

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	1

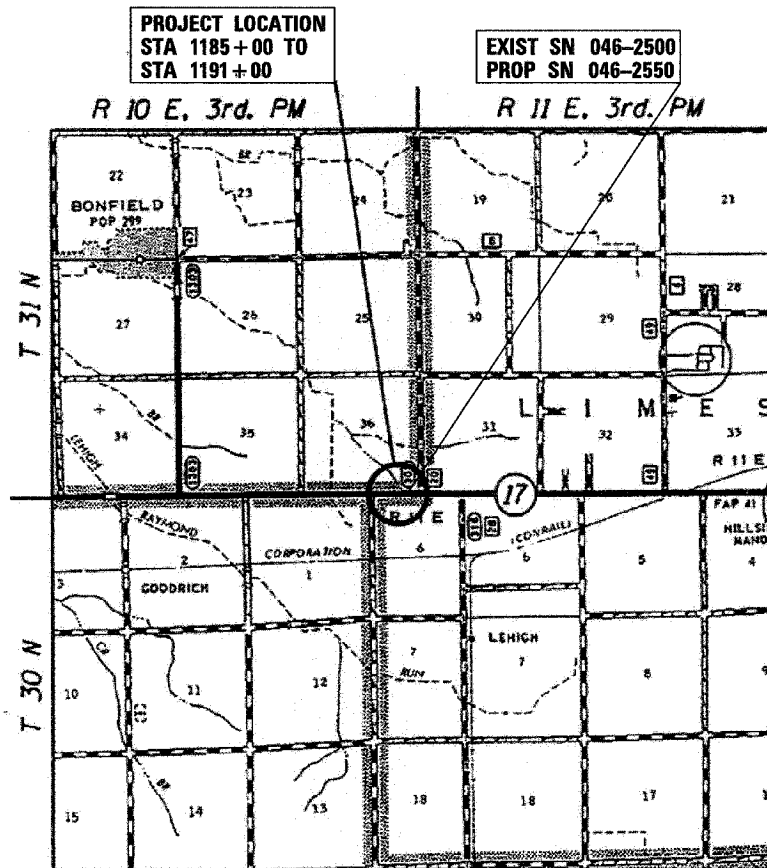
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

**FAP ROUTE 41 (IL 17)
SECTION 12 I
PROJECT ACF-0041(129)
KANKAKEE COUNTY**

C - 93 - 066 - 07

**REMOVAL OF 8'X3' BOX CULVERT AND REPLACEMENT WITH
DOUBLE 7'X3' PRECAST CONCRETE BOX CULVERT**



LOCATION MAP NOT TO SCALE

GROSS LENGTH = 600 FT. = 0.11 MI.
NET LENGTH = 600 FT. = 0.11 MI.

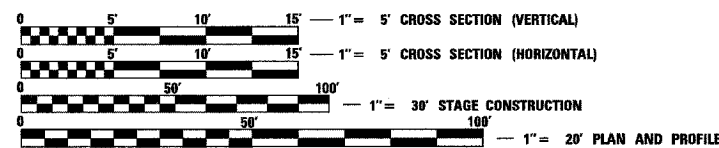
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- 704001-04 TEMPORARY CONCRETE BARRIER
- 781001-02 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____



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.

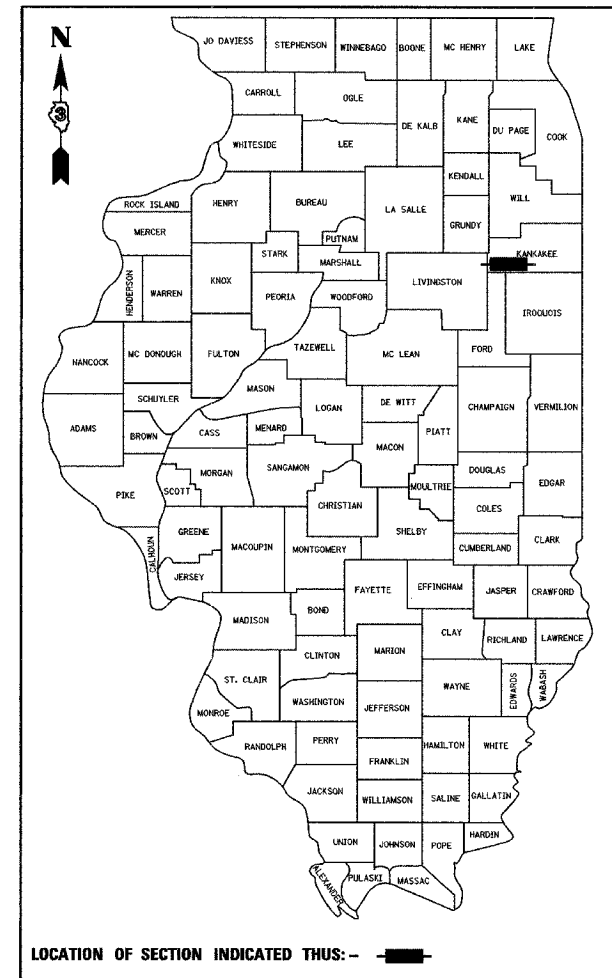
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: MICHELE LINDEMANN
TOWNSHIP: SALINA & LIMESTONE
CONTRACT NO. 66716

JAMES K CLINARD
CHAMLIN & ASSOCIATES
815-223-3344

10/07
202807COVER.DGN

D - 93 - 028 - 07



TRAFFIC DATA
HIGHWAY CLASSIFICATION: RURAL MINOR ARTERIAL
2008 ADT 4900
DESIGN SPEED 55 MPH
POSTED SPEED 55 MPH



PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-001717

CHAMLIN & ASSOCIATES
PERU ILLINOIS MORRIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 12/13 2007

George F. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
February 1, 2008

Eric E. Horn
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT
February 1, 2008

Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	3
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT _____		

ITEM NO.	ITEM	UNIT	80% FED 20% STATE		
			TOTAL QUANTITY	ROADWAY 1000	CULVERT Y007
20200100	EARTH EXCAVATION	CU YD	203	203	--
20400800	FURNISHED EXCAVATION	CU YD	74	74	--
20700220	POROUS GRANULAR EMBANKMENT	CU YD	169	169	--
25000210	SEEDING, CLASS 2A	ACRE	0.7	0.7	--
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	63	63	--
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	63	63	--
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	63	63	--
25100115	MULCH, METHOD 2	ACRE	0.7	0.7	--
25100630	EROSION CONTROL BLANKET	SQ YD	120	120	--
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	286	286	--
28000300	TEMPORARY DITCH CHECKS	EACH	2	2	--
28000500	INLET AND PIPE PROTECTION	EACH	3	3	--
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	227	227	--
35501324	HOT-MIX ASPHALT BASE COURSE, 10"	SQ YD	207	207	--
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	40	40	--
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	100	100	--
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	160	160	--
40600300	AGGREGATE (PRIME COAT)	TON	3	3	--
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	0.4	0.4	--
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	63	63	--
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	440	440	--
40600990	TEMPORARY RAMP	SQ YD	27	27	--
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	168	168	--
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	7	7	--
44000100	PAVEMENT REMOVAL	SQ YD	165	165	--
44004250	PAVED SHOULDER REMOVAL	SQ YD	333	333	--
48101200	AGGREGATE SHOULDERS, TYPE B	TON	135	135	--
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	--	1
50105200	REMOVE EXISTING CULVERTS	EACH	2	2	--
50200400	ROCK EXCAVATION FOR STRUCTURES	CU YD	59	--	59
51500100	NAME PLATES	EACH	1	--	1
X0325919	PRECAST CONCRETE BOX CULVERT END SECTIONS 7'X3' (SPECIAL)	EACH	4	--	4
X0325918	PRECAST CONCRETE BOX CULVERT 7' X 3' (SPECIAL)	FOOT	168	--	168

ITEM NO.	ITEM	UNIT	80% FED 20% STATE		
			TOTAL QUANTITY	ROADWAY 1000	CULVERT Y007
542A0220	PIPE CULVERTS, CLASS A, TYPE 1 15"	FOOT	48	48	--
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	45	45	--
542D5497	PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 42"	FOOT	34	34	--
54213450	END SECTIONS 15"	EACH	3	3	--
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1	--
54215970	REINFORCED CONCRETE PIPE ELBOW 15"	EACH	1	1	--
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2	2	--
67100100	MOBILIZATION	L SUM	1	1	--
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	--
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	--
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	--
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	--
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	7	7	--
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	--
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	120	120	--
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	20	20	--
70400100	TEMPORARY CONCRETE BARRIER	FOOT	362.5	362.5	--
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	312.5	312.5	--
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1200	1200	--
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	150	150	--
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	8	8	--
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	8	--
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	--
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	--
XX003404	TEMPORARY PAVEMENT, 8"	SQ YD	760	760	--
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	115	--	115
X0325907	GRATING FOR PRECAST CONCRETE BOX CULVERT END SECTION 7' X 3'	EACH	4	--	4

* SPECIALTY ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
 FAP 41 (IL 17)
 SECTION 12 I
 KANKAKEE COUNTY

SCALE: VERT.
 HORIZ.
 DATE: 10/07

DRAWN BY: LAG
 CHECKED BY: JKC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	4
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		

EARTHWORK QUANTITIES				
LOCATION	THEORETICAL		SHORTAGE (-) OR EXCESS (+)	REMARKS
	CUT	FILL		
	CU YD	CU YD	CU YD	
	(A)	(B)	[(A)0.75]-(B)	
STAGE I	64	79	-31	-
STAGE II	55	52	-11	-
STAGE III	53	57	-17	-
STAGE IV	31	38	-15	-
TOTAL	203	226	74	
	PAY ITEM		PAY ITEM	

PAVEMENT SCHEDULE										
LOCATION (STA TO STA)	SUB-BASE GRANULAR MATERIAL, TYPE A, 4"	HOT-MIX ASPHALT BASE COURSE, 10"	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	LEVELING BINDER (MACHINE METHOD), N70	HOT-MIX ASPHALT SURFACE COURSE, MIX 'C', N70	PAVEMENT REMOVAL	PAVED SHOULDER REMOVAL	AGGREGATE SHOULDER, TYPE B
STA 1187+49 TO STA 1188+11, LT. & RT.	227	207	--	--	--	--	--	165	--	--
STA 1185+00 TO STA 1191+00, LT. & RT.	--	--	160	3	0.4	63	168	--	--	135
STA 1185+62.0 TO STA 1190+00.5, LT.	--	--	--	--	--	--	--	--	122	--
STA 1185+49.5 TO STA 1190+13.0, RT.	--	--	--	--	--	--	--	--	211	--
TOTAL	227	207	160	3	0.4	63	168	165	333	135

EROSION CONTROL BLANKET	
LOCATION	SQ YD
STA 1184+94, RT.	10
STA 1186+90.18, LT.	10
STA 1187+23.24, LT.	10
STA 1187+46.06, LT.	40
STA 1187+55.55, RT.	10
STA 1188+13.94, RT.	40
TOTAL	120

HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT	
LOCATION	SQ YD
STA 1185+00 TO STA 1185+60, LT. & RT.	240
STA 1190+40 TO STA 1191+00, LT. & RT.	200
TOTAL	440

TEMPORARY DITCH CHECK	
LOCATION	EACH
STA 1188+40, LT. & RT.	2
TOTAL	2

TEMPORARY RAMP	
LOCATION	SQ YD
STA 1185+00, LT. & RT.	13.5
STA 1191+00, LT. & RT.	13.5
TOTAL	27.0

RAISED REFLECTIVE PAVEMENT MARKER	
LOCATION	EACH
STA 1185+00 TO STA 1191+00	8
TOTAL	8

ENTRANCE SCHEDULE		
LOCATION (STA TO STA)	AGGREGATE SURFACE COURSE, TYPE B	INCIDENTAL HOT-MIX ASPHALT SURFACING
	TON	TON
STA 1185+27.0, RT - PRIVATE ENTRANCE	--	4
STA 1187+08.3, LT - FIELD ENTRANCE, 17' WIDE	26	--
STA 1187+77.0, RT - PRIVATE ENTRANCE, 18' WIDE	14	3
TOTAL	40	7

INLET AND PIPE PROTECTION	
LOCATION	EACH
STA 1184+94, RT.	1
STA 1186+90.18, LT.	1
STA 1187+55.55, RT.	1
TOTAL	3

THERMOPLASTIC PAVEMENT - LINE 4"	
LOCATION	FOOT
STA 1185+00 TO STA 1191+00, LT. & RT.	1200
TOTAL	1200

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	
LOCATION	EACH
STA 1185+00 TO STA 1191+00	8
TOTAL	8

THERMOPLASTIC PAVEMENT - LINE 6"	
LOCATION	FOOT
STA 1185+00 TO STA 1191+00	150
TOTAL	150

TEMPORARY PAVEMENT, 8"	
LOCATION	SQ YD
STA 1185+62.0 TO STA 1190+00.5, LT.	397
STA 1185+49.5 TO STA 1190+13.5, RT.	363
TOTAL	760

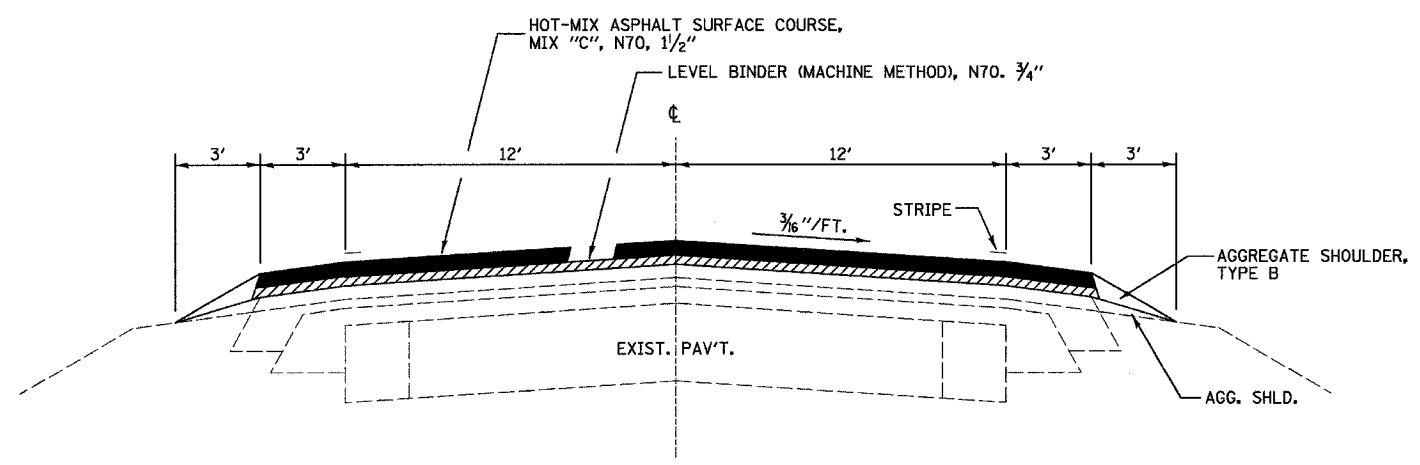
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES
 FAP 41 (IL 17)
 SECTION 12 I
 KANKAKEE COUNTY

SCALE: VERT. _____
 HORIZ. _____
 DATE: 10/07

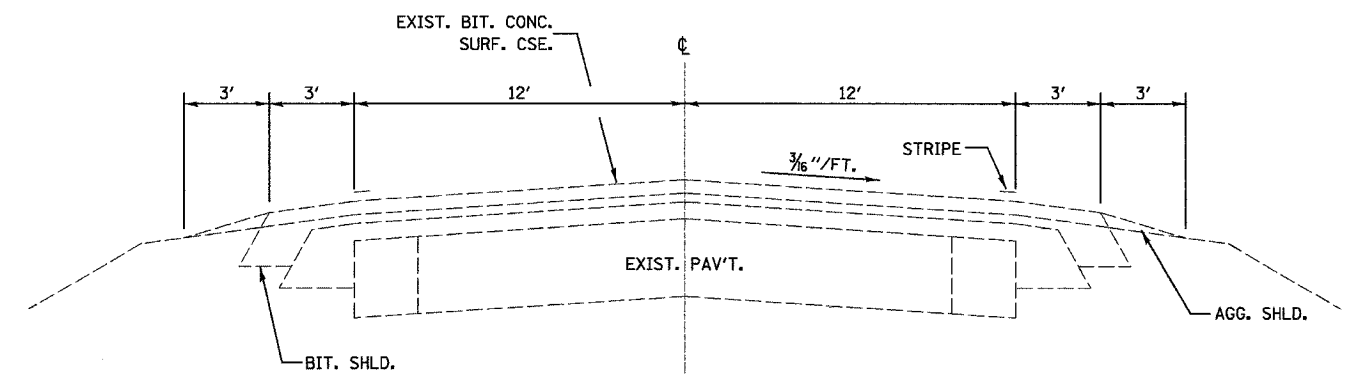
DRAWN BY: LAG
 CHECKED BY: JKC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	5
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



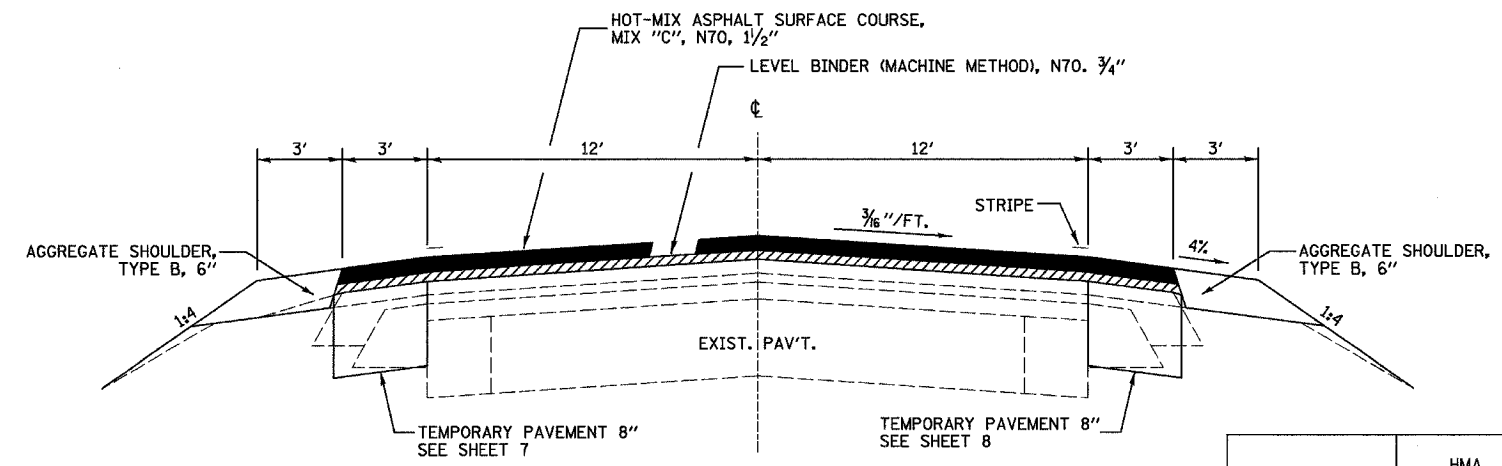
PROPOSED TYPICAL

STA 1185+00 TO STA 1185+62.0, LT.
 STA 1190+00.5 TO STA 1191+00, LT.
 STA 1185+00 TO STA 1185+49.5, RT.
 STA 1190+13.0 TO STA 1191+00, RT.



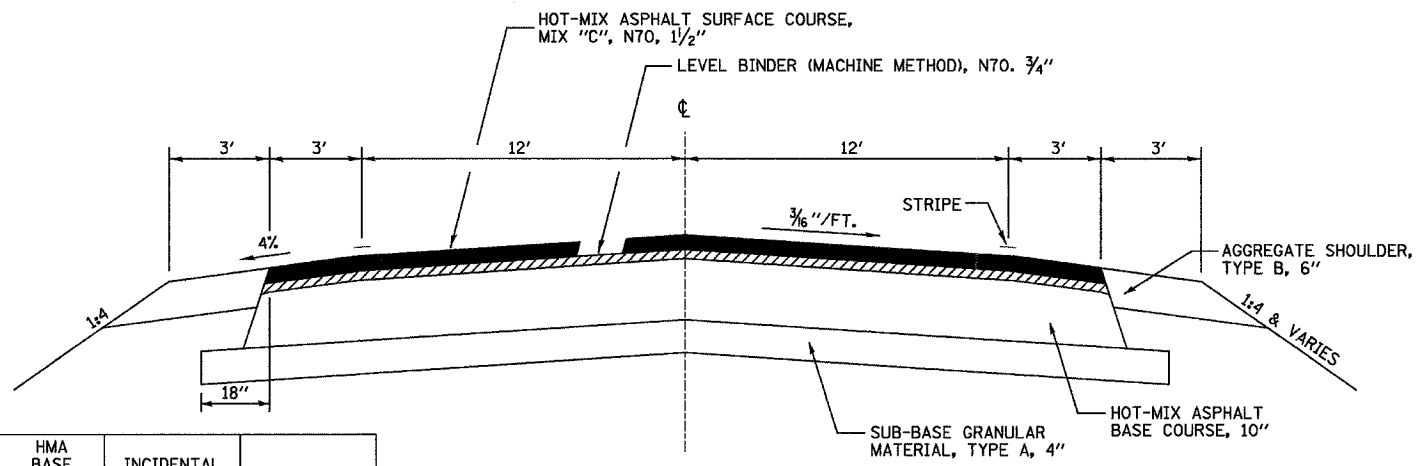
EXISTING TYPICAL

STA 1185+00 TO STA 1191+00



PROPOSED TYPICAL

STA 1185+62.0 TO STA 1190+00.5, LT.
 AND
 STA 1185+49.5 TO STA 1190+13.0, RT.
 (SEE TYPICAL SECTION FOR STA 1187+49 TO STA 1188+11
 FOR ADDITIONAL INFORMATION)



PROPOSED TYPICAL

STA 1187+49 TO STA 1188+11

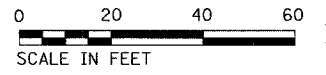
	HMA LEVEL BINDER	HMA SURFACE	HMA BASE COURSE	INCIDENTAL HMA SURFACE	TEMPORARY PAVEMENT
PG GRADE	PG64-22	PG64-22	PG64-22	PG58-22	PG58-22
MAX % RAP ALLOWABLE **	15%	10%	15%	10%	25%
DESIGN AIR VOIDS	4.0% @ N70	4.0% @ N70	4.0% @ N70	4.0% @ N70	4.0% @ N50
MIXTURE COMPOSITION	IL 9.5	IL 12.5 OR IL 9.5	IL 19.0	IL 12.5 OR IL 9.5	IL 19.0
FRICTION AGGREGATE		MIXTURE C		MIXTURE C	
DENSITY TEST METHOD	SATISFACTION OF ENGINEER	CORES / NUCLEAR	CORES / NUCLEAR	SATISFACTION OF ENGINEER	*

- * MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MAXIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.
- ** IF RIPRAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

REVISIONS	
NAME	DATE

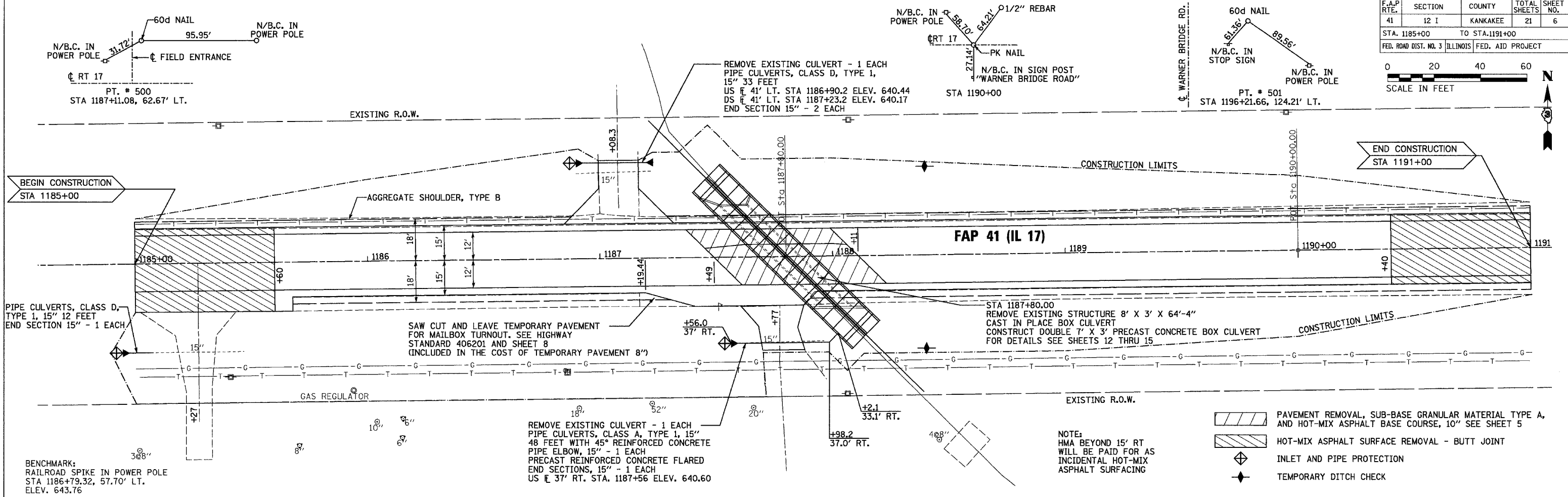
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS
 FAP 41 (IL 17)
 SECTION 12 I
 KANKAKEE COUNTY
 SCALE: VERT. _____
 HORIZ. _____
 DATE: 10/07
 DRAWN BY: LAG
 CHECKED BY: JKC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	TOTAL SHEET NO.
41	12 I	KANKAKEE	21	6
STA. 1185+00 TO STA. 1191+00				
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				



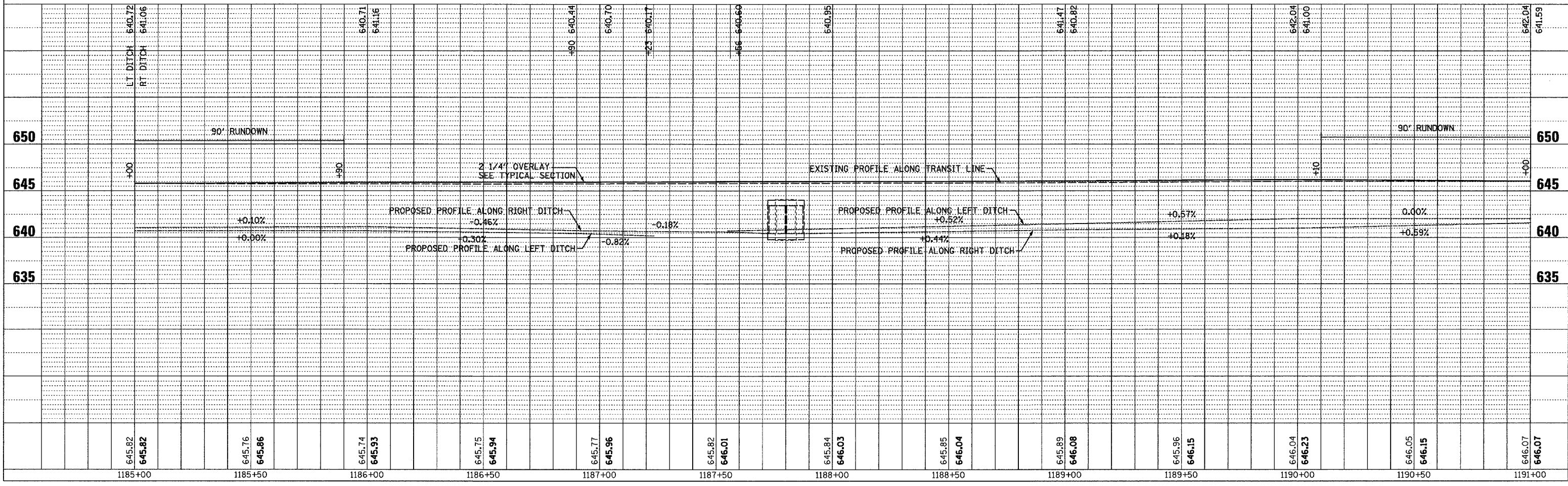
PLAN	DATE

PROFILE	DATE

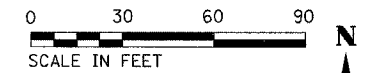


- PAVEMENT REMOVAL, SUB-BASE GRANULAR MATERIAL TYPE A, AND HOT-MIX ASPHALT BASE COURSE, 10" SEE SHEET 5
- HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK

NOTE:
HMA BEYOND 15' RT
WILL BE PAID FOR AS
INCIDENTAL HOT-MIX
ASPHALT SURFACING



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	7
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



AGGREGATE FOR TEMPORARY ACCESS	
LOCATION	TON
STA 1185+07.8 TO STA 1187+70.9, RT.	100
---	---
---	---
---	---
---	---
TOTAL	100

TEMPORARY BRIDGE TRAFFIC SIGNALS	
LOCATION	EACH
STA 1183+90 TO STA 1191+72.5	1
---	---
---	---
---	---
---	---
TOTAL	1

RELOCATE TEMPORARY CONCRETE BARRIER	
LOCATION	FOOT
STAGE III	312.5
---	---
---	---
---	---
---	---
TOTAL	312.5

IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	
LOCATION	EACH
STAGE III	2
---	---
---	---
---	---
---	---
TOTAL	2

TRAFFIC CONTROL SURVEILLANCE	
LOCATION	CAL DA
STAGE I	7
---	---
---	---
---	---
---	---
TOTAL	7

TEMPORARY CONCRETE BARRIER	
LOCATION	FOOT
STAGE II	312.5
STAGE III	50
---	---
---	---
---	---
TOTAL	362.5

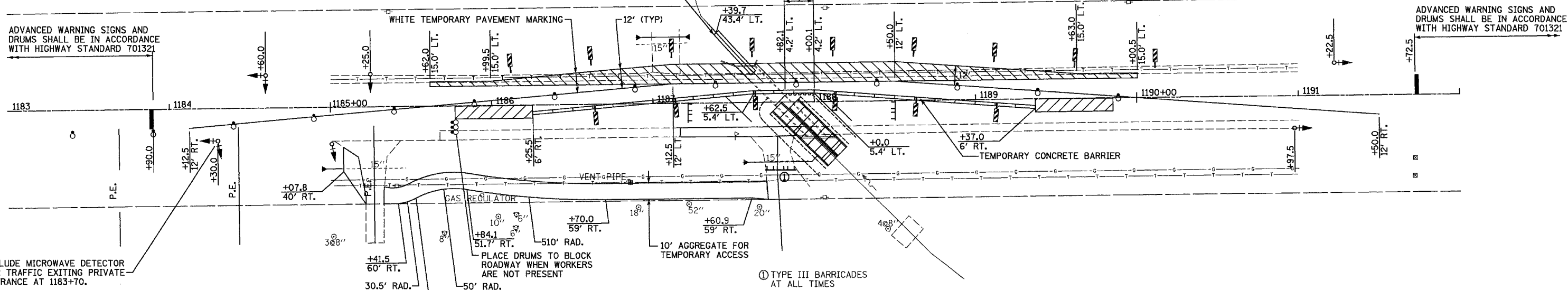
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	
LOCATION	EACH
STAGE II	2
---	---
---	---
---	---
---	---
TOTAL	2

- LEGEND:
- IMPACT ATTENUATOR
 - DRUM WITH STEADY BURNING LIGHT
 - TEMPORARY BRIDGE TRAFFIC SIGNAL
 - TYPE III BARRICADE TO BE IN PLACE WHEN NO WORK IS BEING PERFORMED
 - TEMPORARY PAVEMENT
 - DOUBLE VERTICAL PANEL AT 50' O.C.

NOTE:
TRAFFIC SIGNALS FOR PRIVATE ENTRANCE SHALL BE EQUIPPED WITH MICROWAVE DETECTOR.

TEMPORARY PIPE CULVERT EQUIVALENT ROUND SIZE 42" 34 FOOT

TEMPORARY SOIL RETENTION SYSTEM



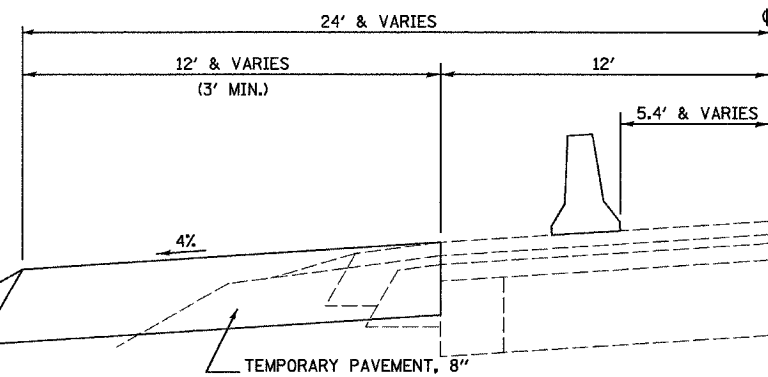
INCLUDE MICROWAVE DETECTOR FOR TRAFFIC EXITING PRIVATE ENTRANCE AT 1183+70.

ADVANCED WARNING SIGNS AND DRUMS SHALL BE IN ACCORDANCE WITH HIGHWAY STANDARD 701321

SEQUENCE OF WORK

STAGE I (UTILIZING HIGHWAY STANDARD 701326)
CONSTRUCT AGGREGATE FOR TEMPORARY ACCESS ALONG SOUTH ROW.
INSTALL TEMPORARY PIPE CULVERT AT NORTH END OF EXISTING BOX CULVERT.
CONSTRUCT TEMPORARY PAVEMENT WIDENING.
ERECT STAGE II TRAFFIC CONTROL.

STAGE II (UTILIZING HIGHWAY STANDARD 701321 AND DETAILS IN PLANS)
CONSTRUCT SOUTH HALF OF NEW BOX CULVERT.
PARTIALLY CONSTRUCT NEW PAVEMENT FOR EASTBOUND LANE.
CONSTRUCT TEMPORARY PAVEMENT WIDENING.
ERECT STAGE III TRAFFIC CONTROL



**STAGE I
PAVEMENT WIDENING**
LT. STA 1185+62.0 TO STA 1190+00.5
N.T.S.

REVISIONS	
NAME	DATE

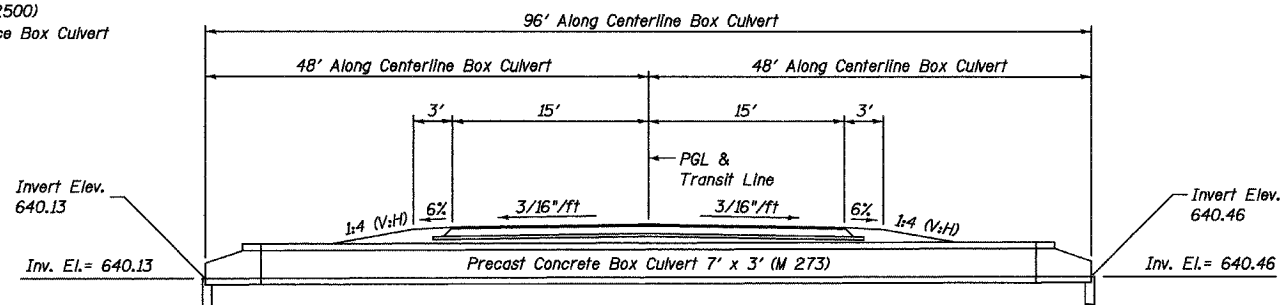
ILLINOIS DEPARTMENT OF TRANSPORTATION
**STAGE II
TRAFFIC CONTROL PLAN**
FAP 41 (IL 17)
SECTION 12 I
KANKAKEE COUNTY

VERT. SCALE: HORIZ.
DATE: 10/07
DRAWN BY: KKP
CHECKED BY: JKC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12-1	KANKAKEE	21	9
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

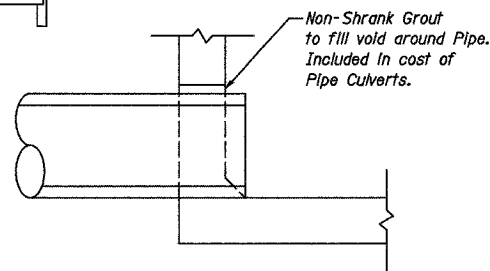
BENCHMARK:
RAILROAD SPIKE IN POWER POLE
STA 1186+79.32, 57.70' LT.
Elev. 643.76

Existing Structure: (SN 046-2500)
8' x 3' x 64'-4" Cast In Place Box Culvert
to be removed.



LONGITUDINAL SECTION

All Dimensions At Rt. L's To Transf Line Unless Noted

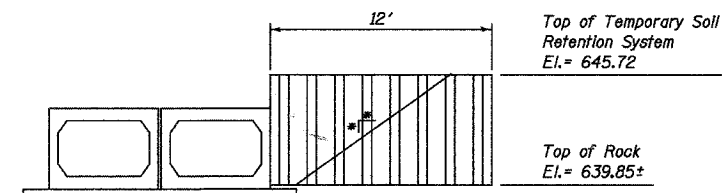


SECTION A

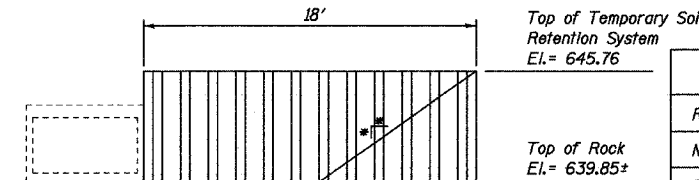
STATION 1187+80
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. 41 SECTION 12 I
LOADING HS-20
STR. NO. 046-2550

NAME PLATE

SEE STD. 515001



STAGE III TEMPORARY SOIL RETENTION SYSTEM

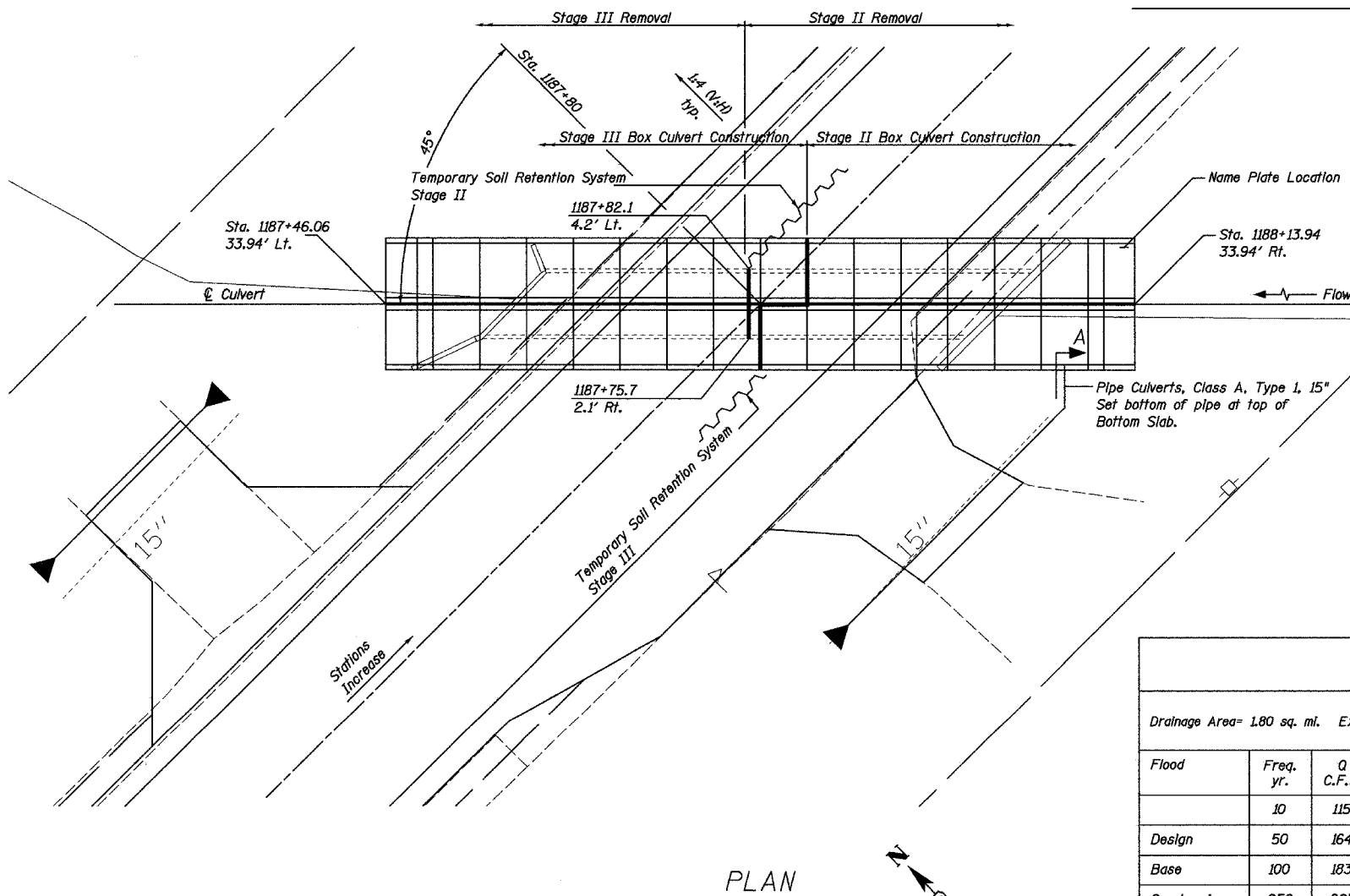


STAGE II TEMPORARY SOIL RETENTION SYSTEM

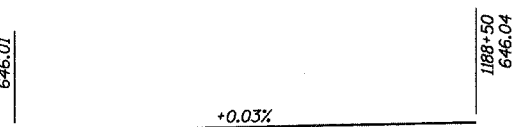
GENERAL NOTES:

1. A cantilevered sheet piling design does not appear feasible and additional members of other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. See sheet 14 for details for Grating for Precast Box Culvert End Sections.
3. See sheet 15 for Section Through Precast Box Culvert.
4. See sheet 15 for pay length for Precast Concrete Box Culvert.
5. See sheets 12 & 13 for additional details.
6. Work this sheet with sheets 7 & 8 for Staged Construction Details.

BILL OF MATERIALS		
Removal of Existing Structures	Each	1
Name Plates	Each	1
Precast Concrete Box Culvert 7' x 3' (Special)	Foot	168
Rock Excavation for Structures	Cu Yd	59
Precast Concrete Box Culvert End Sections 7' x 3' (Special)	Each	4
Temporary Soil Retention System	Sq Ft	115
Grating for Precast Concrete Box Culvert End Section 7' x 3'	Each	4
Porous Granular Embankment	Cu Yd	169



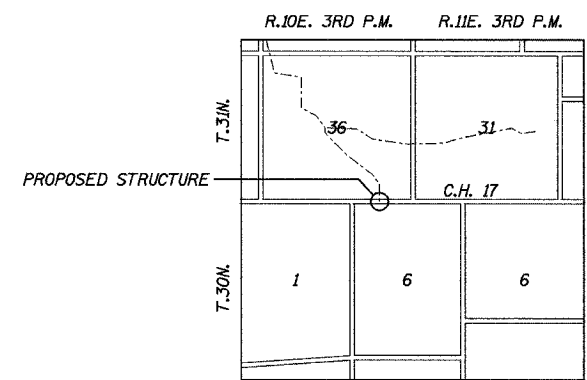
PLAN



PROFILE GRADE

WATERWAY INFORMATION									
Drainage Area= 1.80 sq. mi. Exist. Low Grade El.= 645.74 @ Sta. 1186+00 Prop. Low Grade El.= 645.94 @ Sta. 1186+00									
Flood	Freq. yr.	Q C.F.S.	Opening - sq. ft.		Nat. H.W.E.	Head - ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	164	21	42	643.4	1.2	0.3	644.6	643.7
Base	100	183	22	42	643.5	1.6	0.4	645.1	643.9
Overtopping	250	205	24		643.6	2.2		645.8	
Max. Calc.	500	226		42	643.7		0.6		644.3

10 year velocity through proposed structure= 2.7 fps

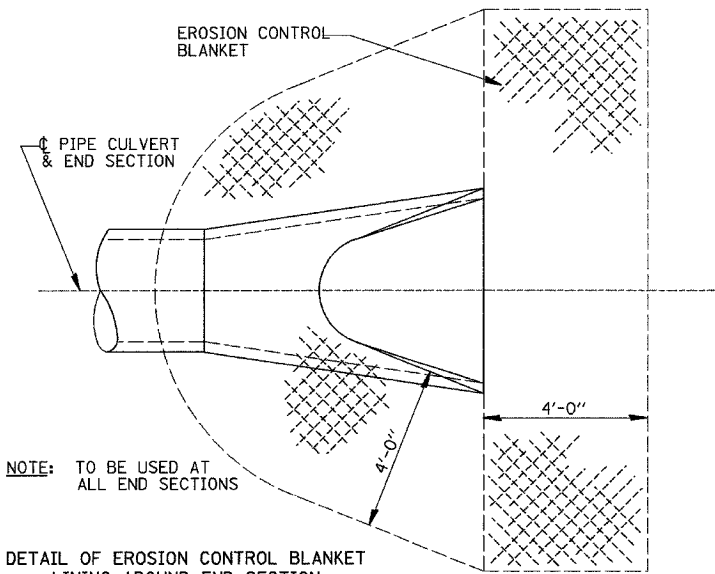


LOCATION SKETCH

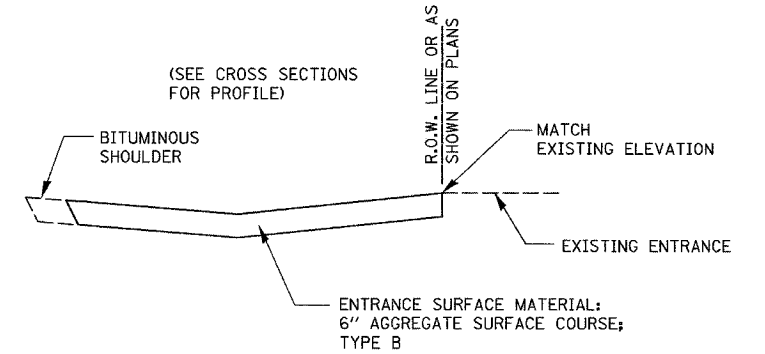
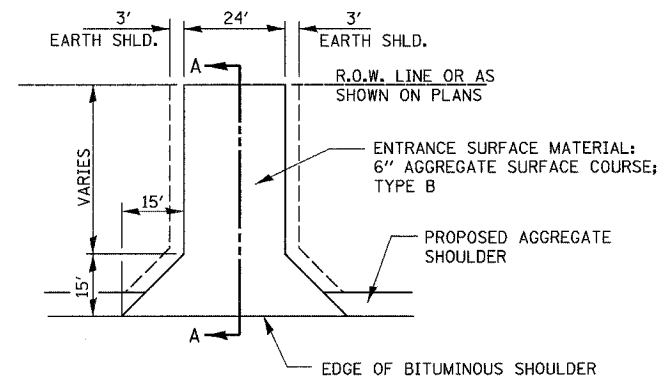
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
FAP 41 (IL 17)
SECTION 12 I
KANKAKEE COUNTY
STRUCTURE NO. 046-2550
SCALE: VERT. 1"= 10'
HORIZ. 1"= 10'
DATE: 10/07
DRAWN BY: L.A.G.
CHECKED BY: J.K.C.

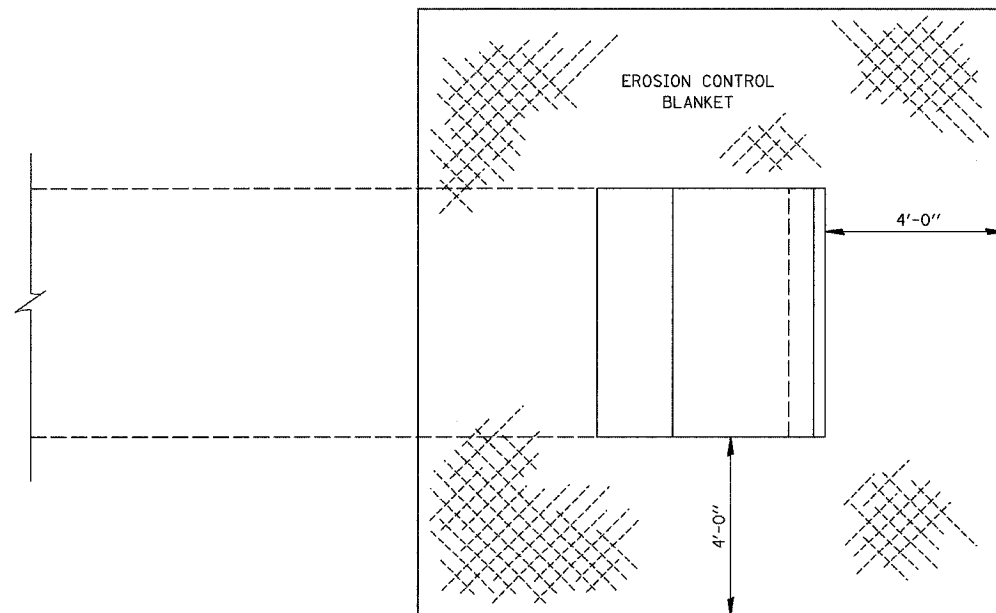
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	10
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



NOTE: PRC FLARED END SECTION SHOWN. TREATMENT SAME FOR OTHER END SECTIONS.



FIELD ENTRANCE DETAIL



EROSION CONTROL BLANKET AT PRECAST BOX CULVERT END SECTIONS

REVISIONS	
NAME	DATE

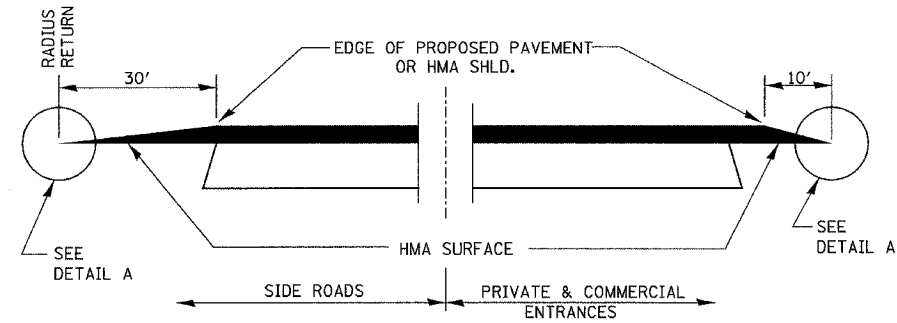
ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS
FAP 41 (IL 17)
SECTION 12 I
KANKAKEE COUNTY

SCALE: VERT.
HORIZ.
DATE: 10/07

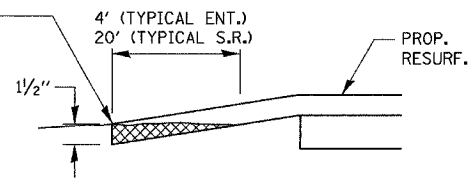
DRAWN BY: LAG
CHECKED BY: JKC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	11
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS		FED. AID PROJECT

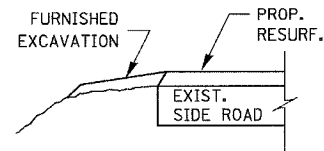


SECTION A-A
DETAILS AT ENTRANCES & SIDE ROADS

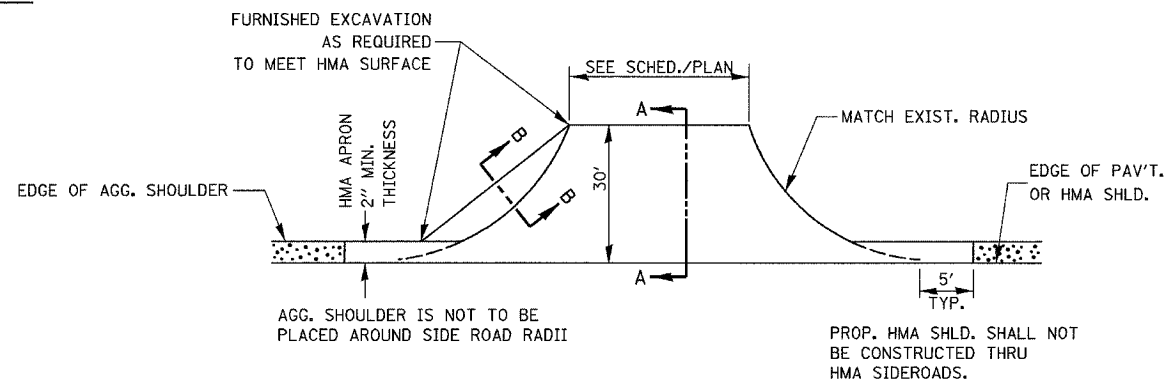
THE COST OF REMOVAL AT EXISTING HMA OR P.C.C. LOCATIONS SHALL BE PAID FOR PER SQ. YD. BY THE APPROPRIATE PAY ITEM. REMOVAL AT THE EXISTING AGG. LOCATIONS SHALL BE INCIDENTAL TO THE HMA. A-3 LOCATIONS SHALL BE FEATHER TAPERED.



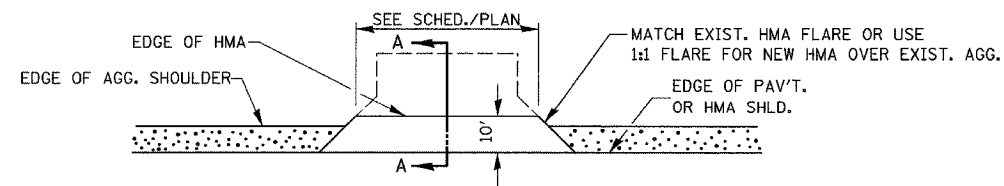
DETAIL A



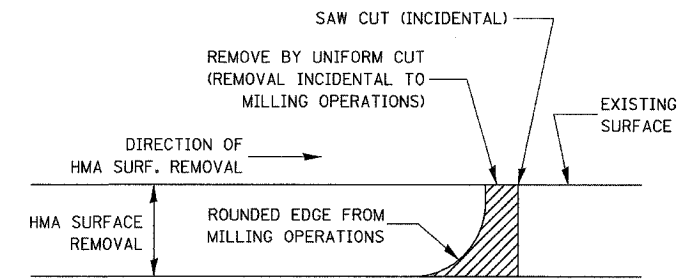
SECTION B-B



PLAN AT SIDE ROADS

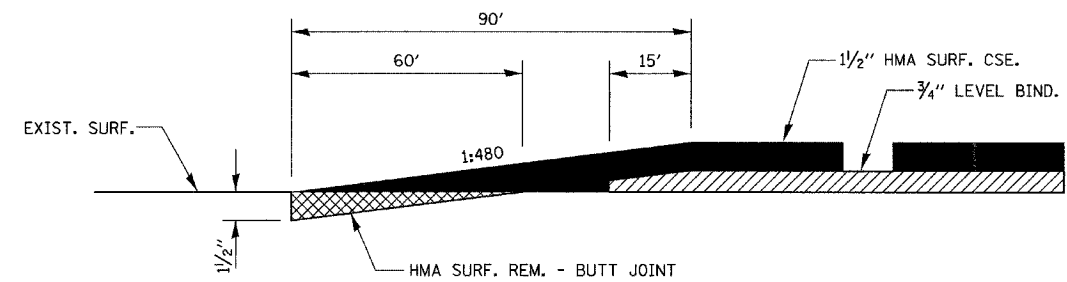


PLAN AT PRIVATE & COMMERCIAL ENTRANCES
(DO NOT RESURFACE FIELD ENTRANCES)



NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

HMA DETAIL AT BUTT JOINTS

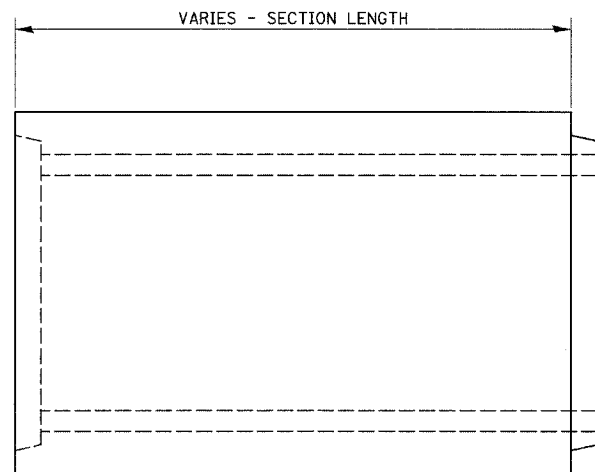


REVISIONS	
NAME	DATE

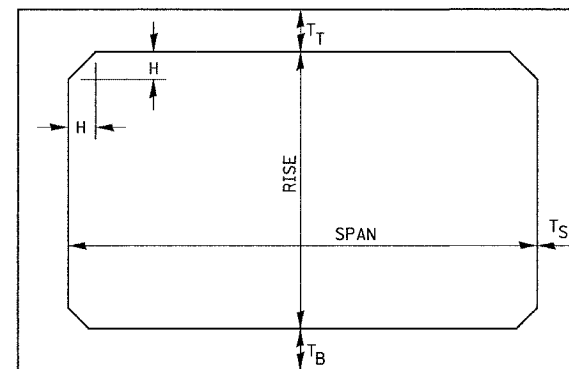
ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS
FAP 41 (IL 17)
SECTION 12 I
KANKAKEE COUNTY

VERT. SCALE: HORIZ.
DATE: 10/07
DRAWN BY: LAG
CHECKED BY: JKC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	12
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



ELEVATION



NOTE: THE HAUNCH DIMENSION H, IS EQUAL TO THE WALL THICKNESS T_S.

TYPICAL BOX SECTION

SPAN, FEET	T _T , INCHES		T _B , INCHES		T _S , INCHES	
	M 259	M 273	M 259	M 273	M 259	M 273
3	4	7	4	6	4	4
4	5	7 1/2	5	6	5	5
5	6	8	6	7	6	6
6	7	8	7	7	7	7
7	8	8	8	8	8	8
8	8	8	8	8	8	8
9	9	9	9	9	9	9
10	10	10	10	10	10	10
11	11	11	11	11	11	11
12	12	12	12	12	12	12

TYPICAL THICKNESSES

GENERAL NOTES:

MINIMUM COVER FOR BOX CULVERTS SHALL BE 6".

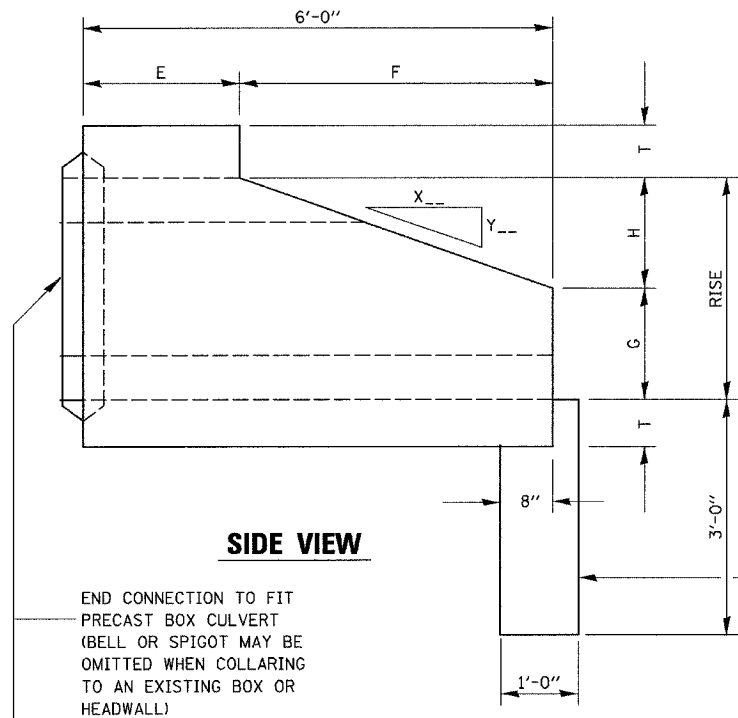
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**PRECAST CONCRETE
 BOX SECTION**
 FAP 41 (IL 17)
 SECTION 12 I
 KANKAKEE COUNTY

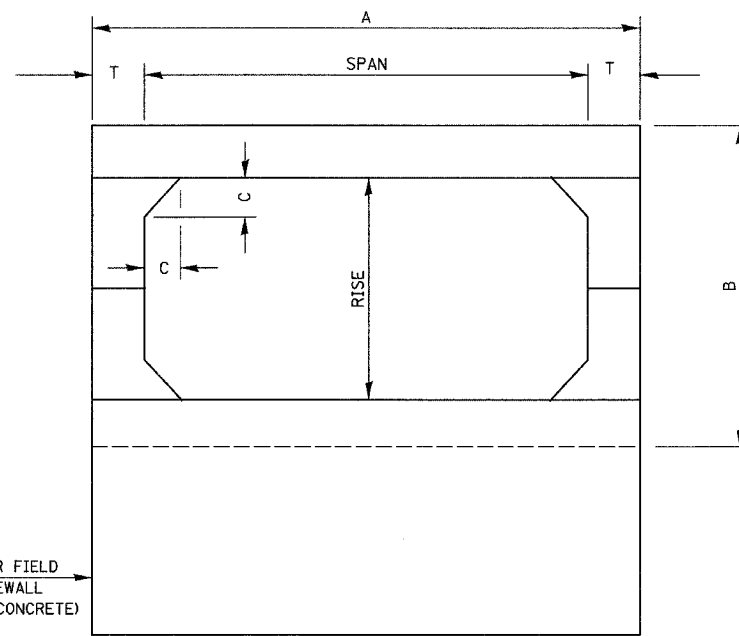
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 HORIZ. _____
 DATE: 10/07

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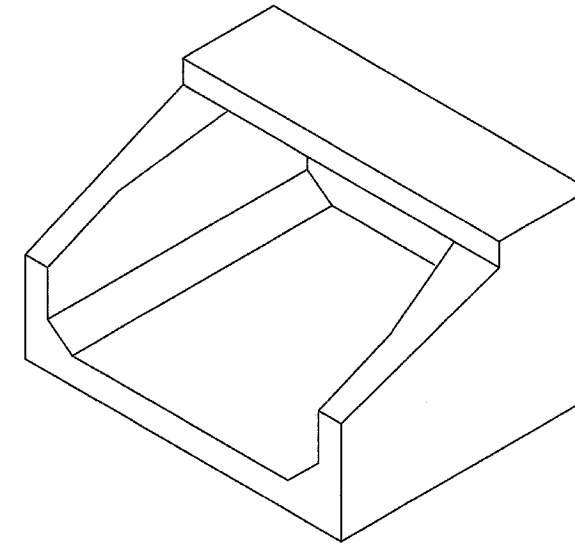
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	13
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



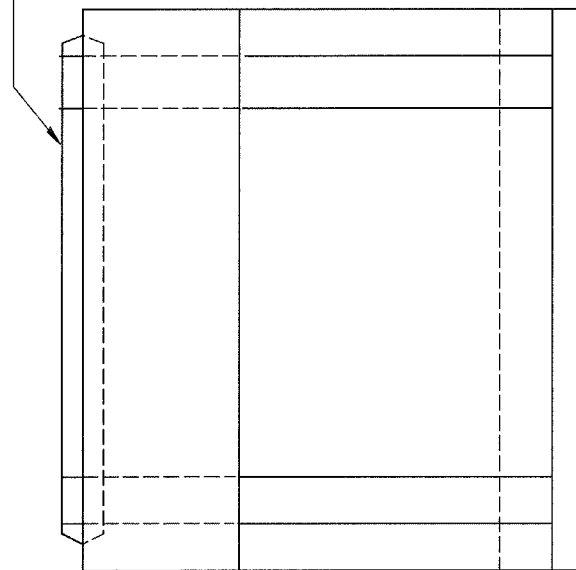
SIDE VIEW



END VIEW



ISOMETRIC VIEW



PLAN

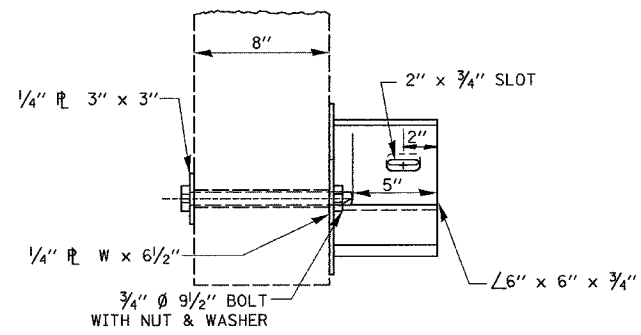
SPAN X RISE	T (INCHES)	A (FT.-IN.)	B (FT.-IN.)	C (INCHES)	E (FT.-IN.)	F (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	SLOPE
2' X 2'	4	2 - 8	2 - 8	4	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
3' X 2'	4	3 - 8	2 - 8	4	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
3' X 3'	4	3 - 8	3 - 8	4	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
4' X 2'	5	4 - 10	2 - 10	5	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
4' X 3'	5	4 - 10	3 - 10	5	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
4' X 4'	5	4 - 10	4 - 10	5	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
5' X 2'	6	6 - 0	3 - 0	6	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
5' X 3'	6	6 - 0	4 - 0	6	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
5' X 4'	6	6 - 0	5 - 0	6	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
5' X 5'	6	6 - 0	6 - 0	6	4 - 0	4 - 0	3 - 0	2 - 0	2 : 1
6' X 2'	7	7 - 2	3 - 2	7	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
6' X 3'	7	7 - 2	4 - 2	7	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
6' X 4'	7	7 - 2	5 - 2	7	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
6' X 5'	7	7 - 2	6 - 2	7	4 - 0	4 - 0	3 - 0	2 - 0	2 : 1
7' X 3'	8	8 - 4	4 - 4	8	4 - 0	4 - 0	1 - 8	1 - 4	3 : 1
7' X 4'	8	8 - 4	5 - 4	8	4 - 0	2 - 0	2 - 0	2 - 0	2 : 1
7' X 5'	8	8 - 4	6 - 4	8	4 - 0	3 - 0	3 - 0	2 - 0	2 : 1
8' X 3'	8	9 - 4	4 - 4	8	4 - 0	1 - 8	1 - 4	1 - 4	3 : 1
8' X 4'	8	9 - 4	5 - 4	8	4 - 0	2 - 0	2 - 0	2 - 0	2 : 1
8' X 5'	8	9 - 4	6 - 4	8	4 - 0	3 - 0	3 - 0	2 - 0	2 : 1
9' X 3'	9	10 - 6	4 - 6	9	4 - 0	1 - 8	1 - 4	1 - 4	3 : 1
9' X 4'	9	10 - 6	5 - 6	9	4 - 0	2 - 0	2 - 0	2 - 0	2 : 1
9' X 5'	9	10 - 6	6 - 6	9	4 - 0	3 - 0	3 - 0	2 - 0	2 : 1
10' X 4'	10	11 - 8	5 - 8	10	4 - 0	2 - 0	2 - 0	2 - 0	2 : 1
10' X 5'	10	11 - 8	6 - 8	10	4 - 0	3 - 0	3 - 0	2 - 0	2 : 1

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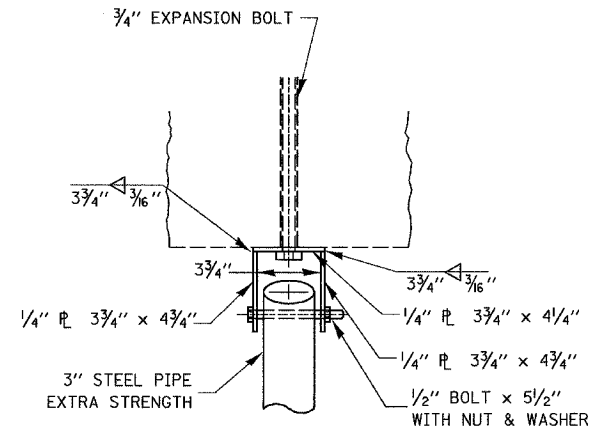
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PRECAST CONCRETE BOX
 CULVERT END SECTION
 FAP 41 (IL 17)
 SECTION 12 I
 KANKAKEE COUNTY
 SCALE: VERT. _____
 HORIZ. _____
 DATE: 10/07
 DRAWN BY: LAG
 CHECKED BY: JKC

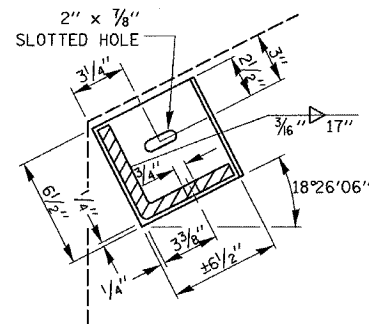
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	14
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				



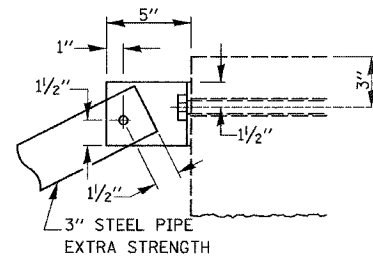
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END BRACKET ASSEMBLY



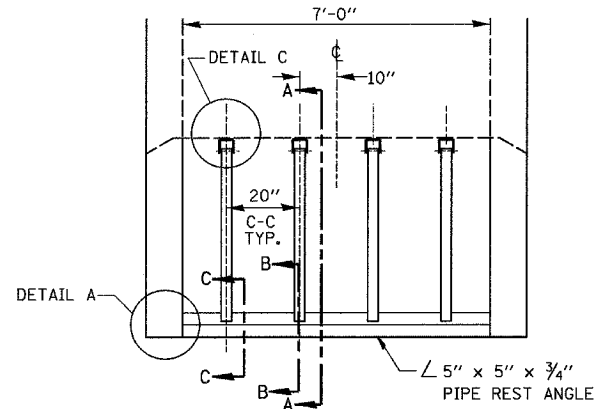
PLAN
HEADWALL BRACKET ASSEMBLY



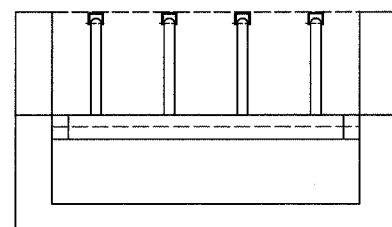
SECTION THRU
DETAIL A



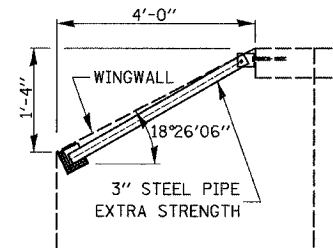
SECTION THRU
DETAIL C



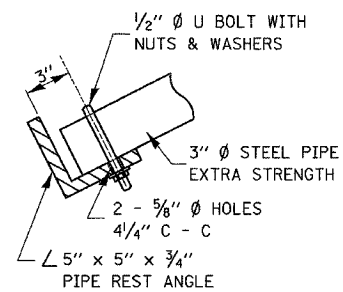
PLAN VIEW



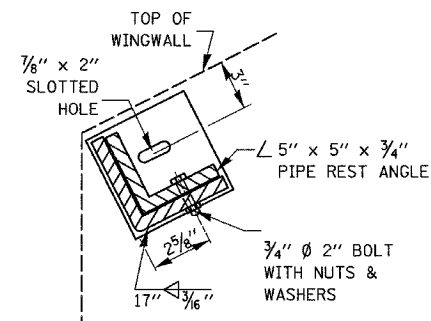
ELEVATION VIEW



SECTION A-A



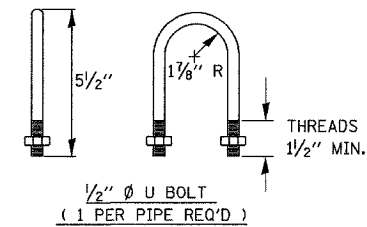
SECTION B-B



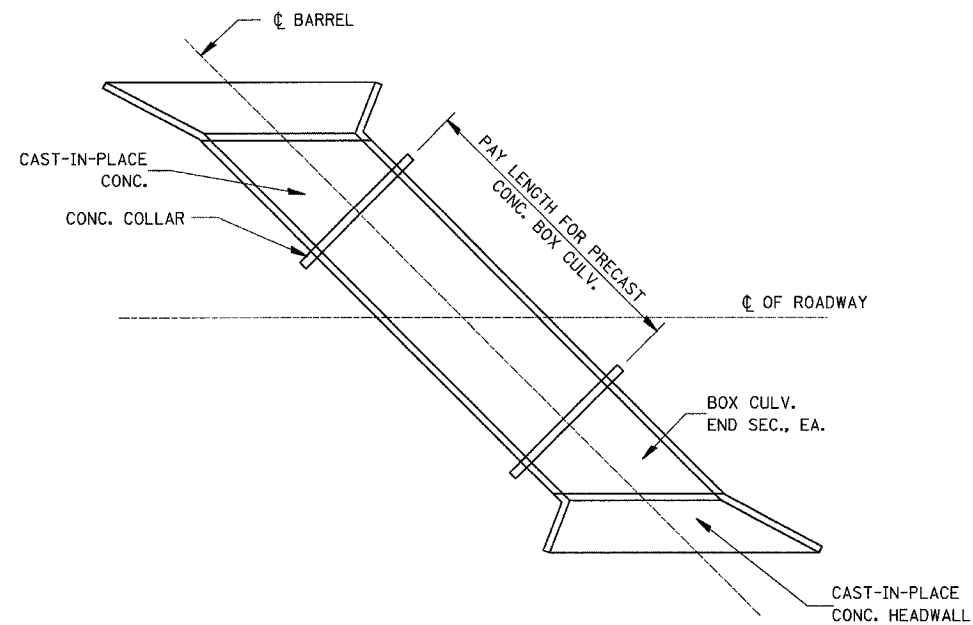
SECTION C-C

GENERAL NOTES

BOLTS AND NUTS SHALL CONFORM TO ASTM A 307.
 ALL BOLTS SHALL HAVE WASHERS AT EACH END.
 HOLES SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" OVERSIZE.
 ANGLES AND STEEL PLATES SHALL CONFORM TO AASHTO M183.
 STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B OR ASTM A 501.
 STEEL PIPES, ANGLES AND PLATES SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M111.
 BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M232.
 ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD.
 CUTTING OF THE EXTRA STRENGTH PIPE AND ANGLES TO THE EXACT LENGTHS AND DRILLING HOLES IS TO BE DONE IN THE FIELD.
 THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE "EACH" FOR GRATING FOR PRECAST CONCRETE BOX CULVERT END SECTION 7' X 3' AND SHALL INCLUDE FABRICATION PAINTING, AND INSTALLATION OF THE GRATING AS DETAILED.

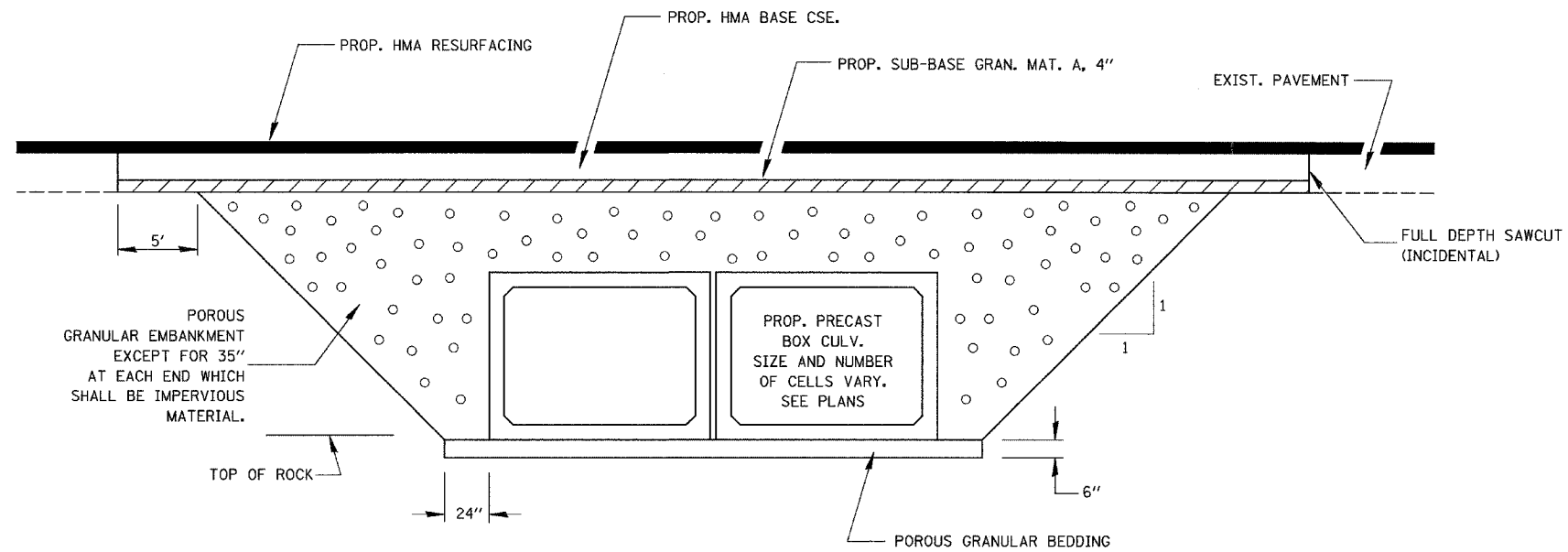


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	15
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

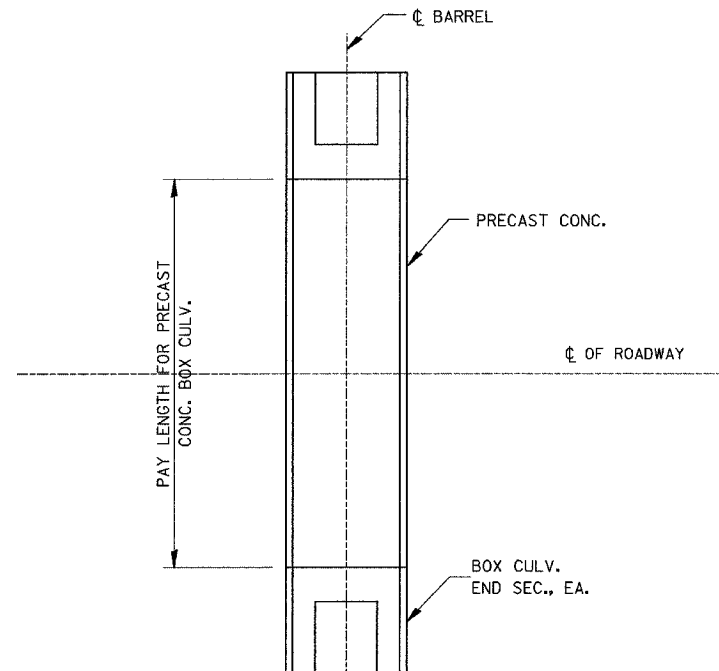


PAY LENGTH FOR PRECAST CONCRETE BOX CULVERT SKEWED WITH ROADWAY

N.T.S.

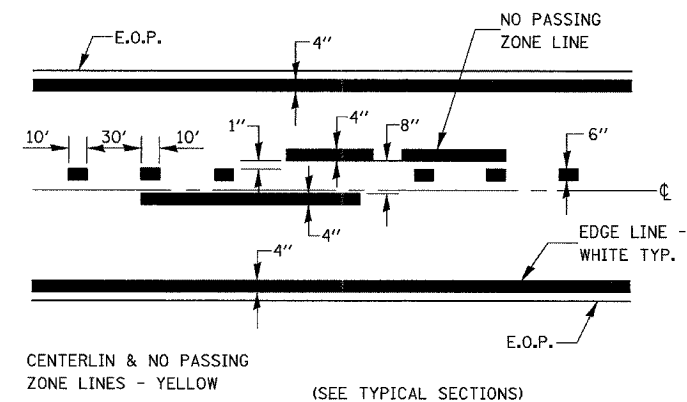


SECTION THROUGH PRECAST BOX CULVERT



PAY LENGTH FOR PRECAST CONCRETE BOX CULVERT AT RIGHT ANGLES WITH ROADWAY

N.T.S.



PAVEMENT MARKING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS
FAP 41 (IL 17)
SECTION 12 I
KANKAKEE COUNTY

VERT. SCALE:
HORIZ. SCALE:
DATE: 10/07

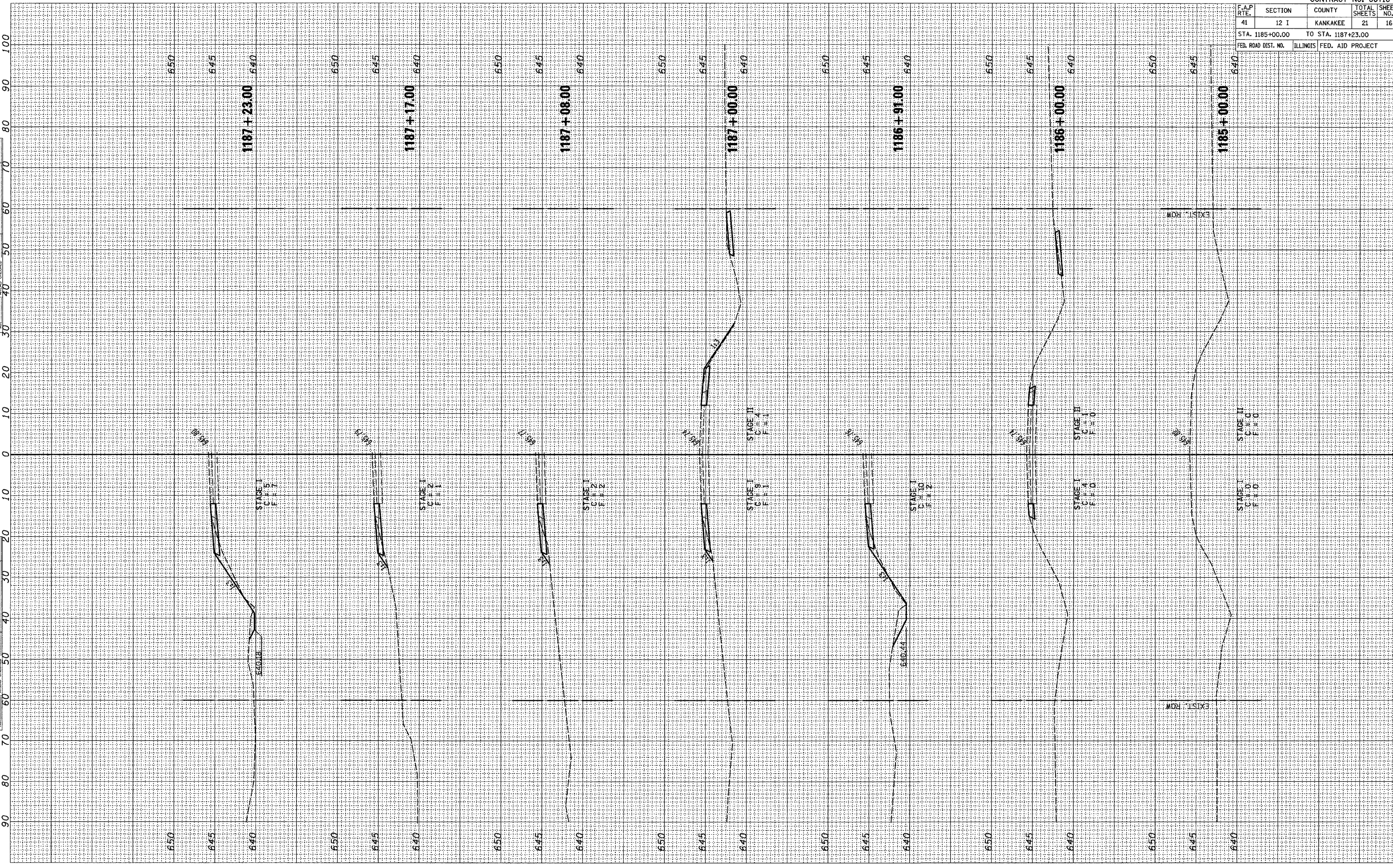
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CHECKED BY: JKC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	16
STA. 1185+00.00		TO STA. 1187+23.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NO.	30	40	50	60	70	80	90	100
BY								
DATE								
FINAL SURVEY								
SHRINKED								
PLOTTED								
TEMPLATE								
AREAS CHECKED								
NOTE BOOK								

NO.	60	70	80	90
BY				
DATE				
ORIGINAL SURVEY				
PLOTTED				
TEMPLATE				
AREAS CHECKED				
NOTE BOOK				

10/07
202807ASEC1DEN/ING.DGN

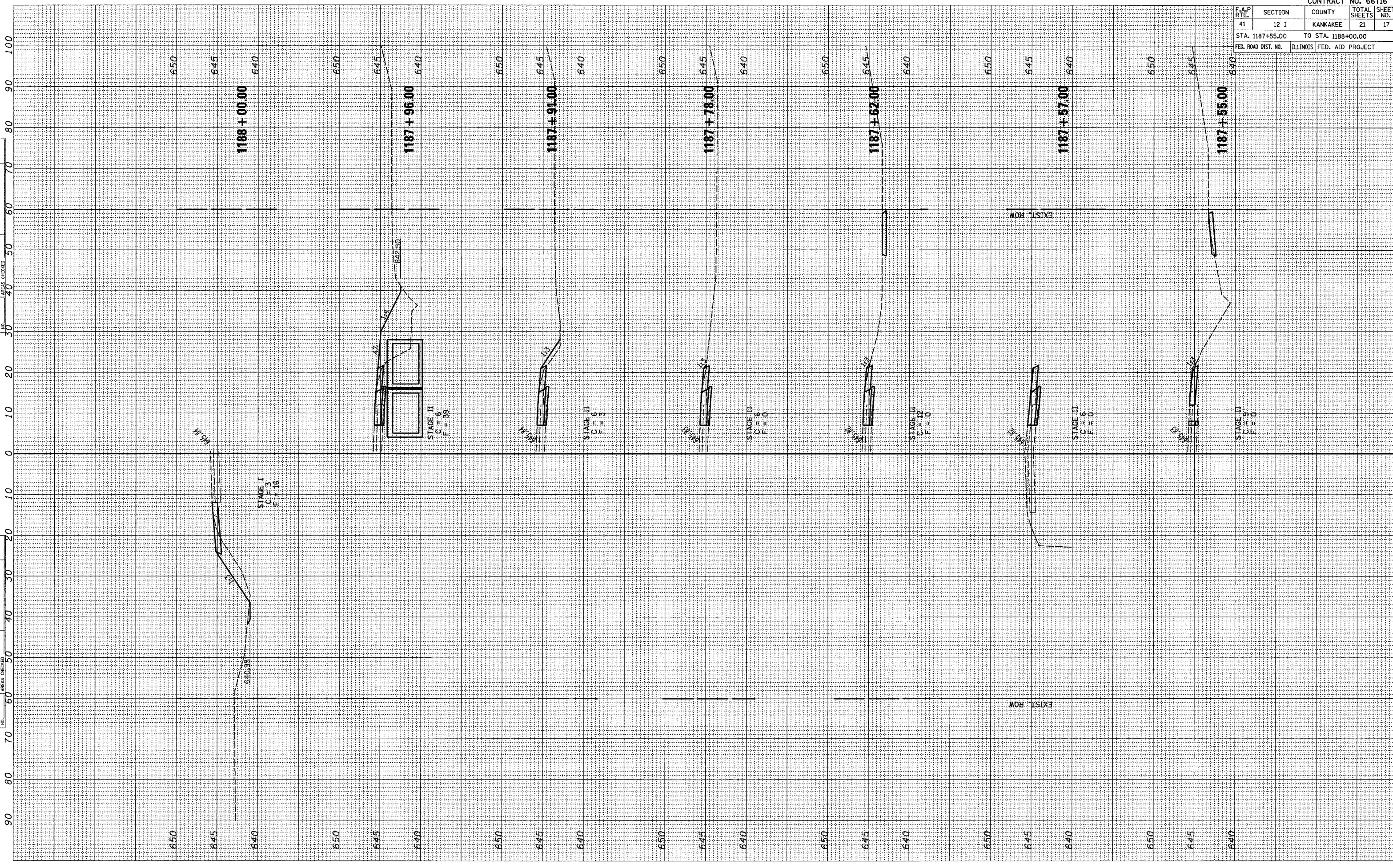


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 1	KANKAKEE	21	17
STA. 1187+55.00		TO STA. 1188+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY	DATE
NO.	
BY	
DATE	
CHECKED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

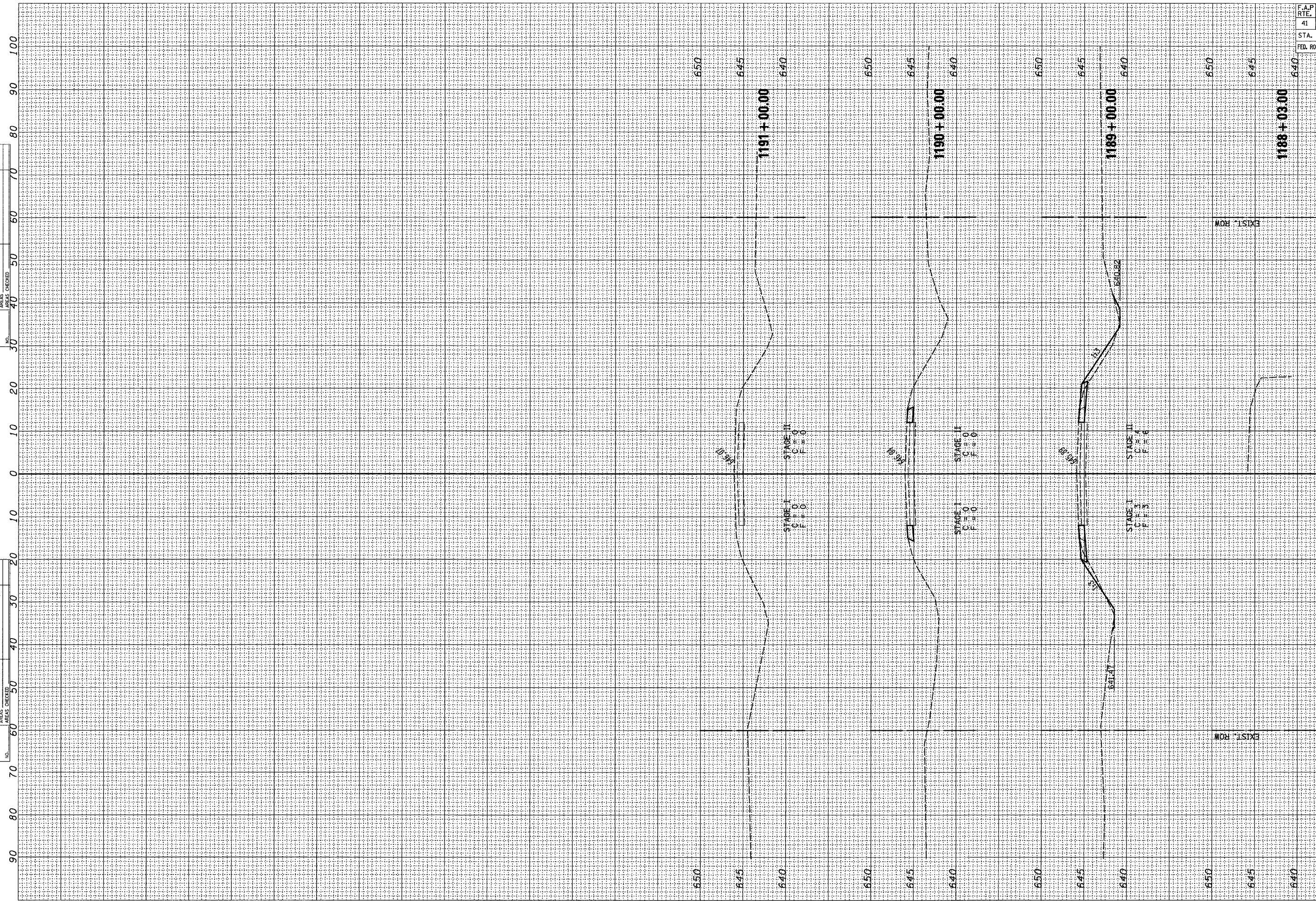
ORIGINAL SURVEY	DATE
NO.	
BY	
DATE	
CHECKED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

10/07
202807XSECWIDENING.DWG



ORIGINAL SURVEY	DATE
SURVEY PLOTTED	BY
NOTE BOOK	
AREAS CHECKED	

FINAL SURVEY	DATE
SURVEY PLOTTED	BY
NOTE BOOK	
AREAS CHECKED	



CONTRACT NO. 66716				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	18
STA. 1188+03.00		TO STA. 1191+00.00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	19
STA. 1185+00.00		TO STA. 1187+23.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY	BY	DATE
NOTED		
PLOTTED		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTED		
PLOTTED		
AREAS CHECKED		

10/07
202807XSECFINAL.DGN



ORIGINAL SURVEY	DATE
SURVEY PLOTTED	BY
NOTE BOOK	
AREAS CHECKED	

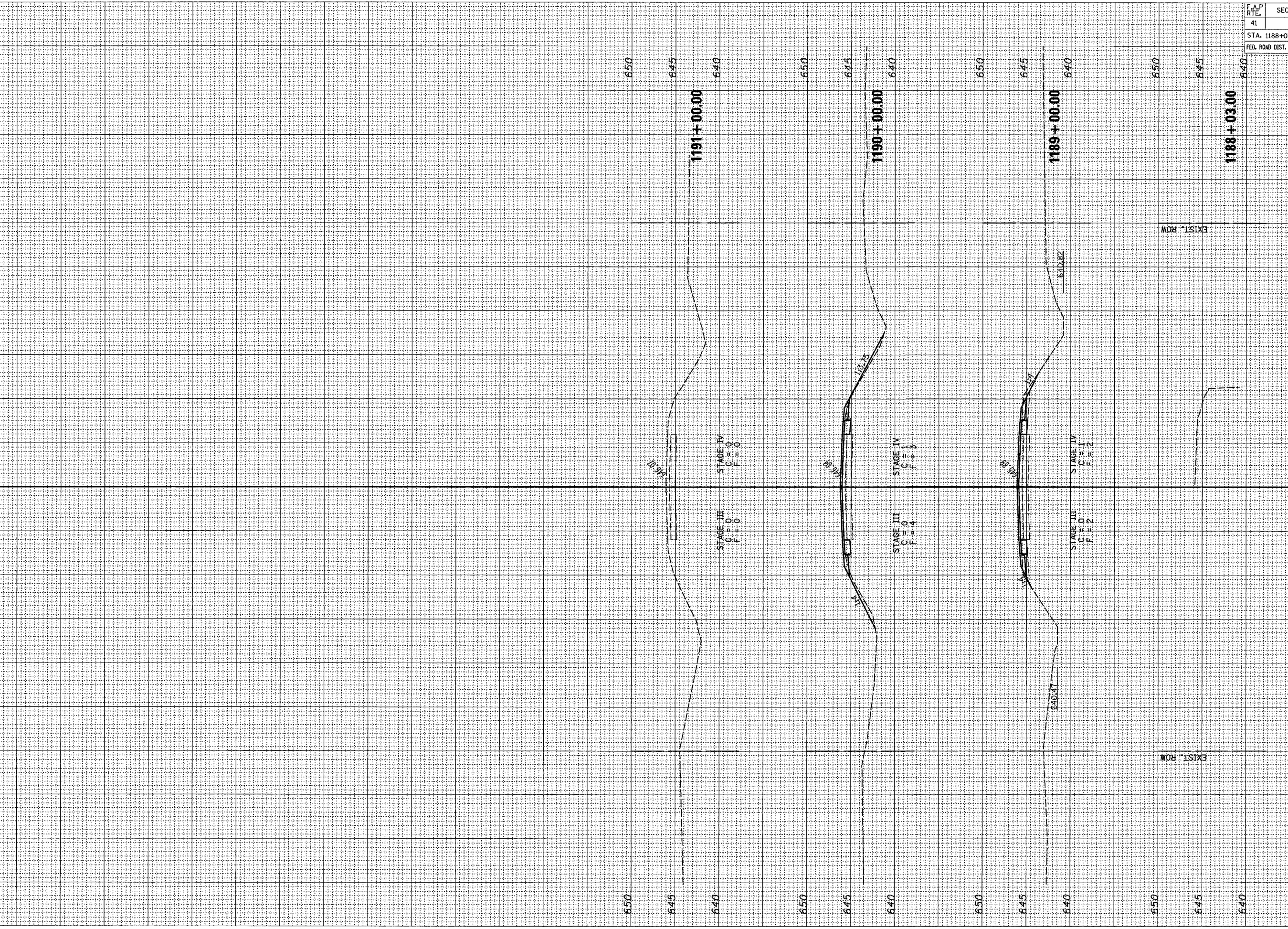
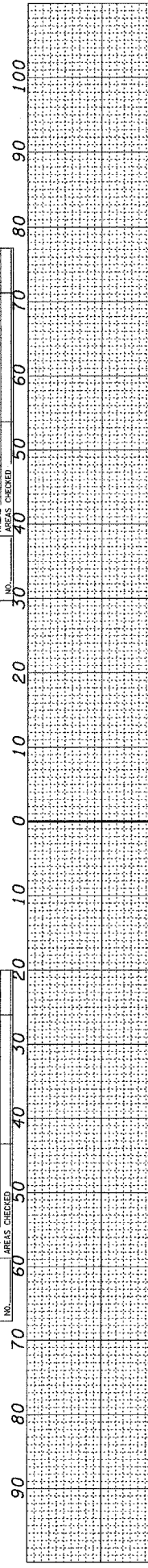
FINAL SURVEY	DATE
SURVEY PLOTTED	BY
NOTE BOOK	
AREAS CHECKED	



CONTRACT NO. 66716				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	20
STA. 1187+55.00		TO STA. 1188+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ORIGINAL SURVEY	BY	DATE
SURVEY		
PLOTTED		
NOTE BOOK		
AREAS CHECKED		
NO.		

FINAL SURVEY	BY	DATE
SURVEY		
PLOTTED		
NOTE BOOK		
AREAS CHECKED		
NO.		



CONTRACT NO. 66716				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
41	12 I	KANKAKEE	21	21
STA. 1188+03.00		TO STA. 1191+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		