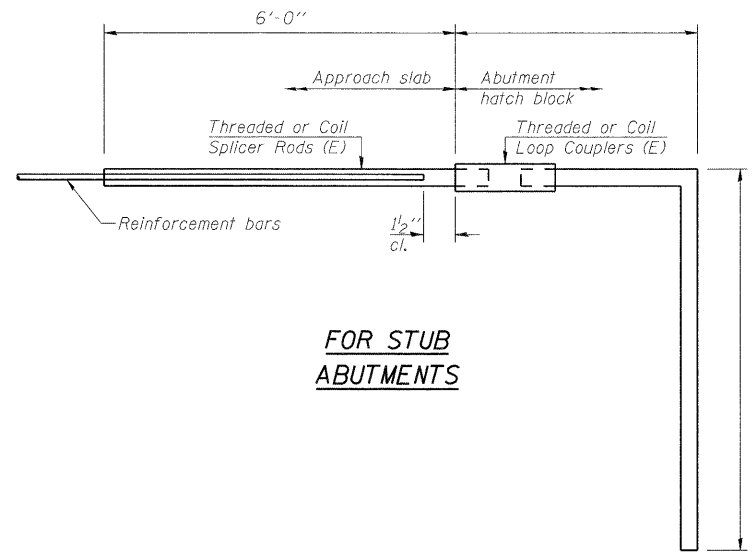
- ① Minimum Capacity =  $1.25 \times f_y \times A_t$   
(Tension in kips)
  - ② Minimum \*Pull-out Strength =  $0.66 \times f_y \times A_t$   
(Tension in kips)
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
 \* =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

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



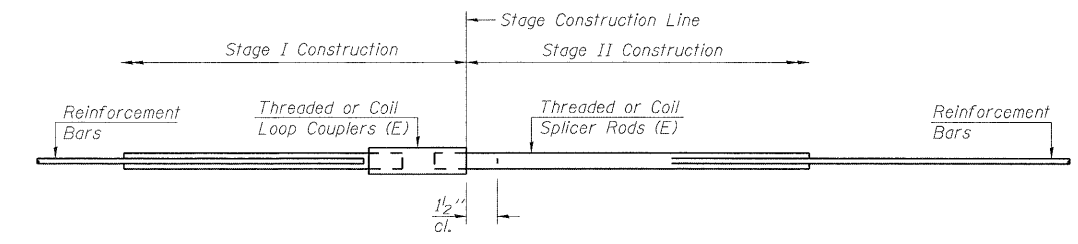
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

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



**FOR STUB ABUTMENTS**

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



**STANDARD**

Bar Size	No. Assemblies Required	Location
#4	57	Concrete Wearing Surface
#4	50	Top of Approach Slabs
#5	92	Bottom of Approach Slabs
#5	80	Approach Slab Foundations
#6	12	Abutment Backwalls

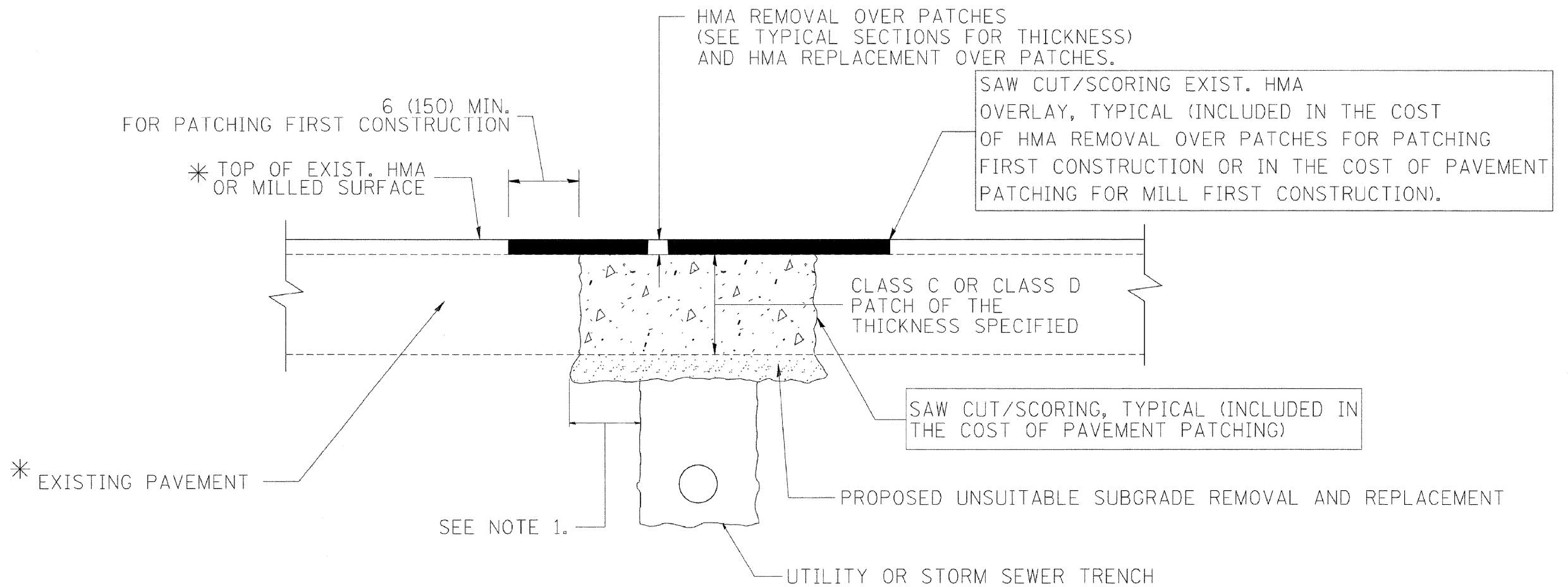
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CHECKED -	MJM
DRAWN -	SLV
CHECKED -	MJM

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BSD-1 10-1-08

**BAR SPLICER ASSEMBLY DETAILS  
STRUCTURE NO. 016-2514**

SHEET NO. S15 OF S15 SHEETS	F.A.U. RTE. 1320	SECTION 581 B-1	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 26
	D-91-288-09		CONTRACT NO. 60F91		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



\* 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.

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

**PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT**

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CONSULTING ENGINEERS  
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NAPERVILLE, ILLINOIS 60563 Ph: 630/577-9100

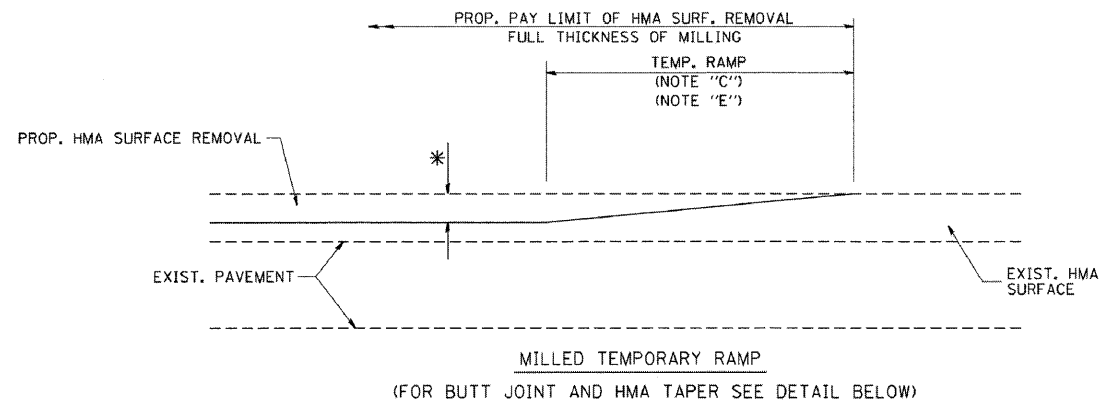
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	DRAWN - RJG	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

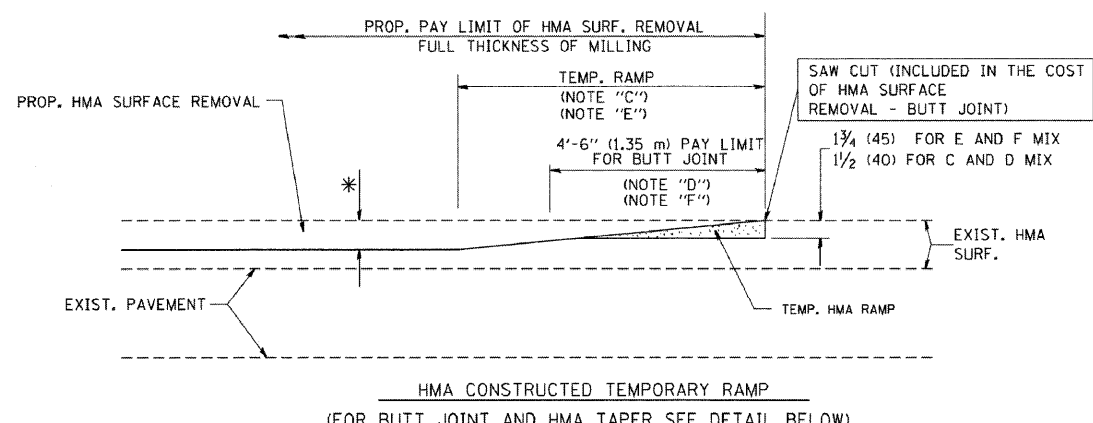
**DISTRICT ONE DETAIL SHEETS  
IL ROUTE 58 (GOLF ROAD)**

SCALE: NONE SHEET NO. 27 OF 33 SHEETS STA. 492+55 TO STA. 498+45

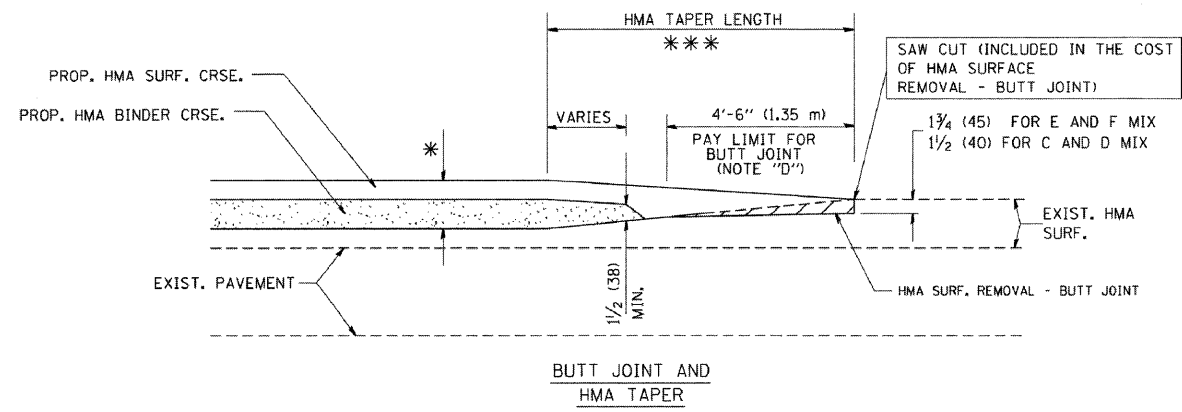
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



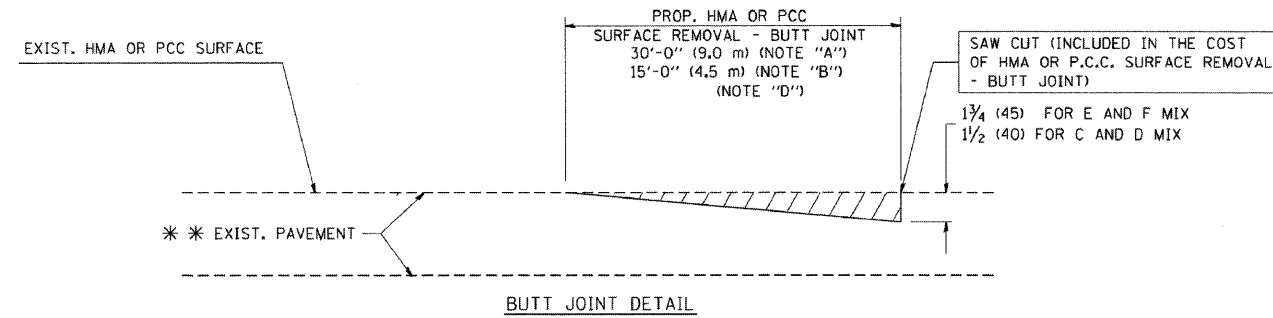
**OPTION 1**



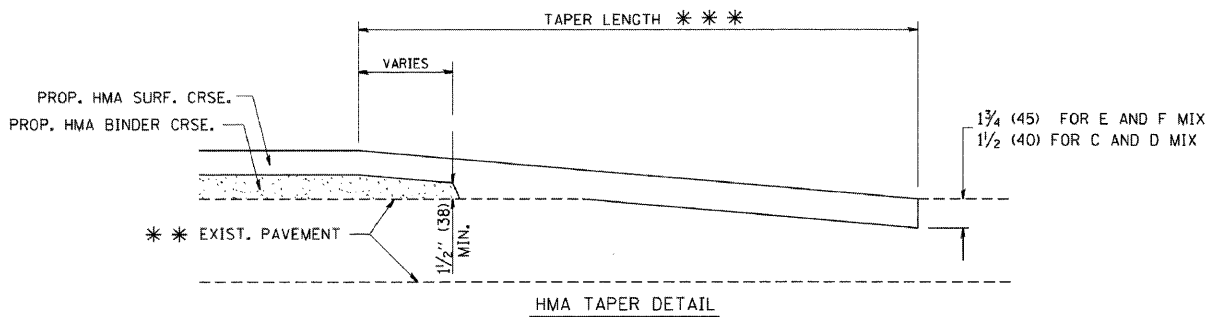
**OPTION 2  
TYPICAL TEMPORARY RAMP**



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



**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")

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

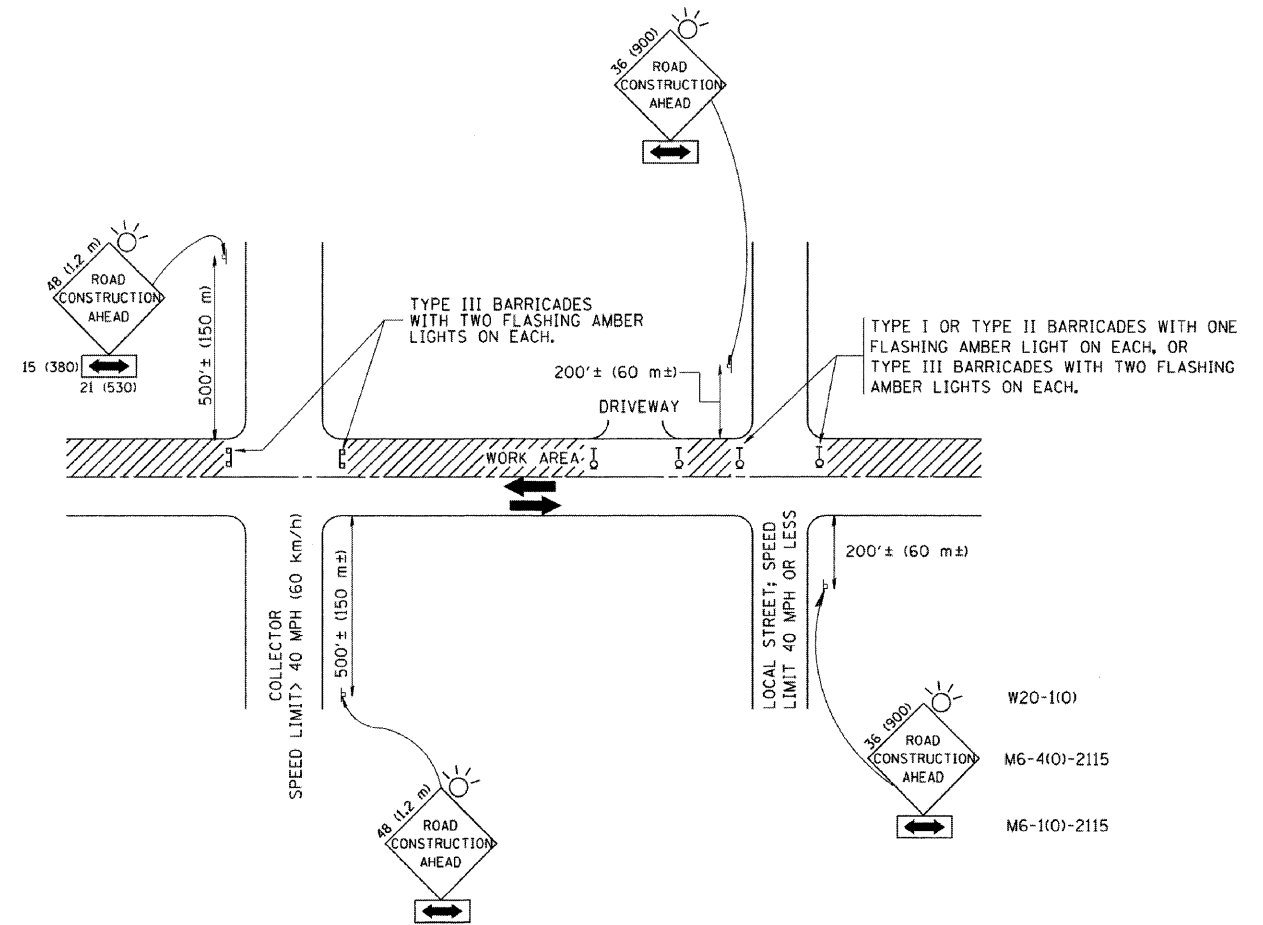
**BASIS OF PAYMENT:**

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".

**BUTT JOINT AND HMA TAPER DETAILS**

USER NAME = \$USER\$	DESIGNED - MJY	REVISIONS
DRAWN - RJG	CHECKED - MJY	REVISIONS
PLLOT SCALE = \$SCALE\$	DATE - 07/08/2009	REVISIONS
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	28
D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**NOTES:**

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 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:
    - 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.
    - 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.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - 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.
    - 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.

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

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

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NAPERVILLE, ILLINOIS 60563 PH: 630/577-9100

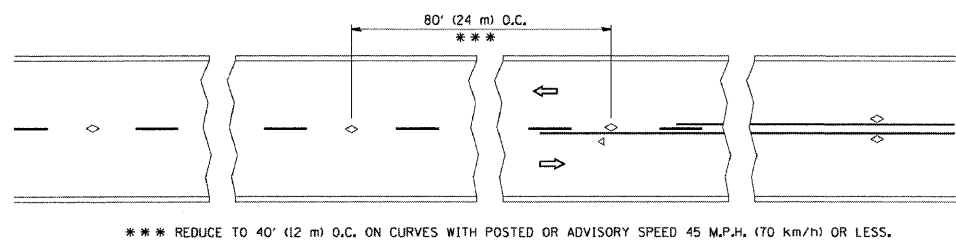
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAIL SHEETS  
IL ROUTE 58 (GOLF ROAD)**

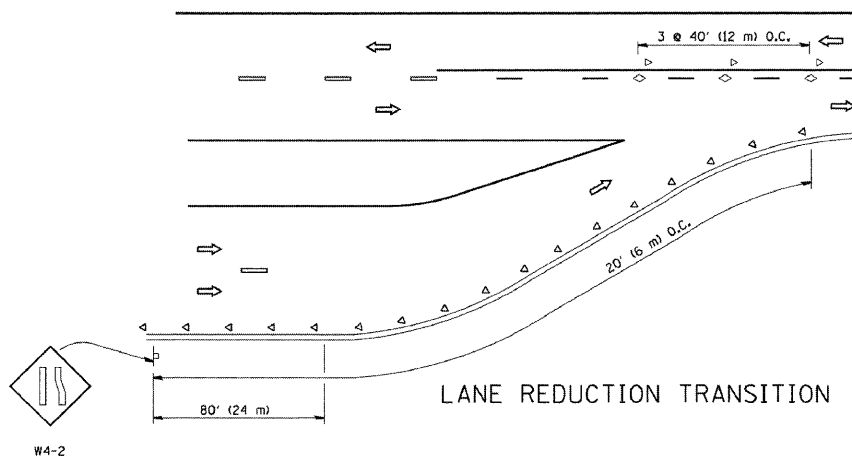
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

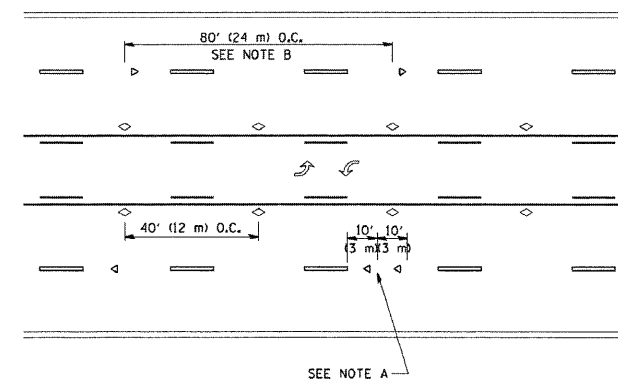


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

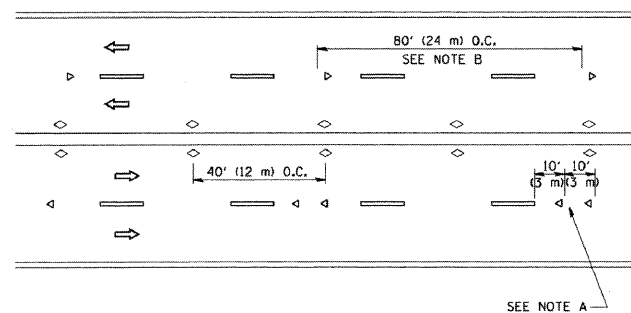
TWO-LANE/TWO-WAY



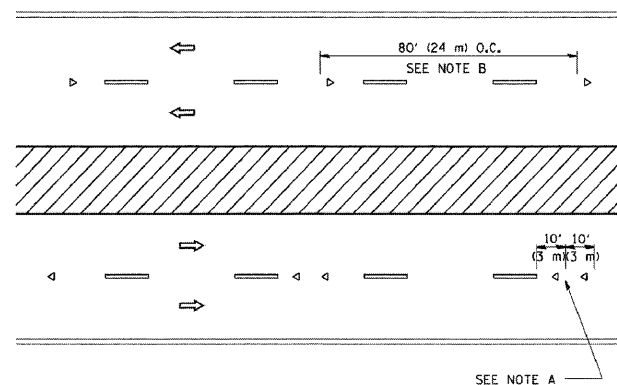
LANE REDUCTION TRANSITION



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

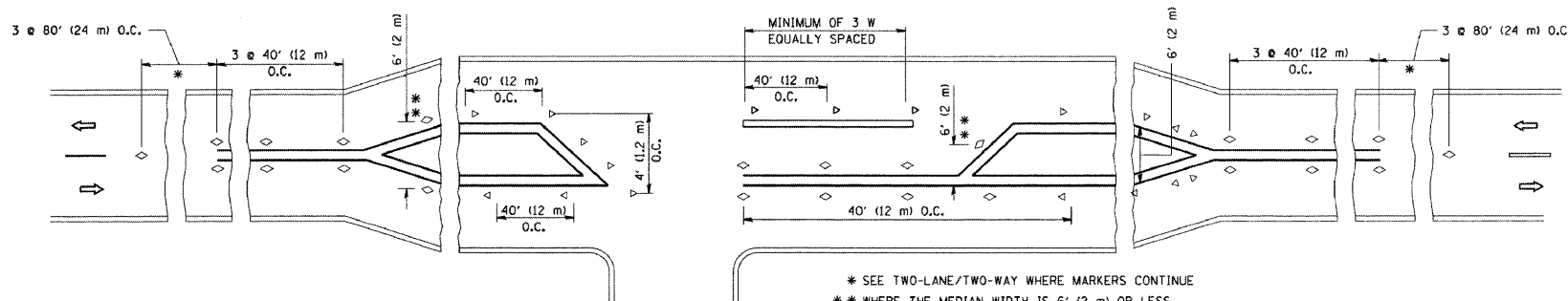
- YELLOW STRIPE
- WHITE STRIPE
- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/D)
- ◊ TWO-WAY AMBER MARKER

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.



LEFT TURN

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

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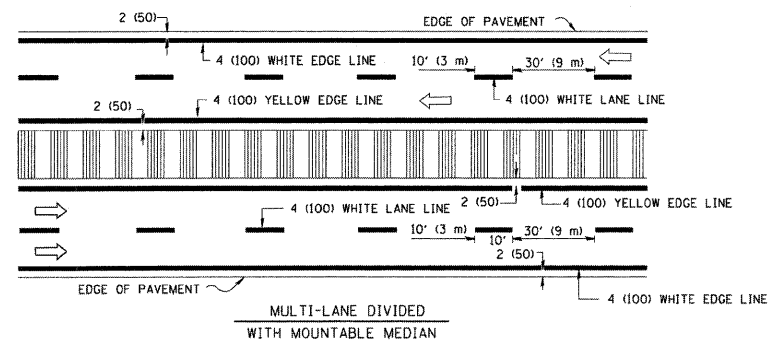
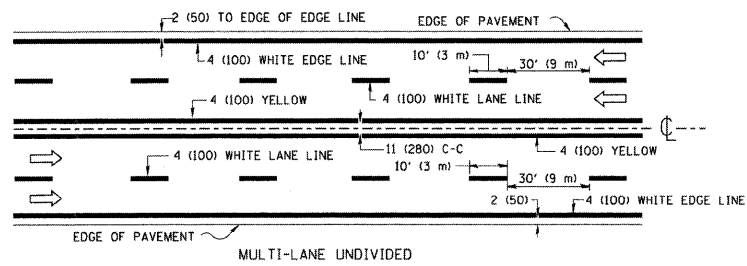
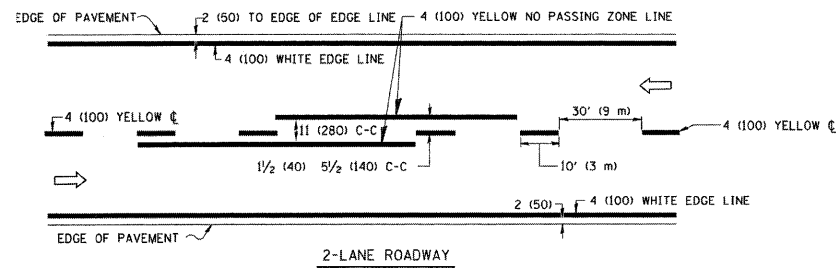
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	DATE - 07/08/2009	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS  
IL ROUTE 58 (GOLF ROAD)

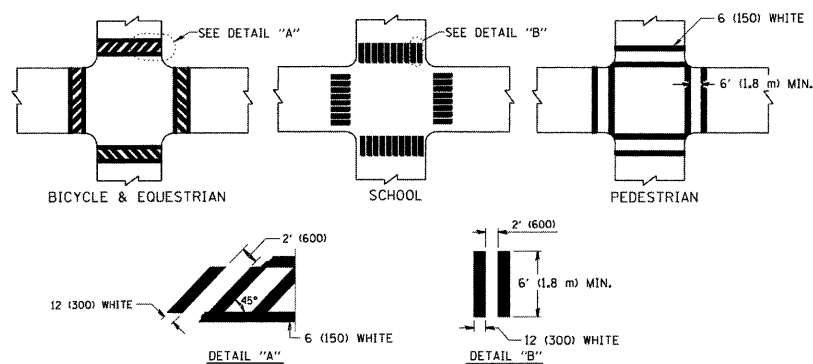
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	30
D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

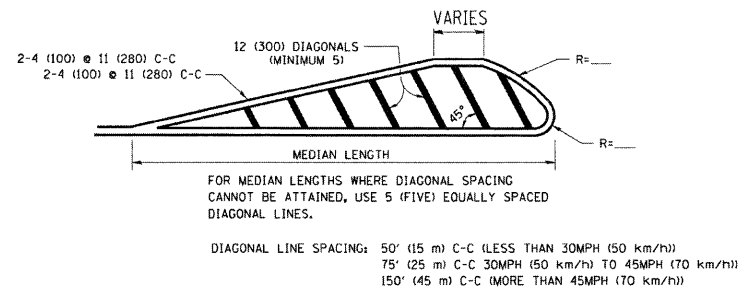
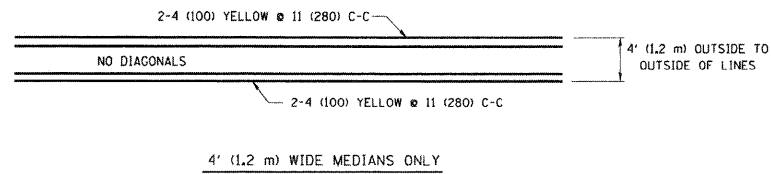


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

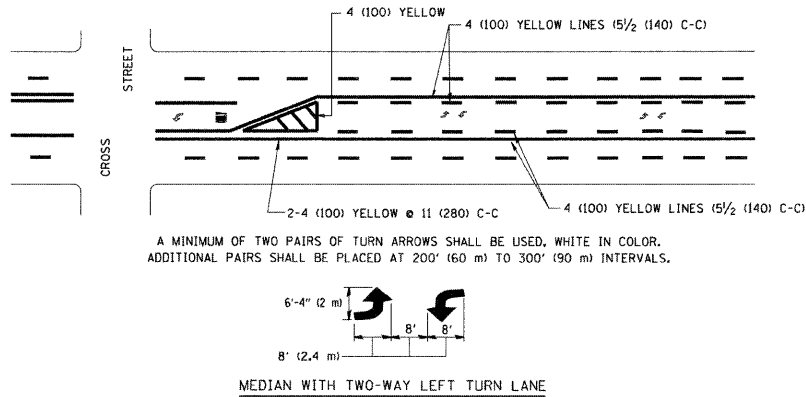
TYPICAL LANE AND EDGE LINE MARKING



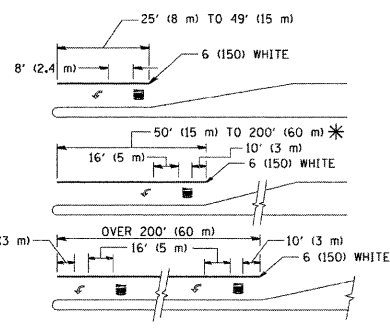
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE



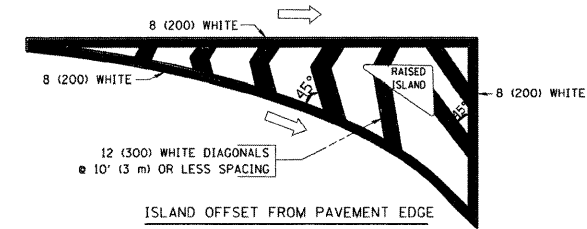
TYPICAL PAINTED MEDIAN MARKING



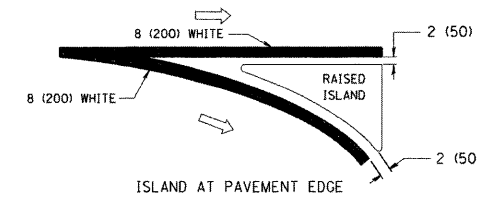
FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.  
 \* AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

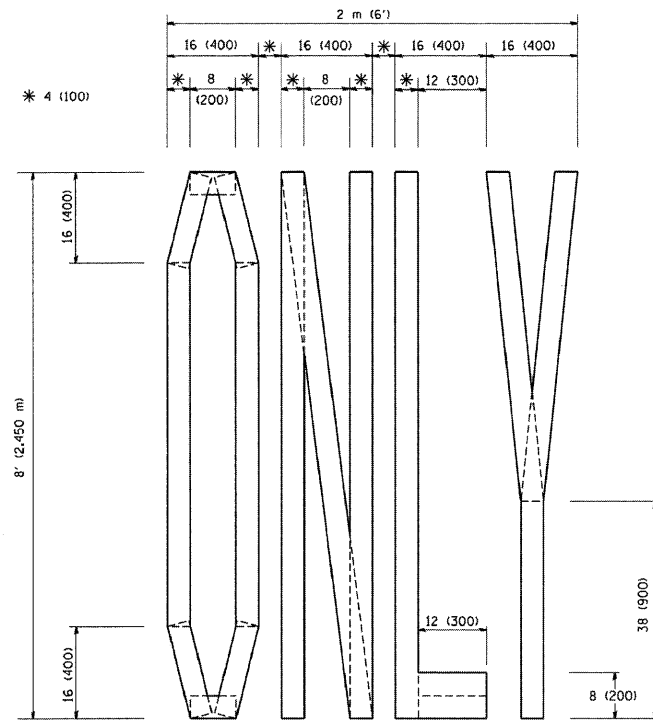
TYPICAL ISLAND MARKING

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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	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 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))

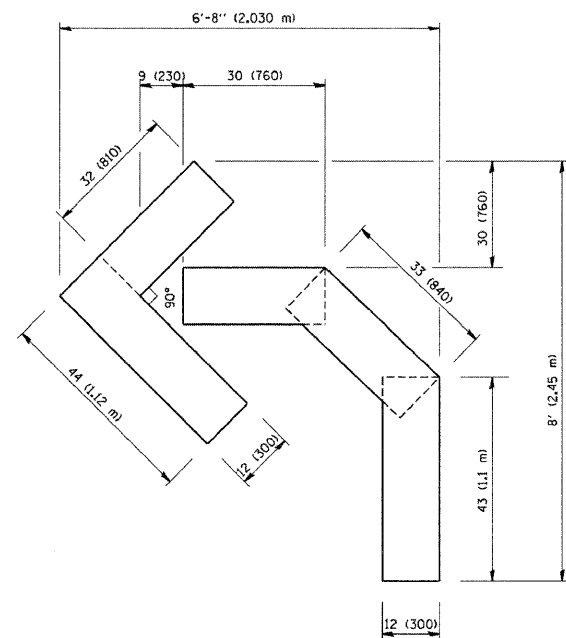
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

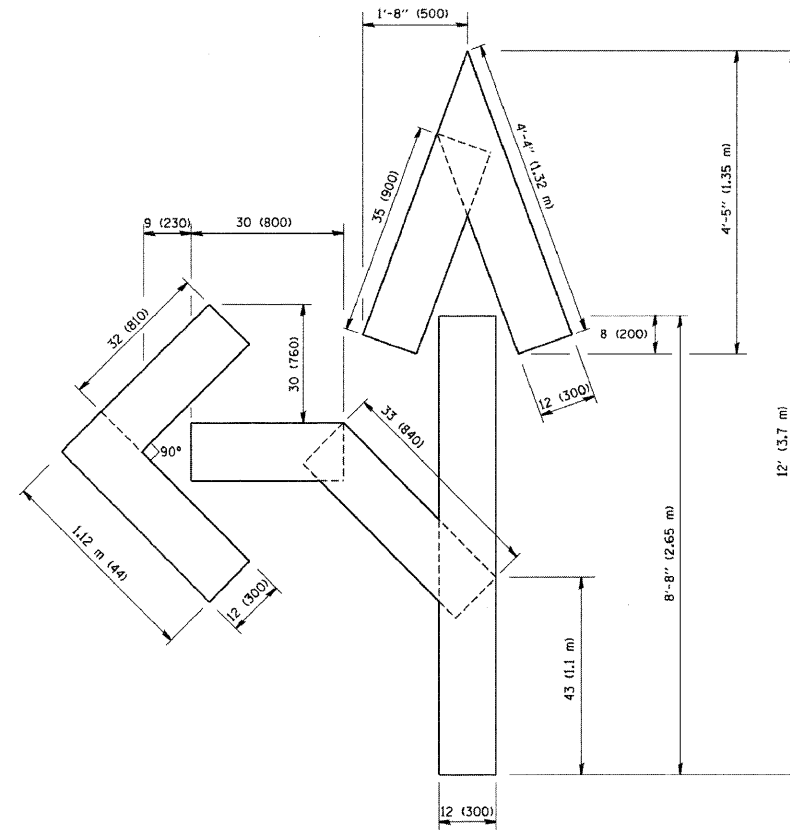
## DISTRICT ONE TYPICAL PAVEMENT MARKINGS



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



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



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

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

### DISTRICT ONE TYPICAL PAVEMENT MARKINGS

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

USER NAME = #USER#	DESIGNED - MJY	
	DRAWN - RJG	REVISED -
PLOT SCALE = #SCALE#	CHECKED - MJY	REVISED -
PLOT DATE = #DATE#	DATE - 07/08/2009	REVISED -

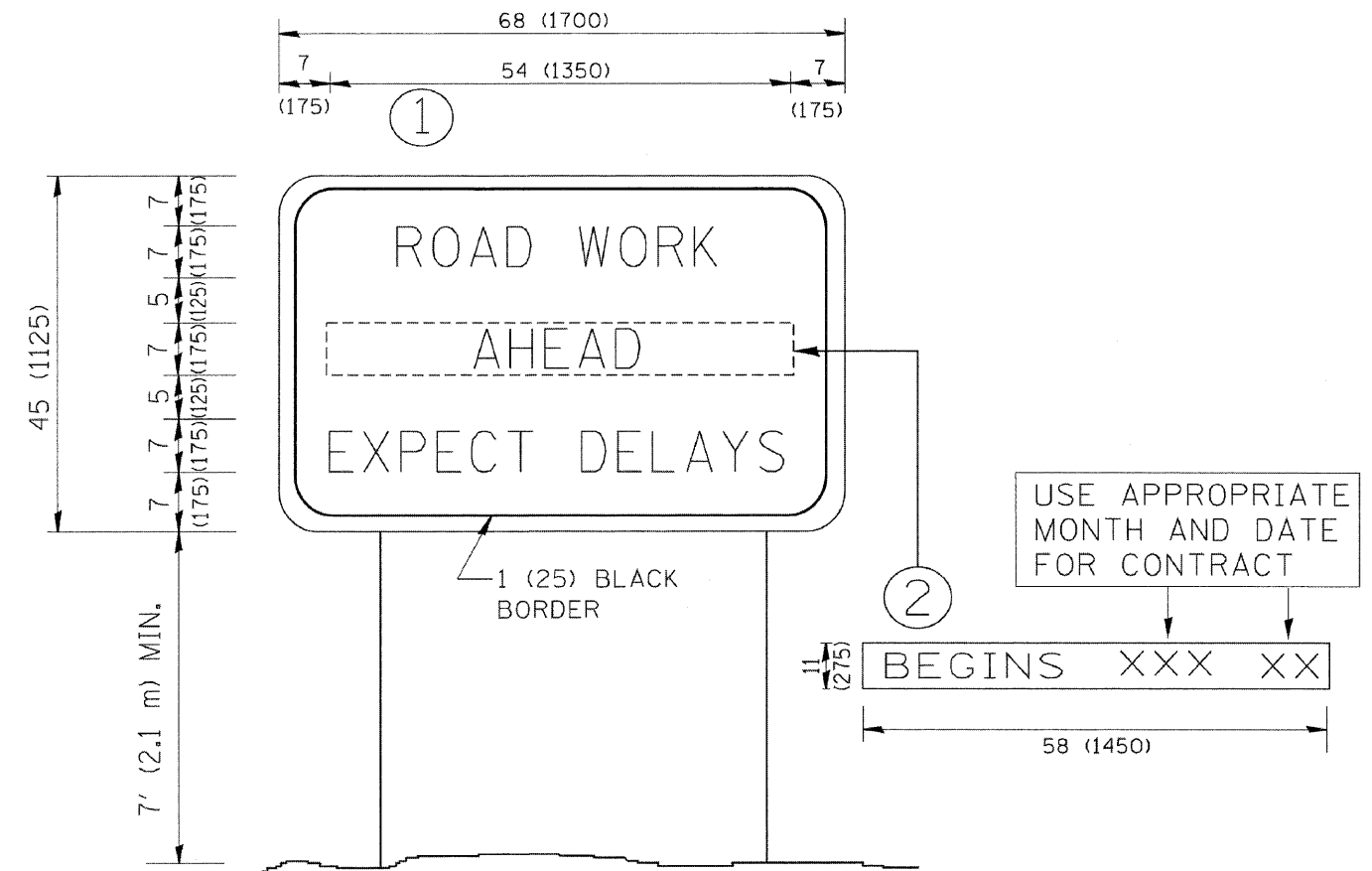
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS  
 IL ROUTE 58 (GOLF ROAD)

SCALE: NONE SHEET NO. 31 OF 33 SHEETS STA. 492+55 TO STA. 498+45

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 B-1	COOK	33	32
D-91-288-09			CONTRACT NO. 60F91	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		





**NOTES:**

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

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

**ARTERIAL ROAD INFORMATION SIGN**

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

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