

PLAN PREPARATION ENGINEER STEVEN W. MEGGINSON (217) 546-3400

ASSOCIATE FIELD ENGINEER JESSICA FELICIANO, P.E. (847) 705-4487

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	S.
F.A.S. 2111	01-00268-00-BR	KANE	70	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 83973	

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**STANDARDS**

SEE SHEET 2 FOR HIGHWAY STANDARDS LISTING

**UTILITIES**

AT&T  
225 E. CHICAGO ST.  
ELGIN, IL 60120

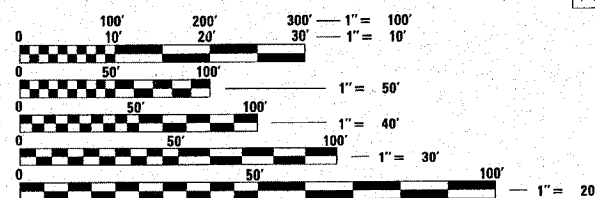
NICOR GAS  
1844 FERRY ROAD  
NAPERVILLE, IL 60563-9600

COMMONWEALTH EDISON  
#1 N 423 SWIFT ROAD  
LOMBARD, IL 60148  
(630) 424-5709

DESIGN FUNCTIONAL CLASSIFICATION:  
MAJOR COLLECTOR  
DESIGN TRAFFIC: 28000 ADT (2030)  
DESIGN SPEED: 45 M.P.H.  
POSTED SPOED: 45 M.P.H.

**THE CONTRACTOR SHALL NOTIFY THE KANE COUNTY D.O.T. PRIOR TO THE BEGINNING OF CONSTRUCTION**

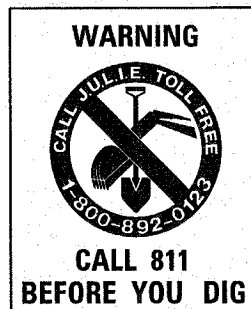
- SCALES**
- PLAN 0' = 50'
  - PROFILE HORIZ. 0' = 50'
  - PROFILE VERT. 0' = 5'
  - CROSS SECTIONS 0' = 5'



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.

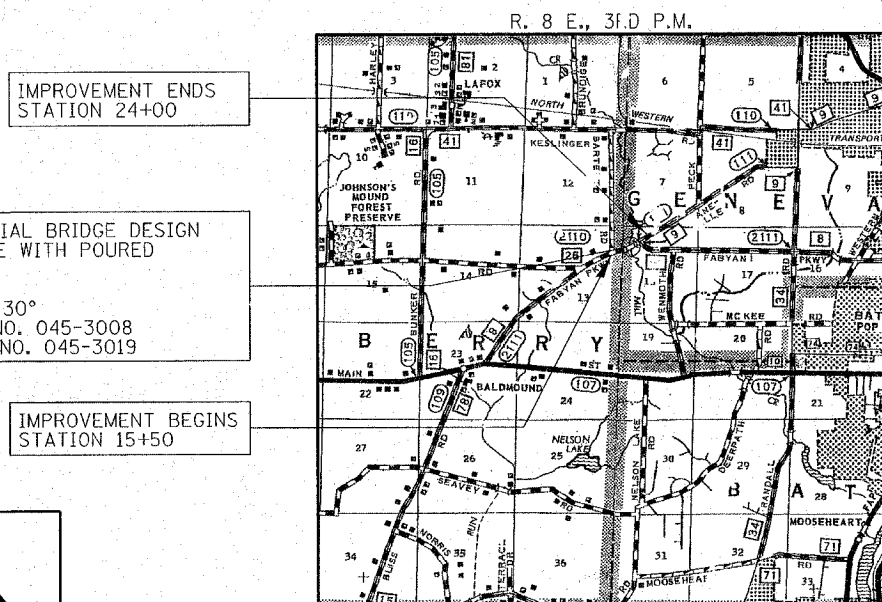
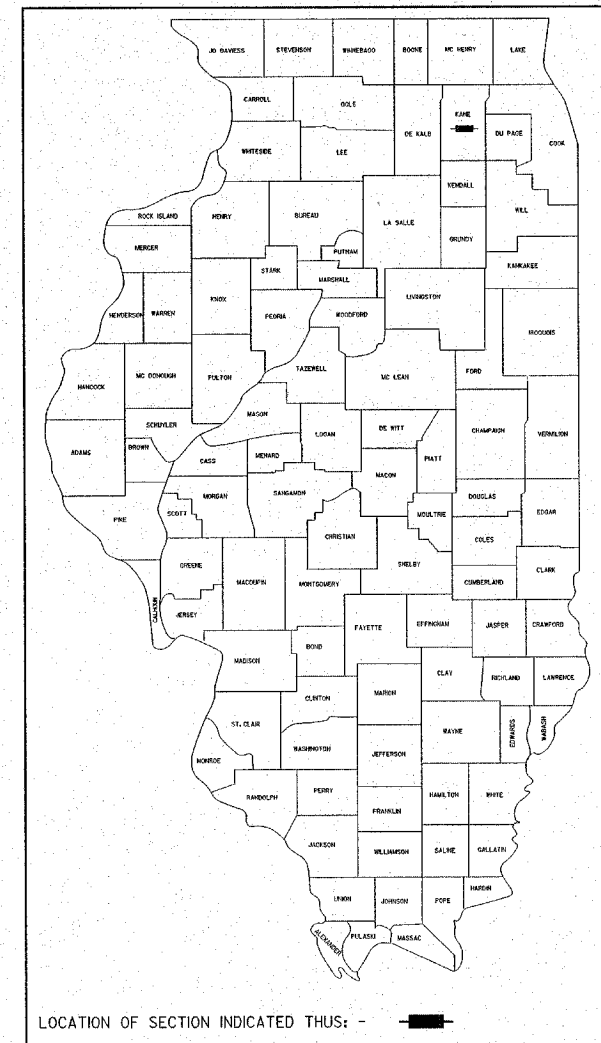
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123

CONTRACT NO. 83973



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED FEDERAL AID PROJECT**  
**(HIGHWAY BRIDGE PROGRAM)**

**F.A.S. 2111 (FABYAN PARKWAY OVER MILL CREEK)**  
**SECTION 01-00268-00-BR**  
**PROJECT BHS-2111(103)**  
**PAVEMENT RECONSTRUCTION AND STRUCTURE REPLACEMENT**  
**PROPOSED STRUCTURE NO. 045-3019**  
**KANE COUNTY**  
**JOB NO. C-91-143-01**



IMPROVEMENT ENDS STATION 24+00

STATION 18+97 - SPECIAL BRIDGE DESIGN STEEL WF BEAM BRIDGE WITH POURED CONCRETE DECK. SINGLE SPAN @ 92'-0" 68'-0" RDWY.; SKEW = 30° EXISTING STRUCTURE NO. 045-3008 PROPOSED STRUCTURE NO. 045-3019

IMPROVEMENT BEGINS STATION 15+50

**LAYOUT**

APPROXIMATE SCALE: 0 1 MILE

GROSS = NET LENGTH OF SECTION = 850 FEET = 0.161 MILES  
LENGTH OF STRUCTURE = 94.87 FEET = 0.018 MILES  
LENGTH OF PAVING = 755.13 FEET = 0.143 MILES

APPROVED AUGUST 28 2007  
 COUNTY ENGINEER

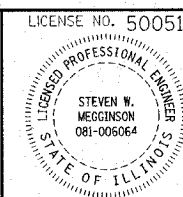
PASSED SEPTEMBER 13 2007  
 DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review Sept. 13 2007  
 DEPUTY DIRECTOR OF HIGHWAYS  
 REGION ONE ENGINEER  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DATE: August 29, 2007

BY: Steven W. Megginson

LICENSE EXPIRES: NOVEMBER 30, 2007



**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 200  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/27/07

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 2111	01-00268-00-BR	KANE	70	2
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	

## GENERAL NOTES

### SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

ALL WORK SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION," ADOPTED 1-1-07 (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS," ADOPTED 1-1-07; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE "DETAILS" IN THE PLANS; THE "SPECIAL PROVISIONS" AND HIGHWAY STANDARDS INCLUDED IN THE CONTRACT DOCUMENTS.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE DEPARTMENT.

ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 107.14 OF THE STANDARD SPECIFICATIONS.

### UTILITIES

CONTACT JULIE 48 HOURS IN ADVANCE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT AND FACILITIES. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT OR PROTECTION IS NECESSARY.

THE LOCATION ON THE PLANS OF EXISTING DRAINAGE STRUCTURES, TELEPHONE LINES, ELECTRIC LINES AND WATER SERVICE LINES ARE APPROXIMATE AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD AS INCIDENTAL TO THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.

### STAKING

THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT OR A PROFESSIONAL LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

### SEEDING & EROSION CONTROL MEASURES

THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AND EASEMENTS AS INDICATED ON THE SEEDING PLAN AND AS DIRECTED BY THE ENGINEER. SEEDING TYPE IS INDICATED ON THE SEEDING PLAN.

EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AS SHOWN IN THE EROSION CONTROL PLAN AND SPECIAL PROVISIONS.

### TOPSOIL

THE CONTRACTOR SHALL REMOVE THE EXISTING TOPSOIL AND STORE IN A SECURE LOCATION ONSITE. THE FINAL TOPSOIL SHALL BE PLACED A MINIMUM OF 4" THICKNESS OVER THE EXCAVATED AREA. THE GRADES SHOWN IN THE CROSS SECTIONS ARE TO THE TOP OF TOPSOIL. THE EXCAVATION SHALL BE UNDERCUT TO ACCOMMODATE TOP SOIL PLACEMENT.

### MISCELLANEOUS

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE ENGINEER SHALL NOTIFY THE KANE COUNTY D.O.T. 48 HOURS BEFORE CONSTRUCTION BEGINS.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE ENGINEER SHALL NOTIFY THE U.S. ARMY CORP OF ENGINEERS 48 HOURS BEFORE ANY CHANNEL OR INSTREAM WORK OCCURS.

ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES ENCOUNTERED UNLESS OTHERWISE INDICATED, ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR EARTH EXCAVATION.

THE FOLLOWING APPLICATION RATES HAVE BEEN USED TO DETERMINE PLAN QUANTITIES:

STONE RIPRAP	1.75 TON/CU YD
POROUS GRANULAR EMBANKMENT	2.00 TON/CU YD
SUB-BASE GRANULAR MATERIAL	2.05 TON/CU YD
HOT-MIX ASPHALT	112 LBS/SQ YD/IN
BITUMINOUS MATERIAL (PRIME COAT)	0.4 GAL/SQ YD (ON AGGREGATE)
BITUMINOUS MATERIAL (PRIME COAT)	0.1 GAL/SQ YD (ON BITUMINOUS)
AGGREGATE SHOULDERS, TYPE B	2.00 TON/ CU YD

### TEMPORARY RAMPS

TEMPORARY RAMPS ADJACENT TO HOT-MIX ASPHALT SURFACE REMOVAL-BUTT SHALL BE INCLUDED IN THE COST OF HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT. TEMPORARY RAMPS ADJACENT TO BRIDGE APPROACH PAVEMENT SHALL BE INCLUDED IN THE COST OF BRIDGE APPROACH PAVEMENT.

### COMMITMENTS

THE CONTRACTOR SHALL NOT PROCEED WITH ANY CONSTRUCTION OPERATIONS WHICH WOULD IMPACT MILL CREEK DURING THE FISH SPAWNING SEASON. AS A CONDITION OF THE ARMY CORPS OF ENGINEER'S PERMIT IN-STREAM CONSTRUCTION WILL NOT BE ALLOWED BETWEEN MARCH 15, 2008 AND JUNE 15, 2008. IN-STREAM WORK CONSISTS OF COFFERDAMS, CHANNEL EXCAVATION, RIPRAP PLACEMENT, AND REMOVAL OF EXISTING ABUTMENTS. REMAINING CONSTRUCTION ITEMS SHALL BE ALLOWED DURING THE ABOVE DATES, BUT AT NO TIME WILL ANY EQUIPMENT, MATERIALS, OR PERSONNEL BE ALLOWED WITHIN THE LIMITS OF THE STREAM.

## HIGHWAY STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-03	TEMPORARY EROSION CONTROL SYSTEM
420001-06	PAVEMENT JOINTS
420401-05	BRIDGE APPROACH PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
609006-03	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-07	STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701006-02	OFF ROAD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600mm (24") FROM PAVEMENT EDGE
701011-01	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-01	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701602-02	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER
780001-01	TYPICAL PAVEMENT MARKINGS
814001-01	HANDHOLES

<b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	
	
ELGIN • SPRINGFIELD	
PROJECT NUMBER: 12-00-0050-1	DATE: 09/20/07
DESIGNED: L.F.S.	CHECKED: S.W.M. DRAWN: D.T.M.

**GENERAL NOTES &  
 HIGHWAY STANDARDS**  
**SECTION 01-00268-00-BR**  
**F.A.S. 2111 / FABYAN PARKWAY**  
**KANE COUNTY**

SUMMARY OF QUANTITIES					
CODE #	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE	
				1000	X071-ZA
				QUANTITY	QUANTITY
20200100	EARTH EXCAVATION	CU YD	1,330	1,330	
20300100	CHANNEL EXCAVATION	CU YD	1,210	1,210	
> 20700300	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	515		515
* 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4,943	4,943	
* 25000310	SEEDING, CLASS 4	ACRE	0.3	0.3	
* 25000314	SEEDING, CLASS 4B	ACRE	0.3	0.3	
* 25000322	SEEDING, CLASS 5A	ACRE	0.3	0.3	
* 25000324	SEEDING, CLASS 5B	ACRE	0.3	0.3	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	90	90	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	90	90	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	90	90	
* > 25001020	SEEDING, CLASS 2A, (SPECIAL)	ACRE	1.0	1.0	
* > 25100115	MULCH, METHOD 2	ACRE	0.6	0.6	
* 25100630	EROSION CONTROL BLANKET	SQ YD	5,053	5,053	
* > 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	920	920	
* 28000300	TEMPORARY DITCH CHECKS	EACH	16	16	
> 28000400	PERIMETER EROSION BARRIER	FOOT	700	700	
> 28100207	STONE RIPRAP, CLASS A4	TON	1,000		1,000
28200200	FILTER FABRIC	SQ YD	680		680
31101000	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	386	386	
40300100	BITUMINOUS MATERIALS, PRIME COAT	GALLON	985	985	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	466	466	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1,505	1,505	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	278	278	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	393	393	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	462		462
44000100	PAVEMENT REMOVAL	SQ YD	623	623	
44004000	PAVED DITCH REMOVAL	FOOT	165	165	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1,292	1,292	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	51	51	
48203013	HOT-MIX ASPHALT SHOULDERS, 4"	SQ YD	932	932	
> 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200500	COFFERDAMS	EACH	2		2
50300225	CONCRETE STRUCTURES	CU YD	75.0		75.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	267.9		267.9
50300260	BRIDGE DECK GROOVING	SQ YD	717		717
50300280	CONCRETE ENCASEMENT	CU YD	11.2		11.2
50300300	PROTECTIVE COAT	SQ YD	1,183		1,183
50301200	CONCRETE WEARING SURFACE	SQ YD	717		717
> 50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	149		149
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	1,914		1,914
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	51,050		51,050
50800515	BAR SPLICERS	EACH	440		440
51201600	STEEL PILES HP12X53	FOOT	1,350		1,350
51202305	DRIVING PILES	FOOT	1,350		1,350
51203600	TEST PILE STEEL HP12X53	EACH	2		2
51205200	TEMPORARY SHEET PILING	SQ FT	4,400		4,400
51500100	NAME PLATES	EACH	1		1
> 54215547	METAL END SECTIONS 12"	EACH	2		2
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	163		163
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4		4

SUMMARY OF QUANTITIES					
CODE #	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE	
				1000	X071-ZA
				QUANTITY	QUANTITY
60100945	PIPE DRAINS 12"	FOOT	40		40
601009580	PIPE UNDERDRAINS FOR STRUCTURE, 4"	FOOT	234		234
60405420	FRAMES AND GRATES, TYPE B-18	EACH	2		2
60900140	TYPE B INLET BOX, STANDARD 609006	EACH	2		2
60900515	CONCRETE THRUST BLOCKS	EACH	2		2
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	100	100	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4	
* 63200310	GUARDRAIL REMOVAL	FOOT	862	862	
* 63801200	MODULAR GLARE SCREEN SYSTEM	FOOT	670	670	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	11	11	
67100100	MOBILIZATION	L SUM	1	1	
> 70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1	
> 70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1	
* 70300610	TEMPORARY PAINT PAVEMENT MARKING, LETTERS AND SYMBOLS	SQ FT	218	218	
* 70300625	TEMPORARY PAINT PAVEMENT MARKING LINE 4"	FOOT	15,384	15,384	
* 70300635	TEMPORARY PAINT PAVEMENT MARKING LINE 6"	FOOT	798	798	
* 70300645	TEMPORARY PAINT PAVEMENT MARKING LINE 12"	FOOT	270	270	
* 70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,928	1,928	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,030	1,030	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	930	930	
* 70500100	TEMPORARY STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	50	50	
* 70500615	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	2	2	
* 70500665	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
* 78005100	EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	109	109	
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	4,800	4,800	
* 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	409	409	
* 78005150	EPOXY PAVEMENT MARKING - LINE 12"	FOOT	135	135	
> 78200405	GUARDRAIL MARKERS	EACH	18	18	
> 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1,528	1,528	
* 81400100	HANDHOLE	EACH	2	2	
* 81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	100	100	
* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14	FOOT	100	100	
* 88600100	DETECTOR LOOP, TYPE I	FOOT	34	34	
* X007099	DETECTOR LOOP REMOVAL	EACH	1	1	
> 89502380	REMOVE EXISTING HANDHOLE	EACH	1	1	
X0301512	GUARDRAIL AGGREGATE EROSION CONTROL	TON	120	120	
* > X0301895	PERENNIAL PLANTS, QUART POT	UNIT	1,650	1,650	
> X0632001	CLEAR PROTECTIVE COATING FOR CONCRETE	SQ FT	1,078		1,078
> X0106300	CHANGEABLE MESSAGE SIGN	CAL MO	12	12	
XX004900	TURF REINFORCEMENT MAT	SQ YD	604	604	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0030255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	4	4	
Z0030320	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 2	EACH	4	4	
Z0076600	TRAINEES	HOUR	500	500	
> X000337	ARCHITECTURAL FINISH FOR CONCRETE SURFACES	SQ FT	1,078		1,078
> X000400	LIMESTONE CAP	FOOT	190		190
> X000702	RECESSED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	8	
> X000487	RECESSED REFLECTIVE PAVEMENT MARKERS	EACH	10	10	
>	SEE SPECIAL PROVISIONS				
* >	DENOTES SPECIALTY ITEM				

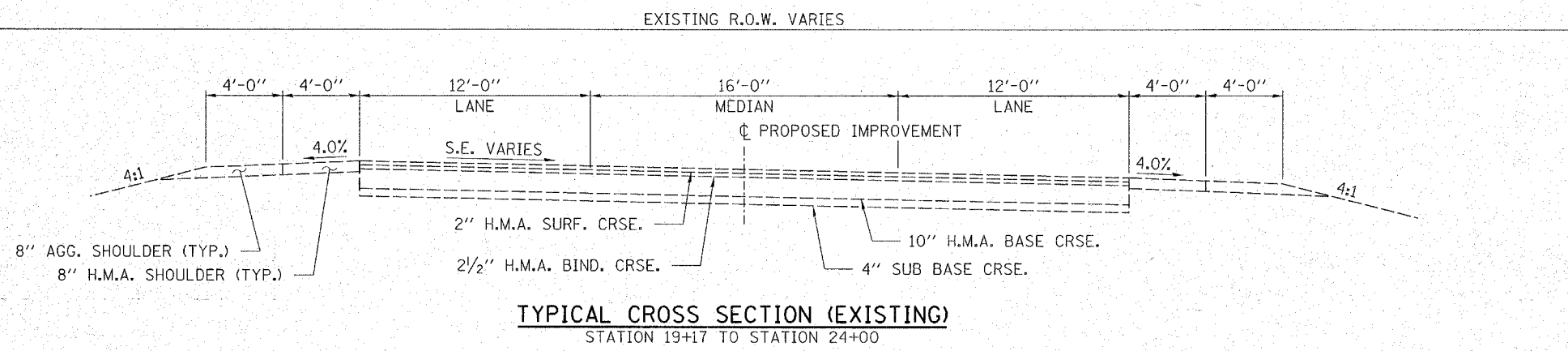
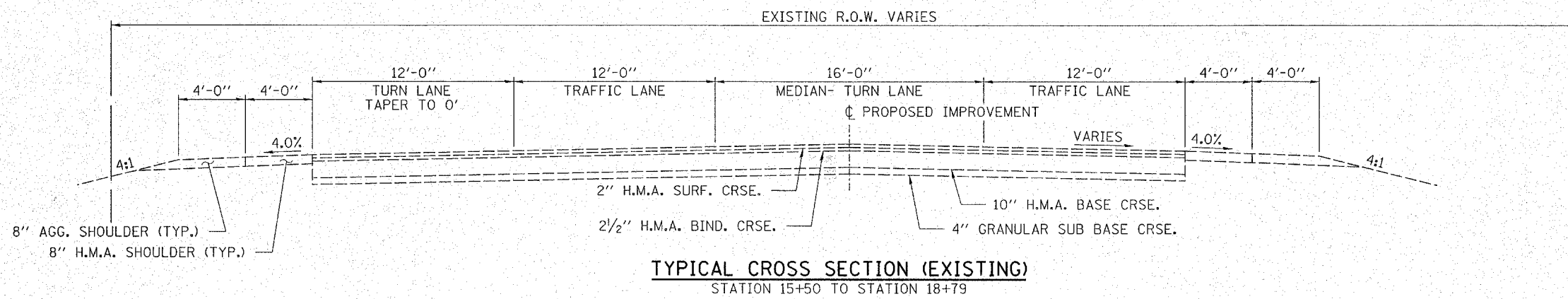
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 (217) 546-3400

**ELGIN • SPRINGFIELD**

PROJECT NUMBER: 12-05-0050-1      DATE: 09/20/07  
 DESIGNED: L.F.S.      CHECKED: S.W.M.      DRAWN: D.T.M.

**SUMMARY OF QUANTITIES**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY



**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

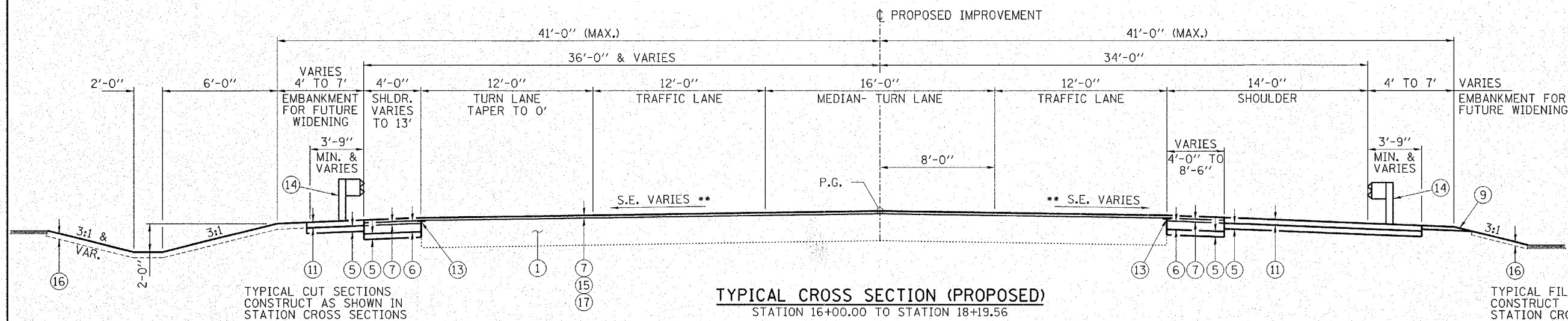
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

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PROJECT NUMBER: 12-05-0050-1	DATE: 08/29/07
DESIGNED: L.F.S.	CHECKED: S.W.M. DRAWN: D.T.M.

**EXISTING TYPICAL CROSS SECTIONS**

SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY



**TYPICAL CROSS SECTION (PROPOSED)**

STATION 16+00.00 TO STATION 18+19.56

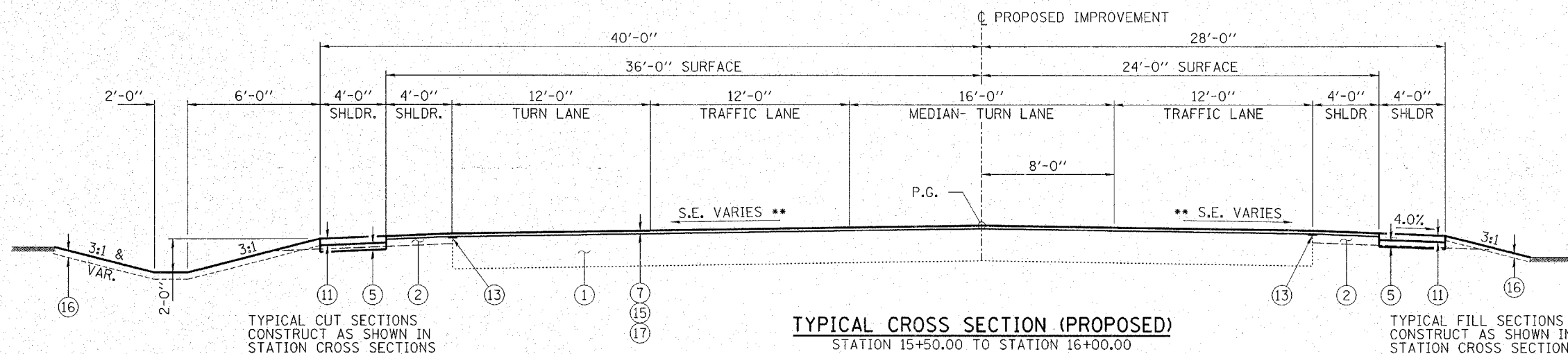
\*\* S.E. VARIES ACCORDING TO TRANSITIONS.

TYPICAL CUT SECTIONS  
CONSTRUCT AS SHOWN IN  
STATION CROSS SECTIONS

TYPICAL FILL SECTIONS  
CONSTRUCT AS SHOWN IN  
STATION CROSS SECTIONS

**LEGEND**

- ① EXISTING HOT-MIX ASPHALT PAVEMENT
- ② EXISTING 8" HOT-MIX ASPHALT SHOULDER
- ③ EXISTING 8" AGGREGATE SHOULDER
- ④ EXISTING STEEL PLATE BEAM GUARDRAIL
- ⑤ SUB-BASE GRANULAR MATERIAL, TYPE B (4" THICKNESS)
- ⑥ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 (6 1/2" THICKNESS)
- ⑦ HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70 (1 1/2" THICKNESS)
- ⑧ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
- ⑨ TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑩ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑪ AGGREGATE SHOULDERS, TYPE B
- ⑫ BRIDGE APPROACH PAVEMENT
- ⑬ HOT-MIX ASPHALT SHOULDERS (4" THICKNESS)
- ⑭ HOT-MIX ASPHALT SURFACE REMOVAL, BUTT-JOINT
- ⑮ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑯ TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
- ⑰ STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑱ TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑲ LEVELING BINDER (MACHINE METHOD), N70 (3/4" AND VARIES)
- ⑳ TOPSOIL FURNISH AND PLACE, 4"
- ㉑ BITUMINOUS MATERIALS (PRIME COAT)

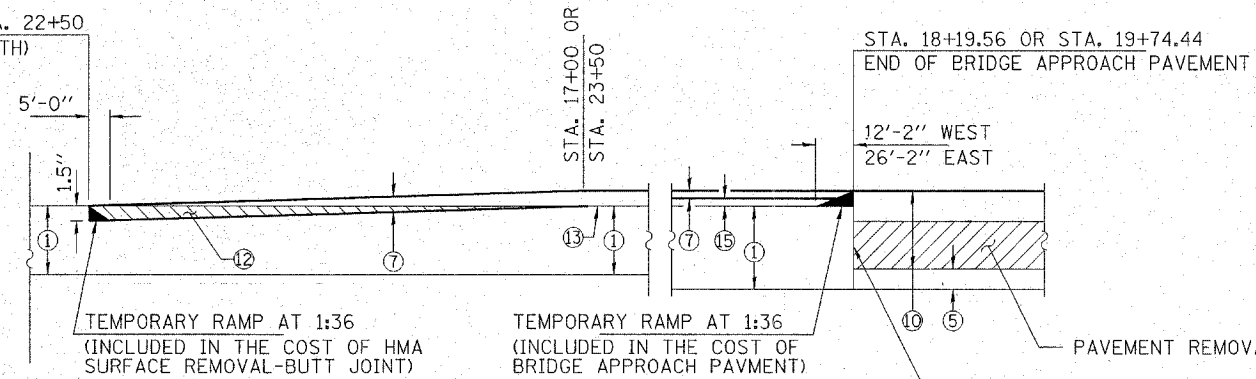


**TYPICAL CROSS SECTION (PROPOSED)**

STATION 15+50.00 TO STATION 16+00.00

\*\* S.E. VARIES ACCORDING TO TRANSITIONS.

STA. 15+50 OR STA. 22+50  
SAW CUT (1.5" DEPTH)  
AND BUTT JOINT



**PAVEMENT TRANSITION DETAIL**

MIXTURE REQUIREMENTS			
LOCATION	AC TYPE	AIR VOIDS	MAX RAP %
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	PG 64-22	4% @ 70 GYR.	10
HMA BINDER COURSE, IL-19.0, N70	PG 64-22 *	4% @ 70 GYR.	15
LEVELING BINDER (MACHINE METHOD), N70 (IL 9.5mm)	PG 64-22 *	4% @ 70 GYR.	10
HOT-MIX ASPHALT SHOULDERS, 4"	PG 64-22 *	2% @ 30 GYR.	50
TEMPORARY RAMP	PG 64-22 *	2% @ 30 GYR.	50

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

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

**NOTES**

- 1) COST OF SAWCUT SHALL BE INCLUDED IN THE UNIT COST BID FOR HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT.

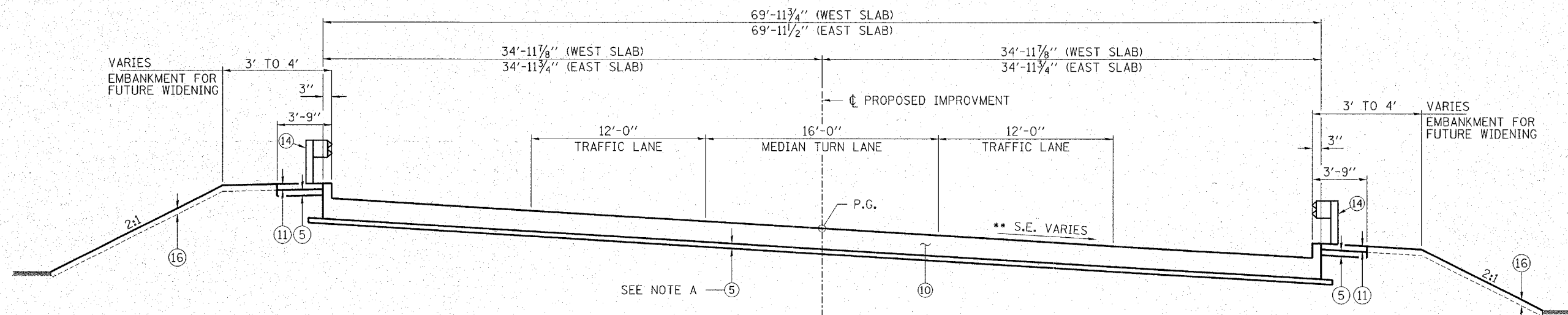
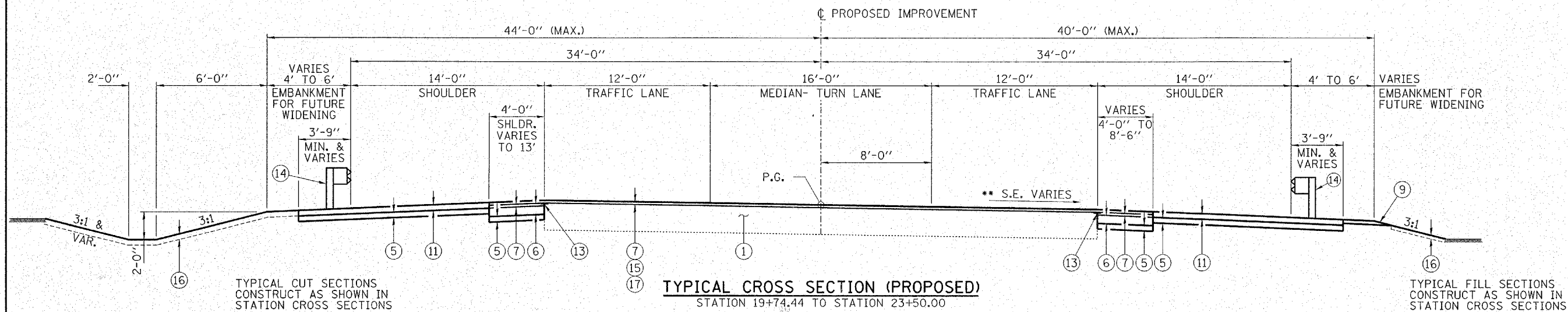
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: L.F.S. CHECKED: S.W.M. DRAWN: D.T.M.

**TYPICAL CROSS SECTIONS**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY



- LEGEND**
- ① EXISTING HOT-MIX ASPHALT PAVEMENT
  - ② EXISTING 8" HOT-MIX ASPHALT SHOULDER
  - ③ EXISTING 8" AGGREGATE SHOULDER
  - ④ EXISTING STEEL PLATE BEAM GUARDRAIL
  - ⑤ SUB-BASE GRANULAR MATERIAL, TYPE B (4" THICKNESS)
  - ⑥ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 (6 1/2" THICKNESS)
  - ⑦ HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70 (1 1/2" THICKNESS)
  - ⑧ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
  - ⑨ TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
  - ⑩ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
  - ⑪ AGGREGATE SHOULDERS, TYPE B
  - ⑫ BRIDGE APPROACH PAVEMENT
  - ⑬ HOT-MIX ASPHALT SHOULDERS (4" THICKNESS)
  - ⑭ HOT-MIX ASPHALT SURFACE REMOVAL, BUTT-JOINT
  - ⑮ STRIP REFLECTIVE CRACK CONTROL TREATMENT
  - ⑯ TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
  - ⑰ STEEL PLATE BEAM GUARDRAIL, TYPE A
  - ⑱ TRAFFIC BARRIER TERMINAL, TYPE 6
  - ⑲ LEVELING BINDER (MACHINE METHOD), N70 (3 1/4" AND VARIES)
  - ⑳ TOPSOIL FURNISH AND PLACE, 4"
  - ㉑ BITUMINOUS MATERIALS (PRIME COAT)

**PROPOSED BRIDGE APPROACH PAVEMENT CROSS SECTION**

NOTE A:  
COST INCLUDED IN BRIDGE APPROACH PAVEMENT.  
SEE STANDARD 420401.

NOTE: SEE SUPERSTRUCTURE PLAN SHEET 44,  
FOR TYPICAL CROSS SECTION OF BRIDGE.

MIXTURE REQUIRMENTS			
LOCATION	AC TYPE	AIR VOIDS	MAX RAP %
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	PG 64-22	4% @ 70 GYR.	10
HMA BINDER COURSE, IL-19.0, N70	PG 64-22 *	4% @ 70 GYR.	15
LEVELING BINDER (MACHINE METHOD), N70 (IL 9.5mm)	PG 64-22 *	4% @ 70 GYR.	10
HOT-MIX ASPHALT SHOULDERS, 4"	PG 64-22 *	2% @ 30 GYR.	50
TEMPORARY RAMP	PG 64-22 *	2% @ 30 GYR.	50

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

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

PAVEMENT DESIGN - TEMPORARY WIDENING	
DESIGN PERIOD: 2 YEARS	73280 LB. LOAD LIMIT
STRUCTURAL DESIGN TRAFFIC (SDT) =	17500 Year: 2008
PV = 16625 SU = 525 MU = 350	
ROAD/STREET CLASSIFICATION:	CLASS II ROAD
PERCENT OF S. D. T. IN DESIGN LANE	
P = 50 S = 50 MU = 50	
TRAFFIC FACTOR:	ACTUAL TF 0.16
SUBGRADE SUPPORT RATING = POOR	

PAVEMENT DESIGN-TEMPORARY WIDENING	
DESIGN PERIOD: 15 YEARS	80,000 LB. LOAD LIMIT
STRUCTURAL DESIGN TRAFFIC (SDT) =	20700 Year: 2016
PV = 19665 SU = 621 MU = 414	
ROAD/STREET CLASSIFICATION:	CLASS II
PERCENT OF S. D. T. IN DESIGN LANE	
P = 50 S = 50 MU = 50	
TRAFFIC FACTOR:	ACTUAL TF 1.74
SUBGRADE SUPPORT RATING = POOR	

**HAMPTON, LENZINI & RENWICK, INC.**  
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(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: L.F.S. CHECKED: S.W.M. DRAWN: D.T.M.

**TYPICAL CROSS SECTIONS**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY

ROADWAY SCHEDULE												
LOCATION	BRIDGE APPROACH PAVEMENT	SUBBASE GRANULAR MATERIAL, TYPE B	HOT-MIX ASPHALT SURF. CSE. MIX "D", N70	HOT-MIX ASPHALT BINDER CSE. IL-19.0 N70	LEVELING BINDER (MACHINE METHOD)	HOT-MIX ASPHALT SHOULDER 4"	GUARDRAIL AGGREGATE EROSION CONTROL	STRIP REFLECTIVE CRACK CONTROL	PAVEMENT REMOVAL	AGGREGATE SHOULDERS, TYPE B	TEMPORARY RAMP **	BITUMINOUS MATERIALS (PRIME COAT)
	SQ YD	TON	TON	TON	TON	SQ YD	TON	FOOT	SQ YD	TON	SQ YD	GAL
STAGE I												
STA. 16+00 TO STA. 18+79	100	68	24.9	108.0	1.5		42		129	18	36	118
STA. 19+17 TO STA. 23+00	100	106	39.0	169.8	1.4		78		124	33	77	187
STAGE II												
RT STA. 18+19.56 TO STA. 18+79	131								188		49	
RT STA. 19+17 TO STA. 19+74.44	131								182		105	
FINAL												
STA. 15+50 TO STA. 18+49.62		92	147.2		107.8	405		646			30	303
STA. 19+44.49 TO STA. 23+50		120	182.3		354.6	527		646			24	377
TOTAL	462	386	393.4	277.8	465.5	932	120	1,292	623	51	321	985
USE	462	386	393	278	466	932	120	1292	623	51	321	985

EARTHWORK SCHEDULE						
LOCATION	EARTH EXCAVATION (CU YD)	SHRINKAGE FACTOR	PERCENT USED	AVAILABLE EXCAVATION* (CU YD)	EMBANKMENT REQUIRED (CU YD)	EARTHWORK BALANCE (CU YD)
STAGE I						
STA. 15+50.00 TO 18+49.62	129	15%	100%	110	72	38
STA. 19+44.49 TO 24+00.00	194	15%	100%	165	170	-5
STAGE II						
STA. 15+50.00 TO 18+49.62	96	15%	100%	82	266	-184
STA. 19+44.49 TO 24+00.00	914	15%	100%	777	913	-136
CHANNEL EXCAVATION	1,210	15%	70%	720		720
TOTAL:	1,333			1,854	1,421	433
USE:	1,330					200

\* AVAILABLE EXCAVATION = EXC X (1-SHRINKAGE FACTOR) X % USED

WASTE

GUARDRAIL TABULATION						
LOCATION	STEEL PLATE BEAM GUARDRAIL TYPE A	TEMPORARY TRAFFIC BARRIER TERMINAL		STEEL PLATE BEAM GUARDRAIL TYPE A	TRAFFIC BARRIER TERMINAL	
		TYPE 1 SPECIAL (TANGENT)	TYPE 6		TYPE 1 SPECIAL (TANGENT)	TYPE 6
	FOOT	EACH	EACH	FOOT	EACH	EACH
RT. STA. 16+87.11 TO STA. 17+37.11					1	
RT. STA. 17+37.11 TO STA. 17+87.11				50		
RT. STA. 17+87.11 TO STA. 18+32.76						1
LT. STA. 17+76.05 TO STA. 18+26.05		1			1	
LT. STA. 18+26.05 TO STA. 18+71.7			1			1
RT. STA. 19+21.79 TO STA. 19+67.44						1
RT. STA. 19+67.44 TO STA. 20+17.44					1	
LT. STA. 19+60.92 TO STA. 20+06.57			1			1
LT. STA. 20+06.57 TO STA. 20+56.57	50			50		
LT. STA. 20+56.57 TO STA. 21+06.57		1			1	
TOTAL	50	2	2	100	4	4

RECESSED REFLECTIVE PAVEMENT MARKERS	
LOCATION	EACH
CL STA. 15+75	1
CL STA. 16+50	1
CL STA. 17+25	1
CL STA. 18+00	1
CL STA. 19+50	1
CL STA. 20+25	1
CL STA. 21+00	1
CL STA. 21+75	1
CL STA. 22+50	1
CL STA. 23+25	1
TOTAL	10

GUARDRAIL MARKERS	
LOCATION	EACH
RT. STA. 16+87.11 TO STA. 20+17.44	9
LT. STA. 17+76.05 TO STA. 21+06.57	9
TOTAL	18

TERMINAL MARKER DIRECT APPLIED	
LOCATION	EACH
RT. STA. 16+87.11	1
LT. STA. 17+76.05	1
RT. STA. 20+17.44	1
LT. STA. 21+06.57	1
TOTAL	4

STEEL PLATE BEAM GUARDRAIL REMOVAL	
LOCATION	FOOT
STAGE I	
RT. STA. 16+71.98 TO STA. 18+59.60	188
LT. STA. 17+77.69 TO STA. 18+94.35	117
RT. STA. 18+99.60 TO STA. 20+29.92	130
LT. STA. 19+33.48 TO STA. 21+18.50	185
STAGE II	
LT. STA. 17+76.05 TO STA. 18+71.70	96
LT. STA. 19+60.92 TO STA. 21+06.57	146
TOTAL	862

TEMPORARY PAVEMENT MARKING - STAGE CONSTRUCTION			
LOCATION	LINE 4" SOLID WHITE	LINE 4" SOLID YELLOW	LINE 4" DOTTED WHITE
	FOOT	FOOT	FOOT
STAGE I			
RT STA. 16+00 TO STA. 23+00	700		
LT STA. 16+00 TO STA. 23+00	700		
CL STA. 16+00 TO STA. 23+00		1,400	
STA. 16+00 TO STA. 17+00 (RT TURN LANE)			25
STA. 16+00 TO STA. 17+00 (LT TURN LANE)			25
STA. 21+45 TO STA. 23+00			39
STAGE II			
RT STA. 16+00 TO STA. 23+00	700		
LT STA. 16+00 TO STA. 23+00	700		
CL STA. 16+00 TO STA. 23+00		1,400	
STA. 16+00 TO STA. 17+10 (RT TURN LANE)			28
STA. 16+00 TO STA. 17+10 (LT TURN LANE)			28
STA. 21+45 TO STA. 23+00			39
SUBTOTAL	2,800	2,800	184
TOTAL	5,784		

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	
LOCATION	SQ YD
STA. 15+50 TO STA. 17+00	972
STA. 22+50 TO STA. 23+50	533
TOTAL	1505

PAVED DITCH REMOVAL	
LOCATION	FOOT
LT STA. 17+54 TO LT STA. 19+19	165
TOTAL	165

PAVEMENT MARKING REMOVAL	
LOCATION	SQ FT
CL STA. 16+00 TO CL STA. 23+00	1,528
TOTAL	1,528

WORK ZONE PAVEMENT MARKING REMOVAL	
LOCATION	SQ FT
STAGE I	963
STAGE II	965
TOTAL	1,928

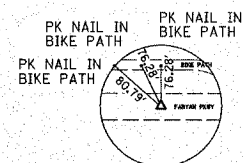
**HAMPTON, LENZINI & RENWICK, INC.**  
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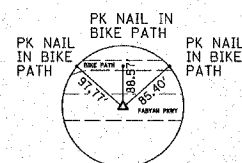
ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
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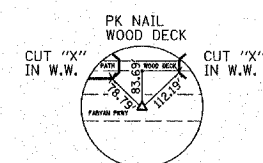
**SCHEDULE OF QUANTITIES**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY



P.C. STA. 13+02.48  
N. 3094.093332  
E. 3456.036034



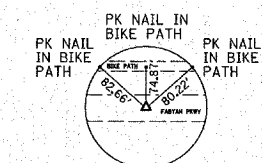
P.I. STA. 16+15.59  
N. 3171.670857  
E. 3759.389416



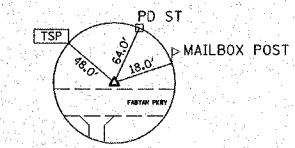
P.R.C. STA. 19+27.31  
N. 3297.733762  
E. 4046.007089



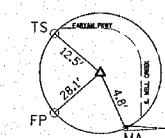
P.I. STA. 24+26.11  
N. 3498.55809  
E. 4502.597770



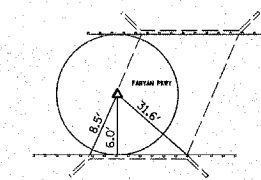
P.T. STA. 28+57.07  
N. 3266.930257  
E. 4944.360316



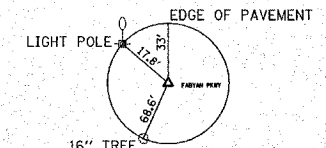
PK NAIL  
21.83' LT. STA. 8+37.35 (RAN #2)  
N. 3000.000000  
E. 3000.000000



"X" IN CONC.  
45.18' RT. STA. 13+86.22 (RAN #3)  
N. 3071.400000  
E. 3546.162000



PK NAIL  
24.51' RT. STA. 18+67.23 (RAN #4)  
N. 3251.395000  
E. 4000.340000



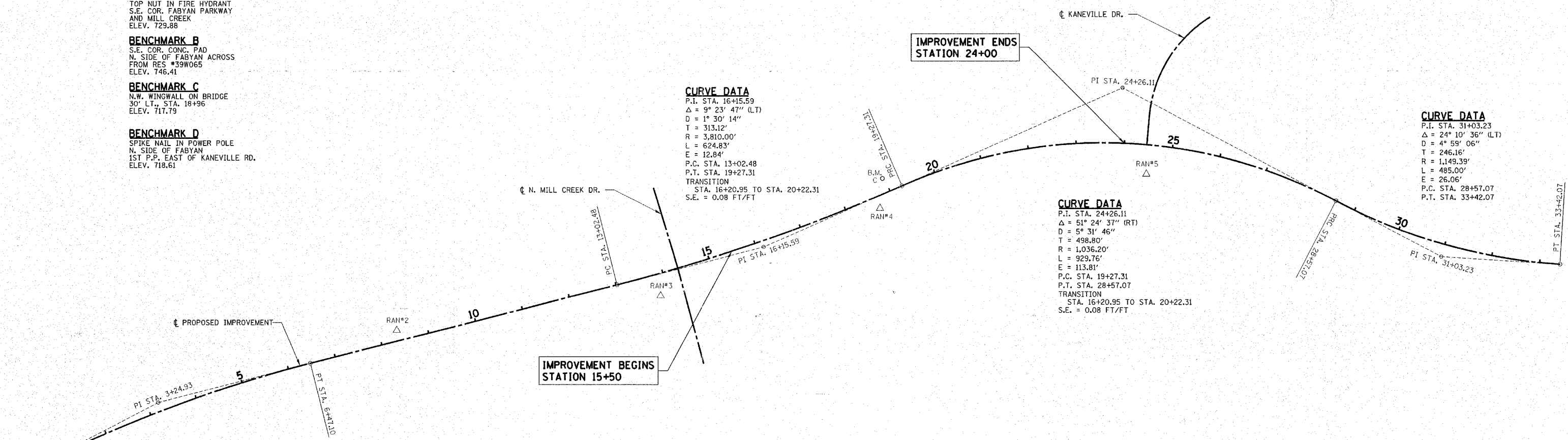
IR W/ CAP  
59.96' RT. STA. 24+50.97 (RAN #5)  
N. 3321.430000  
E. 4551.905000

- BENCHMARK A**  
TOP NUT IN FIRE HYDRANT  
S.E. COR. FABYAN PARKWAY  
AND MILL CREEK  
ELEV. 729.88
- BENCHMARK B**  
S.E. COR. CONC. PAD  
N. SIDE OF FABYAN ACROSS  
FROM RES #39W065  
ELEV. 746.41
- BENCHMARK C**  
N.W. WINGWALL ON BRIDGE  
30' LT., STA. 18+96  
ELEV. 717.79
- BENCHMARK D**  
SPIKE NAIL IN POWER POLE  
N. SIDE OF FABYAN  
1ST P.P. EAST OF KANEVILLE RD.  
ELEV. 718.61

**CURVE DATA**  
P.I. STA. 16+15.59  
 $\Delta = 9^\circ 23' 47''$  (LT)  
D = 1' 30' 14"  
T = 313.12'  
R = 3,810.00'  
L = 624.83'  
E = 12.84'  
P.C. STA. 13+02.48  
P.T. STA. 19+27.31  
TRANSITION  
STA. 16+20.95 TO STA. 20+22.31  
S.E. = 0.08 FT/FT

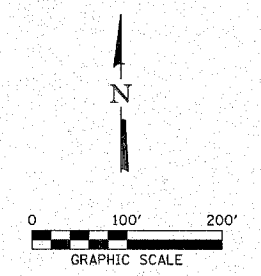
**CURVE DATA**  
P.I. STA. 24+26.11  
 $\Delta = 51^\circ 24' 37''$  (RT)  
D = 5' 31' 46"  
T = 498.80'  
R = 1,036.20'  
L = 929.76'  
E = 113.81'  
P.C. STA. 19+27.31  
P.T. STA. 28+57.07  
TRANSITION  
STA. 16+20.95 TO STA. 20+22.31  
S.E. = 0.08 FT/FT

**CURVE DATA**  
P.I. STA. 31+03.23  
 $\Delta = 24^\circ 10' 36''$  (LT)  
D = 4' 59' 06"  
T = 246.16'  
R = 1,149.39'  
L = 485.00'  
E = 26.06'  
P.C. STA. 28+57.07  
P.T. STA. 33+42.07



LOCATION	NORTHING	EASTING	STATION	OFFSET
P.C.	2,702.228216	2,217.522194	0+00.00	0'
P.I.	2,851.211362	2,506.288447	3+24.93	18.332382' LT.
P.T.	2,931.716878	2,821.091225	6+47.10	0'
P.C.	3,094.093332	3,456.036034	13+02.48	0'
P.I.	3,171.670857	3,759.389416	16+15.59	12.750048' RT.
P.R.C.	3,297.733762	4,046.007089	19+27.31	0'
P.I.	3,498.55809	4,502.597770	24+26.11	113.806702' LT.
P.R.C.	3,266.930257	4,944.360316	28+57.07	0'
P.I.	3,152.621193	5,162.373668	31+03.23	26.064652' RT.
P.T.	3,137.626135	5,408.079858	33+42.07	0'
W.P.#1	3,267.616621	3,975.891799	18+50.00	0.103637' RT.
W.P.#2	3,303.846620	4,060.457808	19+43.00	0.103641' RT.

**CURVE DATA**  
P.I. STA. 3+24.93  
 $\Delta = 12^\circ 56' 44''$  (RT)  
D = 2' 00' 02"  
T = 324.93'  
R = 2,864.00'  
L = 647.10'  
E = 18.37'  
P.C. STA. 0+00.00  
P.T. STA. 6+47.10



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(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1      DATE: 08/29/07  
DESIGNED: L.F.S.      CHECKED: S.W.M.      DRAWN: D.T.M.

**HORIZONTAL ALIGNMENT  
AND BENCHMARKS**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY

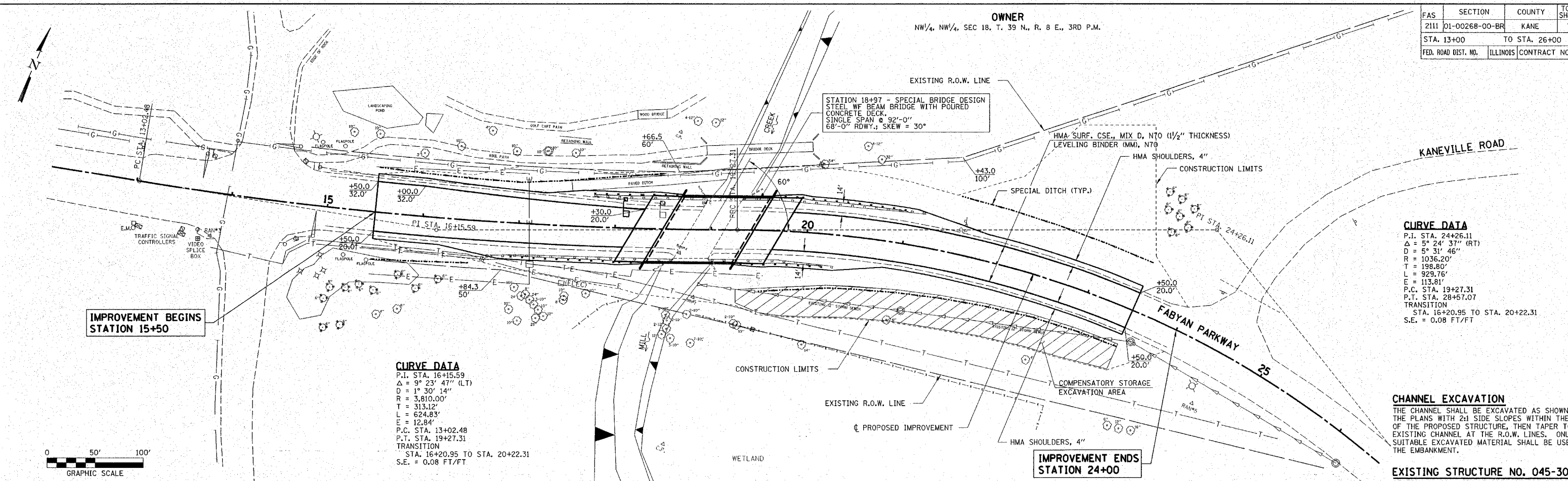


DATE  
BY  
SUBMITTED  
PLOTTED  
ALIGNMENT CHECKED  
NOTE BOOK  
NO.  
CADD FILE NAME

DATE  
BY  
SUBMITTED  
PLOTTED  
GRADES CHECKED  
NOTE BOOK  
NO.  
STRUCTURE NOTATIONS CADD

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2111	01-00268-00-BR	KANE	70	70
STA. 13+00		TO STA. 26+00		
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 83973		

OWNER  
NW 1/4, NW 1/4, SEC 18, T. 39 N., R. 8 E., 3RD P.M.



IMPROVEMENT BEGINS  
STATION 15+50

IMPROVEMENT ENDS  
STATION 24+00

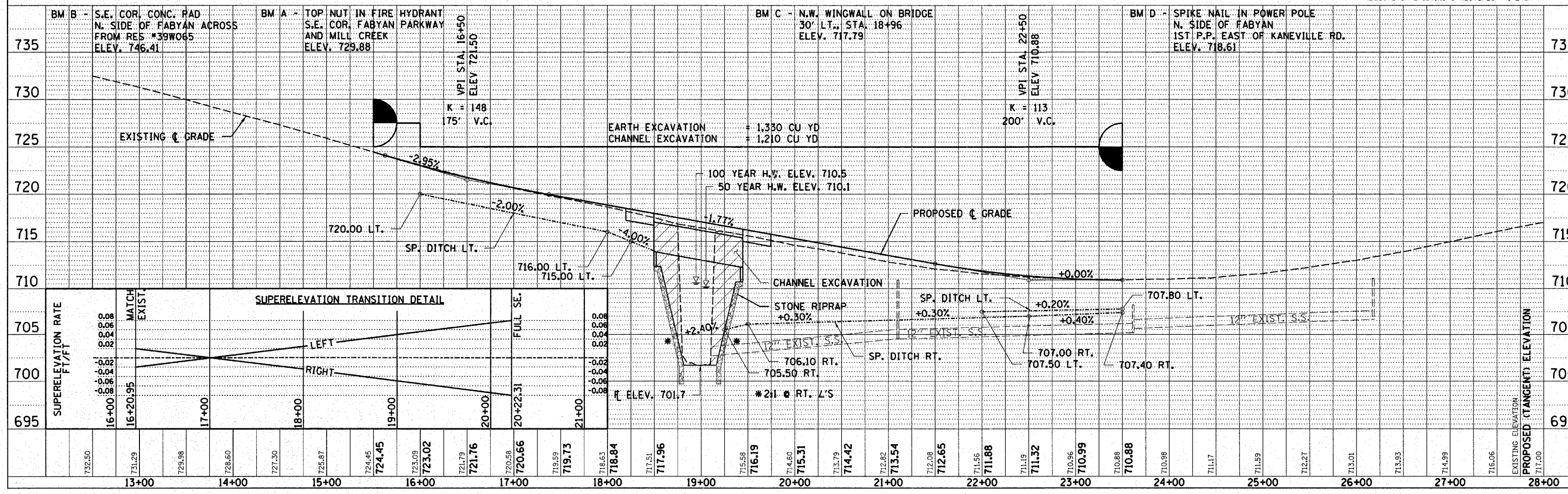
**CURVE DATA**  
P.I. STA. 16+15.59  
 $\Delta = 9^\circ 23' 47''$  (LT)  
 $D = 1^\circ 30' 14''$   
 $R = 3,810.00'$   
 $T = 313.12'$   
 $L = 624.83'$   
 $E = 12.84'$   
P.C. STA. 13+02.48  
P.T. STA. 19+27.31  
TRANSITION  
STA. 16+20.95 TO STA. 20+22.31  
S.E. = 0.08 FT/FT

**CURVE DATA**  
P.I. STA. 24+26.11  
 $\Delta = 5^\circ 24' 37''$  (RT)  
 $D = 5^\circ 31' 46''$   
 $R = 1036.20'$   
 $T = 198.80'$   
 $L = 929.76'$   
 $E = 113.81'$   
P.C. STA. 19+27.31  
P.T. STA. 28+57.07  
TRANSITION  
STA. 16+20.95 TO STA. 20+22.31  
S.E. = 0.08 FT/FT

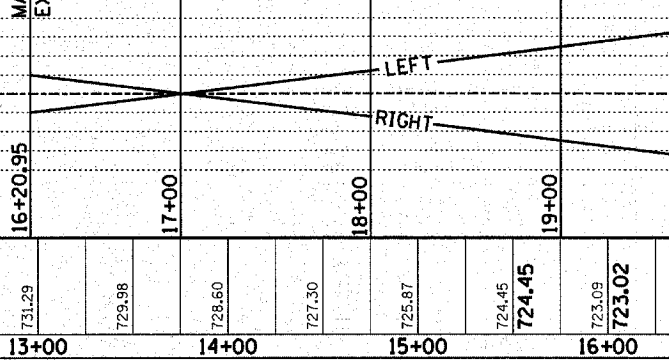
**CHANNEL EXCAVATION**  
THE CHANNEL SHALL BE EXCAVATED AS SHOWN IN THE PLANS WITH 2:1 SIDE SLOPES WITHIN THE LIMITS OF THE PROPOSED STRUCTURE, THEN TAPER TO THE EXISTING CHANNEL AT THE R.O.W. LINES. ONLY SUITABLE EXCAVATED MATERIAL SHALL BE USED IN THE EMBANKMENT.

**EXISTING STRUCTURE NO. 045-3008**  
STATION 18+98 - SINGLE PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE ON CLOSED CONCRETE ABUTMENTS AND WINGWALLS. 35'-0" P.C. ABUTTS; 60'-0" O-C DECK. REMOVAL OF EXISTING STRUCTURES = 1 EACH

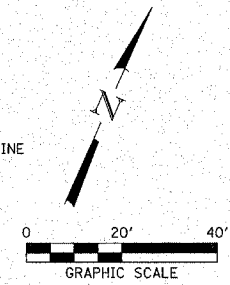
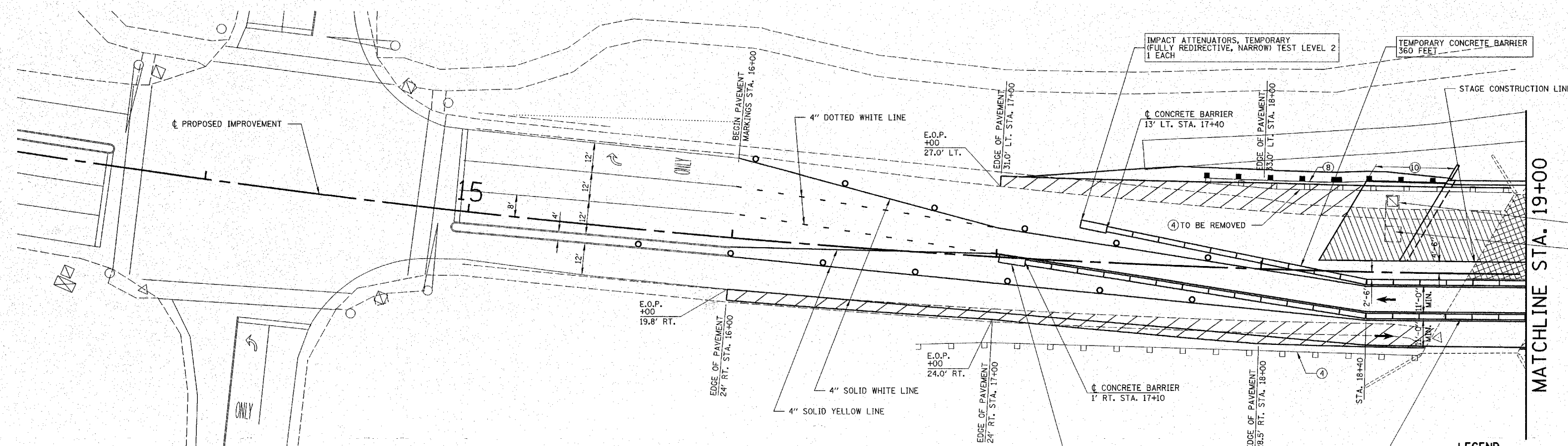
HARRIS BANK OF ST. CHARLES  
TRUST NO. LT-1996  
NW 1/4, NW 1/4, SEC 18, T. 39 N., R. 8 E., 3RD P.M.



**SUPERELEVATION TRANSITION DETAIL**



EXISTING ELEVATION  
PROPOSED (TANGENT) ELEVATION

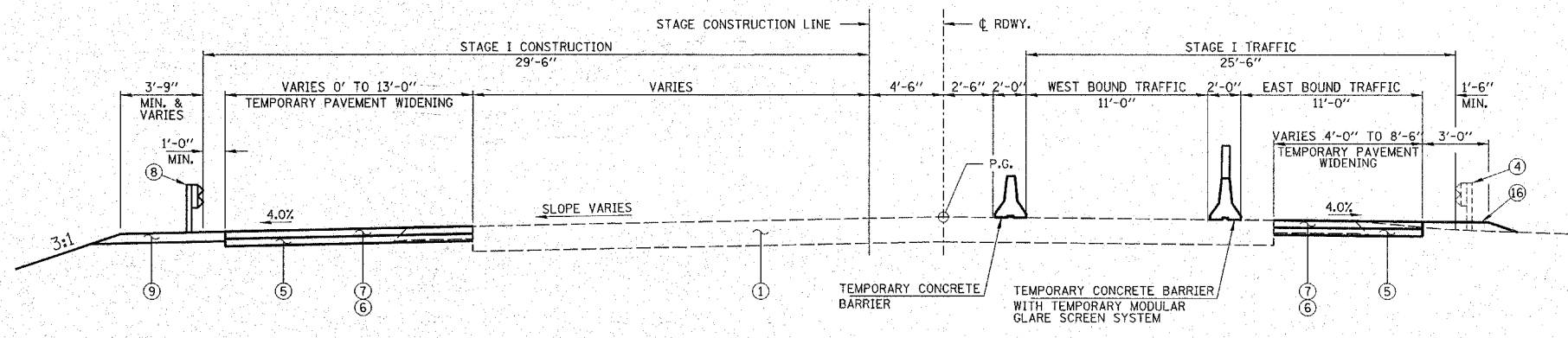
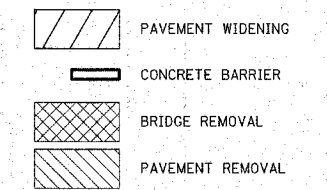


**LEGEND**

- ① EXISTING HOT-MIX ASPHALT PAVEMENT
- ② EXISTING 8" HOT-MIX ASPHALT SHOULDER
- ③ EXISTING 8" AGGREGATE SHOULDER
- ④ EXISTING STEEL PLATE BEAM GUARDRAIL
- ⑤ SUB-BASE GRANULAR MATERIAL, TYPE A (4" THICKNESS)
- ⑥ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 (6½" THICKNESS)
- ⑦ HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70 (1½" THICKNESS)
- ⑧ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
- ⑨ TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑩ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑪ GUARDRAIL AGGREGATE EROSION CONTROL (6" THICKNESS)
- ⑫ BRIDGE APPROACH PAVEMENT
- ⑬ HOT-MIX ASPHALT SHOULDERS (4" THICKNESS)
- ⑭ HOT-MIX ASPHALT SURFACE REMOVAL, BUTT-JOINT
- ⑮ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑯ TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
- ⑰ STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑱ TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑲ LEVELING BINDER (MACHINE METHOD), N70 (¾" AND VARIES)
- ⑳ AGGREGATE SHOULDERS, TYPE B
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT AT 35' SPACING

**NOTES:**

- 1) TEMPORARY GUARDRAIL ON LEFT SHALL BE CONSTRUCTED BEFORE TRAFFIC IS SHIFTED TO STAGE II LANES.
- 2) OFFSETS SHOWN ARE FROM  $\phi$  PROPOSED IMPROVEMENT.
- 3) PAVEMENT REMOVAL SHALL BE TO TOP OF EXISTING GRANULAR SUB GRADE OR AS DIRECTED BY ENGINEER.
- 4) ALL PAVEMENT MARKINGS USED DURING STAGE TRAFFIC SHALL BE INCLUDED IN TEMPORARY PAVEMENT MARKING.



**TYPICAL CROSS SECTION (STAGE I)**  
STA. 16+00 TO STA. 18+79

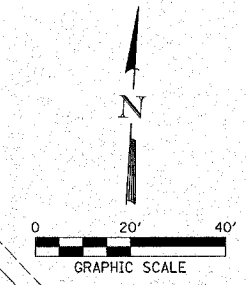
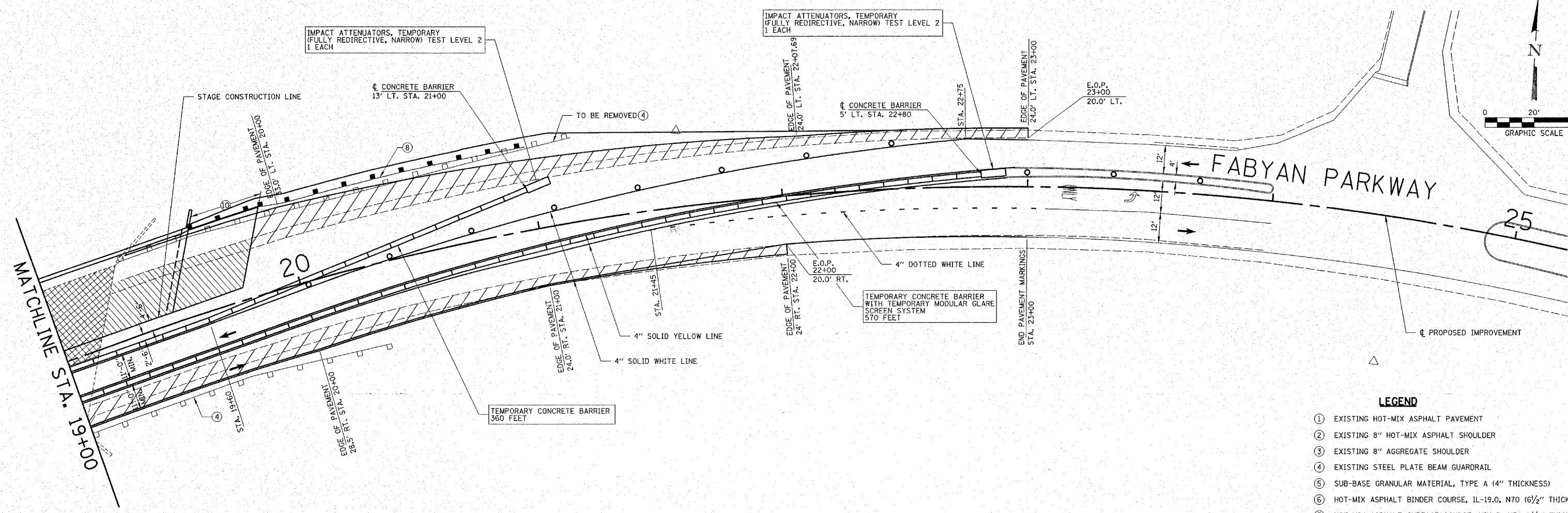
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 548-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
DESIGNED: L.F.S.    CHECKED: S.W.M.    DRAWN: D.T.M.

**MAINTENANCE OF TRAFFIC  
STAGE I**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY

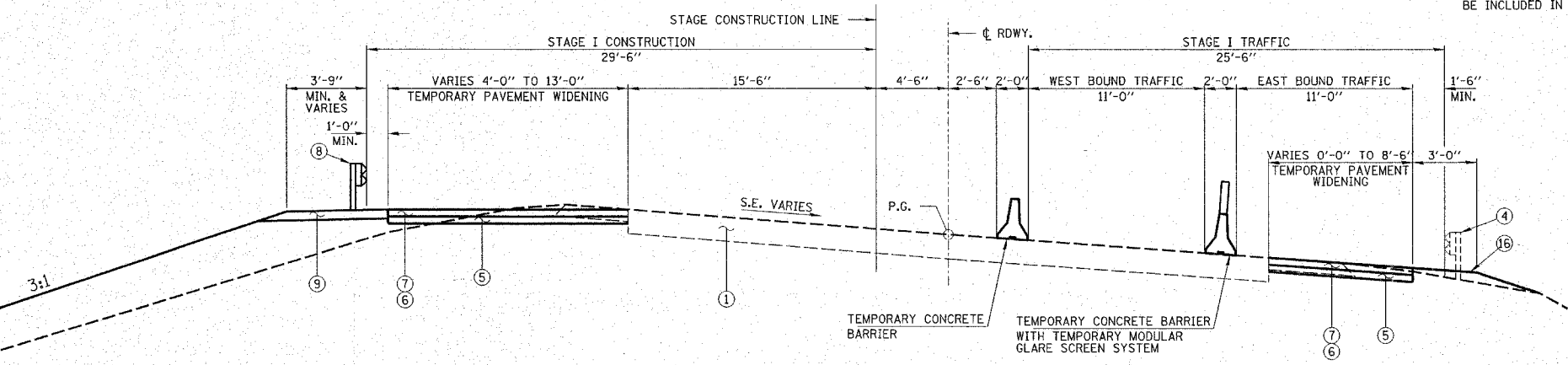


**LEGEND**

- ① EXISTING HOT-MIX ASPHALT PAVEMENT
- ② EXISTING 8" HOT-MIX ASPHALT SHOULDER
- ③ EXISTING 8" AGGREGATE SHOULDER
- ④ EXISTING STEEL PLATE BEAM GUARDRAIL
- ⑤ SUB-BASE GRANULAR MATERIAL, TYPE A (4" THICKNESS)
- ⑥ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 (6 1/2" THICKNESS)
- ⑦ HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70 (1 1/2" THICKNESS)
- ⑧ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
- ⑨ TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑩ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑪ GUARDRAIL AGGREGATE EROSION CONTROL (6" THICKNESS)
- ⑫ BRIDGE APPROACH PAVEMENT
- ⑬ HOT-MIX ASPHALT SHOULDERS (4" THICKNESS)
- ⑭ HOT-MIX ASPHALT SURFACE REMOVAL, BUTT-JOINT
- ⑮ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑯ TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
- ⑰ STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑱ TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑲ LEVELING BINDER (MACHINE METHOD), N70 (3/4" AND VARIES)
- ⑳ AGGREGATE SHOULDERS, TYPE B
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT AT 35' SPACING

**NOTES:**

- 1) TEMPORARY GUARDRAIL ON LEFT SHALL BE CONSTRUCTED BEFORE TRAFFIC IS SHIFTED TO STAGE II LANES.
- 2) OFFSETS SHOWN ARE FROM  $\phi$  PROPOSED IMPROVEMENT.
- 3) PAVEMENT REMOVAL SHALL BE TO TOP OF EXISTING GRANULAR SUB GRADE OR AS DIRECTED BY ENGINEER.
- 4) ALL PAVEMENT MARKINGS USED DURING STAGE TRAFFIC SHALL BE INCLUDED IN SHORT TERM PAVEMENT MARKINGS.



**TYPICAL CROSS SECTION (STAGE I)**  
STA. 19+17 TO STA. 23+00

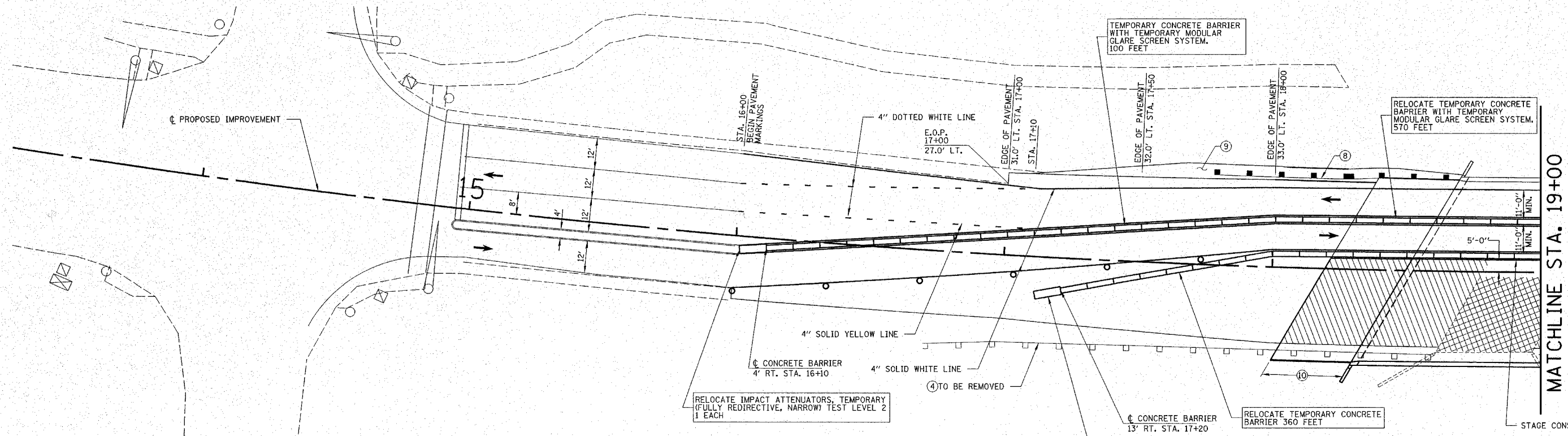
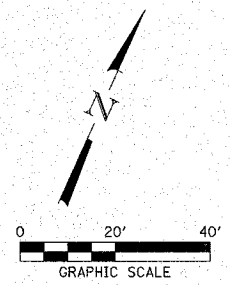
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
DESIGNED: L.F.S.    CHECKED: S.W.M.    DRAWN: D.T.M.

**MAINTENANCE OF TRAFFIC  
STAGE 1**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY

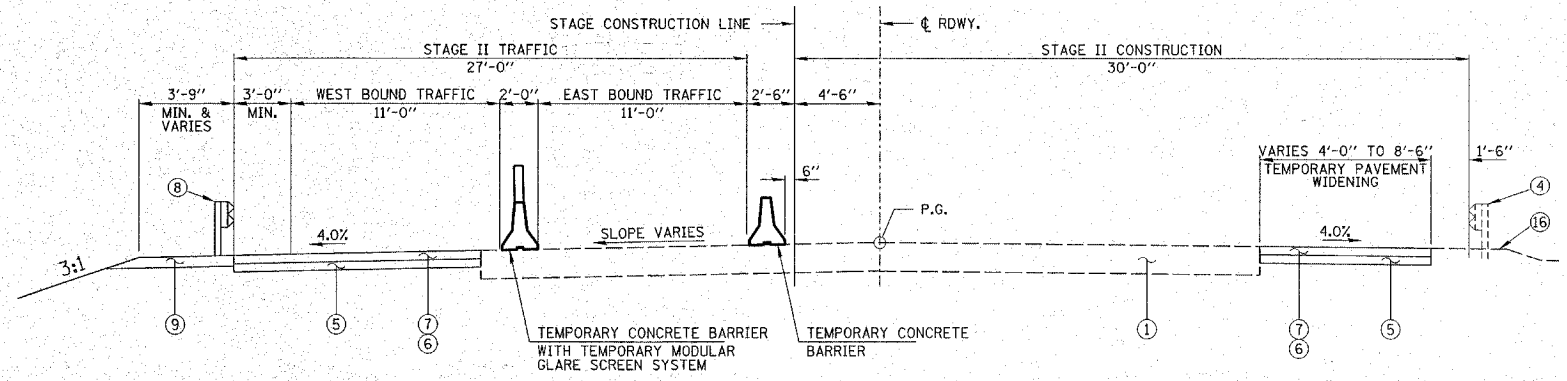


**LEGEND**

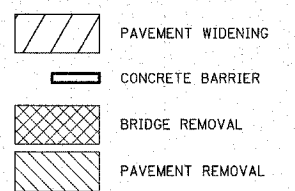
- ① EXISTING HOT-MIX ASPHALT PAVEMENT
- ② EXISTING 8" HOT-MIX ASPHALT SHOULDER
- ③ EXISTING 8" AGGREGATE SHOULDER
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- ⑤ SUB-BASE GRANULAR MATERIAL, TYPE A (4" THICKNESS)
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- ⑦ HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70 (1 1/2" THICKNESS)
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- ⑩ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑪ GUARDRAIL AGGREGATE EROSION CONTROL (6" THICKNESS)
- ⑫ BRIDGE APPROACH PAVEMENT
- ⑬ HOT-MIX ASPHALT SHOULDERS (4" THICKNESS)
- ⑭ HOT-MIX ASPHALT SURFACE REMOVAL, BUTT-JOINT
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- ⑱ TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑲ LEVELING BINDER (MACHINE METHOD), N70 (3/4" AND VARIES)
- ⑳ AGGREGATE SHOULDERS, TYPE B
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT AT 35' SPACING

**NOTES:**

- 1) TEMPORARY GUARDRAIL ON LEFT SHALL BE CONSTRUCTED BEFORE TRAFFIC IS SHIFTED TO STAGE II LANES.
- 2) OFFSETS SHOWN ARE FROM  $\phi$  PROPOSED IMPROVEMENT.
- 3) PAVEMENT REMOVAL SHALL BE TO TOP OF EXISTING GRANULAR SUB GRADE OR AS DIRECTED BY ENGINEER.
- 4) ALL PAVEMENT MARKINGS USED DURING STAGE TRAFFIC SHALL BE INCLUDED IN SHORT TERM PAVEMENT MARKINGS.



**TYPICAL CROSS SECTION (STAGE II)**  
STA. 16+00 TO STA. 18+19.56



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CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

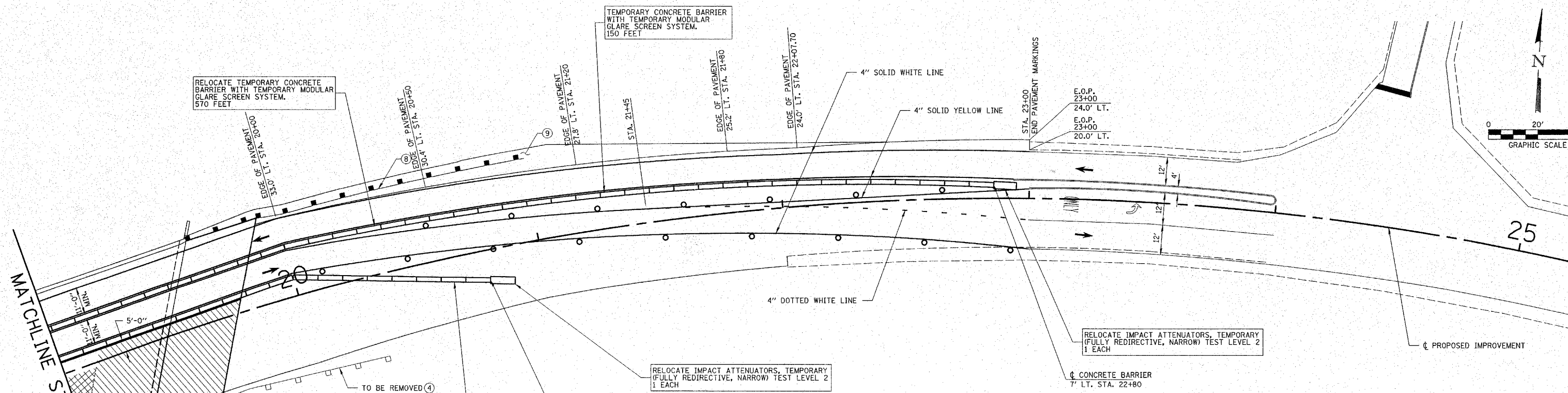
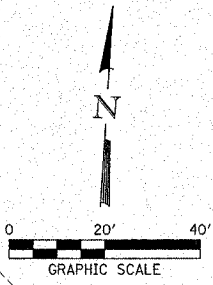
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
DESIGNED: L.F.S.    CHECKED: S.W.M.    DRAWN: D.T.M.

**MAINTENANCE OF TRAFFIC  
STAGE 2**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SH
F.A.S. 2111	01-00268-00-BR	KANE	70	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	

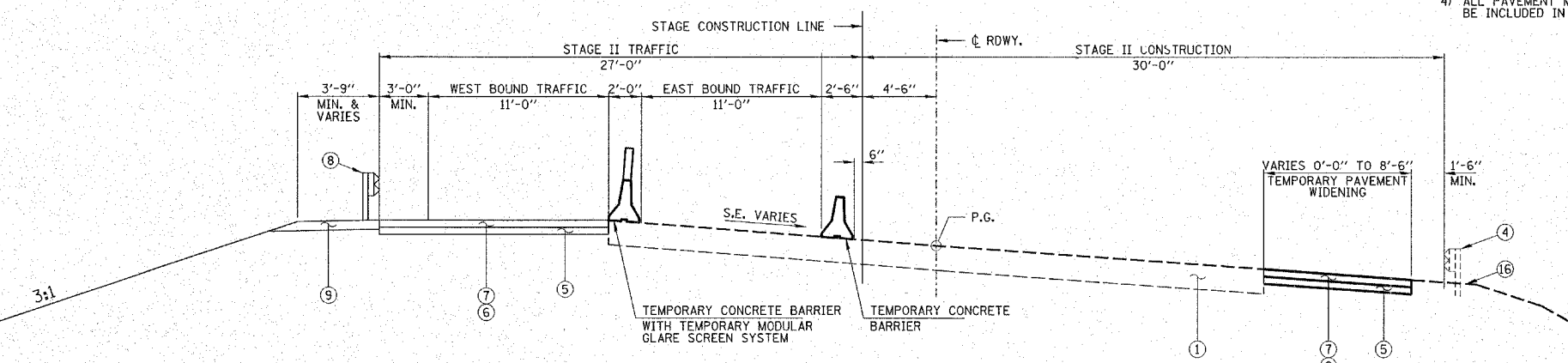


**LEGEND**

- ① EXISTING HOT-MIX ASPHALT PAVEMENT
- ② EXISTING 8" HOT-MIX ASPHALT SHOULDER
- ③ EXISTING 8" AGGREGATE SHOULDER
- ④ EXISTING STEEL PLATE BEAM GUARDRAIL
- ⑤ SUB-BASE GRANULAR MATERIAL, TYPE A (4" THICKNESS)
- ⑥ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 (6 1/2" THICKNESS)
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- ⑩ TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑪ GUARDRAIL AGGREGATE EROSION CONTROL (6" THICKNESS)
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- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT AT 35' SPACING

**NOTES:**

- 1) TEMPORARY GUARDRAIL ON LEFT SHALL BE CONSTRUCTED BEFORE TRAFFIC IS SHIFTED TO STAGE II LANES.
- 2) OFFSETS SHOWN ARE FROM  $\phi$  PROPOSED IMPROVEMENT.
- 3) PAVEMENT REMOVAL SHALL BE TO TOP OF EXISTING GRANULAR SUB GRADE OR AS DIRECTED BY ENGINEER.
- 4) ALL PAVEMENT MARKINGS USED DURING STAGE TRAFFIC SHALL BE INCLUDED IN SHORT TERM PAVEMENT MARKINGS.



**TYPICAL CROSS SECTION (STAGE II)**  
STA. 19+74.44 TO STA. 23+00

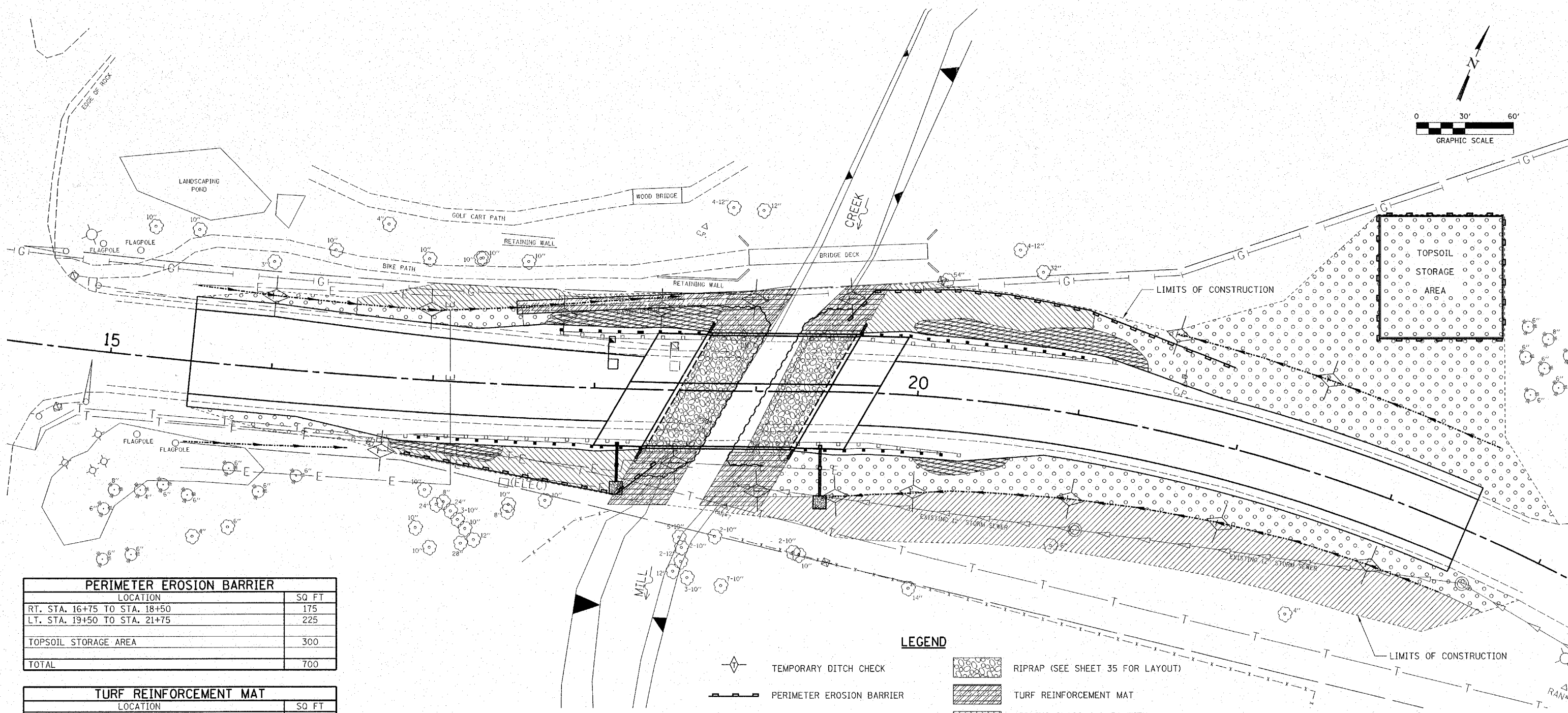
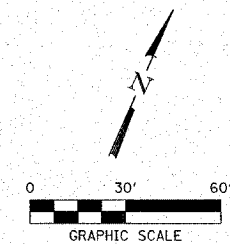
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
DESIGNED: L.P.S.    CHECKED: S.W.M.    DRAWN: D.T.M.

**MAINTENANCE OF TRAFFIC  
STAGE 2**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY



PERIMETER EROSION BARRIER	
LOCATION	SQ FT
RT. STA. 16+75 TO STA. 18+50	175
LT. STA. 19+50 TO STA. 21+75	225
TOPSOIL STORAGE AREA	300
<b>TOTAL</b>	<b>700</b>

TURF REINFORCEMENT MAT	
LOCATION	SQ FT
LT. STA. 17+50 TO 18+80	116
NW CORNER OF BRIDGE	121
SW CORNER OF BRIDGE	143
SE CORNER OF BRIDGE	115
NE CORNER OF BRIDGE	109
<b>TOTAL</b>	<b>604</b>

FURNISH & PLACE TOPSOIL 4"		
LOCATION	SQ YD	
STA. 15+50 TO STA. 24+00	4943	
<b>TOTAL</b>	<b>4943</b>	

**LEGEND**

- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- TEMPORARY COFFERDAM
- SEEDING CLASS 2A (SPECIAL) WITH EROSION CONTROL BLANKET
- RIPRAP (SEE SHEET 35 FOR LAYOUT)
- TURF REINFORCEMENT MAT
- SEEDING CLASS 4 & 5A WITH EROSION CONTROL BLANKET
- SEEDING CLASS 4B & 5B MULCH METHOD 2
- PERENNIAL PLANTS, QUART POT MULCH (SEE SPECIAL PROVISIONS)

NOTES: TEMPORARY DITCH CHECKS = 16  
 LOCATION TO BE DETERMINED BY THE ENGINEER.

EROSION CONTROL BLANKET SHALL BE EXCELSIOR BLANKET OR UNITED STRAW MAT AS PER ARTICLE 1081.10.

LOCATION	SEEDING CLASS 2A (SPECIAL)	SEEDING CLASS 4	SEEDING CLASS 4B	SEEDING CLASS 5A	SEEDING CLASS 5B	NITROGEN FERTILIZER NUTRIENT 90 LBS/ACRE	PHOSPHORUS FERTILIZER NUTRIENT 90 LBS/ACRE	POTASSIUM FERTILIZER NUTRIENT 90 LBS/ACRE	MULCH METHOD 2	EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING *	PERENNIAL PLANTS, QUART POT
	ACRES	ACRES	ACRES	ACRES	ACRES	LBS	LBS	LBS	ACRES	SQ YD	LBS	UNIT
RT. STA. 15+00 TO RT STA. 18+49.62	0.1	0.1		0.1		9	9	9		394	120	211
LT. STA. 15+00 TO LT STA. 18+49.62	0.1	0.1		0.1		9	9	9		491	120	516
RT. STA. 19+44.49 TO RT STA. 24+00	0.2		0.3		0.3	18	18	18	0.6	1,016	320	186
LT. STA. 19+44.49 TO LT STA. 24+00	0.5	0.1		0.1		54	54	54		3,152	320	737
TOPSOIL STORAGE AREA	0.1										40	
<b>TOTAL</b>	<b>1.0</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>0.6</b>	<b>5,053</b>	<b>920</b>	<b>1,650</b>

\* 100 LBS/ACRE FOR 4 APPLICATIONS

**HAMPTON, LENZINI & RENWICK, INC.**  
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 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 09/18/07  
 DESIGNED: L.F.S.    CHECKED: S.W.M.    DRAWN: D.T.M.

**EROSION CONTROL PLAN**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 2111	01-00268-00-BR	KANE	70	15
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 83973	

# EROSION CONTROL PLAN & STORMWATER POLLUTION PREVENTION PLAN

THIS PROJECT DISTURBS 2.5 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS NECESSARY IF A PROJECT DISTURBS 1 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES STORMWATER PERMIT WILL BE REQUIRED FOR THIS PROJECT.

## STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THE PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN THE STANDARD 280001 OF THE PLANS.

SECTION 280, TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS ADDITIONALLY SUPPLEMENTS THIS PLAN.

## SITE DESCRIPTION

### DESCRIPTION OF CONSTRUCTION ACTIVITY:

1. THE PROJECT CONSISTS OF WIDENING AND RECONSTRUCTION F.A.S. 2111 TO PROVIDE AN IMPROVED BRIDGE CROSSING.
2. CONSTRUCTION INCLUDES EARTH EXCAVATION, EMBANKMENT, INSTREAM WORK, VARIOUS BRIDGE ITEMS AND OTHER MISCELLANEOUS ITEMS OF CONSTRUCTION.

### DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. ISOLATED TREE REMOVAL AS SHOWN ON THE PLANS. TREES TO REMAIN WILL BE PROTECTED AGAINST DAMAGE.
2. PLACEMENT OF TEMPORARY EROSION CONTROL, SUCH AS PERIMETER EROSION BARRIER, TEMPORARY DITCH CHECKS, MAINTENANCE OF EROSION CONTROL AND PLACEMENT OF TEMPORARY SEEDING AS NEEDED DURING CONSTRUCTION.
3. EXCAVATION AND EMBANKMENT WILL BE COMPLETED ALONG THE JOB SITE TO GRADE OUT FOR THE PROPOSED ROADWAY WIDENING.
4. INSTALL COFFERDAMS TO DIVERT FLOW AROUND BRIDGE CONSTRUCTION.
5. BRIDGE CONSTRUCTION
6. CONSTRUCT FINAL EMBANKMENT DITCHES.
7. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS RIPRAP, AND SEEDING, ETC.
8. REMOVAL OF TEMPORARY EROSION CONTROL.

### AREA OF CONSTRUCTION SITE:

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 3.1 ACRES OF WHICH 2.5 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.

### OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.
2. PROJECT PLAN DOCUMENTS, SPECIFICATIONS AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

## DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

1. MILL CREEK

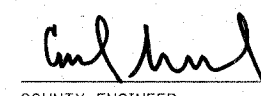
### CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL

DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

1. THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION, AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
  - (a.) AREAS OF EXISTING VEGETATION (WOOD AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.
  - (b.) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.
  - (c.) AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET AND PIPE PROTECTION, AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.
  - (d.) BARE AND SPARSELY VEGETATED GROUND IN HIGH ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS. AS DIRECTED BY THE ENGINEER.
  - (e.) IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED, AREAS WHICH ARE HIGHLY ERODIBLE AS DETERMINED BY THE ENGINEER, SHALL BE TEMPORARILY SEEDED WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.
  - (f.) AT LOCATIONS WHERE A SIGNIFICANT AMOUNT OF WATER DRAINS INTO THE CONSTRUCTION ZONE FROM OUTSIDE AREAS (ADJACENT LANDOWNERS), TEMPORARY DITCH CHECKS WILL BE UTILIZED TO LOCALLY DIVERT WATER, REDUCE FLOW RATES, AND COLLECT OUTSIDE SILTATION INSIDE THE RIGHT-OF-WAY LINE.
2. ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING / MOWING AND OVERSEEDING CAN BE COMPLETED.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

  
COUNTY ENGINEER

August 28 2007

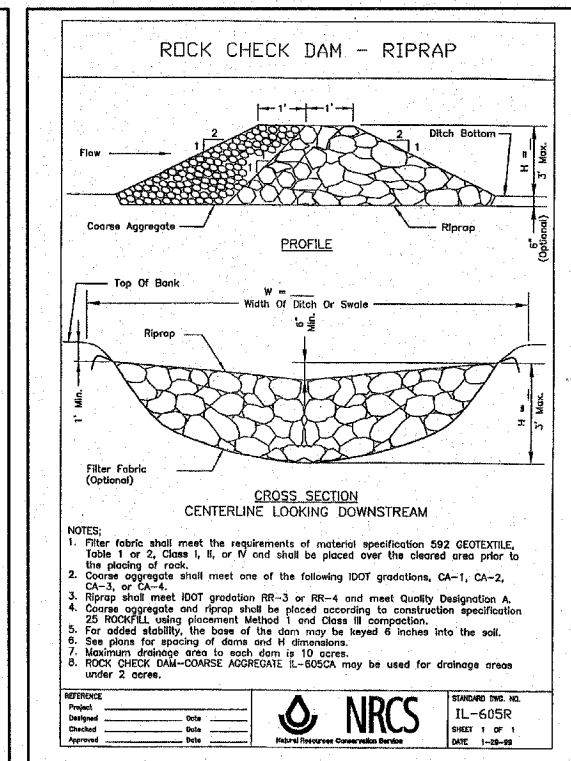
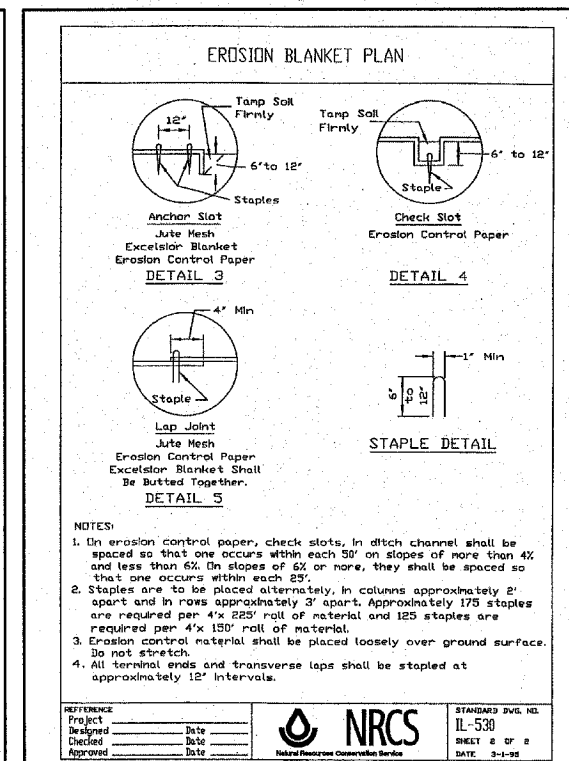
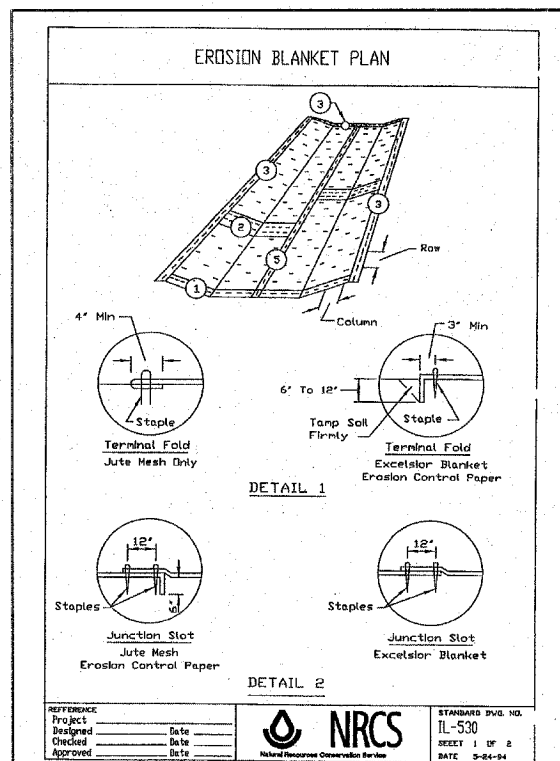
DATE

<b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	
ELGIN • SPRINGFIELD	
PROJECT NUMBER: 12-05-0050-1	DATE: 08/27/07
DESIGNED: L.F.S.	CHECKED: S.W.M. DRAWN: D.T.M.

**EROSION CONTROL PLAN**  
**SECTION 01-00268-00-BR**  
**F.A.S. 2111 / FABYAN PARKWAY**  
**KANE COUNTY**

### DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
  - (a.) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
  - (b.) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS. STOCKPILES MAY NOT BE LOCATED IN THE FLOODPLAIN.
  - (c.) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:
    - I. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
    - II. TEMPORARILY SEED ERODIBLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
    - III. CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
    - IV. INSTALL COFFERDAMS TO DIVERT WATER AROUND CONSTRUCTION AREAS.
    - V. CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE AT THE SAME TIME, PLACING PERMANENT EROSION CONTROL SUCH AS RIPRAP DITCH LINING AND CONDUCTING FINAL SHAPING TO THE SLOPES.
  - (d.) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR 7 DAYS.
  - (e.) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OF OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
  - (f.) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.
  - (g.) THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THE REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.



### DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

1. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF AREA SEEDED.

### MAINTENANCE AFTER CONSTRUCTION:

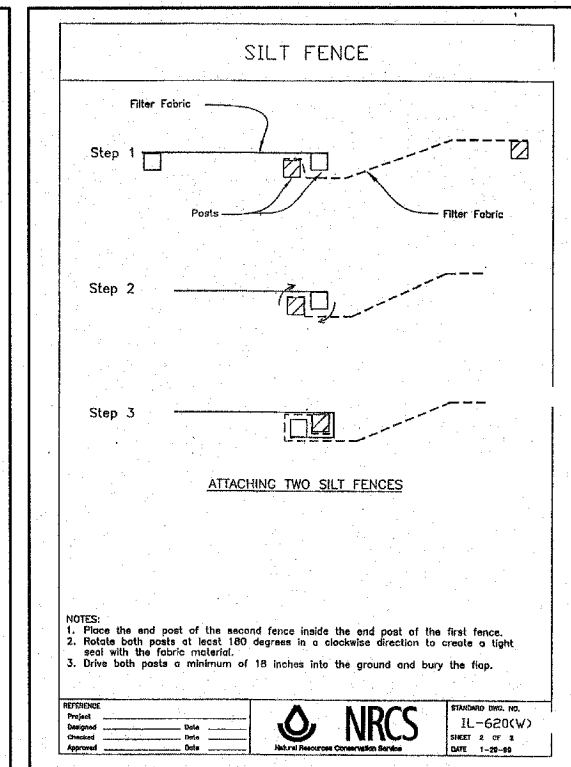
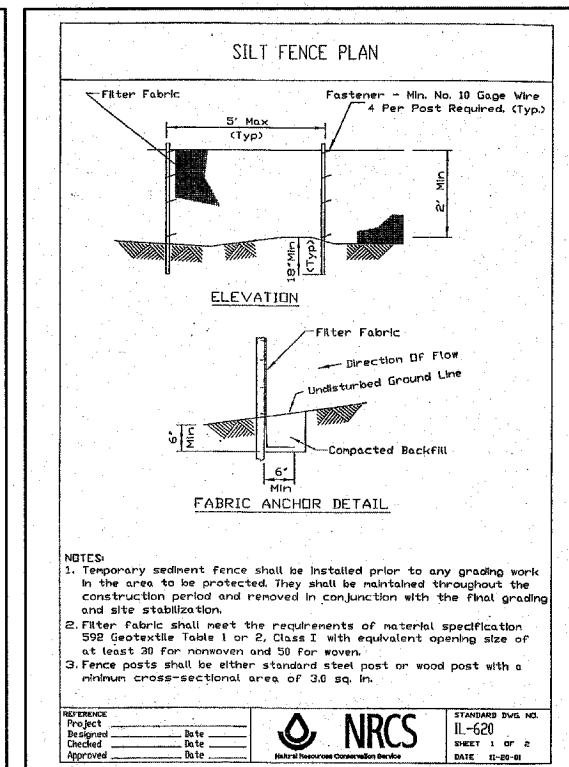
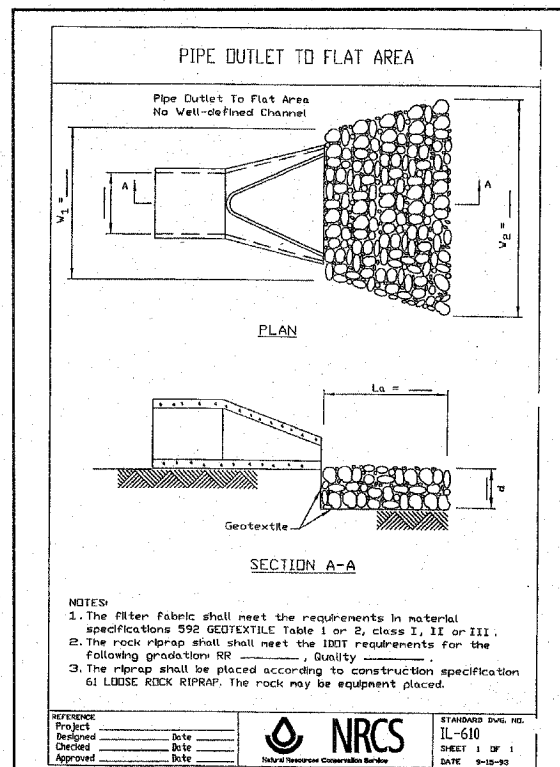
1. CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE BY I.D.O.T. & K.D.O.T. FINAL INSPECTION. MAINTENANCE UP TO THIS DATE WILL BE BY THE CONTRACTOR.

### MISCELLANEOUS:

1. TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 1.5 FT. FALL / RISE IN DITCH GRADE.
2. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS. / ACRE.
3. STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE FOAM / GEOTEXTILE (SILT WEDGES), AND / OR ANY OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.
4. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION FOR EROSION CONTROL.
5. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

### COFFERDAMS:

1. COFFERDAMS SHALL BE CONSTRUCTED OF NON-ERODIBLE MATERIAL AND SHALL BE CONSTRUCTED TO WITHSTAND EXPECTED HIGH FLOWS. PRIOR TO INSTALLATION OF THE COFFERDAMS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OBTAIN APPROVAL OF THE MATERIAL TO BE UTILIZED.
2. THE COFFERDAMS WILL BE INSTALLED TO PROHIBIT THE RELEASE OF SEDIMENT INTO THE WATERWAY.
3. THE COFFERDAMS SHALL NOT BE INSTALLED IN A MANNER WHICH COMPLETELY BLOCKS FLOW IN THE STREAM OR INHIBITS MOVEMENT OF AQUATIC SPECIES.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO OPERATE, MOVE OR MAINTAIN CONSTRUCTION EQUIPMENT FROM THE STREAM BOTTOM.



**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

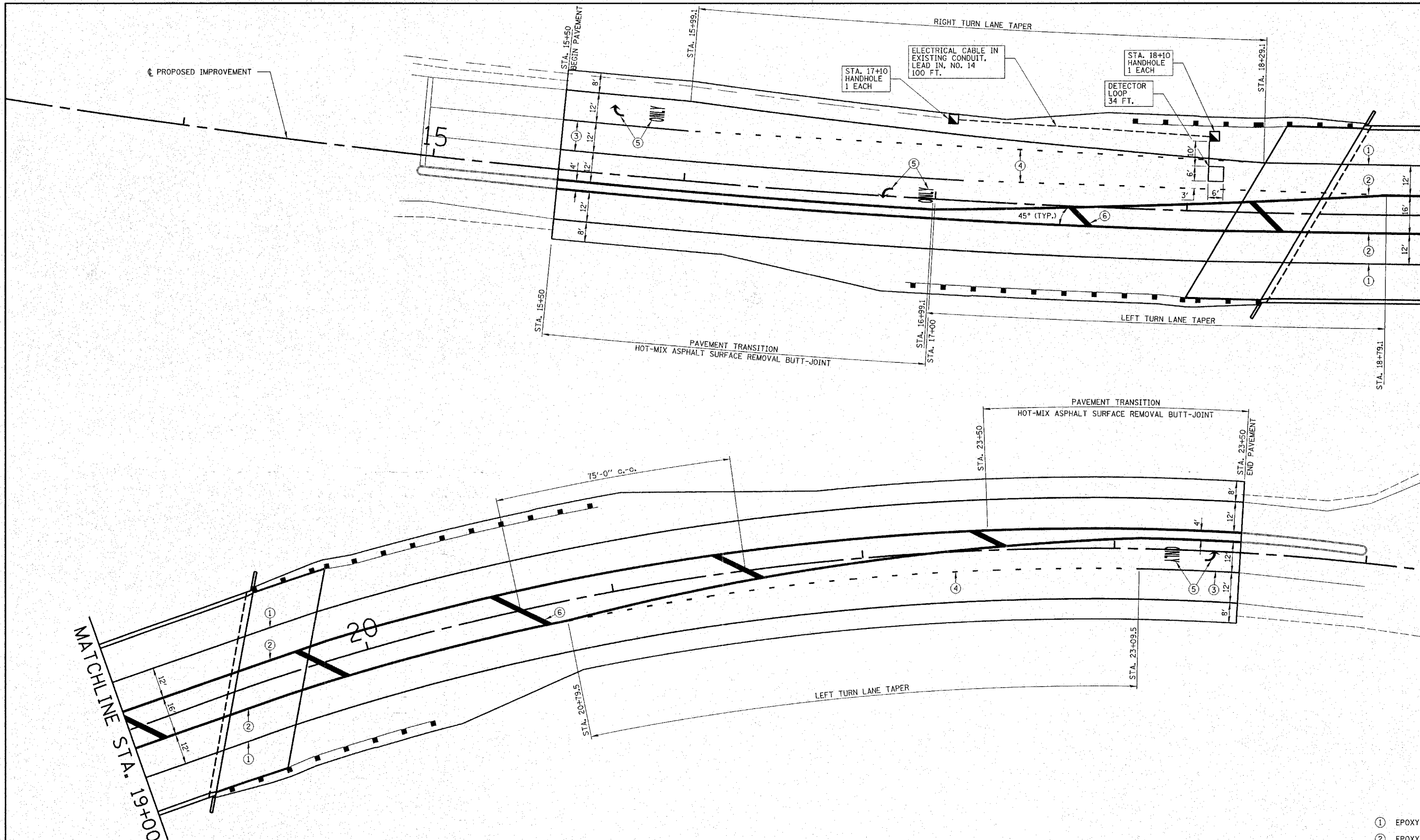
3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1      DATE: 08/29/07  
 DESIGNED: L.F.S.      CHECKED: S.W.M.      DRAWN: D.T.M.

**EROSION CONTROL PLAN**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY





MATCHLINE STA. 19+00

**LEGEND**

- ① EPOXY PAVEMENT MARKING LINE 4" (SINGLE WHITE)
- ② EPOXY PAVEMENT MARKING LINE 4" (DOUBLE YELLOW)
- ③ EPOXY PAVEMENT MARKING 6" (SINGLE WHITE)
- ④ EPOXY PAVEMENT MARKING LINE (DOTTED WHITE)
- ⑤ EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS SEE DISTRICT 1 TYPICAL PAVEMENT MARKINGS FOR SPACING
- ⑥ EPOXY PAVEMENT MARKING LINE 12" (SINGLE YELLOW)

LOCATION	EPOXY PAVEMENT MARKING						TEMPORARY PAINT PAVEMENT MARKING					
	LINE 4" SOLID WHITE	LINE 4" SOLID YELLOW	LINE 6" SOLID WHITE	LINE 6" DOTTED WHITE	LINE 12" SOLID YELLOW	LETTERS AND SYMBOLS	LINE 4" SOLID WHITE	LINE 4" SOLID YELLOW	LINE 6" SOLID WHITE	LINE 6" DOTTED WHITE	LINE 12" SOLID YELLOW	LETTERS AND SYMBOLS
	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT
RT. STA. 15+50 TO STA. 23+50	800						1600					
LT. STA. 15+50 TO STA. 23+50	800						1600					
CL. STA. 15+50 TO STA. 23+50		3200						6400				
8' LT. STA. 15+50 TO STA. 12+11			161						298			
8' LT. STA. 17+11 TO STA. 18+79.10				42					90			
20' LT. STA. 15+50 TO STA. 15+99.10			49						98			
20' LT. STA. 15+99.10 TO STA. 18+29.10				58					115			
8' RT. STA. 20+79.50 TO STA. 23+09.50				58					115			
8' RT. STA. 23+09.50 TO STA. 23+50			41					82				
MEDIAN DIAGONALS					135					270		
STA. 15+50 TO STA. 23+50						109						218
SUBTOTAL	1600	3200	251	158	135	109	3200	6400	478	320	270	218
TOTAL		4800		409	135	109		9600		798	270	218

NOTE: TEMPORARY PAINT PAVEMENT MARKINGS TO BE USED DURING RESURFACING SHALL BE THE SAME DESIGN AS THE FINAL EPOXY PAINT PAVEMENT MARKINGS.

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

**HLR**

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
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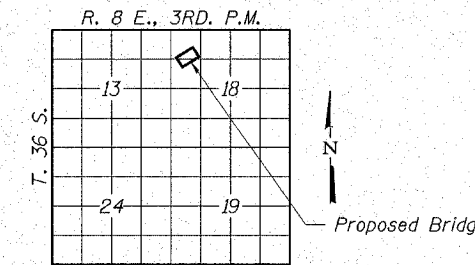
PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
 DESIGNED: L.F.S.    CHECKED: S.W.M.    DRAWN: D.T.M.

**FINAL ROADWAY AND PAVEMENT MARKING PLAN**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY

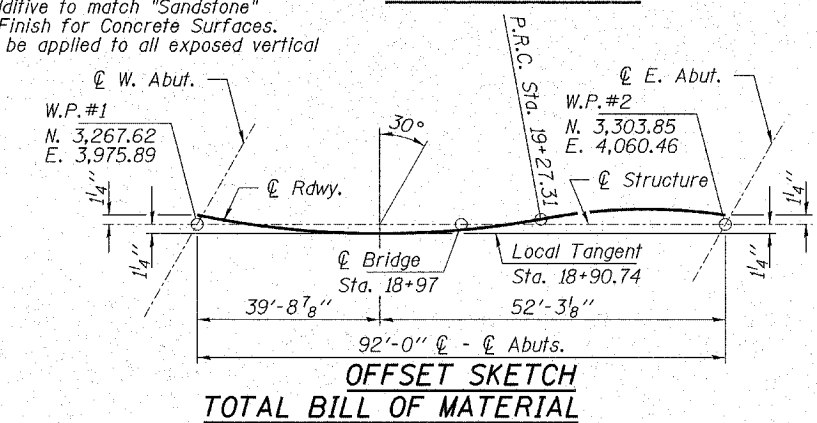
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SH. N.
F.A.S. 2111	01-00268-00-BR	KANE	70	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	

MILL CREEK  
 BUILT 200\_ BY  
 KANE COUNTY  
 SEC. 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 F.A. PROJ. BRS-2111(103)  
 STR. NO. 045-3019 / LOADING HS 20

**NAME PLATE**  
 See Std. 515001



**LOCATION SKETCH**

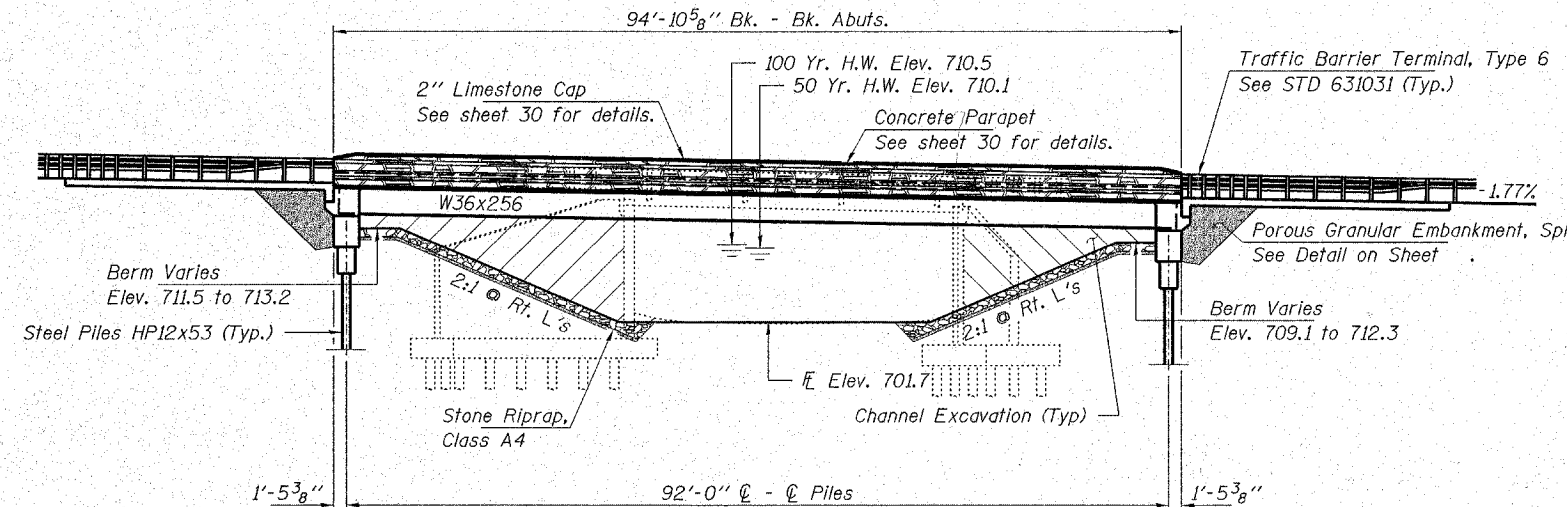


**OFF SET SKETCH**  
**TOTAL BILL OF MATERIAL**

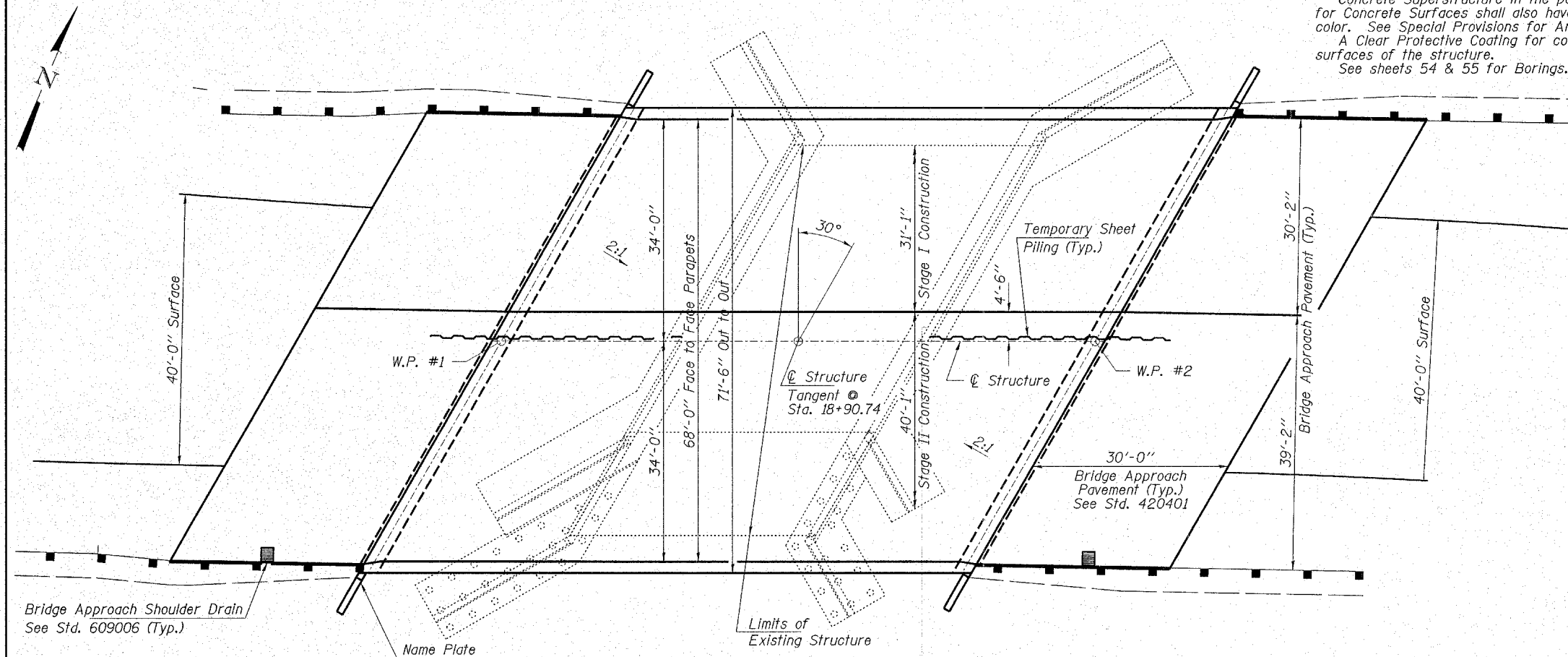
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Ton		515	515
Stone Riprap, Class A4	Ton		1,000	1,000
Bridge Approach Pavement	Sq. Yd.	462		462
Removal of Existing Structures	Each		1	1
Cofferdams	Each		2	2
Concrete Structures	Cu. Yd.		75.0	75.0
Concrete Superstructure	Cu. Yd.	267.9		267.9
Bridge Deck Grooving	Sq. Yd.	717		717
Concrete Encasement	Cu. Yd.		11.2	11.2
Protective Coat	Sq. Yd.	1,183		1,183
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	149		149
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1,914		1,914
Reinforcement Bars, Epoxy Coated	Pound	40,910	10,140	51,050
Bar Splicers	Each	410	30	440
Steel Piles HPI2x53	Foot		1,350	1,350
Test Pile Steel HPI2x53	Each		2	2
Temporary Sheet Piling	Sq. Ft.		4,400	4,400
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		163	163
Concrete Headwalls for Pipe Drains	Each		4	4
Pipe Underdrains for Structure, 4"	Foot		234	234
Concrete Wearing Surface (3")	Sq. Yd.	717		717
Clear Protective Coating for Concrete	Sq. Ft.	1,078		1,078
Architectural Finish for Concrete Surfaces	Sq. Ft.	1,078		1,078
Limestone Cap	Foot	190		190

**GENERAL NOTES**

Fasteners shall be AASHTO M164 Type 3, mechanically galvanized bolts  
 Bolts 3/4 in.  $\phi$ , holes 5/8 in.  $\phi$ , unless otherwise noted.  
 Calculated weight of Structural Steel = 280,520 lbs.  
 All structural steel shall be AASHTO M 270 Grade 50W  
 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 (IL Modified). See Special Provisions  
 Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".  
 Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
 The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.  
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.  
 Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.  
 Excavation required to construct the Abutments and porous granular shall be considered incidental to Concrete Structures. No additional compensation will be allowed for Structure Excavation.  
 All proposed construction activities shall be in accordance with a Regional Permit of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued a Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.  
 Concrete Superstructure in the parapets noted to receive Architectural Finish for Concrete Surfaces shall also have a color additive to match "Sandstone" color. See Special Provisions for Architectural Finish for Concrete Surfaces.  
 A Clear Protective Coating for concrete shall be applied to all exposed vertical surfaces of the structure.  
 See sheets 54 & 55 for Borings.



**ELEVATION**



**PLAN**

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.04g  
 Site Coefficient (S) = 1.2

**DESIGN SPECIFICATIONS**

2002 AASHTO & all applicable Interims

**LOADING HS 20-44**

Allow 50#/sq. ft. for future wearing surface.  
 Allow 120 Kip KCDOT Permit Vehicle

**DESIGN STRESSES**

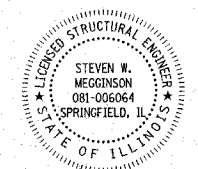
$f'_c = 3,500$  p.s.i.  
 $f_y = 60,000$  p.s.i. (Reinforcement)  
 $f_y = 50,000$  p.s.i. (Structural Steel) (M270 GR. 50 W)  
 $n = 9$

**WATERWAY INFORMATION**

Drainage Area = 18.3 Sq. Mi.		Low Grade Elev. 710.88 @ Sta. 23+50							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater El.	Exist.	Prop.	Exist.
Design	50	2,605	260	360	710.1	0.9	0.9	711.3	711.3
Base	100	3,066	270	390	710.5	1.6	1.3	712.2	711.9
Overtopping									
Max. Calc.	500	4,476	290	420	711.0	3.3	2.4	714.3	713.4

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges"

*Steven W. Megginson*  
 ILLINOIS STRUCTURAL NO. 081-006064



Expires 11-30-08

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

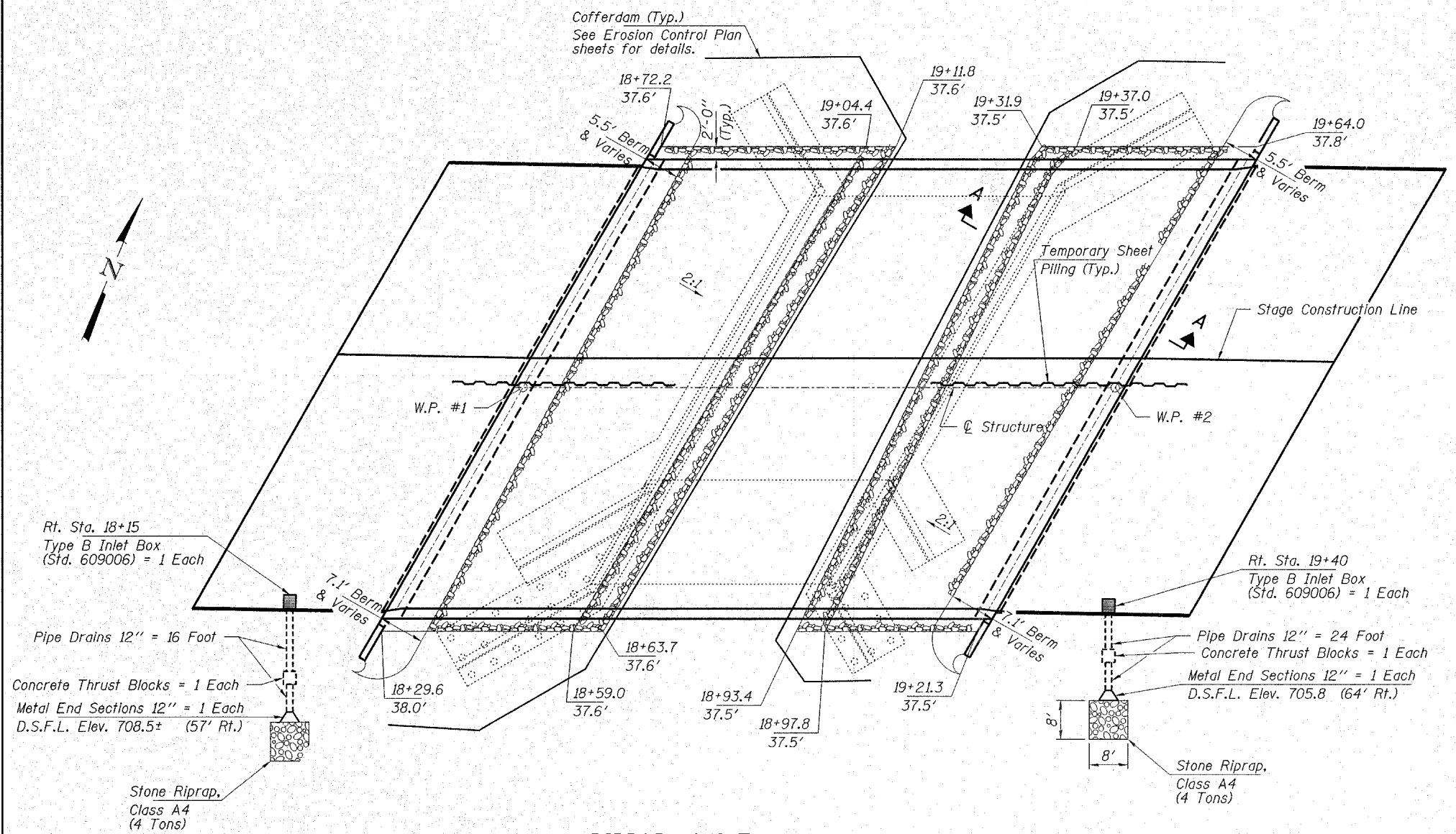
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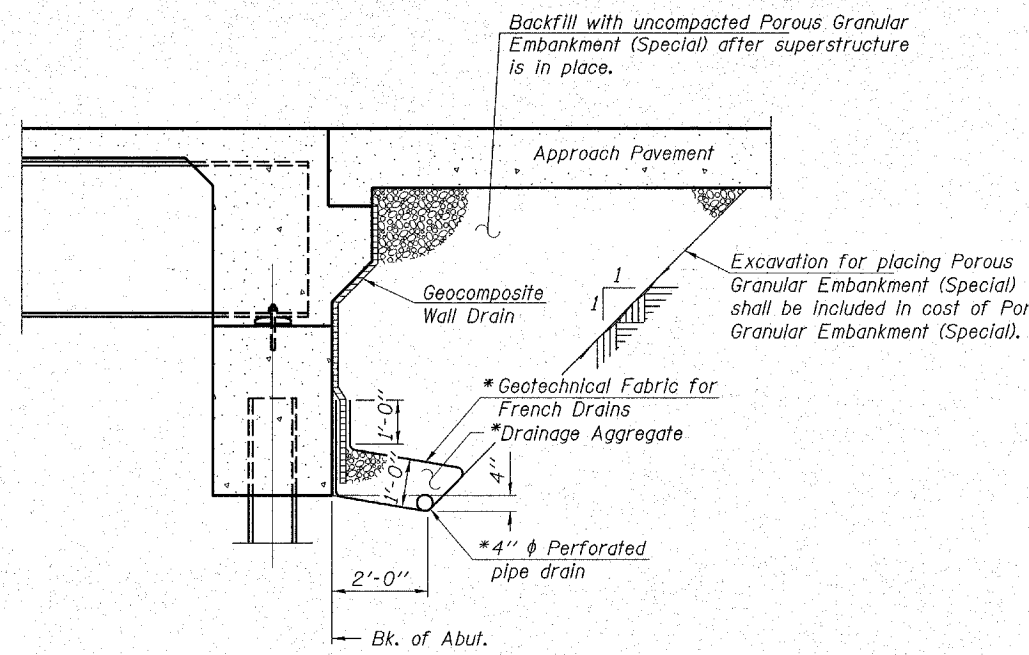
PROJECT NUMBER: 12-06-0060-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**GENERAL PLAN AND ELEVATION**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SH. N
F.A.S. 2111	01-00268-00-BR	KANE	70	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	

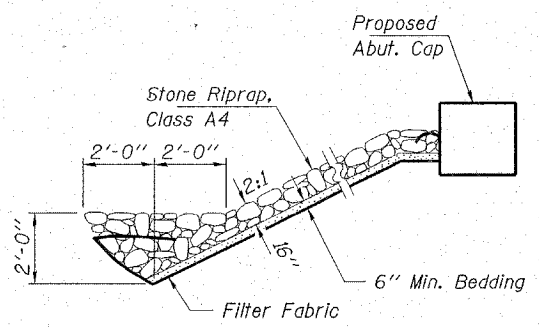


Note: Inlet Box and pipe drains shall be located in the field to miss guardrail (TBT Ty 6) posts.



\* Included in the cost of Pipe Underdrains for Structures.

Note: All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend 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).



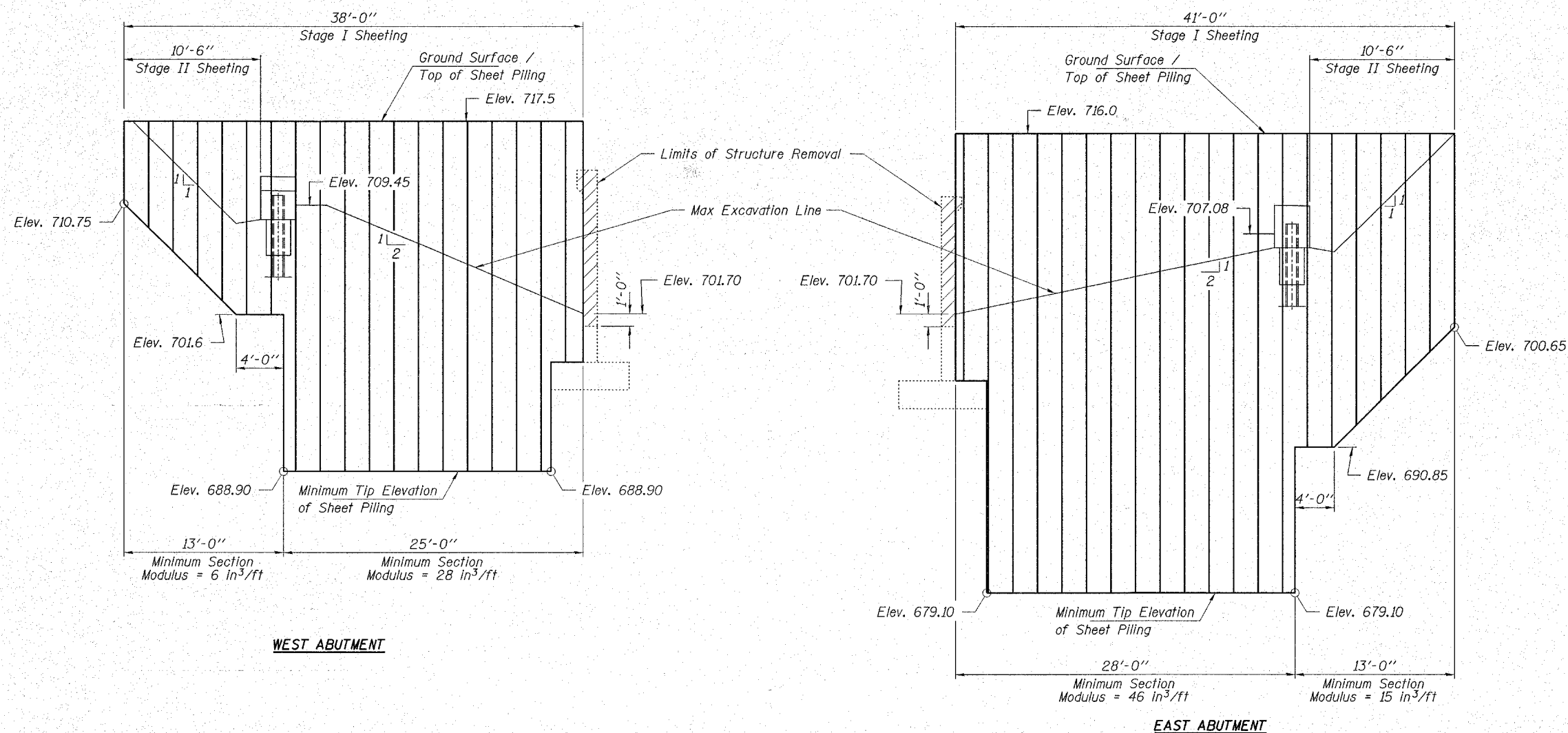
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.I.P. CHECKED: S.W.M. DRAWN: D.A.B.

**RIPRAP DETAILS**  
**SECTION 01-00268-00-BR**  
**F.A.S. 2111 / FABYAN PARKWAY**  
**KANE COUNTY**  
**STATION 18+97 / STRUCTURE NO. 045-3019**



**TEMPORARY SHEET PILING DETAILS**

Notes:  
 If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.  
 The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

**BILL OF MATERIAL**

Item	Unit	Quantity
Temporary Sheet Piling	Sq. Ft.	4,400

**HAMPTON, LENZINI & RENWICK, INC.**  
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 LAND SURVEYORS

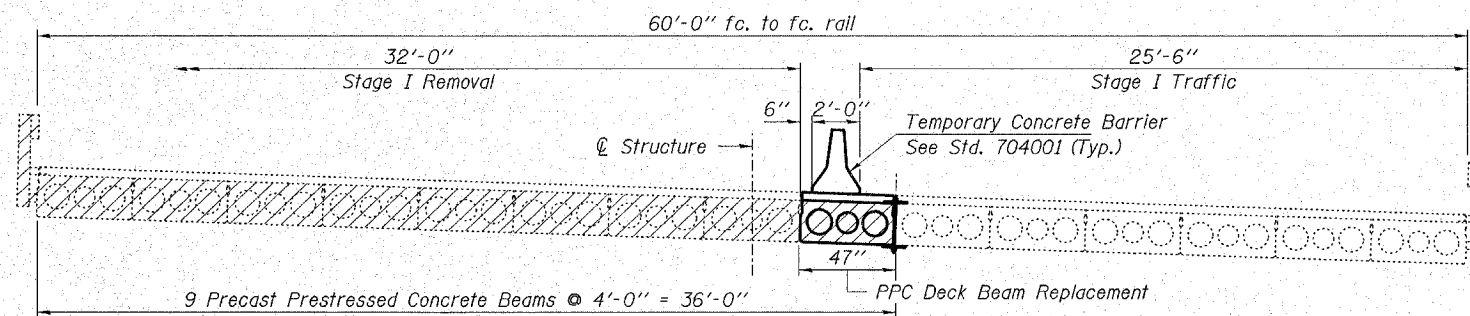
3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

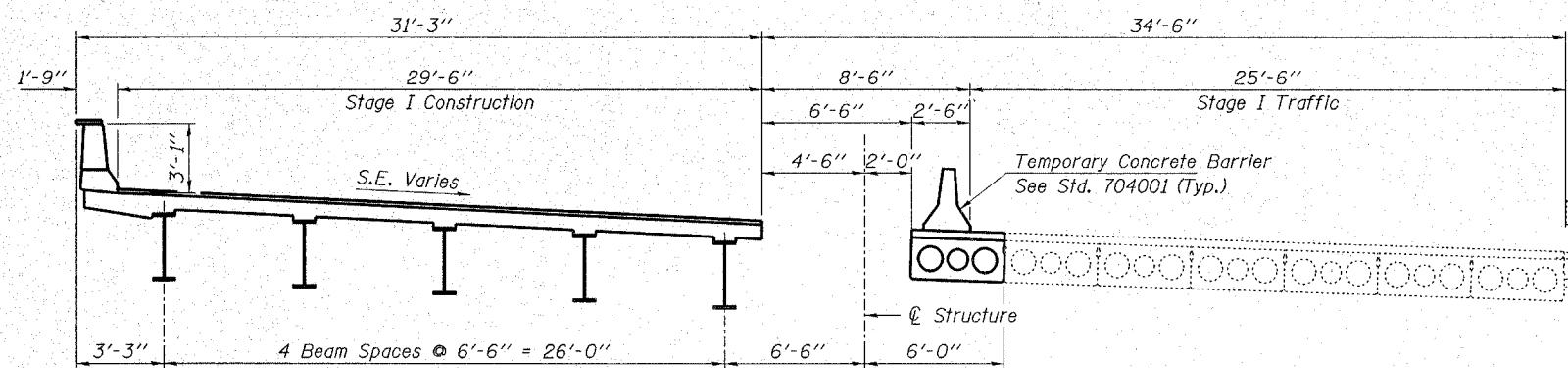
PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
 DESIGNED: R.J.P.    CHECKED: S.W.M.    DRAWN: D.A.B.

**SHEET PILING DETAILS**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019

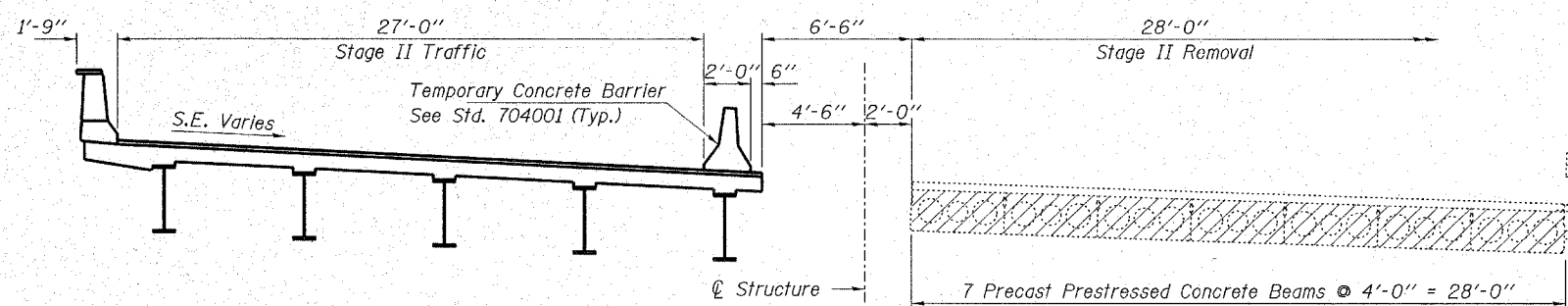
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 2111	01-00268-00-BR	KANE	70	2
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	



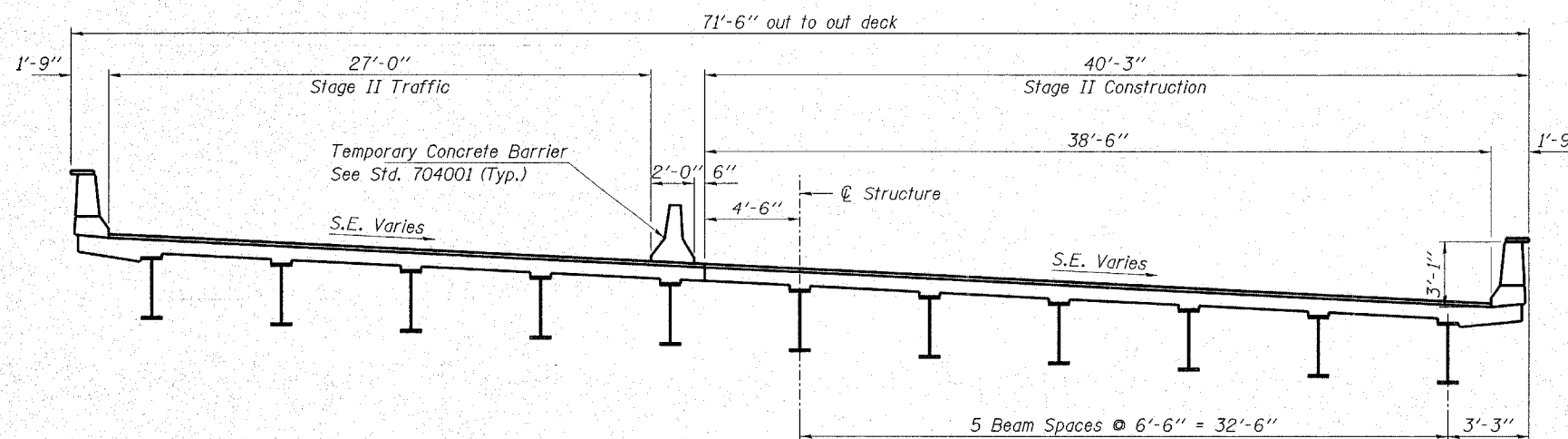
**STAGE I REMOVAL**



**STAGE I CONSTRUCTION**



**STAGE II REMOVAL**



**STAGE II CONSTRUCTION**

**SUGGESTED CONSTRUCTION STAGING**

1. Remove existing PPC Deck Beam at Stage Construction Line.
2. Erect temporary replacement PPC Deck Beam.
3. Place Concrete Barrier Wall for Stage I Traffic. Remove remainder of Stage I Removal.
4. Build Stage I Construction.
5. Relocate Temporary Concrete Barrier to Stage II Traffic.
6. Remove remaining PPC Deck Beams and existing structure.
7. Build Stage II Construction.

Notes: All sections are looking East.  
Hatched areas indicate removal.

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DESIGNED: R.J.P.    CHECKED: S.W.M.    DRAWN: D.A.B.

**STAGE CONSTRUCTION DETAILS**

**SECTION 01-00268-00-BR**

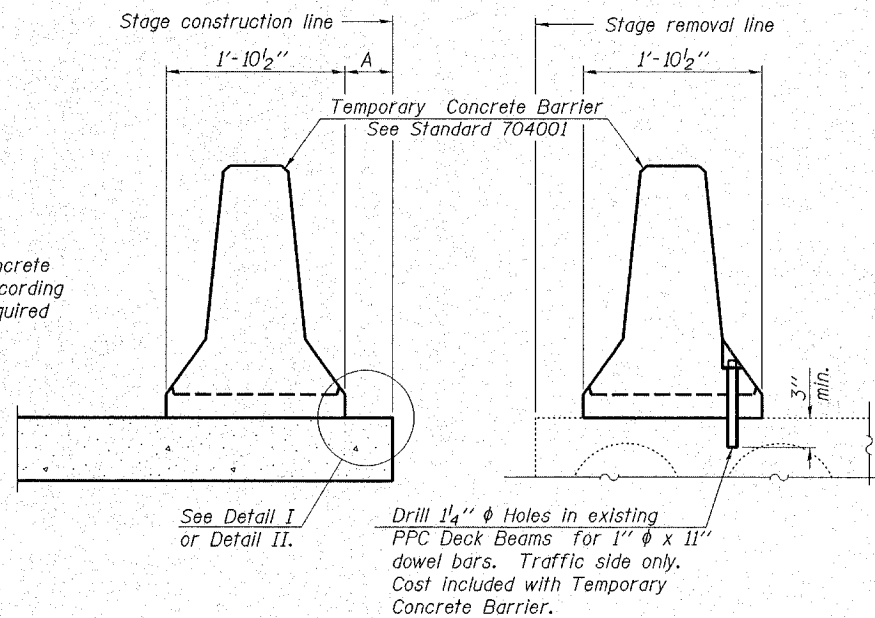
**F.A.S. 2111 / FABYAN PARKWAY**

**KANE COUNTY**

**STATION 18+97 / STRUCTURE NO. 045-3019**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 2111	01-00268-00-BR	KANE	70	2
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	

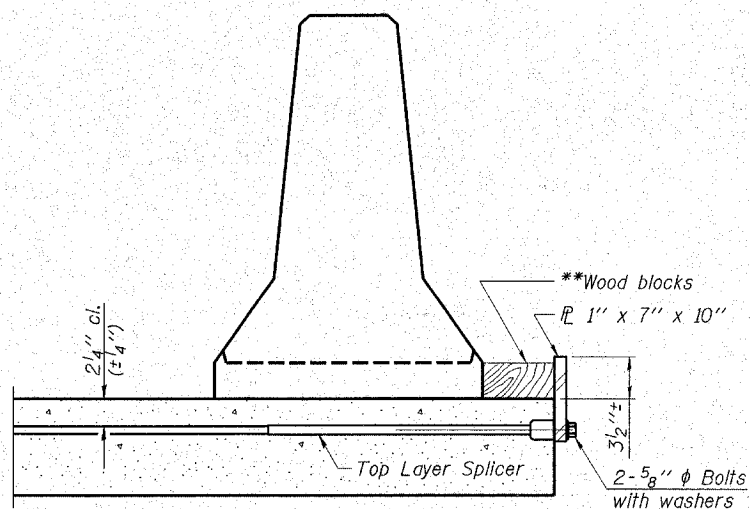
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



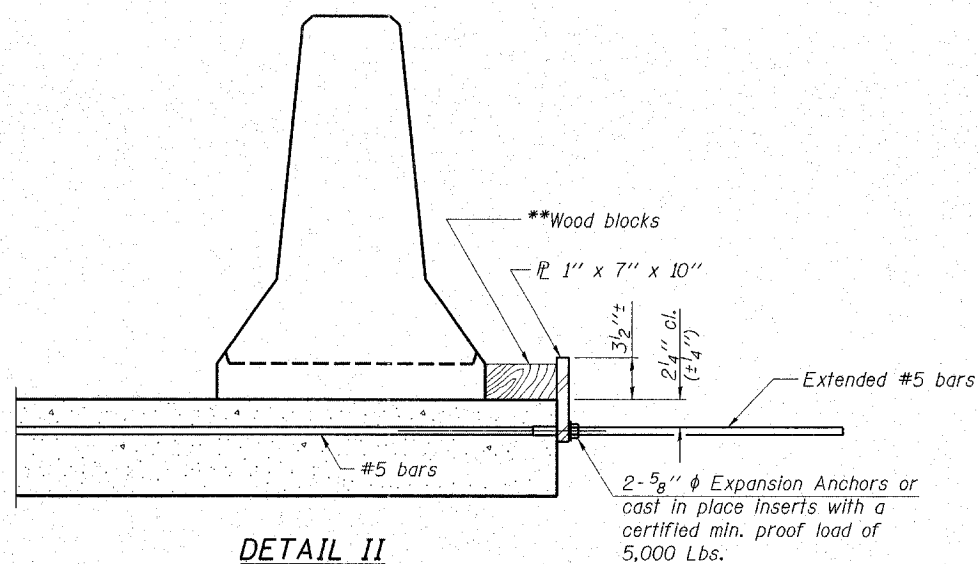
NEW SLAB

EXISTING PPC DECK BEAMS

**SECTIONS THRU SLAB**



**DETAIL I**



**DETAIL II**

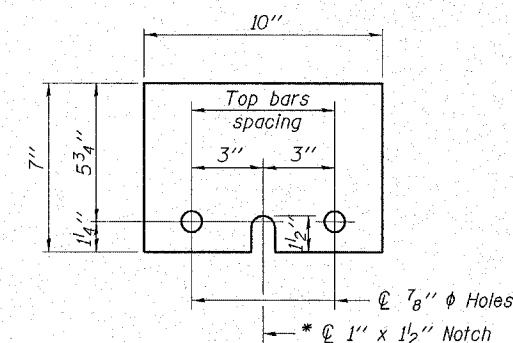
\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

**NOTES**

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

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

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



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

\* Required only with Detail II

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**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION**

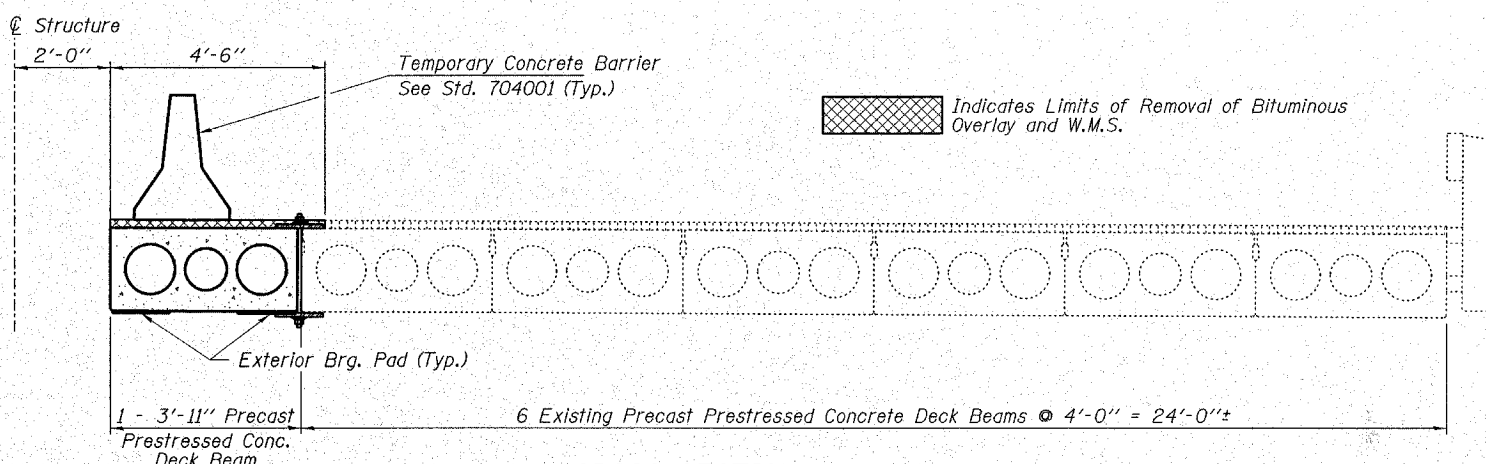
SECTION 01-00268-00-BR

F.A.S. 2111 / FABYAN PARKWAY

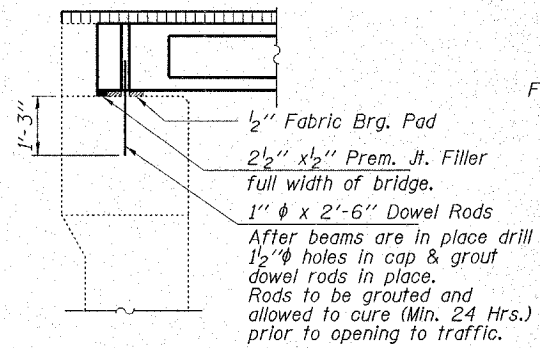
KANE COUNTY

STATION 18+97 / STRUCTURE NO. 045-3019

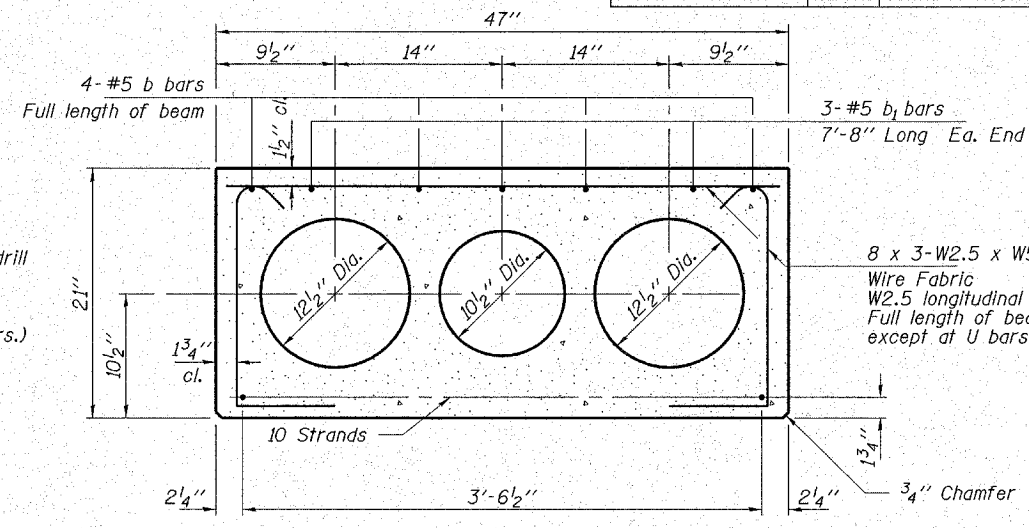
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SH N
F.A.S. 2111	01-00268-00-BR	KANE	70	2
FED. ROAD DIST. NO.	ILLINOIS		CONTRACT NO. 8397	



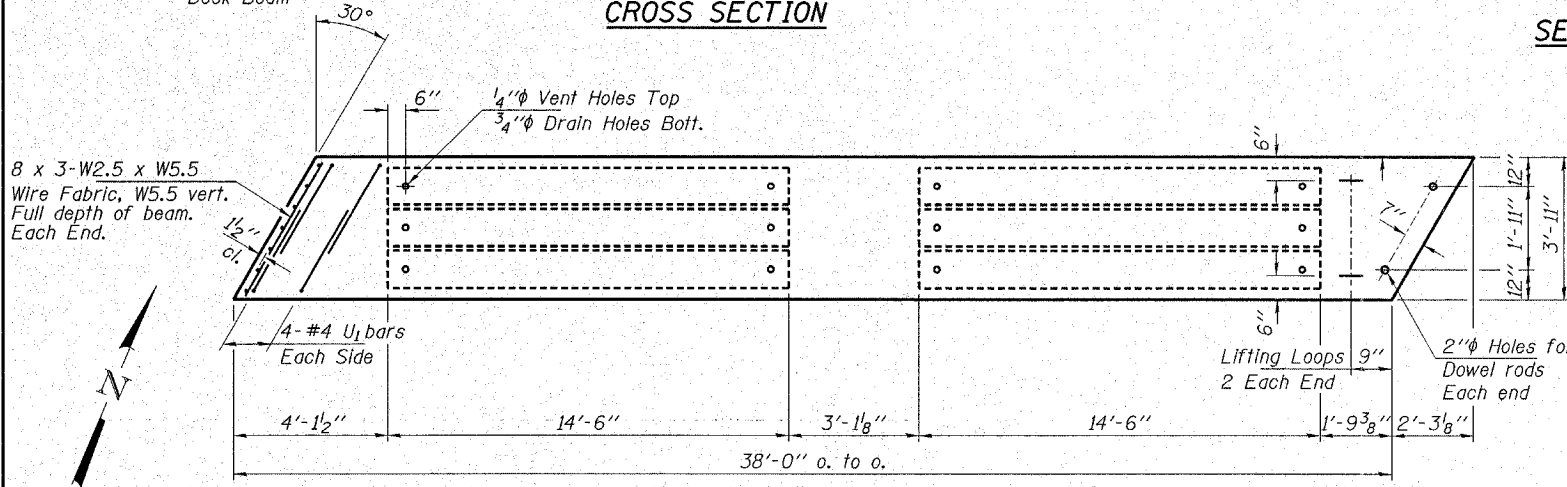
**CROSS SECTION**



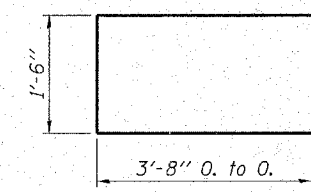
**SECTION AT ABUTMENTS**



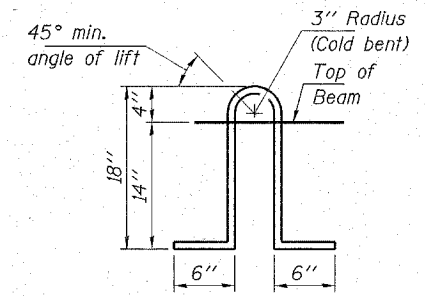
**TYPICAL SECTION**



**PLAN**



**BAR U**



**LIFTING LOOP DETAIL**

Approved alternate may be substituted for the above detail.

Note: The loop shall be formed in a manner such that all strands are engaged during lifting. Loops shall be burned off after the beams have been erected.

**ANTICIPATED INITIAL CAMBER DIAGRAM**

**NOTES**

Prestressing steel shall be uncoated high strength, low-relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" φ 270 ksi strands, as shown. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

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

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

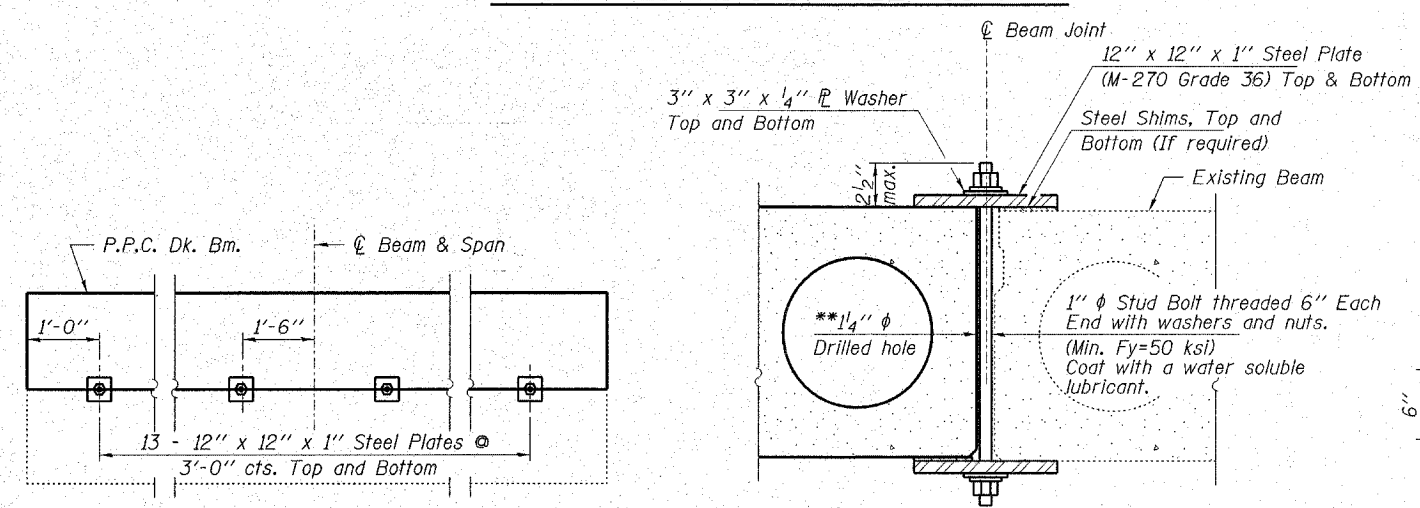
The top surface of the beams shall be finished according to the IDOT Manual for fabrication of Precast Prestressed Concrete Products.

Removal of existing beam, waterproofing membrane and H.M.A. surface shall be included in the cost of Removal of Existing Structures.

Required Release Strength, f<sub>cr</sub>, shall be 4,000 p.s.i. Transverse Ties are not required. Keyways are not required. See Roadway Quantity Schedule for Leveling Binder Quantity.

**BILL OF MATERIAL**

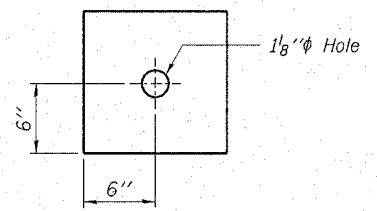
ITEM	UNIT	QUANTITY
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	149



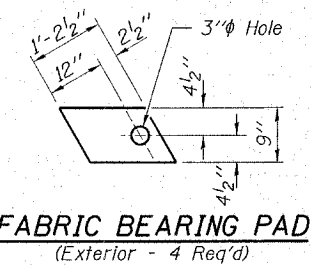
**SECTION**

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

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



**CLAMPING PLATE**



**FABRIC BEARING PAD**  
(Exterior - 4 Req'd)

Notes: Cost of shear clamping detail included with Precast Prestressed Concrete Deck Beams. See Stage Construction Details for traffic lanes.

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**ELGIN • SPRINGFIELD**

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DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

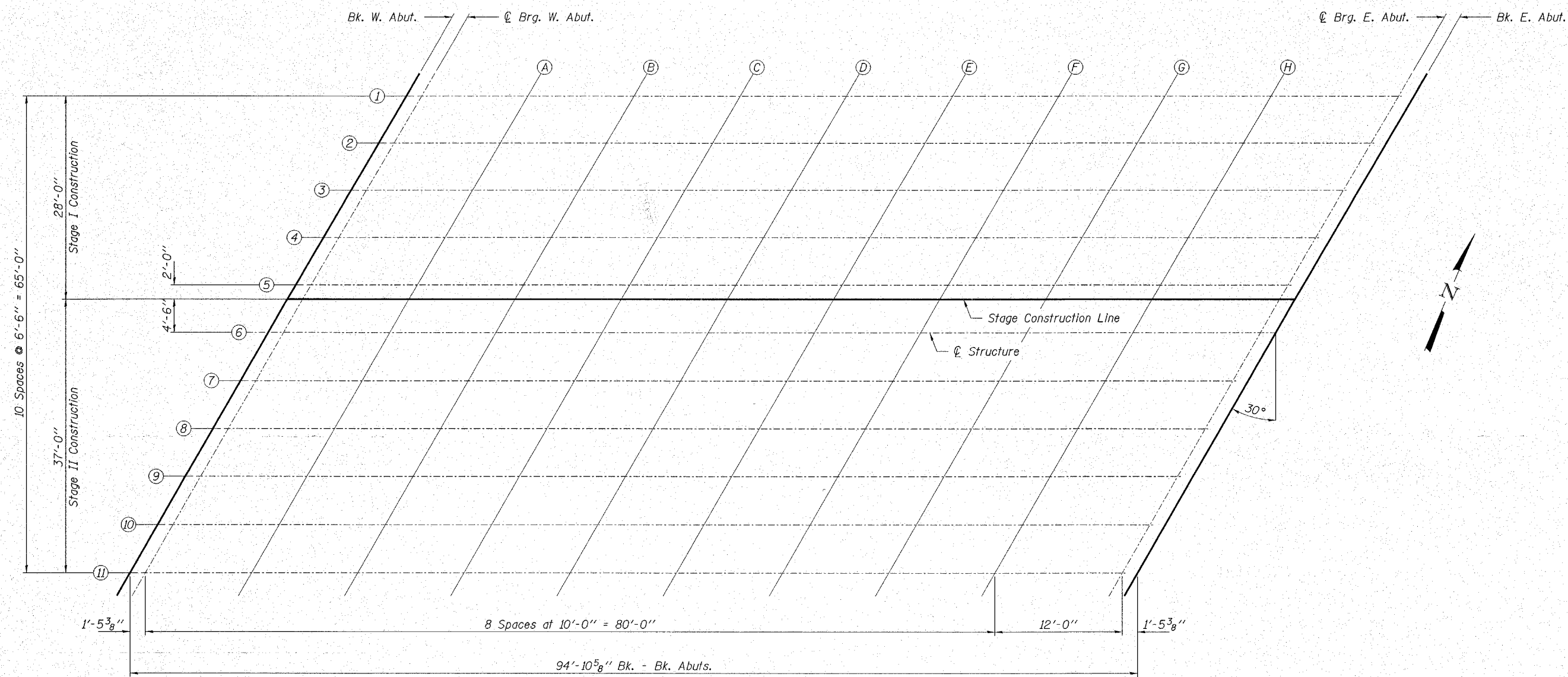
**TEMPORARY BEAM DETAILS**

SECTION 01-00268-00-BR

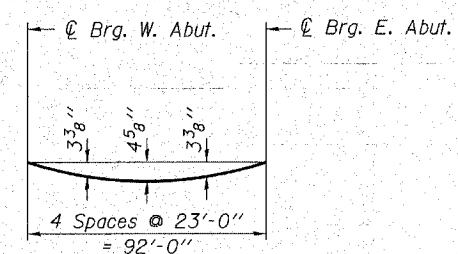
F.A.S. 2111 / FABYAN PARKWAY

KANE COUNTY

STATION 18+97 / STRUCTURE NO. 045-3019



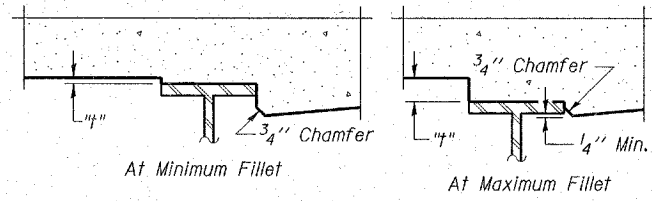
**PLAN**



**DEAD LOAD DEFLECTION DIAGRAM**

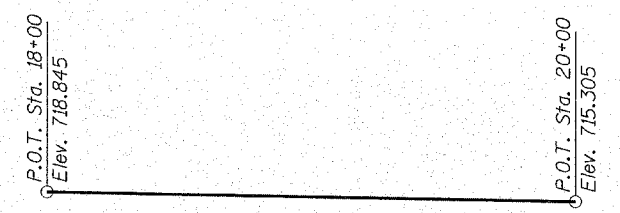
(Includes weight of concrete only.)

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 Sheets 25 to 26.



**FILLET HEIGHTS**

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheets 25 to 26. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 25 and 26, minus slab thickness, equals the fillet heights "t" above top flange of beams.



**PROFILE GRADE**

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**SLAB ELEVATIONS**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019



**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+68.32	-32.50	718.983	718.983
☉ Brg. W. Abut.	18+69.76	-32.50	718.969	718.969
A	18+79.76	-32.50	718.873	718.993
B	18+89.76	-32.50	718.777	719.001
C	18+99.76	-32.50	718.681	718.983
D	19+09.76	-32.50	718.585	718.929
E	19+19.76	-32.50	718.489	718.837
F	19+29.76	-32.50	718.393	718.706
G	19+39.76	-32.50	718.297	718.539
H	19+49.76	-32.50	718.201	718.343
☉ Brg. E. Abut.	19+61.76	-32.50	718.086	718.086
Bk. E. Abut.	19+63.21	-32.50	718.072	718.072

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+64.57	-26.00	718.755	718.755
☉ Brg. W. Abut.	18+66.01	-26.00	718.738	718.738
A	18+76.01	-26.00	718.626	718.746
B	18+86.01	-26.00	718.514	718.738
C	18+96.01	-26.00	718.402	718.703
D	19+06.01	-26.00	718.289	718.634
E	19+16.01	-26.00	718.177	718.526
F	19+26.01	-26.00	718.065	718.378
G	19+36.01	-26.00	717.953	718.195
H	19+46.01	-26.00	717.841	717.983
☉ Brg. E. Abut.	19+58.01	-26.00	717.706	717.706
Bk. E. Abut.	19+59.45	-26.00	717.690	717.690

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+60.81	-19.50	718.538	718.538
☉ Brg. W. Abut.	18+62.26	-19.50	718.520	718.520
A	18+72.26	-19.50	718.391	718.511
B	18+82.26	-19.50	718.263	718.487
C	18+92.26	-19.50	718.134	718.436
D	19+02.26	-19.50	718.006	718.350
E	19+12.26	-19.50	717.878	718.226
F	19+22.26	-19.50	717.749	718.062
G	19+32.26	-19.50	717.621	717.863
H	19+42.26	-19.50	717.492	717.634
☉ Brg. E. Abut.	19+54.26	-19.50	717.338	717.338
Bk. E. Abut.	19+55.70	-19.50	717.320	717.320

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+57.06	-13.00	718.334	718.334
☉ Brg. W. Abut.	18+58.51	-13.00	718.313	718.313
A	18+68.51	-13.00	718.169	718.288
B	18+78.51	-13.00	718.024	718.248
C	18+88.51	-13.00	717.879	718.181
D	18+98.51	-13.00	717.735	718.079
E	19+08.51	-13.00	717.590	717.938
F	19+18.51	-13.00	717.445	717.759
G	19+28.51	-13.00	717.301	717.543
H	19+38.51	-13.00	717.156	717.298
☉ Brg. E. Abut.	19+50.51	-13.00	716.983	716.983
Bk. E. Abut.	19+51.95	-13.00	716.962	716.962

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+53.31	-6.50	718.142	718.142
☉ Brg. W. Abut.	18+54.75	-6.50	718.119	718.119
A	18+64.75	-6.50	717.958	718.078
B	18+74.75	-6.50	717.797	718.021
C	18+84.75	-6.50	717.636	717.938
D	18+94.75	-6.50	717.476	717.820
E	19+04.75	-6.50	717.315	717.663
F	19+14.75	-6.50	717.154	717.467
G	19+24.75	-6.50	716.993	717.235
H	19+34.75	-6.50	716.832	716.974
☉ Brg. E. Abut.	19+46.75	-6.50	716.639	716.639
Bk. E. Abut.	19+48.20	-6.50	716.616	716.616

**STAGE CONSTRUCTION LINE**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+52.15	-4.50	718.085	718.085
☉ Brg. W. Abut.	18+53.60	-4.50	718.061	718.061
A	18+63.60	-4.50	717.896	718.015
B	18+73.60	-4.50	717.730	717.954
C	18+83.60	-4.50	717.564	717.866
D	18+93.60	-4.50	717.398	717.743
E	19+03.60	-4.50	717.232	717.581
F	19+13.60	-4.50	717.067	717.380
G	19+23.60	-4.50	716.901	717.143
H	19+33.60	-4.50	716.735	716.877
☉ Brg. E. Abut.	19+45.60	-4.50	716.536	716.536
Bk. E. Abut.	19+47.04	-4.50	716.512	716.512

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**SLAB ELEVATIONS**  
**SECTION 01-00268-00-BR**  
**F.A.S. 2111 / FABYAN PARKWAY**  
**KANE COUNTY**  
**STATION 18+97 / STRUCTURE NO. 045-3019**

**BEAM 6 & C STRUCTURE**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+49.56	0.00	717.962	717.962
C Brg. W. Abut.	18+51.00	0.00	717.937	717.937
A	18+61.00	0.00	717.760	717.879
B	18+71.00	0.00	717.583	717.806
C	18+81.00	0.00	717.406	717.707
D	18+91.00	0.00	717.229	717.573
E	19+01.00	0.00	717.052	717.400
F	19+11.00	0.00	716.875	717.188
G	19+21.00	0.00	716.698	716.939
H	19+31.00	0.00	716.521	716.663
C Brg. E. Abut.	19+43.00	0.00	716.308	716.308
Bk. E. Abut.	19+44.44	0.00	716.283	716.283

**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+45.80	6.50	717.794	717.794
C Brg. W. Abut.	18+47.25	6.50	717.766	717.766
A	18+57.25	6.50	717.573	717.693
B	18+67.25	6.50	717.380	717.604
C	18+77.25	6.50	717.187	717.488
D	18+87.25	6.50	716.994	717.338
E	18+97.25	6.50	716.801	717.149
F	19+07.25	6.50	716.607	716.920
G	19+17.25	6.50	716.414	716.656
H	19+27.25	6.50	716.221	716.363
C Brg. E. Abut.	19+39.25	6.50	715.989	715.989
Bk. E. Abut.	19+40.69	6.50	715.961	715.961

**BEAM 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+42.05	13.00	717.639	717.639
C Brg. W. Abut.	18+43.49	13.00	717.609	717.609
A	18+53.49	13.00	717.399	717.519
B	18+63.49	13.00	717.190	717.414
C	18+73.49	13.00	716.980	717.282
D	18+83.49	13.00	716.771	717.115
E	18+93.49	13.00	716.562	716.910
F	19+03.49	13.00	716.352	716.665
G	19+13.49	13.00	716.143	716.385
H	19+23.49	13.00	715.933	716.076
C Brg. E. Abut.	19+35.49	13.00	715.682	715.682
Bk. E. Abut.	19+36.94	13.00	715.652	715.652

**BEAM 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+38.30	19.50	717.495	717.495
C Brg. W. Abut.	18+39.74	19.50	717.463	717.463
A	18+49.74	19.50	717.237	717.357
B	18+59.74	19.50	717.012	717.236
C	18+69.74	19.50	716.786	717.088
D	18+79.74	19.50	716.560	716.905
E	18+89.74	19.50	716.335	716.683
F	18+99.74	19.50	716.109	716.422
G	19+09.74	19.50	715.884	716.126
H	19+19.74	19.50	715.658	715.800
C Brg. E. Abut.	19+31.74	19.50	715.387	715.387
Bk. E. Abut.	19+33.19	19.50	715.355	715.355

**BEAM 10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+34.55	26.00	717.364	717.364
C Brg. W. Abut.	18+35.99	26.00	717.329	717.329
A	18+45.99	26.00	717.087	717.207
B	18+55.99	26.00	716.846	717.070
C	18+65.99	26.00	716.604	716.905
D	18+75.99	26.00	716.362	716.706
E	18+85.99	26.00	716.120	716.469
F	18+95.99	26.00	715.879	716.192
G	19+05.99	26.00	715.637	715.879
H	19+15.99	26.00	715.395	715.537
C Brg. E. Abut.	19+27.99	26.00	715.105	715.105
Bk. E. Abut.	19+29.43	26.00	715.070	715.070

**BEAM 11**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	18+30.79	32.50	717.245	717.245
C Brg. W. Abut.	18+32.24	32.50	717.208	717.208
A	18+42.24	32.50	716.950	717.069
B	18+52.24	32.50	716.692	716.916
C	18+62.24	32.50	716.434	716.735
D	18+72.24	32.50	716.176	716.520
E	18+82.24	32.50	715.918	716.266
F	18+92.24	32.50	715.660	715.973
G	19+02.24	32.50	715.402	715.644
H	19+12.24	32.50	715.144	715.286
C Brg. E. Abut.	19+24.24	32.50	714.834	714.834
Bk. E. Abut.	19+25.68	32.50	714.797	714.797

**HAMPTON, LENZINI & RENWICK, INC.**  
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 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1      DATE: 08/29/07  
 DESIGNED: R.J.P.      CHECKED: S.W.M.      DRAWN: D.A.B.

**SLAB ELEVATIONS**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019

**NORTH CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Pvmf.	18+39.19	-34.00	719.314
A	18+49.19	-34.00	719.222
B	18+59.19	-34.00	719.130
Bk. W. Abutment	18+69.19	-34.00	719.037

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Pvmf.	18+31.11	-20.00	718.936
A	18+41.11	-20.00	718.809
B	18+51.11	-20.00	718.682
Bk. W. Abutment	18+61.11	-20.00	718.554

**STAGE CONSTRUCTION LINE**

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Pvmf.	18+22.16	-4.50	718.583
A	18+32.16	-4.50	718.417
B	18+42.16	-4.50	718.251
Bk. W. Abutment	18+52.16	-4.50	718.085

**STRUCTURE**

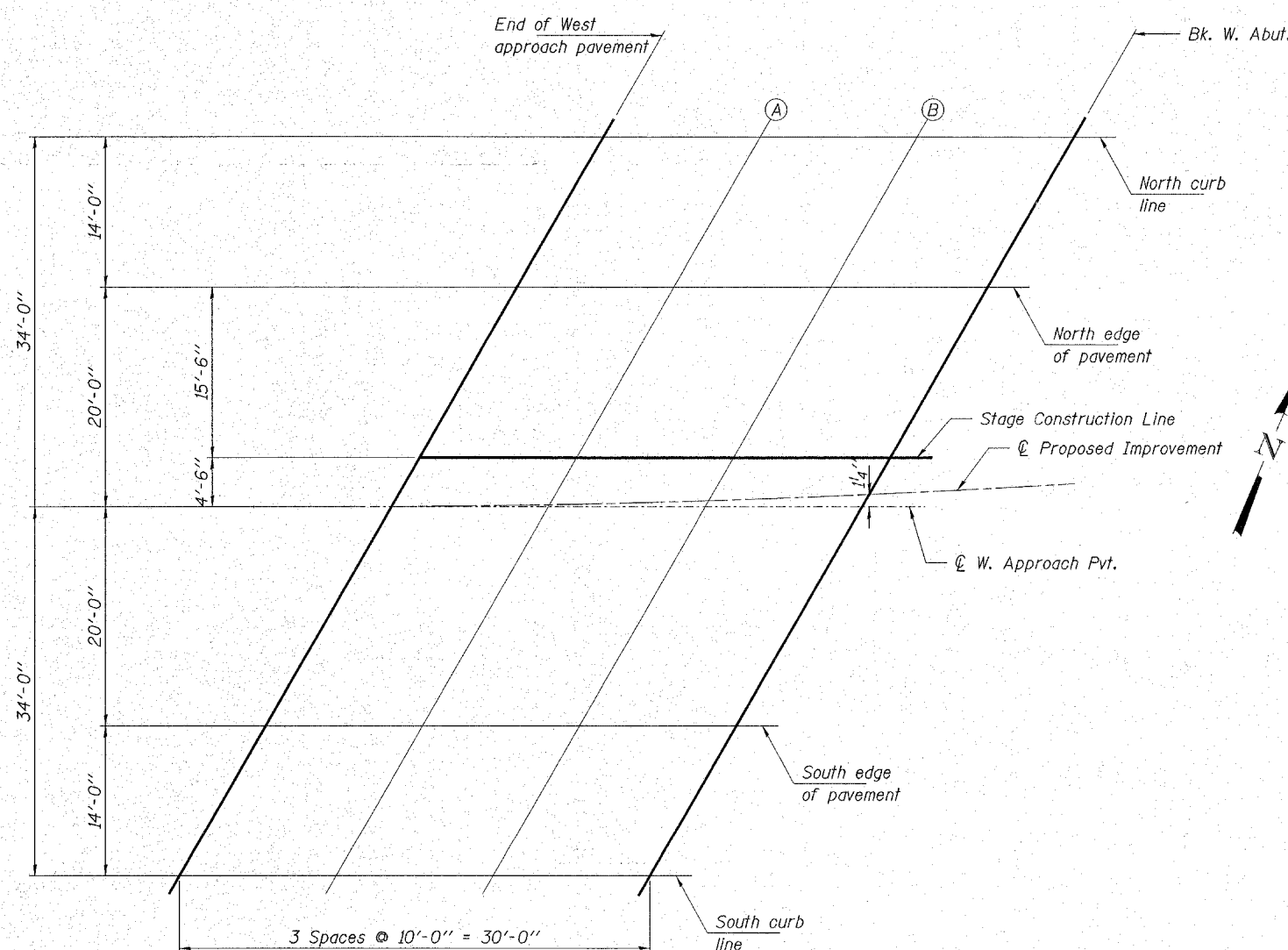
Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Pvmf.	18+19.56	0.00	718.493
A	18+29.56	0.00	718.316
B	18+39.56	0.00	718.139
Bk. W. Abutment	18+49.56	0.00	717.962

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Pvmf.	18+08.01	20.00	718.165
A	18+18.01	20.00	717.938
B	18+28.01	20.00	717.712
Bk. W. Abutment	18+38.01	20.00	717.485

**SOUTH CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Pvmf.	17+99.93	34.00	718.004
A	18+09.93	34.00	717.743
B	18+19.93	34.00	717.481
Bk. W. Abutment	18+29.93	34.00	717.219



**WEST APPROACH SLAB - PLAN**

**HAMPTON, LENZINI & RENWICK, INC.**  
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 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
 DESIGNED: R.J.P.    CHECKED: S.W.M.    DRAWN: D.A.B.

**SLAB ELEVATIONS**  
**SECTION 01-00268-00-BR**  
**F.A.S. 2111 / FABYAN PARKWAY**  
**KANE COUNTY**  
**STATION 18+97 / STRUCTURE NO. 045-3019**

**NORTH CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	19+64.07	-34.00	718.162
A	19+74.07	-34.00	718.070
B	19+84.07	-34.00	717.978
End of E. Approach Pvmt.	19+94.07	-34.00	717.885

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	19+55.99	-20.00	717.348
A	19+65.99	-20.00	717.221
B	19+75.99	-20.00	717.094
End of E. Approach Pvmt.	19+85.99	-20.00	716.967

**STAGE CONSTRUCTION LINE**

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	19+47.04	-4.50	716.513
A	19+57.04	-4.50	716.347
B	19+67.04	-4.50	716.181
End of E. Approach Pvmt.	19+77.04	-4.50	716.015

**STRUCTURE**

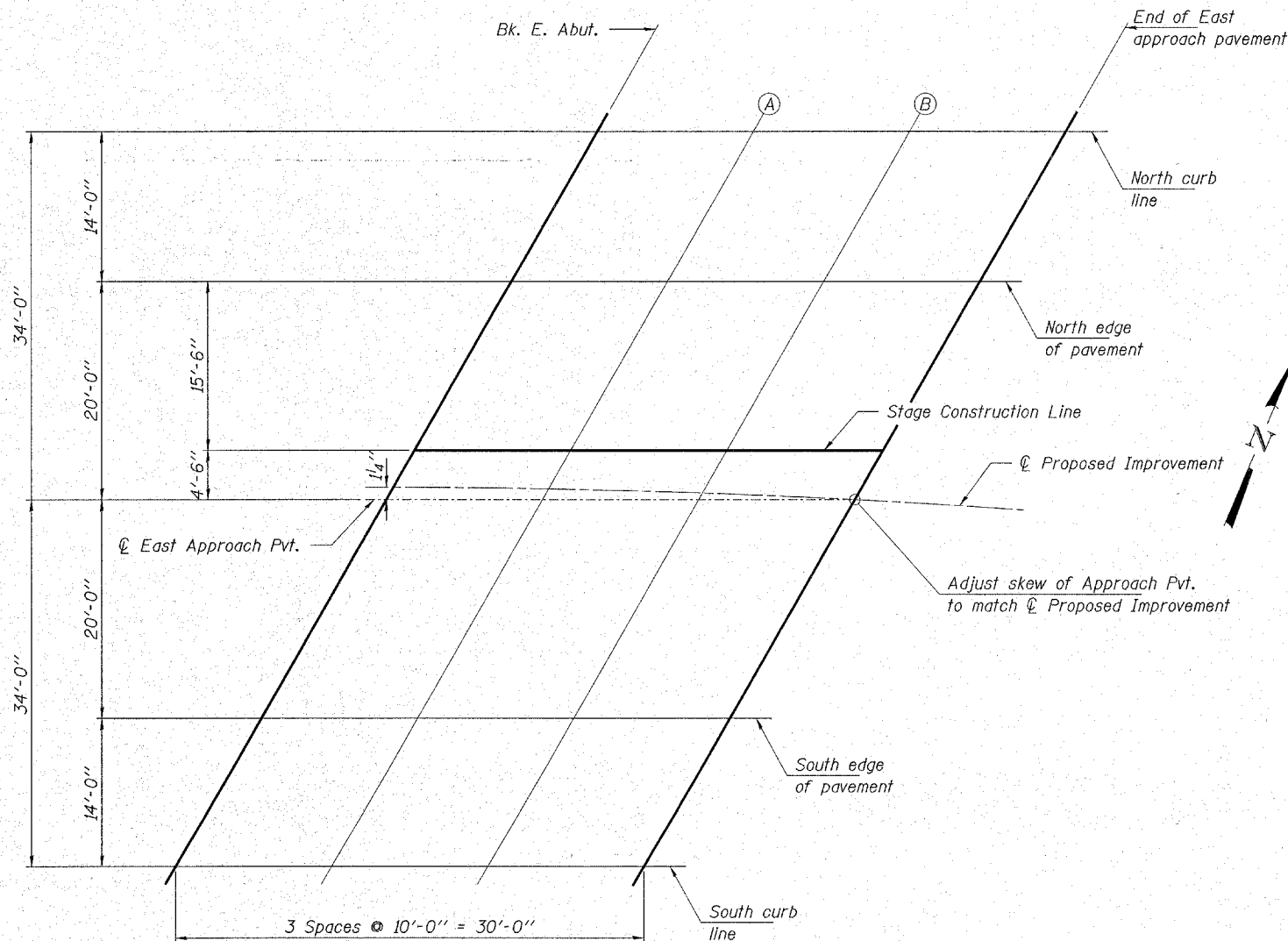
Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	19+44.44	0.00	716.283
A	19+54.44	0.00	716.106
B	19+64.44	0.00	715.929
End of E. Approach Pvmt.	19+74.44	0.00	715.752

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	19+32.89	20.00	715.333
A	19+42.89	20.00	715.106
B	19+52.89	20.00	714.879
End of E. Approach Pvmt.	19+62.89	20.00	714.652

**SOUTH CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	19+24.81	34.00	714.736
A	19+34.81	34.00	714.475
B	19+44.81	34.00	714.213
End of E. Approach Pvmt.	19+54.81	34.00	713.951



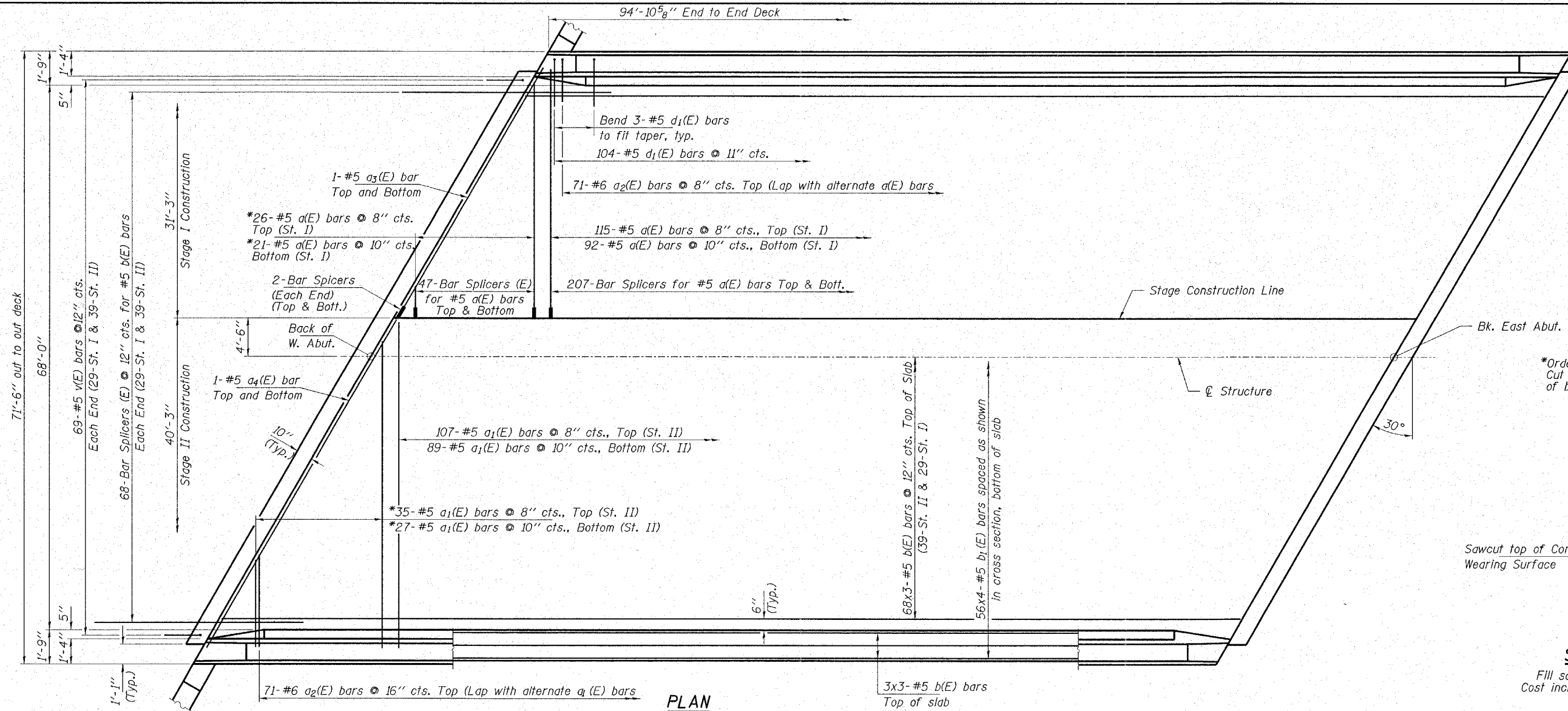
**EAST APPROACH SLAB - PLAN**

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 548-3400  
 ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

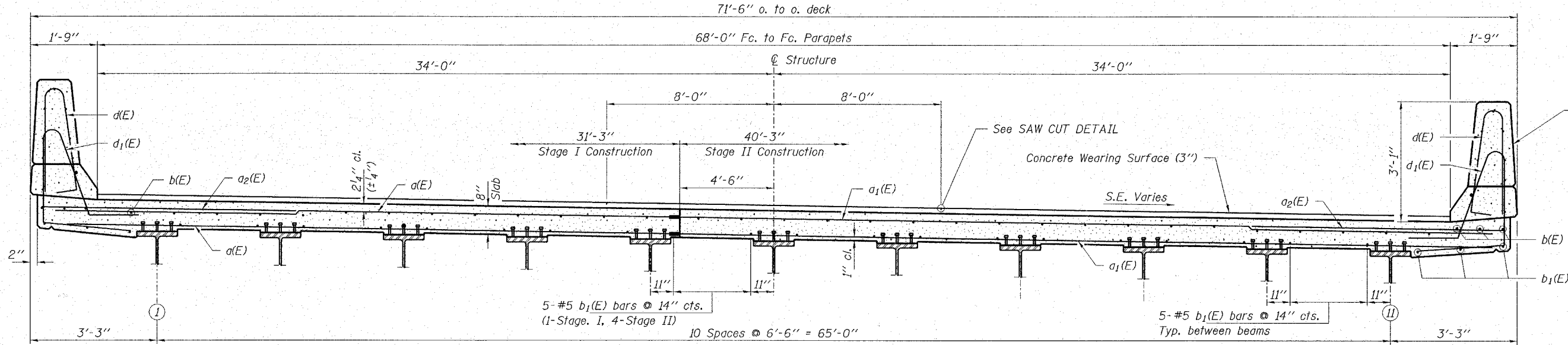
**SLAB ELEVATIONS**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019

ROUTE NO. F.A.S. 2111	SECTION 01-00268 -00-BR	COUNTY KANE	TOTAL SHEETS 70	SHEET NO. 29
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 83973	



**SAW CUT DETAIL**  
Fill sawcut with Elastic Joint Filler. Cost included with Bridge Deck Grooving.

**MIN. BAR LAPS**  
#5 bars = 1'-8"  
#6 bars = 2'-0"



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LAND SURVEYORS

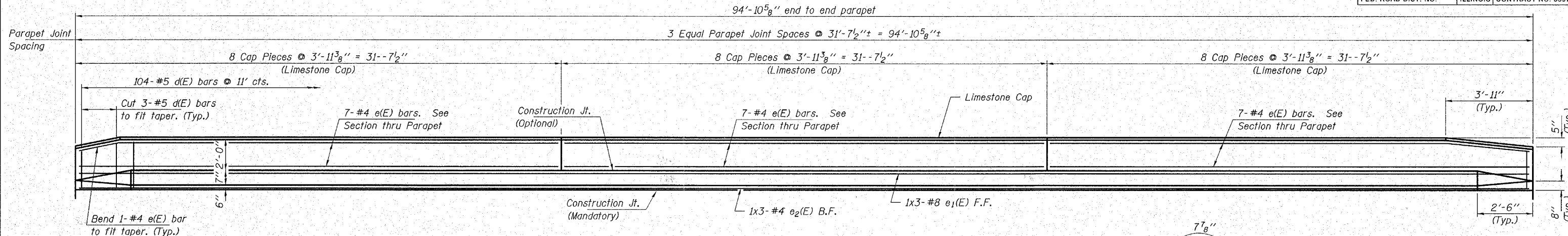
**HLR**

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(217) 548-3400

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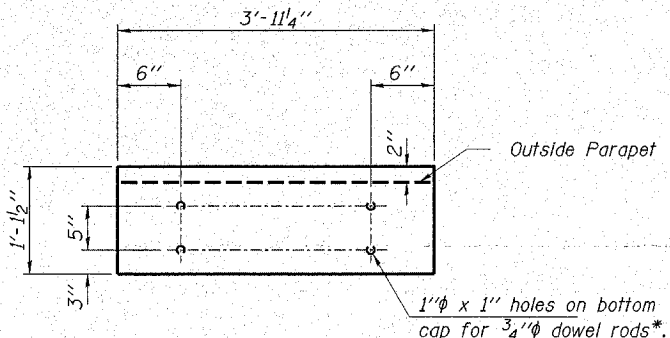
PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**SUPERSTRUCTURE**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



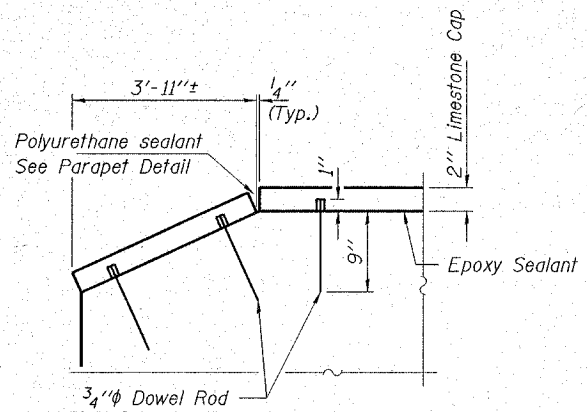
**INSIDE ELEVATION OF PARAPET**

**MIN. BAR LAPS**  
 #4 bars = 1'-8"  
 #8 bars = 4'-6"



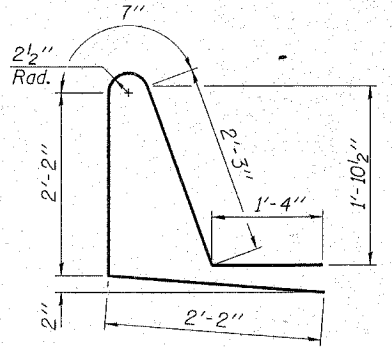
**PLAN**

\* Dowel Rods shall be drilled and epoxy grouted in place. Cost is included in the price of Limestone Cap.

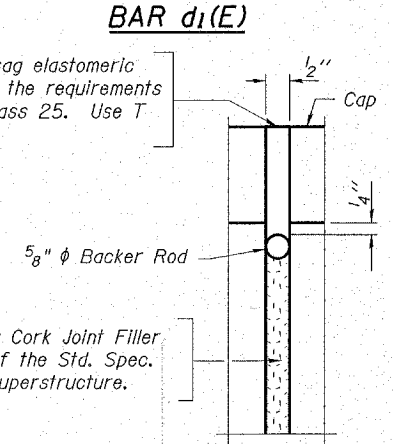


**LIMESTONE CAP ELEVATION**

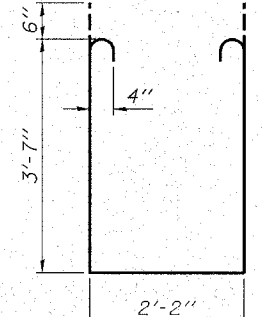
Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.



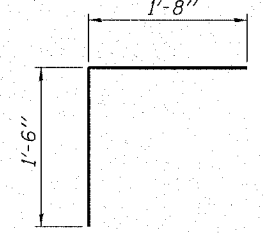
**BAR d(E)**



**BAR d1(E)**



**BAR s1(E)**

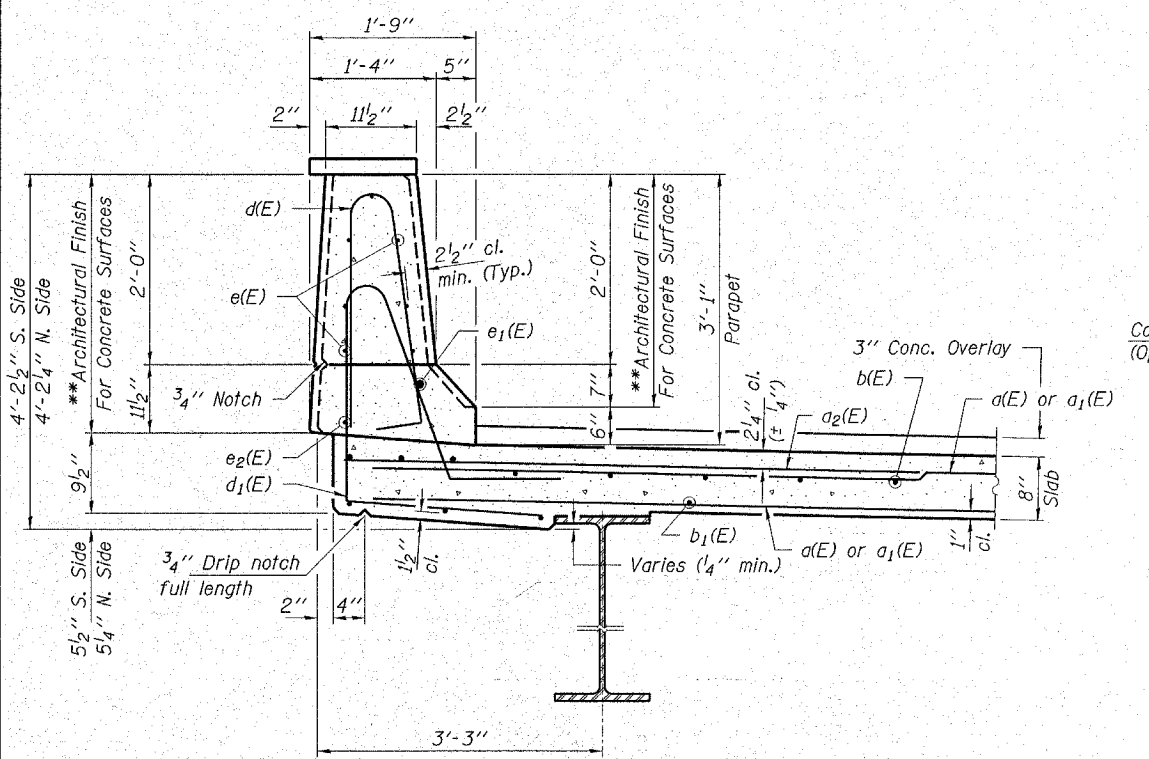


**BAR v(E)**

**BILL OF MATERIAL**

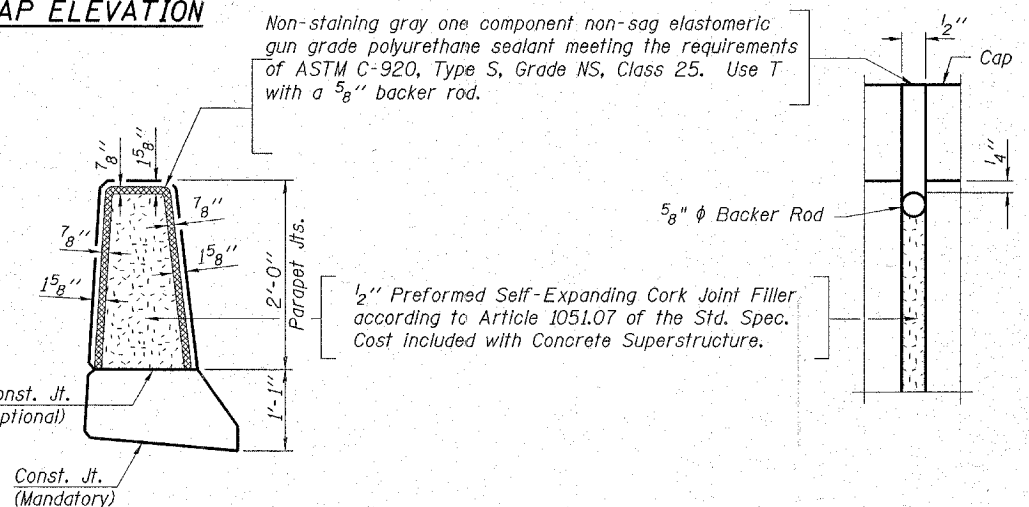
BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	254	#5	31'-0"	—
a1(E)	258	#5	40'-0"	—
a2(E)	142	#6	6'-0"	—
a3(E)	4	#5	35'-10"	—
a4(E)	4	#5	46'-2"	—
b(E)	222	#5	33'-0"	—
b1(E)	224	#5	25'-3"	—
d(E)	208	#5	6'-1"	⌋
d1(E)	208	#5	8'-6"	⌋
e(E)	42	#4	31'-3"	—
e1(E)	6	#8	34'-8"	—
e2(E)	6	#4	32'-9"	—
s(E)	150	#5	6'-6"	⌋
s1(E)	130	#4	10'-4"	⌋
m(E)	4	#6	34'-7"	—
m1(E)	6	#6	35'-7"	—
m2(E)	12	#6	17'-0"	—
m3(E)	18	#6	7'-2"	—
m4(E)	4	#6	3'-3"	—
m5(E)	8	#6	24'-0"	—
m6(E)	12	#6	24'-5"	—
m7(E)	12	#6	13'-9"	—
m8(E)	2	#6	4'-8"	—
m9(E)	2	#6	2'-0"	—
v(E)	138	#5	3'-2"	⌋
Reinforcement Bars, Epoxy Coated		Pound	40,910	
Concrete Superstructures		Cu. Yd.	267.9	
Bar Splicers		Each	304	
Clear Protective Coat for Conc.		Sq. Ft.	1,078	
Architectural Finish for Conc. Surf.		Sq. Ft.	1,078	
Limestone Cap		Each	190	

Reinforcement bars designated (E) shall be epoxy coated.



**SECTION THRU PARAPET**

\*\*See Special Provisions



**PARAPET JOINT DETAILS**

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 LAND SURVEYORS

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 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-06-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**SUPERSTRUCTURE DETAILS**

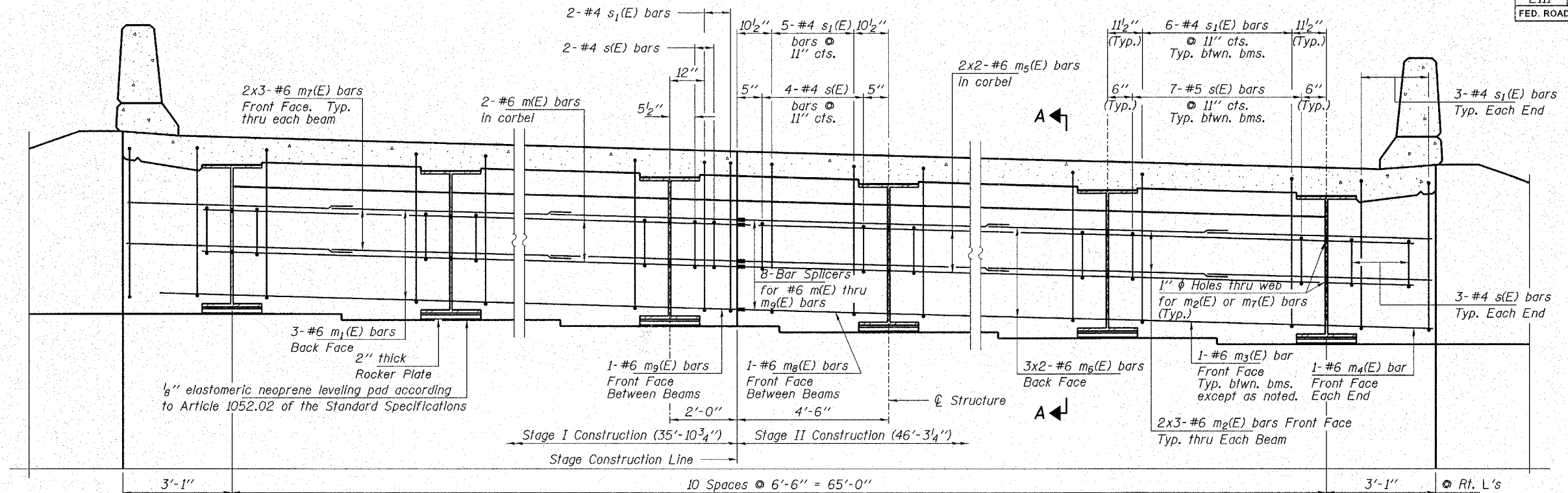
SECTION 01-00268-00-BR

F.A.S. 2111 / FABYAN PARKWAY

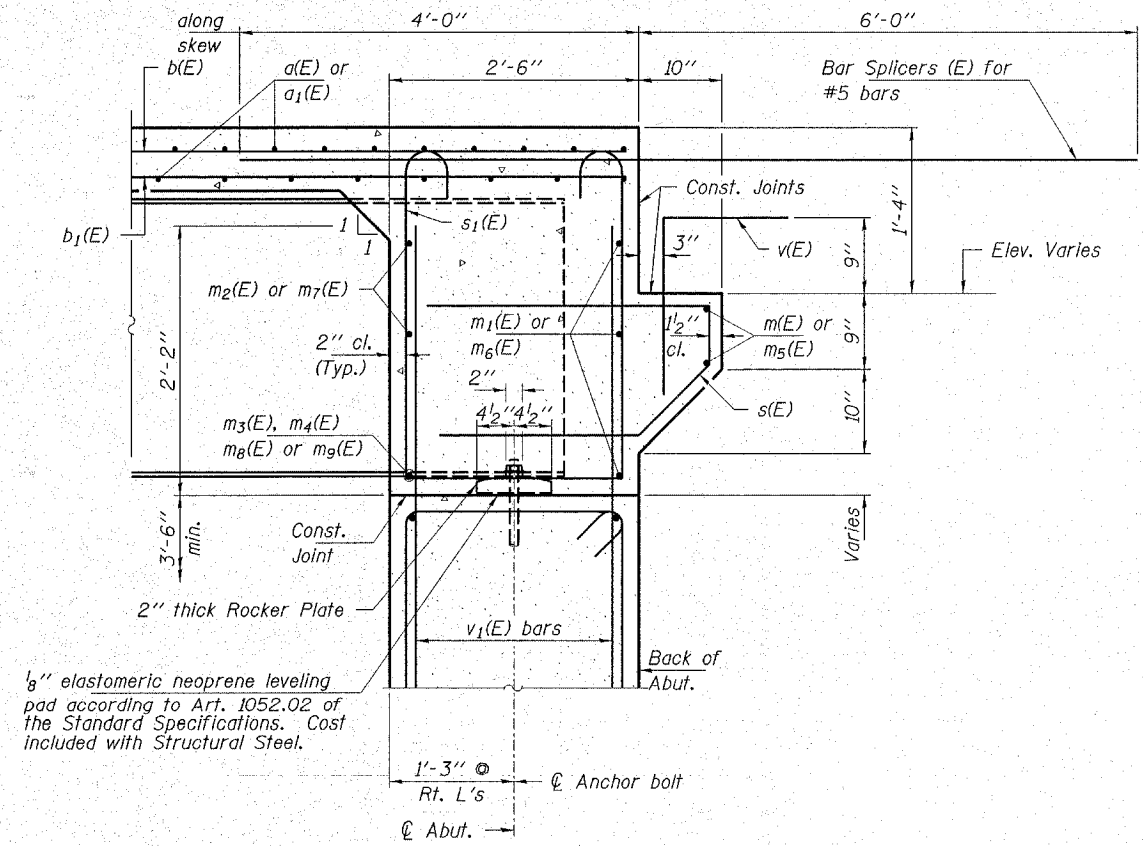
KANE COUNTY

STATION 18+97 / STRUCTURE NO. 045-3019

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 2111	01-00268-00-BR	KANE	70	3
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	83973	

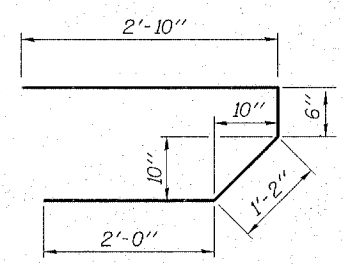


**DIAPHRAGM ELEVATION AT EAST ABUTMENT**  
(West Abutment opposite hand)



**SECTION A-A**  
Dimensions at right angles to abutment, except as shown.

**MIN. BAR LAP**  
#6 bar = 2'-9"



**BAR s(E)**

**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.  
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
Reinforcement bars in diaphragm are billed with superstructure on sheet 30.  
Concrete in diaphragm is included with Concrete Superstructure on sheet 30.  
For details of bars s1(E) see sheet 30.  
The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

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LAND SURVEYORS

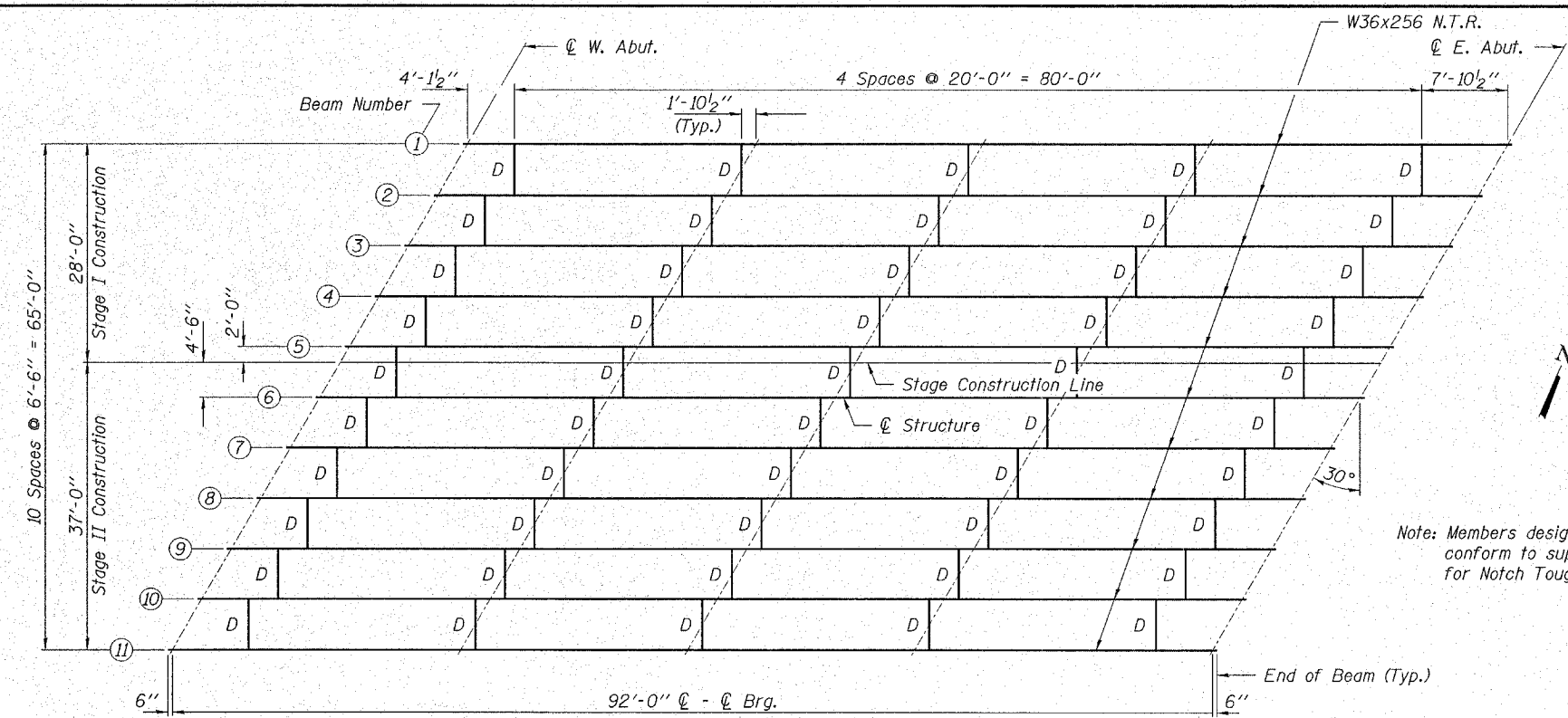
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
DESIGNED: R.J.P.    CHECKED: S.W.M.    DRAWN: D.A.B.

**SUPERSTRUCTURE DETAILS**

SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



**INT. GIRDER REACTION TABLE**

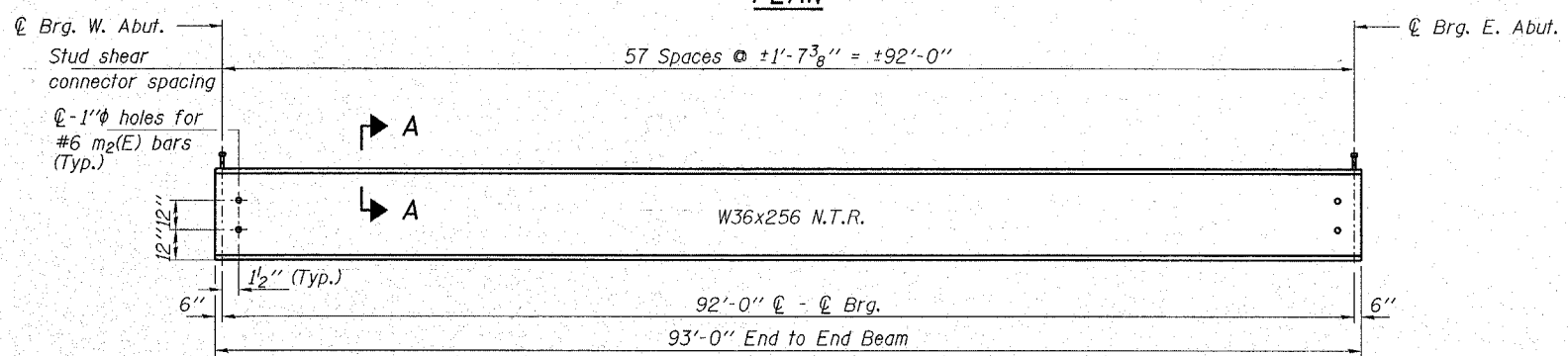
		Abut.
R <sub>l</sub>	(K)	105.4
R <sub>t</sub>	(K)	205.8
Imp.	(K)	47.4
R (Total)	(K)	358.6

**INTERIOR GIRDER MOMENT TABLE**

		0.5 Sp. 1
I <sub>s</sub>	(in <sup>4</sup> )	16,800
I <sub>c</sub> (n)	(in <sup>4</sup> )	36,636
I <sub>c</sub> (3n)	(in <sup>4</sup> )	26,457
S <sub>s</sub>	(in <sup>3</sup> )	895.0
S <sub>c</sub> (n)	(in <sup>3</sup> )	1,227.9
S <sub>c</sub> (3n)	(in <sup>3</sup> )	1,095.0
ℓ	(k')	1.24
M <sub>l</sub>	(k)	1,312
s <sub>l</sub>	(k')	0.53
M <sub>s</sub> ℓ	(k)	556.0
M <sub>l</sub>	(k)	1,217
M <sub>Imp</sub>	(k)	255
5/3 [M <sub>l</sub> + M <sub>Imp</sub> ]	(k)	2,453
M <sub>a</sub>	(k)	5,618
* M <sub>u</sub>	(k)	5,717
f <sub>s</sub> ℓ non-comp	(ksi)	17.6
f <sub>s</sub> ℓ (comp)	(ksi)	6.1
f <sub>s</sub> 5/3 [M <sub>l</sub> + M <sub>Imp</sub> ]	(ksi)	24.0
f <sub>s</sub> (Overload)	(ksi)	47.7
VR	(k)	74.6

Note: Members designated N.T.R. shall conform to supplemental requirements for Notch Toughness (Zone 2).

\* Compact section

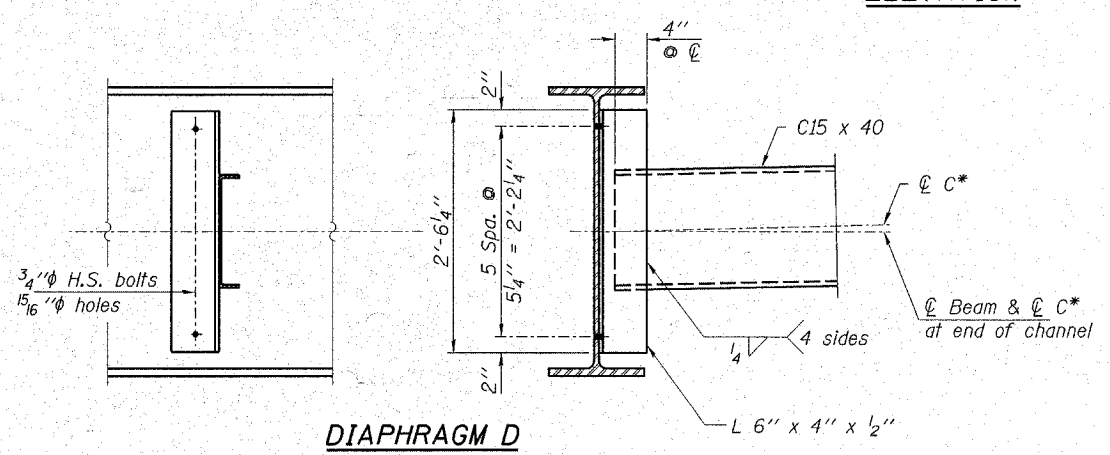


I<sub>s</sub>, S<sub>s</sub>: Non-composite moment of inertia and section modulus of the steel section used for computing f<sub>s</sub> (Total and Overload) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).

I<sub>c</sub>(n), S<sub>c</sub>(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f<sub>s</sub> (Total and Overload) due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).

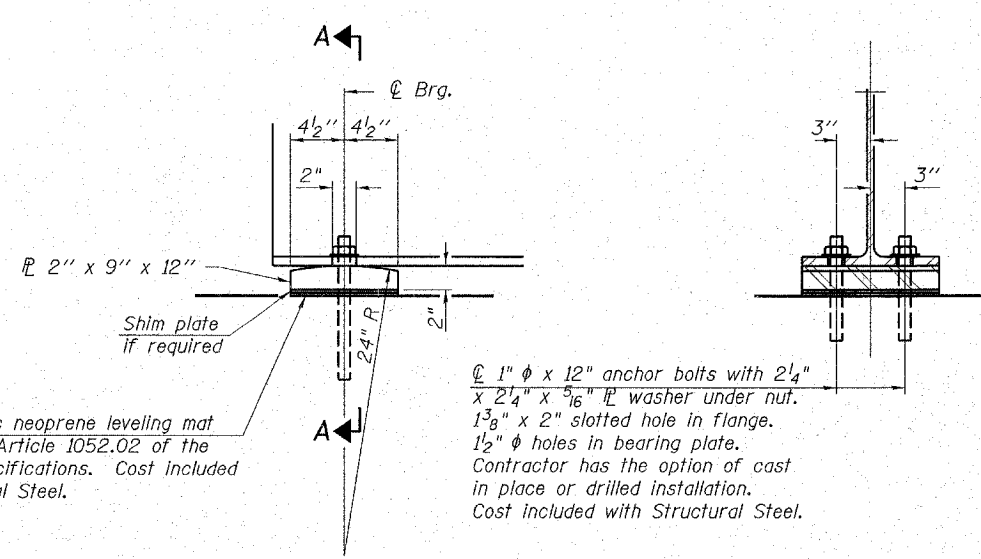
I<sub>c</sub>(3n), S<sub>c</sub>(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f<sub>s</sub> (Total and Overload) due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).

ℓ: Un-factored non-composite dead load (kips/ft.).  
 M<sub>l</sub>: Un-factored moment due to non-composite dead load (kip-ft.).  
 s<sub>l</sub>: Un-factored long-term composite (superimposed) dead load (kips/ft.).  
 M<sub>s</sub>ℓ: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).  
 M<sub>l</sub>: Un-factored live load moment (kip-ft.).  
 M<sub>Imp</sub>: Un-factored moment due to impact (kip-ft.).  
 M<sub>a</sub>: Factored design moment (kip-ft.).  
 1.3 [M<sub>l</sub> + M<sub>s</sub>ℓ + 5/3 (M<sub>l</sub> + M<sub>Imp</sub>)]  
 M<sub>u</sub>: 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<sub>s</sub> (Overload): Sum of stresses as computed from the moments below (ksi).  
 M<sub>l</sub> + M<sub>s</sub>ℓ + 5/3 (M<sub>l</sub> + M<sub>Imp</sub>)  
 VR: Maximum ℓ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).



Note: Two hardened washers required for each set of oversized holes.

\* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.



FIXED BEARING

SECTION A-A

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**STRUCTURAL STEEL**

SECTION 01-00268-00-BR

F.A.S. 2111 / FAYAN PARKWAY

KANE COUNTY

STATION 18+97 / STRUCTURE NO. 045-3019



**NOTES**

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

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

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

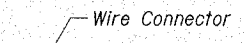
The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

**ROLLED THREAD DOWEL BAR**



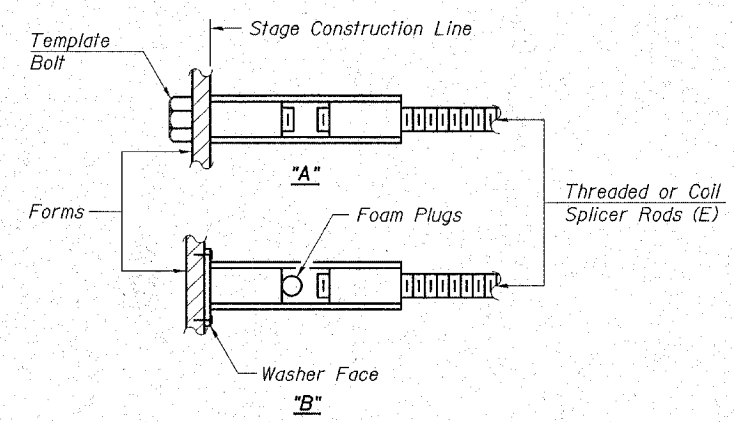
**\*\* ONE PIECE**



**WELDED SECTIONS**

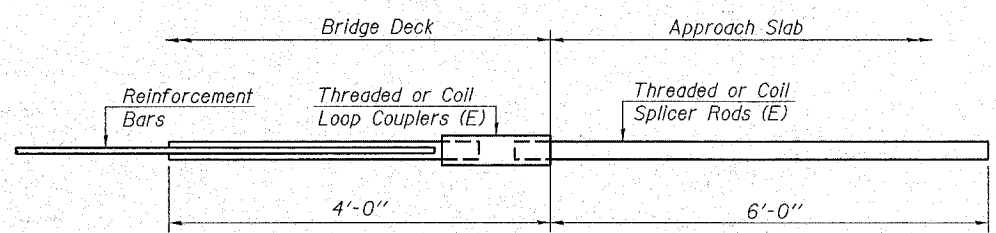
**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



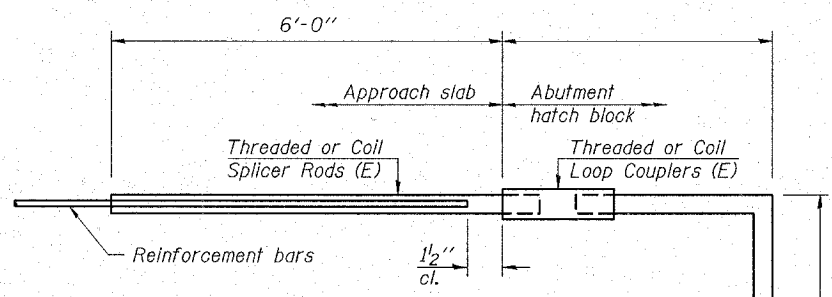
**INSTALLATION AND SETTING METHODS**

"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.



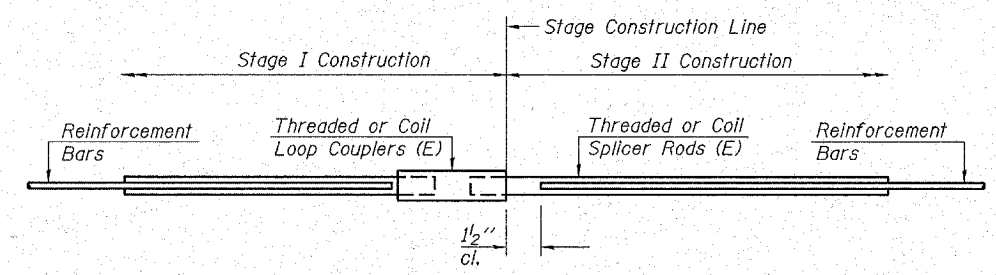
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 136



**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	258	Bridge Deck
#6	16	Diaphragms
#7	30	Abutments

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ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

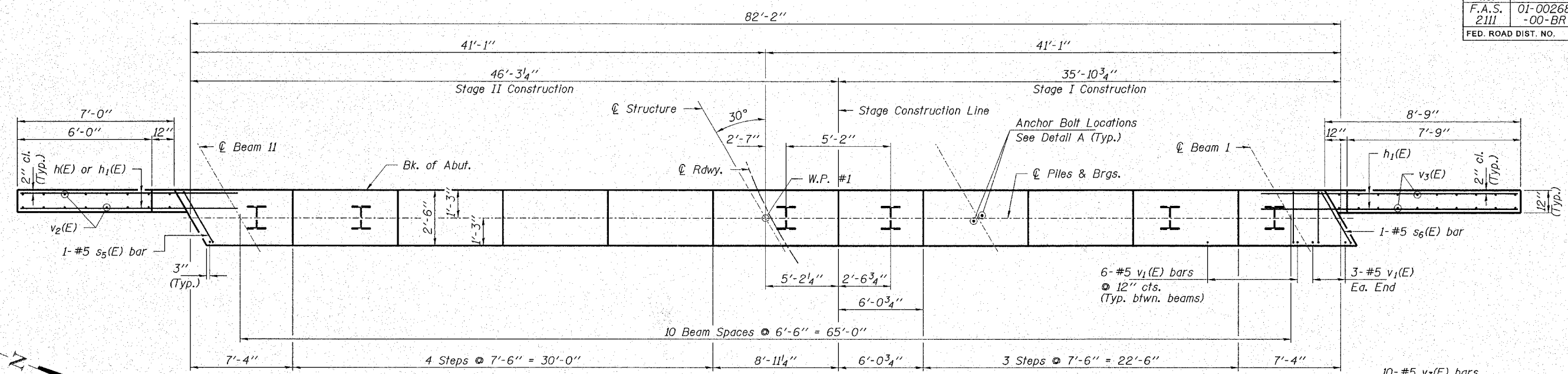
**BAR SPLICER ASSEMBLY DETAILS**

SECTION 01-00268-00-BR

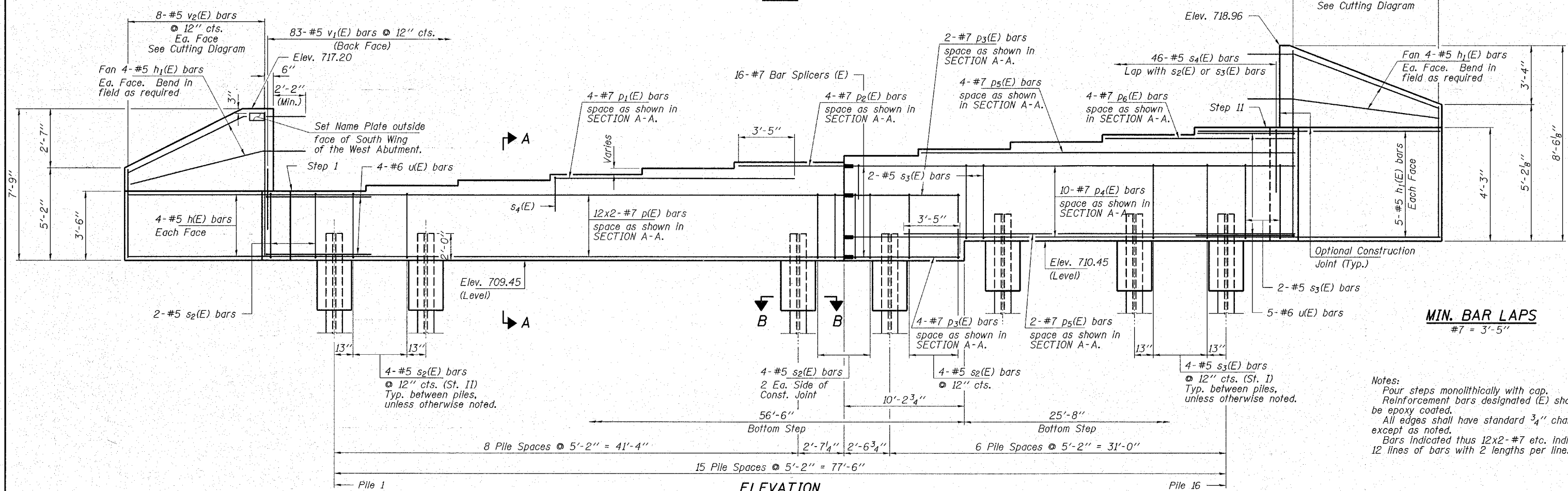
F.A.S. 2111 / FABYAN PARKWAY

KANE COUNTY

STATION 18+97 / STRUCTURE NO. 045-3019



**PLAN**



**ELEVATION**  
(Looking West)

**CAP ELEVATIONS**

	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8	STEP 9	STEP 10	STEP 11
Seat Elevation	712.95	713.07	713.21	713.35	713.51	713.68	713.86	714.06	714.27	714.48	714.71
Depth of Step	-	1 1/2"	1 5/8"	1 3/4"	1 1/8"	2"	2 1/8"	2 3/8"	2 1/2"	2 5/8"	2 3/4"

**PILE ELEVATIONS**

	PILE 1	PILE 2	PILE 3	PILE 4	PILE 5	PILE 6	PILE 7	PILE 8	PILE 9	PILE 10	PILE 11	PILE 12	PILE 13	PILE 14	PILE 15	PILE 16
Top of Pile	711.45	711.45	711.45	711.45	711.45	711.45	711.45	711.45	711.45	711.45	711.45	712.45	712.45	712.45	712.45	712.45

**MIN. BAR LAPS**  
#7 = 3'-5"

Notes:  
Pour steps monolithically with cap.  
Reinforcement bars designated (E) shall be epoxy coated.  
All edges shall have standard 3/4" chamfer except as noted.  
Bars indicated thus 12x2-#7 etc. indicates 12 lines of bars with 2 lengths per line.

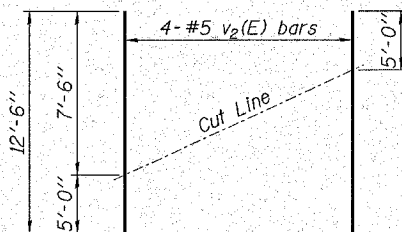
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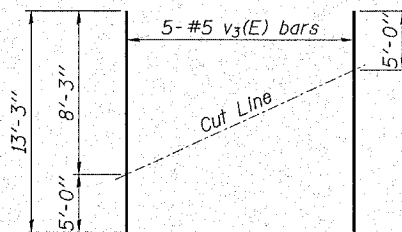
PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**WEST ABUTMENT**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



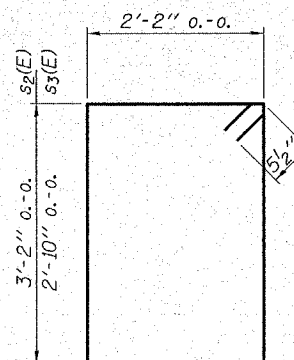
**FIELD CUTTING DIAGRAM**

Order  $v_2(E)$  full length. Cut as shown and use remainder of bars in the same face.

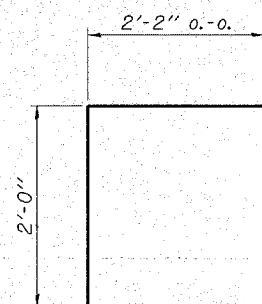


**FIELD CUTTING DIAGRAM**

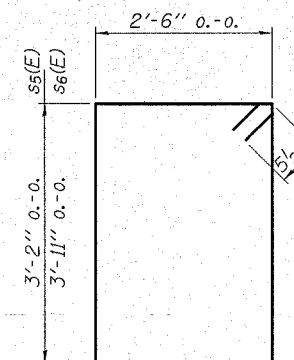
Order  $v_3(E)$  full length. Cut as shown and use remainder of bars in the same face.



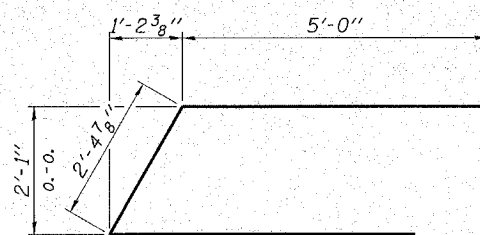
**BARS  $s_2(E)$  &  $s_3(E)$**



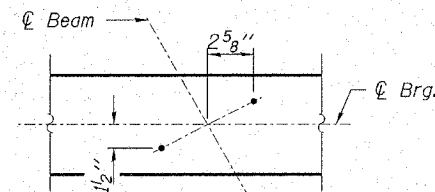
**BAR  $s_4(E)$**



**BARS  $s_5(E)$  &  $s_6(E)$**

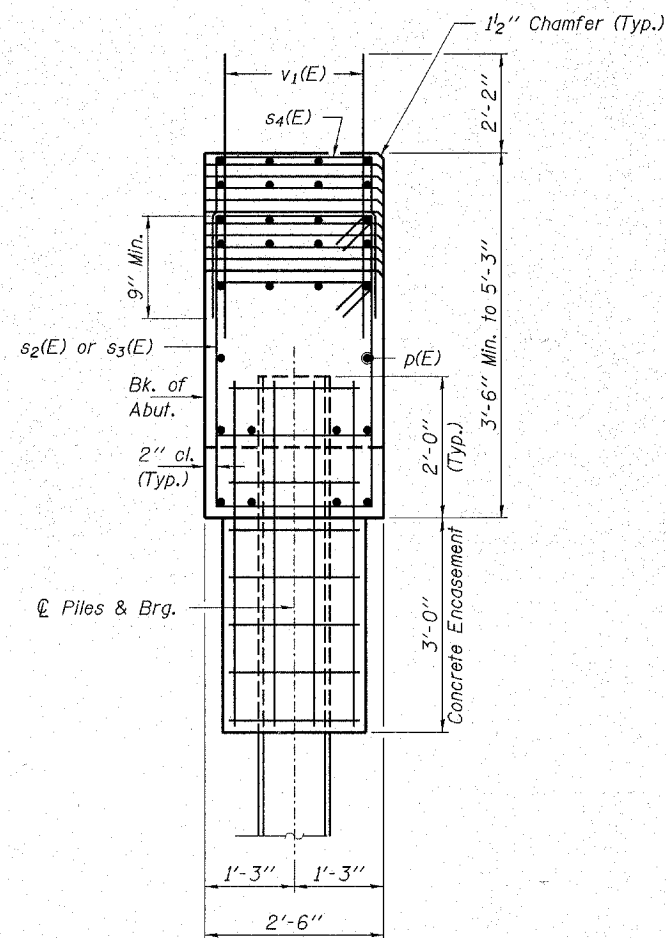


**BAR  $u(E)$**

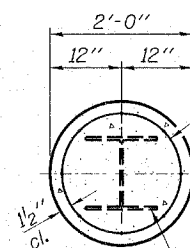


**DETAIL A**

Note: Space reinforcement in the cap to miss anchor bolts.



**SECTION A-A**



**SECTION B-B**

Welded wire fabric  
6 x 6-W4.0 x W4.0  
weighing 58#/100 sq. ft.  
The cost of Excavation and  
Reinforcement is included  
with the cost of Concrete  
Encasement. Forms for  
Encasement may be omitted  
when soil conditions will permit.

**PILE DATA**

Type ----- Steel HP12x53  
No. Req'd. (W. Abut.) ----- \*16  
Nominal Req'd Bearing ----- 354 Kips/Pile  
Allowable Resistance Available ----- 118 Kips/Pile  
Est. Length ----- 50 Ft/Pile

\* Includes one test pile to be driven in a permanent location at the West Abutment.

The Steel H-piles shall be according to AASHTO M270 Grade 50.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

**BILL OF MATERIAL - W. ABUT.**

BAR	NO.	SIZE	LENGTH	SHAPE
$h(E)$	8	#5	9'-0"	—
$h_1(E)$	26	#5	10'-9"	—
$p(E)$	24	#7	24'-9"	—
$p_1(E)$	4	#7	18'-5"	—
$p_2(E)$	4	#7	8'-9"	—
$p_3(E)$	6	#7	10'-0"	—
$p_4(E)$	10	#7	35'-7"	—
$p_5(E)$	6	#7	29'-8"	—
$p_6(E)$	4	#7	14'-7"	—
$s_2(E)$	42	#5	11'-7"	□
$s_3(E)$	24	#5	10'-11"	□
$s_4(E)$	46	#5	6'-6"	□
$s_5(E)$	1	#5	12'-3"	□
$s_6(E)$	1	#5	13'-9"	□
$u(E)$	9	#6	12'-5"	—
$v_1(E)$	149	#5	4'-4"	—
$v_2(E)$	8	#5	12'-6"	—
$v_3(E)$	10	#5	13'-3"	—
Concrete Structures		Cu. Yd.	34.3	
Reinforcement Bars, Epoxy Coated		Pound	5,340	
Bar Splacers		Each	16	
Steel Piles HP12x53		Foot	750	
Test Pile Steel HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	5.6	

Reinforcement Bars designated (E) shall be epoxy coated.  
See Sheet 38 for pile details.

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PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

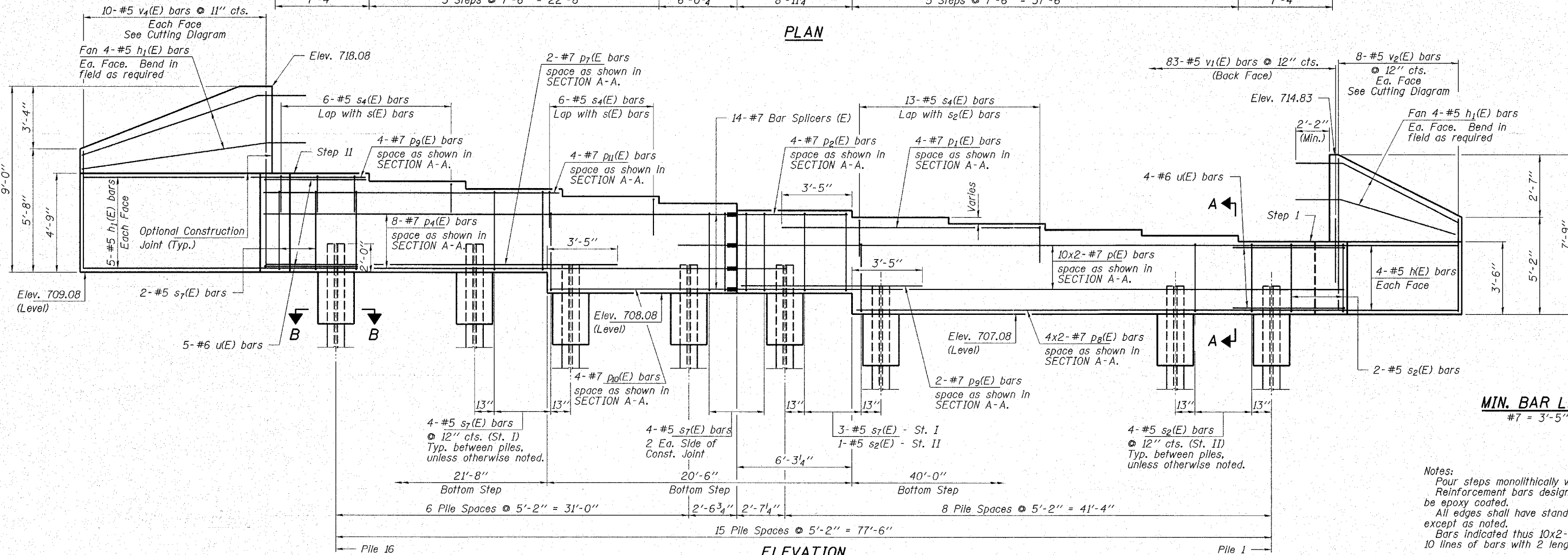
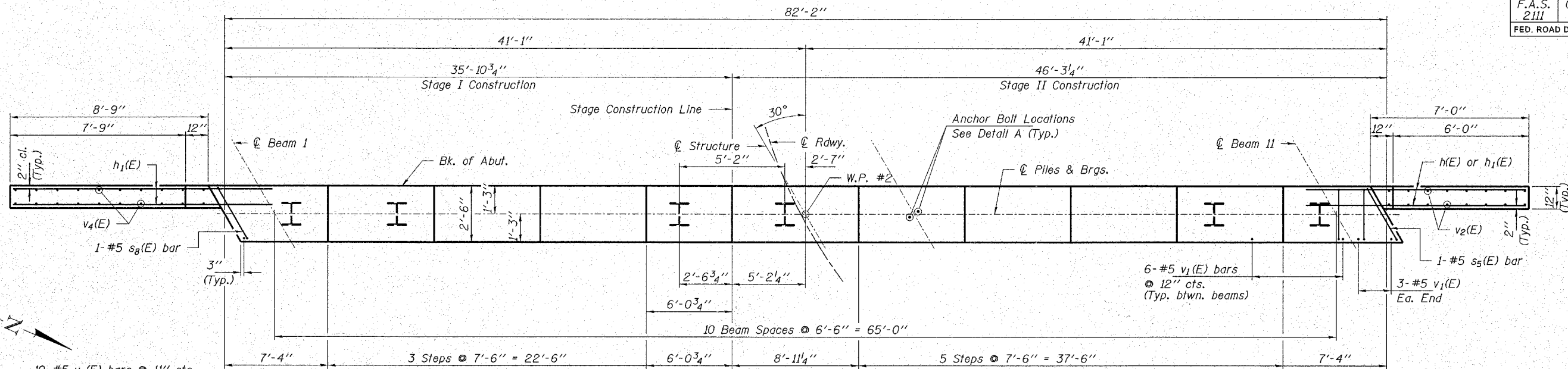
**WEST ABUTMENT DETAILS**

SECTION 01-00268-00-BR

F.A.S. 2111 / FAYAN PARKWAY

KANE COUNTY

STATION 18+97 / STRUCTURE NO. 045-3019



**MIN. BAR LAPS**  
#7 = 3'-5"

Notes:  
Pour steps monolithically with cap.  
Reinforcement bars designated (E) shall be epoxy coated.  
All edges shall have standard 3/4" chamfer except as noted.  
Bars indicated thus 10x2-#7 etc. indicates 10 lines of bars with 2 lengths per line.

**CAP ELEVATIONS**

	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8	STEP 9	STEP 10	STEP 11
Seat Elevation	710.58	710.85	711.13	711.43	711.73	712.05	712.38	712.73	713.08	713.45	713.83
Depth of Step	-	3/4"	3 3/8"	3 1/2"	3 5/8"	3 7/8"	4"	4 1/8"	4 1/4"	4 3/8"	4 1/2"

**PILE ELEVATIONS**

	PILE 1	PILE 2	PILE 3	PILE 4	PILE 5	PILE 6	PILE 7	PILE 8	PILE 9	PILE 10	PILE 11	PILE 12	PILE 13	PILE 14	PILE 15	PILE 16
Top of Pile	709.08	709.08	709.08	709.08	709.08	709.08	709.08	709.08	710.08	710.08	710.08	710.08	711.08	711.08	711.08	711.08

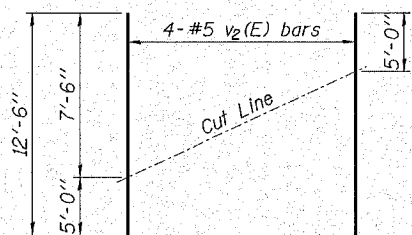
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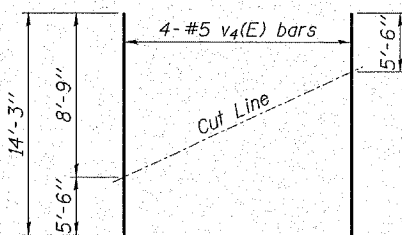
PROJECT NUMBER 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**EAST ABUTMENT**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



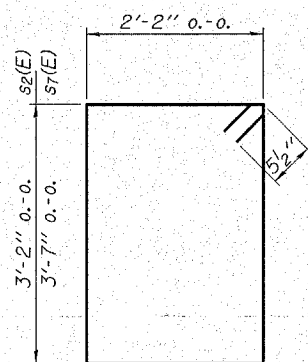
**FIELD CUTTING DIAGRAM**

Order  $v_2(E)$  full length. Cut as shown and use remainder of bars in the same face.

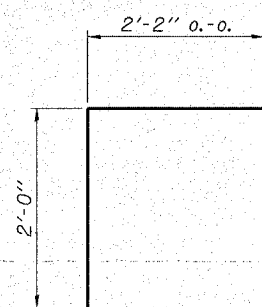


**FIELD CUTTING DIAGRAM**

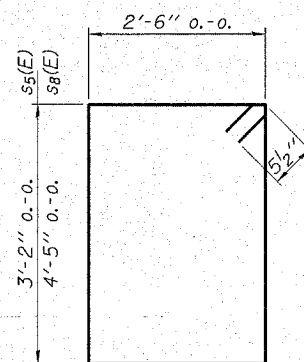
Order  $v_4(E)$  full length. Cut as shown and use remainder of bars in the same face.



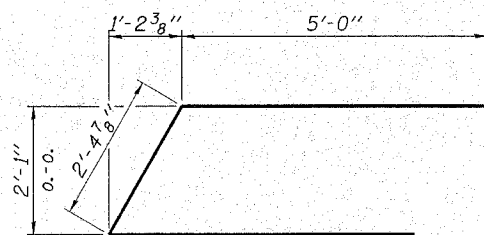
**BARS  $s_2(E)$  &  $s_7(E)$**



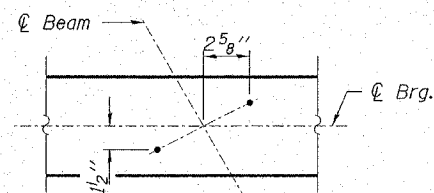
**BAR  $s_4(E)$**



**BARS  $s_5(E)$  &  $s_8(E)$**

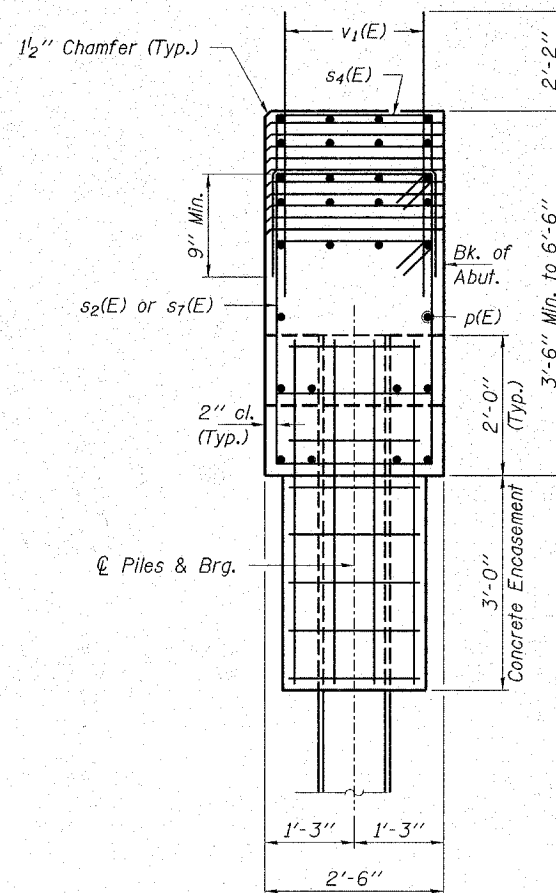


**BAR  $u(E)$**

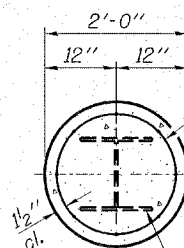


**DETAIL A**

Note: Space reinforcement in the cap to miss anchor bolts.



**SECTION A-A**



**SECTION B-B**

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with the cost of Concrete Encasement. Forms for Encasement may be omitted when soil conditions will permit.

Steel Pile HP12x53

**PILE DATA**

Type.....Steel HP12x53  
 No. Req'd. (E. Abut.).....\*16  
 Nominal Req'd Bearing.....354 Kips/Pile  
 Allowable Resistance Available.....118 Kips/Pile  
 Est. Length.....40 Ft/Pile

\* Includes one test pile to be driven in a permanent location at the East Abutment.

The Steel H-piles shall be according to AASHTO M270 Grade 50.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

**BILL OF MATERIAL - E. ABUT.**

BAR	NO.	SIZE	LENGTH	SHAPE
$h(E)$	8	#5	9'-0"	—
$h_1(E)$	26	#5	10'-9"	—
$p(E)$	20	#7	24'-9"	—
$p_1(E)$	4	#7	18'-5"	—
$p_2(E)$	4	#7	8'-9"	—
$p_4(E)$	8	#7	35'-7"	—
$p_7(E)$	2	#7	25'-0"	—
$p_8(E)$	8	#7	21'-7"	—
$p_9(E)$	6	#7	7'-0"	—
$p_{10}(E)$	4	#7	14'-0"	—
$p_{11}(E)$	4	#7	22'-0"	—
$s_2(E)$	31	#5	11'-7"	□
$s_4(E)$	25	#5	6'-6"	□
$s_5(E)$	1	#5	12'-3"	□
$s_7(E)$	33	#5	12'-5"	□
$s_8(E)$	1	#5	14'-9"	□
$u(E)$	9	#6	12'-5"	—
$v_1(E)$	149	#5	4'-4"	—
$v_2(E)$	8	#5	12'-6"	—
$v_4(E)$	10	#5	14'-3"	—
Concrete Structures		Cu. Yd.	40.7	
Reinforcement Bars, Epoxy Coated		Pound	4,800	
Bar Splicers		Each	14	
Steel Piles HP12x53		Foot	600	
Test Pile Steel HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	5.6	

Reinforcement Bars designated (E) shall be epoxy coated. See Sheet 38 for pile details.

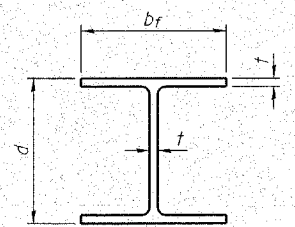
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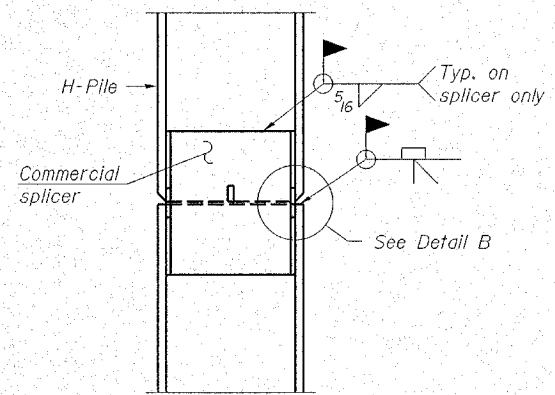
PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**EAST ABUTMENT DETAILS**  
**SECTION 01-00268-00-BR**  
**F.A.S. 2111 / FABYAN PARKWAY**  
**KANE COUNTY**  
**STATION 18+97 / STRUCTURE NO. 045-3019**

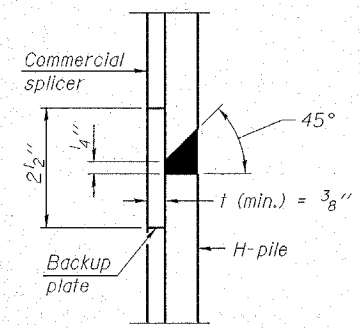


**STEEL PILE TABLE**

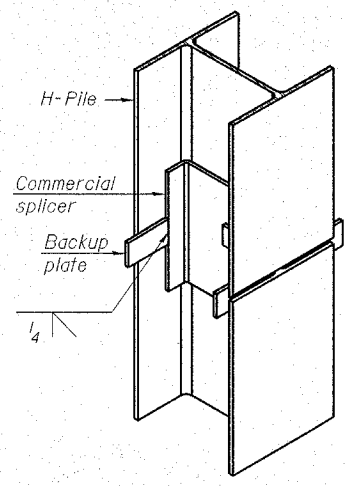
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



**ELEVATION**

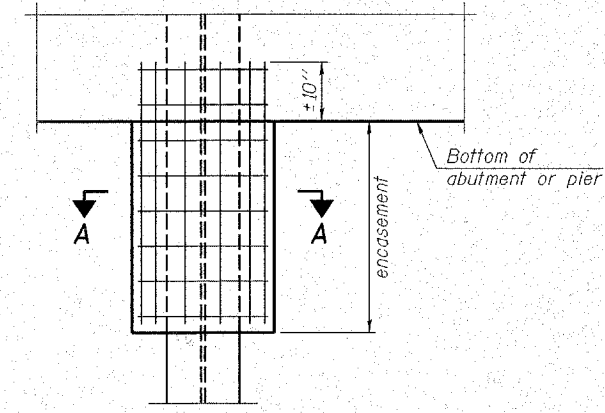


**DETAIL "B"**

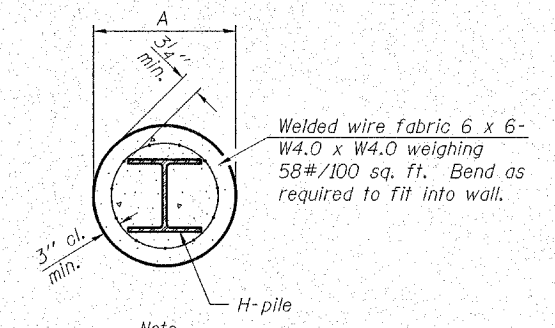


**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



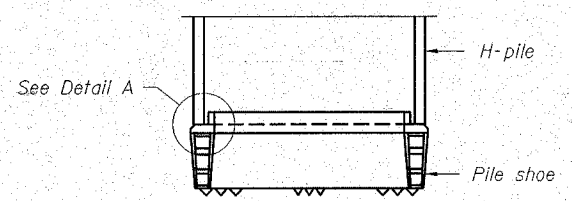
**ELEVATION**



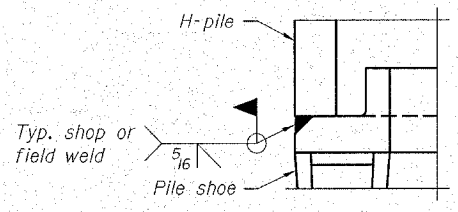
**SECTION A-A**

**PILE ENCASEMENT**

Note:  
Forms for encasement may be omitted when soil conditions permit.

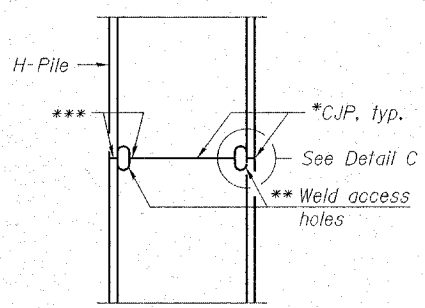


**ELEVATION**

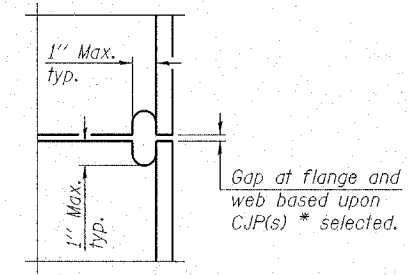


**DETAIL A**

**H-PILE SHOE ATTACHMENT**

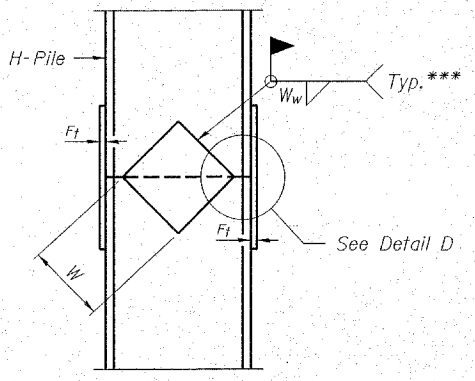


**ELEVATION**

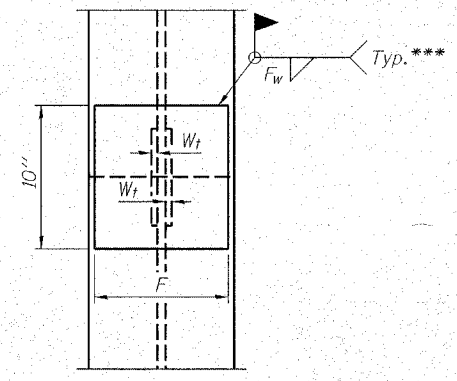


**DETAIL C**

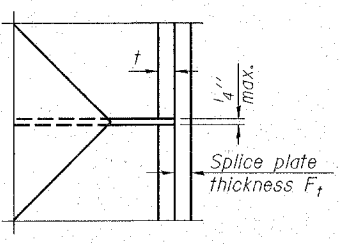
**COMPLETE PENETRATION WELD SPLICE**



**ELEVATION**



**END VIEW**



**DETAIL D**

**WELDED PLATE FIELD SPLICE**

Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

- \* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- \*\* Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- \*\*\* Interrupt welds 1/4" from end of each pile.

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**STEEL H PILE DETAILS**

SECTION 01-00268-00-BR

F.A.S. 2111 / FABYAN PARKWAY

KANE COUNTY

STATION 18+97 / STRUCTURE NO. 045-3019



Illinois Department of Transportation  
Division of Highways  
Geotechnical Corporation

## SOIL BORING LOG

Page 1 of 2

Date 4/9/07

ROUTE Fabvan Parkway DESCRIPTION Bridge over Mill Creek LOGGED BY R. Groff

SECTION 01-00268-00-BR LOCATION SEC. 18, TWP., RNG., 3<sup>rd</sup> PM

COUNTY KANE DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140 lb. Auto

STRUCT. NO.	DEPT H	BLOW S	UCS Qu	MOIST (%)	Surface Water Elev.	DEPT H	BLOW S	UCS Qu	MOIST (%)
Station					ft				
BORING NO. B-1					ft				
Station 16' N of N. Abut					82.7				
Offset 21.00ft W. CL Rdwy					86.7				
Ground Surface Elev. 101.7									
Stiff Brown SANDY CLAY, little gravel - FILL	2				80.70	2			
	3	2.0	16.0			3	1.7	19.8	
	4					4			
	4	2.0	25.7			3	1.7	21.1	
	4	P			76.70	7	B		
	4				75.70				
	5	2.6	17.4			3			
	5	P				6	2.2	28.0	
						6	B		
Stiff Black SILTY CLAY - FILL	3				73.20	5			
	3	1.6	19.6			7			
	5	P				8			
	4								
	5	3.0	19.0						
	6	P							
	3					5			
	4	2.3	15.9		67.20	6	4.5	8.9	
	4	B				9	P		
	4								
Stiff Gray SILTY CLAY, trace sand & gravel	11	2.5	14.8		84.70				
	6	B							
	3				82.70	2			
Loose Gray Fine-Coarse SAND, little gravel - wet	3					2	1.5	12.0	
	5					3	P		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
Geotechnical Corporation

## SOIL BORING LOG

Page 2 of 2

Date 4/9/07

ROUTE Fabvan Parkway DESCRIPTION Bridge over Mill Creek LOGGED BY R. Groff

SECTION 01-00268-00-BR LOCATION SEC. 18, TWP., RNG., 3<sup>rd</sup> PM

COUNTY KANE DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140 lb. Auto

STRUCT. NO.	DEPT H	BLOW S	UCS Qu	MOIST (%)	Surface Water Elev.	DEPT H	BLOW S	UCS Qu	MOIST (%)
Station					ft				
BORING NO. B-1					ft				
Station 16' N of N. Abut					82.7				
Offset 21.00ft W. CL Rdwy					86.7				
Ground Surface Elev. 101.7									
Hard to Stiff Gray Sandy SILTY CLAY, trace gravel (continued)									
					59.20				
Very Dense Gray SILT, moist									
						23			
					57.20	39	6.9	10.7	
Very Hard Gray to Brown Sandy SILTY CLAY, trace gravel						31	S		
						8			
						11	5.7	11.7	
						12	B		
						9			
						12	4.9	15.2	
						14	B		
End of Boring					46.70				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

BORING 1

**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**BORING 1**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



**Illinois Department of Transportation**  
Division of Highways  
Geoff Testing Corporation

### SOIL BORING LOG

Page 1 of 2

Date 4/9/07

ROUTE Fabyan Parkway DESCRIPTION Bridge over Mill Creek LOGGED BY R. Groff

SECTION 01-00268-00-BR LOCATION SEC. 18, TWP., RNG., 3<sup>rd</sup> PM

COUNTY KANE DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140 lb. Auto

STRUCT. NO.	DEPTH	UCS	MOIST	Surface Water Elev.	DEPTH	UCS	MOIST
Station	(ft)	(/6")	(tsf)	ft	(ft)	(/6")	(tsf)
B-2							
16' S. of S. Abut							
21.00ft E. CL Rdwy							
Ground Surface Elev. 98.4							
	2				3		
	2	1.5	17.4		5	2.5	13.9
	3	P			7	B	
	2				5		
	3	1.7	18.2	73.90	7	2.0	15.6
	3	P			12	P	
	2			72.40	6		
	2	1.4	18.7		8	3.1	14.9
	4	P			10	B	
	2				5		
	2	1.2	19.8		8	2.7	17.8
	2	P			10	B	
	2				5		
	3	1.6	19.2		8		
	4	P			10	4.8	13.5
	1				34	B	
	3	2.0	20.2				
	5	P					
	4			62.40			
	6	1.8	18.7				
	6	P					
	3				9		
	4	2.5	15.0		11	4.5+	9.9
	5	P			10	P	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)



**Illinois Department of Transportation**  
Division of Highways  
Geoff Testing Corporation

### SOIL BORING LOG

Page 2 of 2

Date 4/9/07

ROUTE Fabyan Parkway DESCRIPTION Bridge over Mill Creek LOGGED BY R. Groff

SECTION 01-00268-00-BR LOCATION SEC. 18, TWP., RNG., 3<sup>rd</sup> PM

COUNTY KANE DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140 lb. Auto

STRUCT. NO.	DEPTH	UCS	MOIST	Surface Water Elev.	DEPTH	UCS	MOIST
Station	(ft)	(/6")	(tsf)	ft	(ft)	(/6")	(tsf)
B-2							
16' S. of S. Abut							
21.00ft E. CL Rdwy							
Ground Surface Elev. 98.4							
	7				10	4.9	10.2
					9	B	
	6						
	9	5.5	9.8		11	B	
	7						
	9	5.8	9.9		12	B	
	43.40						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)

BORING 2

**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

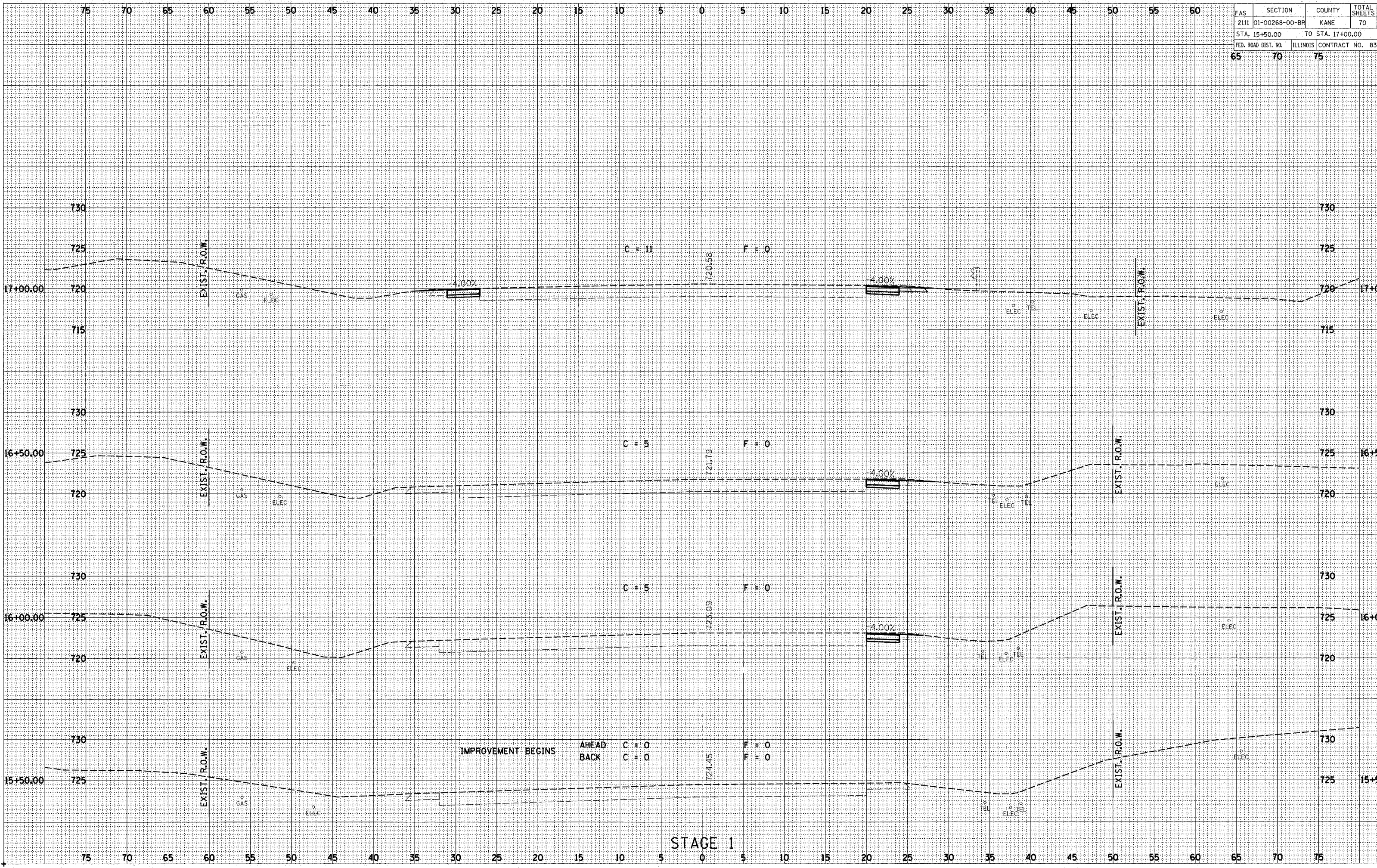
ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**BORING 2**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



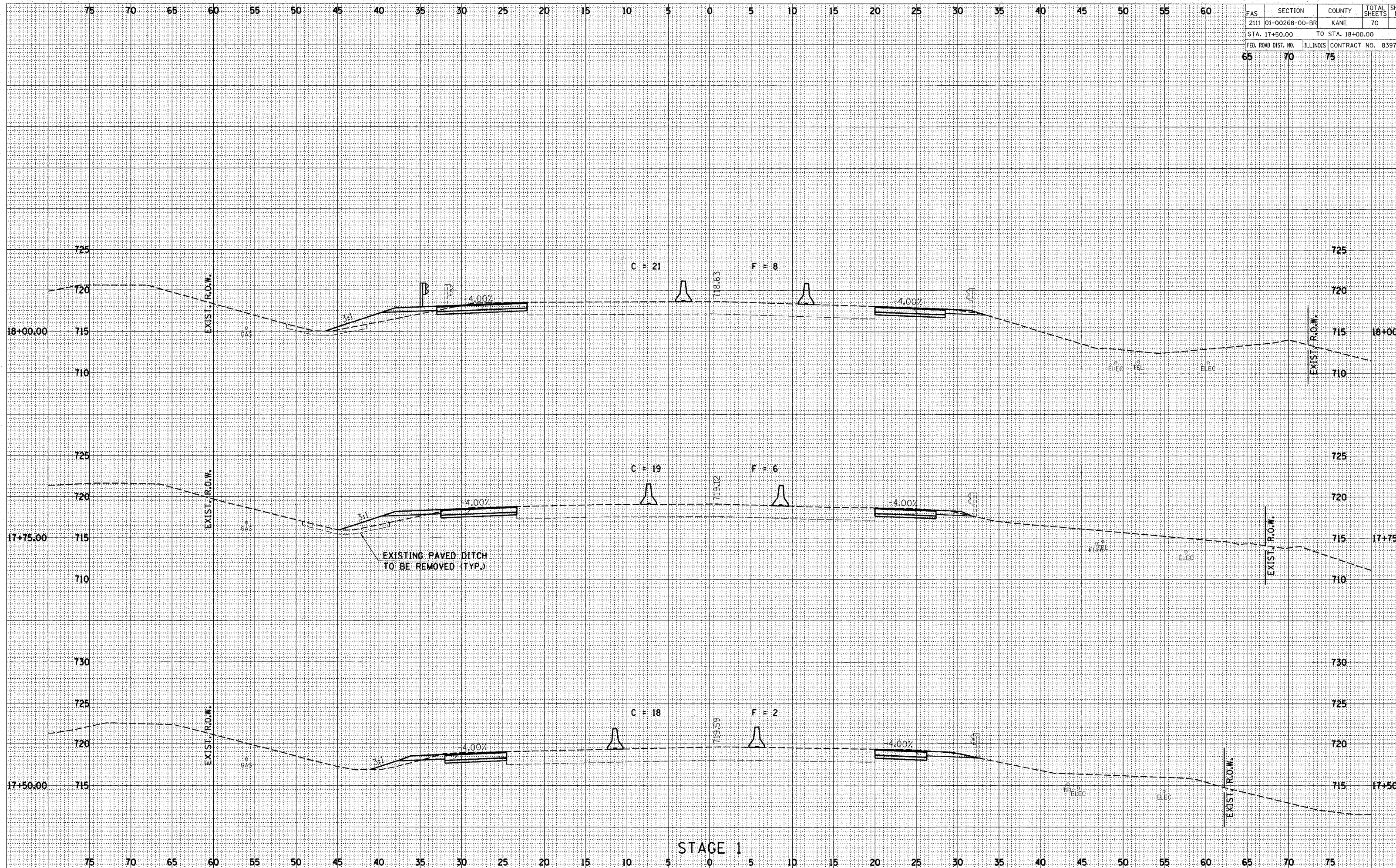
FAS	SECTION	COUNTY	TOTAL SHEETS
2111	01-00268-00-BR	KANE	70
STA. 15+50.00		TO STA. 17+00.00	
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 8397	



NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED

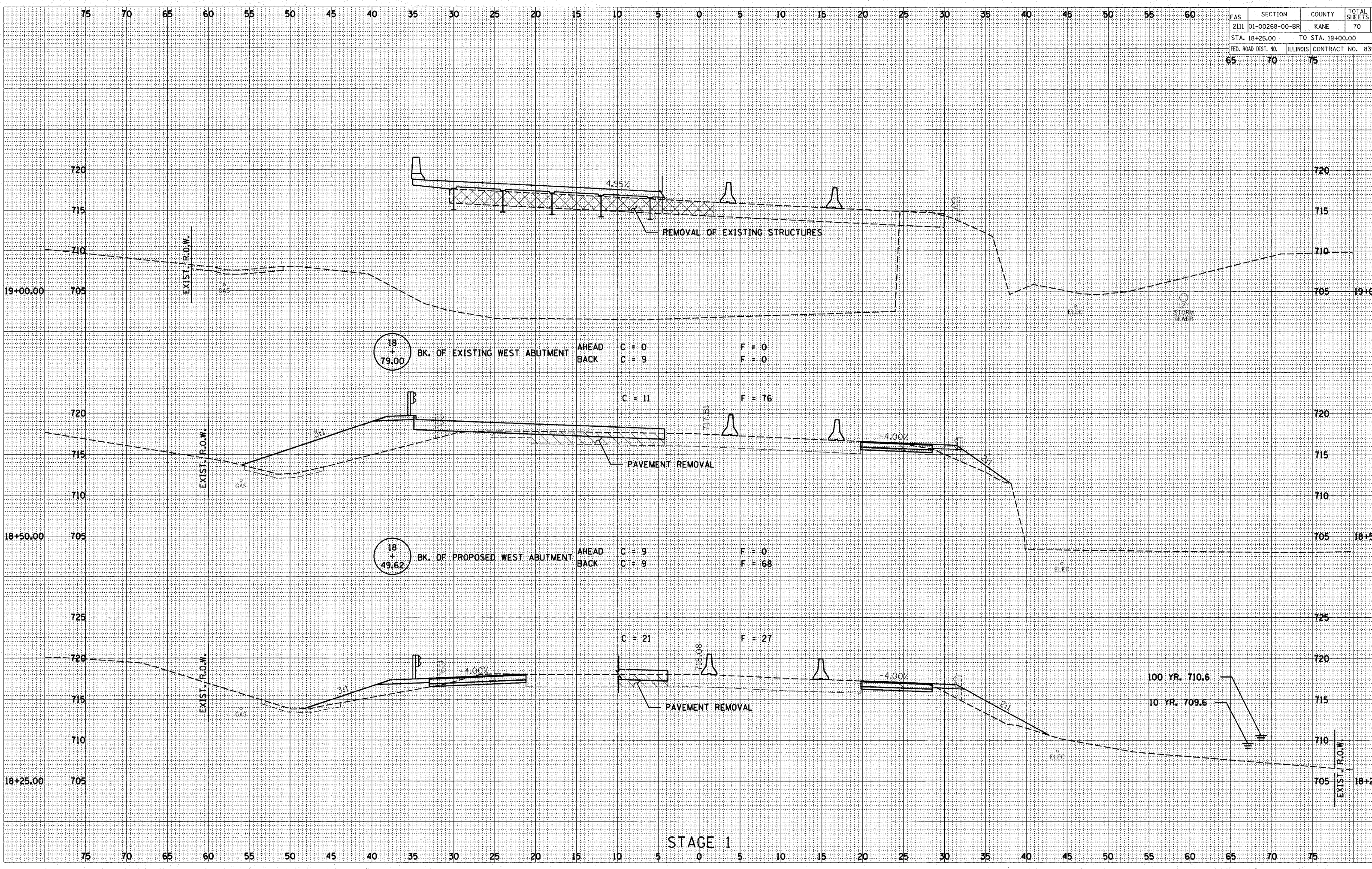
FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2111	01-00268-00-BR	KANE	70	4
STA. 17+50.00		TO STA. 18+00.00		
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 83973		

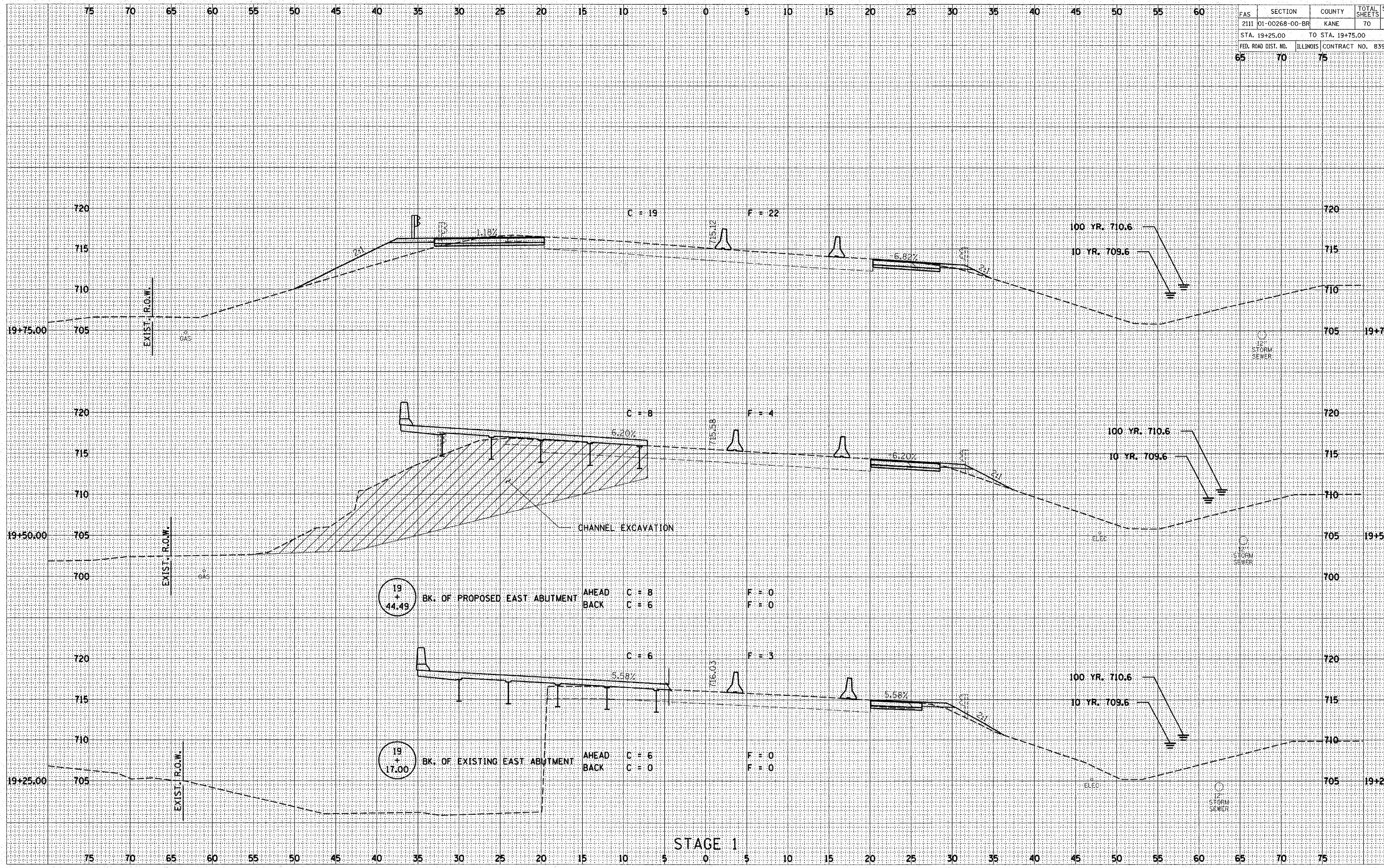


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STAGE 1

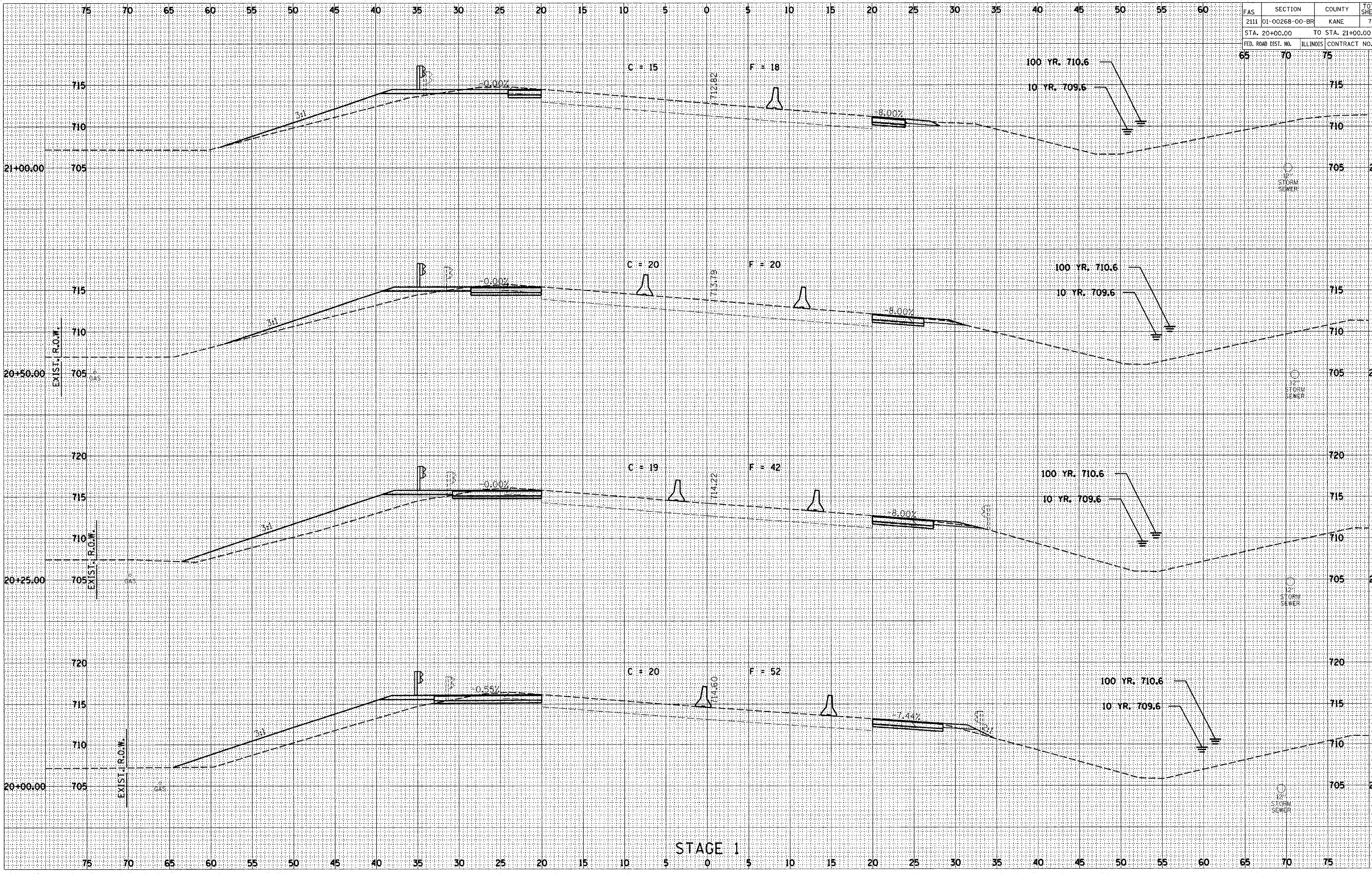




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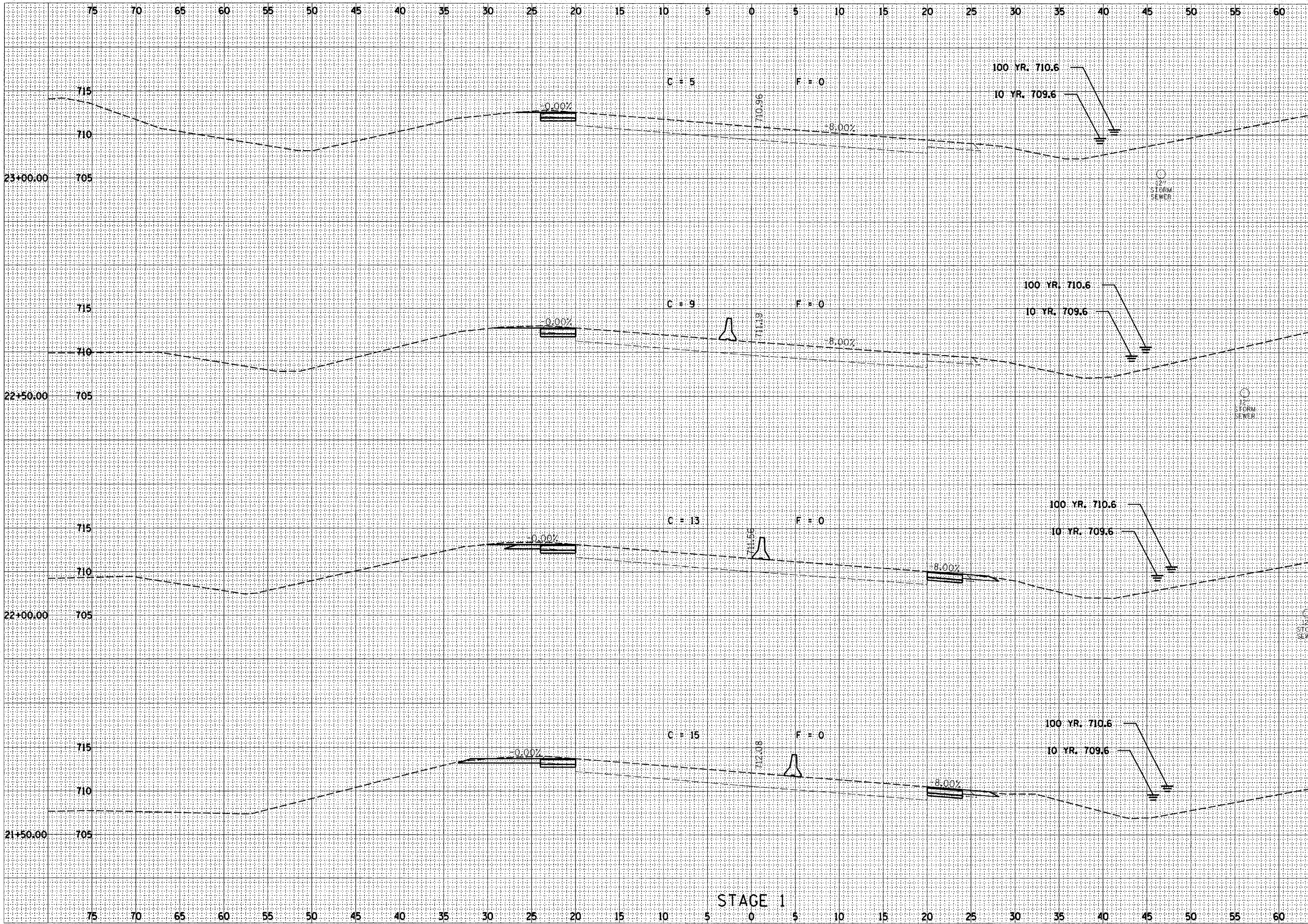
FAS	SECTION	COUNTY	TOTAL SHEETS
2111	01-00268-00-BR	KANE	70
STA. 20+00.00		TO STA. 21+00.00	
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 8397	



NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED

FAS	SECTION	COUNTY	TOTAL SHEETS
2111	01-00268-00-BR	KANE	70
STA. 21+50.00		TO STA. 23+00.00	
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 8397	



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NOTE BOOK TEMPLATE AREAS CHECKED

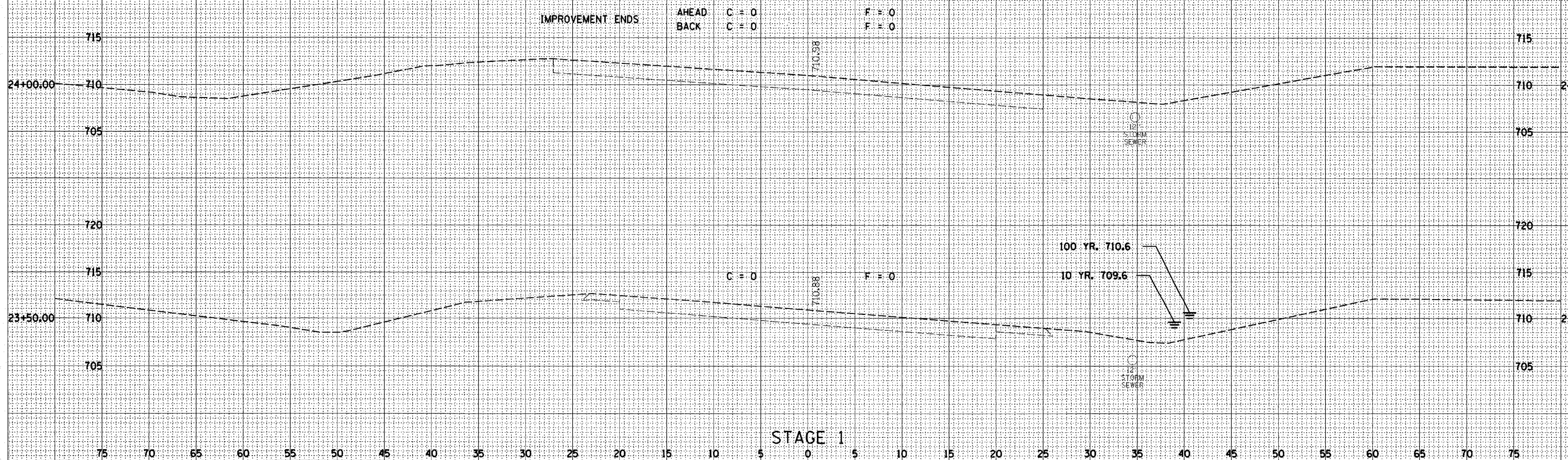
STAGE 1

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2111	01-00268-00-BR	KANE	70	4
STA. 23+50.00		TO STA. 24+00.00		
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 83973		

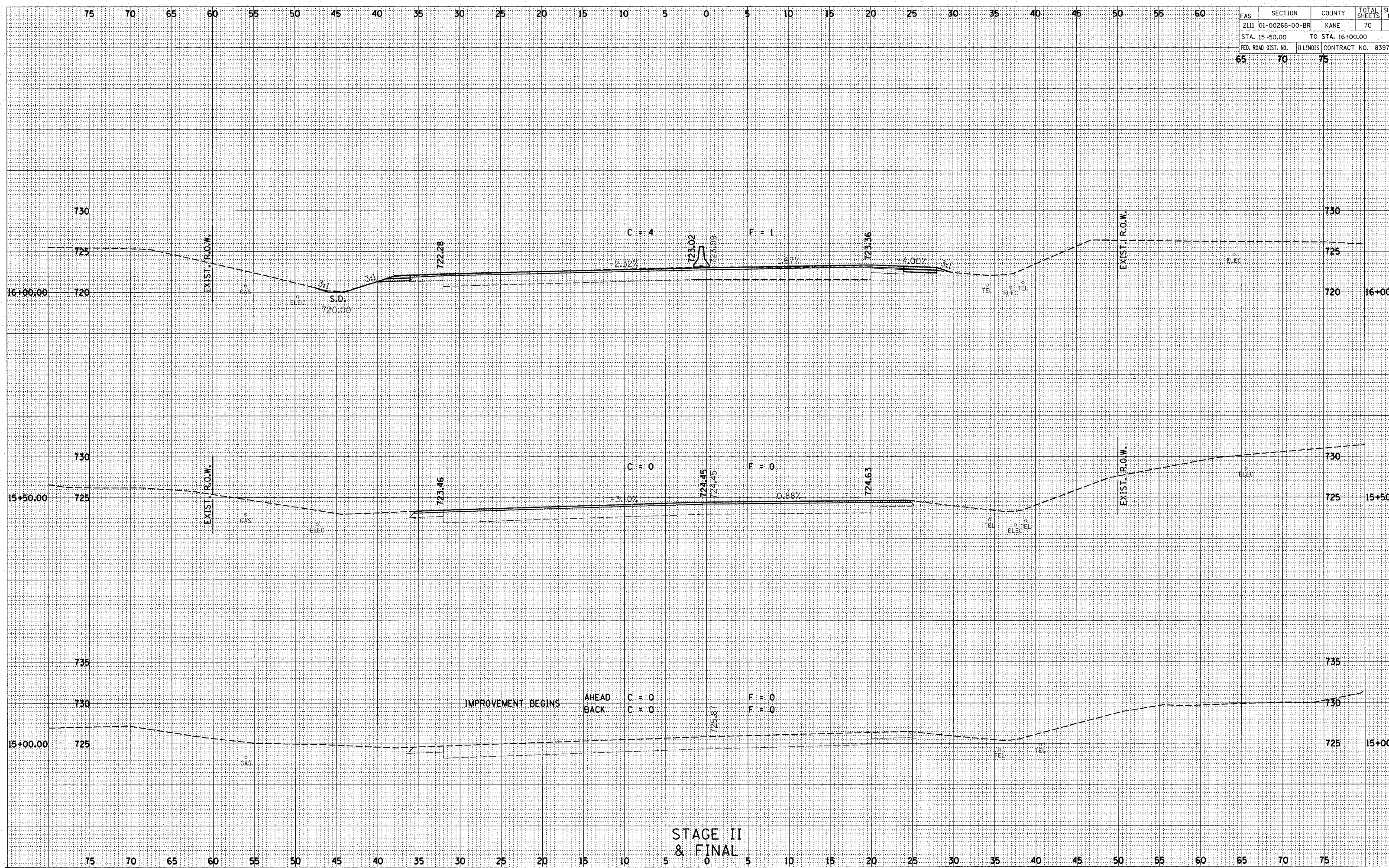
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STAGE 1

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

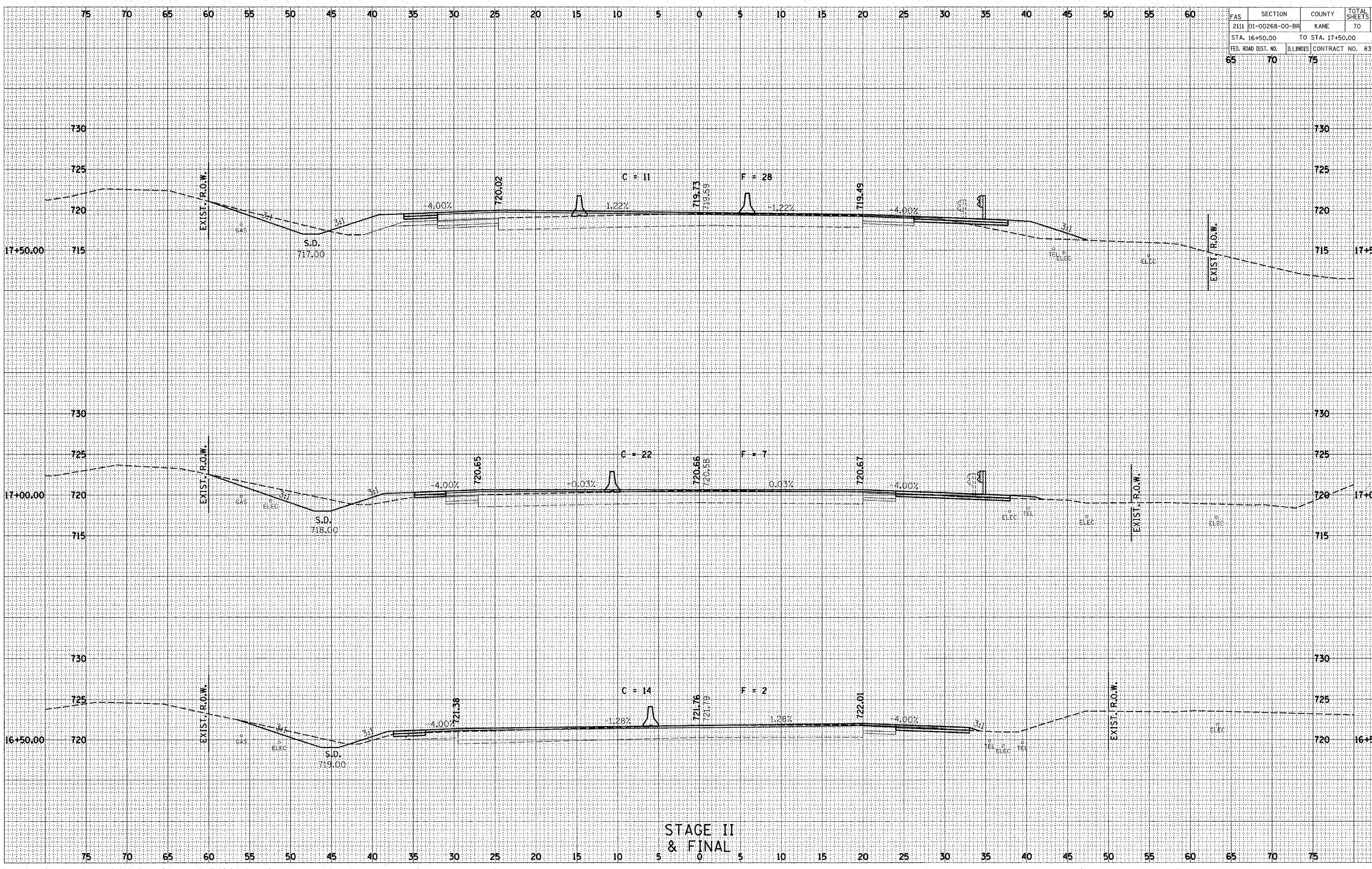


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FAS	SECTION	COUNTY	TOTAL SHEETS	SH
2111	01-00268-00-BR	KANE	70	
STA. 16+50.00		TO STA. 17+50.00		
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 8397		

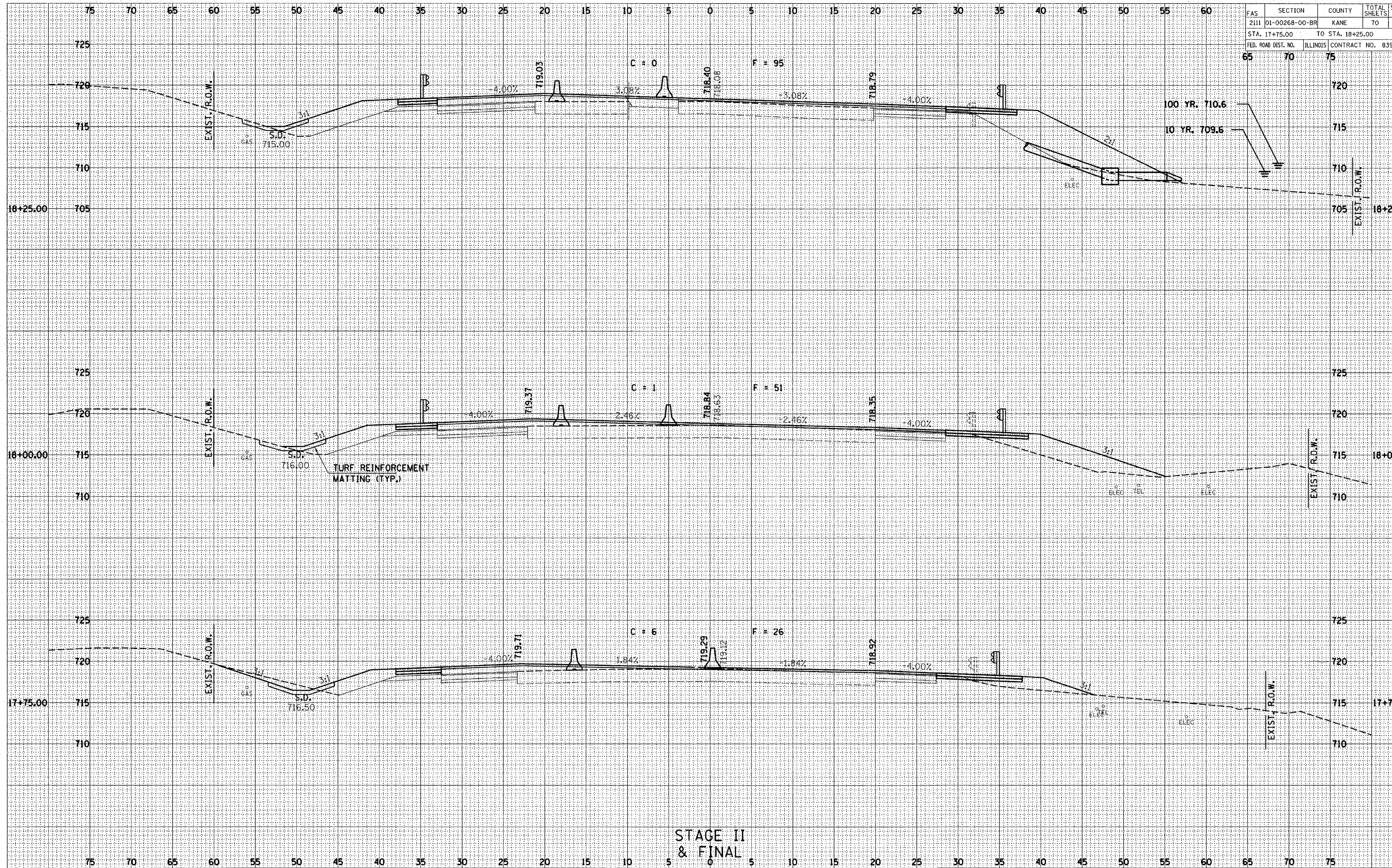


STAGE II  
& FINAL

NOTE BOOK TEMPLATE AREAS CHECKED

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FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2111	01-00268-00-BR	KANE	70	5
STA. 17+75.00		TO STA. 18+25.00		
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	

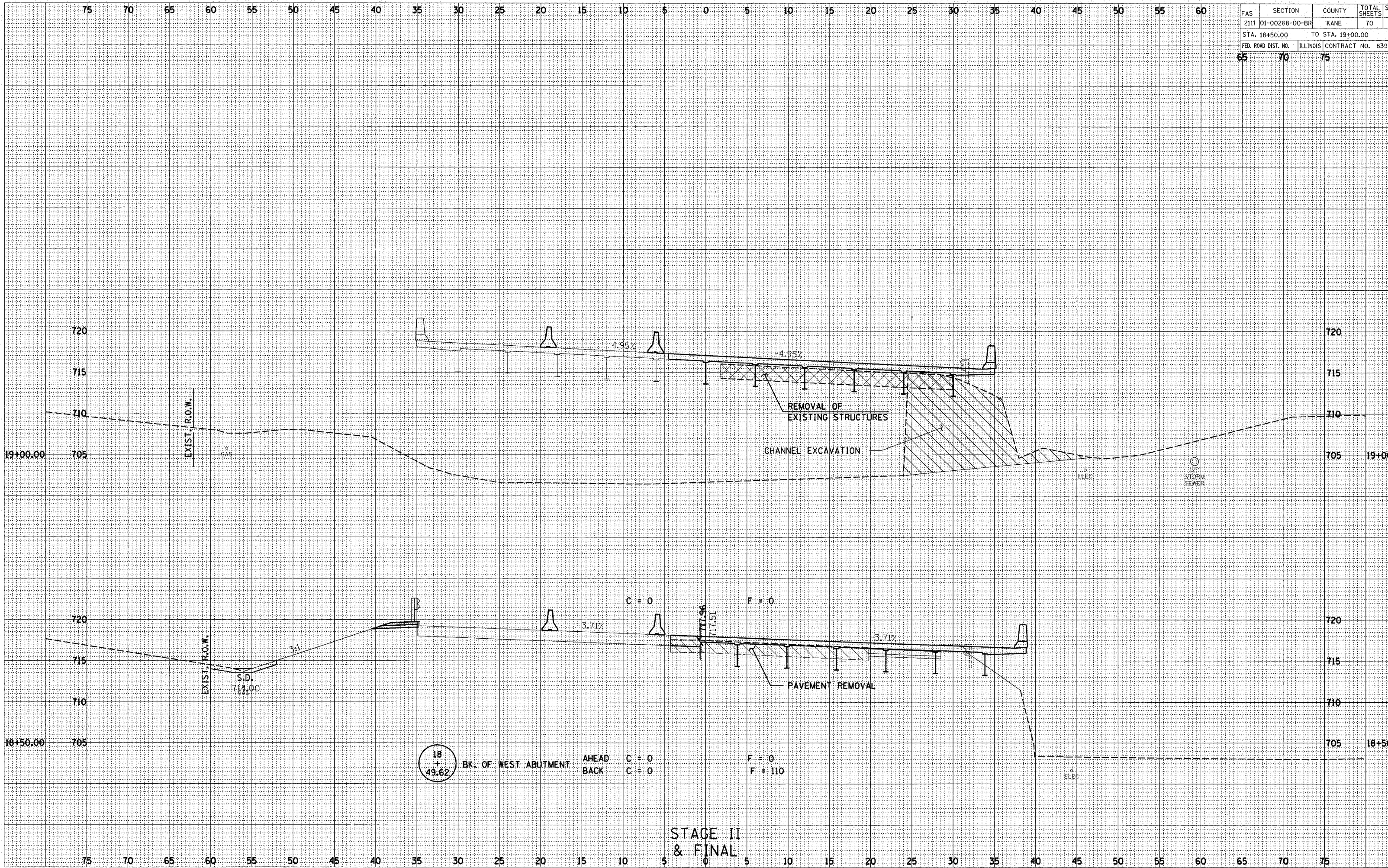


STAGE II  
& FINAL

NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED

FAS	SECTION	COUNTY	TOTAL SHEETS
2111	01-00268-00-BR	KANE	70
STA. 18+50.00		TO STA. 19+00.00	
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 6397	
65	70	75	



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NOTE BOOK TEMPLATE AREAS CHECKED

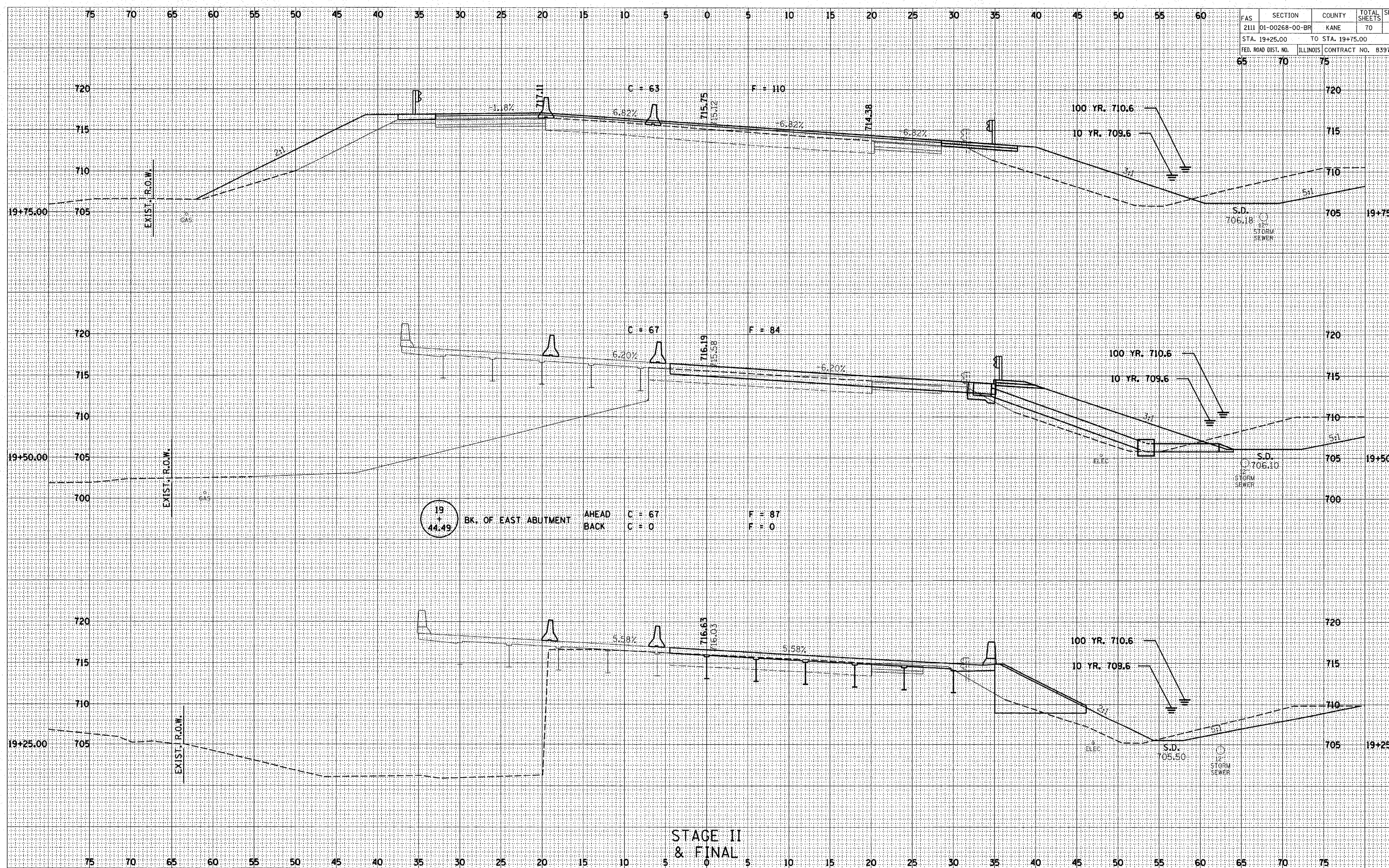
18 + 49.62 BK. OF WEST ABUTMENT

AHEAD C = 0  
BACK C = 0

F = 0  
F = 110

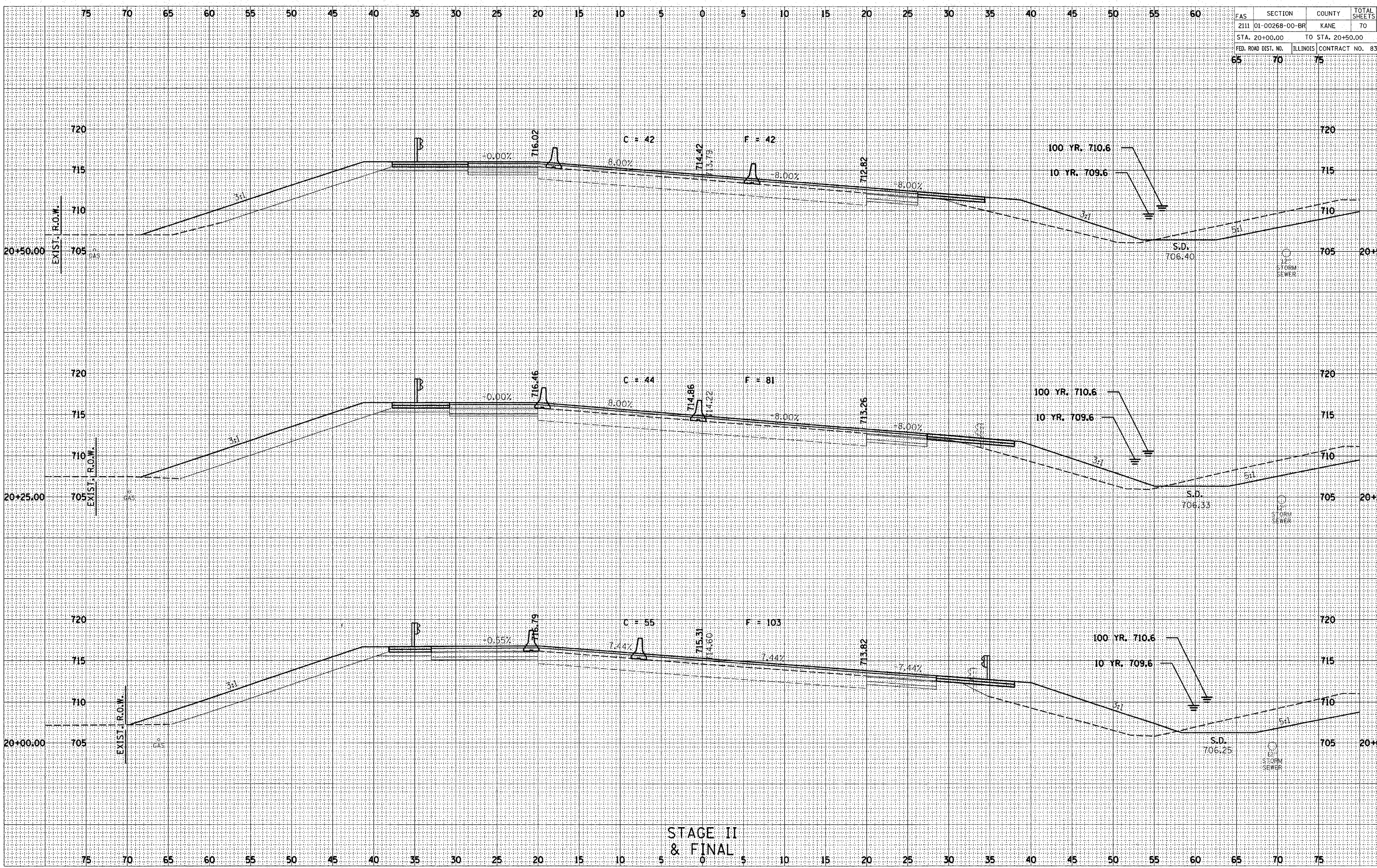
STAGE II & FINAL

FAS	SECTION	COUNTY	TOTAL SHEETS	SH. NO.
2111	01-00268-00-BR	KANE	70	5
STA. 19+25.00		TO STA. 19+75.00		
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 8397		

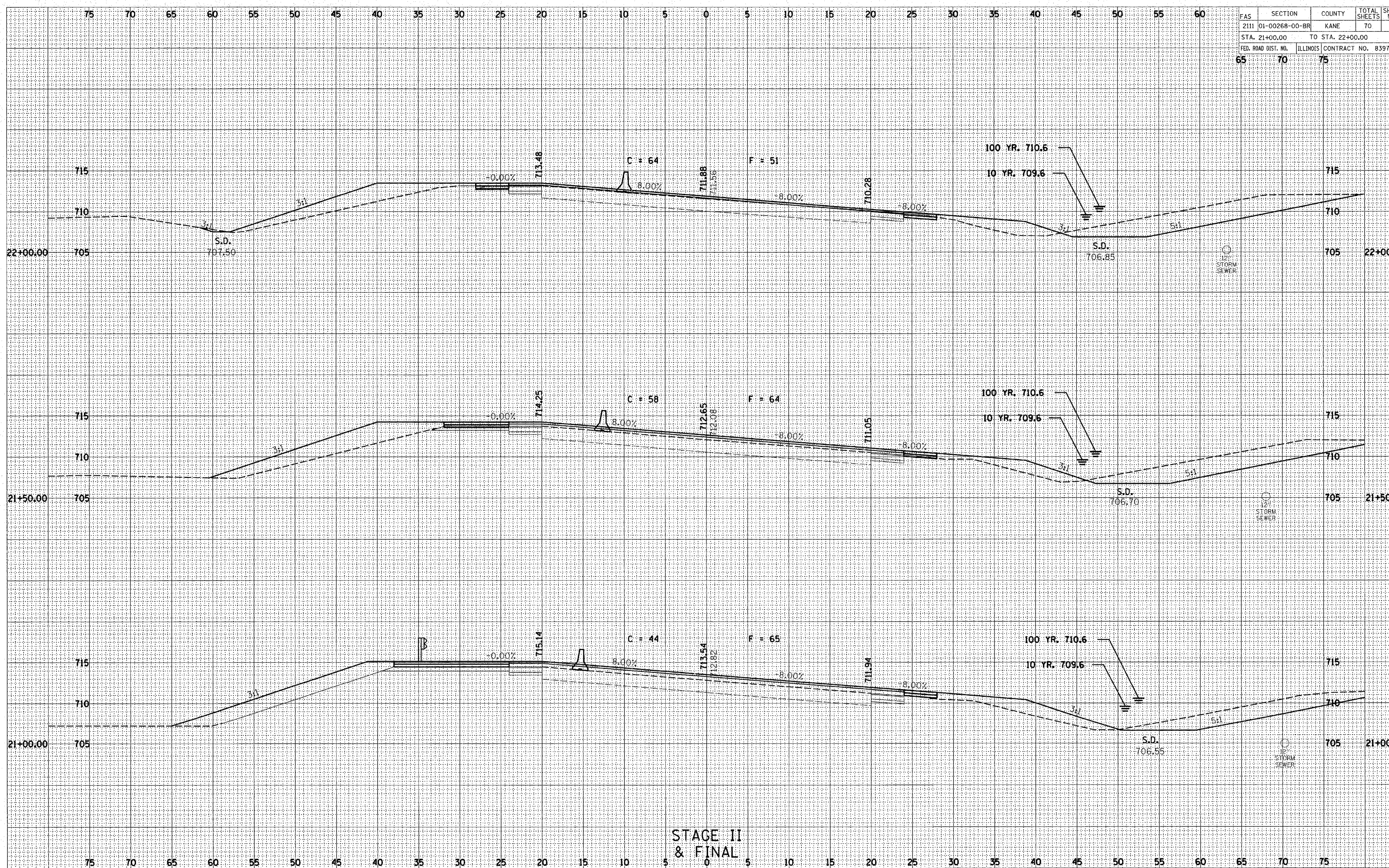


STAGE II  
& FINAL

FAS	SECTION	COUNTY	TOTAL SHEETS
2111	01-00268-00-BR	KANE	70
STA. 20+00.00		TO STA. 20+50.00	
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 8397	



STAGE II  
& FINAL



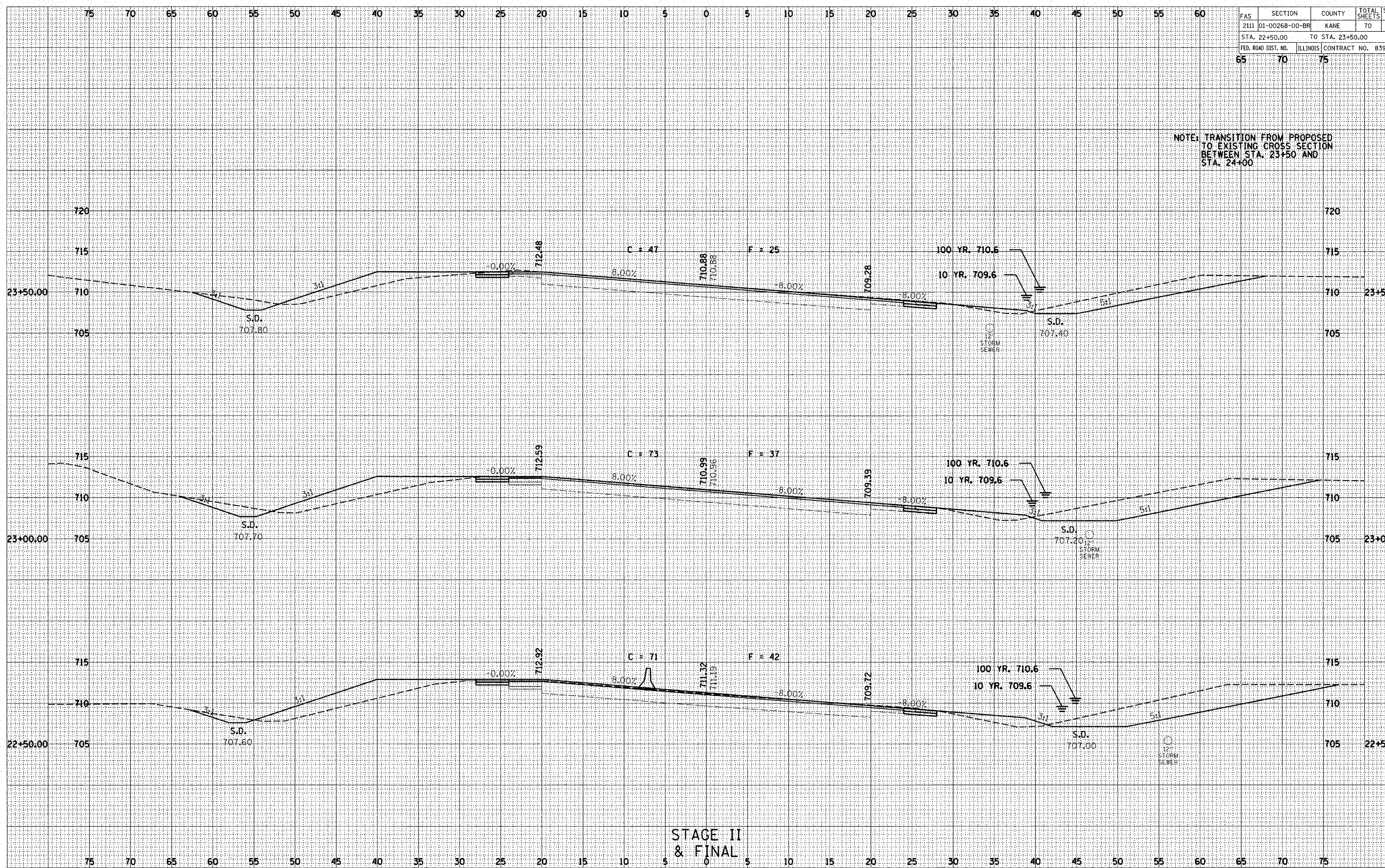
NOTE BOOK  
 TEMPLATE AREAS CHECKED

NOTE BOOK  
 TEMPLATE AREAS CHECKED

STAGE II  
 & FINAL

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2111	01-00268-00-BR	KANE	70	5
STA. 22+50.00		TO STA. 23+50.00		
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 83973		

NOTE: TRANSITION FROM PROPOSED TO EXISTING CROSS SECTION BETWEEN STA. 23+50 AND STA. 24+00

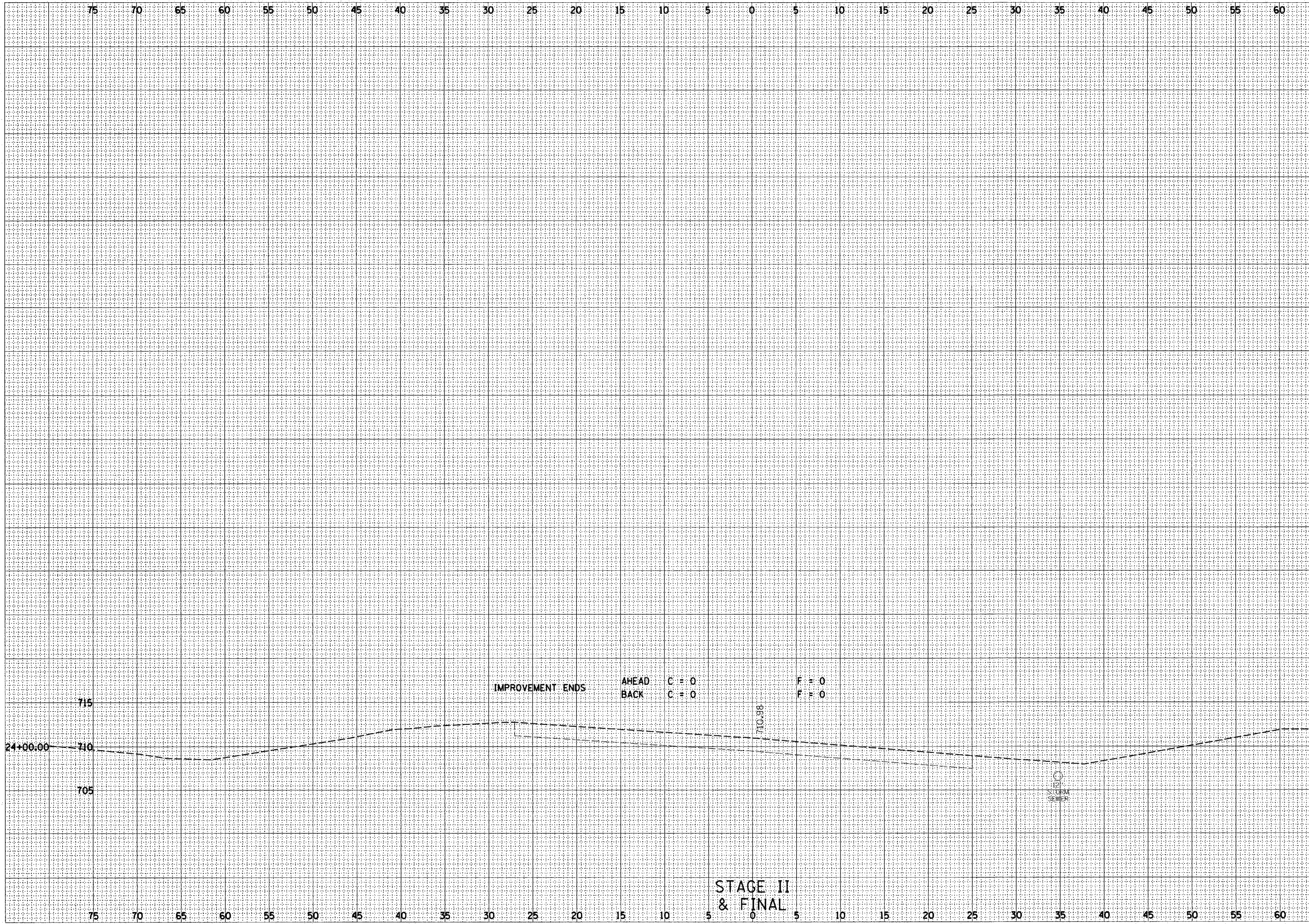


STAGE II & FINAL

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NOTE BOOK TEMPLATE AREAS CHECKED

FAS	SECTION	COUNTY	TOTAL SHEETS
2111	01-00268-00-BR	KANE	70
STA. 24+00.00		TO STA. 24+00.00	
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 8397	
65	70	75	

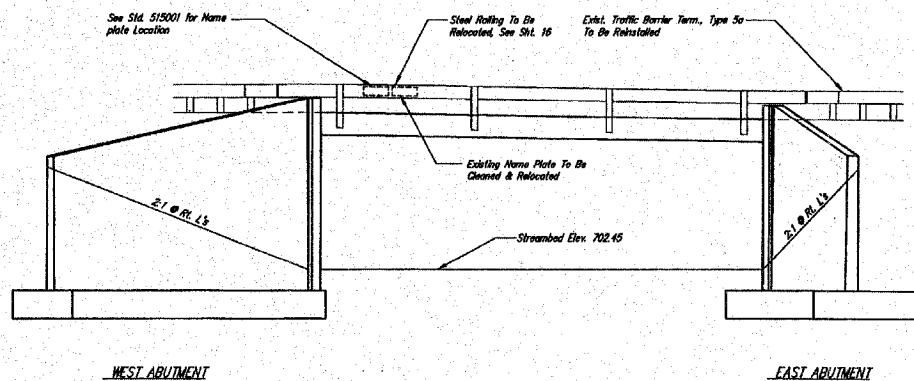


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STAGE II  
& FINAL





WEST ABUTMENT

ELEVATION

EAST ABUTMENT

**GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to normal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars shall conform to requirements of AASHTO M-31, M-42, or M-53 Grade 60 (EPOXY COATED).

The back face of Closed Abutments (or Retaining Walls) shall be waterproofed according to Article 503.10 of the Standard Specifications.

The contractor shall drive 2 test piles in permanent locations, one at each Abutment as directed by the Engineer before ordering the remainder of piles.

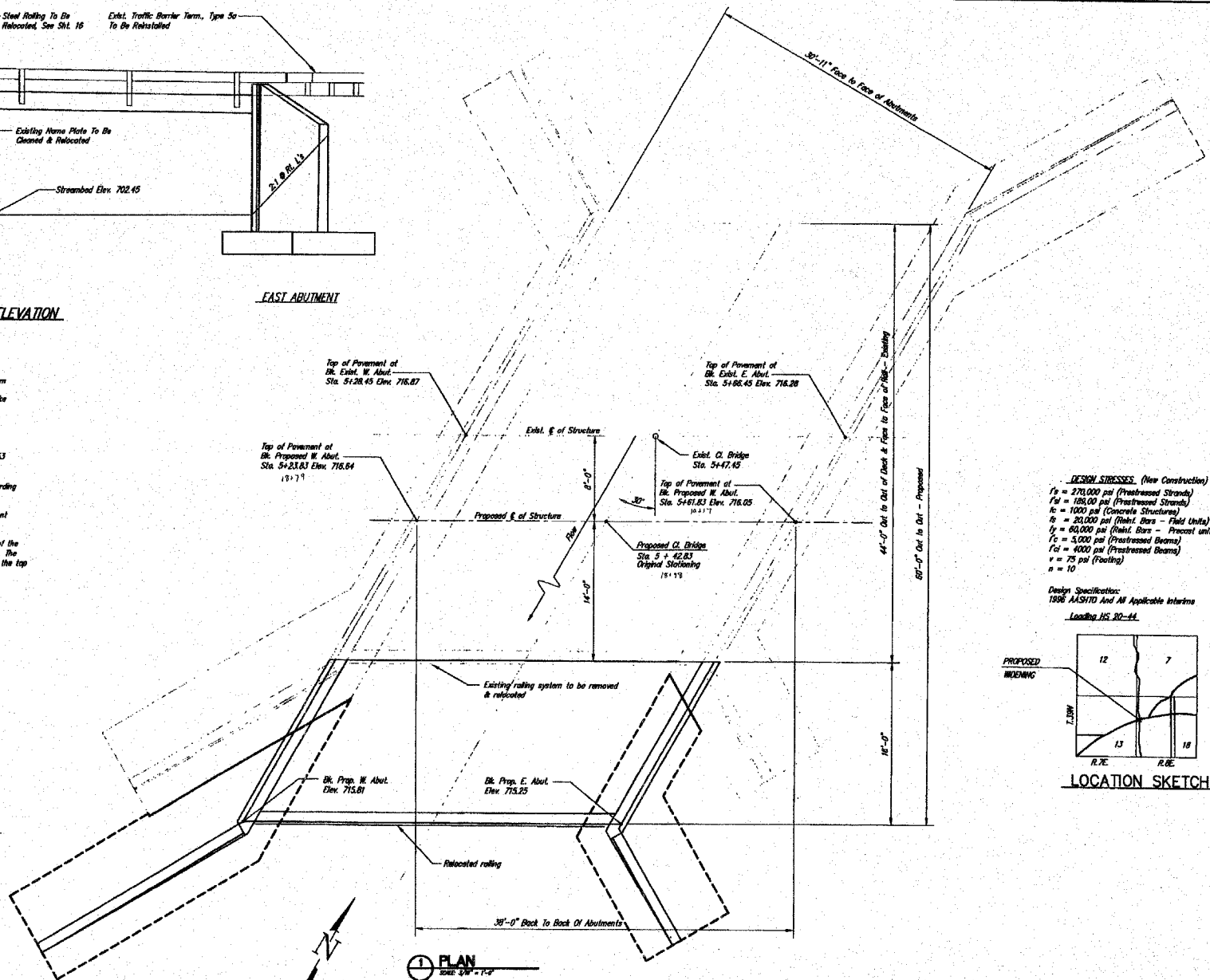
The top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of haqs shall be rounded or chamfered a minimum of 1/4".

STRUCTURE NO. 045-3008  
MILL CREEK  
WIDENED 1998 BY  
KANE COUNTY  
SEC. 82-00201-03 FP  
LOADING HS20

LETTERING FOR NAME PLATE  
SEE STD. 515001

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (21" Depth)	Square Feet	808		808
Concrete Removal	Cubic Yards		6.0	6.0
Bridge Handrail Removal	Linear Feet	81		81
Structure Excavation	Cubic Yards		2.75	2.75
Concrete Structures	Cubic Yards		78.8	78.8
Reinforcement Bars (Epoxy Coated)	Lbs.		6550	6550
Bridge Handrail Re-Install	Lk. Ft.	81		81
Test Piles - Timber	Each		2	2
P.C. Mortar Finishing Course	Linear Feet	100		100
Waterproofing Membrane System	Square Yards	88		88
Leveling Binder (Machine Method)	Tons	4		4
Bitumhouse Concrete Surface Course, Mix. B, Class I	Tons	6		6
Name Plates	Each	1		1
Timber Piles	Lk. Ft.		9.75	9.75

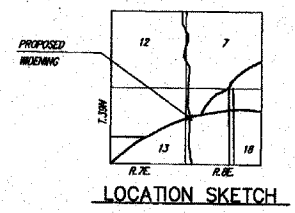


PLAN  
SCALE: 1/4" = 1'-0"

**DESIGN STRESSES (New Construction)**

$f'_c = 270,000$  psi (Prestressed Strands)  
 $f'_c = 108,000$  psi (Prestressed Strands)  
 $f'_c = 1000$  psi (Concrete Structures)  
 $f'_c = 80,000$  psi (Rebar - Field Units)  
 $f'_c = 60,000$  psi (Rebar - Present Units)  
 $f'_c = 5,000$  psi (Prestressed Beams)  
 $f'_c = 4000$  psi (Prestressed Beams)  
 $v = 75$  psi (Footings)  
 $n = 10$

Design Specifications:  
1998 AASHTO And All Applicable Interims  
Loading HS 20-44.



**R.L. JOHNSON & ASSOCIATES**  
CONSULTING ENGINEERS  
(630) 653-9060  
WHEATON, ILLINOIS

FABYAN PARKWAY WIDENING  
AND  
FABYAN PARKWAY  
KANE COUNTY  
DIVISION OF TRANSPORTATION  
ST. CHARLES, IL 60174

**GENERAL PLAN & ELEVATION**

SHEETS 14-18

I certify that to the best of my knowledge, information, and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

*[Signature]*  
Professional Engineer  
No. 01-4000  
ILLINOIS

DATE: 5-26-99  
PROJECT NO. 813.1S1E13HA  
SHEET: 14 OF 18

**EXISTING PLAN SHEET INCLUDED  
IN PLANS FOR INFORMATION ONLY.**

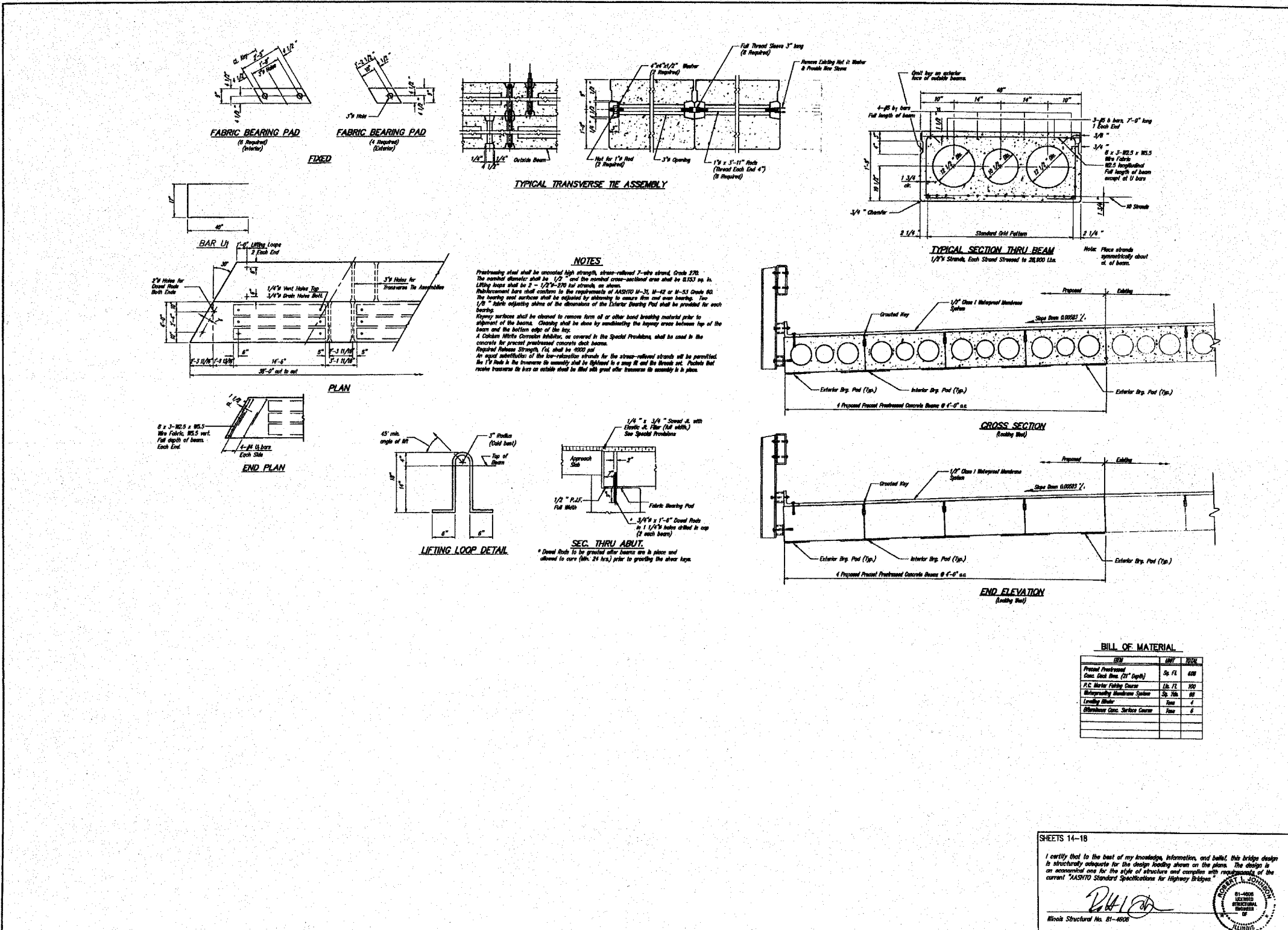
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-06-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**EXISTING PLAN SHEET**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



**R.L. JOHNSON & ASSOCIATES**  
 CONSULTING ENGINEERS  
 (630) 653-9060  
 WHEATON, ILLINOIS

FABYAN PARKWAY WIDENING AND FABYAN PARKWAY  
 KANE COUNTY DIVISION OF TRANSPORTATION  
 ST. CHARLES, ILL. 60174

**SUPERSTRUCTURE**

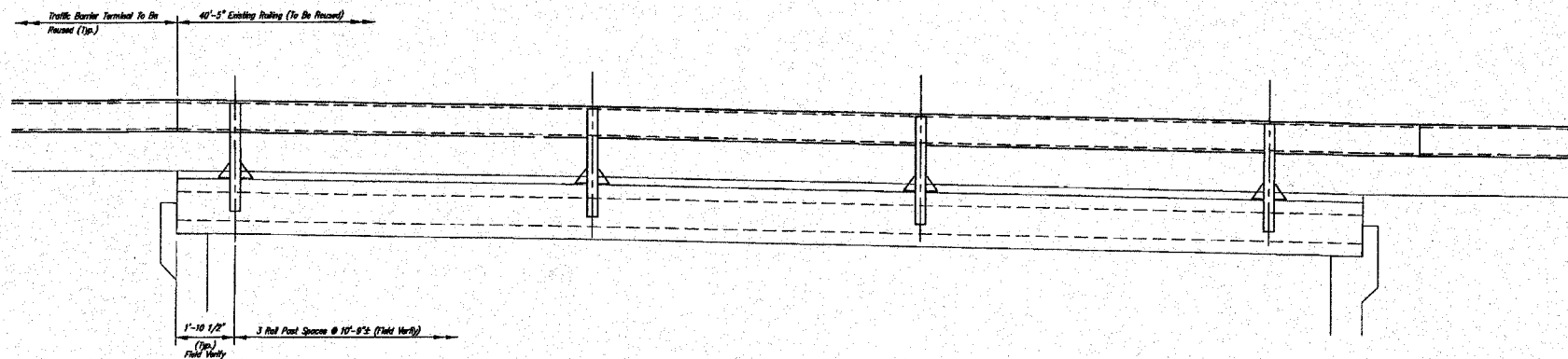
SHEETS 14-18  
 I certify that to the best of my knowledge, information, and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an occasional one for the type of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.  
 R.L. Johnson  
 Illinois Structural No. 01-4600

DATE: 6-28-08  
 PROJECT NO: 813.15E13A1A  
 CAD:  
 SHEET:  
 15 of 18

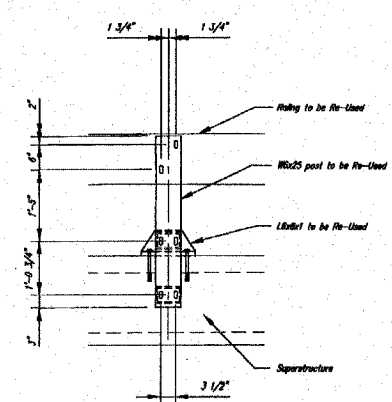
**EXISTING PLAN SHEET INCLUDED IN PLANS FOR INFORMATION ONLY.**

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400  
 ELGIN • SPRINGFIELD  
 PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

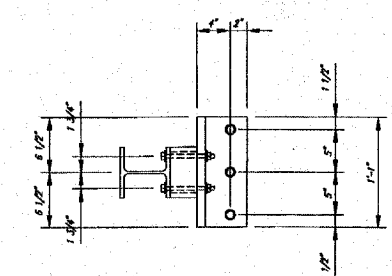
**EXISTING PLAN SHEET**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019



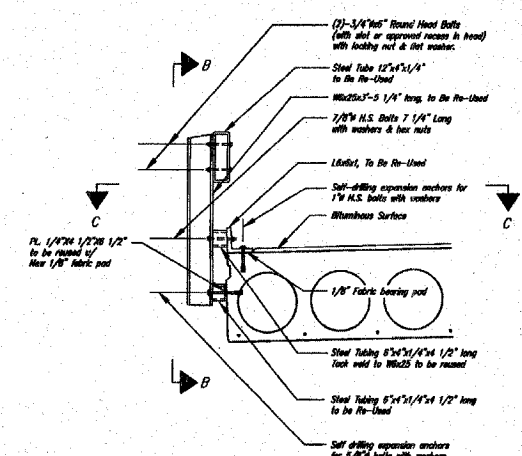
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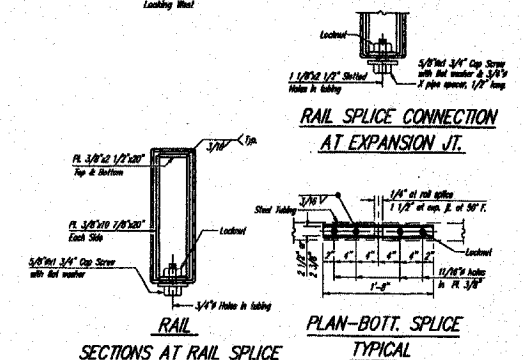
SECTION B-B



SECTION C-C



SECTION AT RAIL POST



RAIL SPLICE CONNECTION AT EXPANSION JT.

SECTIONS AT RAIL SPLICE

PLAN-BOTT. SPLICE TYPICAL

**NOTES:**  
 Bolts, cap screws, and nuts shall conform to the requirements of AISC Specification A 307 except for high strength bolts, nuts and washers which shall conform to AASHTO M 318.  
 All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 312.  
 The lower portion of the post design is cast with concrete that meets the code of material placed conforming to Section 808.07 Type I or Type II of the Standard Specifications for Highway Bridges. The 1/2\"/>

**R.L. JOHNSON & ASSOCIATES**  
 CONSULTING ENGINEERS  
 (630) 653-9060  
 WHEATON, ILLINOIS

REV.	DATE	REVISIONS
1	5-26-09	DESIGN FOR COUNTY REVIEW
2	8-29-09	REVISIONS FOR COUNTY REVIEW

FABYAN PARKWAY WIDENING AND FABYAN PARKWAY  
 KANE COUNTY  
 DIVISION OF TRANSPORTATION  
 ST. CHARLES, IL 60174

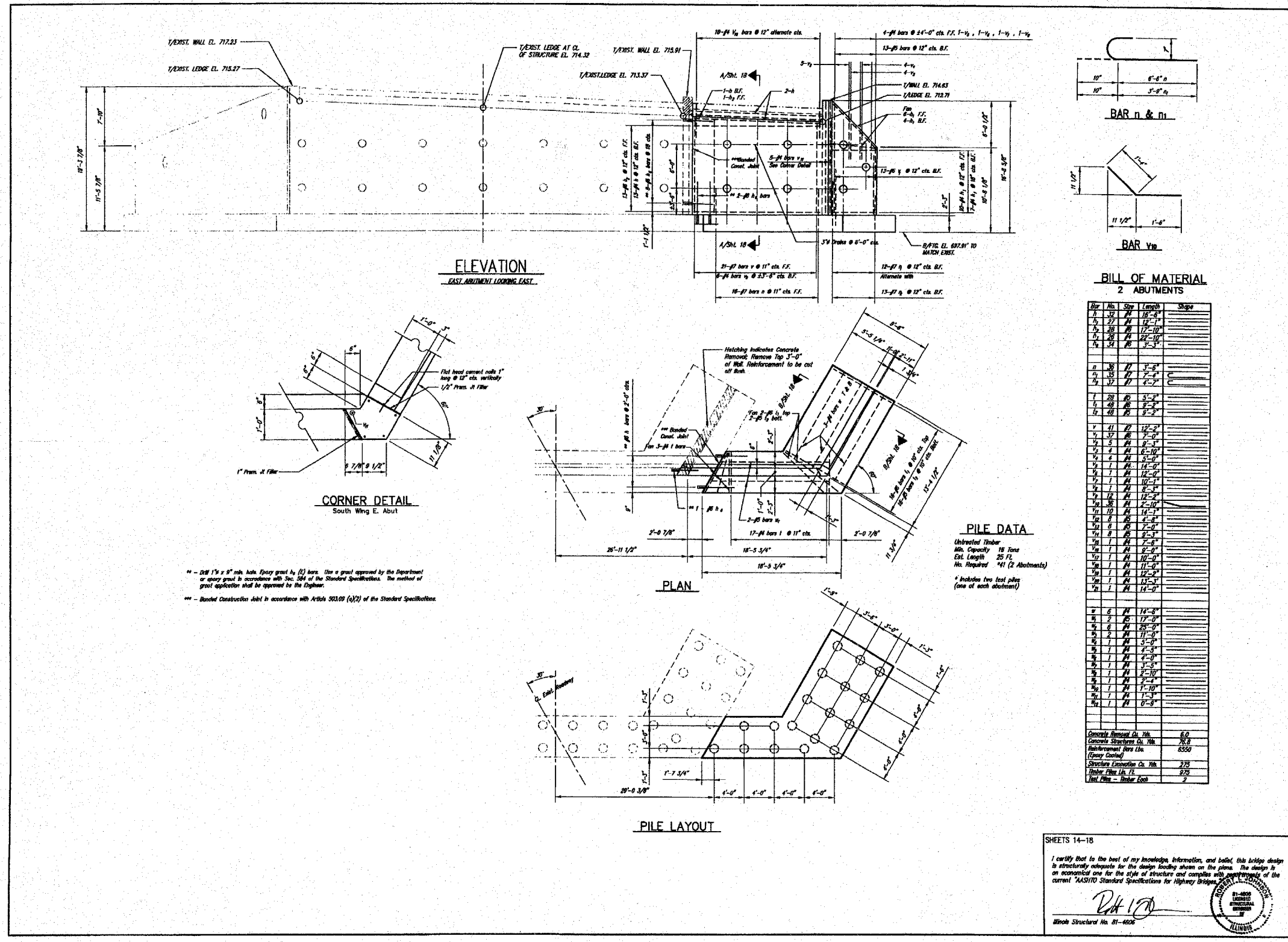
RAILING DETAILS

SHEETS 14-18  
 I certify that to the best of my knowledge, information, and belief this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "ASHUTO Standard Specifications for Highway Bridges."  
 DATE: 5-26-09  
 PROJECT NO: B13.1S1E13HA  
 CAD:  
 SHEET: 16 of 18

EXISTING PLAN SHEET INCLUDED IN PLANS FOR INFORMATION ONLY.

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400  
 ELGIN • SPRINGFIELD  
 PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

EXISTING PLAN SHEET  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019



**R.L. JOHNSON & ASSOCIATES**  
CONSULTING ENGINEERS  
(630) 653-9060  
WHEATON, ILLINOIS

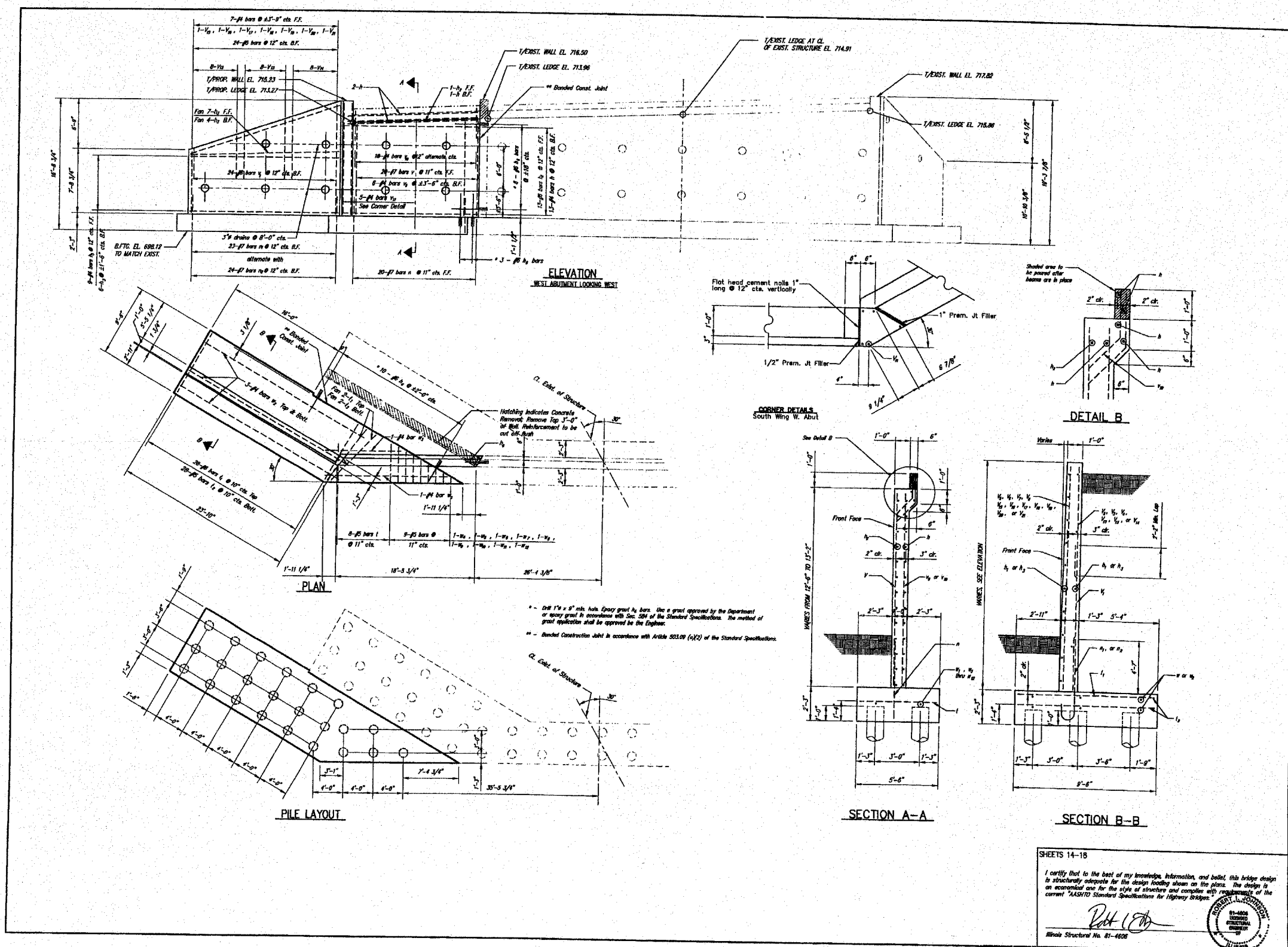
FABYAN PARKWAY WIDENING  
AND  
FABYAN PARKWAY  
KANE COUNTY  
DIVISION OF TRANSPORTATION  
ST. CHARLES, IL 60174

**EAST ABUTMENT**

**EXISTING PLAN SHEET INCLUDED  
IN PLANS FOR INFORMATION ONLY.**

**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS  
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400  
ELGIN • SPRINGFIELD  
PROJECT NUMBER: 12-05-0050-1 DATE: 08/29/07  
DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**EXISTING PLAN SHEET**  
SECTION 01-00268-00-BR  
F.A.S. 2111 / FABYAN PARKWAY  
KANE COUNTY  
STATION 18+97 / STRUCTURE NO. 045-3019



**EXISTING PLAN SHEET INCLUDED  
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**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0050-1    DATE: 08/29/07  
 DESIGNED: R.J.P.    CHECKED: S.W.M.    DRAWN: D.A.B.

**R.L. JOHNSON & ASSOCIATES**  
 CONSULTING ENGINEERS  
 (630) 653-9060  
 WHEATON, ILLINOIS

FABYAN PARKWAY WIDENING  
 AND  
 FABYAN PARKWAY  
 KANE COUNTY  
 DRAINAGE DISTRICT  
 ST. CHARLES, I. 80174

**WEST ABUTMENT**

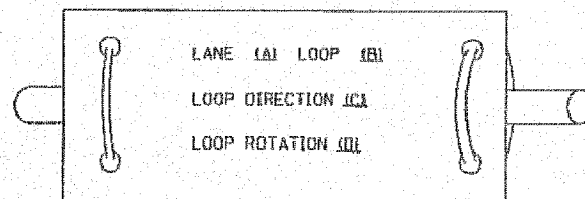
DATE: 5-28-08  
 PROJECT NO: 813.1S1E13HA  
 CAD:  
 SHEET:  
 18 of 18

**EXISTING PLAN SHEET**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019

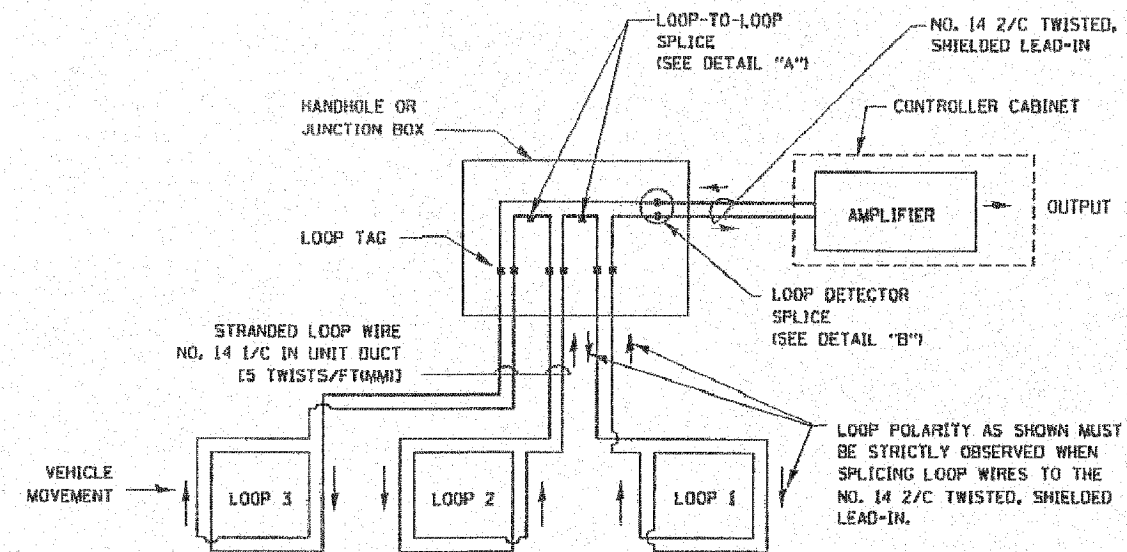
### LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVENHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

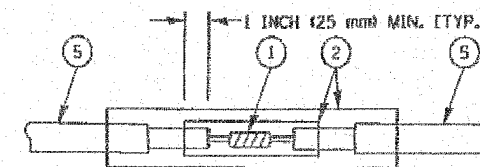


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

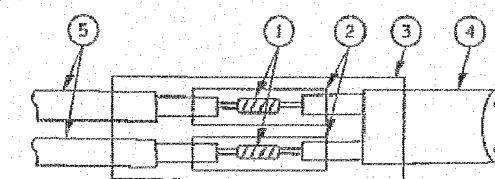


DETECTOR LOOP WIRING SCHEMATIC

- \* LOOPS SHALL BE SPLICED IN SERIES.
- \* SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- \* SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- \* LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

#### LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. B	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION

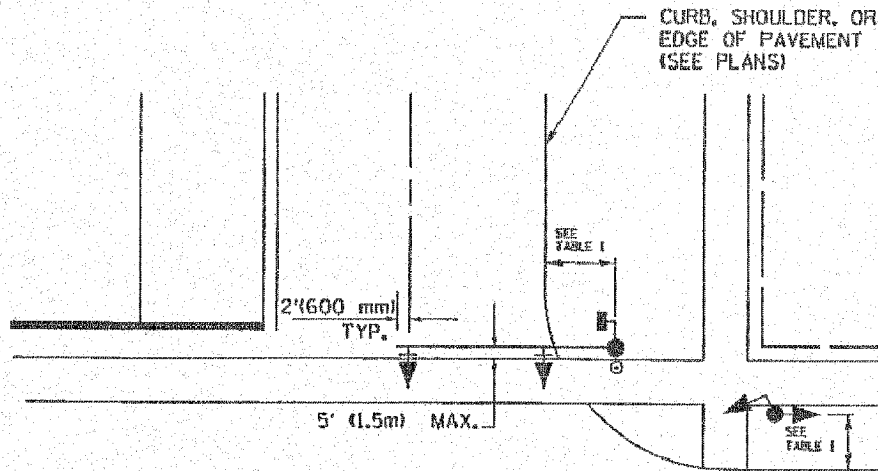
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

SCALE: NONE

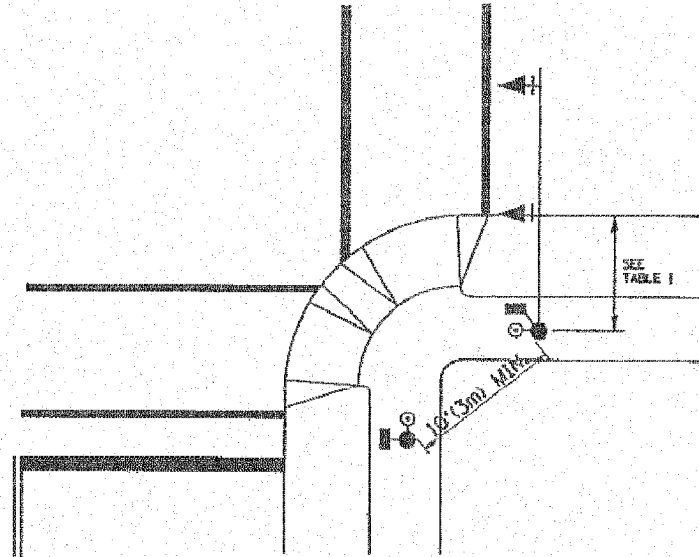
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 1 OF 4

**TRAFFIC SIGNAL MAST ARM AND POST**

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



**PEDESTRIAN SIGNAL PUSHBUTTON**



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

**NOTES:**

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.  
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.  
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:  
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.  
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.  
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.  
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).  
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS B77001 AND B77006, (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

**PEDESTRIAN SIGNAL POST**

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

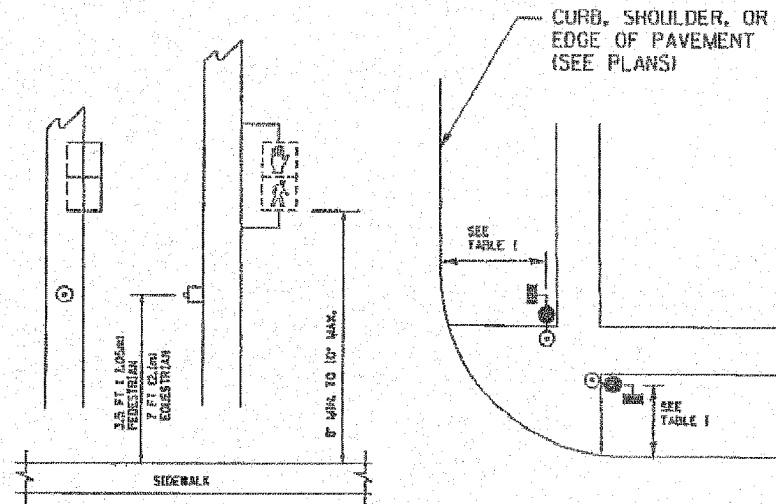


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

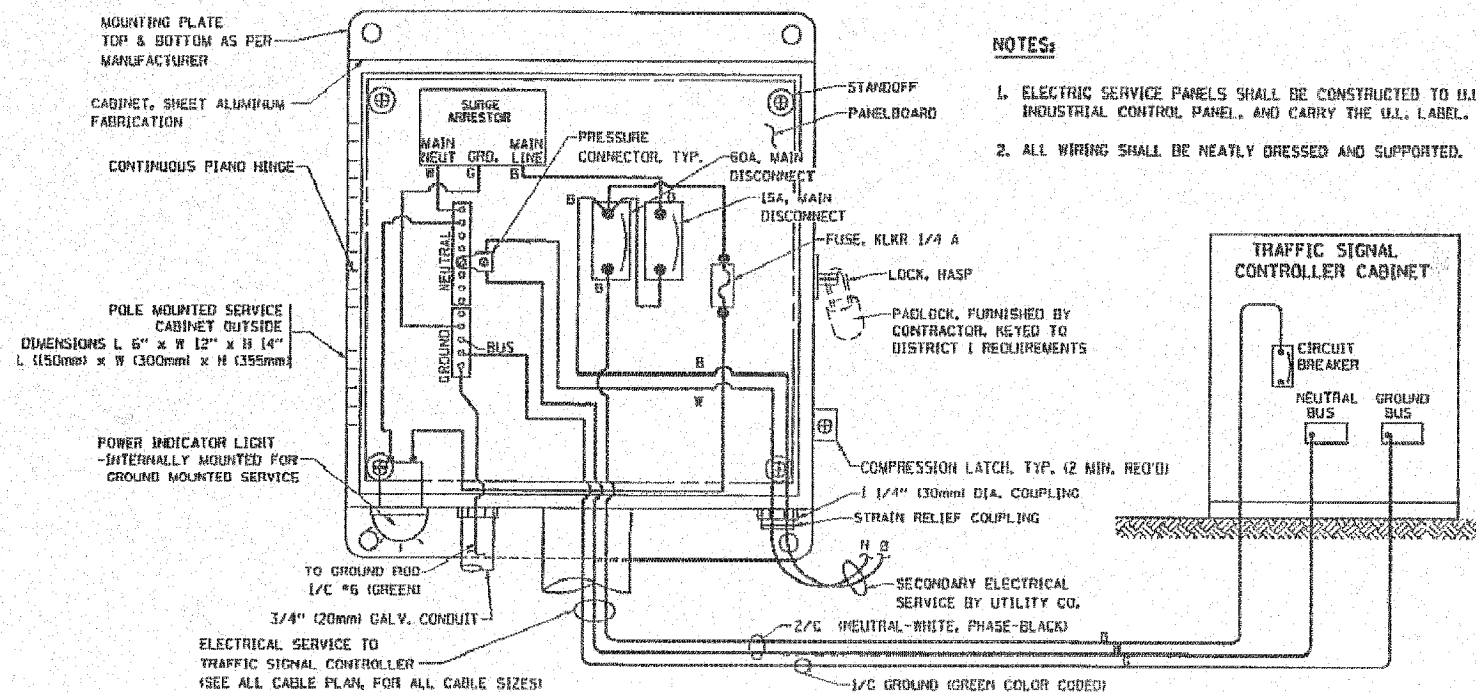
REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

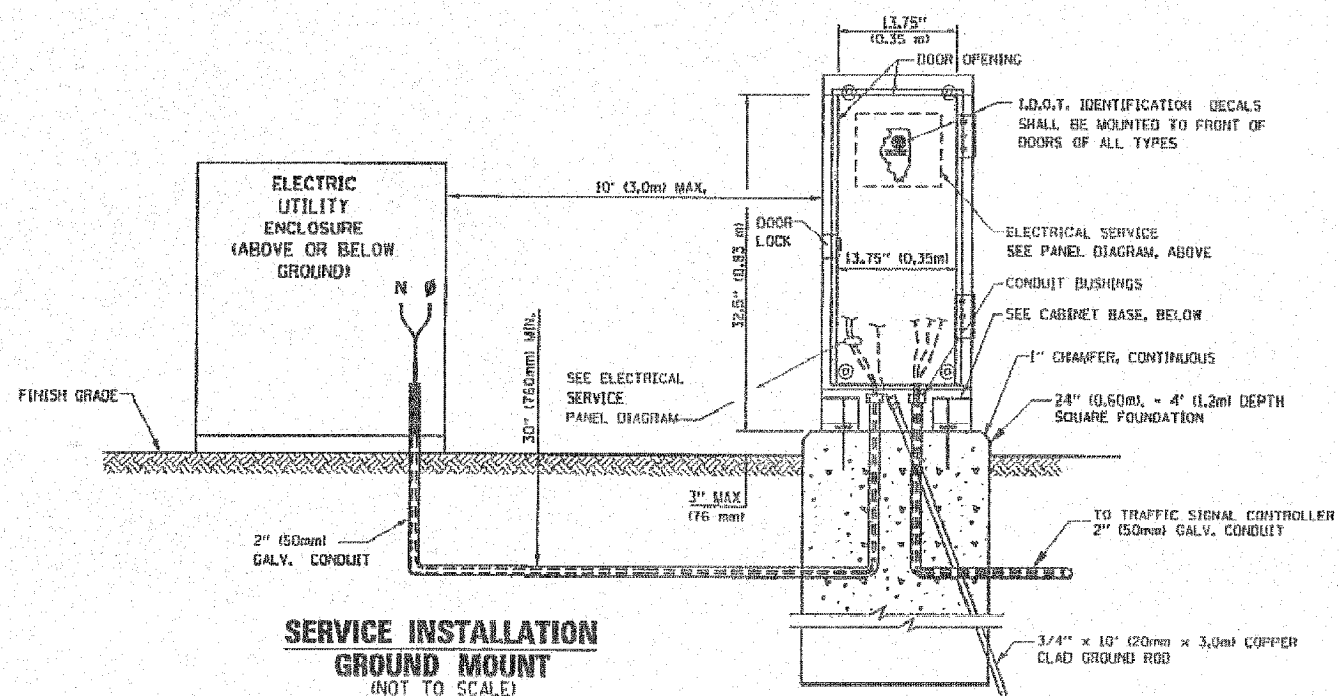
SCALE: NONE

DRAWN BY: RWP  
DESIGNED BY: DAZ  
CHECKED BY: DAZ  
SHEET 2 OF 4

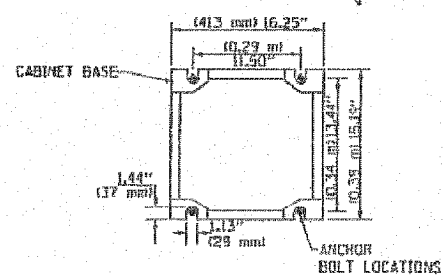


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**

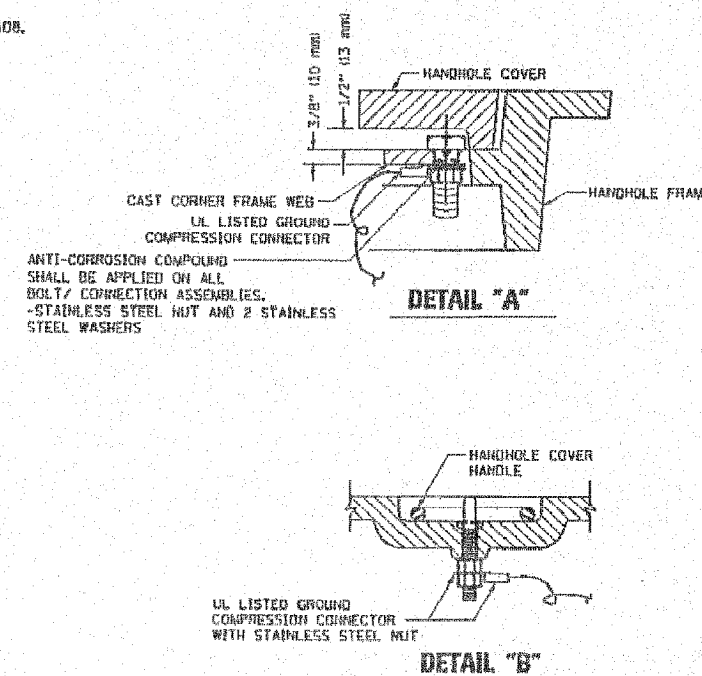
**SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)**



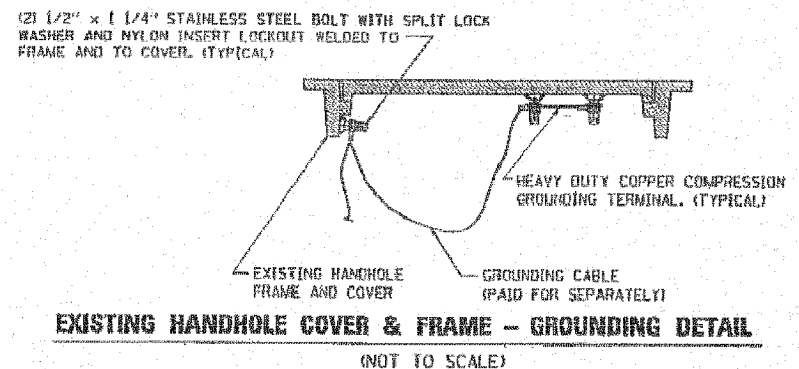
**SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)**



**CABINET - BASE BOLT PATTERN (NOT TO SCALE)**

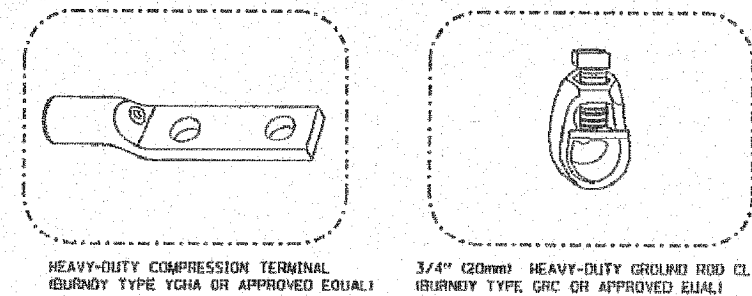


**HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**

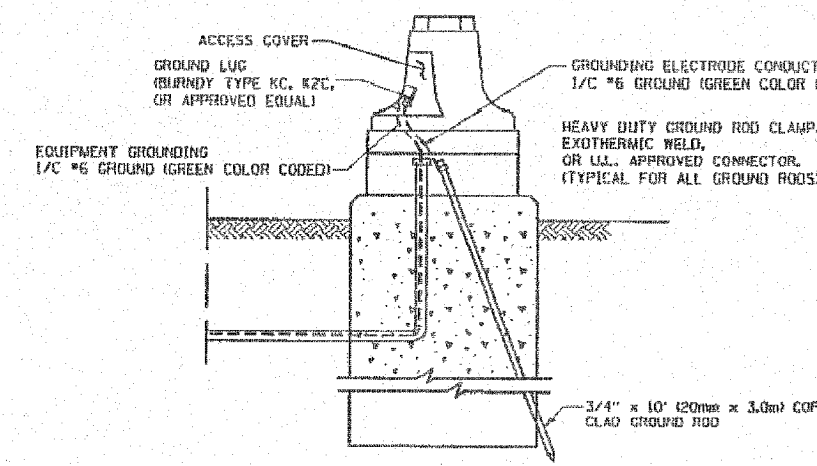


**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**

- NOTES:**
- GROUNDING SYSTEM**
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.M.C. STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4135.
  - THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
  - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
  - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)**

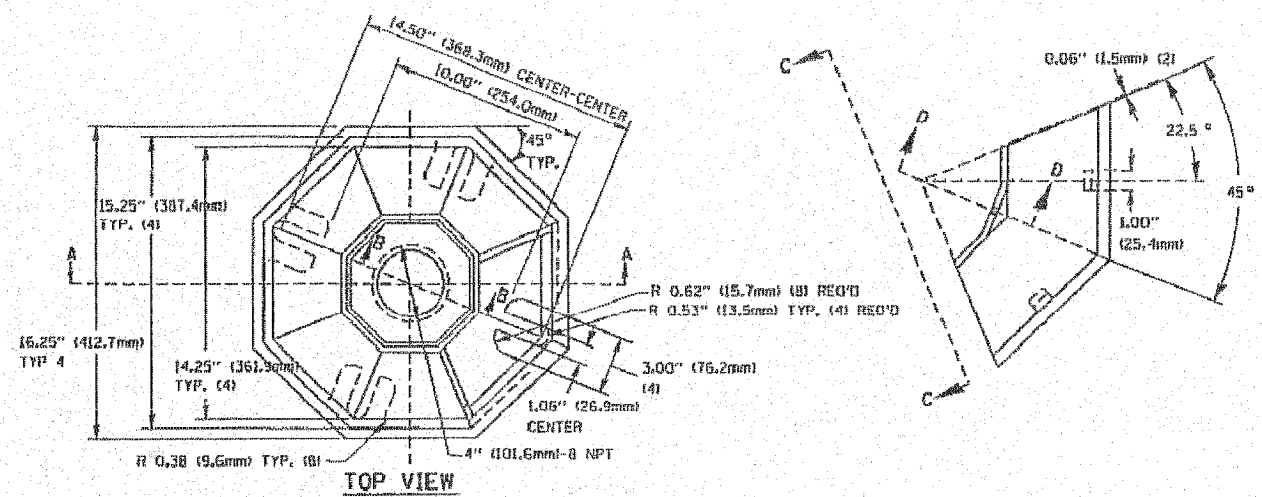
REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

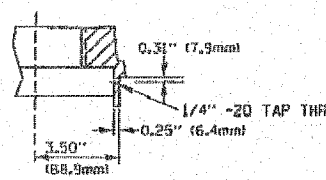
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DRAWN BY: RWP  
DESIGNED BY: DAZ  
CHECKED BY: DAZ  
SHEET 3 OF 4

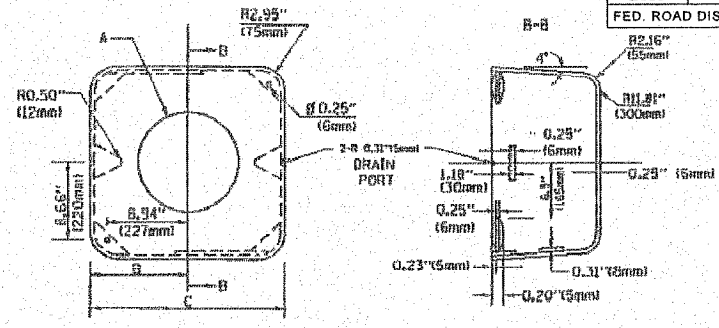
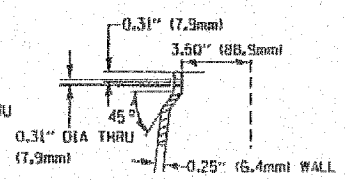




SECTION B-B



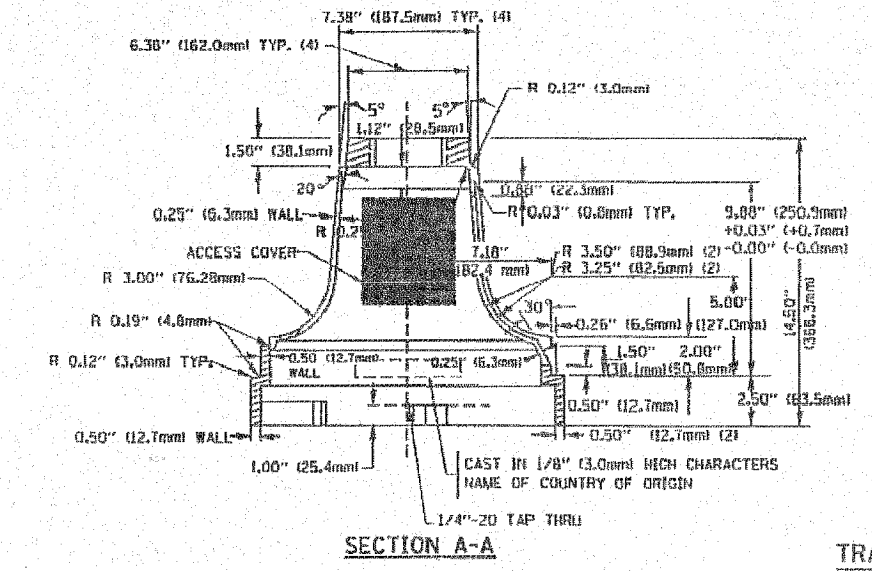
SECTION D-D



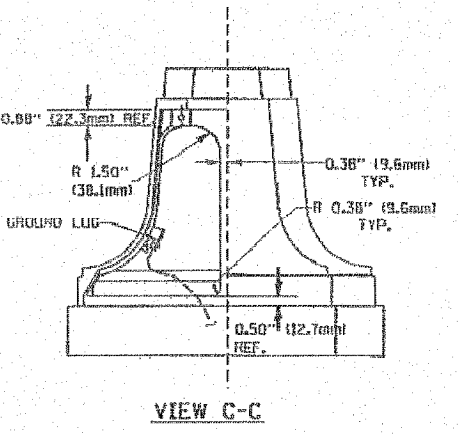
TYPE	A	B	C	HEIGHT	WEIGHT
I	8 8.50\" (217mm)	9.5\" (241mm)	19\" (483mm)	12\" (300mm)	24kg
II	8 11.125\" (283mm)	10.75\" (273mm)	21.5\" (546mm)	12\" (300mm)	26kg

SHROUD DETAIL

MATERIALS:  
 - ASTM A48 CLASS 30 GREY IRON  
 - ASTM A123 HOT DIPPED GALVANIZED

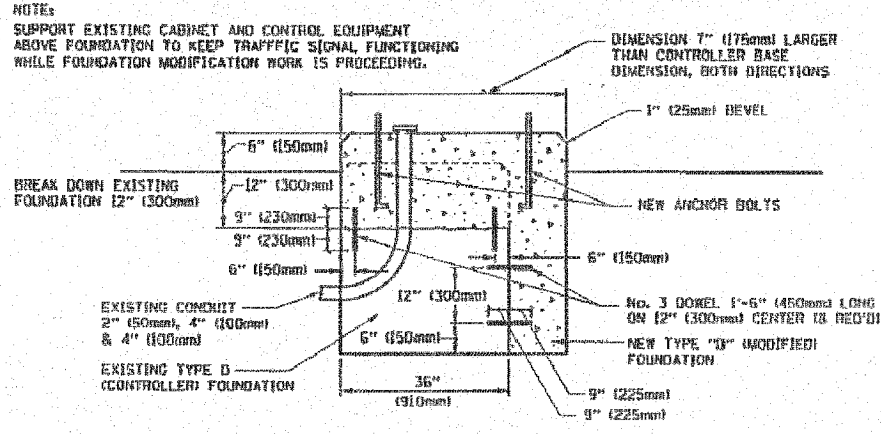
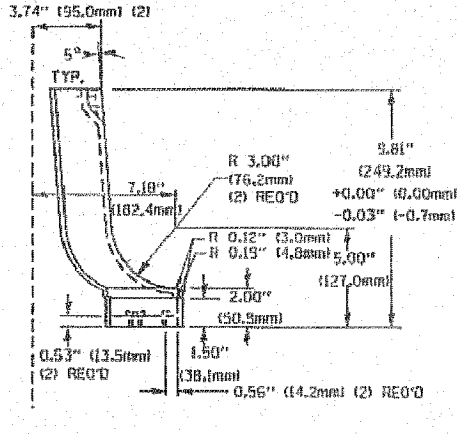


SECTION A-A



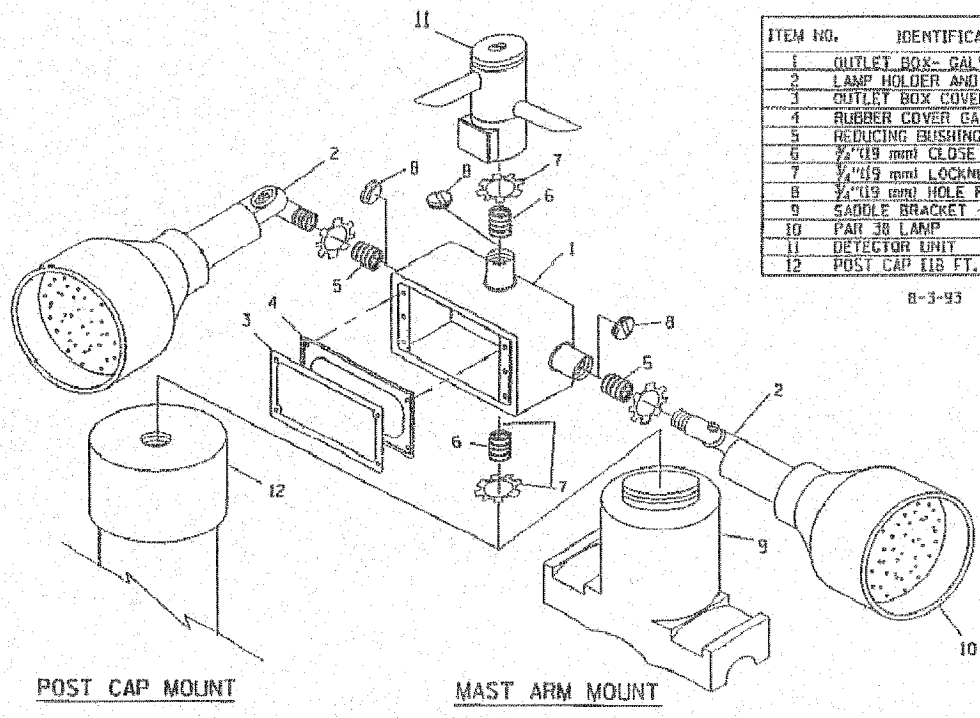
VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



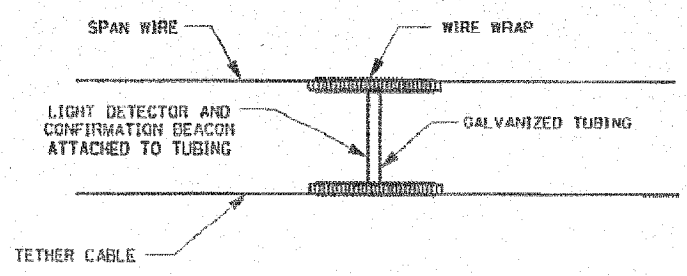
POST CAP MOUNT  
 MAST ARM MOUNT  
 EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 2L CULIN. (0.000344 CU. IN.)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	1/2\" (19 mm) CLOSE NIPPLE
7	1/2\" (19 mm) LOCKNUT
8	1/2\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAIR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

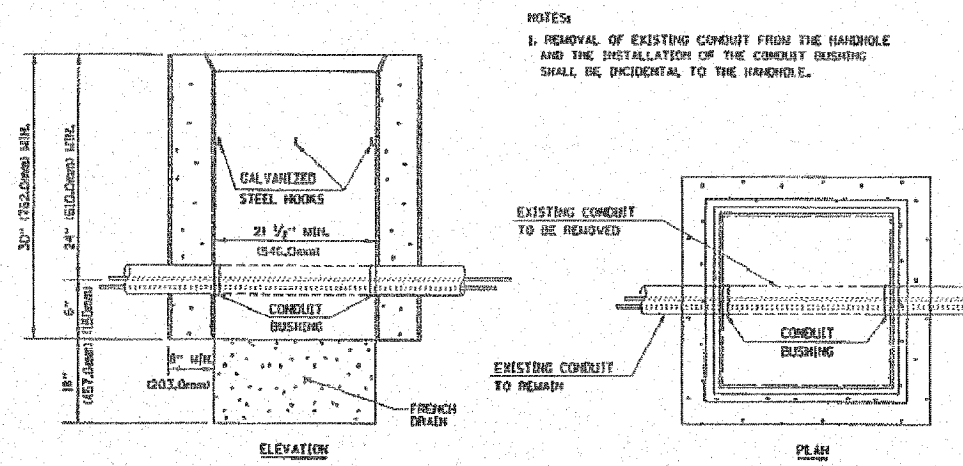
B-3-93

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
 ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 1/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS  
 (NOT TO SCALE)



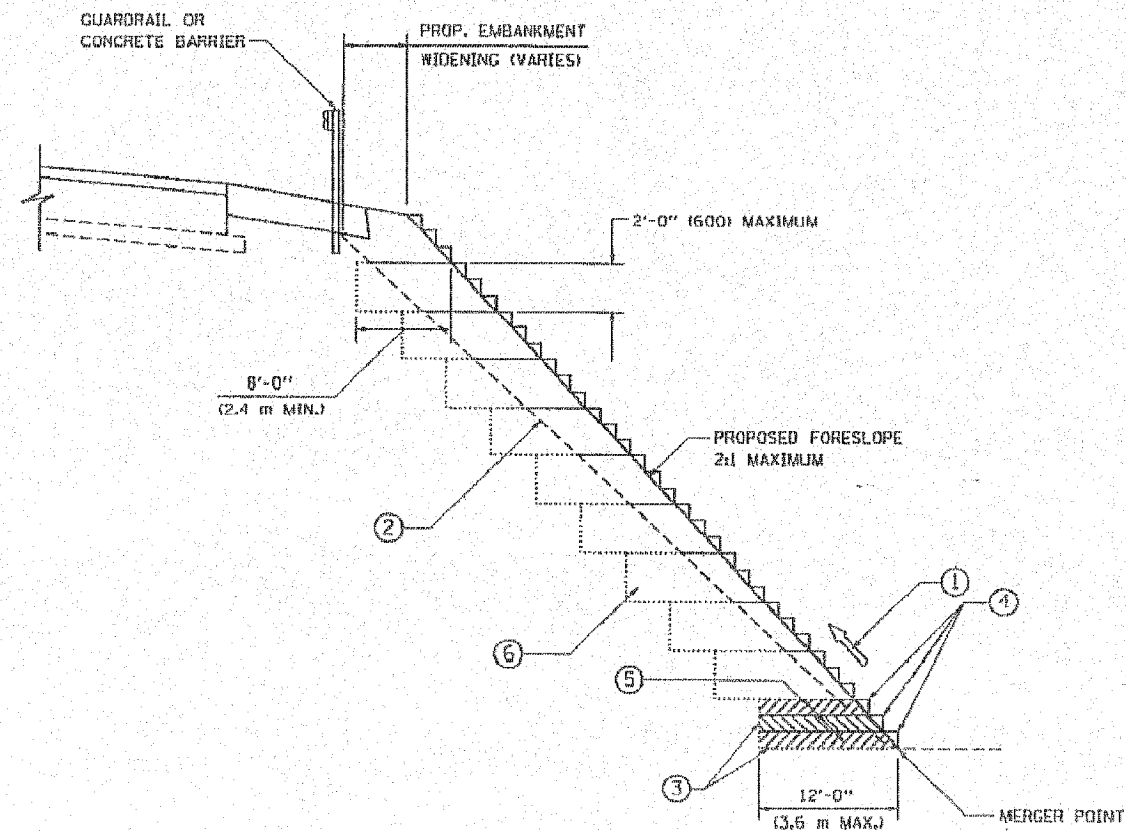
DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT  
 N.T.S.

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL  
 DESIGN DETAILS

SCALE: NONE

DRAWN BY: RWP  
 DESIGNED BY: DAZ  
 CHECKED BY: DAZ  
 SHEET 4 OF 4



TYPICAL BENCHING DETAIL  
FOR EMBANKMENT

**NOTES:**

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

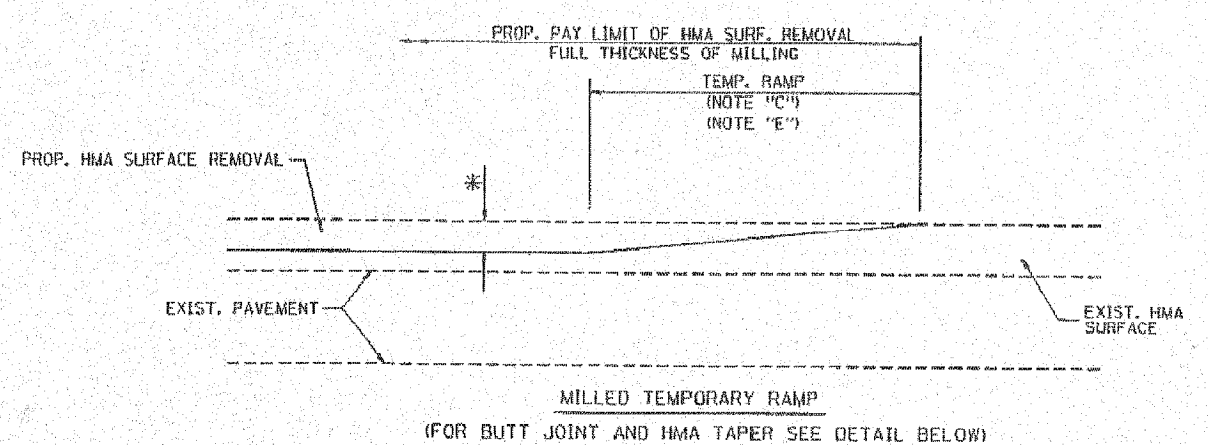
REVISIONS	
NAME	DATE
	06/16/04

ILLINOIS DEPARTMENT OF TRANSPORTATION

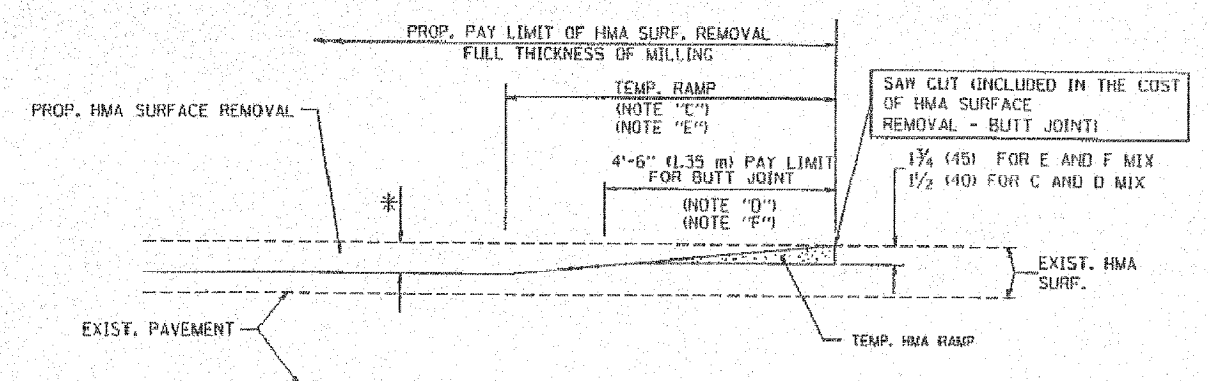
**BENCHING DETAIL**  
**FOR EMBANKMENT**  
**WIDENING**

SCALE: VERT. NONE  
HORIZ.

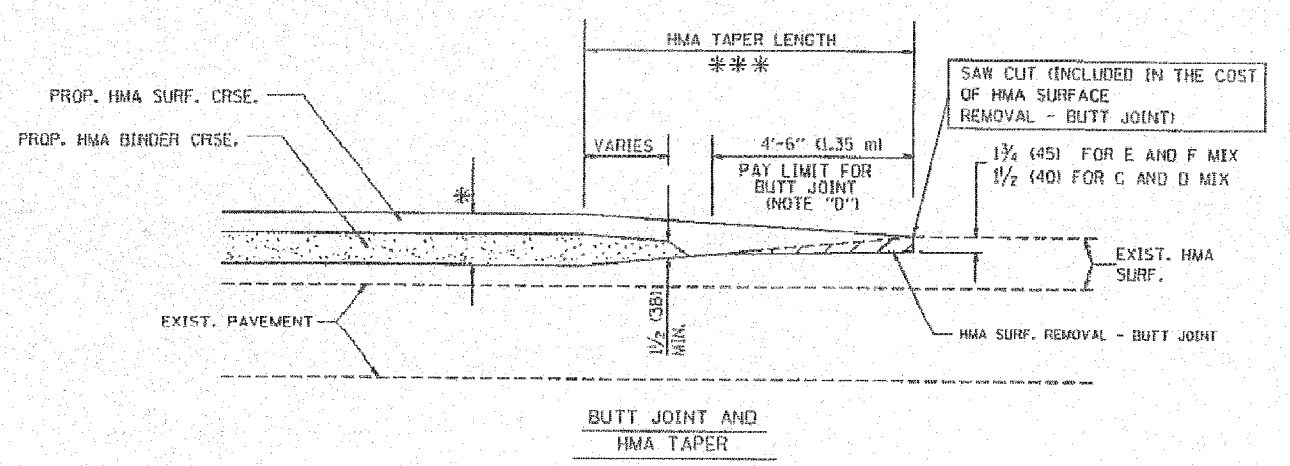
DRAWN BY: CADD  
CHECKED BY: S.F.B.  
BO-51



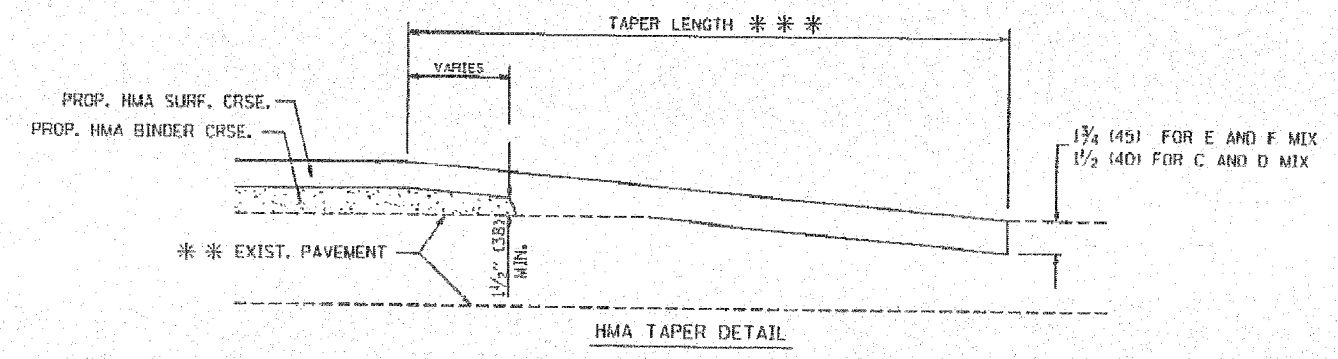
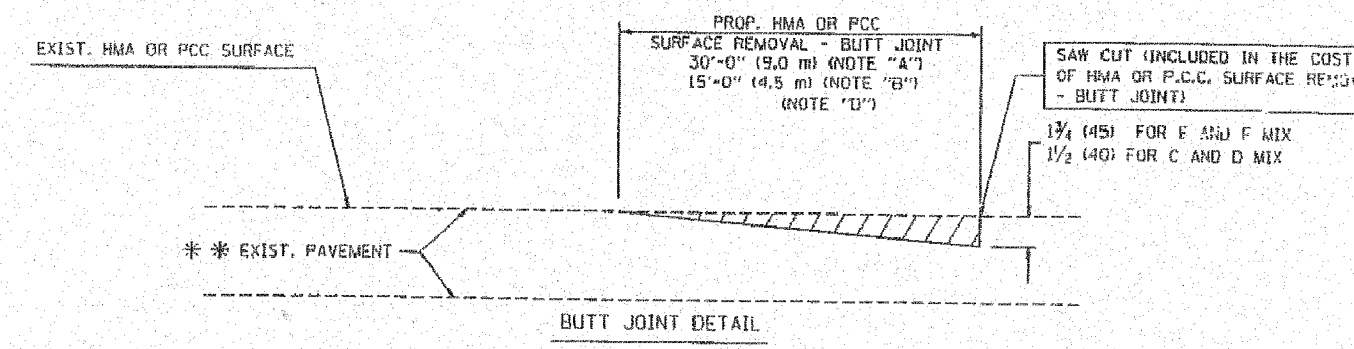
**OPTION 1**



**OPTION 2**  
**TYPICAL TEMPORARY RAMP**



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



**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".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	08/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/00
R. BORD	01/01/07

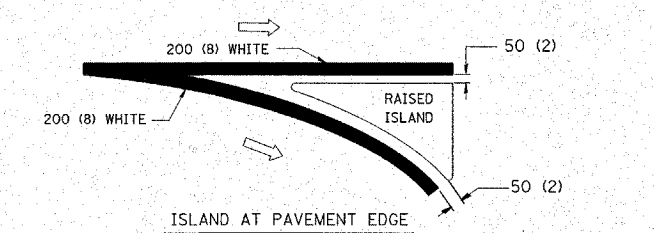
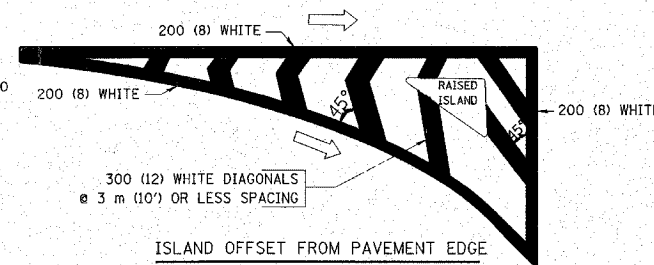
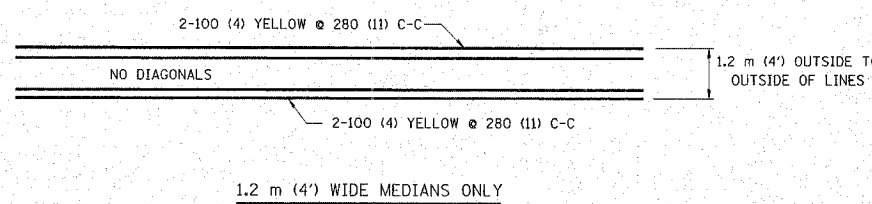
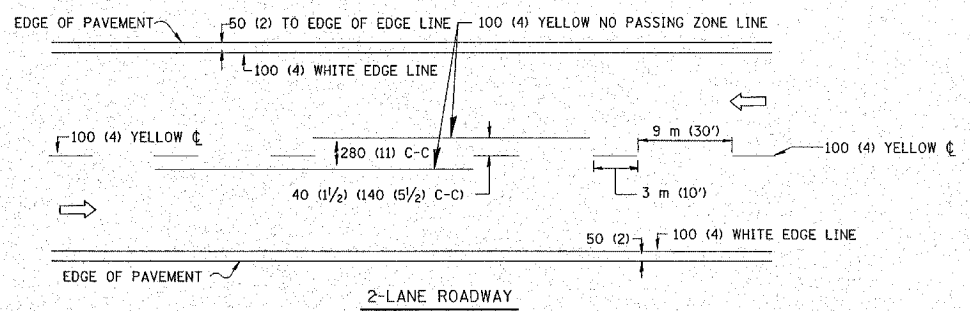
ILLINOIS DEPARTMENT OF TRANSPORTATION

**BUTT JOINT AND HMA TAPER DETAILS**

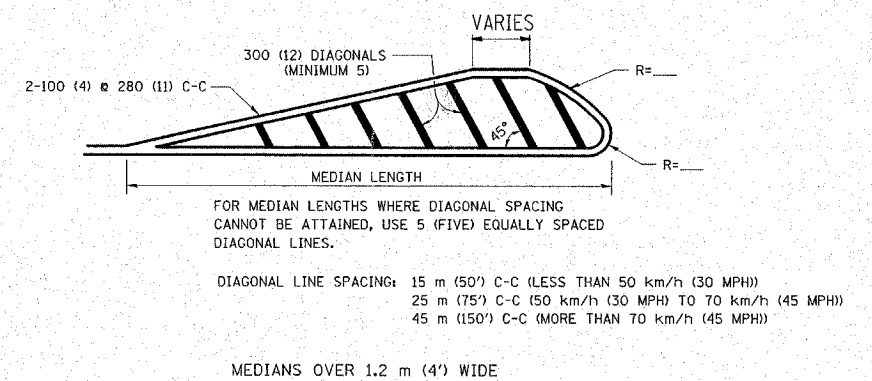
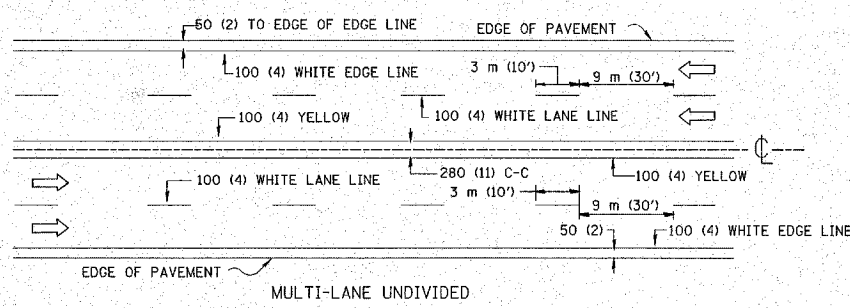
SCALE: VERT. NONE  
HORIZ. NONE  
PLOT DATE: 10/31/2005

DRAWN BY  
CHECKED BY

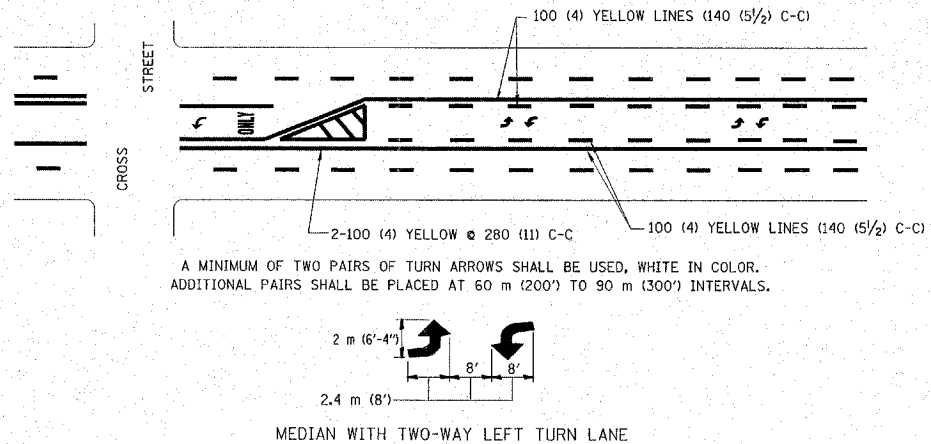
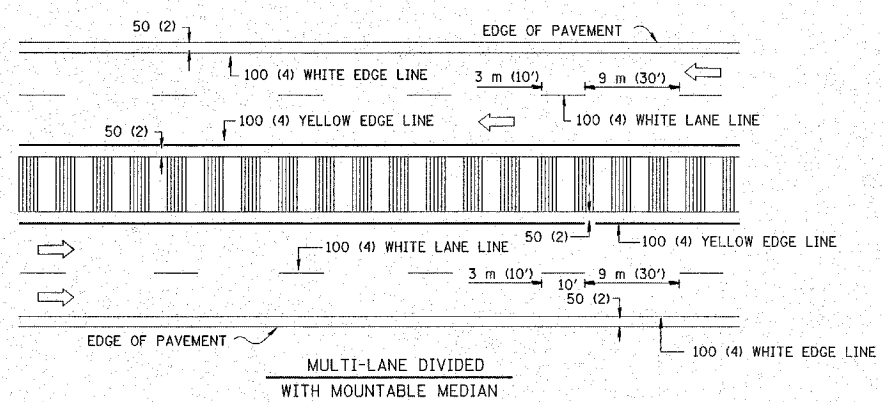
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S 2111	01-00270-00-BR	KANE	70	6
FED. ROAD DIST. NO.	ILLINOIS		CONTRACT NO. 8397	



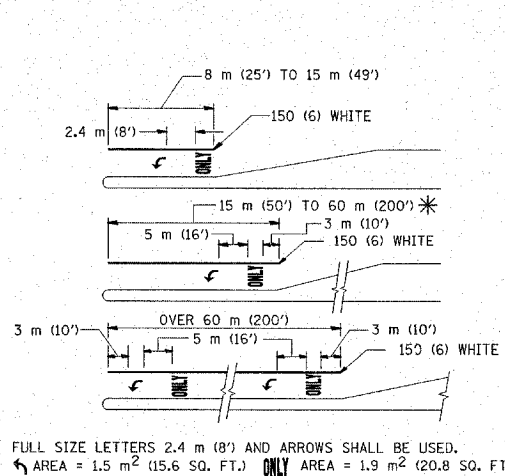
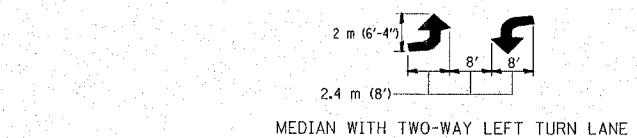
**TYPICAL ISLAND MARKING**



TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	100 (4)	SOLID	YELLOW	140 (5 1/2) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4)	SKIP-DASH	WHITE	3 m (10') LINE WITH 9 m (30') SPACE
LANE LINES	125 (5) ON FREEWAYS	SKIP-DASH	WHITE	
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (2') LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH; 140 (5 1/2) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
TWO WAY LEFT TURN MARKING	2.4 m (8') LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN)	2 @ 150 (6)	SOLID	WHITE	NOT LESS THAN 1.8 m (6') APART
CROSSWALK LINES (PEDESTRIAN)	300 (12) @ 45°	SOLID	WHITE	600 (2') APART
CROSSWALK LINES (PEDESTRIAN)	300 (12) @ 90°	SOLID	WHITE	600 (2') APART
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT.
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES; "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=0.40 m <sup>2</sup> (4.3 SQ. FT.) EACH "X"=5.0 m <sup>2</sup> (54.0 SQ. FT.)
SHOULDER DIAGONALS	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))	SOLID	WHITE - RIGHT YELLOW - LEFT	

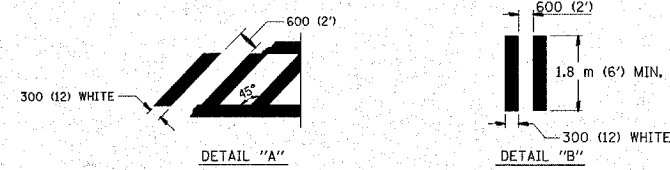
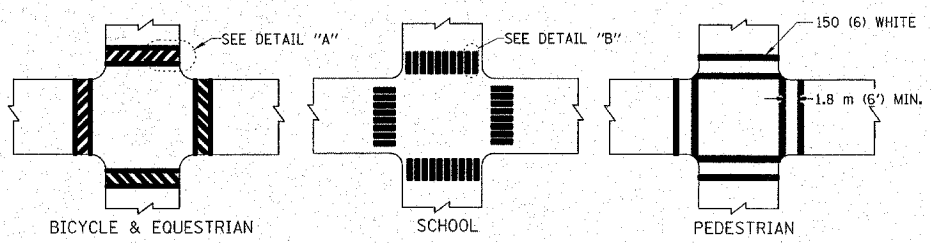


**TYPICAL PAINTED MEDIAN MARKING**



**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL LANE AND EDGE LINE MARKING**



**TYPICAL CROSSWALK MARKING**

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2002 AND STATE STANDARD 780001.

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

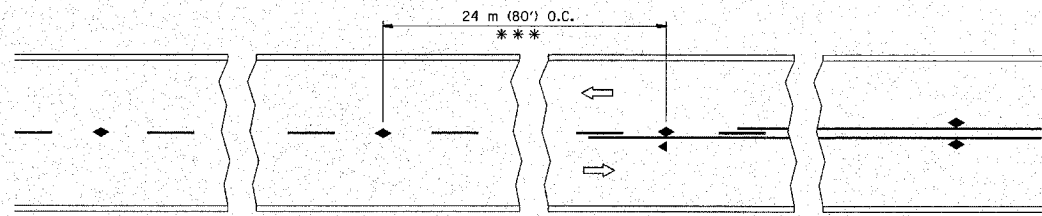
REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**DISTRICT ONE**  
**TYPICAL PAVEMENT MARKINGS**

SCALE: NONE  
DATE: 08-28-07

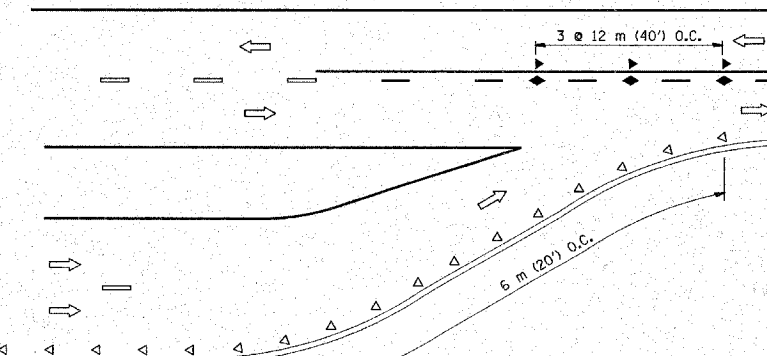
DRAWN BY:  
CHECKED BY:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S 2111	01-00270-00-BR	KANE	70	65
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 83973	

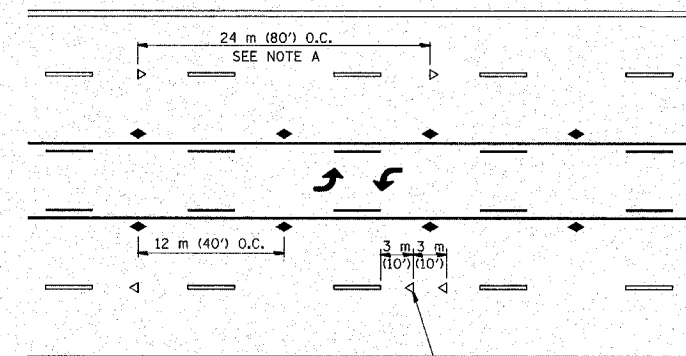


\*\*\* REDUCE TO 12 m (40') O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 70 km/h (45 M.P.H.) OR LESS.

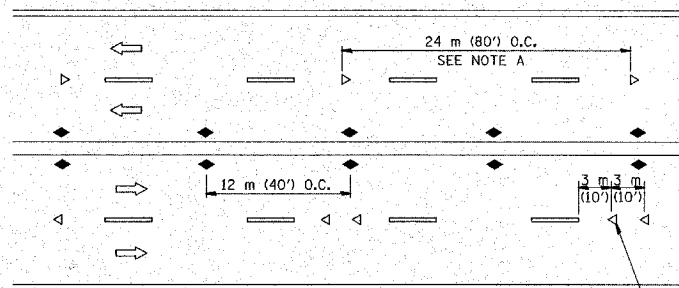
TWO-LANE/TWO-WAY



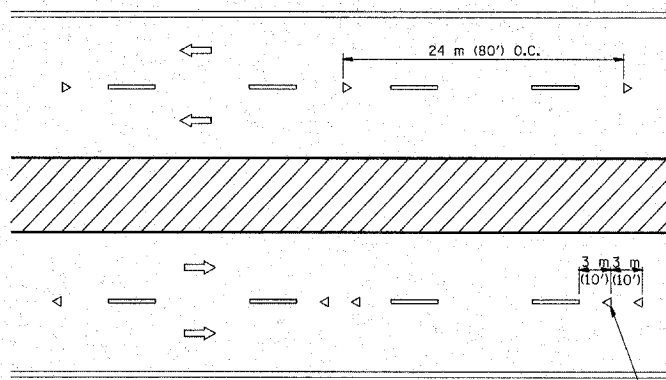
LANE REDUCTION TRANSITION



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 50 TO 75 (2 TO 3) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 150 m (500') IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

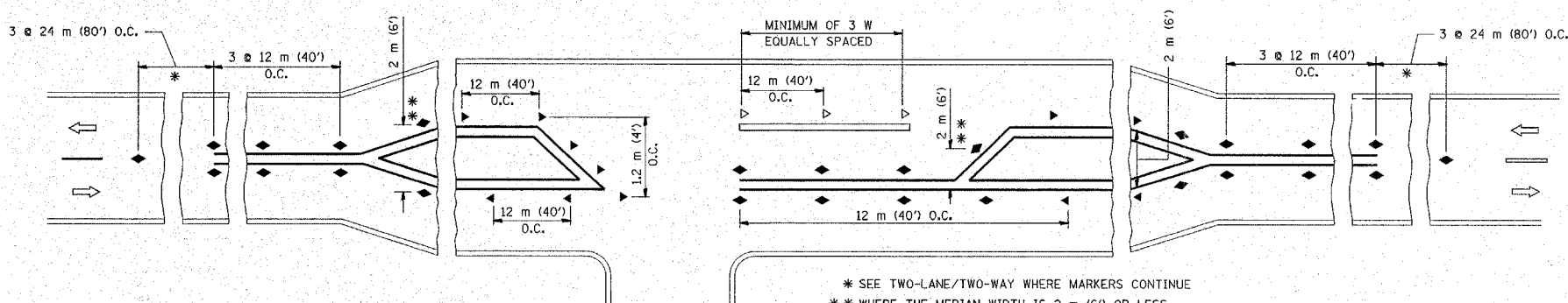
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS MAY BE SPECIFIED ON HIGH VOLUME ROADS.
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. CURBED SECTIONS SHOULD BE DELINEATED WITH CURB TOP MARKERS.



RURAL LEFT TURN

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

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

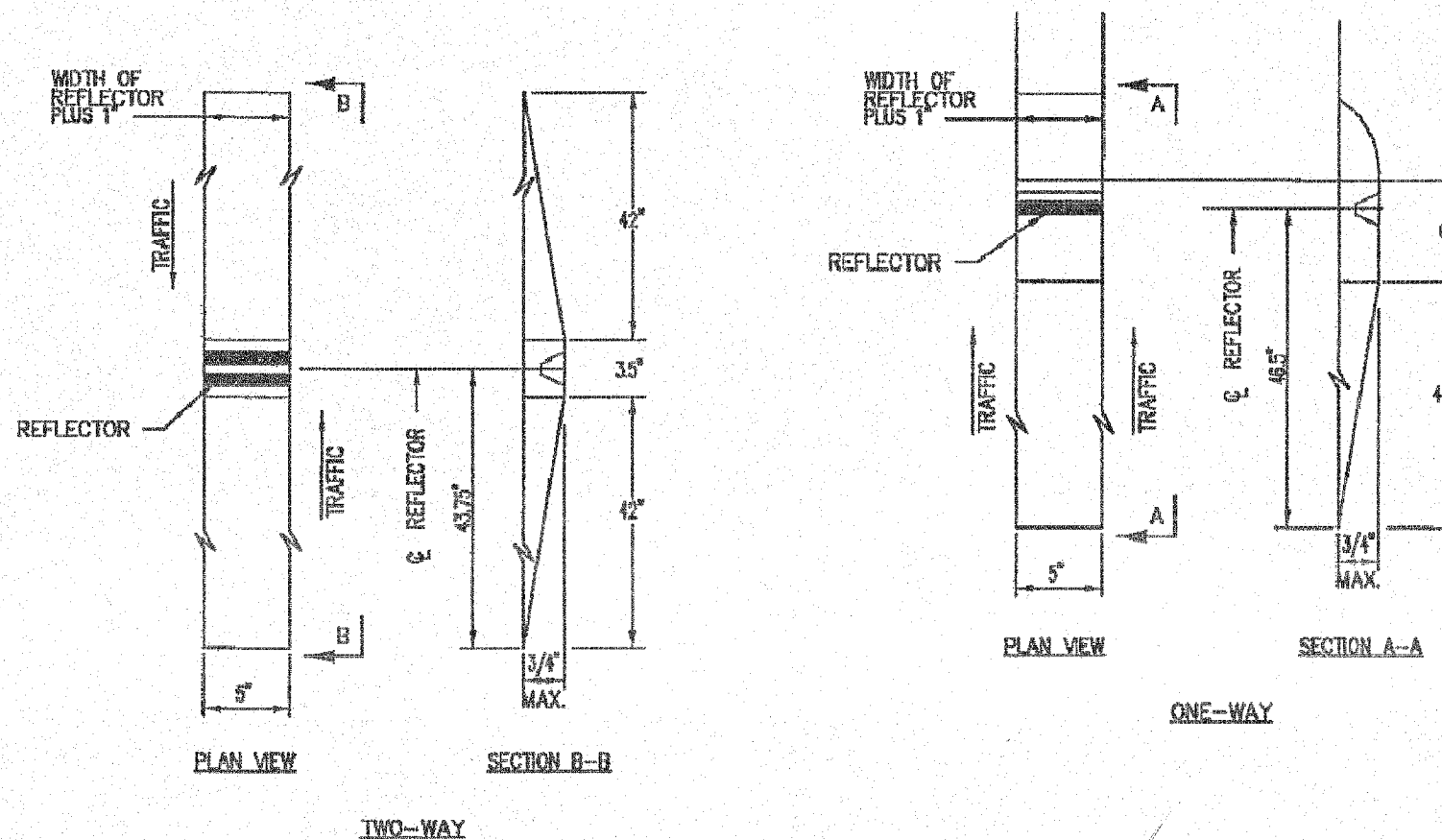
REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

SCALE: NONE  
 DATE: 08-28-07

DRAWN BY:  
 CHECKED BY:



**GENERAL NOTES:**

1. Installation shall conform to IDOT Highway Standard 781001-02 (or latest) for marker placement.
2. IDOT Standard 781001-02 shall be modified to reflect recessed pavement markers instead of raised pavement markers.

**RECESSED REFLECTIVE PAVEMENT MARKERS**

**INSTALLATION NOTES:**

1. Saw cut to dimensions shown.
2. Sawcut areas to be dry and free of material that adversely affects the adhesive bond.
3. Install the reflector with an approved two-component epoxy adhesive. Epoxy should not obscure or block the lens.
4. Install top of reflector +/- 3/8 inch below the pavement surface.
5. Reflector shall be JM Series 190 or approved equivalent.

TYPICAL  
RECESSED REFLECTIVE  
PAVEMENT MARKERS

STANDARD KC781001-03