

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 21 SHEETS
FAP 328	(10BR- 2)B-1	WAYNE		101	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 74040

GENERAL NOTES

- Fasteners shall be AASHTO M 164 Type I, mechanically galvanized bolts. Bolts $7/8"$ ϕ , holes $15/16"$ ϕ , unless otherwise noted.
- Calculated weight of Structural Steel = 72,860 lbs., Grade 50
7,260 lbs., Grade 36
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $1/8$ in. (0.01 ft.). Adjustment shall be made by grinding the surface or by shimming the bearings.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A706 Gr.60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- All construction joints shall be bonded.
- The contractor shall drive test piles in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles. The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Structures.
- The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures.
- The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".
- Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		972	972
Underwater Structure Excavation Protection, Location 3	Each		1	1
Underwater Structure Excavation Protection, Location 4	Each		1	1
Porous Granular Embankment (Special)	Cu. Yd.		112	112
Geocomposite Wall Drain	Sq. Yd.		68	68
Pipe Underdrains for Structures, 4"	Foot		127	127
Filter Fabric	Sq. Yd.		234	234
Stone Riprap, Class A4	Sq. Yd.		234	234
Concrete Structures	Cu. Yd.		117.5	117.5
Concrete Superstructure	Cu. Yd.	210		210
Concrete Encasement	Cu. Yd.		9.8	9.8
Furnishing and Erecting Structural Steel	L. Sum	0.42		0.42
Stud Shear Connectors	Each	2394		2394
Reinforcement Bars, Epoxy Coated	Pound	44150	12660	56810
Bridge Deck Grooving	Sq. Yd.	570		570
Protective Coat	Sq. Yd.	713		713
Floor Drains	Each	18		18
Temporary Sheet Piling	Sq. Ft.		1580	1580
Temporary Support System	Each	1		1
Furnishing Steel Piles, HP 12x53	Foot		1583	1583
Driving Piles	Foot		1583	1583
Test Pile Steel, HP 12x53	Each		4	4
Pile Shoes	Each		28	28
Anchor Bolts, 1"	Each	48		48
Bar Splicers	Each	509	84	593
Name Plates	Each	1		1

STA. 384+59.40
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 328
SEC. (10BR-2)B-1
LOADING HS20
STR. NO. 096-0068

NAME PLATE
See Std. 515001

BENTON & ASSOCIATES, INC.

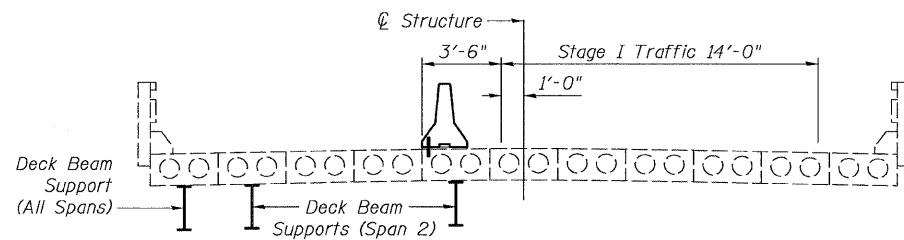
DESIGNED	MBH
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DRAWN	MBH
CHECKED	NRF

GENERAL NOTES & QUANTITIES
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

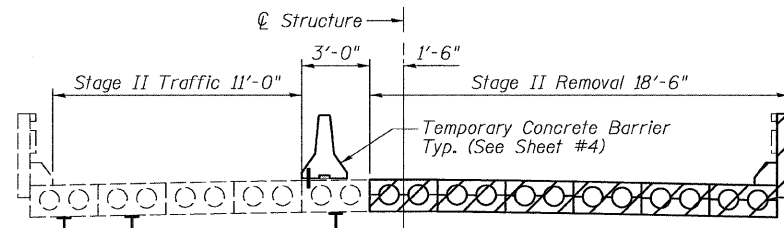
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION (10BR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS 107	SHEET NO. 3	SHEET NO. 3 21 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

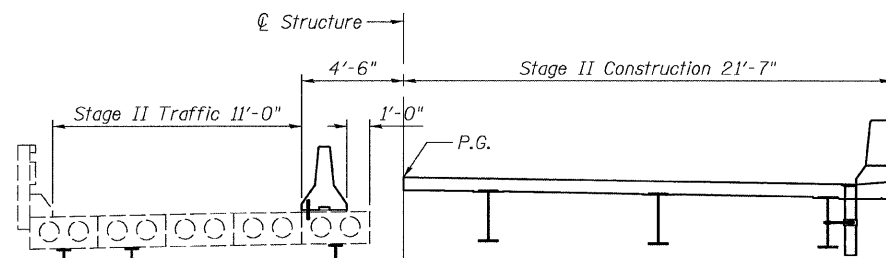
Contract # 74040



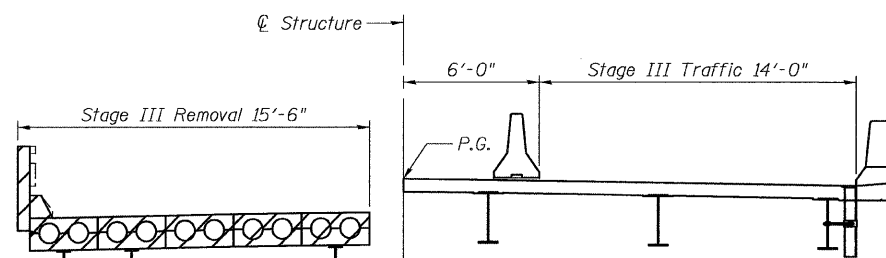
STAGE I BRIDGE REPAIR



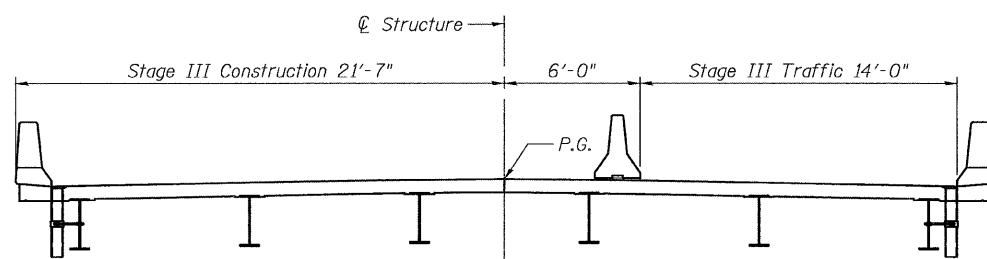
STAGE II REMOVAL



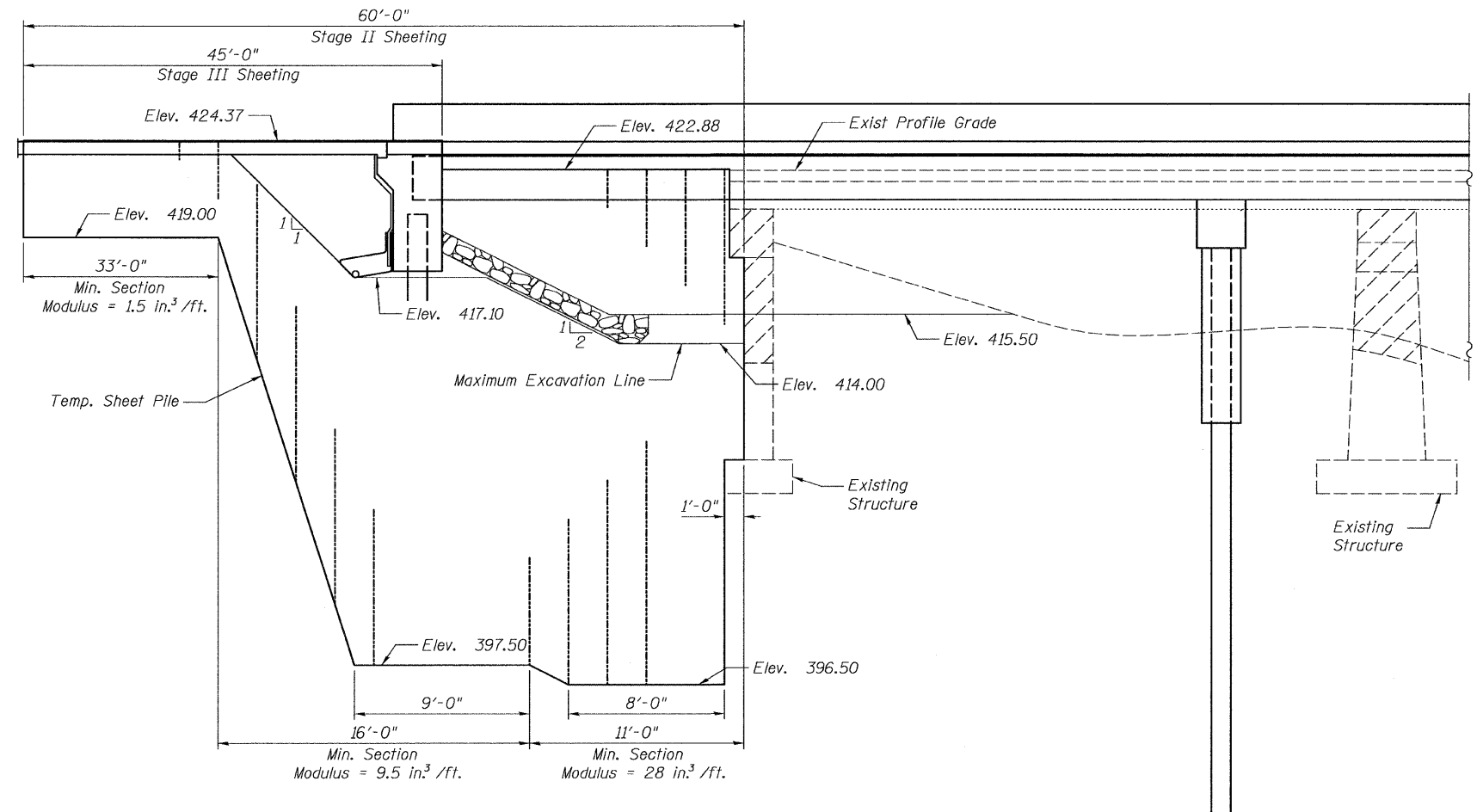
STAGE II CONSTRUCTION



STAGE III REMOVAL



STAGE III CONSTRUCTION



SHEET PILING ELEVATION

(South Abut. shown; North Abut. similar)

Notes:

1. Minimum section modulus of temporary sheet piling shall be as shown in the Elevation View of this sheet.
2. If the contractor chooses to alter the temporary cantilevered sheet pile design requirements shown on the plans for lesser design requirements, the full design calculations with the required seals shall be submitted to the Department for review and approval.
3. The contractor shall connect the first sheet to the existing abutment wall to ensure stability of the sheets driven to the top of the footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

Notes:

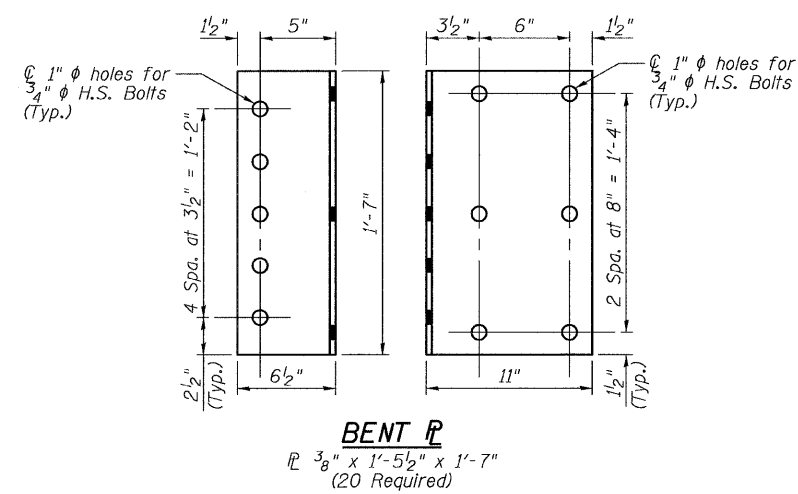
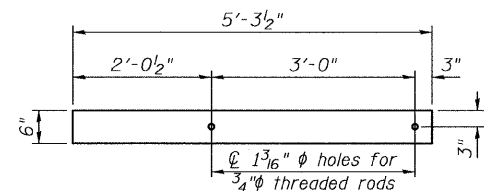
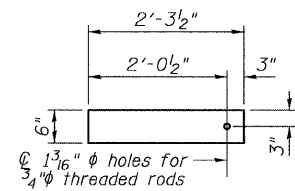
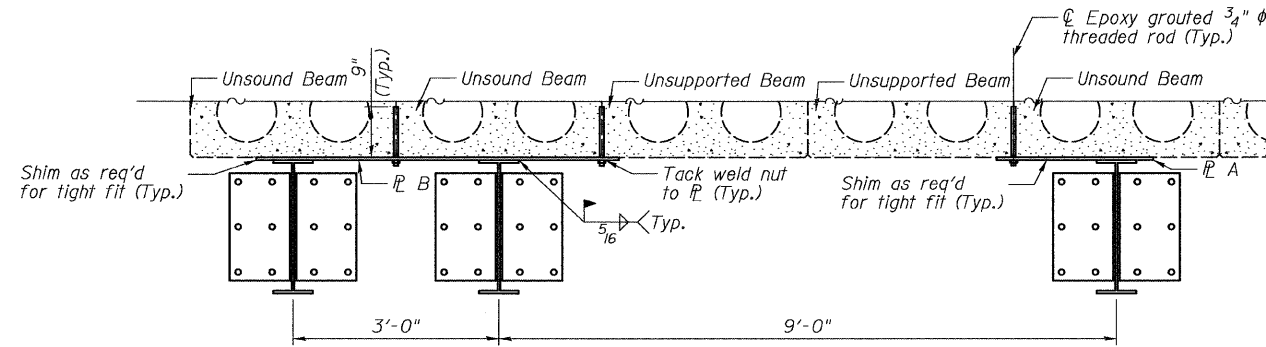
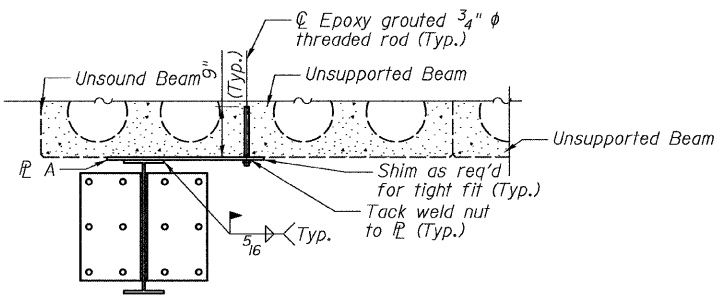
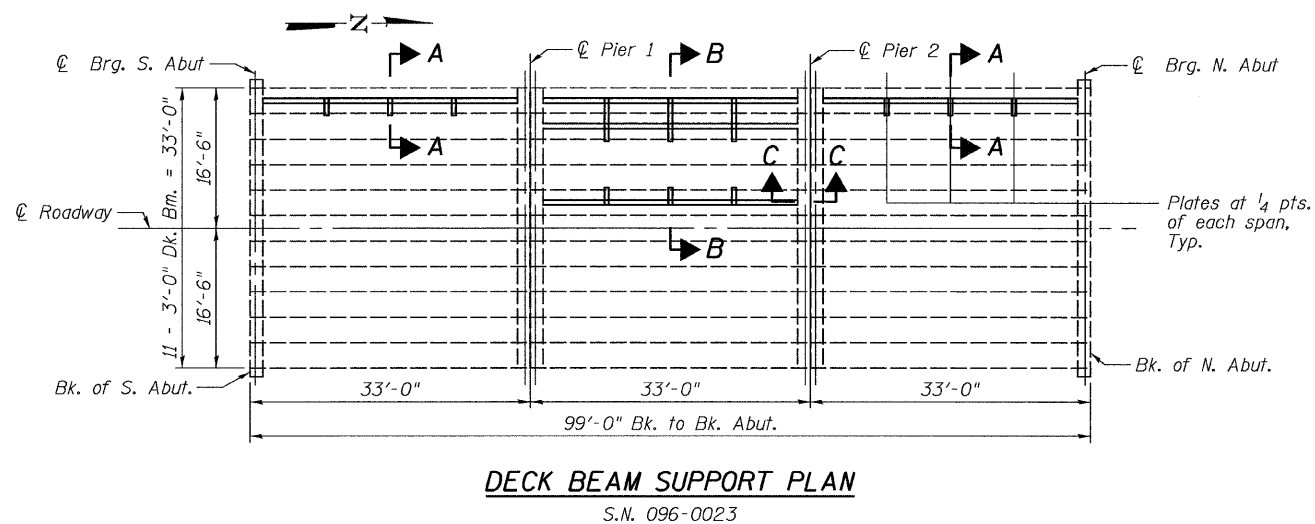
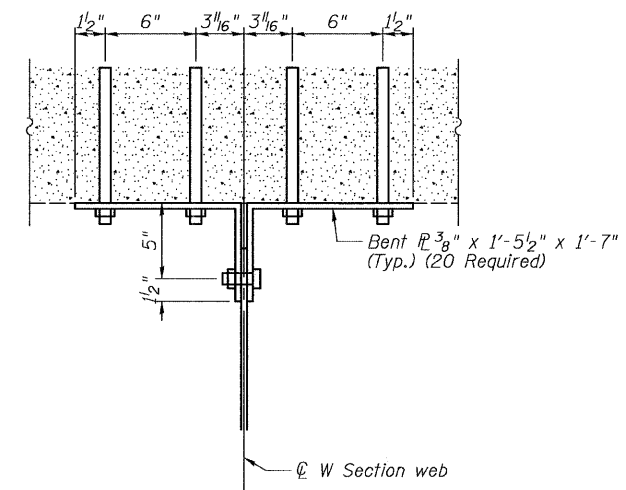
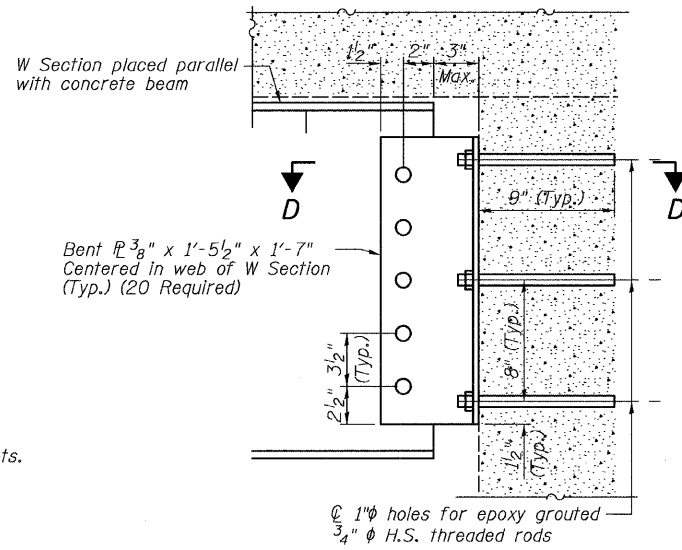
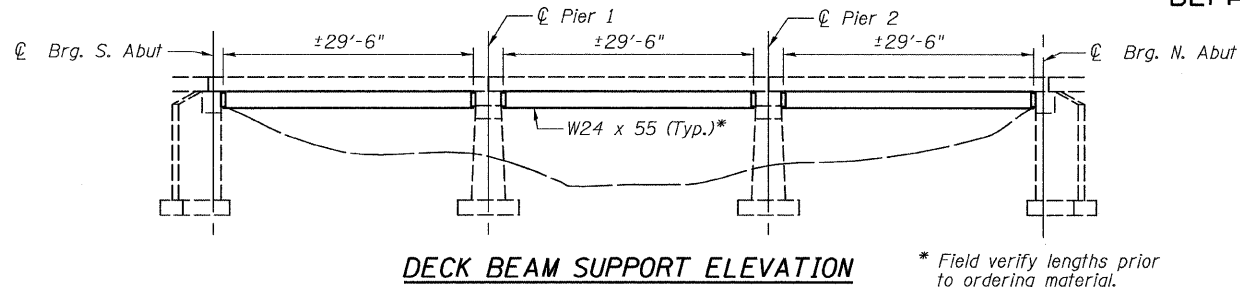
1. Hatched areas indicate removal.
2. All staging sections are looking North.
3. For quantity of Temporary Concrete Barrier, see roadway plans.

STAGED CONSTRUCTION
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	10BR-21B-1	WAYNE	103	21 SHEETS
FED. ROAD DIST. NO. 7	ALIGNMENT	FED. AID PROJECT		

Contract # 74040



BILL OF MATERIAL

Item	Unit	Quantity
Temporary Support System	Each	1

All Structural Steel shall conform to AASHTO Classification M-270 Gr. 36 unless otherwise noted.

Structural Steel to be used as temporary supports may have been previously used, provided they are in good condition and satisfactory to the Engineer. All high strength bolts, anchor bolts, threaded rods, nuts, and washers shall be new.

See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods.

The cost of epoxy grouting threaded rods shall be included with Temporary Support System.

Drilled holes shall miss existing reinforcement.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

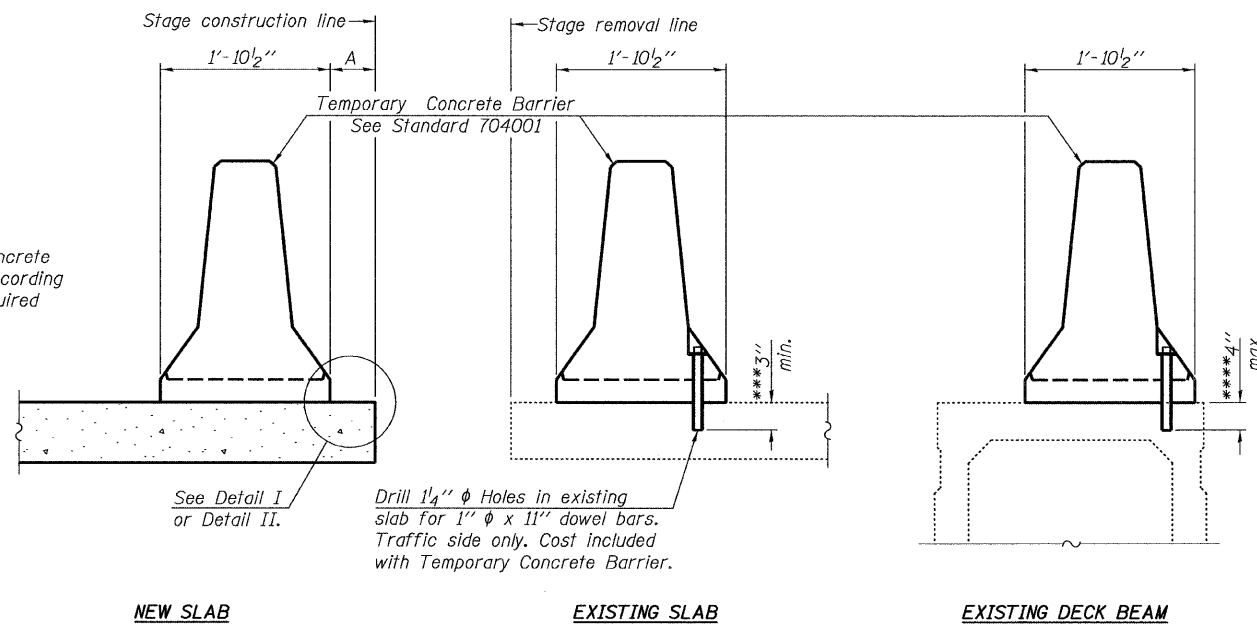
DECK BEAM SUPPORT
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	(1-BR-2)B-1	WAYNE		104
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5
21 SHEETS
Contract # 74040

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

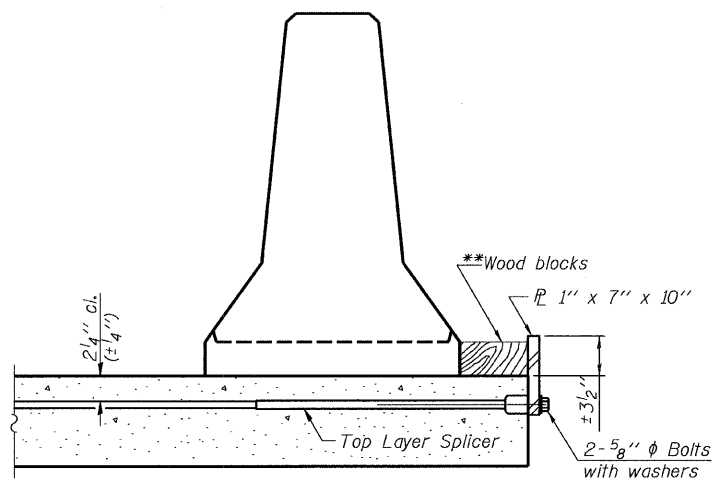
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

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

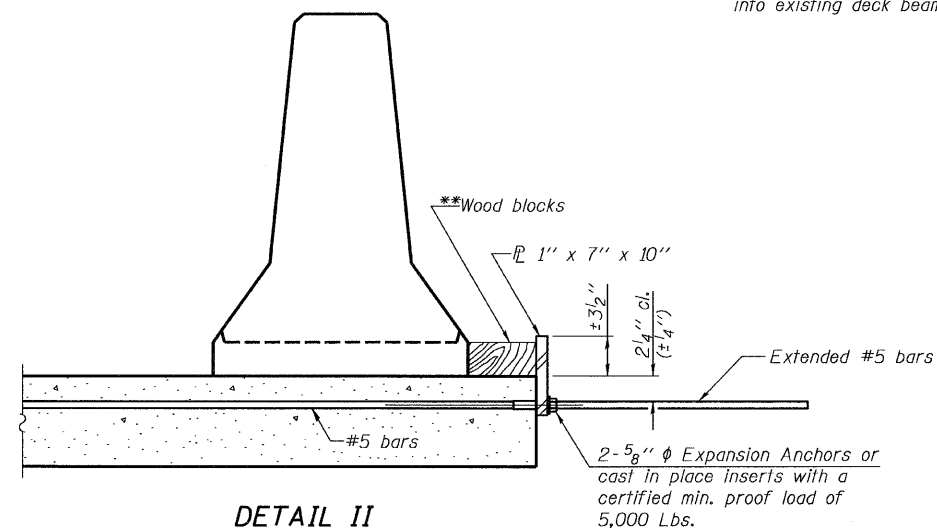
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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

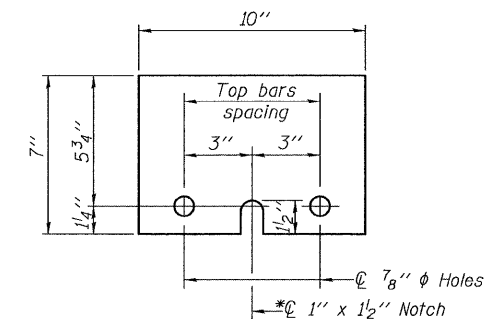


DETAIL I



DETAIL II

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



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

* Required only with Detail II

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

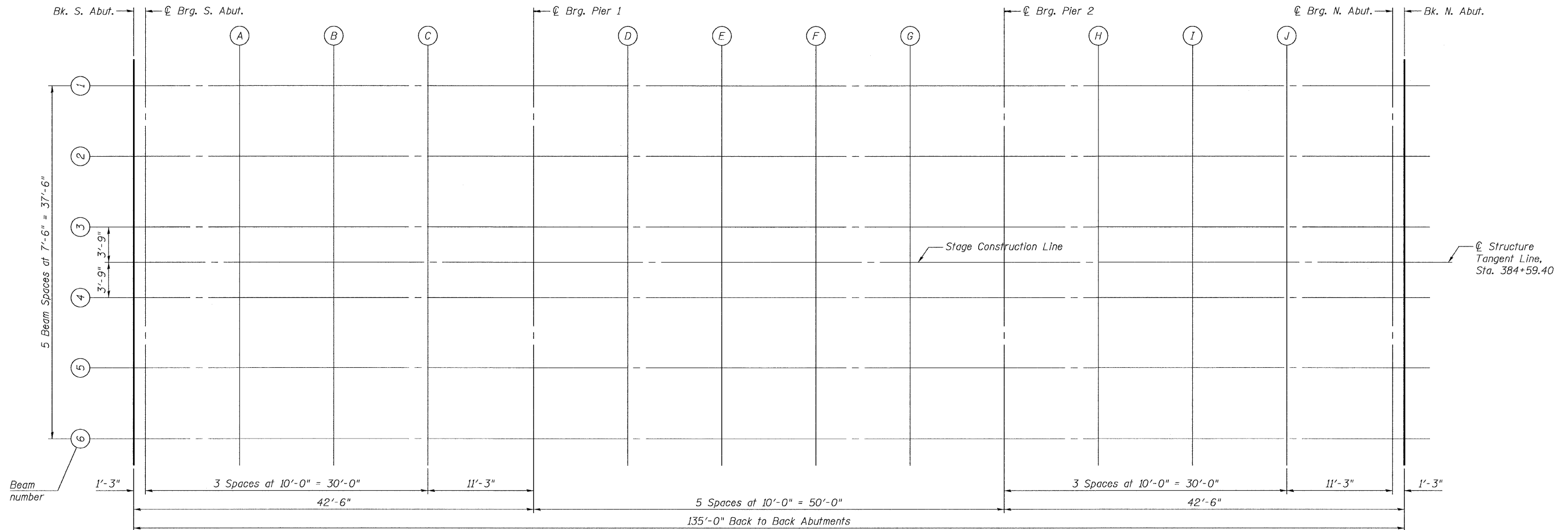
R-27

9-3-07

TEMP. CONCRETE BARRIER
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 21 SHEETS
FAP 328	10BR-2/B-1	WAYNE		109	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract # 74040		



PLAN

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

E-S

11-1-06

TOP OF SLAB ELEVATIONS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	10BR-21B-1	WAYNE	106	21 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 74040

☉ STRUCTURE & STAGED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	383+91.90	0	424.374	424.374
☉ Brg. S. Abut.	383+93.15	0	424.376	424.376
A	384+03.15	0	424.391	424.408
B	384+13.15	0	424.403	424.423
C	384+23.15	0	424.412	424.423
☉ Pier	384+34.40	0	424.418	424.418
D	384+44.40	0	424.420	424.428
E	384+54.40	0	424.419	424.438
F	384+64.40	0	424.415	424.434
G	384+74.40	0	424.407	424.415
☉ Pier	384+84.40	0	424.397	424.397
H	384+94.40	0	424.383	424.392
I	385+04.40	0	424.366	424.386
J	385+14.40	0	424.346	424.364
☉ Brg. N. Abut.	385+25.65	0	424.320	424.320
Bk. N. Abut.	385+26.90	0	424.317	424.317

BEAM 1 & 6

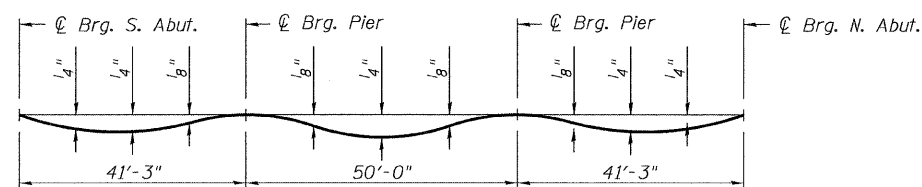
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	383+91.90	18.75'	424.046	424.046
☉ Brg. S. Abut.	383+93.15	18.75'	424.048	424.048
A	384+03.15	18.75'	424.063	424.078
B	384+13.15	18.75'	424.075	424.093
C	384+23.15	18.75'	424.084	424.093
☉ Pier	384+34.40	18.75'	424.090	424.090
D	384+44.40	18.75'	424.092	424.099
E	384+54.40	18.75'	424.091	424.107
F	384+64.40	18.75'	424.086	424.103
G	384+74.40	18.75'	424.079	424.086
☉ Pier	384+84.40	18.75'	424.068	424.068
H	384+94.40	18.75'	424.055	424.063
I	385+04.40	18.75'	424.038	424.055
J	385+14.40	18.75'	424.018	424.034
☉ Brg. N. Abut.	385+25.65	18.75'	423.992	423.992
Bk. N. Abut.	385+26.90	18.75'	423.989	423.989

BEAM 2 & 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	383+91.90	11.25'	424.198	424.198
☉ Brg. S. Abut.	383+93.15	11.25'	424.201	424.201
A	384+03.15	11.25'	424.215	424.232
B	384+13.15	11.25'	424.227	424.248
C	384+23.15	11.25'	424.236	424.247
☉ Pier	384+34.40	11.25'	424.242	424.242
D	384+44.40	11.25'	424.244	424.252
E	384+54.40	11.25'	424.243	424.262
F	384+64.40	11.25'	424.239	424.258
G	384+74.40	11.25'	424.231	424.240
☉ Pier	384+84.40	11.25'	424.221	424.221
H	384+94.40	11.25'	424.207	424.216
I	385+04.40	11.25'	424.190	424.210
J	385+14.40	11.25'	424.171	424.188
☉ Brg. N. Abut.	385+25.65	11.25'	424.144	424.144
Bk. N. Abut.	385+26.90	11.25'	424.141	424.141

BEAM 3 & 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	383+91.90	3.75'	424.316	424.316
☉ Brg. S. Abut.	383+93.15	3.75'	424.318	424.318
A	384+03.15	3.75'	424.333	424.349
B	384+13.15	3.75'	424.344	424.365
C	384+23.15	3.75'	424.353	424.364
☉ Pier	384+34.40	3.75'	424.359	424.359
D	384+44.40	3.75'	424.361	424.370
E	384+54.40	3.75'	424.360	424.379
F	384+64.40	3.75'	424.356	424.375
G	384+74.40	3.75'	424.349	424.357
☉ Pier	384+84.40	3.75'	424.338	424.338
H	384+94.40	3.75'	424.324	424.334
I	385+04.40	3.75'	424.308	424.327
J	385+14.40	3.75'	424.288	424.306
☉ Brg. N. Abut.	385+25.65	3.75'	424.262	424.262
Bk. N. Abut.	385+26.90	3.75'	424.258	424.258

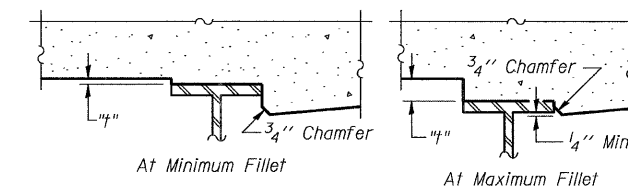


DEAD LOAD DEFLECTION DIAGRAM

(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 above.



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

FILLET HEIGHTS

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

E-S

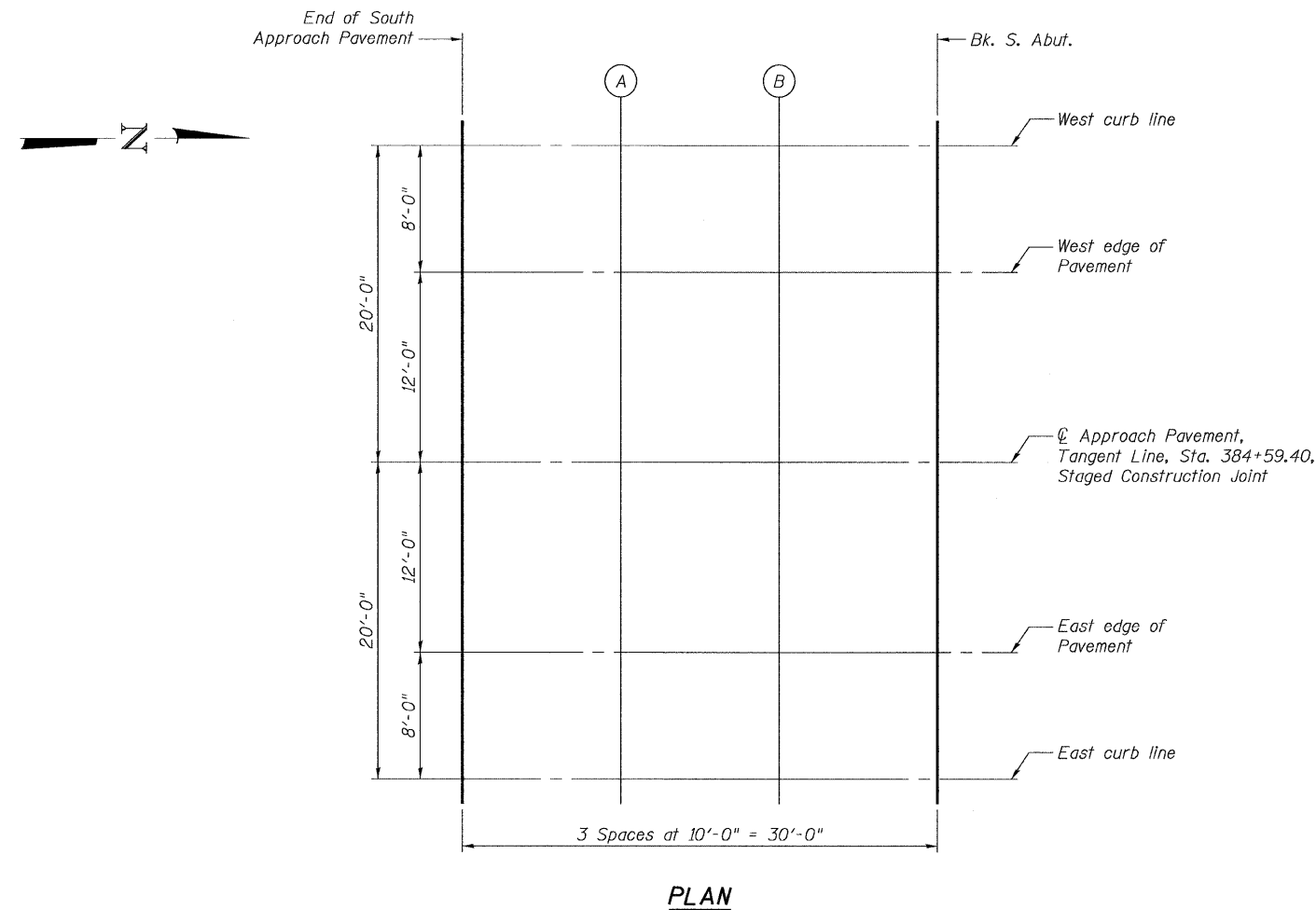
11-1-06

**TOP OF SLAB ELEVATIONS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION (10BR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS	SHEET NO. 101	SHEET NO. 8 21 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 74040



WEST CURB LINE & EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End. S. Appr. Pav't.	383+61.90	20.00'	423.96
A	383+71.90	20.00'	423.98
B	383+81.90	20.00'	424.00
Bk. S. Abut.	383+91.90	20.00'	424.02

WEST EDGE OF PAVEMENT & EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End. S. Appr. Pav't.	383+61.90	12.00'	424.12
A	383+71.90	12.00'	424.15
B	383+81.90	12.00'	424.17
Bk. S. Abut.	383+91.90	12.00'	424.19

TANGENT LINE & STAGED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
End. S. Appr. Pav't.	383+61.90	0.00'	424.31
A	383+71.90	0.00'	424.33
B	383+81.90	0.00'	424.36
Bk. S. Abut.	383+91.90	0.00'	424.37

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

E-AS

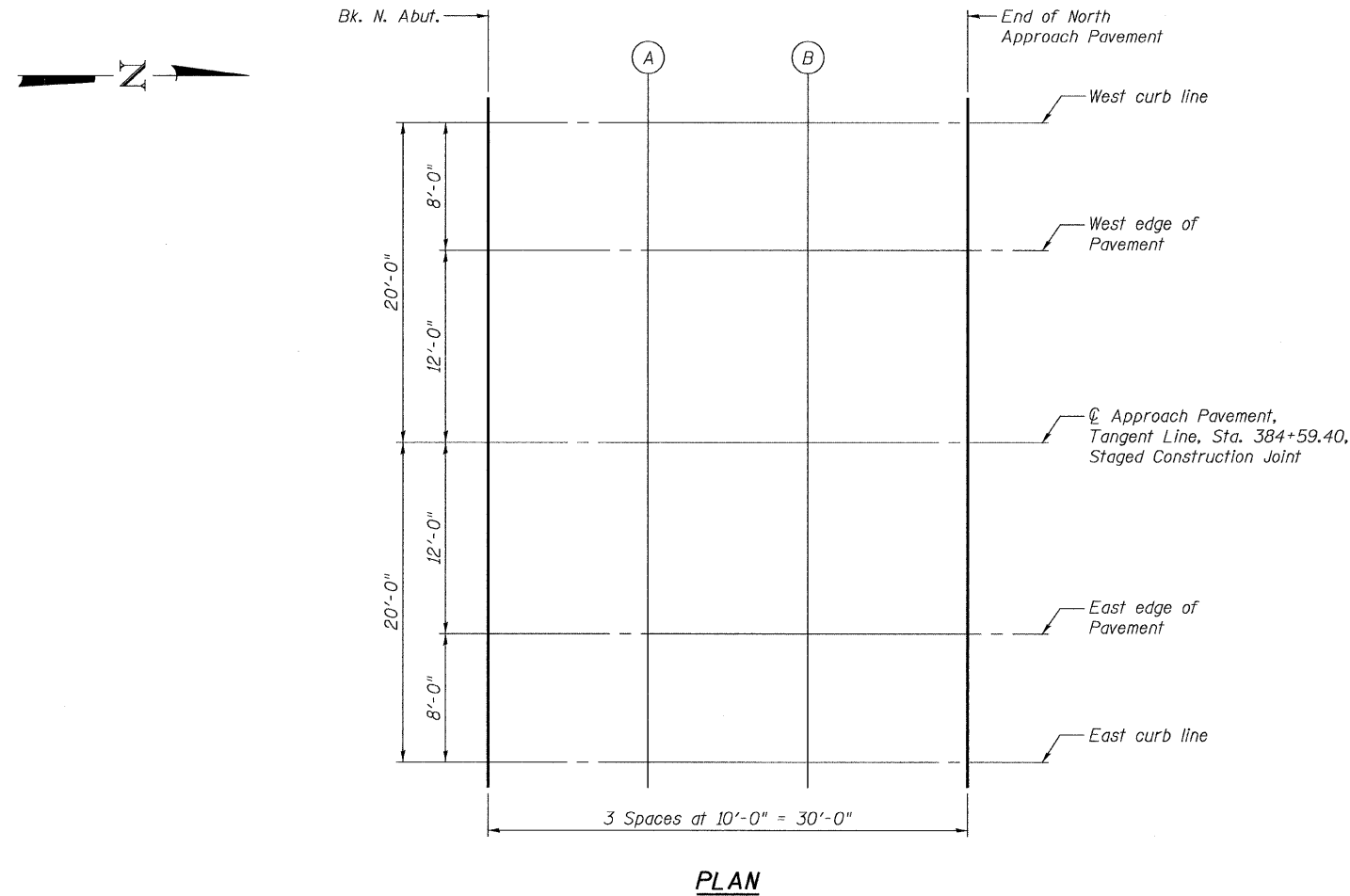
9-3-07

TOP OF SLAB ELEVATIONS
SOUTH APPROACH
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION (10BR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS	SHEET NO. 108	SHEET NO. 9 21 SHEETS
FED. ROAD DIST. NO. 7		ALIGNMENT	FED. AID PROJECT-		

Contract # 74040



WEST CURB LINE & EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	385+26.90	20.00'	423.96
A	385+36.90	20.00'	423.94
B	385+46.90	20.00'	423.91
End N. Appr. Pav't.	385+56.90	20.00'	423.87

WEST EDGE OF PAVEMENT & EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	385+26.90	12.00'	424.13
A	385+36.90	12.00'	424.10
B	385+46.90	12.00'	424.07
End N. Appr. Pav't.	385+56.90	12.00'	424.04

TANGENT LINE & STAGED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	385+26.90	0.00'	424.32
A	385+36.90	0.00'	424.29
B	385+46.90	0.00'	424.26
End N. Appr. Pav't.	385+56.90	0.00'	424.23

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

E-SAS

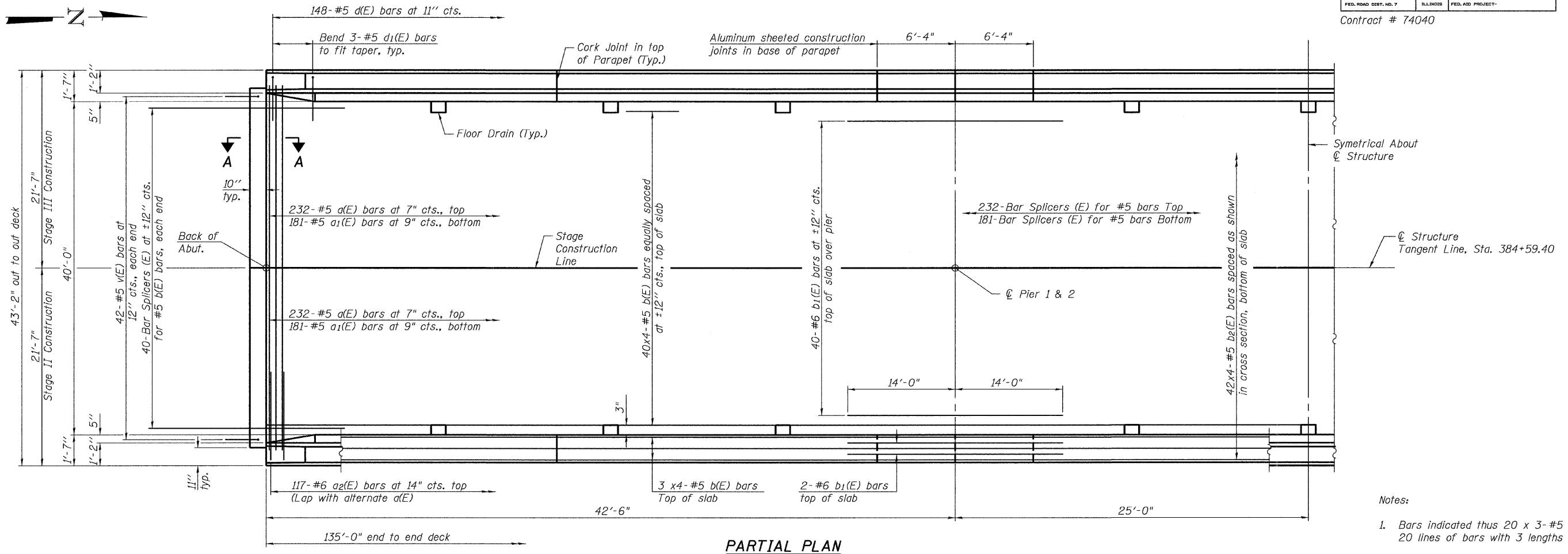
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TOP OF SLAB ELEVATIONS
NORTH APPROACH
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION (10BR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS	SHEET NO. 109	SHEET NO. 10 21 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract # 74040

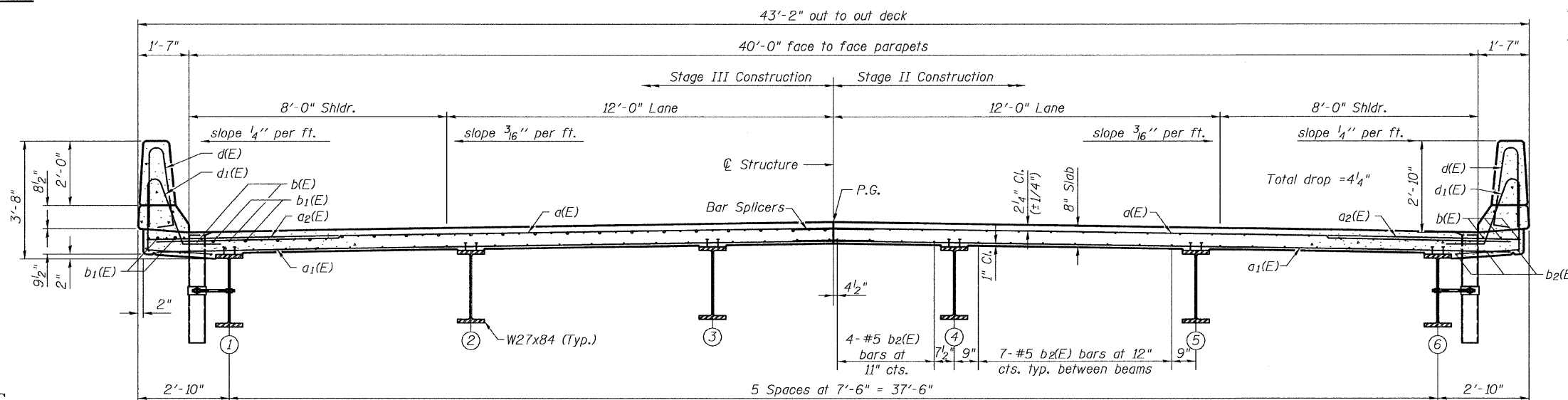


PARTIAL PLAN

MINIMUM BAR LAP

#5 bar = 1'-8"

- Notes:
1. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 2. See Sheet 11 of 21 for superstructure details and Bill of Material.
 3. See Sheet 11 of 21 for parapet reinforcement.
 4. See Sheet 12 of 21 for Section A-A and diaphragm details.



CROSS SECTION
(Looking North)

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	JLL
CHECKED	NRF

SI-2-0

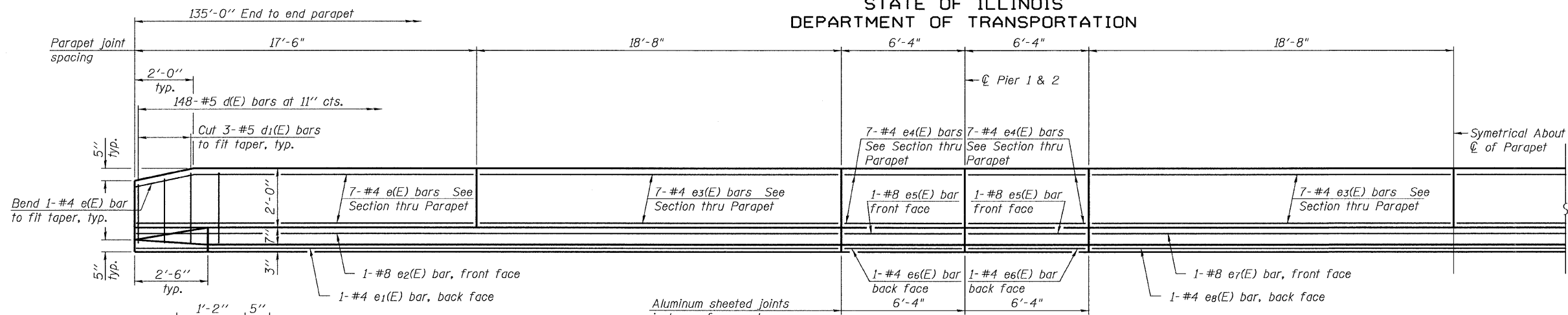
11-1-06

SUPERSTRUCTURE
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

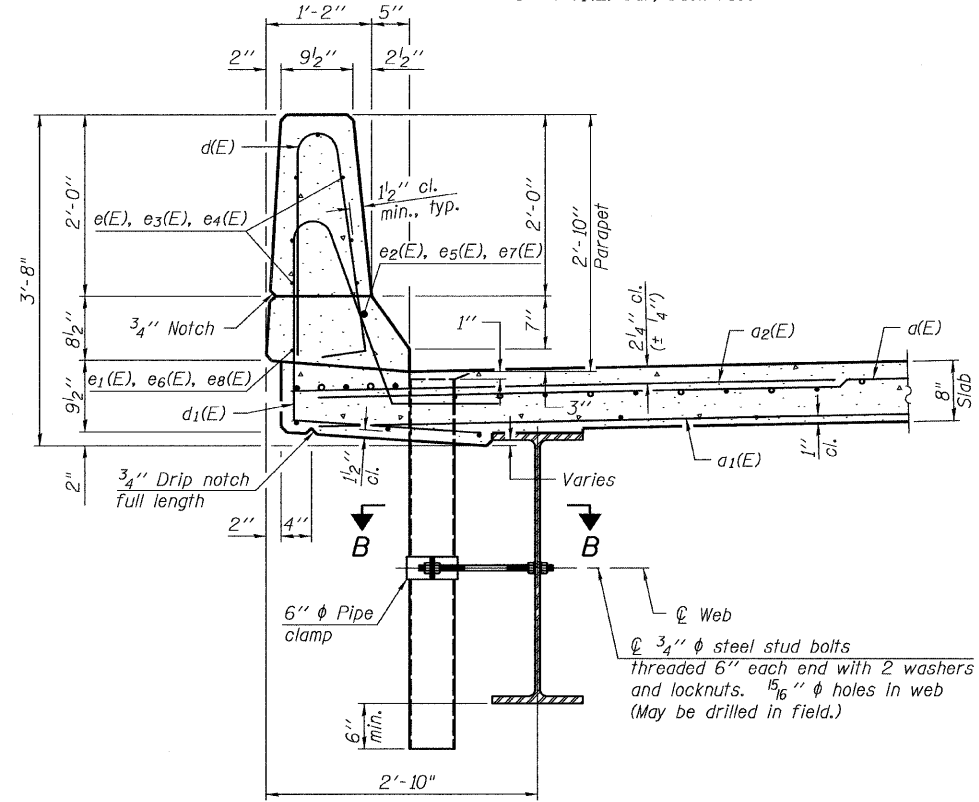
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION (10BR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS 110	SHEET NO. 11
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

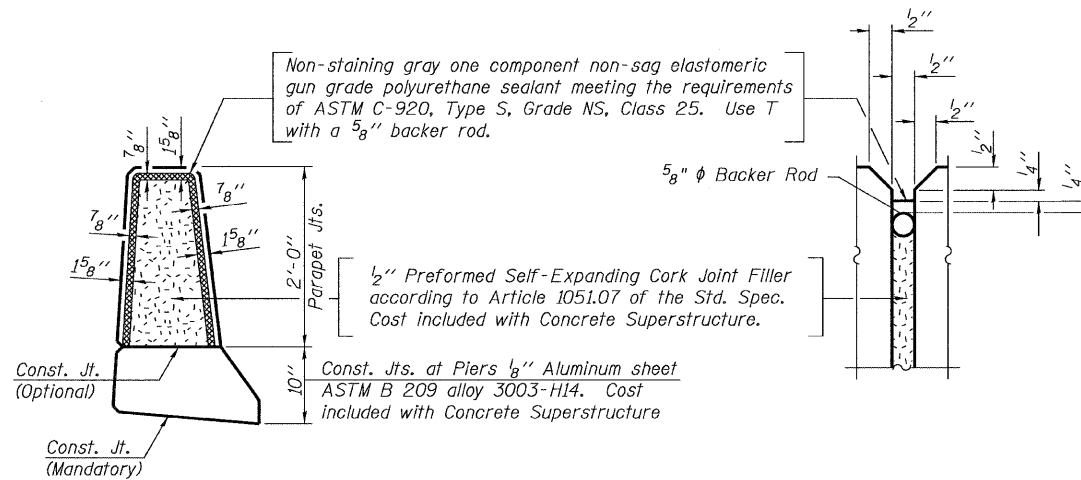
Contract # 74040



INSIDE ELEVATION OF PARAPET



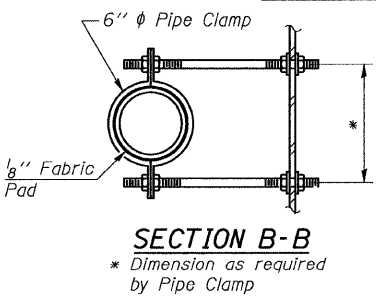
SECTION THRU PARAPET



PARAPET JOINT DETAILS

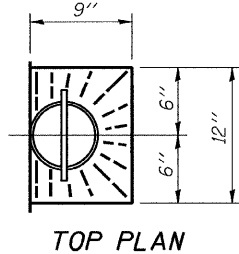
Notes:

The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

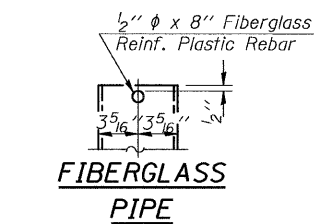


SECTION B-B

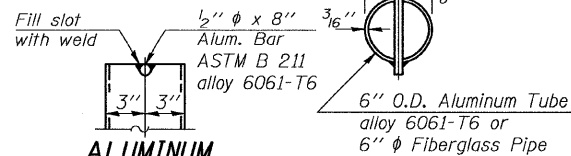
* Dimension as required by Pipe Clamp



TOP PLAN

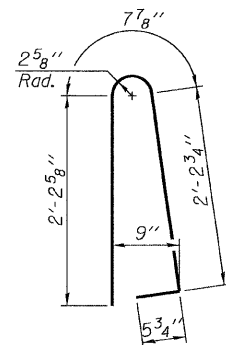


FIBERGLASS PIPE

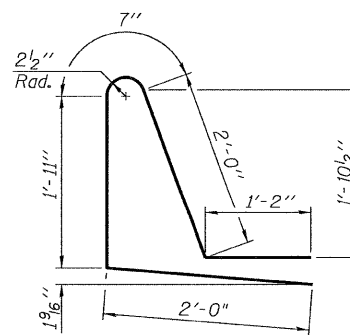


ALUMINUM TUBE

TOP PLAN (Showing Aluminum Tube)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	464	#5	21'-3"	—
a1(E)	362	#5	21'-3"	—
a2(E)	234	#6	6'-0"	—
b(E)	184	#5	35'-8"	—
b1(E)	88	#6	28'-0"	—
b2(E)	168	#5	35'-8"	—
d(E)	148	#5	5'-7"	⌋
d1(E)	148	#5	7'-8"	⌋
e(E)	28	#4	17'-2"	—
e1(E)	4	#4	35'-10"	—
e2(E)	4	#8	35'-10"	—
e3(E)	56	#4	18'-4"	—
e4(E)	56	#4	6'-0"	—
e5(E)	8	#8	6'-0"	—
e6(E)	8	#4	6'-0"	—
e7(E)	2	#8	37'-0"	—
e8(E)	2	#4	37'-0"	—
m(E)	8	#6	20'-6"	—
m1(E)	12	#6	21'-5"	—
m2(E)	24	#6	9'-0"	—
m3(E)	8	#6	6'-5"	—
m4(E)	4	#6	2'-2"	—
m5(E)	4	#6	3'-2"	—
s(E)	82	#5	5'-7"	⌋
s1(E)	82	#4	8'-6"	⌋
v(E)	84	#5	3'-8"	⌋
Reinforcement Bars, Epoxy Coated		Pound		44150
Concrete Superstructure		Cu. Yds.		210
Floor Drains		Each		18

Bars indicated thus 1 x 3 - #5 etc. indicates 1 line of bars with 3 lengths per line.

SUPERSTRUCTURE DETAILS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

DESIGNED	MBH
CHECKED	NRF
DRAWN	JLL
CHECKED	NRF

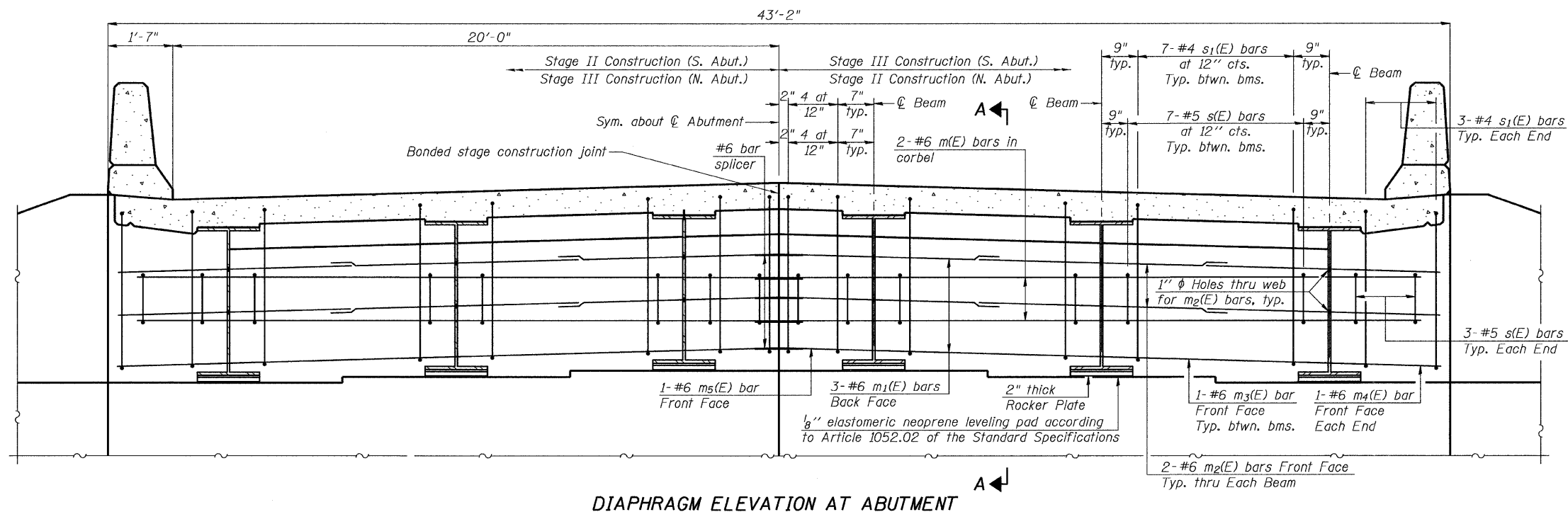
S-I-D

11-1-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION (10BR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS 111	SHEET NO. 111	SHEET NO. 12 21 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

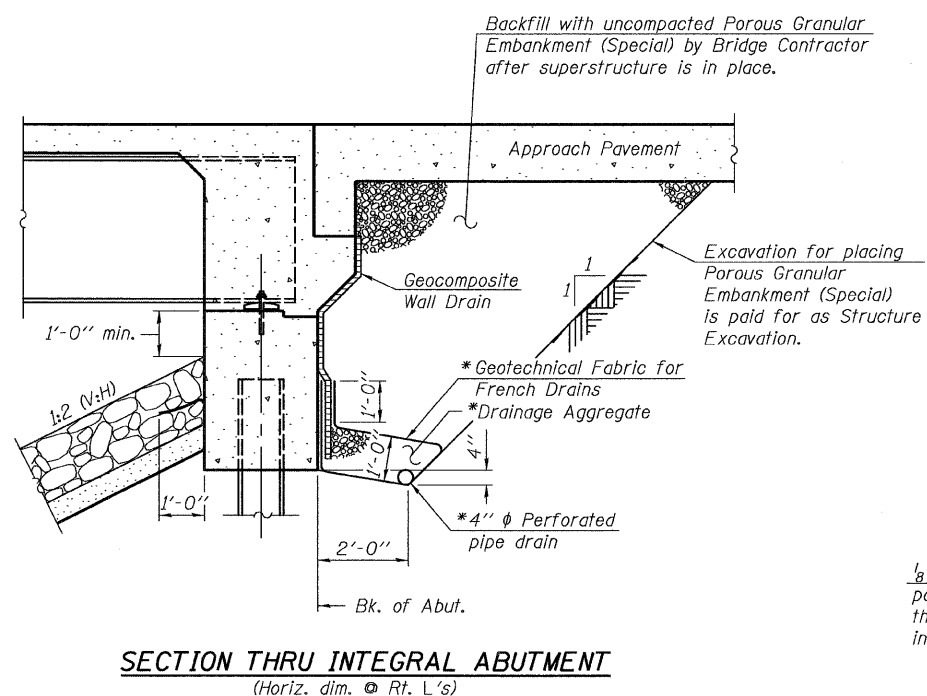
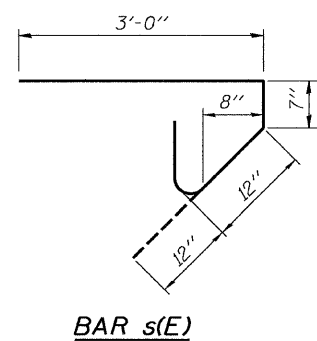
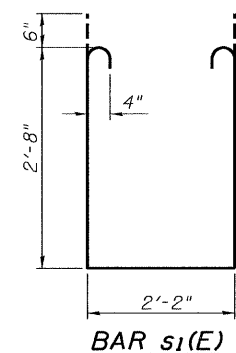
Contract # 74040



DIAPHRAGM ELEVATION AT ABUTMENT

NOTES

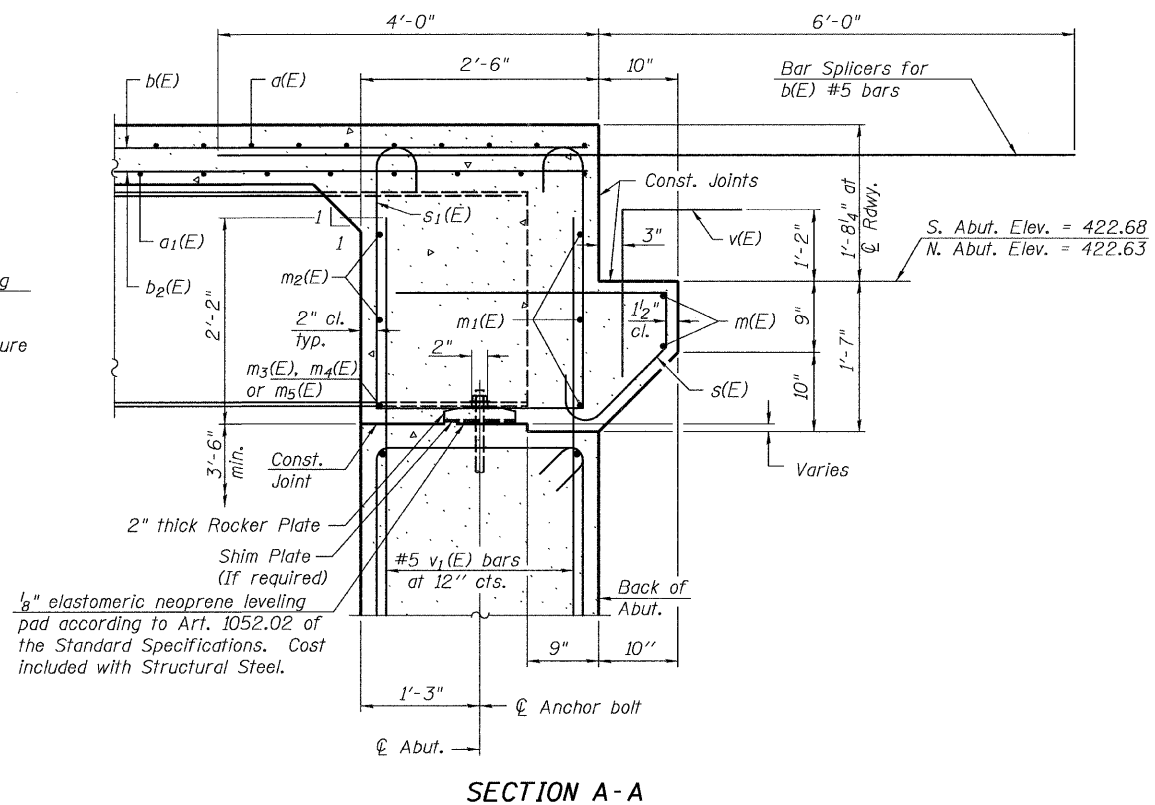
1. Reinforcement bars in diaphragm are billed with superstructure on sheet 11 of 21.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet 11 of 21.
3. The s(E) and s₁(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
4. For Bar Splicer Details see Sheet 19 of 21.



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

* 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).



SECTION A-A

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

SUPERSTRUCTURE DETAILS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

BENTON & ASSOCIATES, INC.

DESIGNED - MBH
CHECKED - NRF
DRAWN - MBH
CHECKED - NRF

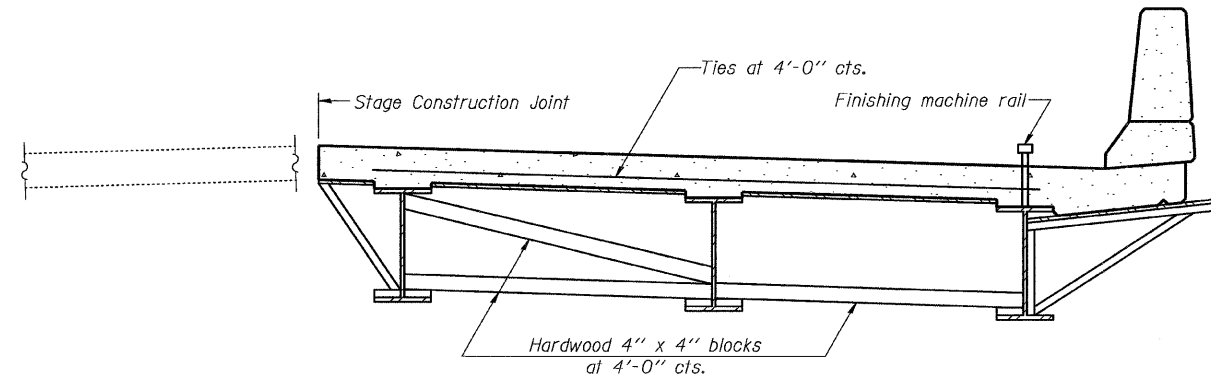
SI-DS2

11-1-06

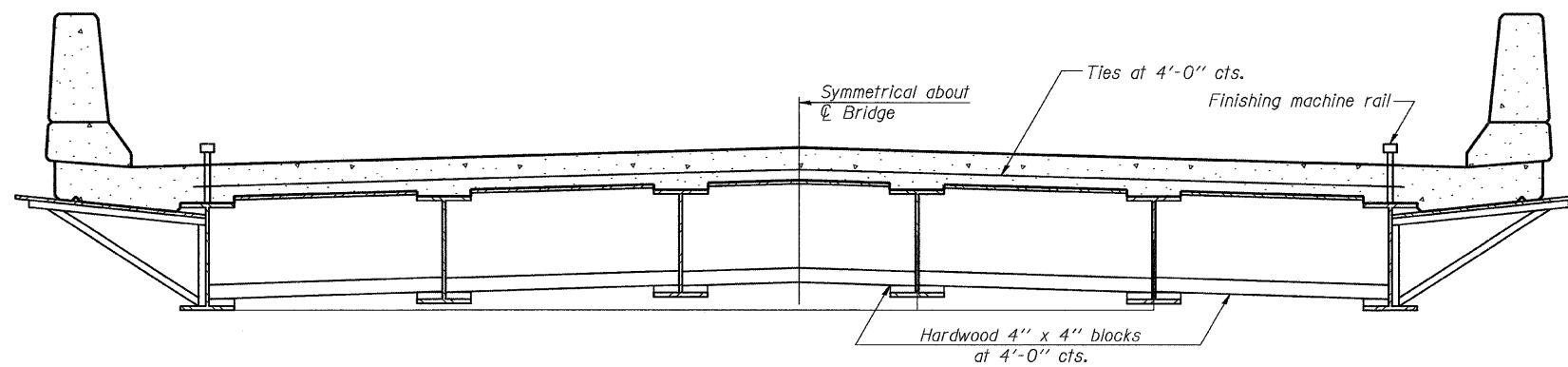
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13 21 SHEETS
FAP 328	(10BR- 2)B-1	WAYNE		112	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 74040



**FORM BRACES FOR
STAGE CONSTRUCTION**



**FORM BRACES FOR
STANDARD CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

SB-1

11-1-06

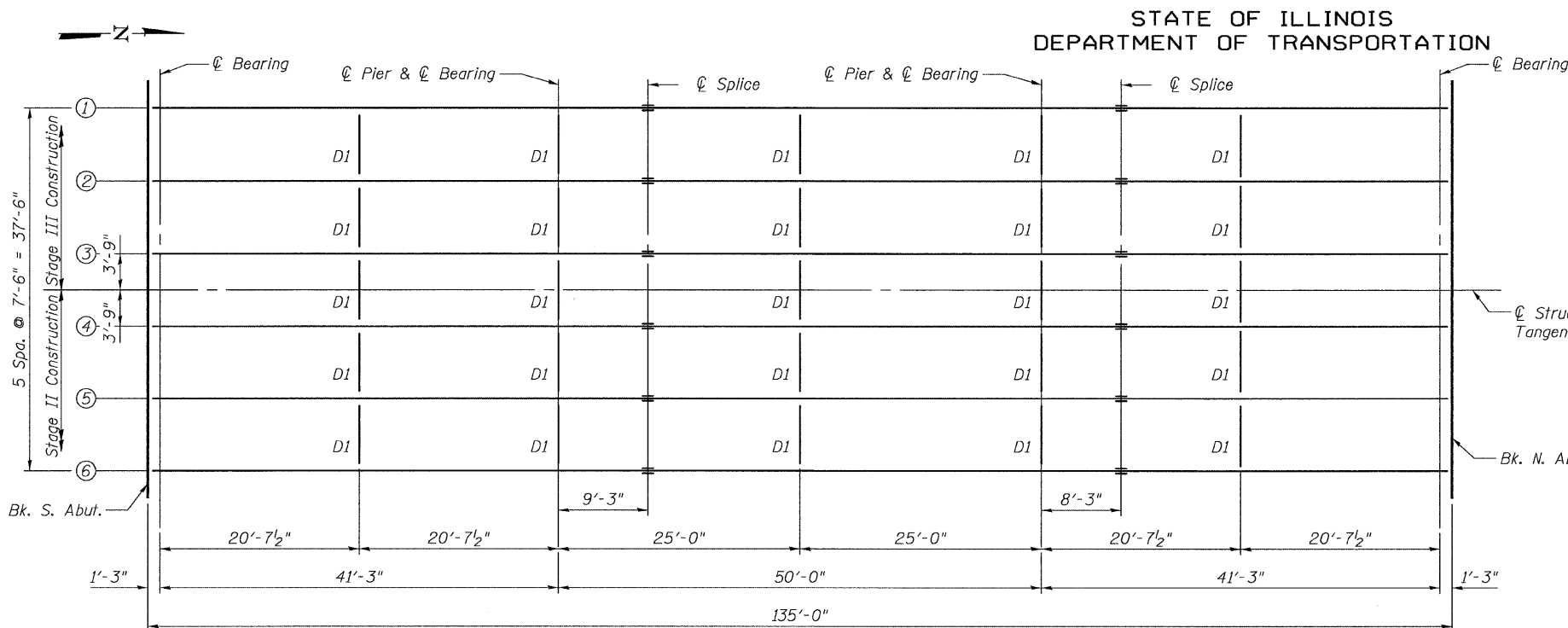
CANTILEVER FORMING BRACKETS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

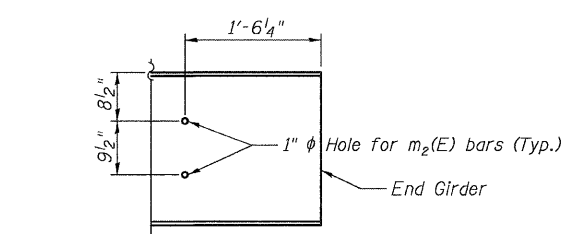
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	(00BR-2)B-1	WAYNE		11
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 14
21 SHEETS

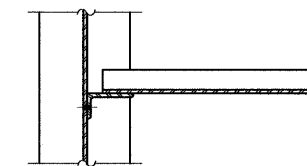
Contract # 74040



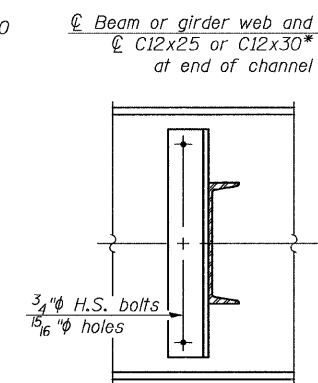
FRAMING PLAN



HOLE LOCATIONS FOR m₂(E) BARS



SECTION B-B



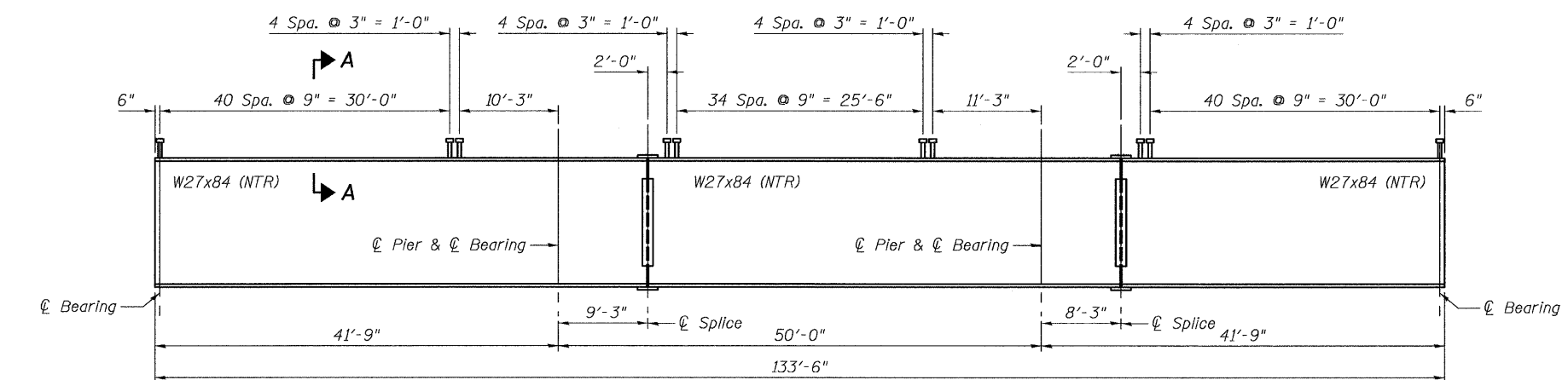
INTERIOR DIAPHRAGM (DI)
(25 Required)

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

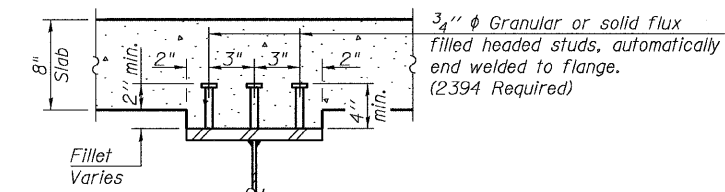
* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

- Notes:
- All structural steel for girders and splice plates shall conform to the requirements of AASHTO M270, Grade 50. All other structural steel shall conform to the requirements of AASHTO M270, Grade 36.
 - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



ELEVATION



SECTION A-A

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

	Abut.	Pier
R _l (K)	22.4	70.0
R _r (K)	41.5	47.2
Imp. (K)	12.5	14.2
R (Total) (K)	76.3	131.4

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).

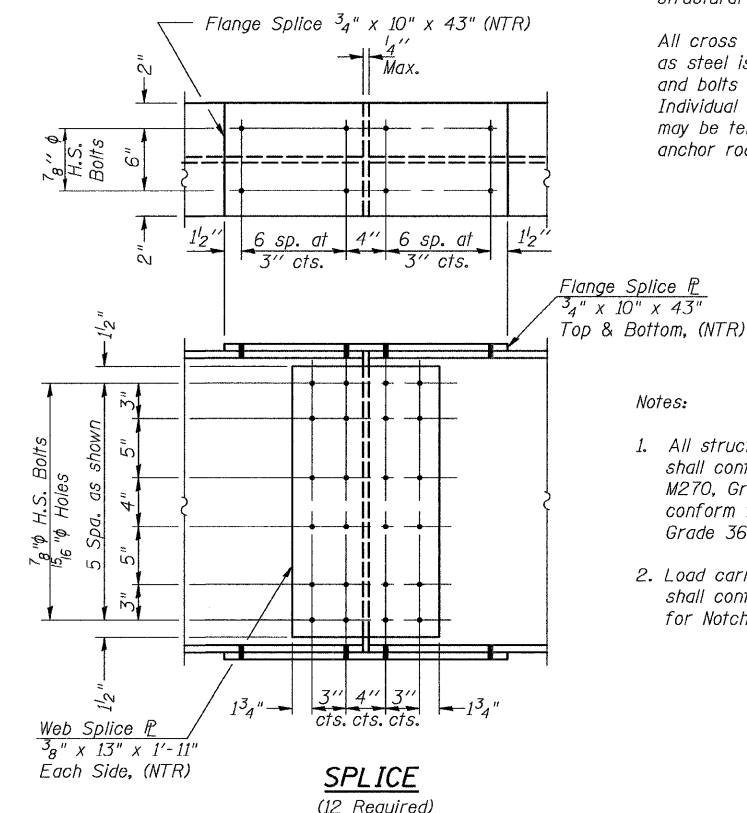
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s (Total & Overload).

V_R is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas. M_a (Applied Moment) = 1.3[M_l + M_s(M_l + I)].

M_u is the Full Plastic Moment Capacity for Compact, Braced section.
f_s (Overload) is the sum of the stresses due to M_l + M_s + ¹/₃(M_l + I).
f_s (Total) (Non-compact section) is the sum of the stresses due to 1.3[M_l + M_s(M_l + I)].

	.4 Sp. 1 & .6 Sp. 3	Pier	.5 Sp. 2
I _s (in ⁴)	2850	2850	2850
I _c (n) (in ⁴)	8979	-	8979
I _c (3n) (in ⁴)	6863	-	6863
S _s (in ³)	213	213	213
S _c (n) (in ³)	338	-	338
S _c (3n) (in ³)	307	-	307
Z (in ³)	-	244	-
ϕ (K/ft.)	0.844	1.369	0.844
M _l (K)	104.0	264	89.2
s _l (K/ft.)	0.525	-	0.525
M _s (K)	74.5	-	82.3
M _l (K)	275	144	308
M (Imp) (K)	82.5	42.2	88.1
¹ / ₃ (M _l + I) (K)	596	310	660
M _a (K)	1007	747	1081
M _u (K)	1406	-	1406
f _s non-comp (k.s.i.)	7.6	19.3	6.5
f _s comp (k.s.i.)	3.8	-	4.2
f _s ¹ / ₃ (k + I) (k.s.i.)	21.2	17.5	23.4
f _s (Overload) (k.s.i.)	32.6	36.8	34.2
f _s (Total) (k.s.i.)	-	47.9	-
V _R (K)	51.7	-	42.5



SPLICE
(12 Required)

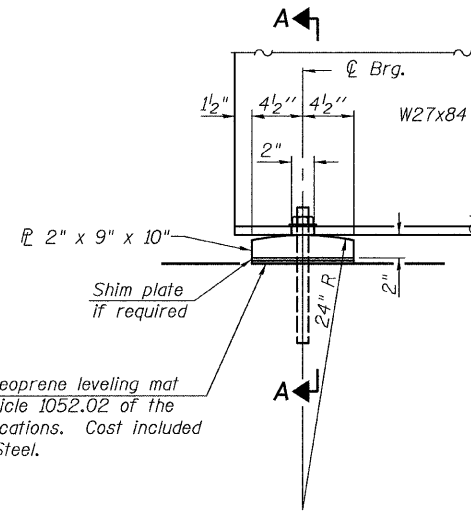
FRAMING & BEAM DETAILS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION (UOBR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS 114	SHEET NO. 15
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

SHEET NO. 15
21 SHEETS

Contract # 74040

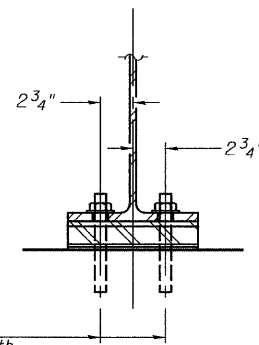


1/8" elastomeric neoprene leveling mat according to Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

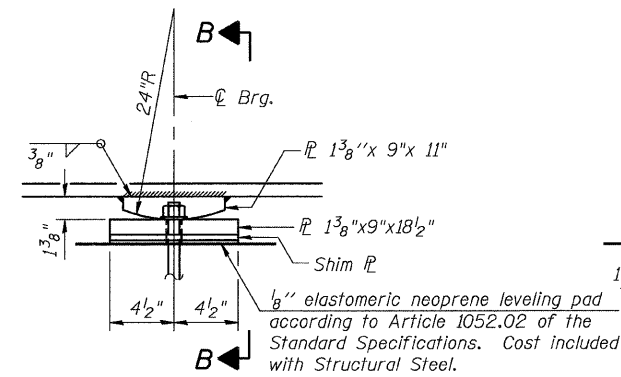
ELEVATION AT ABUTMENT

FIXED BEARING

1" ϕ x 12" Anchor Bolts (ASTM F1554 Grade 36) with 2 1/4" x 2 1/4" x 5/16" PL washer under nut. 1 3/8" x 2" slotted hole in flange. 1 1/2" ϕ holes in bearing plate.

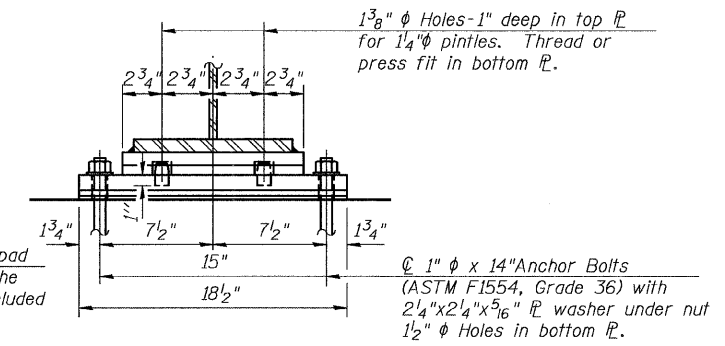


SECTION A-A

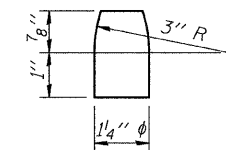


ELEVATION AT PIER

FIXED BEARING



SECTION B-B



PINTLE

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.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M70, Grade 50.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	48

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

I-2-E1

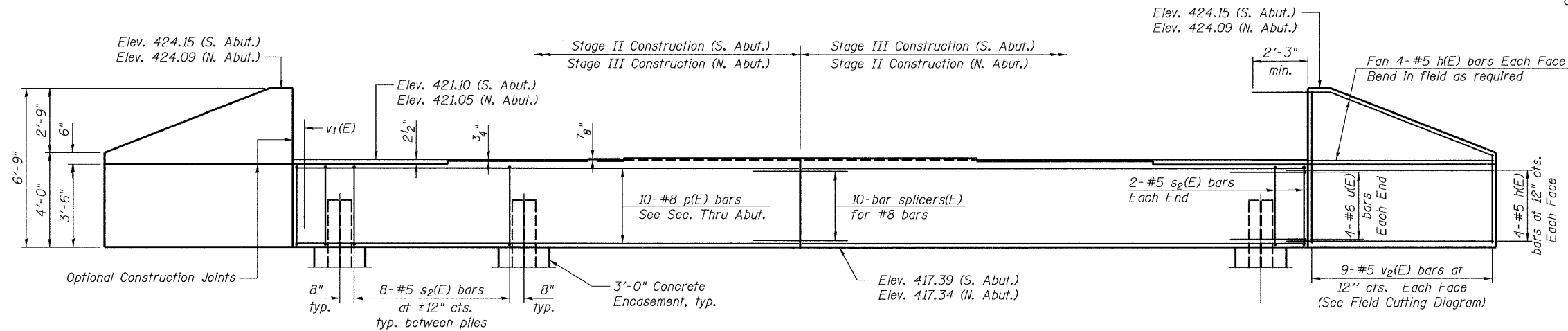
11-1-06

BEARINGS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

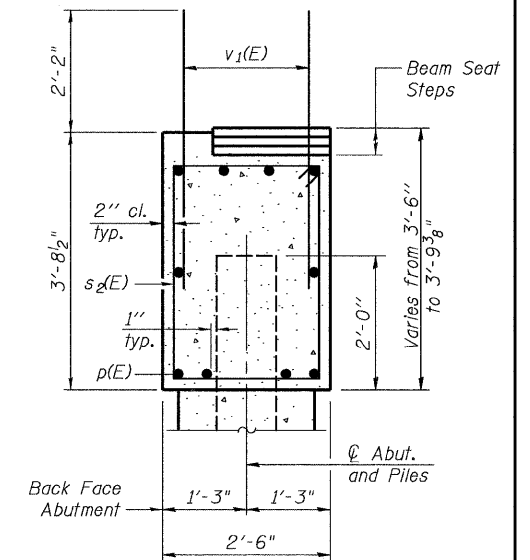
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	(10BR-2)B-1	WAYNE	115	21 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract # 74040

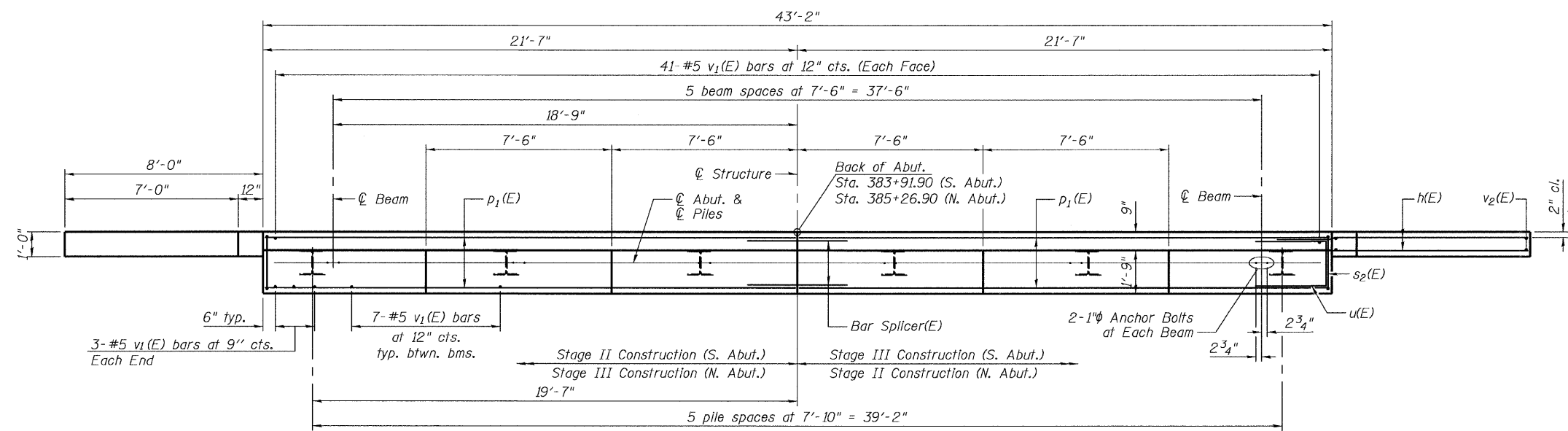


ELEVATION

(Looking South - S. Abut.)
(Looking North - N. Abut.)



SEC. THRU ABUT.



PLAN

PILE DATA

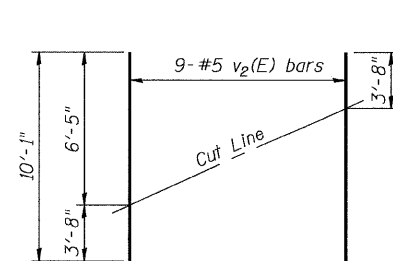
	S. Abut.	N. Abut.
Type:	HP12x53	HP12x53
Nominal Required Bearing:	335 kip	335 kip
Allowable Resistance Available:	112 kip	112 kip
Est. Length:	58'	57'
No. Production Piles:	5	5
No. Test Piles:	1	1

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

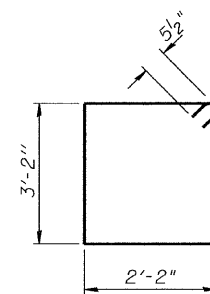
AI-0

11-1-06

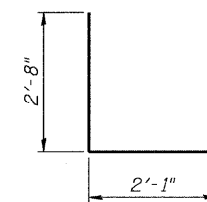


FIELD CUTTING DIAGRAM

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s2(E)



BAR u(E)

Notes:

1. Pour steps monolithically with cap.
2. See sheet 12 of 21 for backfill required for abutment construction.
3. For pile details and concrete encasement details see sheet 18 of 21.
4. Space reinforcement in cap to miss anchor bolts.
5. For details of Bar Splicers, see sheet 19 of 21.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	64	#5	10'-1"	—
p(E)	40	#8	21'-5"	—
s2(E)	88	#5	11'-7"	□
u(E)	16	#6	7'-5"	□
v1(E)	164	#5	4'-4"	—
v2(E)	36	#5	10'-1"	—
Structure Excavation			Cu. Yd.	860
Concrete Structures			Cu. Yd.	35.4
Reinforcement Bars, Epoxy Coated			Pound	5330
Furnishing Steel Piles, HP 12x53			Foot	575
Driving Piles			Foot	575
Test Pile Steel HP 12x53			Each	2
Pipe Underdrains for Structures, 4"			Foot	127
Porous Granular Embankment (Special)			Cu. Yd.	111.8
Pile Shoes			Each	12
Concrete Encasement			Cu. Yd.	4.2
Geocomposite Wall Drain			Sq. Yd.	68

ABUTMENTS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

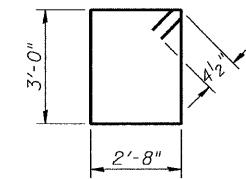
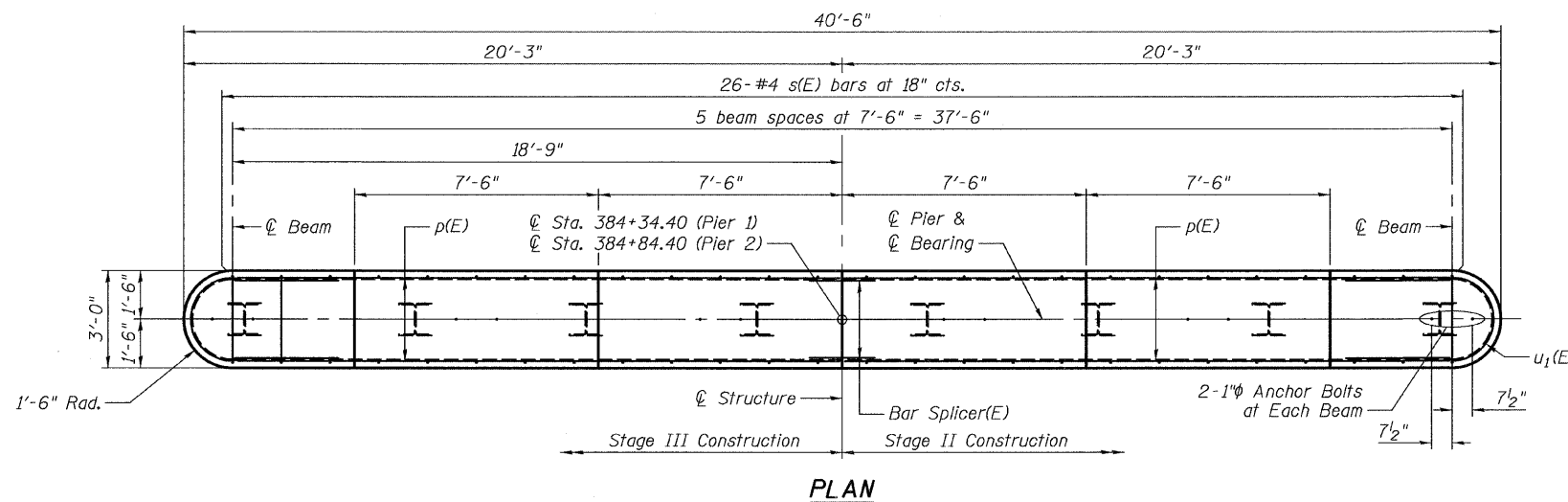
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	(10BR-2)B-1	WAYNE	116	17
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract # 74040

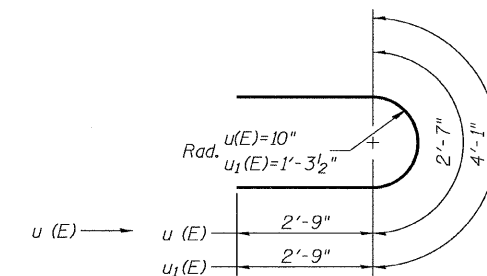
- Notes:
1. Space reinforcement in cap to miss anchor bolts.
 2. Pour steps monolithically with cap.
 3. For details of piles, see sheet 18 of 21.

PILE DATA

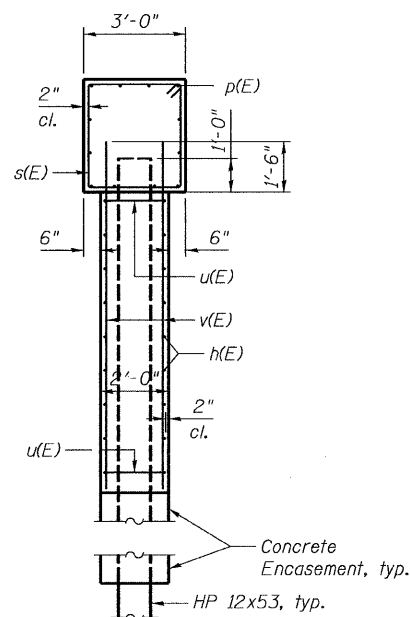
	Pier 1 & 2
Type:	HP12x53
Nominal Required Bearing:	419 kip
Allowable Resistance Available:	115 kip
Est. Length:	72'-0"
No. Production Piles:	7
No. Test Piles:	1



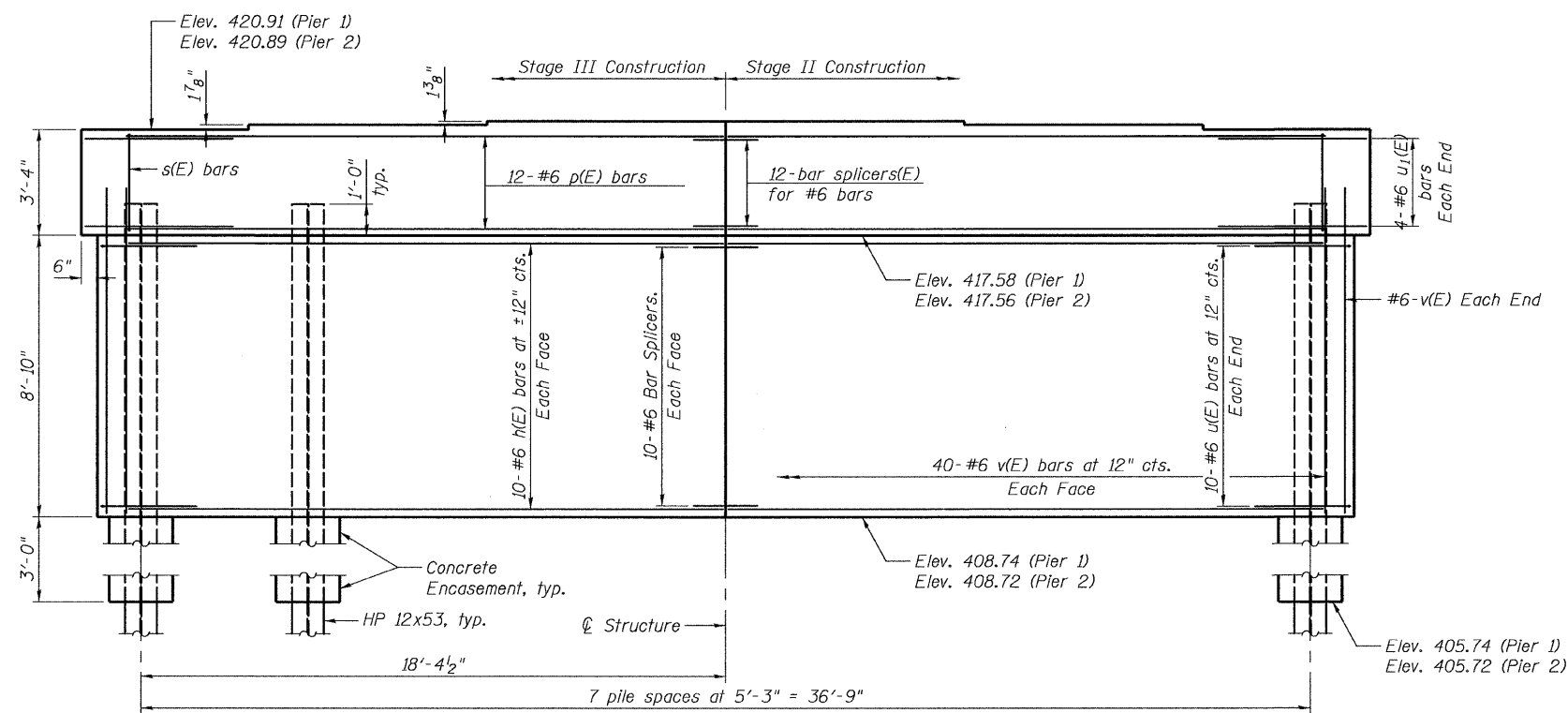
BAR s(E)



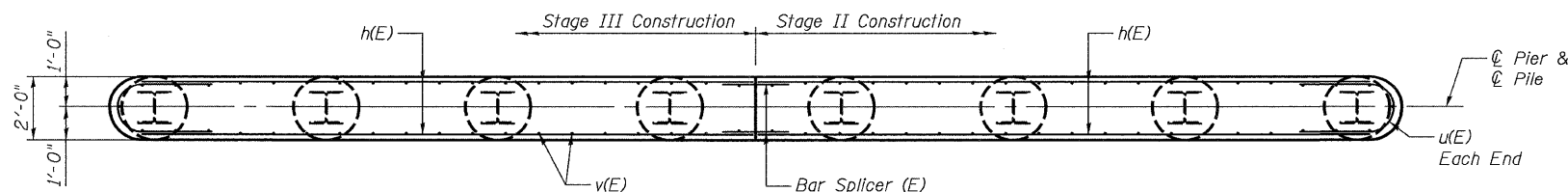
BARS u(E) & u1(E)



END VIEW



ELEVATION



SECTION THRU STEM

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	80	#6	18'-9"	—
p(E)	48	#6	18'-9"	—
s(E)	52	#4	12'-1"	□
u(E)	40	#6	8'-1"	U
u1(E)	16	#6	9'-7"	U
v(E)	164	#6	10'-6"	—
Structure Excavation		Cu. Yd.	112	
Concrete Structures		Cu. Yd.	82.1	
Reinforcement Bars, Epoxy Coated		Pound	7330	
Furnishing Steel Piles, HP 12x53		Foot	1008	
Driving Piles		Foot	1008	
Test Pile Steel HP 12x53		Each	2	
Pile Shoes		Each	16	
Concrete Encasement		Cu. Yd.	5.6	

BENTON & ASSOCIATES, INC.

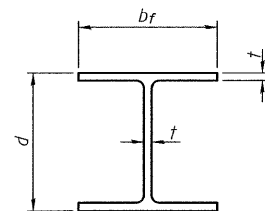
DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

PIER 1 & 2
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

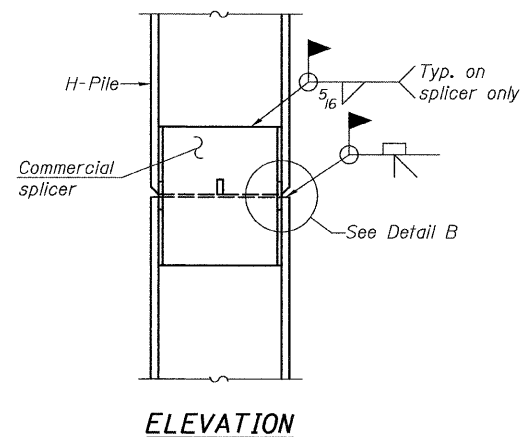
ROUTE NO. FAP 328	SECTION (UOBR- 2)B-1	COUNTY WAYNE	TOTAL SHEETS 111	SHEET NO. 21 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract # 74040

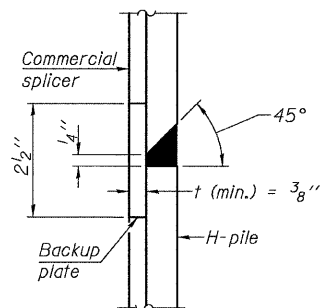


STEEL PILE TABLE

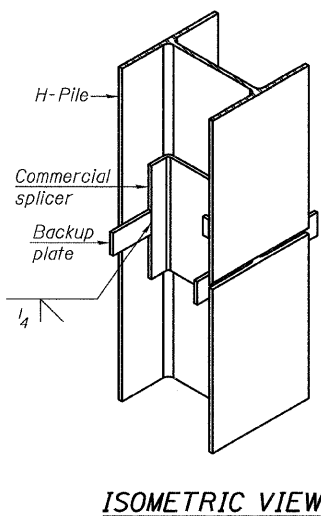
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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

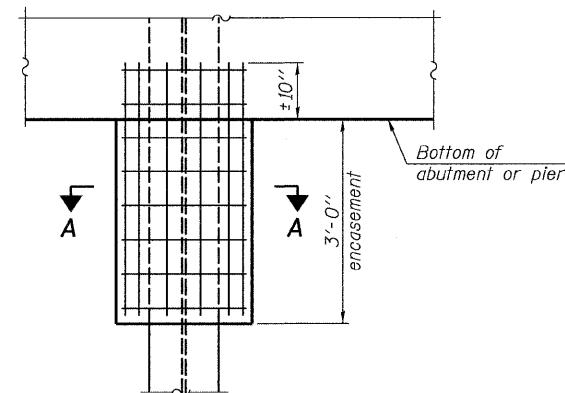


DETAIL "B"



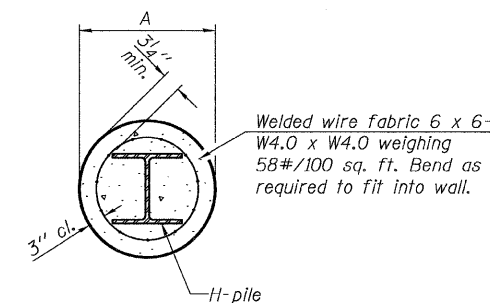
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



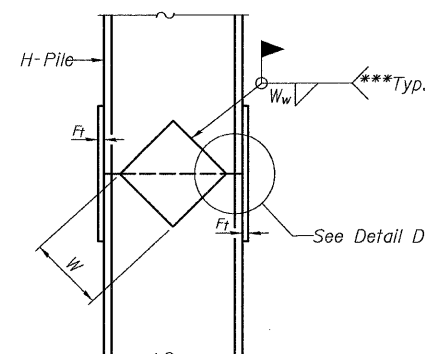
ELEVATION

PILE ENCASEMENT

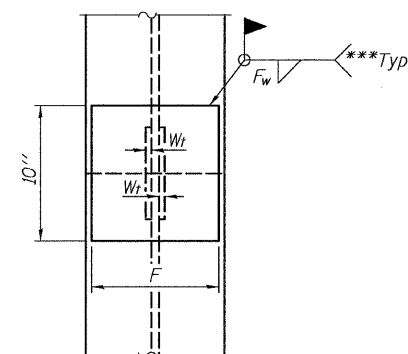


SECTION A-A

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



ELEVATION



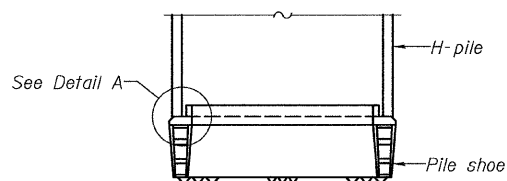
END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
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"

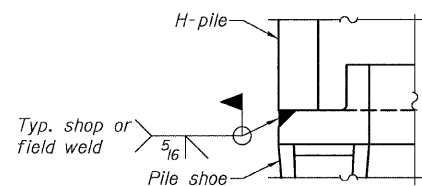
WELDED PLATE FIELD SPLICE

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

STEEL H-PILE DETAILS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

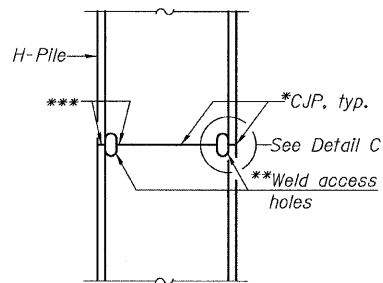


ELEVATION



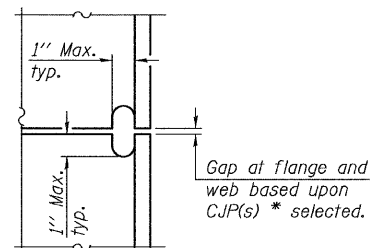
DETAIL A

H-PILE SHOE ATTACHMENT

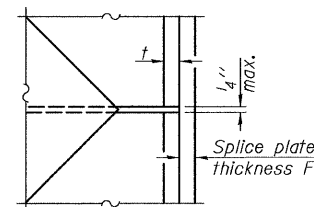


ELEVATION

COMPLETE PENETRATION WELD SPLICE



DETAIL C



DETAIL D

*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.

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

F-HP

9-3-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	(UOBR-2)B-1	WAYNE		118
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 19
21 SHEETS

Contract # 74040

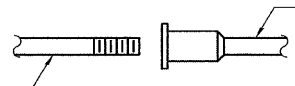
NOTES

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

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

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

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



ROLLED THREAD DOWEL BAR



**** ONE PIECE**

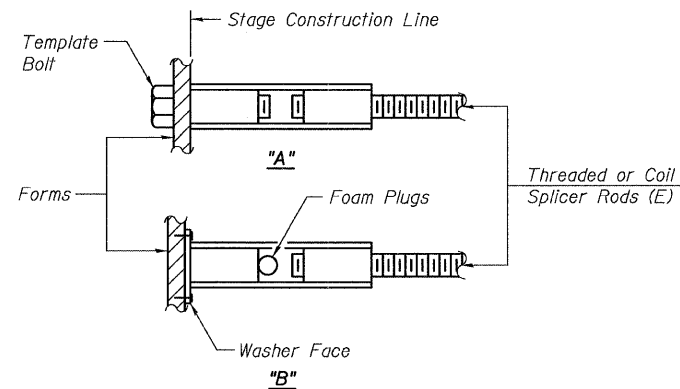
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

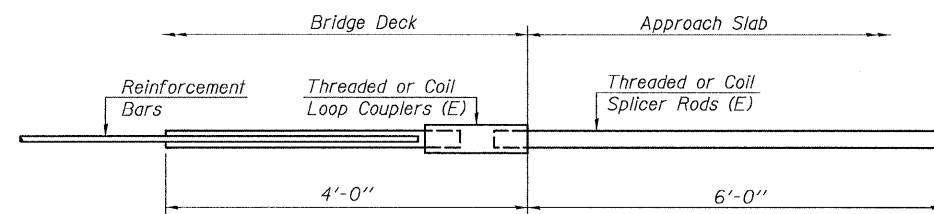
** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

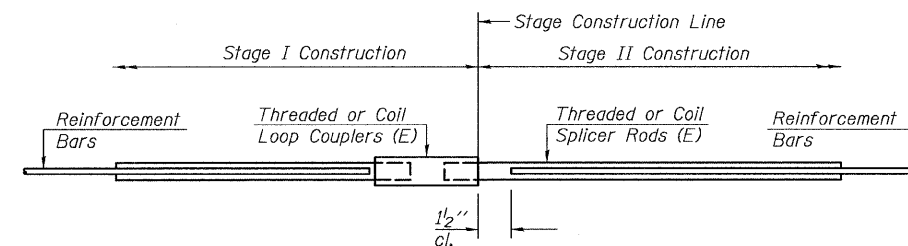
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

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



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 = 80



STANDARD

Bar Size	No. Assemblies Required	Location
#5	413	Superstructure
#6	16	Superstructure
#6	64	Substructure
#8	20	Substructure

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

BSD-1

11-1-06

BAR SPLICER DETAILS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 3

ROUTE FAP 328 (US 45) DESCRIPTION Deer Creek LOGGED BY E. Sandschafer

SECTION (10BR-2)B-1 LOCATION Sec 34 - NE 1/4, Sec 35 - NW 1/4, SEC., TWP. 1 N, RNG. 7 E, 3 PM

COUNTY Wayne DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 096-0023
Station 384+59

BORING NO. 1
Station 385+35

Offset 9.50 ft RT

Ground Surface Elev. 422.79 ft

Surface Water Elev. 410.48 ft

Stream Bed Elev. 409.59 ft

Groundwater Elev.:
First Encounter Dry ft

Upon Completion Washed ft

After Hrs. Testing ft

14" asphalt pavement

Soft, damp, brown, SILTY LOAM.

Hard, very moist, gray, CLAY TILL

Soft, damp, brown, SANDY LOAM.

Very soft, very damp, gray, SILTY LOAM.

Stiff, damp, gray, SILTY CLAY.

Soft to medium, damp, gray, SANDY LOAM.

Stiff, damp, gray mottled red, SANDY CLAY.

Very stiff, damp, gray, CLAY TILL

Medium, damp, gray, SILTY LOAM w/ some organics.

Stiff, damp, gray, SILTY LOAM CLAY.

** Very dense, moist, gray, CLAY SHALE, powdered and pockershipped. Boring continued with rock coring.

*** 50/3", 50/1", 50/1"

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)



SOIL BORING LOG

Page 2 of 3

ROUTE FAP 328 (US 45) DESCRIPTION Deer Creek LOGGED BY E. Sandschafer

SECTION (10BR-2)B-1 LOCATION Sec 34 - NE 1/4, Sec 35 - NW 1/4, SEC., TWP. 1 N, RNG. 7 E, 3 PM

COUNTY Wayne DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 096-0023
Station 384+59

BORING NO. 1
Station 385+35

Offset 9.50 ft RT

Ground Surface Elev. 422.79 ft

Surface Water Elev. 410.48 ft

Stream Bed Elev. 409.59 ft

Groundwater Elev.:
First Encounter Dry ft

Upon Completion Washed ft

After Hrs. Testing ft

Very stiff, damp, gray, CLAY TILL

Stiff, damp, gray, SILTY LOAM CLAY.

Hard, very moist, gray, SILTY CLAY.

Medium, damp, gray, SILTY LOAM w/ some organics.

Stiff, damp, gray, SILTY LOAM CLAY.

** Very dense, moist, gray, CLAY SHALE, powdered and pockershipped. Boring continued with rock coring.

*** 50/3", 50/1", 50/1"

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)



ROCK CORE LOG

Page 3 of 3

ROUTE FAP 328 (US 45) DESCRIPTION Deer Creek LOGGED BY E. Sandschafer

SECTION (10BR-2)B-1 LOCATION Sec 34 - NE 1/4, Sec 35 - NW 1/4, SEC., TWP. 1 N, RNG. 7 E, 3 PM

COUNTY Wayne CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 096-0023
Station 384+59

BORING NO. 1
Station 385+35

Offset 9.50 ft RT

Ground Surface Elev. 422.79 ft

Surface Water Elev. 410.48 ft

Stream Bed Elev. 409.59 ft

Groundwater Elev.:
First Encounter Dry ft

Upon Completion Washed ft

After Hrs. Testing ft

Gray, slightly weathered, SANDY CLAY SHALE.

Sample depth 84.5' - 84.9' Unconfined compressive strength = 161 tsf

Gray, slightly weathered, SANDSTONE.

Sample depth 89.5' - 89.9' Unconfined compressive strength = 211 tsf

Extent of exploration.

Benchmark: BM 232 - Cut square in SE corner of existing bridge = 423.23', provided by Program Development.

** Very dense, moist, gray, CLAY SHALE, powdered and pockershipped. Boring continued with rock coring.

*** 50/3", 50/1", 50/1"

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)

Color pictures of the cores

Cores will be stored for examination until

The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

SOIL BORINGS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	10BR-2/B-1	WAYNE	21	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 74040



SOIL BORING LOG

Page 1 of 2

Date 12/27/06

ROUTE FAP 328 (US 45) DESCRIPTION Deer Creek LOGGED BY E. Sandschafer

SECTION 10BR-2/B-1 LOCATION Sec 34 - NE 1/4, Sec 35 - NW 1/4, SEC., TWP. 1 N, RNG. 7 E, 3 PM

COUNTY Wayne DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	D E P T H S	B L O C K S	U C S	M O I S T U R E	Description	D E P T H S	B L O C K S	U C S	M O I S T U R E
096-0023 384+59					Surface Water Elev. 410.48 ft Stream Bed Elev. 409.59 ft				
2 383+84					Groundwater Elev.: First Encounter 400.6 ft Upon Completion Dry ft				
9.50 ft L1					After Hrs.				
422.58 ft									
15 1/2" asphalt pavement.					Medium, damp, gray, SILTY LOAM to SANDY LOAM. (continued)				
421.28									
Stiff, damp, gray, SANDY CLAY.					Medium, wet, gray, fine grained, SAND. 6% passing #200 sieve.				
418.08									
Medium, damp, gray, SANDY LOAM.					Hard, very moist, gray, CLAY TILL.				
415.58									
Very soft, very damp, gray, SILTY LOAM.									
410.68									
Very soft to medium, very damp, gray mottled red, SANDY LOAM.									
405.08									
Stiff damp, gray marbled red, CLAY.									
382.58									

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 T208)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 2

Date 12/27/06

ROUTE FAP 328 (US 45) DESCRIPTION Deer Creek LOGGED BY E. Sandschafer

SECTION 10BR-2/B-1 LOCATION Sec 34 - NE 1/4, Sec 35 - NW 1/4, SEC., TWP. 1 N, RNG. 7 E, 3 PM

COUNTY Wayne DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	D E P T H S	B L O C K S	U C S	M O I S T U R E	Description	D E P T H S	B L O C K S	U C S	M O I S T U R E
096-0023 384+59					Surface Water Elev. 410.48 ft Stream Bed Elev. 409.59 ft				
2 383+84					Groundwater Elev.: First Encounter 400.6 ft Upon Completion Dry ft				
9.50 ft L1					After Hrs.				
422.58 ft									
Very stiff, damp, gray, CLAY TILL.					Very dense, moist, gray to brown, CLAY SHALE, powdered and pockchipped. (continued)				
362.78									
Extent of exploration.									
50/3"									
50/1"									
50/1"									
Benchmark: BM 232 - Cut square in SE corner of existing bridge = 423.23', provided by Program Development.									
363.08									

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 T208)
BBS, from 137 (Rev. 8-99)

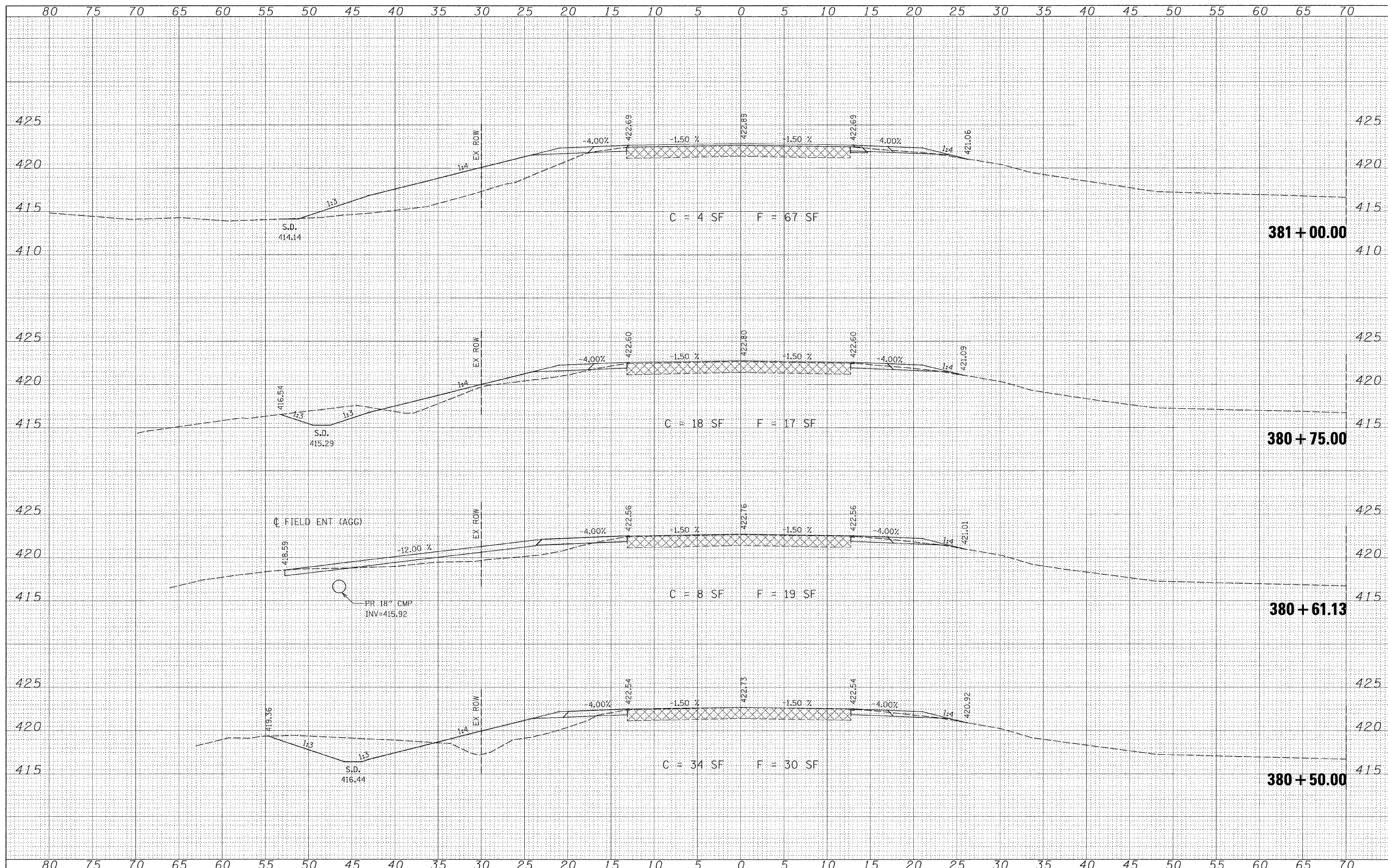
BENTON & ASSOCIATES, INC.

DESIGNED	MBH
CHECKED	NRF
DRAWN	MBH
CHECKED	NRF

SOIL BORINGS
US 45 / DEER CREEK
F.A.P. RT. 328
WAYNE COUNTY
SN. 096-0068

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

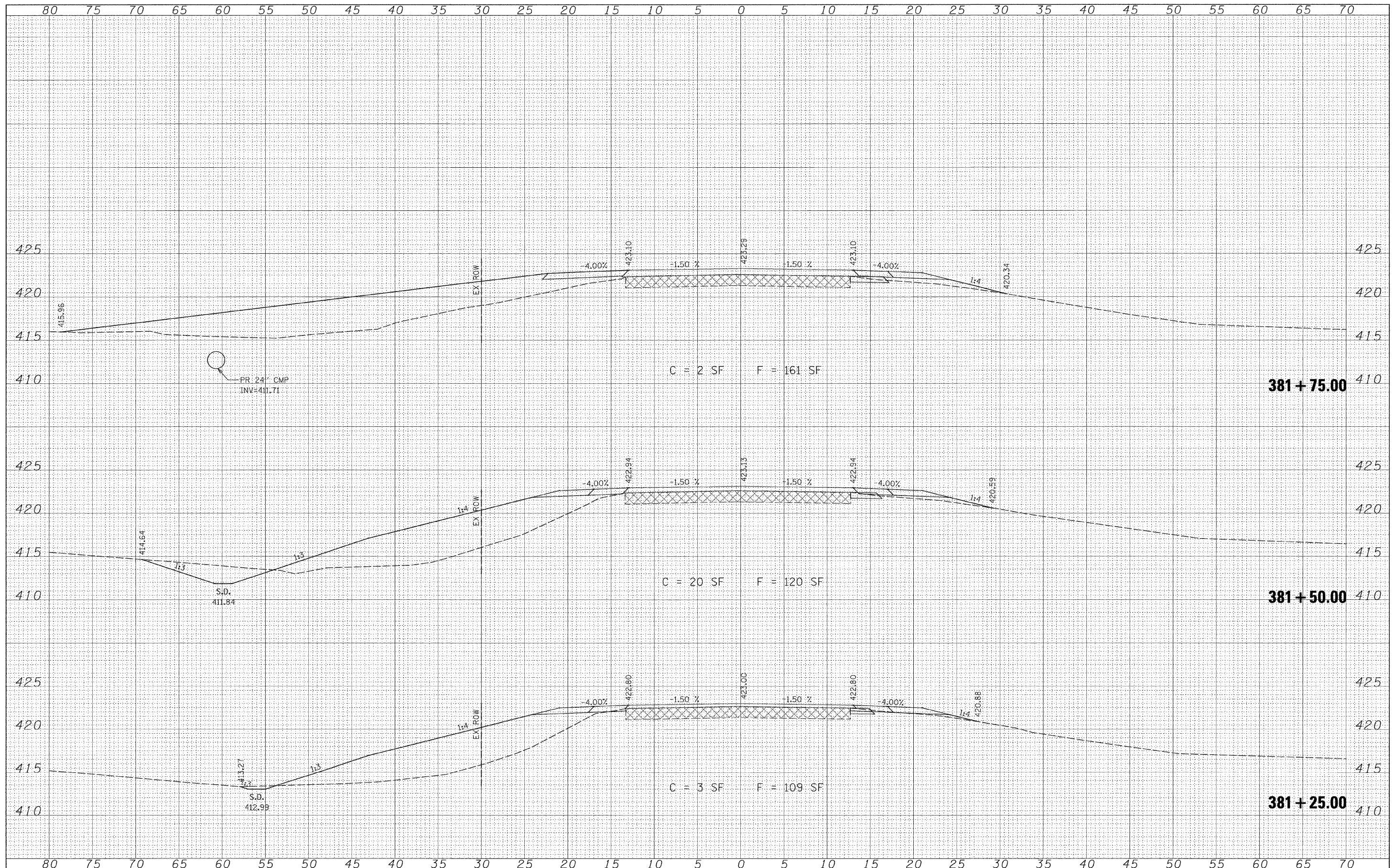
ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	



FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS FAP RT 328 (US 45)		F.A.P. RTE. 328	SECTION (10BR-2)B-1	COUNTY WAYNE	TOTAL SHEETS 140	SHEET NO. 122
	PLOT SCALE = #SCALE#	DRAWN -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. 380+50.00 TO STA. 381+00.00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 74040	
	PLOT DATE = #DATE#	CHECKED -	REVISED -								
		DATE -	REVISED -								

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

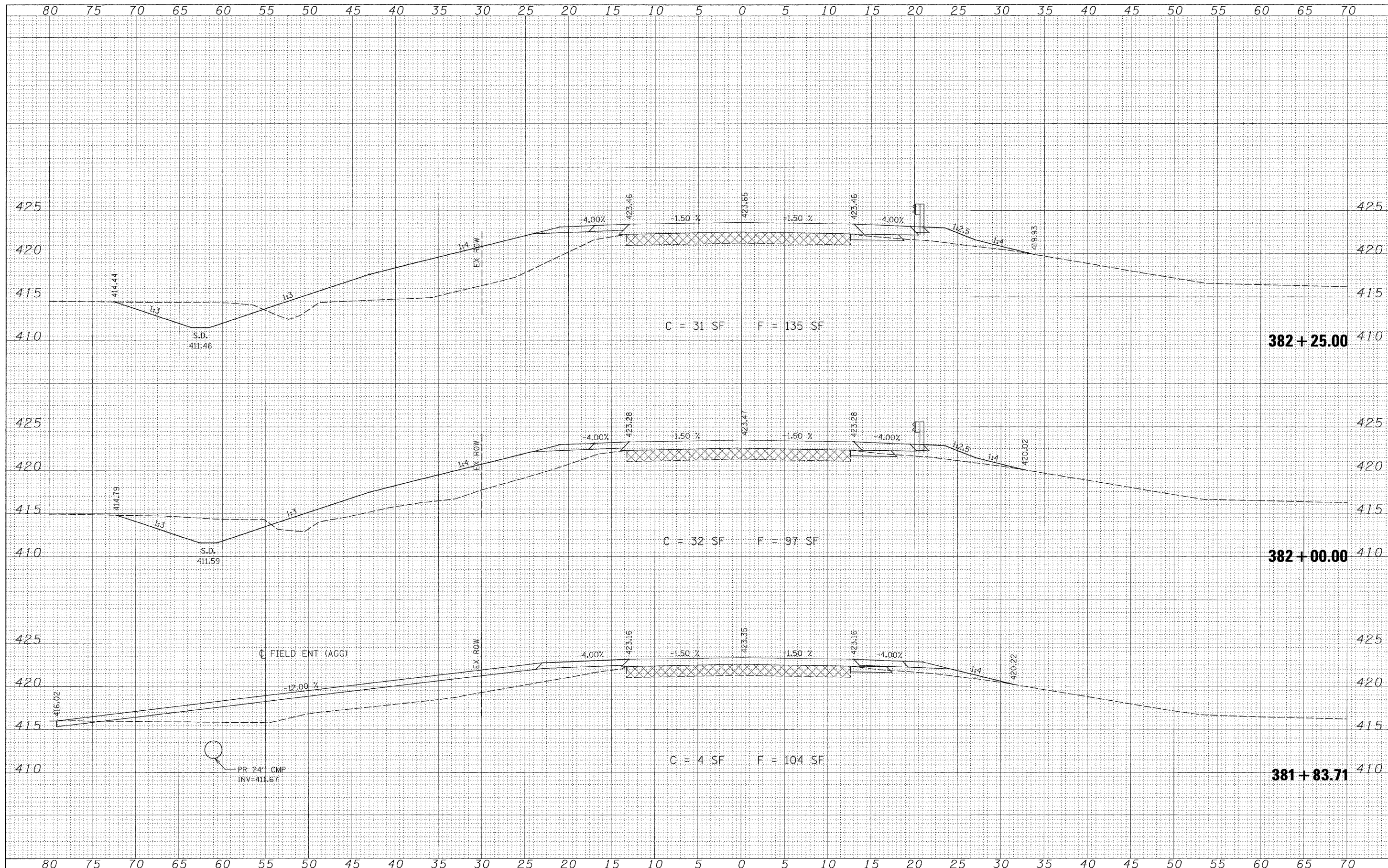
DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				CROSS SECTIONS FAP RT 328 (US 45)				F.A.P. RTE. 328	SECTION (10BR-2)B-1	COUNTY WAYNE	TOTAL SHEETS 140	SHEET NO. 123
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	PLOT DATE = #DATE#	CHECKED -	REVISED -													
		DATE -	REVISED -													

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

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



FILE NAME = #FILE#

USER NAME = #USER#
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 FAP RT 328 (US 45)**

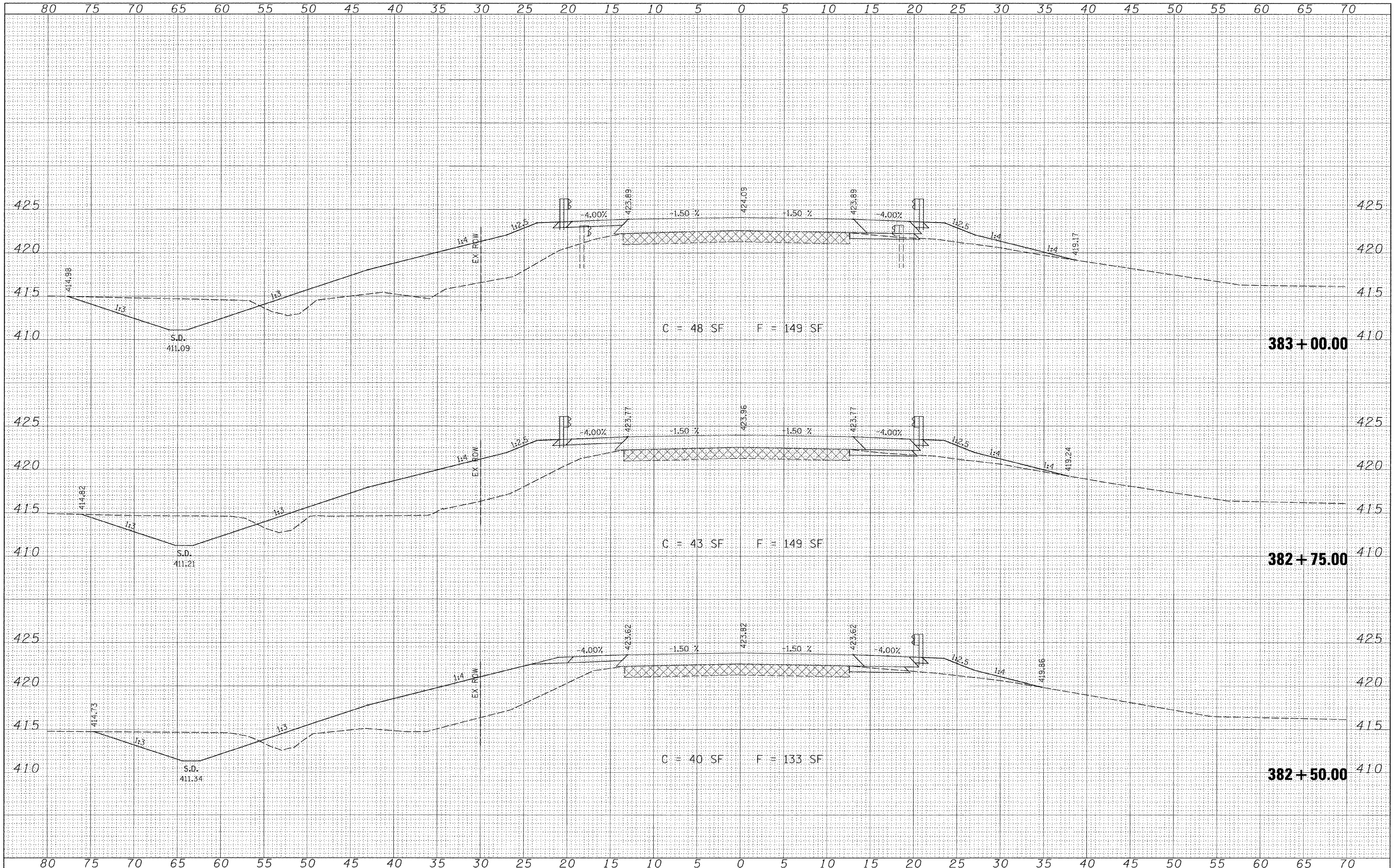
SCALE: SHEET NO. OF SHEETS STA. 381+83.71 TO STA. 382+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(10BR-2)B-1	WAYNE	140	134
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 74040

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

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



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PLOT DATE = #DATE#	DRAWN -	REVISED -
	CHECKED -	REVISED -
	DATE -	REVISED -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

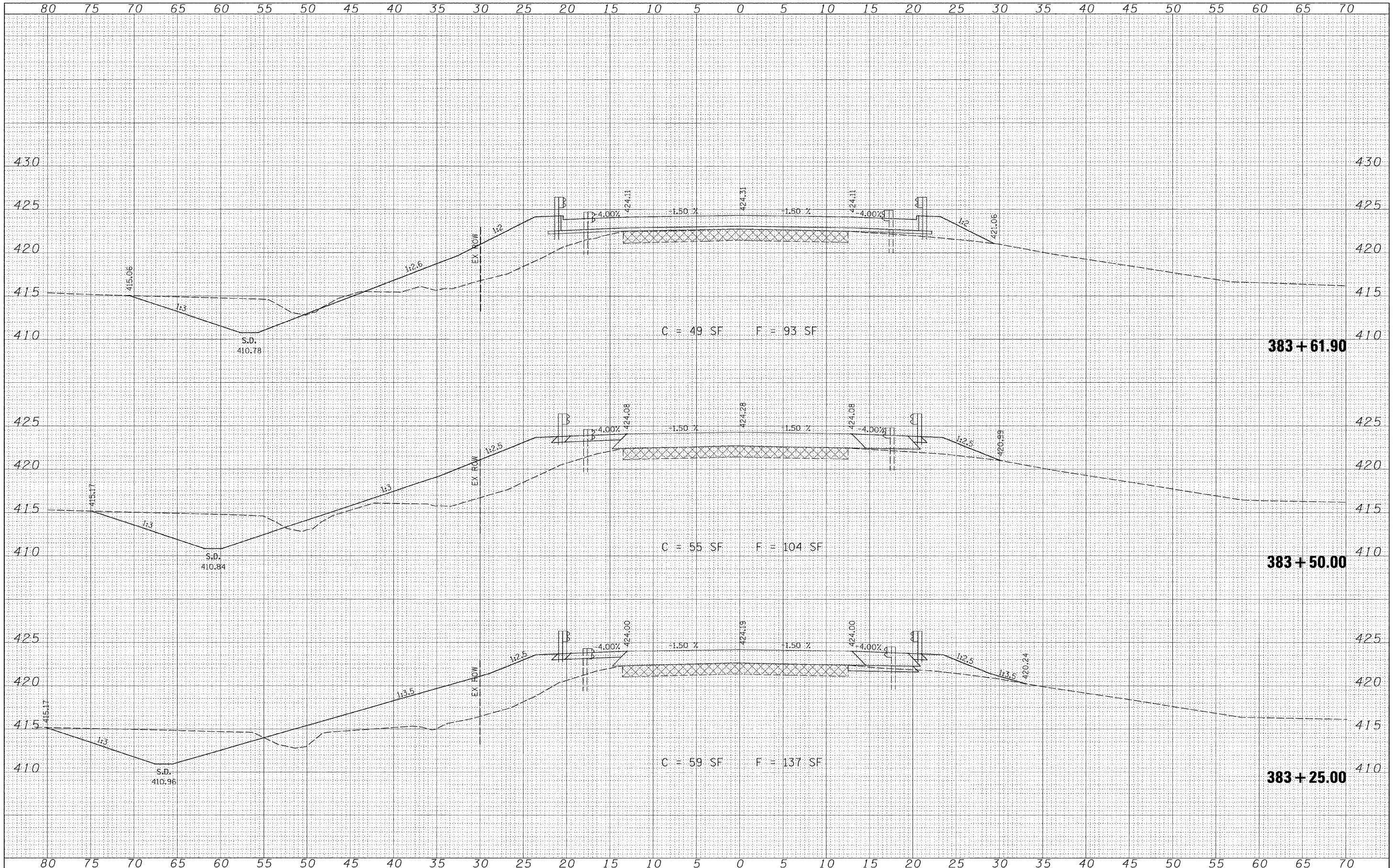
**CROSS SECTIONS
FAP RT 328 (US 45)**

SCALE: SHEET NO. OF SHEETS STA. 382+50.00 TO STA. 383+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(10BR-2)B-1	WAYNE	140	125
FED. ROAD DIST. NO.			CONTRACT NO. 74040	
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
SURVEY	BY
NOTE BOOK	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
SURVEY	BY
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =
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DESIGNED -	REVISED -
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CHECKED -	REVISED -
DATE -	REVISED -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

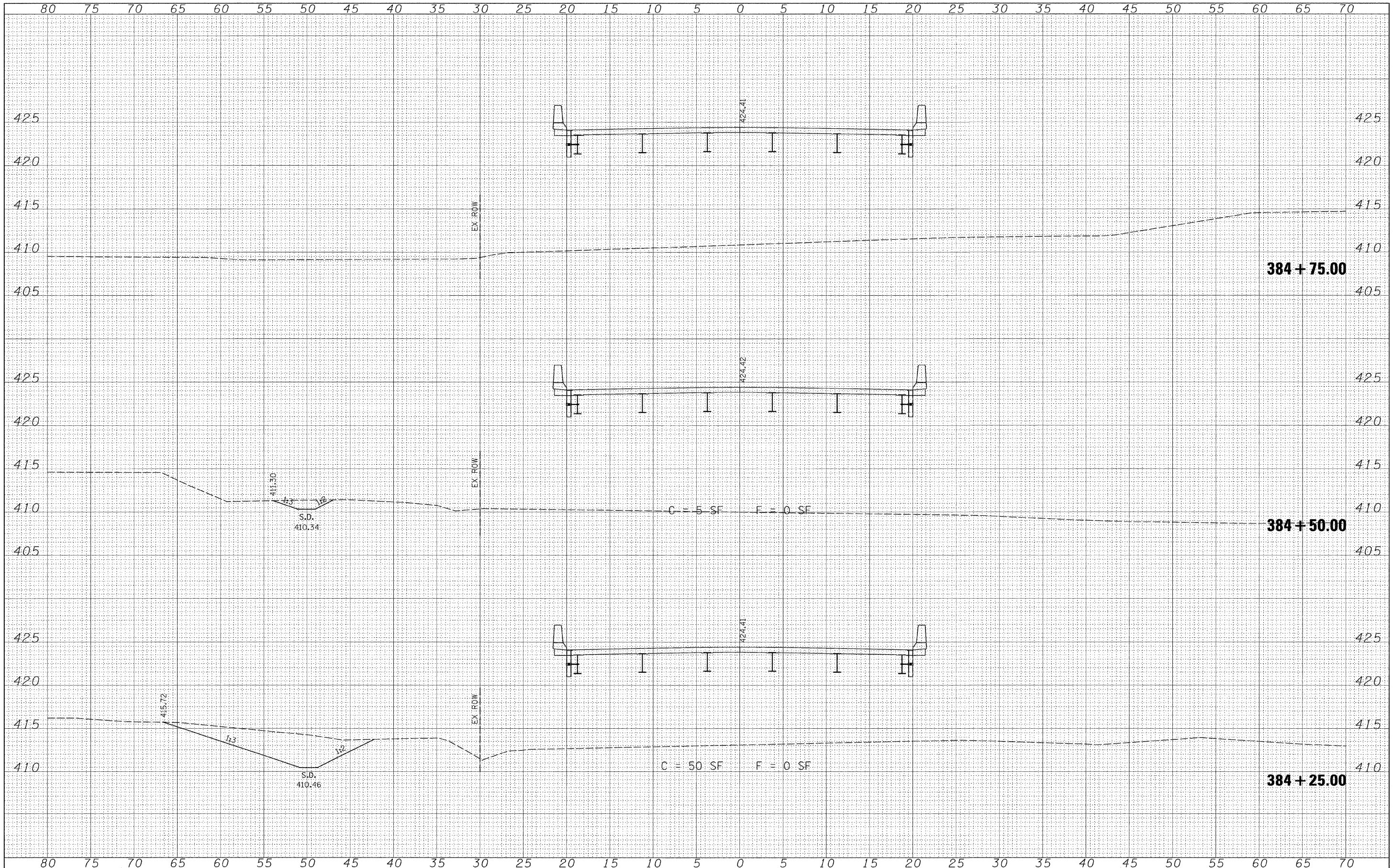
**CROSS SECTIONS
FAP RT 328 (US 45)**

SCALE: SHEET NO. OF SHEETS STA. 383+25.00 TO STA. 383+61.90

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(10BR-2)B-1	WAYNE	140	126
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 74040	

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

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



FILE NAME =
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USER NAME = #USER#
DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
FAP RT 328 (US 45)**
SCALE: SHEET NO. OF SHEETS STA. 384+25.00 TO STA. 384+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(10BR-2)B-1	WAYNE	140	128
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

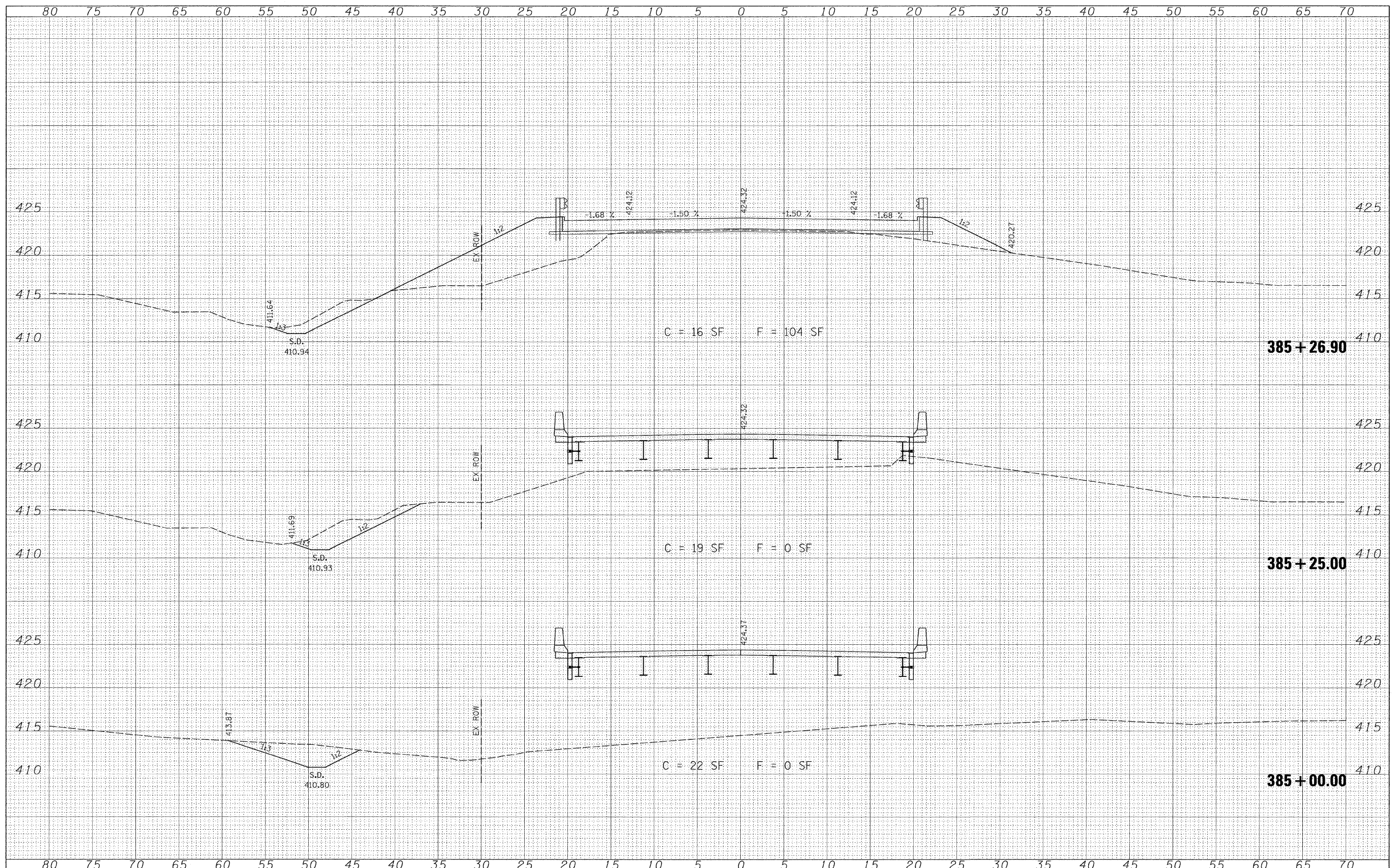
384 + 75.00

384 + 50.00

384 + 25.00

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

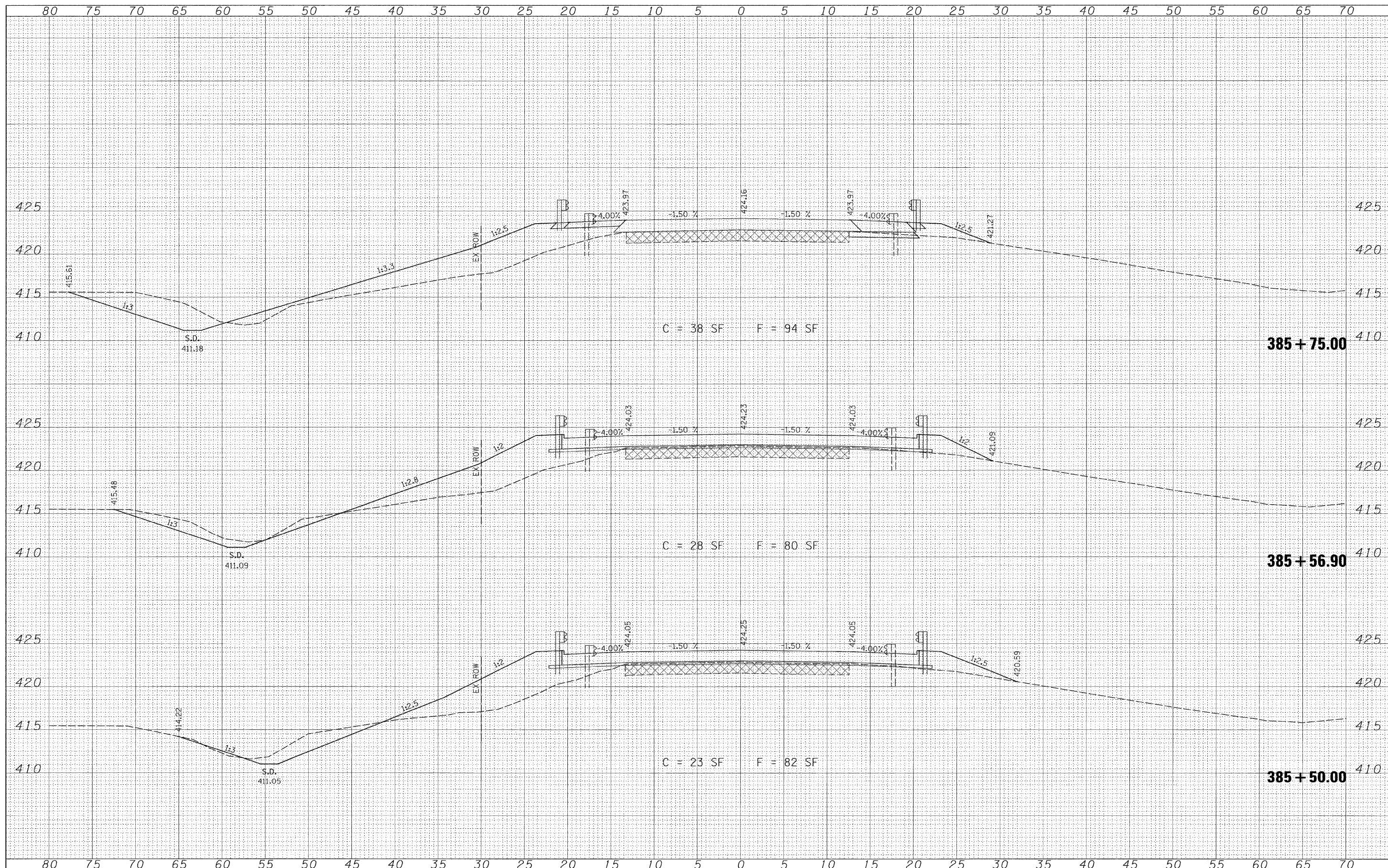
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NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		



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	PLOT SCALE = #SCALE*	DRAWN -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. 385+00.00 TO STA. 385+26.90	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 74040	
	PLOT DATE = #DATE*	CHECKED -	REVISED -								
		DATE -	REVISED -								

DATE	BY
SURVEYED	BY
PLOTTED	BY
TEMPLATE	BY
AREAS	BY
CHECKED	BY
NO.	

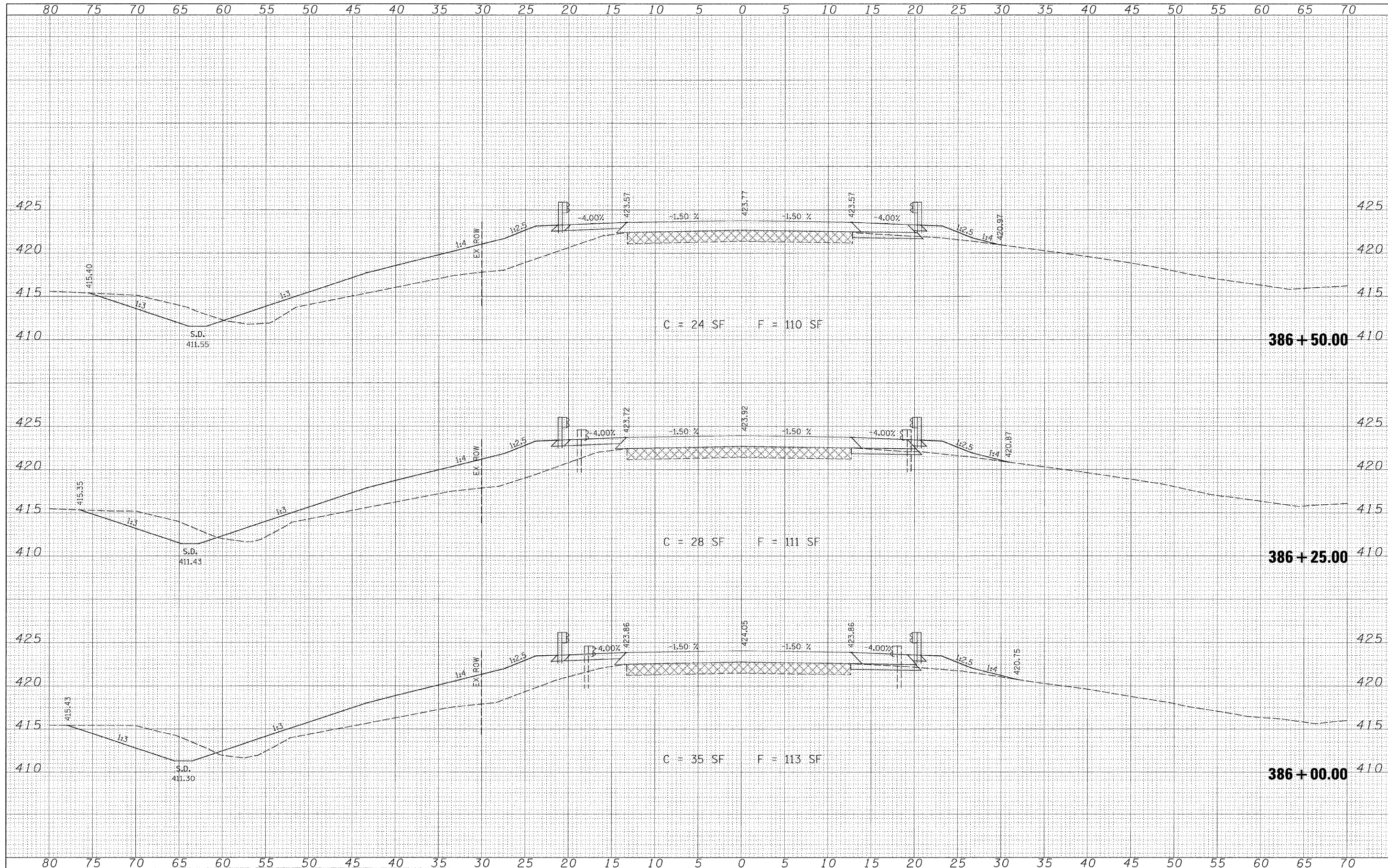
DATE	BY
SURVEYED	BY
PLOTTED	BY
TEMPLATE	BY
AREAS	BY
CHECKED	BY
NO.	



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#FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	328	(10BR-2)B-1	WAYNE	140	130
	PLOT SCALE = #SCALE*	CHECKED -	REVISED -		STA. 385+50.00	TO	STA. 385+75.00	FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	CONTRACT NO. 74040	
	PLOT DATE = #DATE*	DATE -	REVISED -										

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

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



FILE NAME =
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PLOT SCALE = #SCALE#
PLOT DATE = #DATE#

DESIGNED -
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CHECKED -
DATE -

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

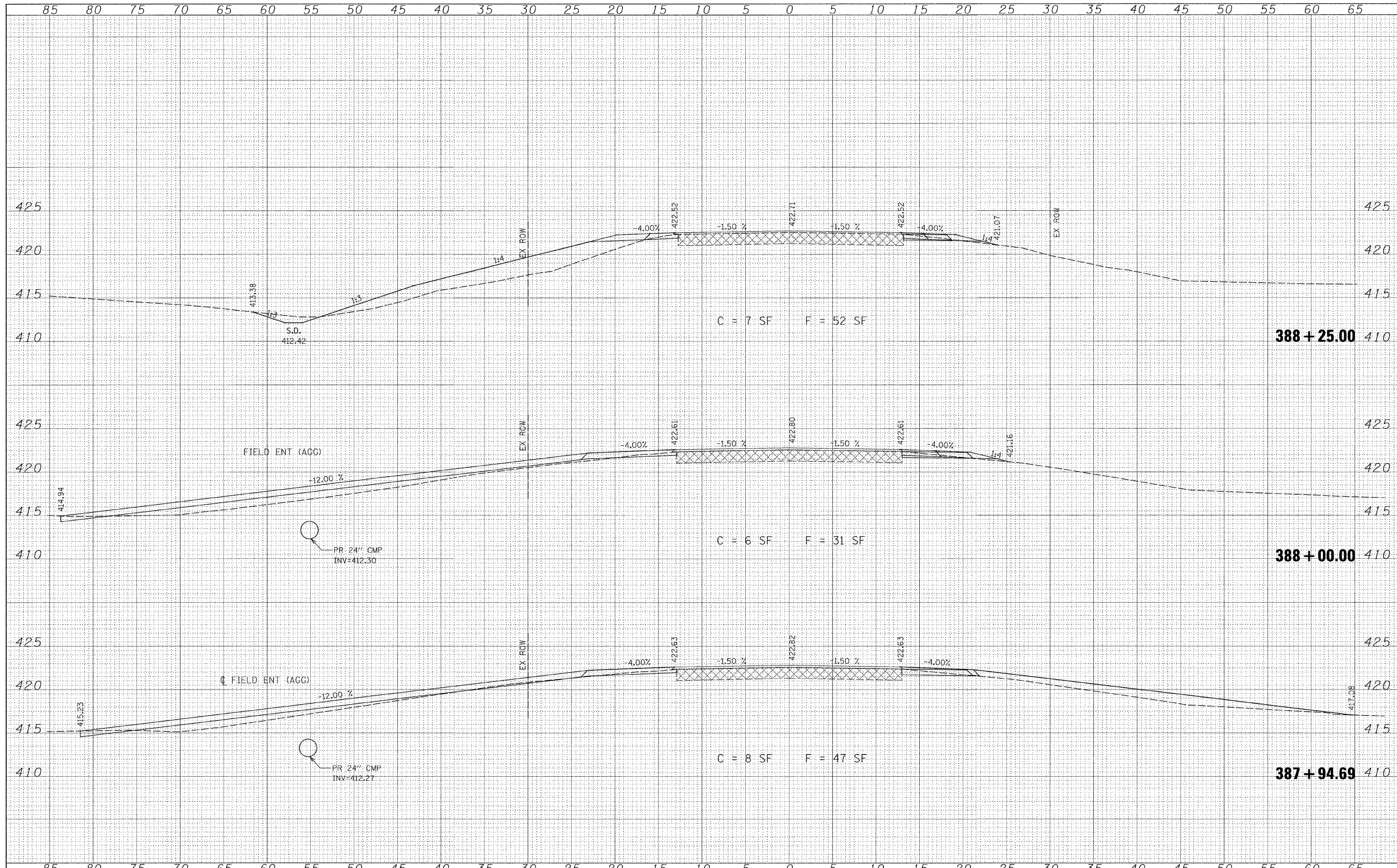
**CROSS SECTIONS
FAP RT 328 (US 45)**

SCALE: SHEET NO. OF SHEETS STA. 386+00.00 TO STA. 386+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.	SHEET NO.
328	(10BR-2)B-1	WAYNE	140	131
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 74040	

DATE	
BY	
SUPERVISED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

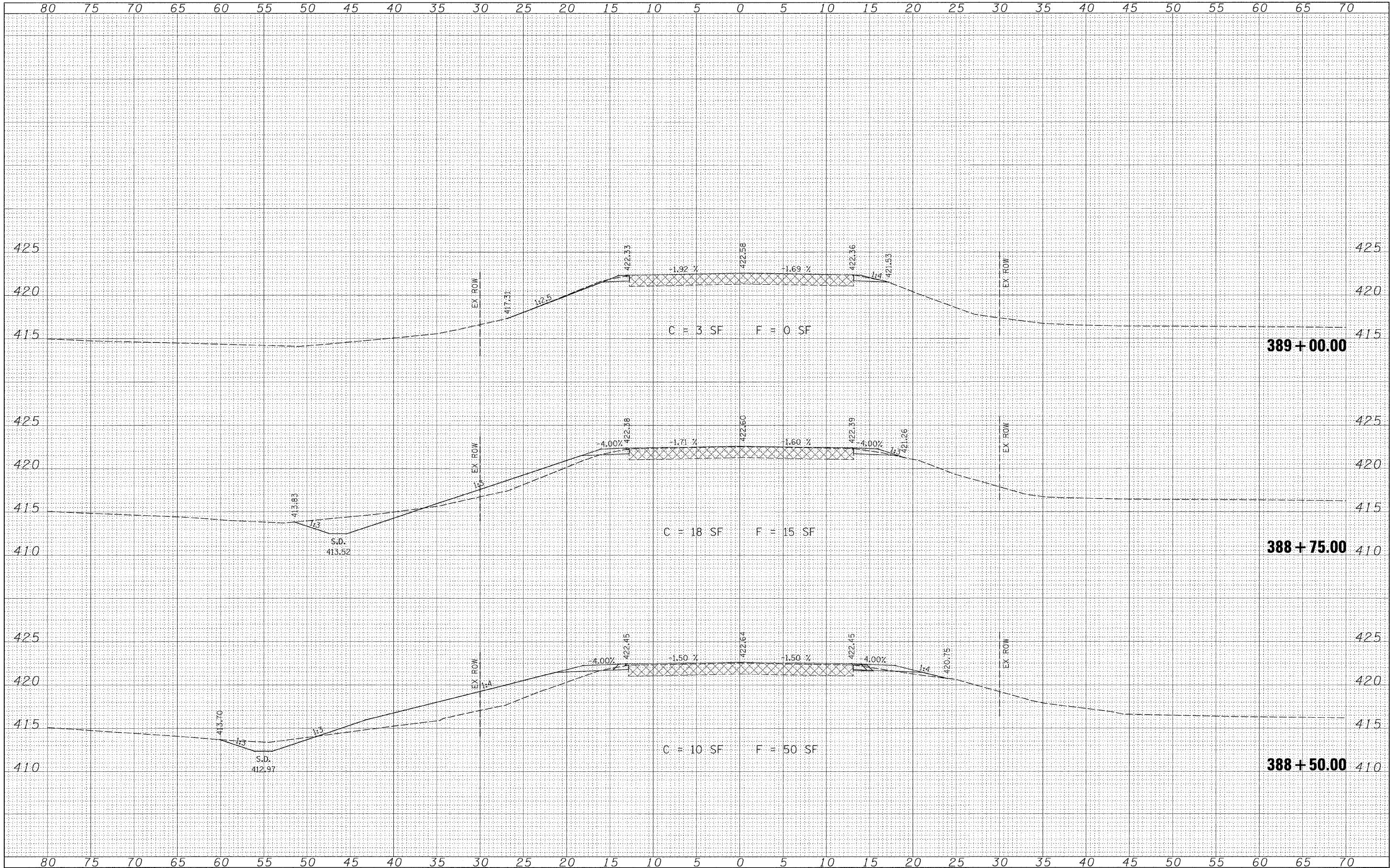
DATE	
BY	
SUPERVISED	
PLOTTED	
TEMPLATE	
AREAS	
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NO.	



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS FAP RT 328 (US 45)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.	SHEET NO.
#FILEL#	PLOT SCALE = #SCALE#	DRAWN -	REVISED -		328	(10BR-2)B-1	WAYNE	140	134			
	PLOT DATE = #DATE#	CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 387+94.69 TO STA. 388+25.00			CONTRACT NO. 74040				
		DATE -	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							

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

ORIGINAL	BY	DATE
SURVEY		
NOTE BOOK		



FILE NAME =	USER NAME = #USER*
#FILEL#	DESIGNED -
	DRAWN -
	CHECKED -
	DATE -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
FAP RT 328 (US 45)**

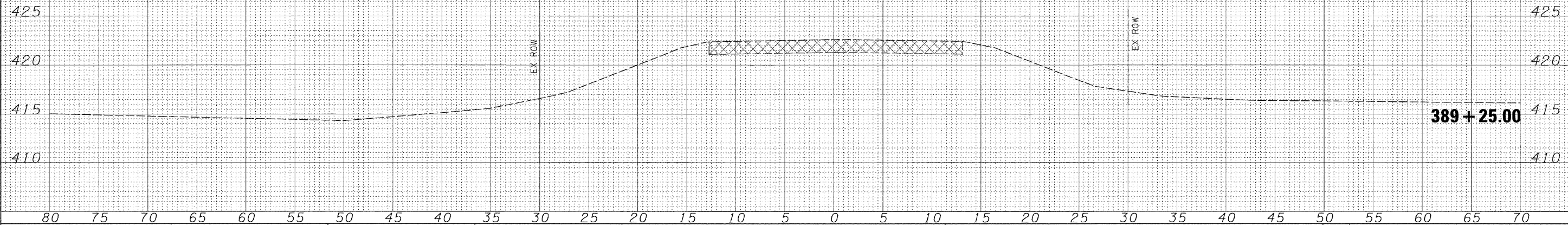
SCALE: SHEET NO. OF SHEETS STA. 388+50.00 TO STA. 389+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(10BR-2)B-1	WAYNE	140	135
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 74040	

80 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

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

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

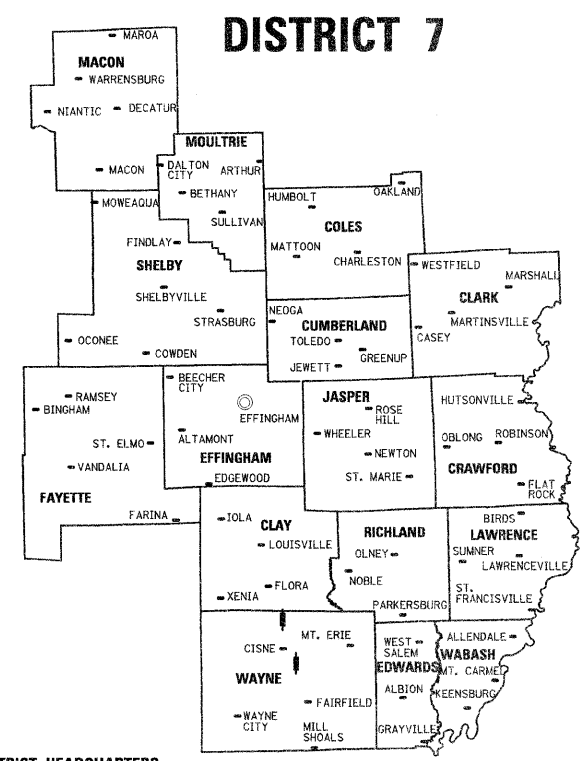


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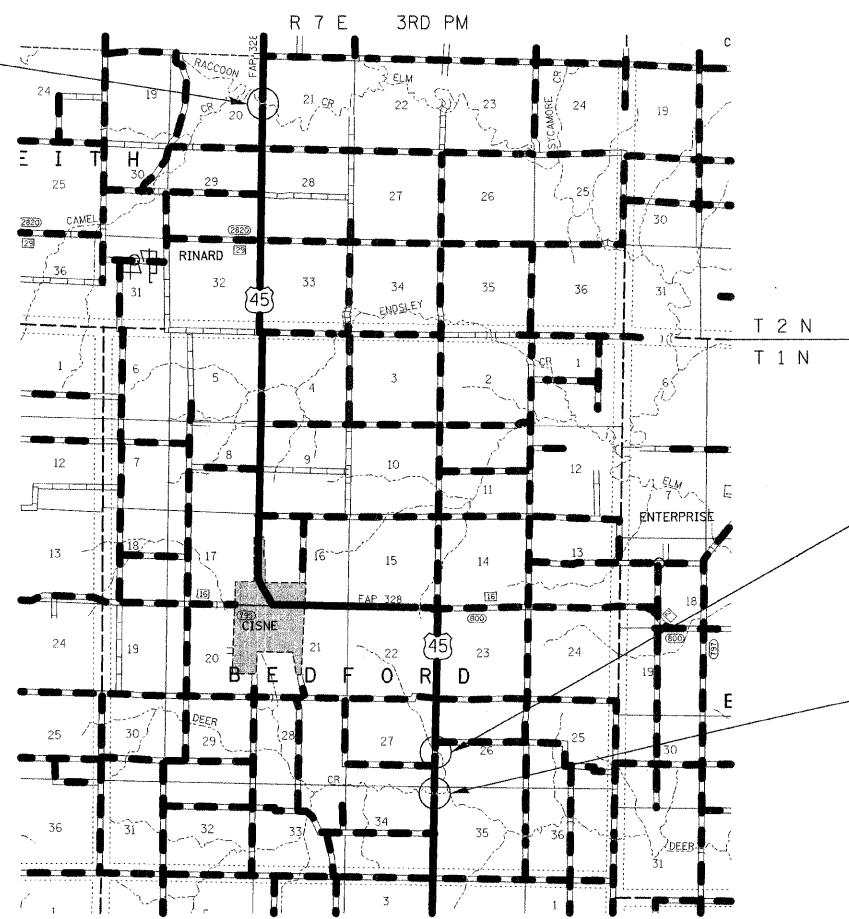
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#FILEL*	PLOT SCALE = #SCALE*	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA. 389+25.00	TO STA. 389+25.00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	PLOT DATE = #DATE*	CHECKED -	REVISED -									CONTRACT NO. 74040
		DATE -	REVISED -									

F.A.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(10BR-2, 10BR-3, 8BR-2)B-1	WAYNE		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT NO.	
			TOTAL SHEETS	SHEET NO.
			140	137

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY
RIGHT OF WAY PLANS
FOR PROPOSED
FEDERAL AID HIGHWAY
FAS ROUTE 328 (US ROUTE 45)
SECTION (10BR-2, 10BR-3, 8BR-2)B-1
WAYNE COUNTY
JOB NO. R-97-005-06



SECTION (8BR-2)B-1
 STA. 882+00 TO
 STA. 895+00



SECTION (10BR-3)B-1
 STA. 406+00 TO
 STA. 415+00

STATION EQUATION
 405+00 BK =
 405+06.39 AH

SECTION (10BR-2)B-1
 STA. 378+00 TO
 STA. 391+00

© DISTRICT HEADQUARTERS

LOCATION OF SECTION INDICATED THUS:

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
SUBMITTED _____	20 _____
EXAMINED _____	20 _____
PASSED _____	20 _____
REVIEWED _____	20 _____
APPROVED _____	20 _____

DISTRICT ENGINEER
CHIEF OF PLATS AND PLANS
DISTRICT LAND ACQUISITION ENGINEER
CENTRAL BUREAU RIGHT OF WAY PLANS ENGINEER
ENGINEER OF LAND ACQUISITION

NET LENGTH OF PROJECT= 3500.00 LIN. FT. = 0.663 MILES

CONTRACT NO. 74040

c:\projects\view\74040\10104pa.dgn DATE*

T.1N.-R.7E., 3rd P.M., BEDFORD TWP.

10/22/2007 c:\projects\view\74040\p\0104pa.dgn

SW 1/4 SW 1/4
SEC. 26

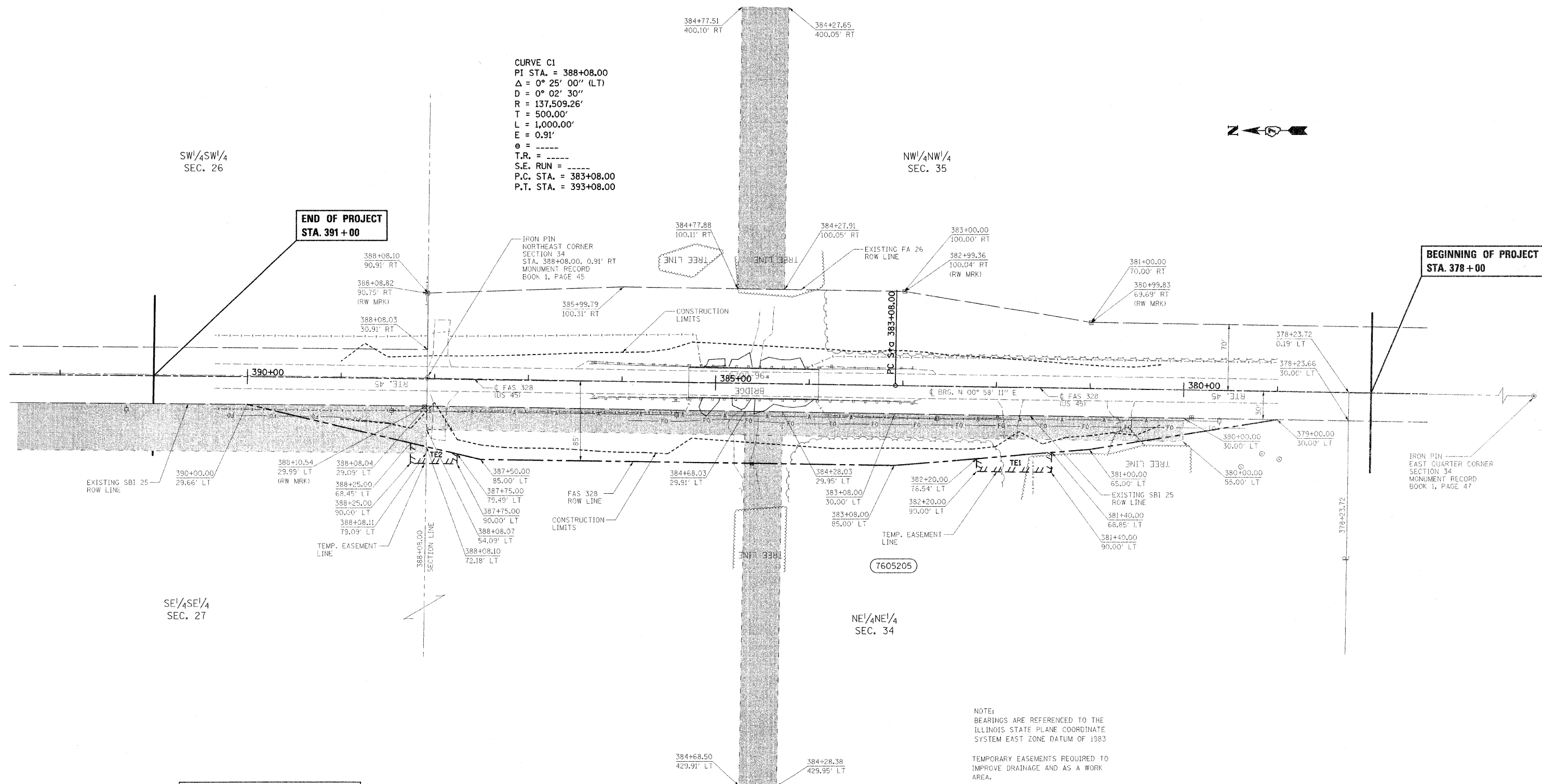
NW 1/4 NW 1/4
SEC. 35

CURVE C1
 PI STA. = 388+08.00
 Δ = 0° 25' 00" (LT)
 D = 0° 02' 30"
 R = 137,509.26'
 T = 500.00'
 L = 1,000.00'
 E = 0.91'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 383+08.00
 P.T. STA. = 393+08.00



**END OF PROJECT
STA. 391+00**

**BEGINNING OF PROJECT
STA. 378+00**



SE 1/4 SE 1/4
SEC. 27

NE 1/4 NE 1/4
SEC. 34

NOTE:
BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE DATUM OF 1983

TEMPORARY EASEMENTS REQUIRED TO IMPROVE DRAINAGE AND AS A WORK AREA.

UTILITIES:
 TELEPHONE- WABASH TELEPHONE COOP
 PETROLEUM- TRUNKLINE GAS CO.
 ELECTRICITY- AMEREN CIPS
 ELECTRICITY- WAYNE WHITE CO. ELEC.
 WATER- WESTERN WAYNE WATER DIST.
 FIBER OPTIC- VERIZON

- ⊙ - IRON PIN
- ⊠ - ROW MARKER
- (R) RECORDED DISTANCE
- SBI 25 BORROW PIT

PARCEL	OWNER	AREA TAKEN		EASEMENT	AREA REM	INST	RECORDED			EXCESS	
		ADD	EXIST				MICRO FILM NO	DATE	BOOK	PAGE	AREA
7605205	GRAINERY FARMS LLC TEMPORARY EASEMENT 1 TEMPORARY EASEMENT 2	1.016 AC.	1.213 AC.	0.050 AC. 0.032 AC. 0.018 AC.	103.781 AC.						

**RIGHT OF WAY PLANS
FAS ROUTE 328**
 PROJECT SECTION (10BR-2)B-1
 STATION 378+00 TO
 STATION 392+00
 COUNTY WAYNE
 SCALE 1"=50' SHEET 2 OF 4

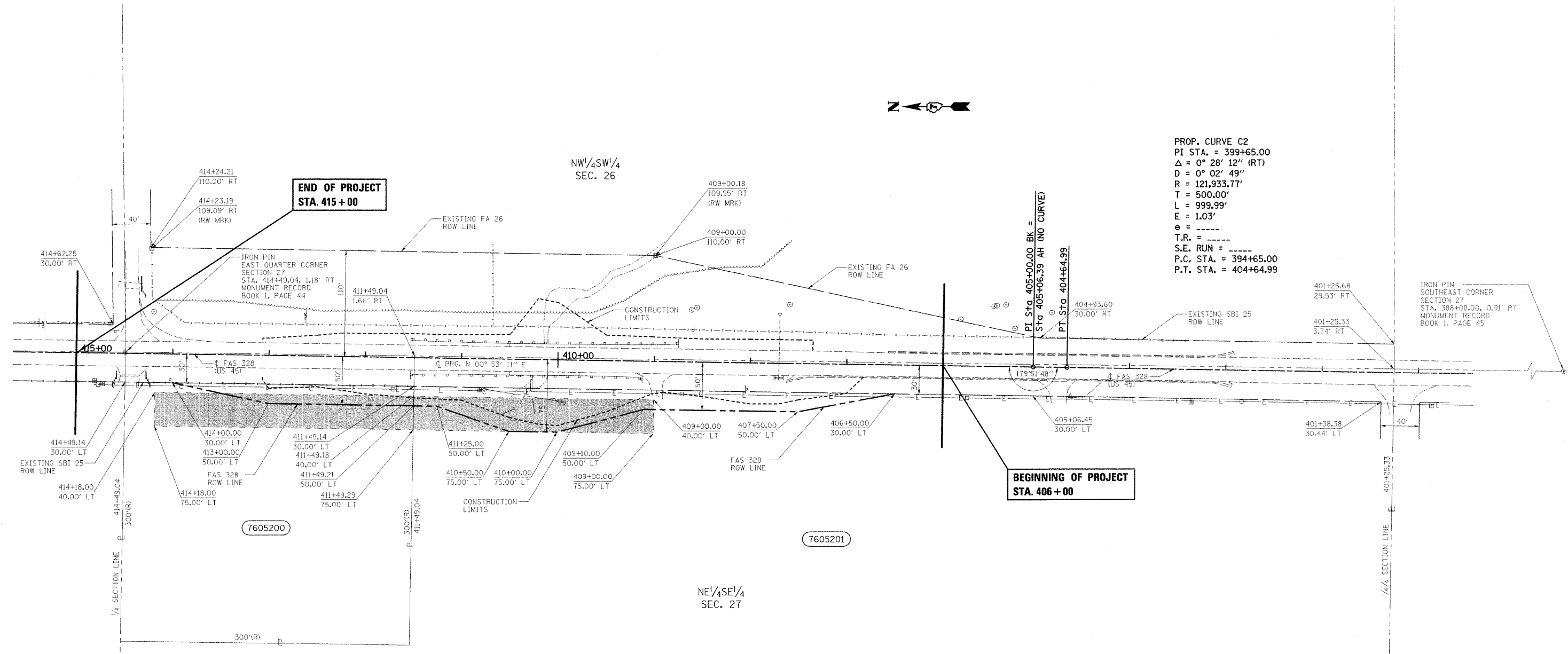
DRAWN BY
WRITTEN BY
CHECKED BY
INSPECTED BY

T.1N.-R.7E., 3rd P.M., BEDFORD TWP.

10/22/2007
c:\projects\view\740401\0104pa.dgn



PROP. CURVE C2
 PI STA. = 399+65.00
 Δ = 0° 28' 12" (RT)
 D = 0° 02' 49"
 R = 121,933.77'
 T = 500.00'
 L = 999.99'
 E = 1.03'
 e = ----
 T.R. = ----
 S.E. RUN = ----
 P.C. STA. = 394+65.00
 P.T. STA. = 404+64.99



NOTE:
 BEARINGS ARE REFERENCED TO THE
 ILLINOIS STATE PLANE COORDINATE
 SYSTEM EAST ZONE DATUM OF 1983

UTILITIES:
 TELEPHONE- WABASH TELEPHONE COOP
 PETROLEUM- TRUNKLINE GAS CO.
 ELECTRICITY- AMEREN CIPS
 ELECTRICITY- WAYNE WHITE CO. ELEC.
 WATER- WESTERN WAYNE WATER DIST.
 FIBER OPTIC- VERIZON

PARCEL	OWNER	AREA TAKEN		EASEMENT	AREA REM	INST	RECORDED				EXCESS		
		ADD	EXIST				MICRO FILM NO	DATE	BOOK	PAGE	AREA	SOLD	
7605200	RICHARD L. LANE ET. AL.	0.093 AC.	0.216 AC.		1.757 AC.								
7605201	DONALD E. AND GINNY L. BARRETT	0.282 AC.	0.763 AC.		21.689 AC.								

RIGHT OF WAY PLANS
FAS ROUTE 328
 PROJECT SECTION (10BR-3)B-1
 STATION 401+00 TO
 STATION 415+00
 COUNTY WAYNE
 SCALE 1"=50' SHEET 3 OF 4

DRAWN BY
 WRITTEN BY
 CHECKED BY
 INSPECTED BY

JOB NO. R-97-005-06

T.2N.-R.7E., 3rd P.M., KEITH TWP.

TOTAL SHEETS 140 SHEET NO. 140

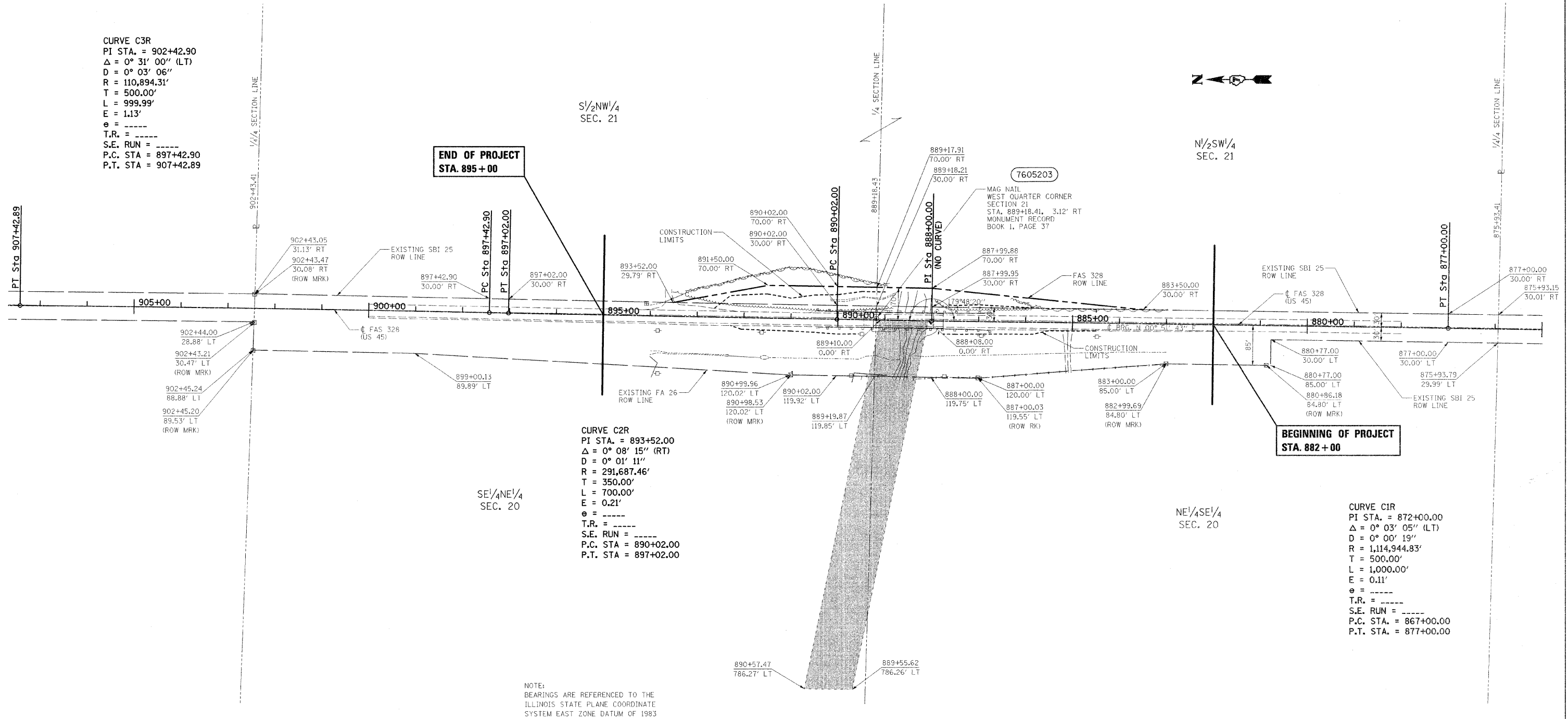
10/22/2007
c:\projects\view\740401\0104pa.dgn

CURVE C3R
 PI STA. = 902+42.90
 $\Delta = 0^\circ 31' 00''$ (LT)
 $D = 0^\circ 03' 06''$
 $R = 110,894.31'$
 $T = 500.00'$
 $L = 999.99'$
 $E = 1.13'$
 $e =$ -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA = 897+42.90
 P.T. STA = 907+42.89

S $\frac{1}{2}$ NW $\frac{1}{4}$
 SEC. 21



N $\frac{1}{2}$ SW $\frac{1}{4}$
 SEC. 21



CURVE C2R
 PI STA. = 893+52.00
 $\Delta = 0^\circ 08' 15''$ (RT)
 $D = 0^\circ 01' 11''$
 $R = 291,687.46'$
 $T = 350.00'$
 $L = 700.00'$
 $E = 0.21'$
 $e =$ -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA = 890+02.00
 P.T. STA = 897+02.00

SE $\frac{1}{4}$ NE $\frac{1}{4}$
 SEC. 20

NE $\frac{1}{4}$ SE $\frac{1}{4}$
 SEC. 20

**BEGINNING OF PROJECT
 STA. 882 + 00**

CURVE C1R
 PI STA. = 872+00.00
 $\Delta = 0^\circ 03' 05''$ (LT)
 $D = 0^\circ 00' 19''$
 $R = 1,114,944.83'$
 $T = 500.00'$
 $L = 1,000.00'$
 $E = 0.11'$
 $e =$ -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 867+00.00
 P.T. STA. = 877+00.00

NOTE:
 BEARINGS ARE REFERENCED TO THE
 ILLINOIS STATE PLANE COORDINATE
 SYSTEM EAST ZONE DATUM OF 1983

UTILITIES:
 TELEPHONE- WABASH TELEPHONE COOP
 PETROLEUM- TRUNKLINE GAS CO.
 ELECTRICITY- AMEREN CIPS
 ELECTRICITY- WAYNE WHITE CO. ELEC.
 WATER- WESTERN WAYNE WATER DIST.
 FIBER OPTIC- VERIZON

PARCEL	OWNER	AREA TAKEN		EASEMENT	AREA REM	INST	RECORDED				EXCESS		
		ADD	EXIST				MICRO FILM NO	DATE	BOOK	PAGE	AREA	SOLD	

**RIGHT OF WAY PLANS
 FAS ROUTE 328**
 PROJECT SECTION (8BR-2)B-1
 STATION 876+00 TO
 STATION 907+00
 COUNTY WAYNE
 SCALE 1"=100' SHEET 4 OF 4

DRAWN BY
 WRITTEN BY
 CHECKED BY
 INSPECTED BY

JOB NO. R-97-005-06