F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60F53		

D-91-097-09 38-1-37

IMPROVEMENT LOCATED IN THE VILLAGE OF CHANNAHON

11-6-09 Letting, Item 166

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

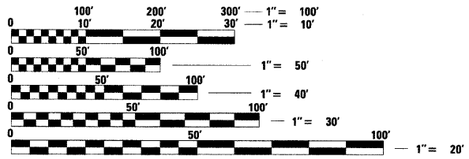
I–55 WEST FRONTAGE ROAD
OVER THE ILLINOIS & MICHIGAN (I &M) CANAL

SECTION: 86 B–3–R
PROJECT: ACBHI-055-6(233)249
BRIDGE REHAB &
SUPERSTRUCTURE REPLACEMENT

WILL COUNTY
C–91–097–09

ADT 2000 (2008)
SPEED LIMIT 45 MPH

LOCATION OF SECTION INDICATED THUS: –

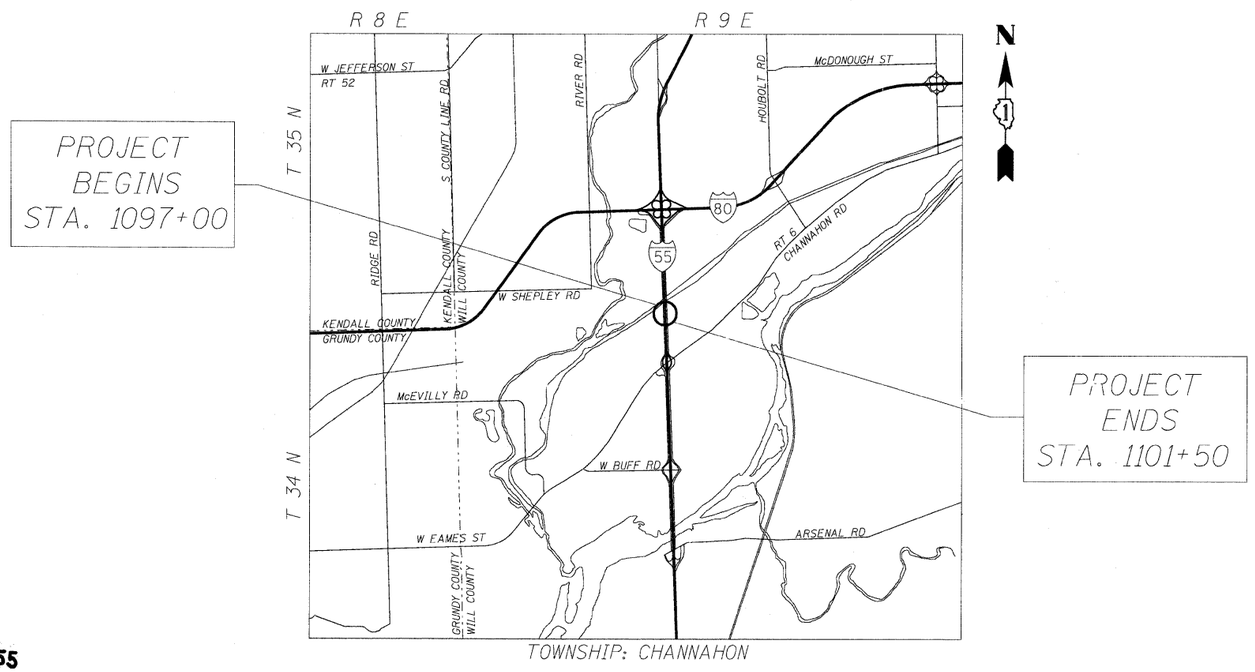


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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. 60F53



TOWNSHIP: CHANNAHON

LOCATION SKETCH

NET AND GROSS LENGTH OF PROJECT = 450' = 0.085 MI

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 24 20 09
Dan O'Neal
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 2, 2009
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT
October 2, 2009
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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

WILLIAM H. ERSKINE 062-047827 REGISTERED PROFESSIONAL ENGINEER ILLINOIS
Expires 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	TEMPORARY TRAFFIC SIGNAL PLANS
13	TEMPORARY TRAFFIC SIGNAL PLANS AND CABLE PLAN
14-30	STRUCTURAL PLANS
31	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
32	BUTT JOINT AND HMA TAPER DETAILS
33	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
34	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
35	DISTRICT ONE TYPICAL PAVEMENT MARKING
36	NOT USED
37	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
38	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
701201-03	LANE CLOSURE, 2L, 2W DAY ONLY FOR SPEEDS ≥ 45 MPH
701301-03	LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS
701321-10	LANE CLOSURE 2L, 2W BRIDGE REPAIR WITH BARRIER
701331-03	LANE CLOSURE 2L, 2W WITH RUN AROUND FOR SPEEDS ≥ 45 MPH
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

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 FURNISH 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 RESIDENT ENGINEER SHALL CONTACT MS. CORA MATHIS, AREA TRAFFIC FIELD ENGINEER, AT (815) 485-6475 AT A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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 BY THE COMPLETION DATE. THE COMPLETION DATE FOR THIS CONTRACT IS SEPTEMBER 3, 2010.

LONCO, 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 - 09/09/2009	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 2 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	2
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES				80% FEDERAL, 20% STATE	
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 1000	BRIDGE X281-2A
20200100	EARTH EXCAVATION	CU YD	99	99	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	38		38
21101815	COMPOST FURNISH AND PLACE, 4"	SQ YD	984	984	
25000310	SEEDING, CLASS 4	ACRE	0.2	0.2	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	18	18	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	18	18	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	18	18	
25100630	EROSION CONTROL BLANKET	SQ YD	984	984	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	20	20	
28000300	TEMPORARY DITCH CHECKS	EACH	4	4	
28000400	PERIMETER EROSION BARRIER	FOOT	806	806	
28100109	STONE RIPRAP, CLASS A5	SQ YD	378		378
28200200	FILTER FABRIC	SQ YD	378		378
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	1	1	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	43	43	
40600300	AGGREGATE (PRIME COAT)	TON	3	3	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	1	1	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	29	29	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	28	28	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	64	64	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	59	59	
44000100	PAVEMENT REMOVAL	SQ YD	274	274	
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	589	589	
44000700	APPROACH SLAB REMOVAL	SQ YD	160		160
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	75	75	
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	90	90	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	448	448	
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	49	49	
48203013	HOT-MIX ASPHALT SHOULDERS, 4"	SQ YD	101	101	

SUMMARY OF QUANTITIES				80% FEDERAL, 20% STATE	
CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BRIDGE X281-2A
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1
50157300	PROTECTIVE SHIELD	SQ YD	49		49
50200100	STRUCTURE EXCAVATION	CU YD	38		38
50300225	CONCRETE STRUCTURES	CU YD	25.9		25.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	170.9		170.9
50300260	BRIDGE DECK GROOVING	SQ YD	395.6		395.6
50300300	PROTECTIVE COAT	SQ YD	459.5		459.5
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2100		2100
50500505	STUD SHEAR CONNECTORS	EACH	819		819
50600300	CLEANING AND PAINTING STEEL BRIDGE	L SUM	1		1
50606400	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1		1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	43050		43050
50800515	BAR SPLICERS	EACH	440		440
51500100	NAME PLATES	EACH	1		1
52100520	ANCHOR BOLTS, 1"	EACH	28		28
59000200	EPOXY CRACK INJECTION	FOOT	5		5
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	25		25
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	186		186
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	63	63	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	3	
66502300	WOVEN WIRE FENCE REMOVAL	FOOT	279	279	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	9	
67100100	MOBILIZATION	L SUM	1	1	
70100400	TRAFFIC CONTROL AND PROTECTION, STANDARD 701431	EACH	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	156	156	

* SPECIALTY ITEMS

*Specialty Items

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

DESIGNED - MJY		
DRAWN - ST	REVISED -	
CHECKED - MJY	REVISED -	
DATE - 09/09/2009	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 3 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	3
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

	SUMMARY OF QUANTITIES				80% FEDERAL, 20% STATE	
	CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 1000	BRIDGE X281-2A
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1
	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	9	9	
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	548	548	
	70300625	TEMPORARY PAINT PAVEMENT MARKING LINE 4"	FOOT	1096	1096	
	70300660	TEMPORARY PAINT PAVEMENT MARKING LINE 24"	FOOT	12	12	
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	445	445	
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	445	445	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	859	859	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	12	12	
*	78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	235		235
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	10	
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2		2
*	78200500	BARRIER WALL MARKERS	EACH	27	27	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	12	10	2
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	78	78	
	X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	204		204
	X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	3968	3968	
	X0325841	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 24 INCH	FOOT	72	72	
	X0712400	TEMPORARY PAVEMENT	SQ YD	192	192	
	XX006571	REMOVE AND REPLACE BOLLARDS	EACH	20	20	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
	Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	3	3	
	Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2	
	Z0032300	JACKING EXISTING SUPERSTRUCTURE	L SUM	1		1
	Z0073700	TEMPORARY WALL BRACING SYSTEM	L SUM	1		1
	~~Z0076600~~	~~TRAINEES~~	~~HOUR~~			

	SUMMARY OF QUANTITIES				80% FEDERAL, 20% STATE	
	CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 1000	BRIDGE X281-2A

* SPECIALTY ITEMS

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

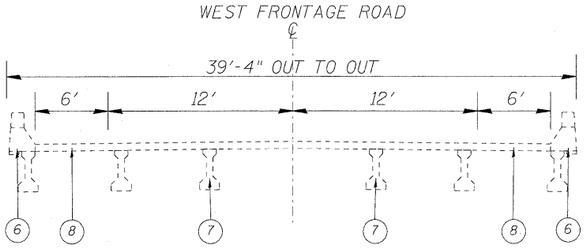
DESIGNED - MJY		
DRAWN - ST	REVISED -	
CHECKED - MJY	REVISED -	
DATE - 09/09/2009	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

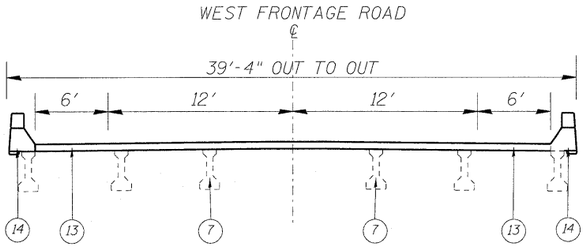
SUMMARY OF QUANTITIES
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 4 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

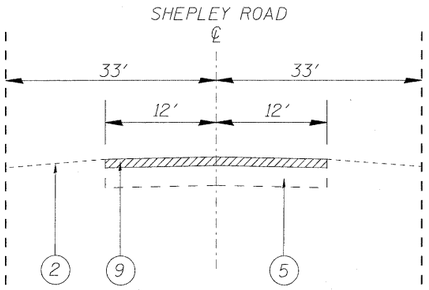
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	4
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



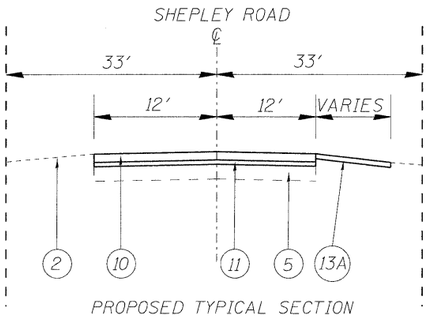
EXISTING TYPICAL SECTION
STA. 1098+84.38 TO STA. 1099+27.63



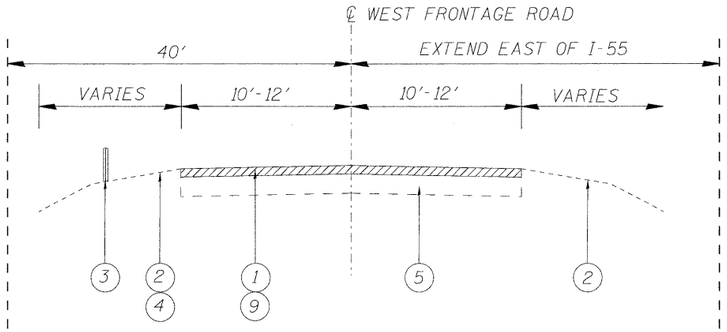
PROPOSED TYPICAL SECTION
STA. 1098+84.38 TO STA. 1099+27.63



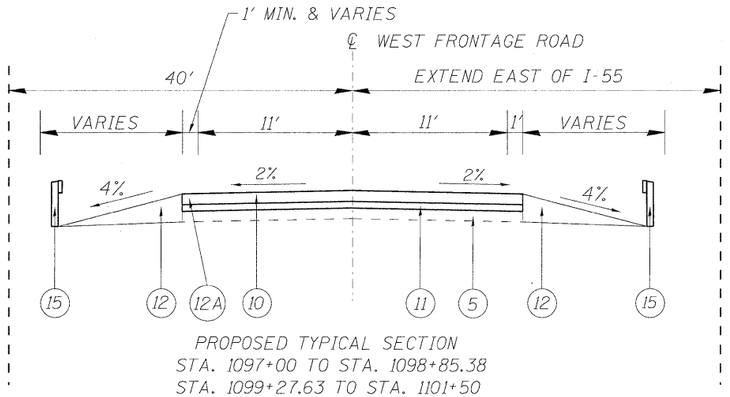
EXISTING TYPICAL SECTION
STA. 109+91.28 TO STA. 109+44.93



PROPOSED TYPICAL SECTION
STA. 109+91.28 TO STA. 109+44.93



EXISTING TYPICAL SECTION
STA. 1097+00 TO STA. 1098+85.38
STA. 1099+27.63 TO STA. 1101+50



PROPOSED TYPICAL SECTION
STA. 1097+00 TO STA. 1098+85.38
STA. 1099+27.63 TO STA. 1101+50

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
OPRERATION	MIXTURE TYPE	DESIGN AIR VOIDS
ROADWAY	HMA SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	4% @ 70 GYR
	LEVELING BINDER (MACHINE METHOD), N70	4% @ 70 GYR
	CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 GYR
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR
	TEMPORARY PAVEMENT (HMA BINDER IL-19 mm)	4% @ 50 GYR
SHOULDER	HMA SHOULDER 4" (HMA BINDER IL-19 mm)	2% @ 30 GYR
	LEVELING BINDER (MACHINE METHOD), N70	4% @ 70 GYR
BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)*	HMA SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	4% @ 70 GYR
	LEVELING BINDER (MACHINE METHOD), N70	4% @ 70 GYR

LEGEND

1. EXISTING HMA PAVEMENT 1 ½"
2. EXISTING SHOULDER
3. EXISTING BALLARD (STA. 1098 TO STA. 1098+60)
4. EXISTING HMA SHOULDER (STA. 1098+23 TO STA. 1098+48.69)
5. EXISTING GRAVEL OR CRUSHED STONE BASE COURSE, 7"
6. EXISTING CONCRETE PARAPETS
7. EXISTING STEEL BEAMS
8. EXISTING REINFORCED CONCRETE DECK, 6.5"
9. PROPOSED HMA SURFACE REMOVAL, 2 ½"
10. PROPOSED HMA SURFACE CSE., MIX "D", N70, 1 ½", (IL-9.5mm)
11. PROPOSED LEVELING BINDER, N70, 1"
12. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
12A. PROPOSED HMA SHOULDER, 4" (STA. 1098+11.35 TO 1098+48.69)
13. PROPOSED 7.5" REINFORCED CONCRETE DECK
13A. PROPOSED TEMPORARY PAVEMENT, 5 ¾"
14. F SHAPE PARAPETS
15. PROPOSED STEEL PLATE BEAM GUARD RAIL, TYPE A
16. WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4" WHITE
17. TYPE III BARRICADE WITH FLASHING LIGHTS (AT 25′ C-C)
18. TEMPORARY CONCRETE BARRIER
19. RELOCATED TEMPORARY CONCRETE BARRIER

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.

THE "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.

*THE BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) WILL BE PLACED USING HMA BINDER COURSE, IL-19.0, N70 TO A 10 ½" THICKNESS USING 4 LIFTS. THE BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) WILL BE COMPLETED USING HMA SURFACE COURSE, MIX "D", N70 TO AN 1 ½" THICKNESS. AREAS WHERE A VARIABLE THICKNESS IS REQUIRED THE HMA BINDER COURSE WILL BE INSTALLED PER STANDARD 420401.

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

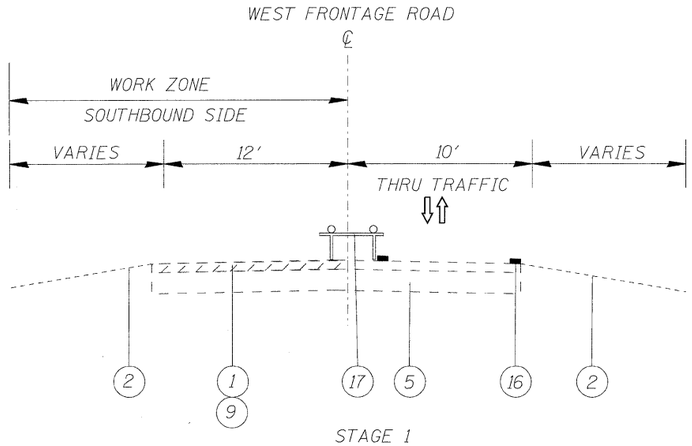
DESIGNED - MJY
DRAWN - ST
CHECKED - MJY
DATE - 09/09/2009
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

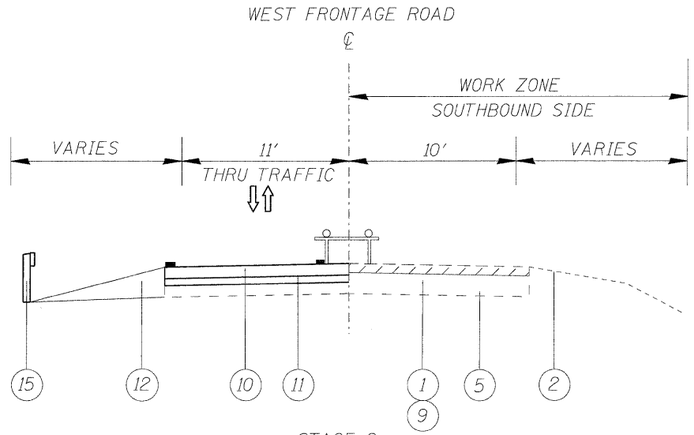
TYPICAL SECTIONS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 5 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

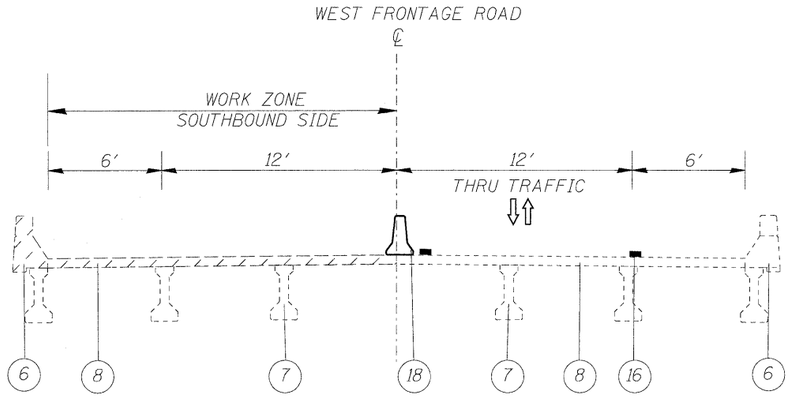
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	5
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



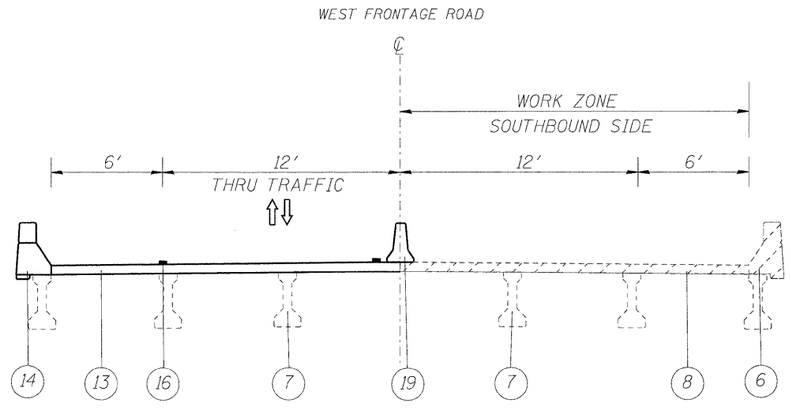
STAGE 1
STA. 1098+00 TO STA. 1098+85.38
STA. 1099+27.63 TO STA. 1101+50



STAGE 2
STA. 1098+00 TO STA. 1098+85.38
STA. 1099+27.63 TO STA. 1101+50



STAGE 1
STA. 1098+84.38 TO STA. 1099+27.63



STAGE 2
STA. 1098+84.38 TO STA. 1099+27.63

LEGEND

1. EXISTING HMA PAVEMENT 1 ½"
2. EXISTING SHOULDER
3. EXISTING BALLARD (STA. 1098 TO STA. 1098+60)
4. EXISTING HMA SHOULDER (STA. 1098+23 TO STA. 1098+48.69)
5. EXISTING GRAVEL OR CRUSHED STONE BASE COURSE, 7"
6. EXISTING CONCRETE PARAPETS
7. EXISTING STEEL BEAMS
8. EXISTING REINFORCED CONCRETE DECK, 6.5′
9. PROPOSED HMA SURFACE REMOVAL, 2 ½"
10. PROPOSED HMA SURFACE CSE., MIX "D", N70, 1 ½", (IL-9.5mm)
11. PROPOSED LEVELING BINDER, N70, 1"
12. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
12A. PROPOSED HMA SHOULDER, 4" (STA. 1098+11.35 TO 1098+48.69)
13. PROPOSED 7.5′ REINFORCED CONCRETE DECK
13A. PROPOSED TEMPORARY PAVEMENT, 5 ¾"
14. F SHAPE PARAPETS
15. PROPOSED STEEL PLATE BEAM GUARD RAIL, TYPE A
16. WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4" WHITE
17. TYPE III BARRICADE WITH FLASHING LIGHTS (AT 25′ C-C)
18. TEMPORARY CONCRETE BARRIER
19. RELOCATED TEMPORARY CONCRETE BARRIER

EARTHWORK

STATION	EARTH EXCAVATION (CU YD)	EMBANKMENT (CU YD)	ADJ EXCAVATION 15% (CU YD)	BALANCE (CU YD)
1097+20 TO 1098+35.89	40	0	6	34
1099+76 TO 1101+35.89	40	0	6	34
1098+35.89 To 1098+60	9.3	0	1.4	7.9
1099+50 TO 1099+76.42	9.3	0	1.4	7.9

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

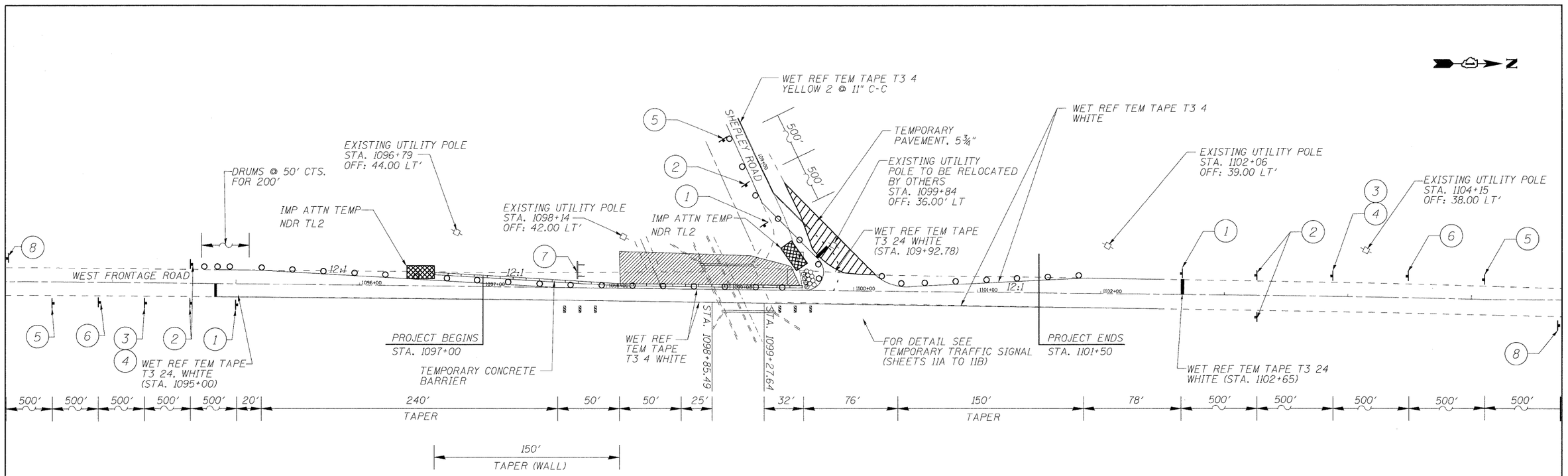
DESIGNED - MJY		
DRAWN - ST	REVISED - ___	
CHECKED - MJY	REVISED - ___	
DATE - 09/09/2009	REVISED - ___	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING TYPICAL SECTIONS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 6 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	6
	D-91-097-09	CONTRACT NO. 60F53		
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
- DETECTOR LOOP, TYPE 1
- DOUBLE VERTICAL PANEL
- ATTENUATOR- WATER FILLED

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.

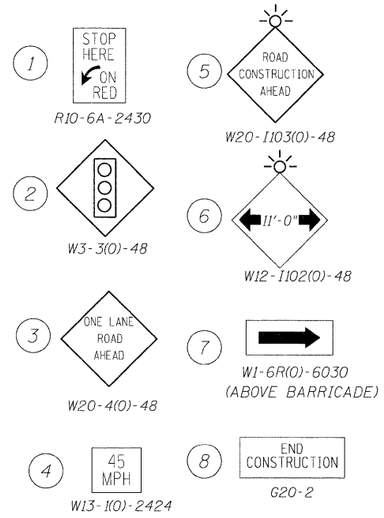
ALL SIGNS, BARRICADES, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND THE MANUAL UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE PAID FOR SEPARATELY.

CONTRACTOR TO DEVELOP A PLAN FOR THE LOCATION OF THE TEMPORARY TRAFFIC SIGNALS AT SHEPLEY ROAD. THIS PLAN SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO BEGINNING TRAFFIC CONTROL STAGE 1.

THE CONTRACTOR WILL ENSURE THAT THE BIKE PATH SHALL BE OPEN DURING DAYTIME HOURS BY USING SIGNING AS APPROVED BY THE ENGINEER.

STAGE 1

1. INSTALL TEMPORARY PAVEMENT ON SHEPLEY ROAD TO MAINTAIN A MINIMUM OF 13' WIDE WESTBOUND LANE AND PROVIDE FOR A MINIMUM 13' EASTBOUND LANE WIDTH.
2. INSTALL TRAFFIC CONTROL, TEMPORARY CONCRETE BARRIER, AND TEMPORARY BRIDGE TRAFFIC SIGNALS IN ACCORDANCE WITH STANDARD 701321 AND STAGE 1 MAINTENANCE OF TRAFFIC.
3. REMOVE EXISTING PAVEMENT ON SOUTHBOUND SIDE OF I-55 WEST FRONTAGE ROAD.
4. REMOVE WEST HALF OF EXISTING SUPERSTRUCTURE.
5. INSTALL NEW DECK AND CONSTRUCT NEW PARAPET WALLS.
6. CONSTRUCT ROADWAY ON WEST SIDE OF I-55 WEST FRONTAGE ROAD.



0' 20' 40' 80'

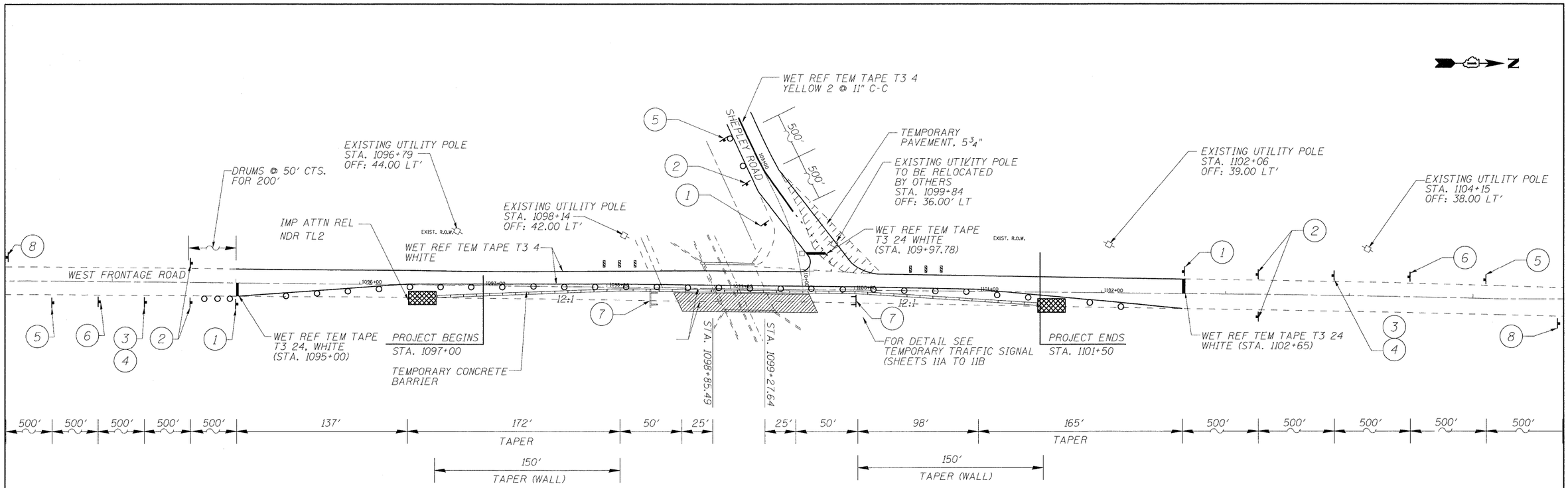
SCALE: 1"= 40'

LOVCO, INC. CONSULTING ENGINEERS 1560 WALL ST. SUITE 222 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	DESIGNED - MJY	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - ST	REVISED - ---	
	CHECKED - MJY	REVISED - ---	
	DATE - 09/09/2009	REVISED - ---	

CONSTRUCTION STAGING PLAN – STAGE 1
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: 1" = 40' | SHEET NO. 7 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	7
	D-91-097-09	CONTRACT NO. 60F53		
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
- DETECTOR LOOP, TYPE 1
- DOUBLE VERTICAL PANEL
- ATTENUATOR- WATER FILLED

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.

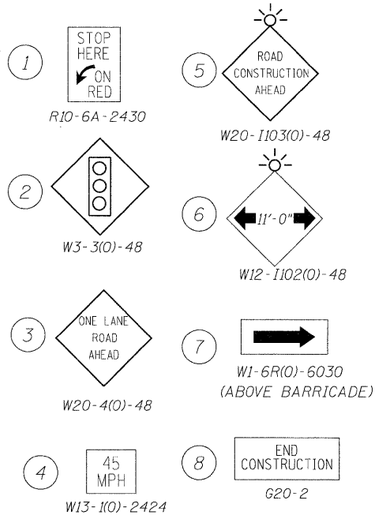
ALL SIGNS, BARRICADES, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND THE MANUAL UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE PAID FOR SEPARATELY.

CONTRACTOR TO DEVELOP A PLAN FOR THE LOCATION OF THE TEMPORARY TRAFFIC SIGNALS AT SHEPLEY ROAD. THIS PLAN SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO BEGINNING TRAFFIC CONTROL STAGE 1.

THE CONTRACTOR WILL ENSURE THAT THE BIKE PATH SHALL BE OPEN DURING DAYTIME HOURS BY USING SIGNING AS APPROVED BY THE ENGINEER.

STAGE 2

1. INSTALL TRAFFIC CONTROL, TEMPORARY CONCRETE BARRIER, AND TEMPORARY BRIDGE TRAFFIC SIGNALS IN ACCORDANCE WITH STANDARD 701321 AND STAGE 1 MAINTENANCE OF TRAFFIC.
2. REMOVE EXISTING PAVEMENT ON NORTHBOUND SIDE OF I-55 WEST FRONTAGE ROAD.
3. REMOVE EAST HALF OF EXISTING SUPERSTRUCTURE.
4. INSTALL NEW DECK AND CONSTRUCT NEW PARAPET WALLS.
5. CONSTRUCT ROADWAY ON WEST SIDE OF I-55 EAST FRONTAGE ROAD.



0' 20' 40' 80'

SCALE: 1"= 40'

LONCO, INC. CONSULTING ENGINEERS 1560 WALL ST. SUITE 222 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	DESIGNED - MJY	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - ST	REVISED - ---	
	CHECKED - MJY	REVISED - ---	
	DATE - 09/09/2009	REVISED - ---	

CONSTRUCTION STAGING PLAN – STAGE 2
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: 1" = 40' | SHEET NO. 7 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	8
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CURVE C1
P.I. STA= 109+30.60
Δ= 20°31'27"
D= 26°55'43"
R= 212.77'
T= 38.83'
L= 76.82'
E= 3.46'
P.C. STA= 109+35.51
P.T. STA= 110+07.78

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

HMA SURF REM BUTT JT
BEGIN PROJECT LIMITS STA. 1097+00
STA. 1097+20 O/S 13' L.
EXIST. R.O.W.
REM & REPL BOLLARDS 20 EACH
BIKE PATH ACCESS DR.
STA. 1098+11.35 O/S 17' L.
STA. 10+29 O/S 5' R.
HMA SURF REM BUTT JT
W. SHEPLEY ROAD
109+00
12'
12'
STA. 109+67.40 O/S 12.9' L.
CURVE C1
STA. 109+77.40 O/S 13.55' L.
W. SHAPLEY ROAD STA. 110+07.78
FRONTAGE ROAD STA. 1099+58.50
STA. 1099+92.42 O/S 13' L.
HMA SURF REM BUTT JT
STA. 1101+30 O/S 15' L.
EXIST. R.O.W.
END PROJECT LIMITS STA. 1101+50
WEST FRONTAGE ROAD
1096+00
1097+00
1098+00
1099+00
1100+00
1101+00
12'
10'
13'
3' (TYP.)
8' R
30' R
16' R
30' R
11'
3' (TYP.)
HMA SHOULDERS 4
BIKE PATH ACCESS STA. 10+00
FRONTAGE ROAD 1098+45
WOV W FENCE REMOV 144 FT
STA. 1098+35.89 O/S 11' R.
BR APPR SLAB (TYP.)
STONE RIPRAP CL A5 (TYP.)
℄ BRIDGE OVER I & M CANAL
FRONTAGE ROAD STA. 1099+06.50
STA. 1099+76.42 O/S 11' R.
5' TYP.
10' TYP.
11'
AGGREGATE SHLDS B (TYP.)
EXISTING WOVEN WIRE (TYP.)
WOV W FENCE REMOV 135 FT

LEGEND
- HMA SURF REMOVAL, 2 ½" WITH LEV BIND MM N70 HMA SCD N70
- PAVEMENT REM
- BR APPR PVT CON (FLX)
- HMA SURF REM BUTT JT
- APPROACH SLAB REMOVAL 2 @ 36'-0" BY 30'-0"

0' 10' 20' 40'
SCALE: 1"= 20'

NOTE:

THE EXISTING BIKE PATH MUST REMAIN OPEN TO PEDESTRIAN AND BIKE TRAFFIC DURING DAYLIGHT HOURS FOR THE LIFE OF THE CONSTRUCTION OPERATIONS.

PLAN
CORRECTED
PLOTTED
ALIGNMENT CHECKED
NOTE BOOK
NO.
DATE
BY

PROFILE
CORRECTED
PLOTTED
GRADES CHECKED
NOTE BOOK
NO.
DATE
BY
STRUCTURE NO(S)/THIS CH'RD

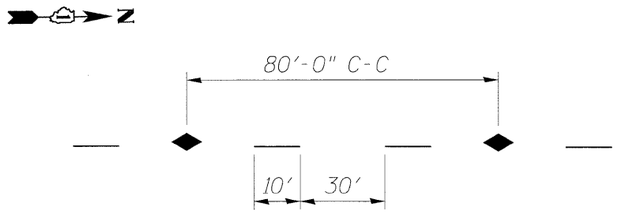
185'-6" 42'-1½" 212'-4½"

P.R.C. STA. 1097+00 ELEV. 97.42
+1.09%
+1.32%
P.V.I. 1098+85.49 ELEV. 99.87
+1.12%
P.V.C. 1099+27.64 ELEV. 100.34
+1.15%
P.R.C. STA. 1101+60 ELEV. 102.89
+1.43%

1095+60	1096+00	1096+50	1097+00	1097+50	1098+00	1098+50	1099+00	1099+50	1100+00	1100+50	1101+00	1101+60
95.89	96.15	96.38	96.58	96.78	96.99	97.21	97.42	97.62	97.82	98.04	98.27	98.50
							97.42	97.68	97.95	98.21	98.47	98.74
98.73	98.99	99.25	99.50	99.74	99.96	100.12	100.30	100.52	100.73	101.03	101.34	101.66
99.00	99.27	99.53	99.79	100.03	100.25	100.49	100.73	100.97	101.21	101.45	101.69	101.93
101.98	102.29	102.60	102.89	103.18								
102.17	102.41	102.65	102.89									

DESIGNED - MJY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL
DRAWN - ST	REVISED -		SCALE: 1" = 20' SHEET NO. 9 OF 38 SHEETS STA. 1097+00 TO STA. 1101+50
CHECKED - MJY	REVISED -		
DATE - 09/09/2009	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	9
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LANE PAVEMENT MARKER DETAIL

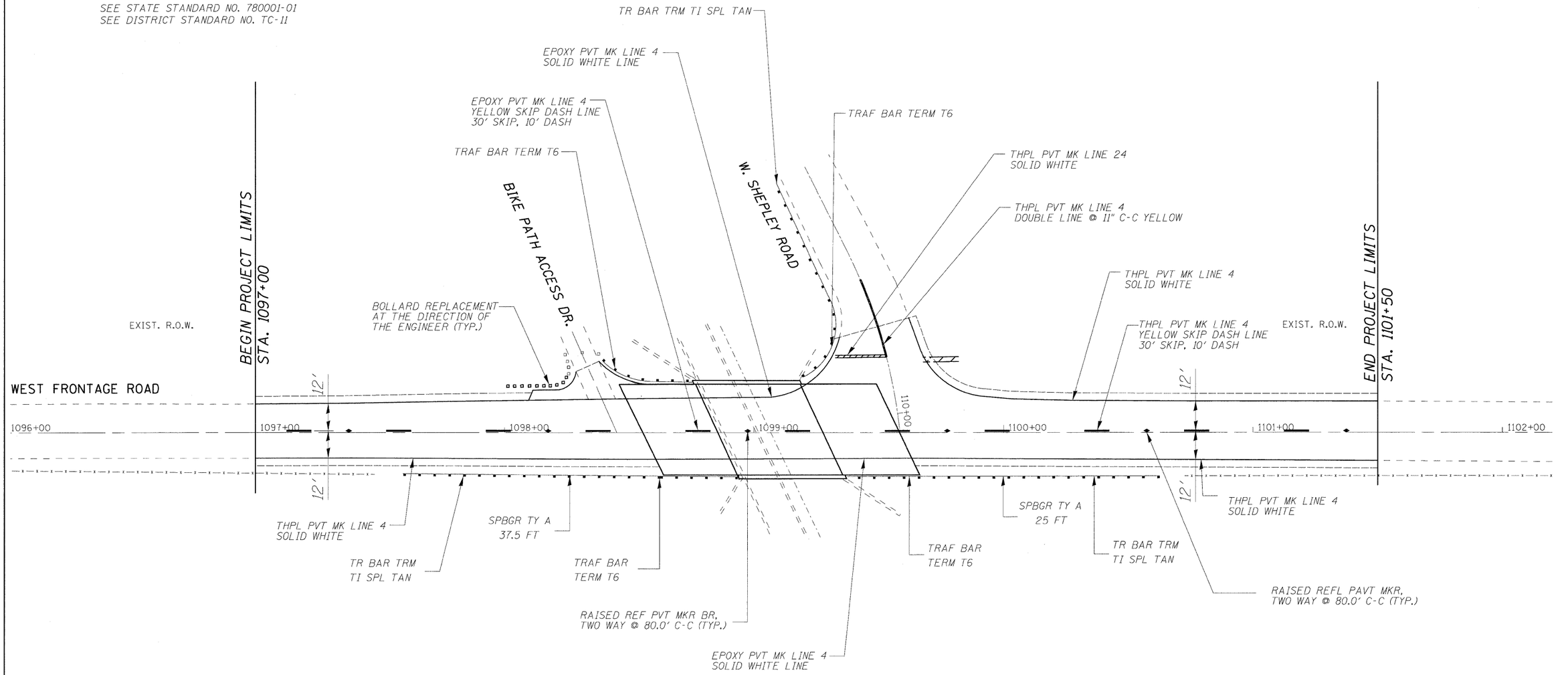
SEE STATE STANDARD NO. 780001-01
SEE DISTRICT STANDARD NO. TC-11

LEGEND

◆ TWO-WAY AMBER MARKER (80' C-C)

NOTE:

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



0' 10' 20' 40
SCALE: 1"= 20'

LONCO, INC. CONSULTING ENGINEERS 1560 WALL ST. SUITE 222 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	DESIGNED - MJY		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - ST	REVISED -	
	CHECKED - MJY	REVISED -	
	DATE - 09/09/2009	REVISED -	

PAVEMENT MARKING PLAN
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: 1" = 20' | SHEET NO. 10 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	10
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

N

TEMPORARY EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL PERIMETER EROSION BARRIER PRIOR TO STRIPPING OF VEGETATION.

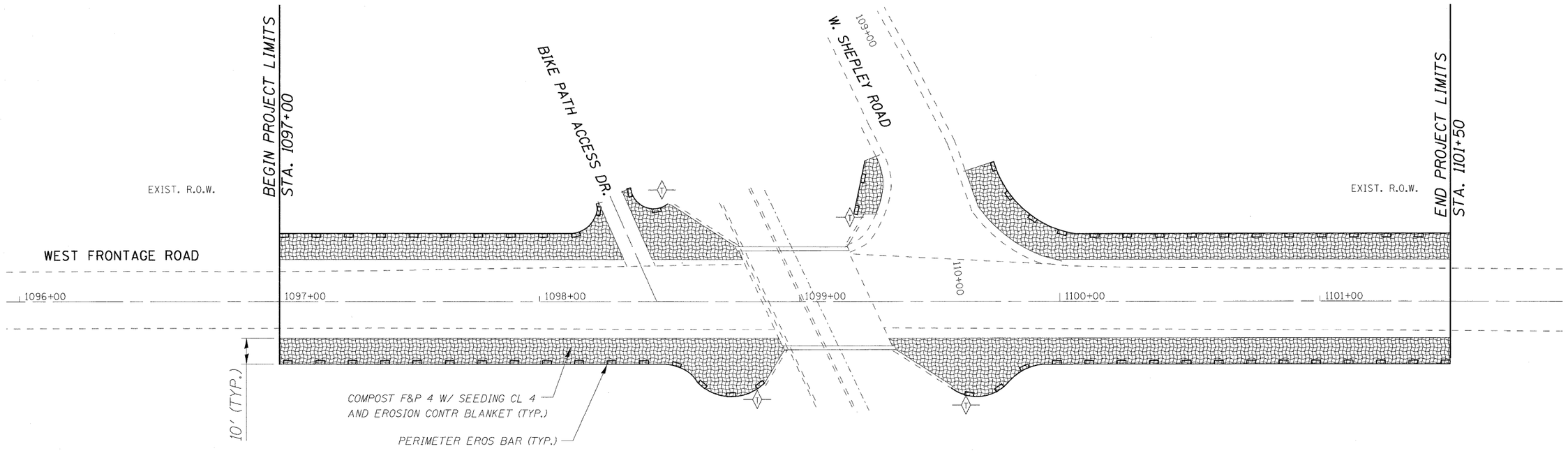
2. TEMPORARY DITCH CHECKS SHALL BE INSTALLED IMMEDIATELY AFTER GRADING IS COMPLETED. DITCH CHECKS ARE BASED ON ONE (1) INSTALLATION AND THREE (3) REPLACEMENTS OVER THE DURATION OF THE CONTRACT. THESE ITEMS WILL BE PAID FOR AS EACH, REGARDLESS OF THE TYPE OF CONFIGURATION USED.

3. RUNOFF FROM EXCAVATION AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL ADJUST HIS OPERATION AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.

4. THE CONTRACTOR SHALL SURROUND ANY NECESSARY EARTH STOCKPILES WITH PERIMETER EROSION BARRIER.

5. 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.

6. 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 RECIEVE 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 PERIMETER 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 PROIR 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 CHECK (STD 280001-04)

0' 10' 20' 40'

SCALE: 1"= 20'

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

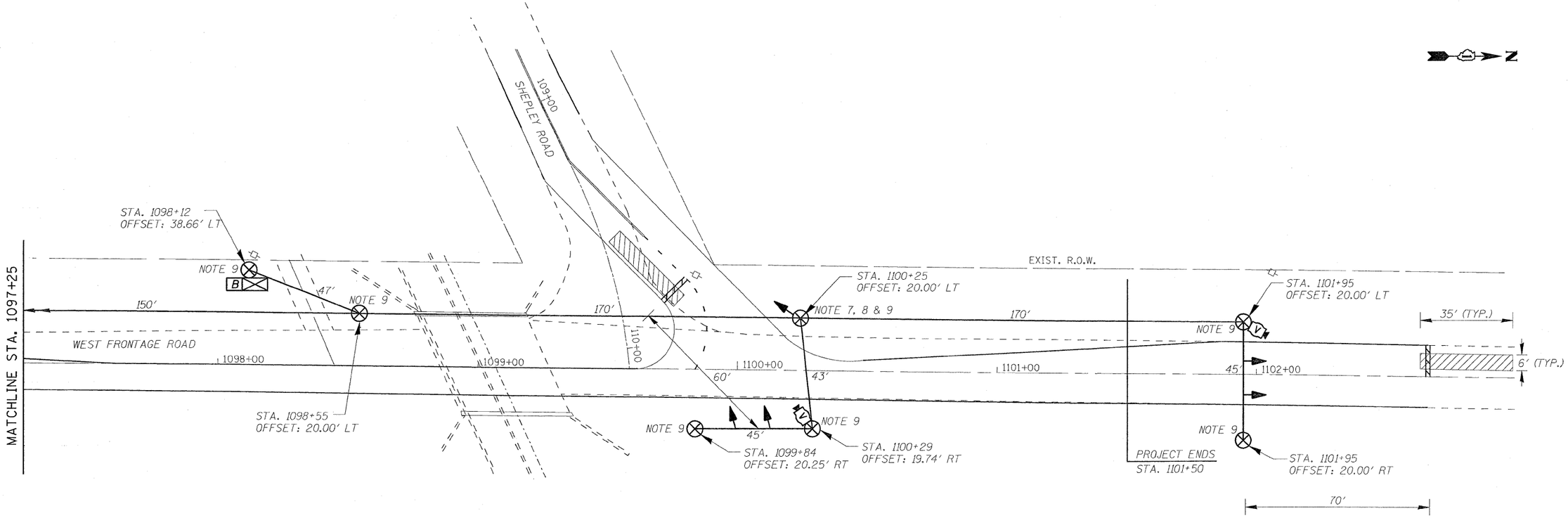
USER NAME = $USER$	DESIGNED - MJY	
	DRAWN - ST	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MJY	REVISED -
PLOT DATE = $DATE$	DATE - 07/08/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: 1" = 20' | SHEET NO. 10 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	11
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TEMPORARY TRAFFIC SIGNAL LEGEND

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

NOTES FOR TEMPORARY TRAFFIC SIGNALS

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

0' 10' 20' 40'

SCALE: 1"= 20'

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

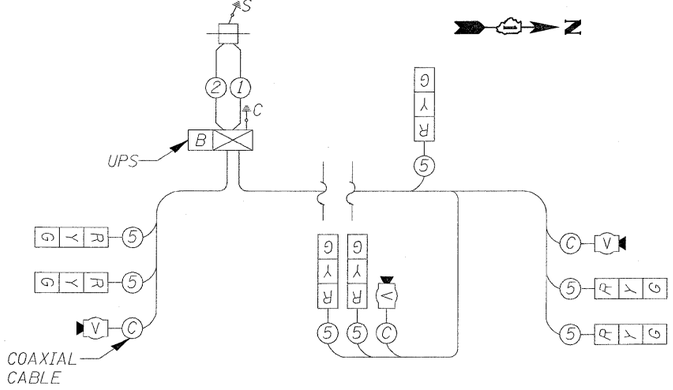
DESIGNED - MJY	REVISED -	---
DRAWN - ST	REVISED -	---
CHECKED - MJY	REVISED -	---
DATE - 09/09/2009	REVISED -	---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

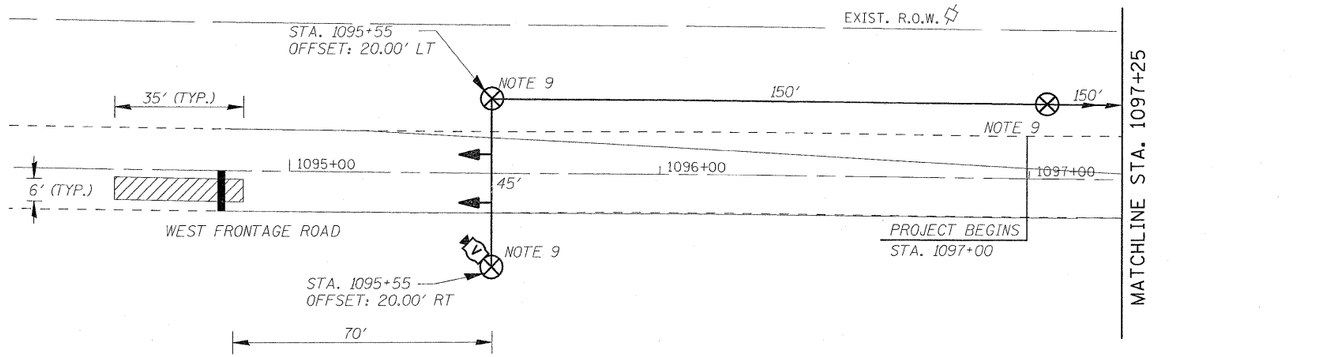
SCALE: 1" = 20' | SHEET NO. 12 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	12
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



TEMPORARY CABLE PLAN

NOT TO SCALE



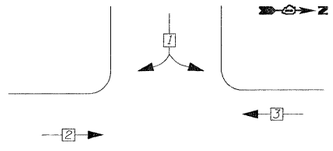
TEMPORARY CABLE LEGEND

- (5) - INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- R / Y / G - SIGNAL FACE
- S- TEMPORARY GROUND ROD AT POST OR MAST ARM POLE
- C- TEMPORARY GROUND ROD AT CONTROLLER

CONSTRUCTION NOTES

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

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

STAGE 1 AND STAGE 2

LEGEND

- DUAL ENTRY PHASE

TEMPORARY TRAFFIC SIGNAL LEGEND

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

RESTORATION OF WORK AREA

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

SEQUENCE OF OPERATION

MOVEMENT										FLASH
PHASE	1			2			3			
INTERVAL	1	2A	2B	3	4A	4B	5	6A	6B	
CHANGE TO		2			1, 3			1, 2		
SHEPLEY RD	G	Y	R	R	R	R	R	R	R	R
W. FRONTAGE RD	R	R	R	G	Y	R	R	R	R	R
W. FRONTAGE RD	R	R	R	R	R	R	G	Y	R	R

TEMPORARY VIDEO DETECTION MOUNTING DETAIL

NOT TO SCALE

0' 10' 20' 40'

SCALE: 1"= 20'

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	7	135	17	0.50	59.50
(YELLOW)	7	135	25	0.25	43.75
(GREEN)	7	135	15	0.25	26.25
VIDEO CAMERA	3	15	1	1.00	45.00
CONTROLLER	1	100	100	1.00	100.00
ENERGY COST TO:			TOTAL =		274.50

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

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

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
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DESIGNED	- MJY	REVISED	-
DRAWN	- ST	REVISED	-
CHECKED	- MJY	REVISED	-
DATE	- 09/09/2009	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL AND CABLE PLAN
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: 1" = 20' | SHEET NO. 13 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	368	13
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

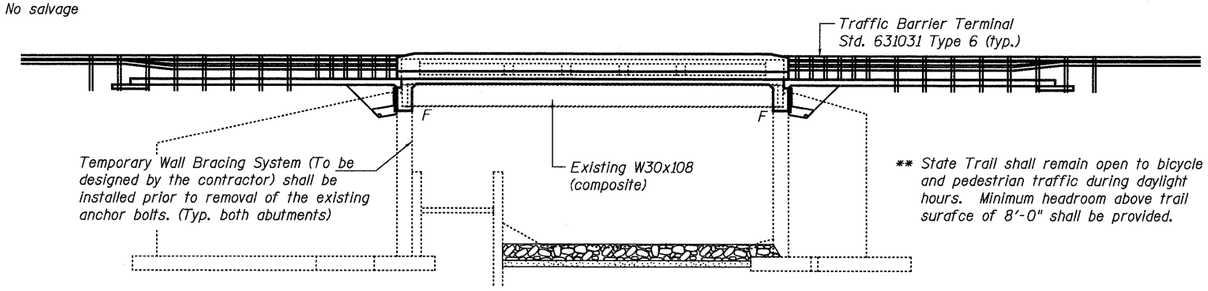
Bench Mark: Chisled "□" in top of S.W. wingwall S.N. 099-0036, Elev. 100.00.

Existing Structure: S.N. 099-0036 built in 1956 as I55 West Frontage Road, Section 86B-2. The existing structure is a single span steel multi-beam structure built on closed abutments. 43'-3" back to back abutments. 39'-4" out to out deck. Concrete deck to be removed and replaced using Stage Construction.

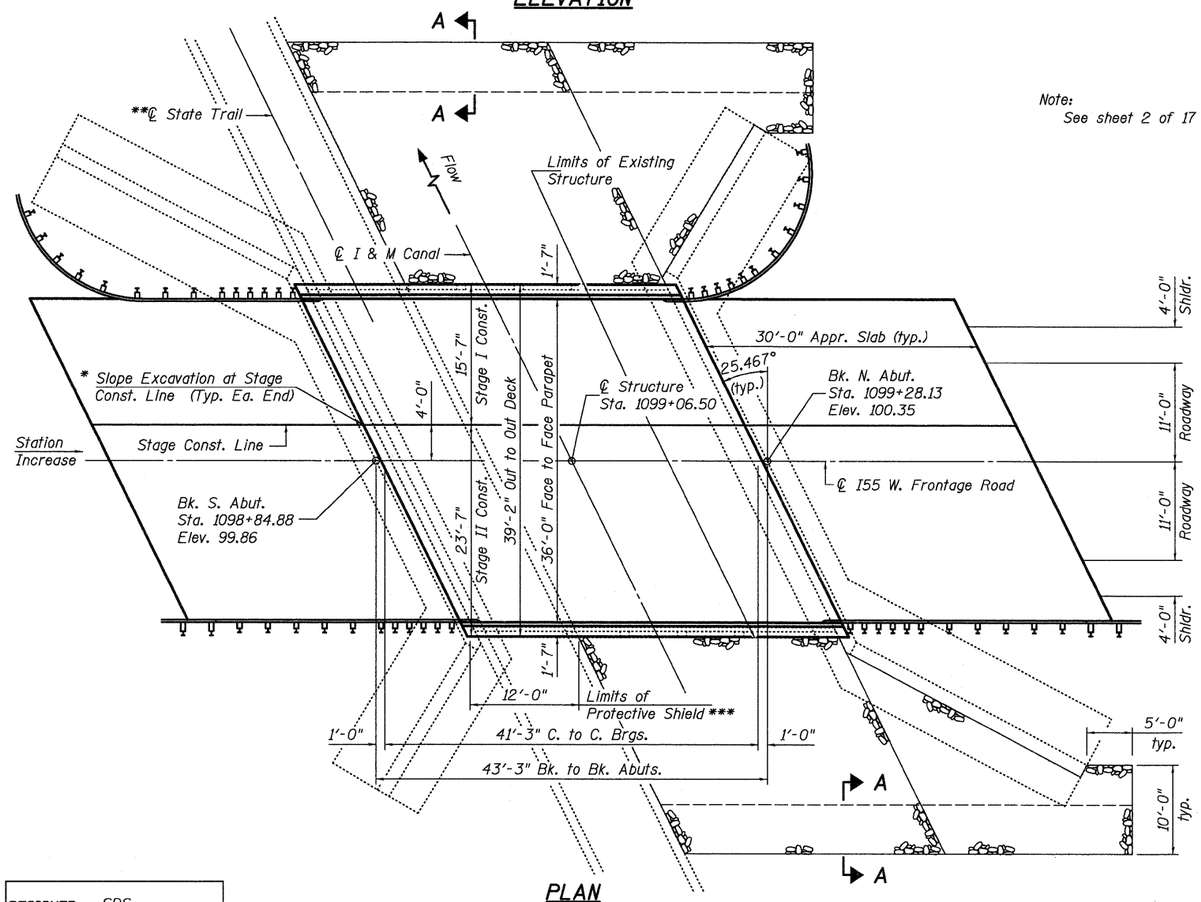
No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

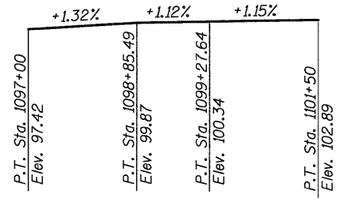


ELEVATION



PLAN

Note:
See sheet 2 of 17 for Section A-A.



PROFILE GRADE
(Along ℄ Roadway)

STATION 1099+06.50
RE-BUILT 20 BY
STATE OF ILLINOIS
F.A.I. RT. 55 W. FRONTAGE
ROAD - SEC. 86B-3-R
LOADING HS20
STR. NO. 099-0036

NAME PLATE
See Std. 515001

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

HIGHWAY CLASSIFICATION

F.A.I. Route 55 - I55 West Frontage Rd.
Local Road (Non-Urban)
ADT: 2000 (2004) 1,211 (2021)
DHV: 200 ADTT: 160
Speed: 45 mph (Posted) 45 mph (Design)
Two-way Traffic Directional Dist. 50:50

LOADING HS20-44

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

DESIGN SPECIFICATIONS (NEW CONST.)

2002 AASHTO

DESIGN STRESSES

FIELD UNITS (NEW CONST.)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

FIELD UNITS (EXIST. CONST.)

f'c = 2,500 psi (Substructure)
fy = 40,000 psi (Reinforcement)
fy = 33,000 psi (Structural Steel)

SEISMIC DATA

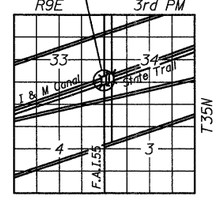
Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.039g
Site Coefficient (S) = 1.0

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

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

STATE OF ILLINOIS
SCOTT D. SANFORD
081-005488
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER
Expires: 11/30/2010

9/9/09



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
INTERSTATE 55 W. FRONTAGE ROAD OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	14
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

WHKS & co. ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

*** Existing protective shield within the limits of the new protective shield shall be removed prior to installation of new protective shield. Cost included with "Protective Shield".

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ϕ, holes $\frac{7}{8}$ in. ϕ, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

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

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR permit number as shown in the contract plans.

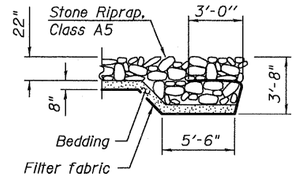
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

Slipforming of the parapets is not allowed.

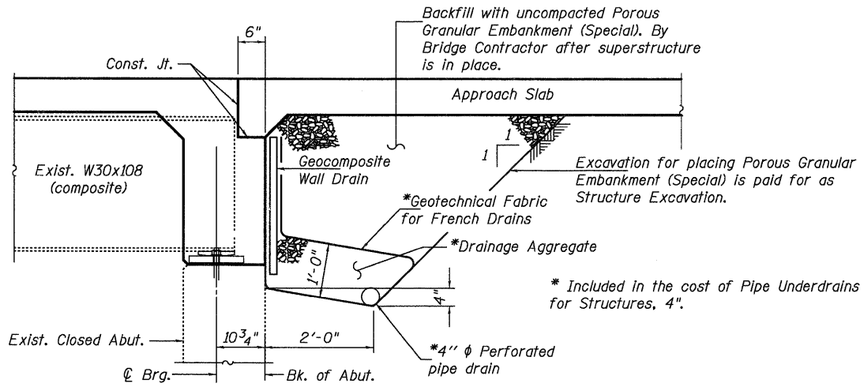
Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All existing steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing steel shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green 7.5G 4/8.

Paint Contractor shall be SSPC-QP1 and SSPC-QP2 certified.

A minimum of two air monitors will be required to monitor abrasive blasting operations at the site. See Special Provisions for "Containment and Disposal of Lead Paint Cleaning Residues".



SECTION A-A



Note:
All drainage system components shall extend to within 1'-0" of each existing wingwall. An outlet pipe with elbow shall extend along existing wingwalls until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		38	38
Stone Riprap, Class A5	Sq. Yd.		378	378
Filter Fabric	Sq. Yd.		378	378
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq. Yd.	49		49
Structure Excavation	Cu. Yd.		38	38
Concrete Superstructure	Cu. Yd.	170.9		170.9
Concrete Structures	Cu. Yd.		25.9	25.9
Bridge Deck Grooving	Sq. Yd.	395.6		395.6
Protective Coat	Sq. Yd.	459.5		459.5
Furnishing and Erecting Structural Steel	Pound	2,100		2,100
Stud Shear Connectors	Each	819		819
Jacking Existing Superstructure	L. Sum	1		1
Reinforcement Bars, Epoxy Coated	Pound	38,450	4,600	43,050
Bar Splicers	Each	360	80	440
Name Plates	Each	1		1
Anchor Bolts, 1"	Each	28		28
Epoxy Crack Injection	Lin. Ft.		5	5
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches	Sq. Ft.		204	204
Pipe Underdrains for Structures, 4"	Foot		186	186
Temporary Wall Bracing System	L. Sum		1	1
Cleaning and Painting Steel Bridge	L. Sum	1		1
Containment and Disposal of Lead Paint Cleaning Residues	L. Sum	1		1
Geocomposite Wall Drain	Sq. Yd.		25.0	25.0

GENERAL DATA
INTERSTATE 55 W. FRONTAGE ROAD OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

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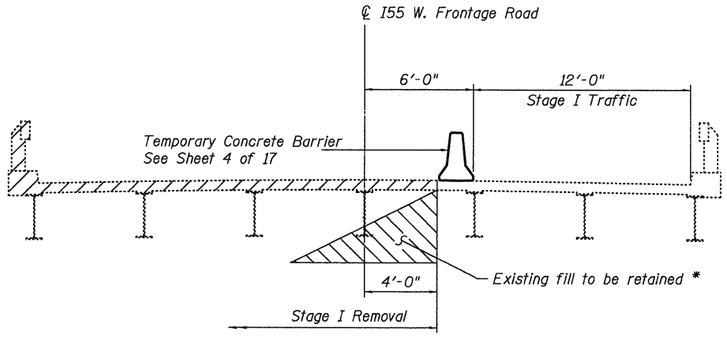
(217) 483-9457
DESIGN FIRM #184001036

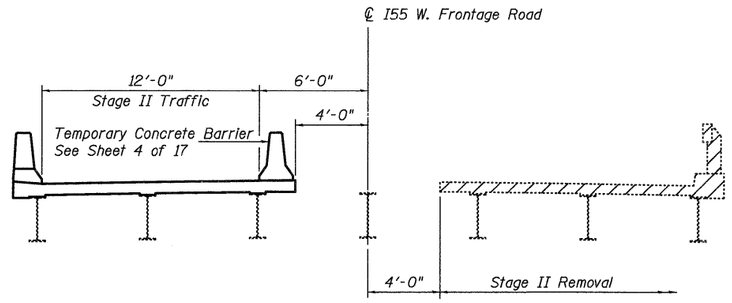
SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	15
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

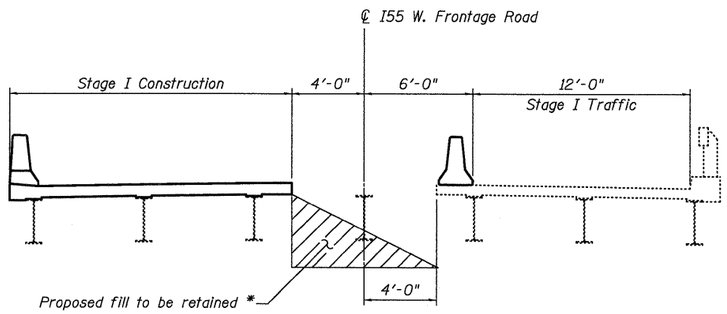


STAGE I REMOVAL

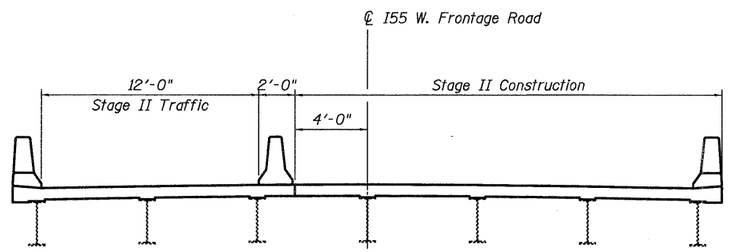


STAGE II REMOVAL

Notes:
Hatched areas indicates Removal of Existing Concrete Deck.
All cross section are looking North.
See Roadway Plans for quantity of Temporary Concrete Barrier.



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

* The excavation and the Porous Granular Embankment (Special) behind the abutments shall be sloped perpendicular to the stage construction line. The Contractor shall provide a system to retain the existing and proposed fill behind the concrete abutment diaphragms when the diaphragms are removed. The proposed system shall be submitted to the Engineer for approval. The system will not be measured for payment separately, but shall be included in the cost of "Removal of Existing Concrete Deck".

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

WHKS & co. ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

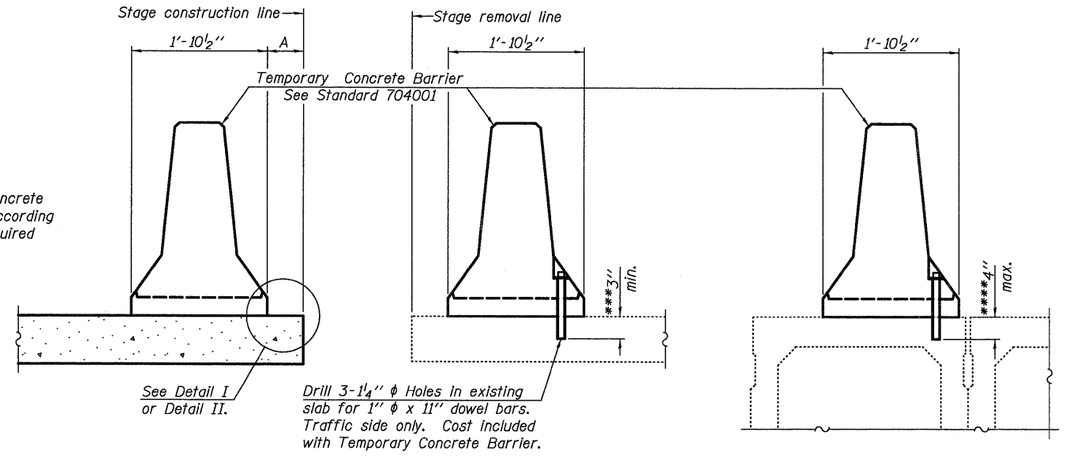
STAGE CONSTRUCTION DETAILS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

SHEET NO. 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	16
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

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

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

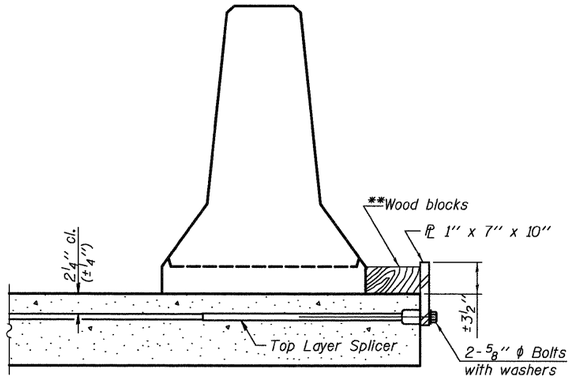
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

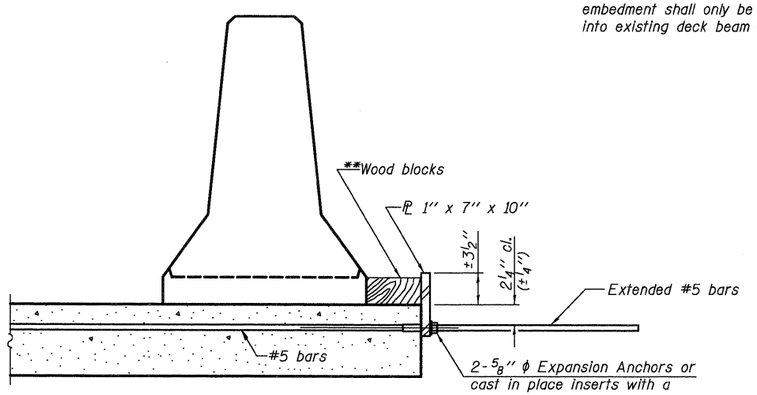
SECTIONS THRU SLAB OR DECK BEAM

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

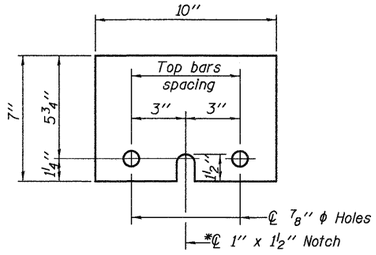
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

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

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION INTERSTATE 55 W. FRONTAGE ROAD OVER I & M CANAL & STATE TRAIL F.A.I. ROUTE 55 - SECTION 86B-3-R WILL COUNTY STRUCTURE NO. 099-0036 PUBLIC WATERS

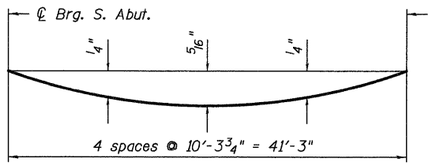
DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

WHKS & CO. ENGINEERING
7018 KINGSMILL CT., SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

R-27 10-1-08

SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	17
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

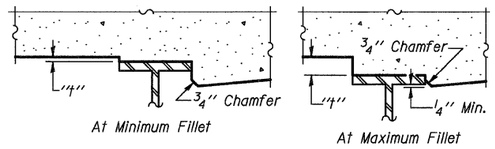


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

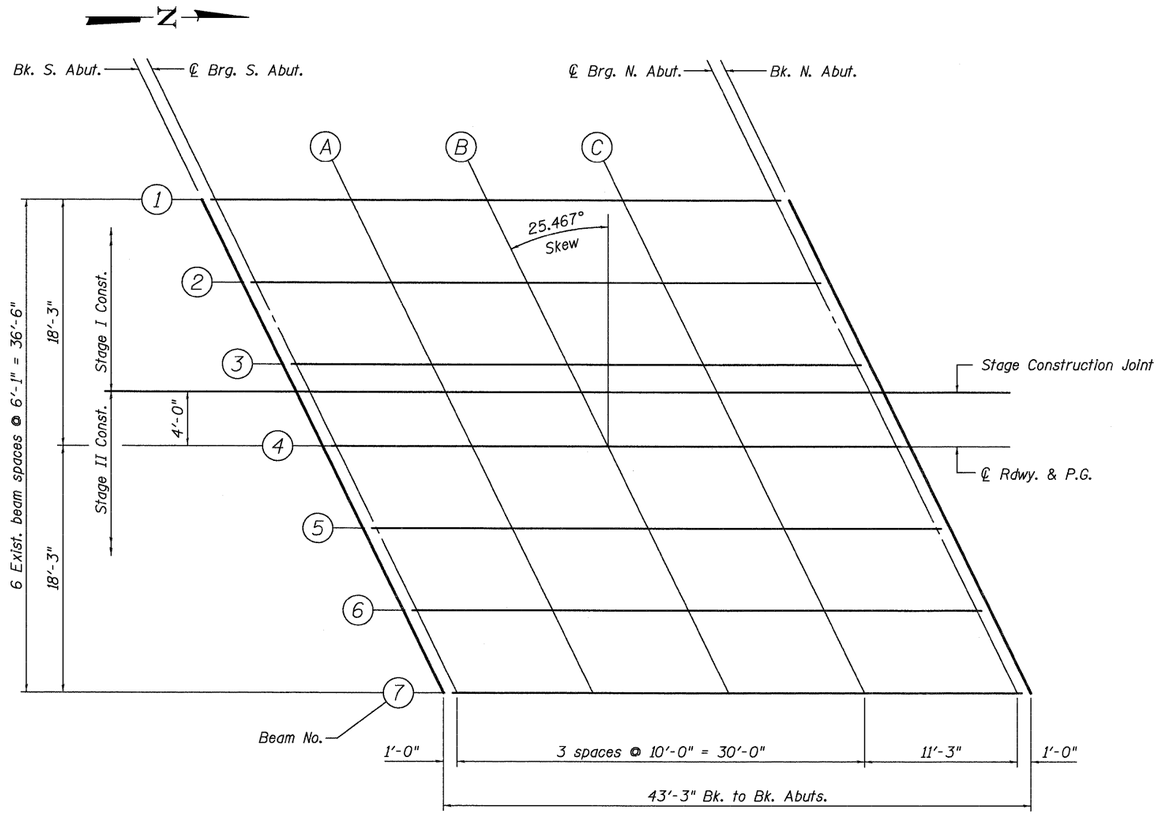
Note:
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 6 of 17.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 6 of 17, minus slab thickness, equals the fillet heights "t" above top flange of beams.



PLAN

TOP OF SLAB ELEVATIONS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

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SHEET NO. 5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	18
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+76.189	-18.249	99.428	99.428
CL Brg S. Abut.	1098+77.189	-18.249	99.441	99.441
A	1098+87.189	-18.249	99.571	99.590
B	1098+97.189	-18.249	99.683	99.711
C	1099+07.189	-18.249	99.795	99.816
CL Brg. N. Abut.	1099+18.439	-18.249	99.921	99.921
Bk. N. Abut.	1099+19.439	-18.249	99.932	99.932

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+79.085	-12.167	99.593	99.593
CL Brg S. Abut.	1098+80.085	-12.167	99.606	99.606
A	1098+90.085	-12.167	99.730	99.750
B	1099+00.085	-12.167	99.842	99.870
C	1099+10.085	-12.167	99.954	99.975
CL Brg. N. Abut.	1099+21.335	-12.167	100.080	100.080
Bk. N. Abut.	1099+22.335	-12.167	100.092	100.092

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+81.983	-6.083	99.727	99.727
CL Brg S. Abut.	1098+82.983	-6.083	99.740	99.740
A	1098+92.983	-6.083	99.859	99.878
B	1099+02.983	-6.083	99.971	99.998
C	1099+12.983	-6.083	100.083	100.104
CL Brg. N. Abut.	1099+24.233	-6.083	100.209	100.209
Bk. N. Abut.	1099+25.233	-6.083	100.220	100.220

℄ ROADWAY, ℄ BEAM 4 AND ℄ P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+84.880	0.000	99.860	99.860
CL Brg S. Abut.	1098+85.880	0.000	99.874	99.874
A	1098+95.880	0.000	99.986	100.006
B	1099+05.880	0.000	100.098	100.126
C	1099+15.880	0.000	100.210	100.231
CL Brg. N. Abut.	1099+27.130	0.000	100.336	100.336
Bk. N. Abut.	1099+28.130	0.000	100.346	100.346

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+82.975	-4.000	99.773	99.773
CL Brg S. Abut.	1098+83.975	-4.000	99.786	99.786
A	1098+93.975	-4.000	99.903	99.922
B	1099+03.975	-4.000	100.015	100.042
C	1099+13.975	-4.000	100.127	100.147
CL Brg. N. Abut.	1099+25.225	-4.000	100.253	100.253
Bk. N. Abut.	1099+26.225	-4.000	100.264	100.264

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+87.777	6.083	99.801	99.801
CL Brg S. Abut.	1098+88.777	6.083	99.812	99.812
A	1098+98.777	6.083	99.924	99.943
B	1099+08.777	6.083	100.036	100.063
C	1099+18.777	6.083	100.148	100.169
CL Brg. N. Abut.	1099+30.027	6.083	100.272	100.272
Bk. N. Abut.	1099+31.027	6.083	100.284	100.284

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+90.675	12.167	99.737	99.737
CL Brg S. Abut.	1098+91.675	12.167	99.748	99.748
A	1099+01.675	12.167	99.860	99.879
B	1099+11.675	12.167	99.972	100.000
C	1099+21.675	12.167	100.084	100.105
CL Brg. N. Abut.	1099+32.925	12.167	100.210	100.210
Bk. N. Abut.	1099+33.925	12.167	100.221	100.221

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	1098+93.571	18.249	99.643	99.643
CL Brg S. Abut.	1098+94.571	18.249	99.654	99.654
A	1099+04.571	18.249	99.766	99.785
B	1099+14.571	18.249	99.878	99.905
C	1099+24.571	18.249	99.990	100.011
CL Brg. N. Abut.	1099+35.821	18.249	100.116	100.116
Bk. N. Abut.	1099+36.821	18.249	100.128	100.128

TOP OF SLAB ELEVATIONS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	SDS
CHECKED	CWC
DRAWN	DLH
CHECKED	SDS/CEH

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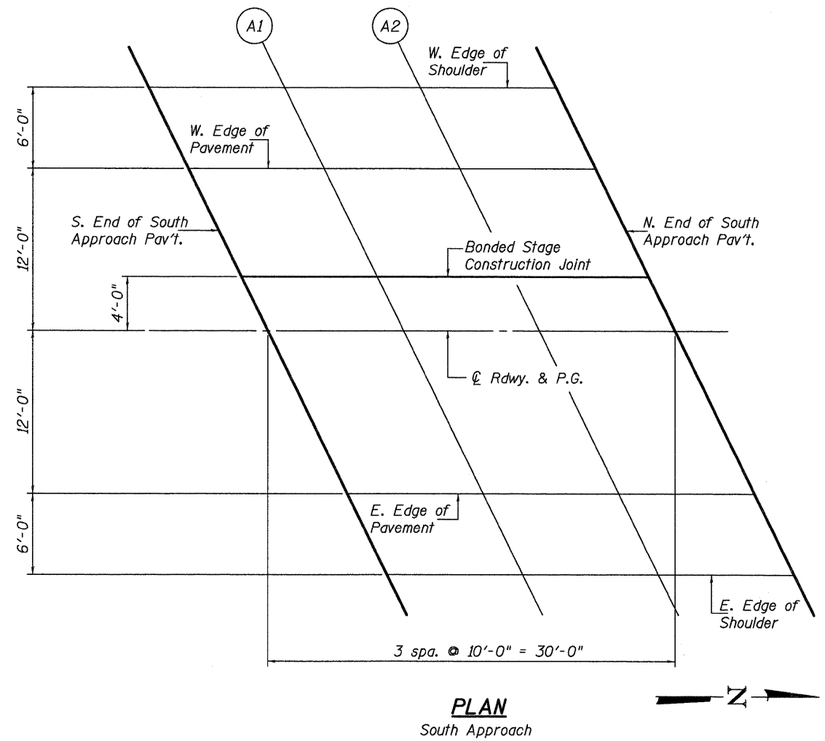
SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	19
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN
South Approach

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Pav't.	1098+46.857	-18.000	99.046
A1	1098+56.857	-18.000	99.178
A2	1098+66.857	-18.000	99.310
N. End S. Appr. Pav't.	1098+76.857	-18.000	99.442

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Pav't.	1098+49.715	-12.000	99.209
A1	1098+59.715	-12.000	99.341
A2	1098+69.715	-12.000	99.473
N. End S. Appr. Pav't.	1098+79.715	-12.000	99.605

STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Pav't.	1098+53.525	-4.000	99.384
A1	1098+63.525	-4.000	99.516
A2	1098+73.525	-4.000	99.648
N. End S. Appr. Pav't.	1098+83.525	-4.000	99.780

℄ ROADWAY, PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Pav't.	1098+55.430	0.000	99.472
A1	1098+65.430	0.000	99.604
A2	1098+75.430	0.000	99.736
N. End S. Appr. Pav't.	1098+85.430	0.000	99.868

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Pav't.	1098+61.145	12.000	99.360
A1	1098+71.145	12.000	99.492
A2	1098+81.145	12.000	99.624
N. End S. Appr. Pav't.	1098+91.145	12.000	99.746

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Pav't.	1098+64.003	18.000	99.272
A1	1098+74.003	18.000	99.404
A2	1098+84.003	18.000	99.536
N. End S. Appr. Pav't.	1098+94.003	18.000	99.653

TOP OF S. APPROACH SLAB ELEVATIONS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	SDS
CHECKED	CWC
DRAWN	DLH
CHECKED	SDS/CEH

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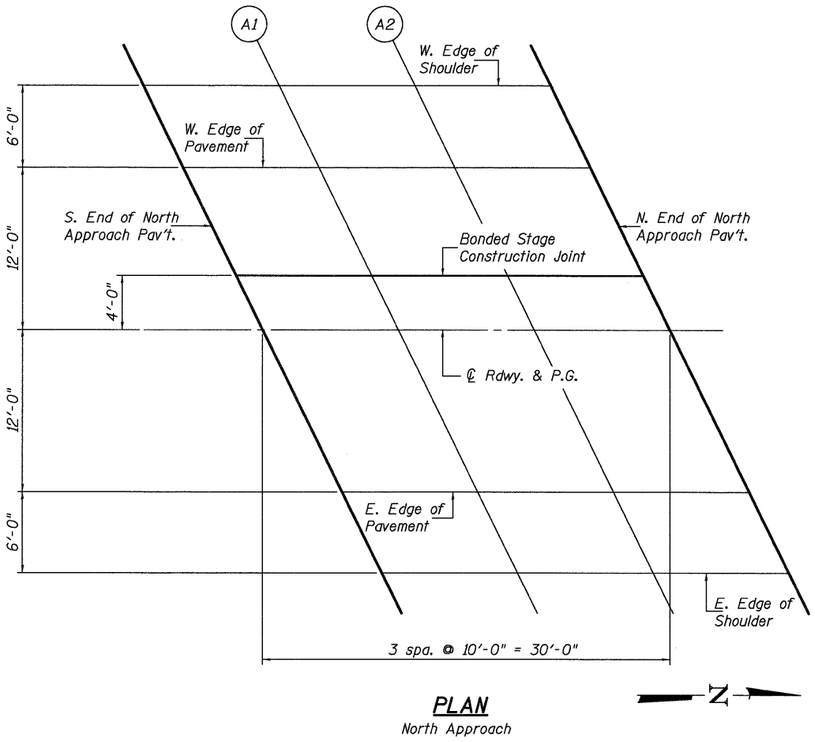
SHEET NO. 7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	20
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN
North Approach

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Pav't.	1099+19.007	-18.000	99.933
A1	1099+29.007	-18.000	100.043
A2	1099+39.007	-18.000	100.158
N. End N. Appr. Pav't.	1099+49.007	-18.000	100.273

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Pav't.	1099+21.865	-12.000	100.090
A1	1099+31.865	-12.000	100.201
A2	1099+41.865	-12.000	100.316
N. End N. Appr. Pav't.	1099+51.865	-12.000	100.431

STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Pav't.	1099+25.675	-4.000	100.258
A1	1099+35.675	-4.000	100.370
A2	1099+45.675	-4.000	100.485
N. End N. Appr. Pav't.	1099+55.675	-4.000	100.600

℄ ROADWAY, PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Pav't.	1099+27.580	0.000	100.341
A1	1099+37.580	0.000	100.454
A2	1099+47.580	0.000	100.569
N. End N. Appr. Pav't.	1099+57.580	0.000	100.684

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Pav't.	1099+33.295	12.000	100.218
A1	1099+43.295	12.000	100.333
A2	1099+53.295	12.000	100.448
N. End N. Appr. Pav't.	1099+63.295	12.000	100.563

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Pav't.	1099+36.153	18.000	100.125
A1	1099+46.153	18.000	100.240
A2	1099+56.153	18.000	100.355
N. End N. Appr. Pav't.	1099+66.153	18.000	100.470

TOP OF N. APPROACH SLAB ELEVATIONS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

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DESIGN FIRM #184001036

SHEET NO. 8	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	21
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

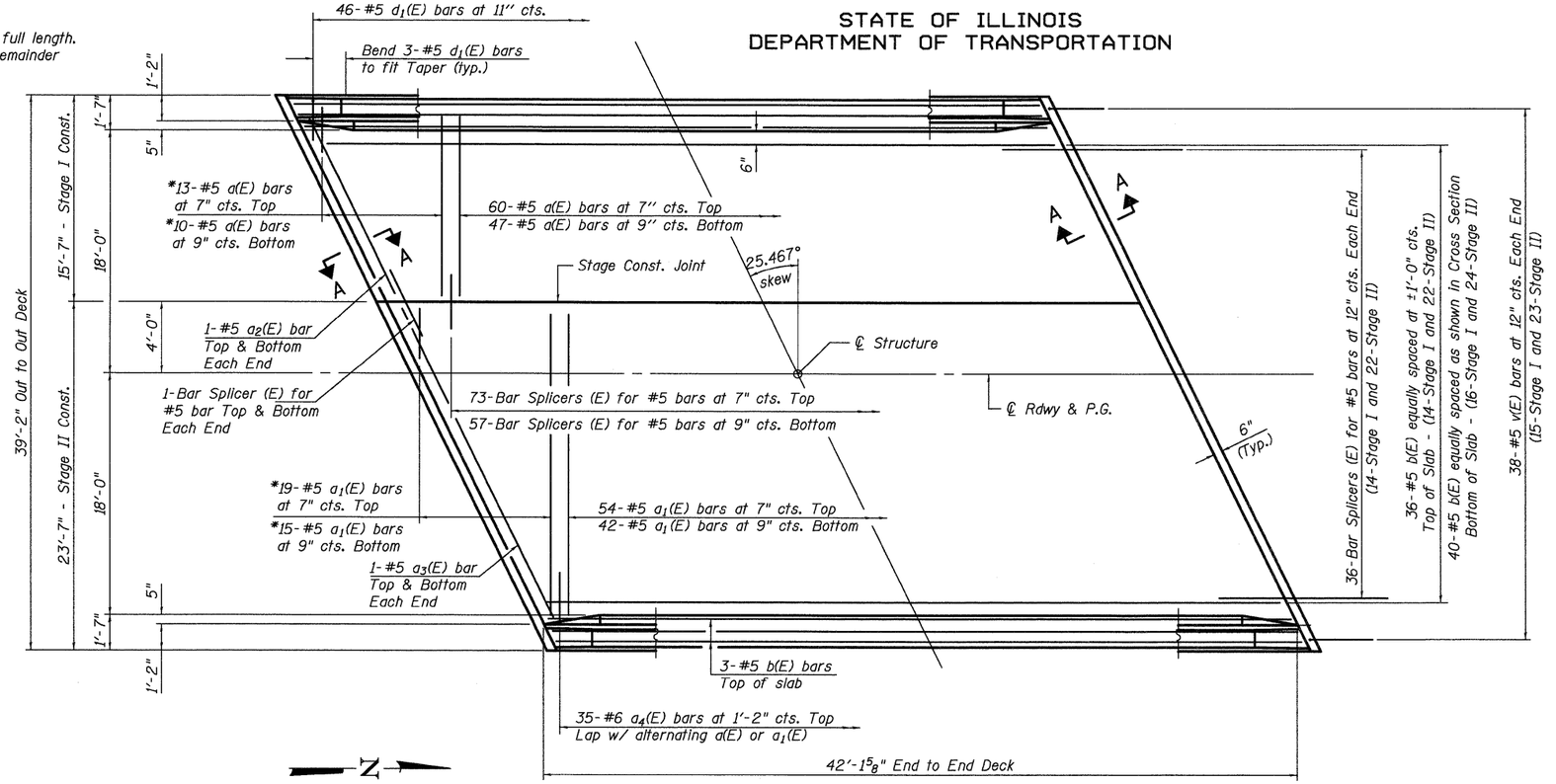
Operator: dheberling

Date: 9/9/2009 3:16:28 PM

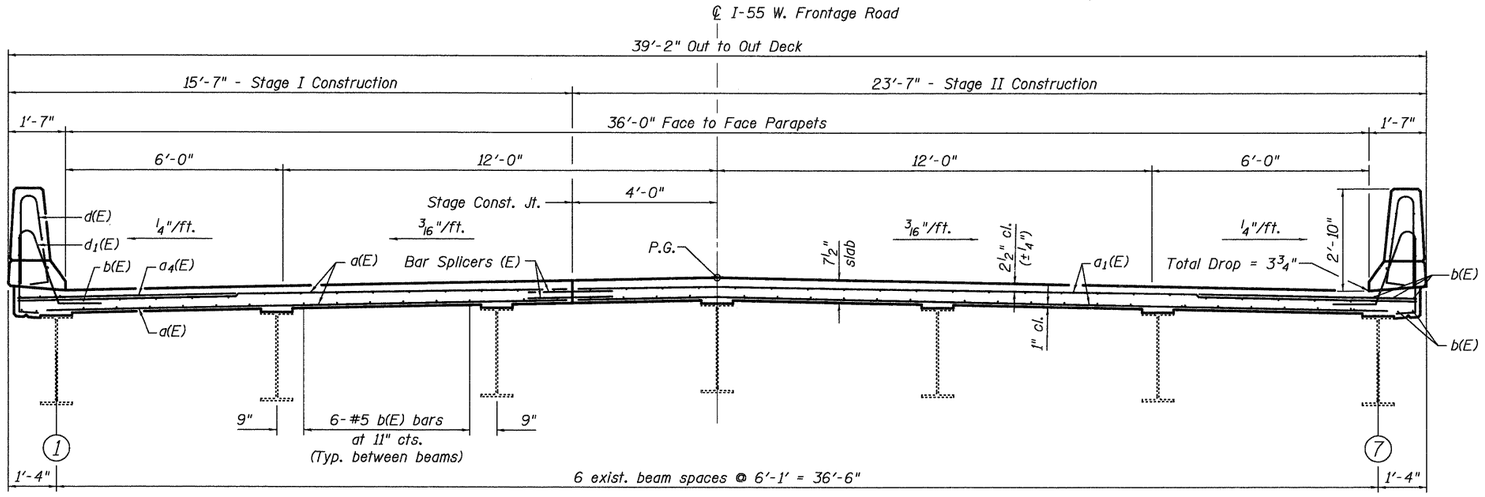
Filename: L:\Jobs\LONCOV\7028.2\CADD\CADD Drawings\0990346-60F53.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

*Order d(E) & a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



PLAN



CROSS SECTION

(Looking North)

Notes:
See Sheet 10 of 17 for parapet reinforcement, bar bend details and Bill of Material.
See Sheet 11 of 17 for Section A-A.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

SUPERSTRUCTURE
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

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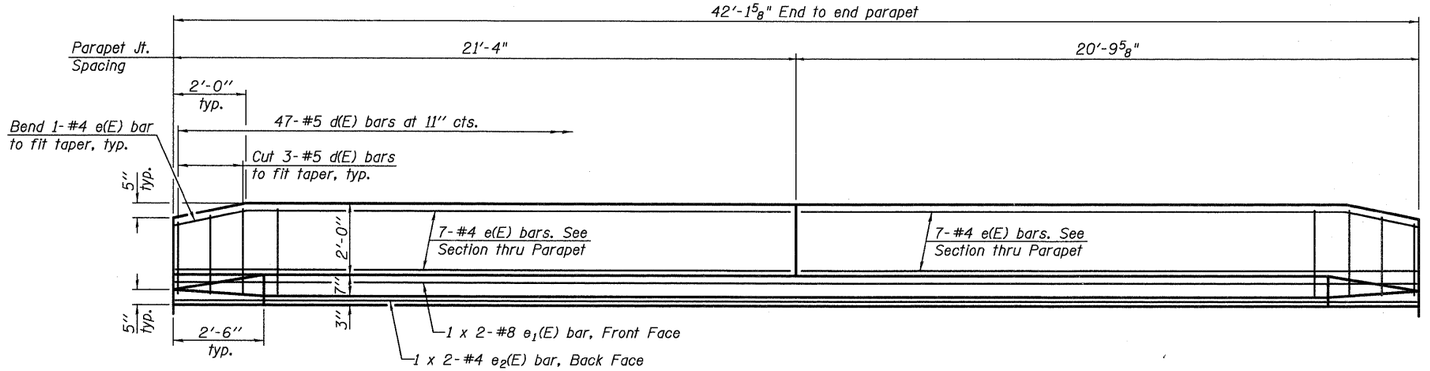
DESIGN FIRM #184001036

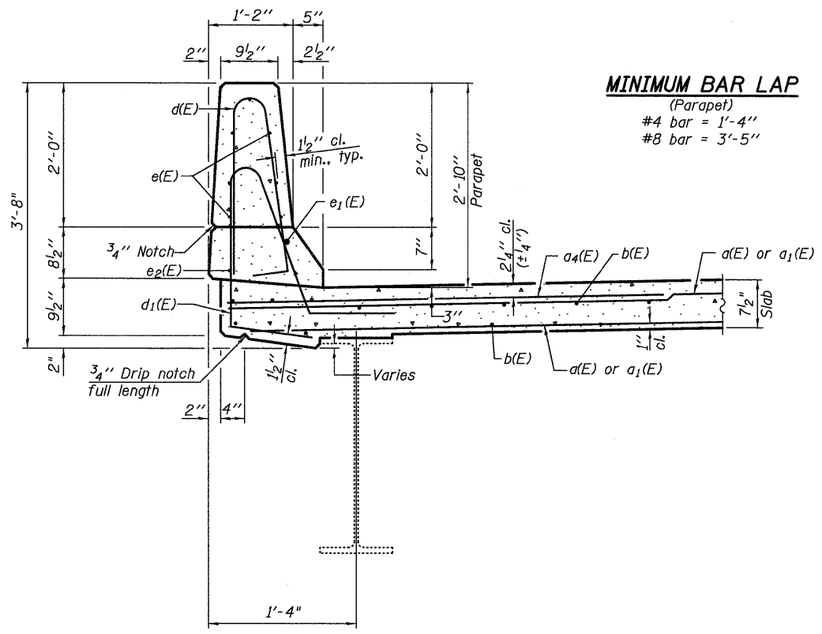
SHEET NO. 9	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	22
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE ELEVATION OF PARAPET

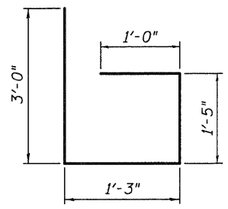


SECTION THRU PARAPET

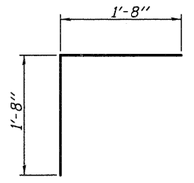
MINIMUM BAR LAP

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

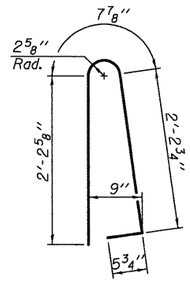
PARAPET JOINT DETAILS



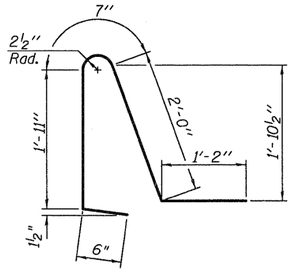
BAR u(E)



BAR v(E)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	130	#5	15'-0"	
a1(E)	130	#5	23'-0"	
a2(E)	4	#5	16'-9"	
a3(E)	4	#5	25'-6"	
a4(E)	70	#6	6'-0"	
b(E)	82	#5	41'-10"	
d(E)	94	#5	5'-7"	
d1(E)	92	#5	6'-2"	
e(E)	28	#4	20'-7"	
e1(E)	4	#8	22'-8"	
e2(E)	4	#4	21'-7"	
m(E)	12	#6	7'-4"	
m1(E)	16	#6	8'-5"	
m2(E)	6	#6	16'-9"	
m3(E)	6	#6	25'-6"	
m4(E)	4	#6	1'-1"	
m5(E)	12	#6	5'-2"	
u(E)	70	#6	6'-8"	
v(E)	76	#5	3'-4"	
Reinforcement Bars, Epoxy Coated			Pound	13,140
Concrete Superstructure			Cu. Yds.	60.6

Bars indicated thus 1 x 2 -#5 etc. indicates 1 line of bars with 2 lengths per line.

SUPERSTRUCTURE DETAILS
INTERSTATE 55 W. FRONTAGE ROAD OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

WHKS & co. ENGINEERING
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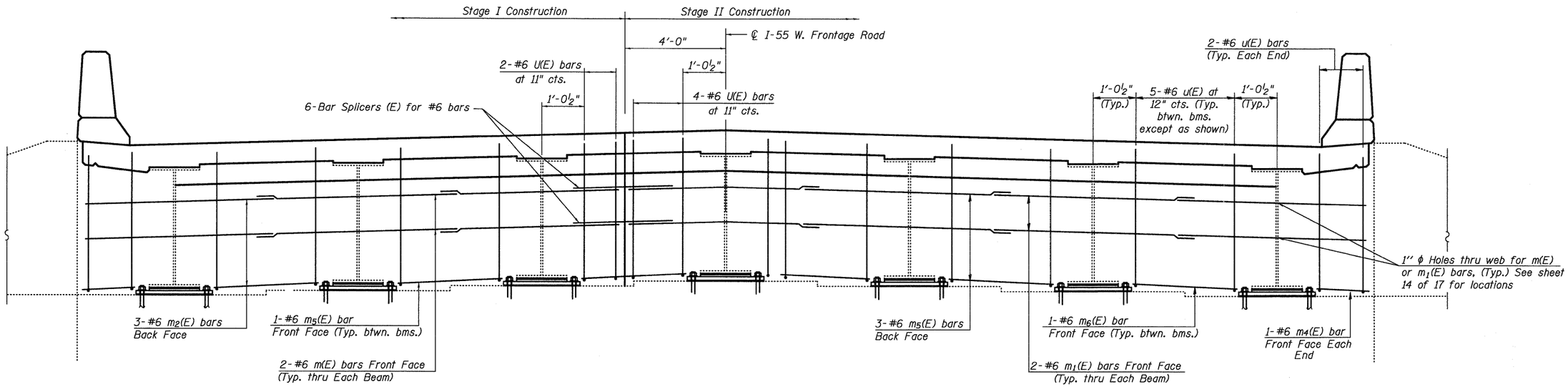
(217) 483-9457
DESIGN FIRM #184001036

SHEET NO. 10	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	23
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



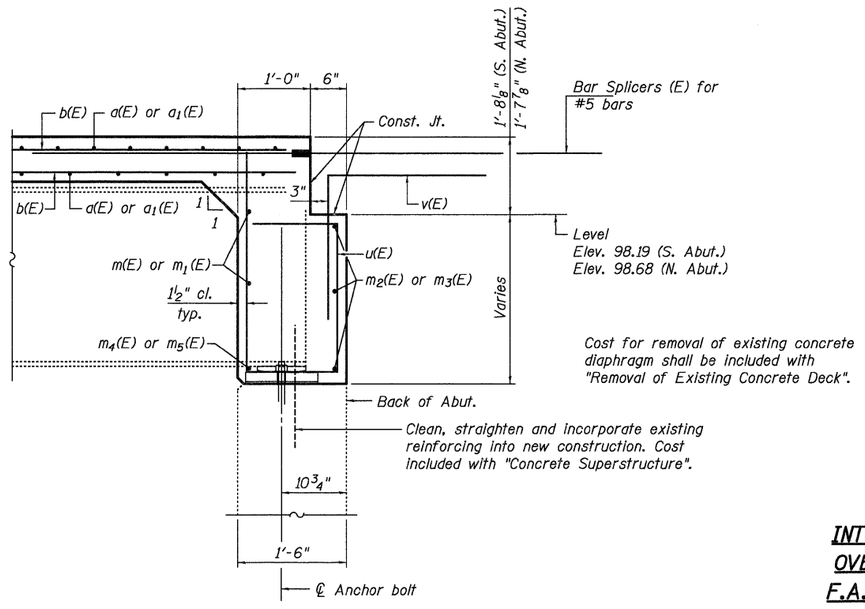
DIAPHRAGM ELEVATION AT ABUTMENT

(North Abutment shown, South Abutment similar by 180° rotation)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 17.
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 17.
For details of bars u(E) & v(E) see sheet 10 of 17.
The u(E) bar shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

MIN. BAR LAP

#6 bar = 2'-9''



SECTION A-A

DIAPHRAGM DETAILS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

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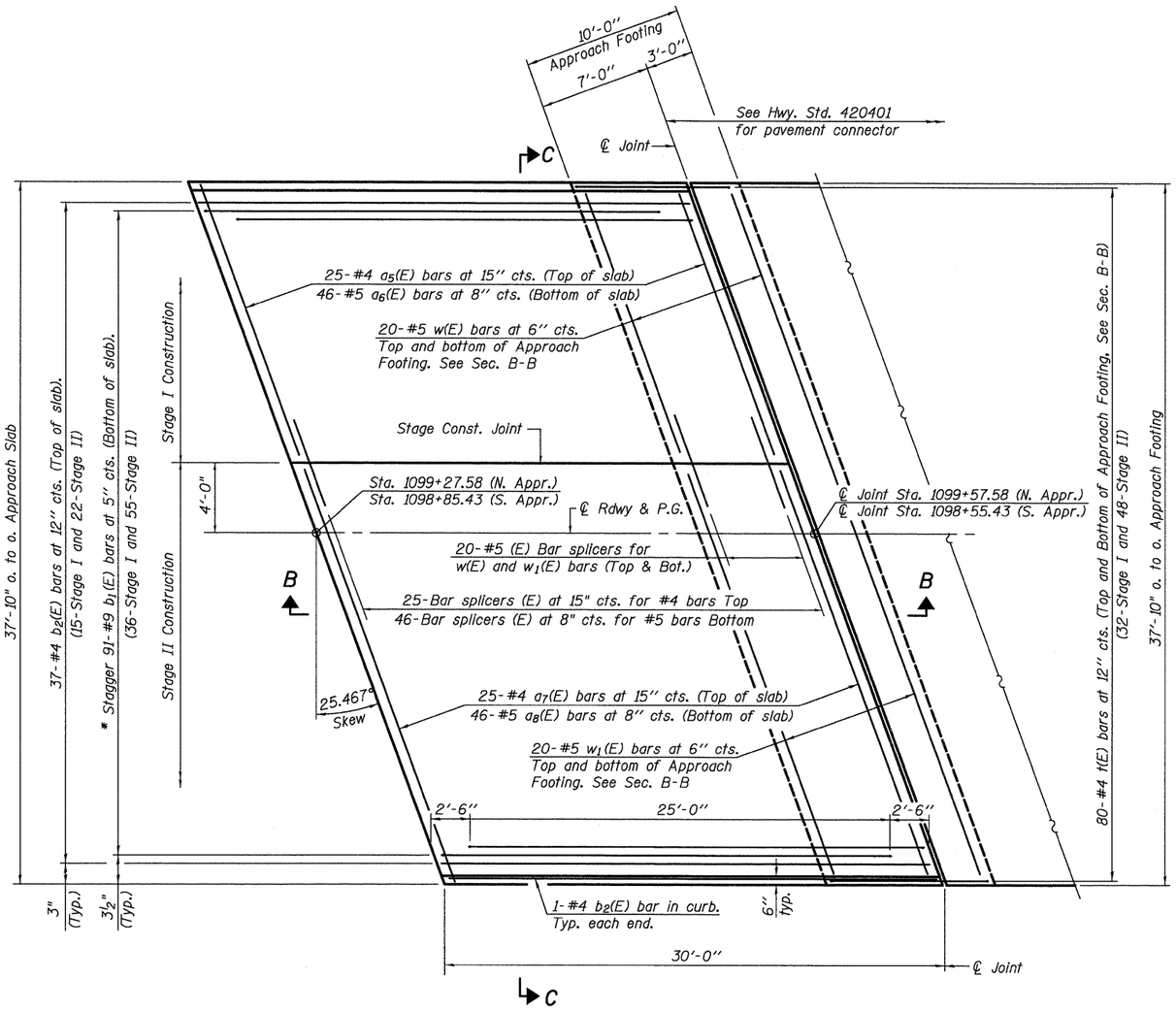
SHEET NO. 11	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	24
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

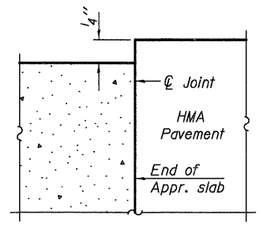
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet 13 of 17 for Sections B-B & C-C.
a_5(E) thru a_8(E), and w(E) bar spacings measured perpendicular to ℄ Rdwy.



PLAN

* Tilt #9 b_1(E) bars as required to maintain clearance.



FLEXIBLE PAVEMENT

DETAIL A

BRIDGE APPROACH SLAB DETAILS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

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SPRINGFIELD, IL
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DESIGN FIRM #184001036

SHEET NO. 12	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	25
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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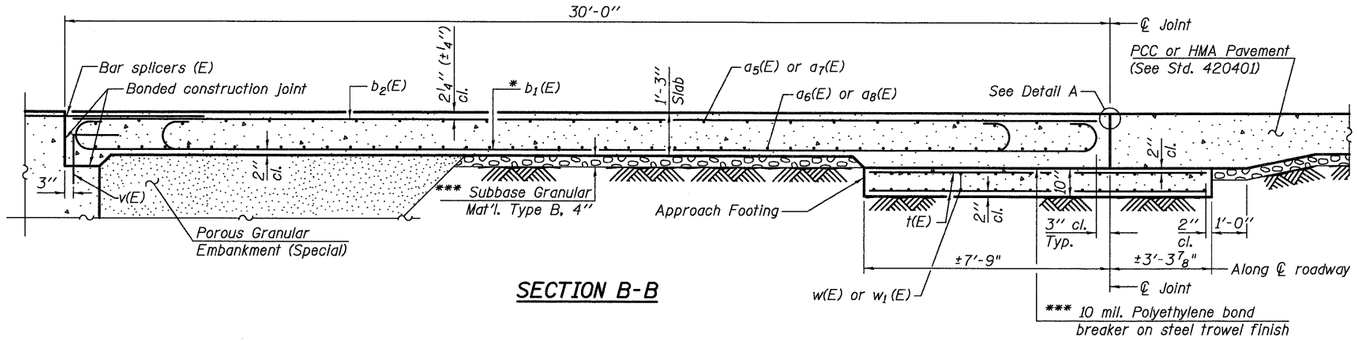
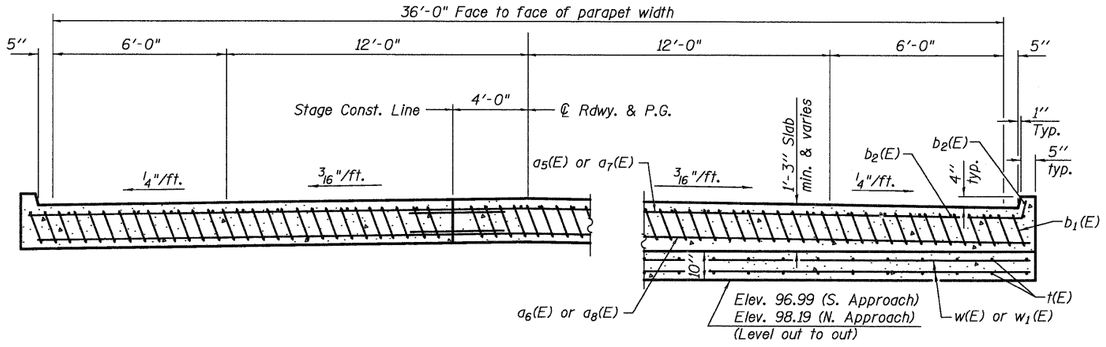


SECTION B-B

* Tilt #9 b_1(E) bars as required to maintain clearance.

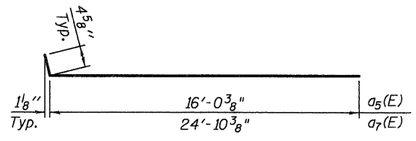
*** Cost included with Concrete Superstructure.



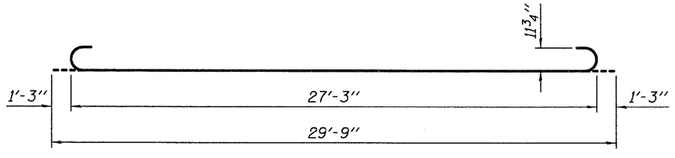
NEAR ABUTMENT

AT APPROACH FOOTING

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



BAR a_5(E) or a_7(E)



BAR b_1(E)

Notes:
See sheet 12 of 17 for Detail A.
Approach slab shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 11 of 17.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 17 of 17.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 17.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_5(E)	50	#4	16'-5"	
a_6(E)	92	#5	16'-3"	
a_7(E)	50	#4	25'-3"	
a_8(E)	92	#5	25'-1"	
b_1(E)	182	#9	29'-9"	
b_2(E)	78	#4	29'-8"	
t(E)	160	#4	10'-9"	
w(E)	80	#5	16'-3"	
w_1(E)	80	#5	25'-1"	
Concrete Superstructure			Cu. Yd.	110.3
Concrete Structures			Cu. Yd.	25.9
Reinforcement Bars, Epoxy Coated			Pound	29,910

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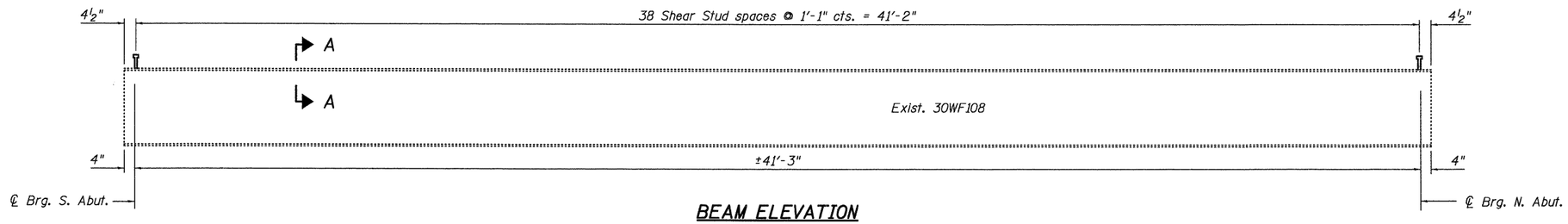
BRIDGE APPROACH SLAB DETAILS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

SHEET NO. 13	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	26
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



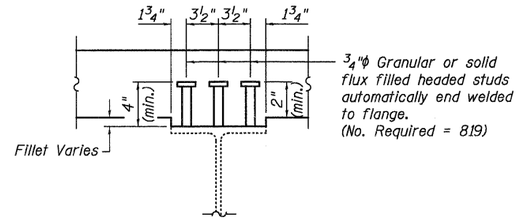
BEAM ELEVATION
(Typ. all beams)

* Section properties and moment capacities are based upon a 10% reduction in flange thickness due to deterioration documented during an April 2009 inspection.

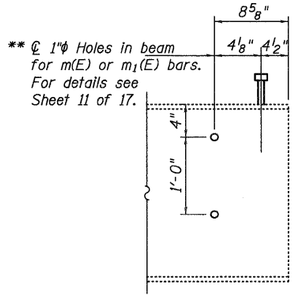
INTERIOR GIRDER MOMENT TABLE*		
		0.462 Span
I_s	(in^4)	4,043
$I_c(n)$	(in^4)	11,530
$I_c(3n)$	(in^4)	8,612
S_s	(in^3)	272
$S_c(n)$	(in^3)	415
$S_c(3n)$	(in^3)	376
$\mathcal{D}$	(k/')	0.710
$M\mathcal{D}$	('k)	150
$s\mathcal{D}$	(k/')	0.30
$M_s\mathcal{D}$	('k)	64
$M\ell$	('k)	261
M_I	('k)	78
$\frac{5}{3}[M\ell + I]$	('k)	566
M_a	('k)	1,014
M_u	('k)	1,641
f_s $\mathcal{D}$ non-comp	(ksi)	6.7
f_s $\mathcal{D}$ (comp)	(ksi)	2.0
f_s $\frac{5}{3}[M\ell + M_I]$	(ksi)	16.3
f_s (Overload)	(ksi)	25.0
f_s (Total)	(ksi)	-
VR	(k)	40

INTERIOR GIRDER REACTION TABLE		
		Abutments
$R\mathcal{D}$	(k)	20.8
$R\ell$	(k)	30.8
R_I	(k)	9.2
R_{Total}	(k)	60.8

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.^{4} and in.^{3}).
$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.^{4} and in.^{3}).
$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).
$\mathcal{D}$: Un-factored non-composite dead load (kips/ft.).
$M\mathcal{D}$: Un-factored moment due to non-composite dead load (kip-ft.).
$s\mathcal{D}$: Un-factored long-term composite (superimposed) dead load (kips/ft.)
$M_s\mathcal{D}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
$M\ell$: Un-factored live load moment (kip-ft.).
M_I: Un-factored moment due to impact (kip-ft.).
M_a: Factored design moment (kip-ft.).
$1.3\ [\ M\mathcal{D} + M_s\mathcal{D} + \frac{5}{3}(M\ell + M_I)]$
M_u: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
f_s (Overload): Sum of stresses as computed from the moments below (ksi).
$M\mathcal{D} + M_s\mathcal{D} + \frac{5}{3}(M\ell + M_I)$
f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.3\ [M\mathcal{D} + M_s\mathcal{D} + \frac{5}{3}(M\ell + M_I)]$
VR: Maximum ℓ + impact shear range within the composite portion of the span for stud shear connector design (kips).



SECTION A-A



** Field drill holes. Cost included with "Concrete Superstructure".

TYP. END OF BEAM ELEVATION

STRUCTURAL STEEL
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

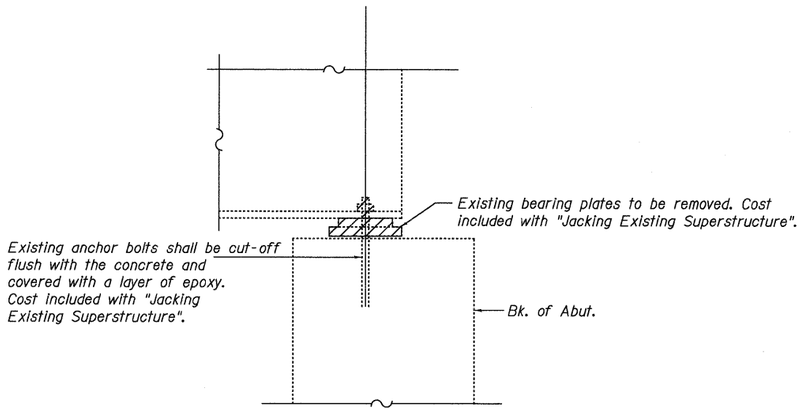
SHEET NO. 14	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	27
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

WHKS & CO. ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENTS

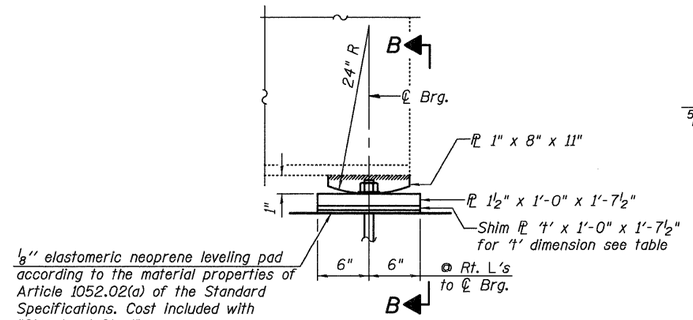
Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

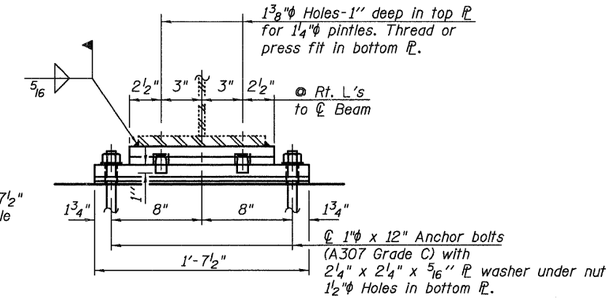
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

TABLE OF 'A' DIMENSIONS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7
S. Abut.	1/4"	1/8"	-	1/8"	1/8"	1/2"	-
N. Abut.	1/4"	1/4"	1/4"	1/4"	1/4"	1"	-

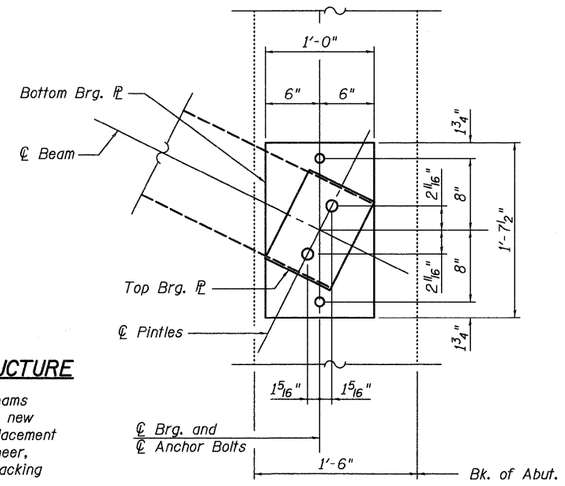


ELEVATION AT ABUTMENTS

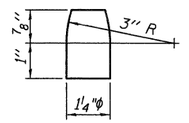


SECTION B-B

FIXED BEARING



PLAN AT BEARINGS



PINTLE

PROCEDURE FOR JACKING EXISTING SUPERSTRUCTURE

1. *Jacking of existing structural steel is required to raise the existing beams approximately 1/4 inch to provide adequate space for installation of the new bearings and to temporarily support the beams during removal and replacement of the bearings. The Contractor shall submit for approval by the Engineer, plans for jacking and supporting the beams prior to commencing any jacking operations.*
2. *Jacking of the existing superstructure shall be done after the removal of the existing concrete deck is complete and the Temporary Wall Bracing System is installed.*
3. *The diaphragm at the stage construction line shall be temporarly disconnected and supported during jacking operations. The existing rivets connecting the diaphragm to Beam 4 shall be replaced with H.S. bolts after Stage II Jacking has occured.*
4. *All beams shall be raised the same amount. The shim plate thickness shown on this sheet are based on the field survey and are required to ensure that all beams are raised the same amount in the final condition. The Contractor shall verify these thicknesses and make any necessary approved adjustments.*
5. *The maximum reaction per bearing is 3 kips. The minimum jack capacity is 5 tons.*

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	2,100
Anchor Bolts, 1"	Each	28

BEARING DETAILS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
DRAWN	- DLH
CHECKED	- SDS/CEH

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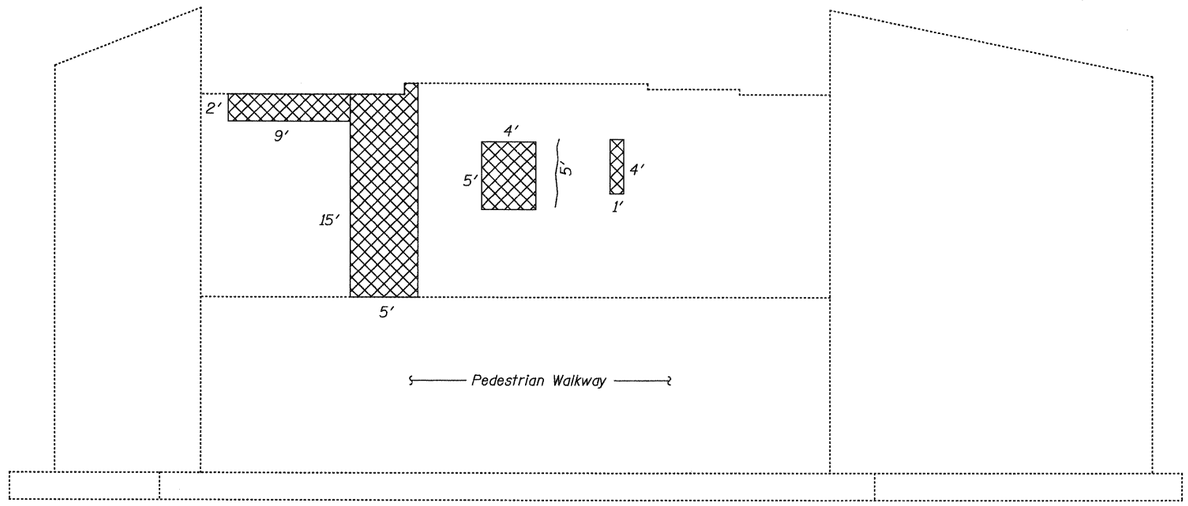
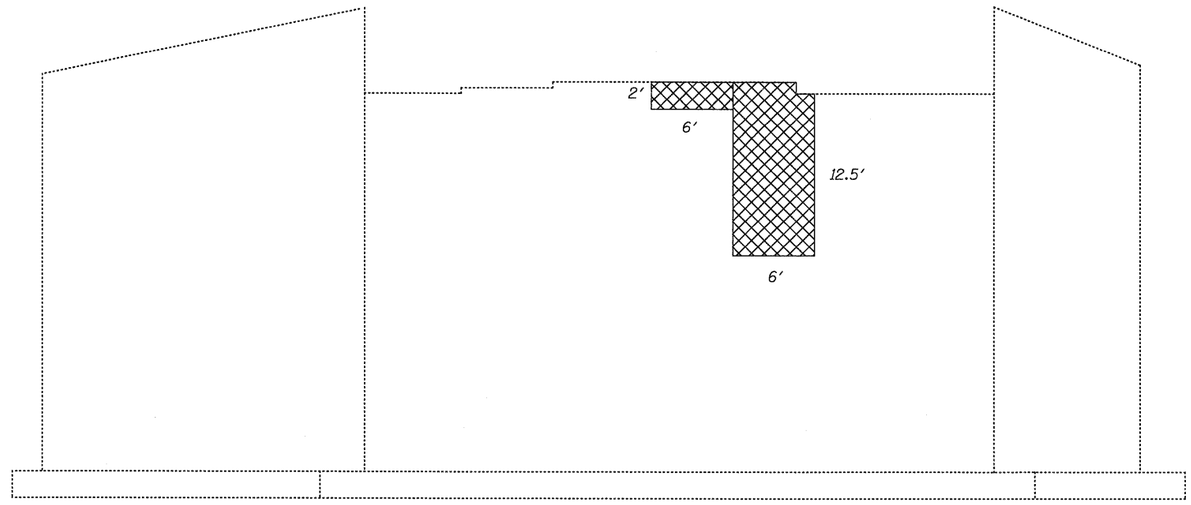
SHEET NO. 15	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	28
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOUTH ABUTMENT



NORTH ABUTMENT

LEGEND

Structural Repair of Concrete (Depth equal to or less than 5")

Epoxy Crack Sealing

ABUTMENT REPAIR DETAILS
INTERSTATE 55 W. FRONTAGE ROAD
OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
STRUCTURE NO. 099-0036
PUBLIC WATERS

DESIGNED	- SDS
CHECKED	- CWC
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CHECKED	- SDS/CEH

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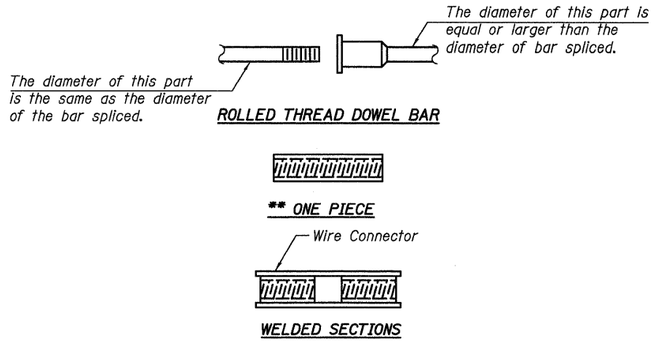
SHEET NO. 16	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	29
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

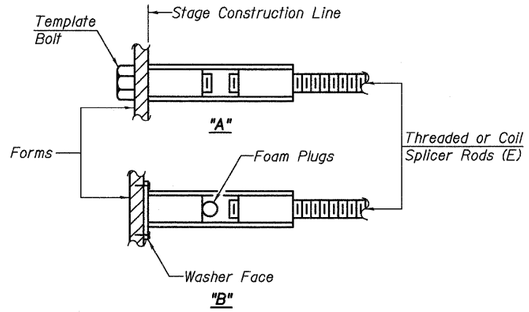
D-91-097-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

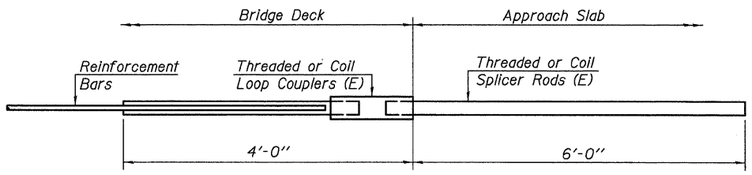
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

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

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

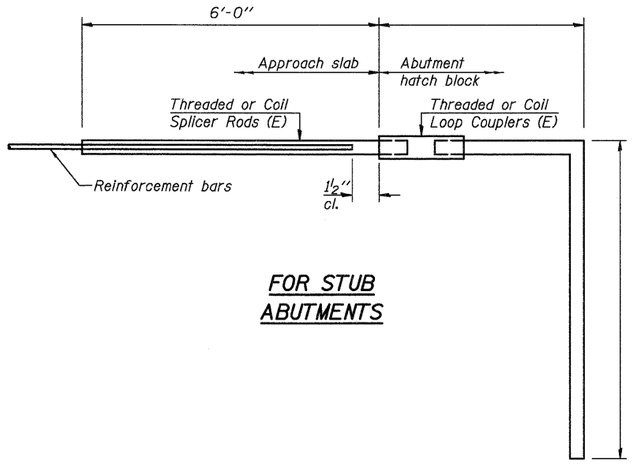
Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-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



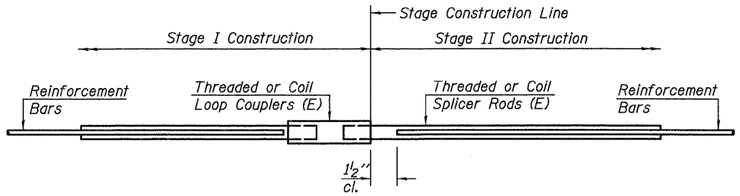
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 72



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#5	134	Deck
#6	12	Diaphragm
#4	50	Appr. Slab
#5	92	Appr. Slab
#5	80	Appr. Footing

BAR SPLICER DETAILS
INTERSTATE 55 W. FRONTAGE ROAD OVER I & M CANAL & STATE TRAIL
F.A.I. ROUTE 55 - SECTION 86B-3-R
WILL COUNTY
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PUBLIC WATERS

DESIGNED	SDS
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CHECKED	SDS/CEH

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DESIGN FIRM #184001036

BSD-1 10-1-08

SHEET NO. 17	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	55	86B-3-R	WILL	38	30
	S.N. 099-0036		CONTRACT NO. 60F53		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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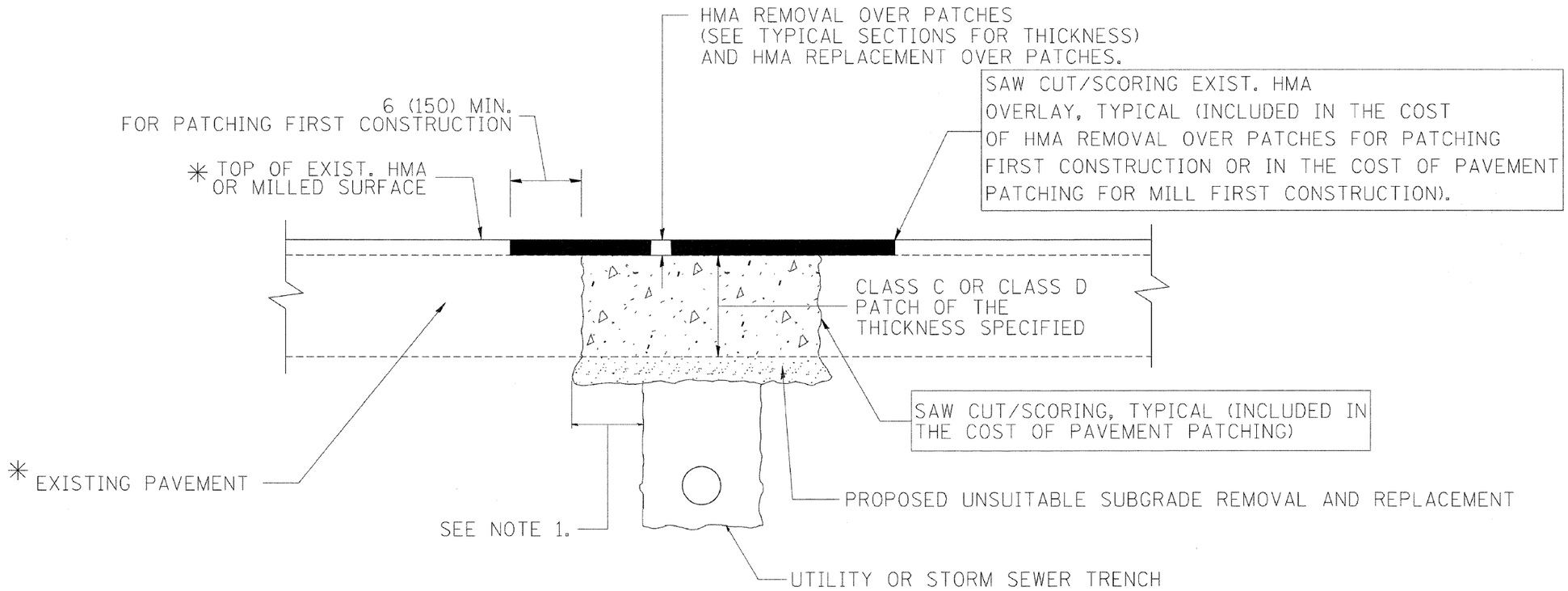


* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

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 4½ 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

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

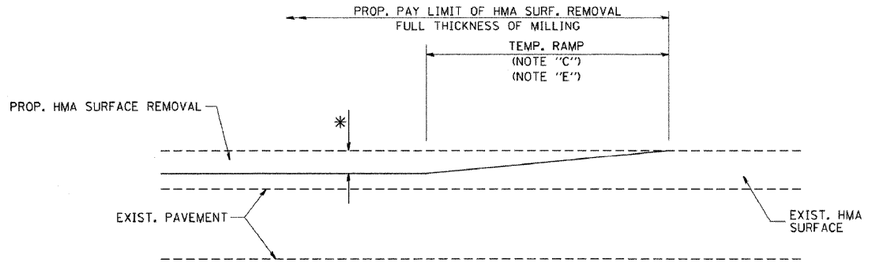
USER NAME = $USER$	DESIGNED - MJY		
	DRAWN - ST	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - MJY	REVISED -	
PLOT DATE = $DATE$	DATE - 07/08/2009	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 31 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

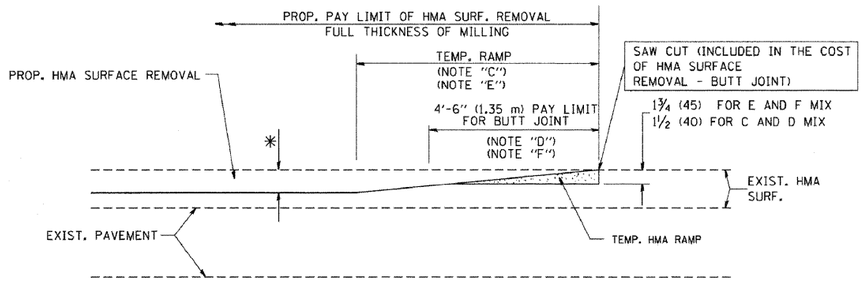
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	31
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

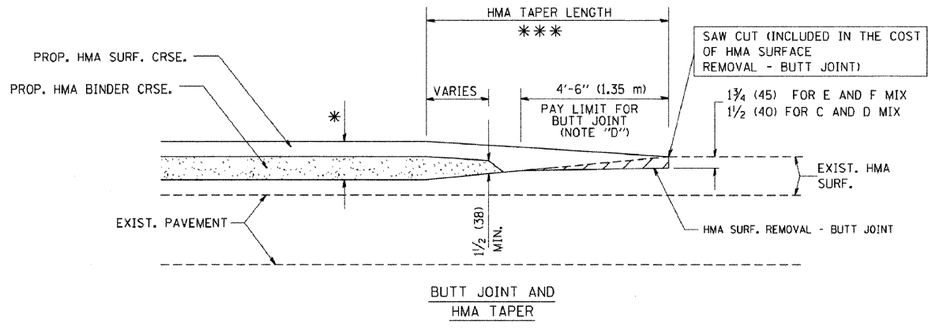


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

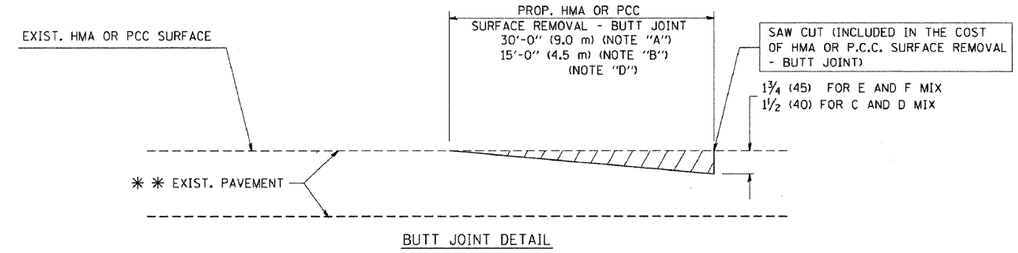
OPTION 2

TYPICAL TEMPORARY RAMP

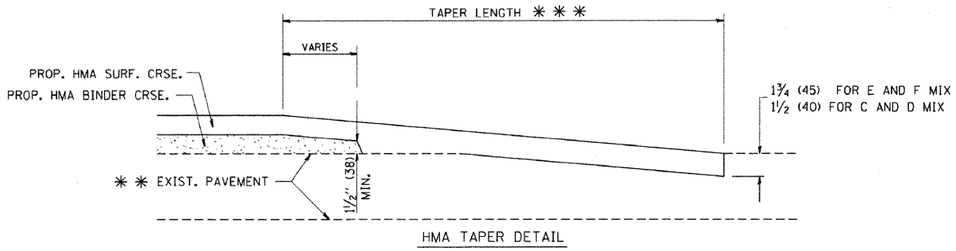


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



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

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

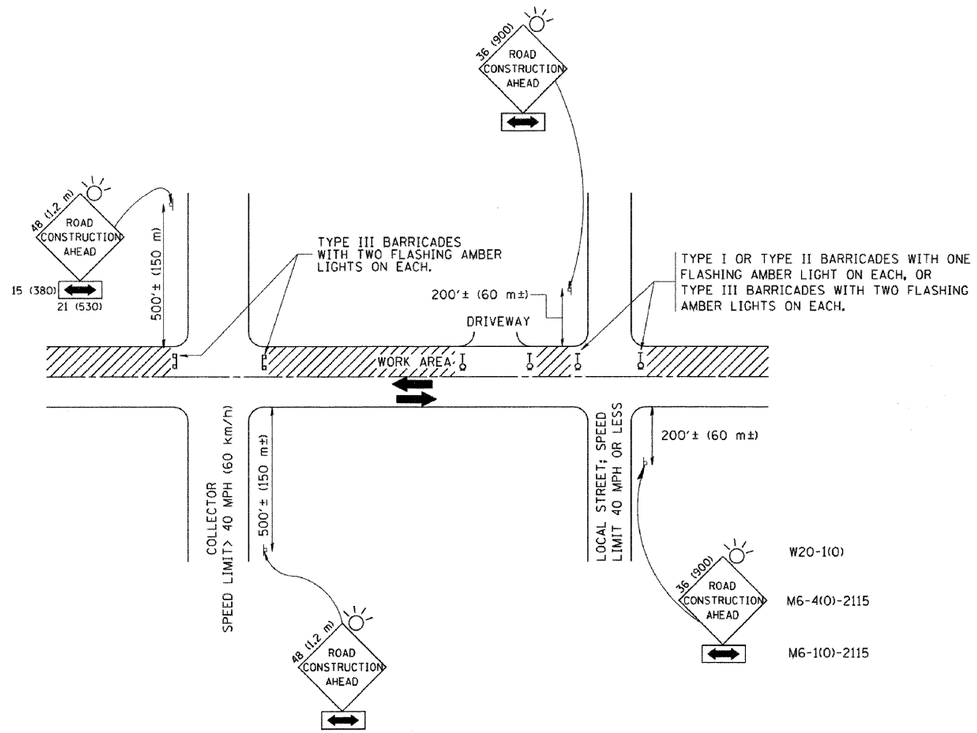
USER NAME = $USER$	DESIGNED - MJY		
	DRAWN - ST	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - MJY	REVISED -	
PLOT DATE = $DATE$	DATE - 07/08/2009	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 32 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	32
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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.

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

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

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

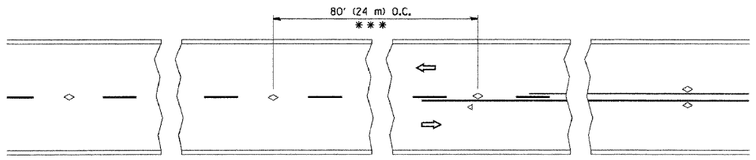
USER NAME = $USER$	DESIGNED - MJY	
	DRAWN - ST	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MJY	REVISED -
PLOT DATE = $DATE$	DATE - 07/08/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

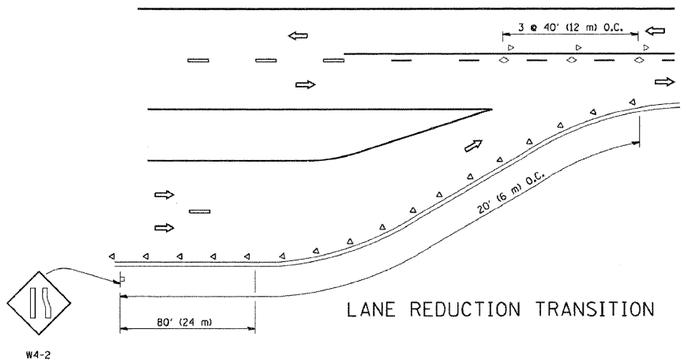
SCALE: NONE | SHEET NO. 33 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	33
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

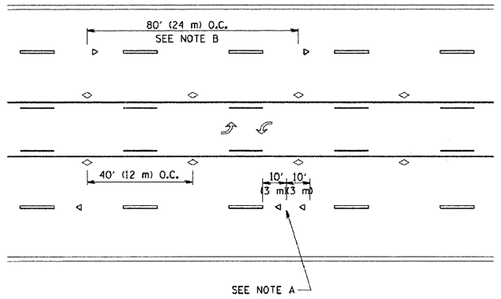


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

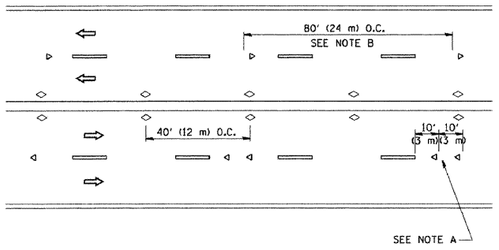
TWO-LANE/TWO-WAY



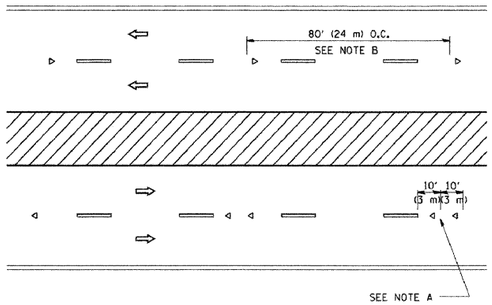
LANE REDUCTION TRANSITION



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

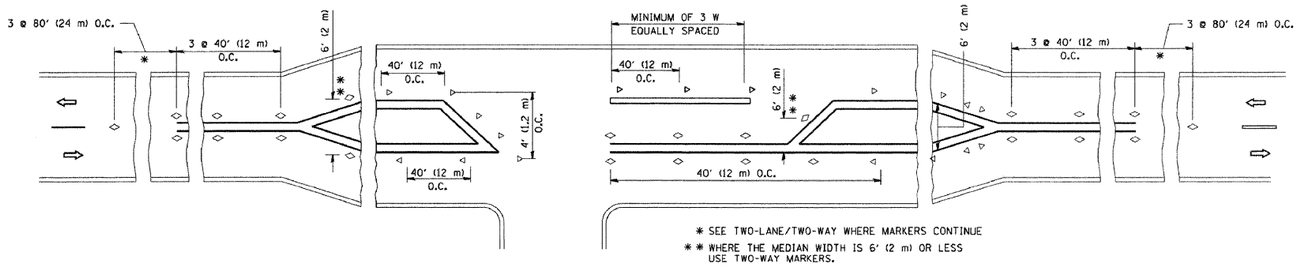
LANE MARKER NOTES

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.

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

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.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

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

LEFT TURN

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

LONCO, INC.
CONSULTING ENGINEERS
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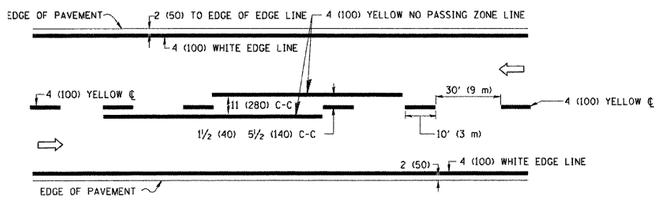
	DRAWN - ST	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MJY	REVISED -
PLOT DATE = $DATE$	DATE - 07/08/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

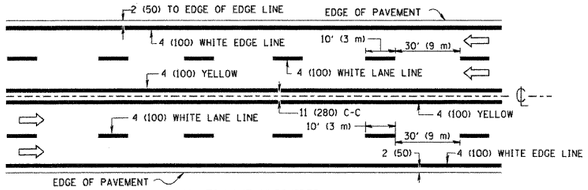
DISTRICT ONE DETAIL SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 34 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

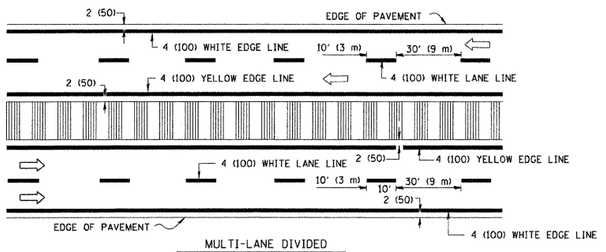
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	34
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



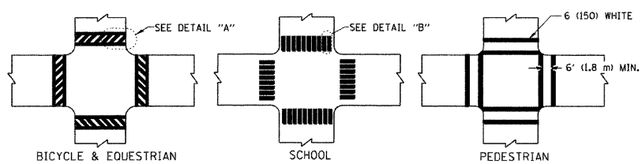
MULTI-LANE UNDIVIDED

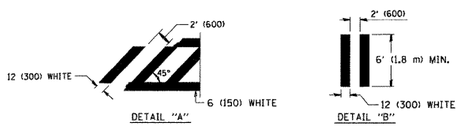


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

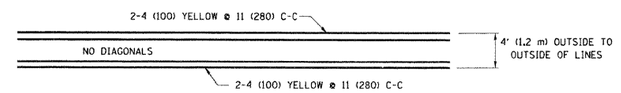
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

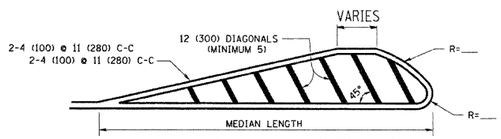




TYPICAL CROSSWALK MARKING



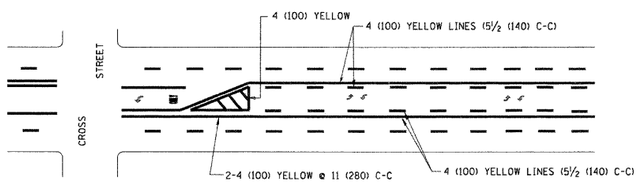
4' (1.2 m) WIDE MEDIANS ONLY



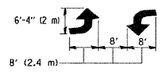
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

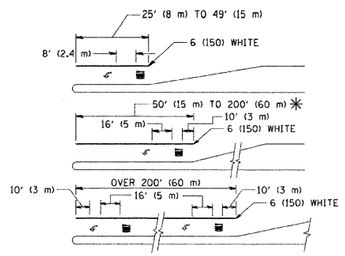


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

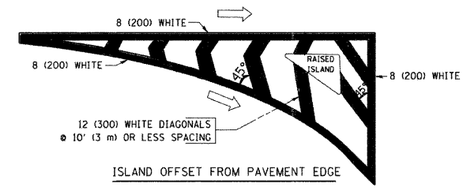


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) ONLY AREA = 20.8 SQ. FT. (1.9 m^2)

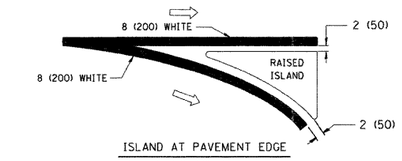
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

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 UNDIVEDED 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	5½ (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 AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (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" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) ⊗ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

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

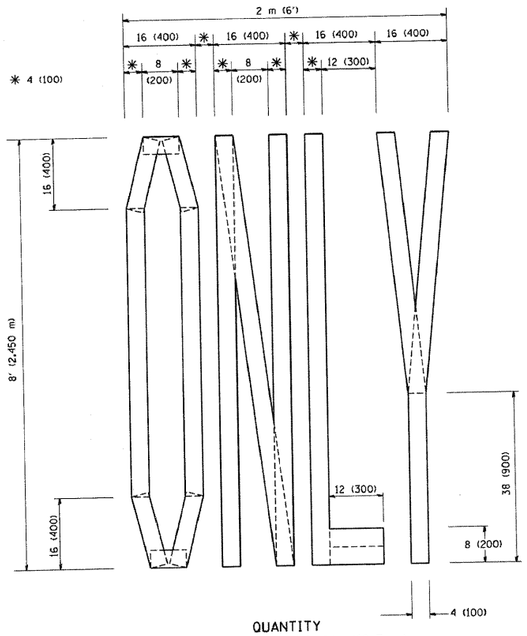
USER NAME = $USER$	DESIGNED - MJY	
	DRAWN - ST	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MJY	REVISED -
PLOT DATE = $DATE$	DATE - 07/08/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

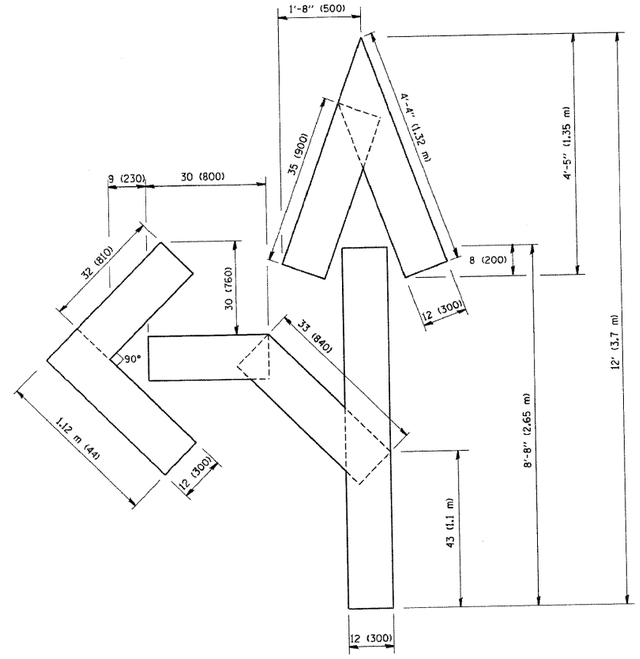
DISTRICT ONE DETAIL SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 35 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

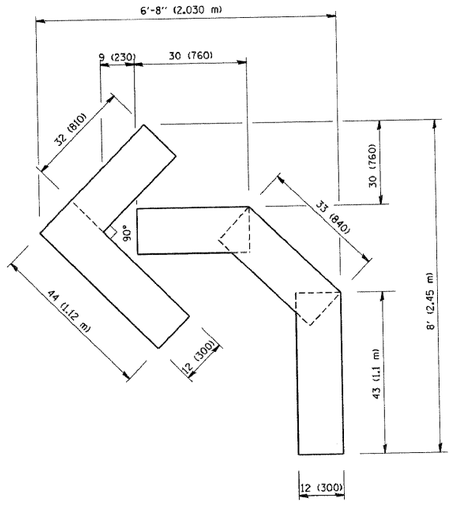
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	35
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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)

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

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

Pg 36 NOT USED

LONCO, INC. CONSULTING ENGINEERS 1560 WALL ST. SUITE 222 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	USER NAME = $USER$	DESIGNED - MJY	
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	PLOT SCALE = $SCALE$	CHECKED - MJY	REVISED -
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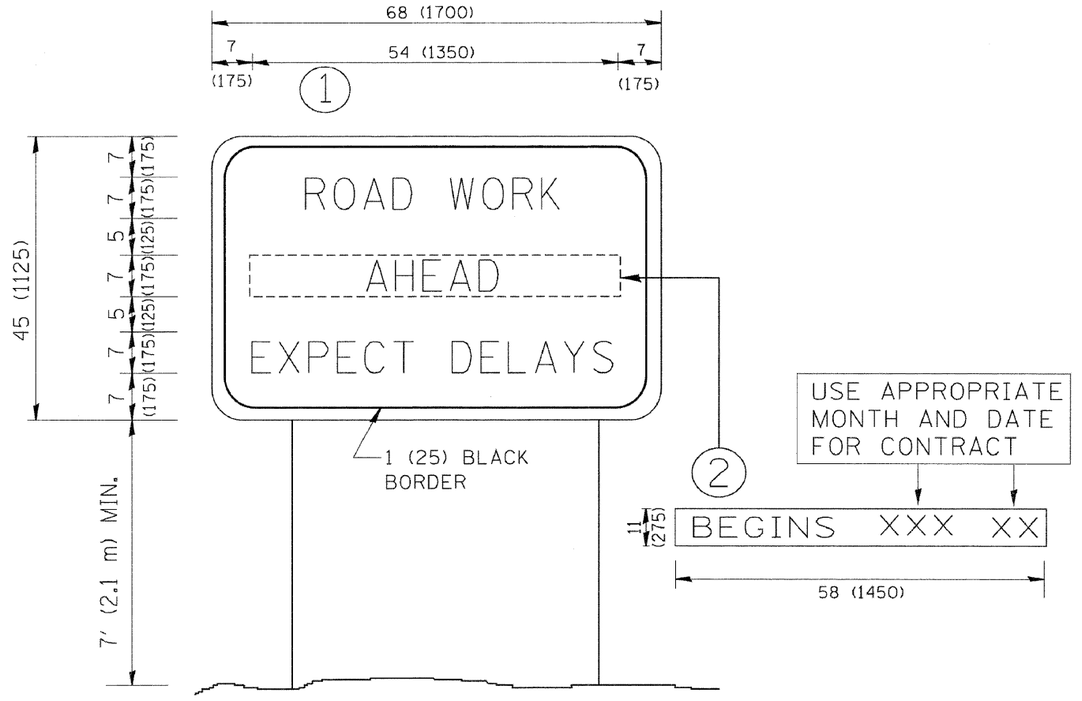
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 37 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	37
	D-91-097-09	CONTRACT NO. 60F53		
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

LONCO, INC.
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
I-55 WEST FRONTAGE ROAD OVER (I & M) CANAL

SCALE: NONE | SHEET NO. 38 OF 38 SHEETS | STA. 1097+00 TO STA. 1101+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	86 B-3-R	WILL	38	38
	D-91-097-09	CONTRACT NO. 60F53		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		