

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
94/90	*	COOK	556	301
FED. ROAD DIST. NO.	FED. AID PROJECT			
		62300 * (1818, ETC, 2324.6-1P1R-8)		

GENERAL NOTES

SPECIFICATIONS:

- DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") (2)
- CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")
- LOADING: 80 M.P.H. WIND VELOCITY PLUS 30% GUST FACTOR
WIND LOADING: 35 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.
- MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)
- WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.
- MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50.).
- HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.
- GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.
- ANCHOR RODS: All threaded rod conforming to ASTM A307, 3/4" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- Bracket spacing $g \leq 6'-0"$ max. Spacing shall be uniform if possible but may vary $\pm 6"$ to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
 - Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
 - Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (c_w , d_w) unless otherwise specified.
- For Safety Chain Details and Details D, F and G, see Base Sheet BM-4 Special.
(4) If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4 Special.

NUMBER	REVISION	DATE
△	ADDENDUM 1	8/21/05

TOTAL BILL of MATERIAL

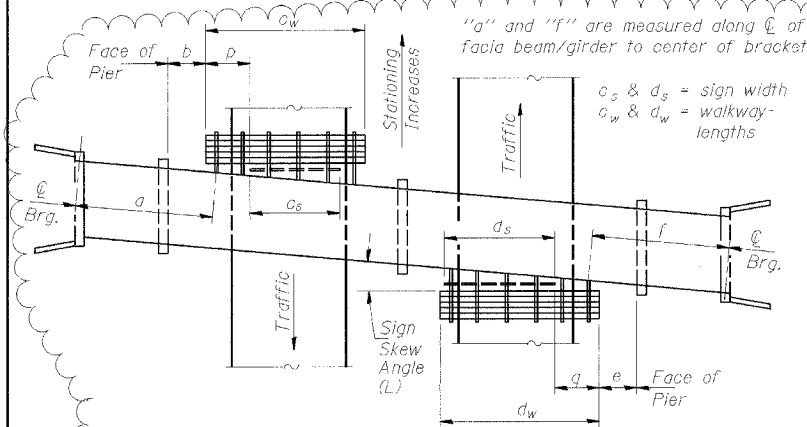
③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	332
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SGN-21

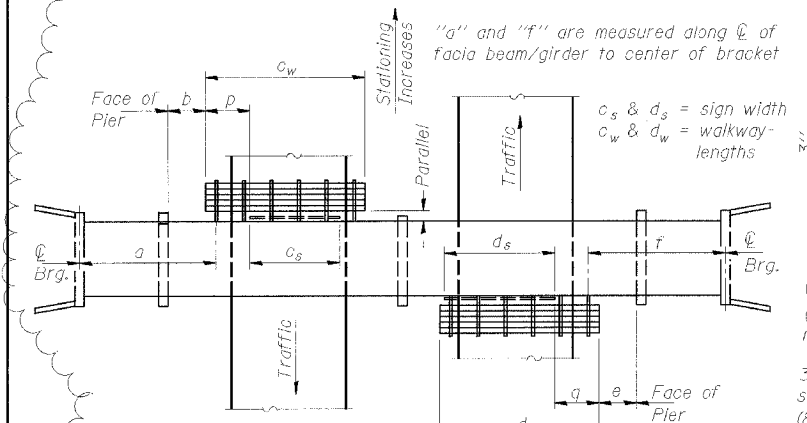
BRIDGE MOUNT SIGN STRUCTURES
GENERAL PLAN AND ELEVATION

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)

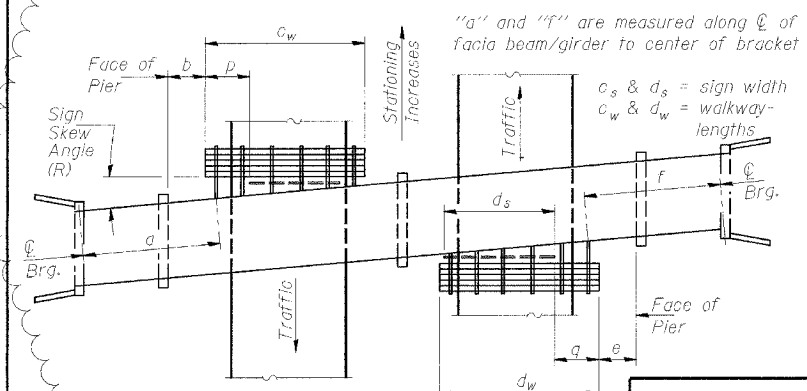
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
BRIDGE MOUNT SIGN STRUCTURES
GENERAL PLAN AND ELEVATION



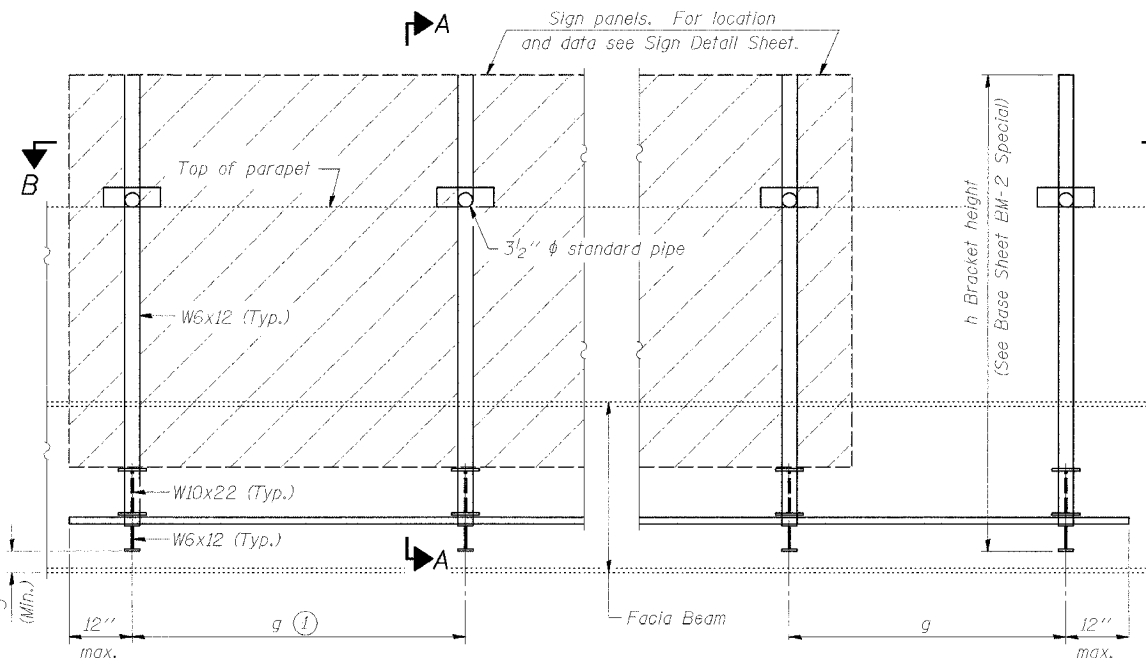
PLAN
(Left Sign Skew > 15°)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



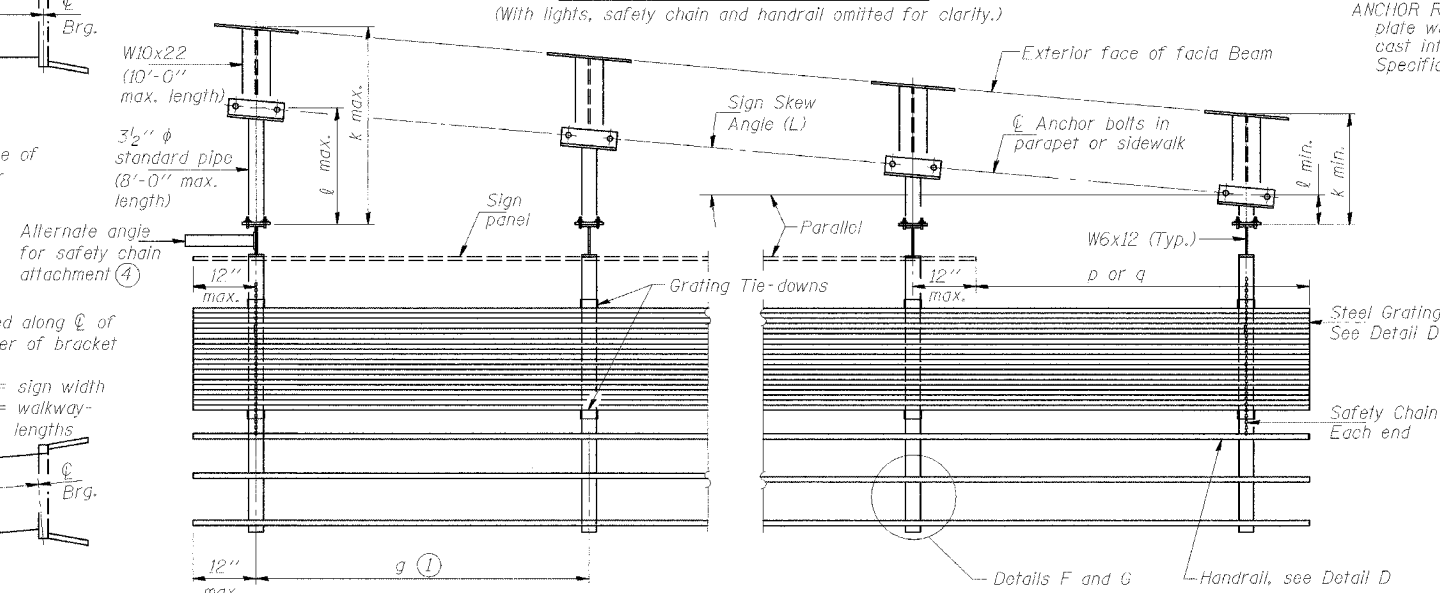
PLAN
(For Sign Skew $\leq 15^\circ$, all brackets constant)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



PLAN
(Right Sign Skew > 15°)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



TYPICAL FRONT ELEVATION
(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B
(Shown: Left Sign Skew > 15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c _s	c _w	d _s	d _w	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Handrail Lengths (c _w + d _w)
IB0161094L055.73	0	4582+26±	016-0398	I-94	-	-	-	-	23'/17.5'	56'	7'	67.37'	5'-3"/5'-2"	12	-	9.5'	56'
IB0161094L054.97	0	4622+31±	016-1158	I-94	-	-	-	-	23'/17.5'	52'	7'	113.83'	5'-3"/5'-2"	11	-	9.5'	52'
IB0161094L054.72	0	4635+47±	016-1159	I-94	-	-	-	-	23'/17.5'	56'	6.92'	117.3'	5'-3"/5'-2"	12	-	9.5'	56'
IB0161094L057.2	(L)1°24'0"	2501+77.65	016-1157	I-94	-	-	-	-	16/30	56'	2.75'	53.75'	5'-6"	11	-	5.5'	56'
IB0161094L057.8	(R)10°16'30"	2474+11.88	016-1152	I-94	-	-	-	-	16/30	56'	2.5'	-	5'-6"	11	-	5.5'	56'
IB0161094L056.7	(R)14°36'25"	4528+51.01	016-1156	I-94	-	-	-	-	16/30	56'	2.5'	-	5'-6"	11	-	5.5'	56'

Dimensions a, b, e, f & g may vary as approved by the Engineer, see (1).
When $c_w < c_s$ and/or $d_w < d_s$, use alternate brackets without walkway supports where applicable, see (3).

DESIGNED	RLK	20
CHECKED	EL	EXAMINED
DRAWN	ABW	PASSED
CHECKED	PJM	ENGINEER OF BRIDGES AND STRUCTURES

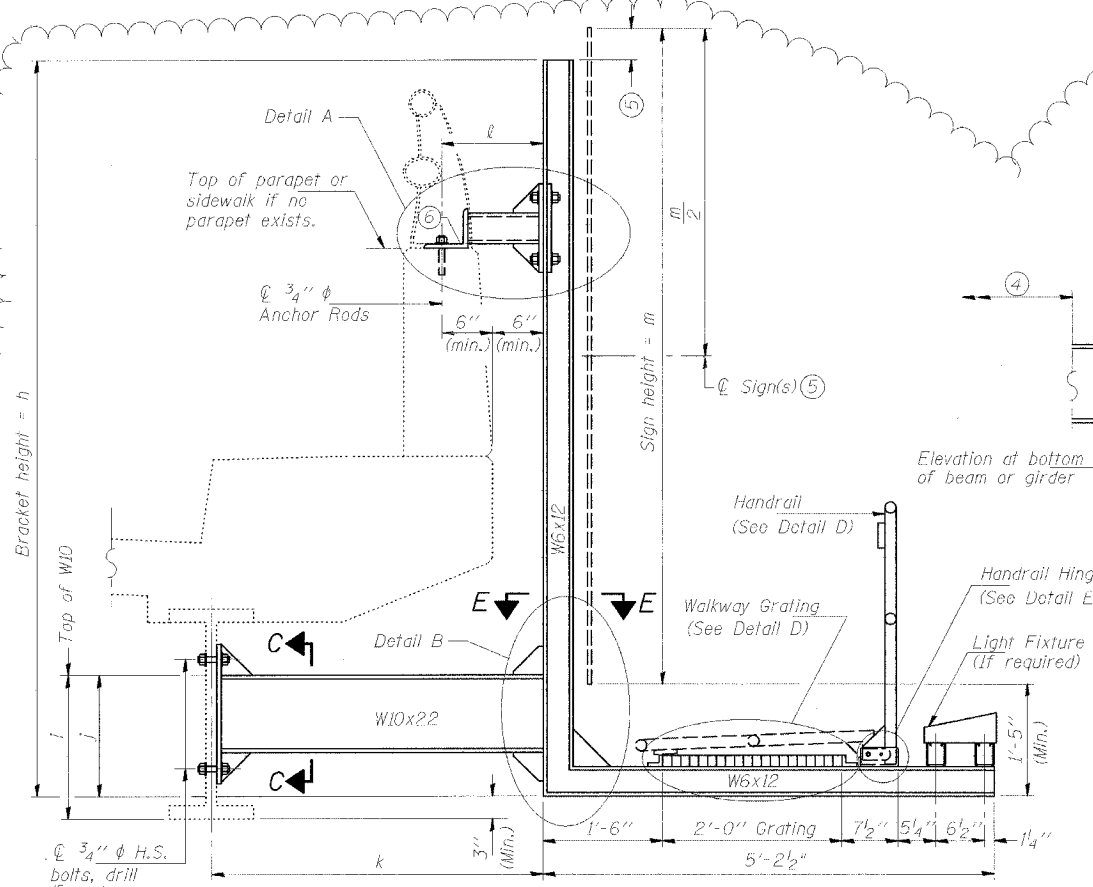
BM-1 Special 1/7/05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

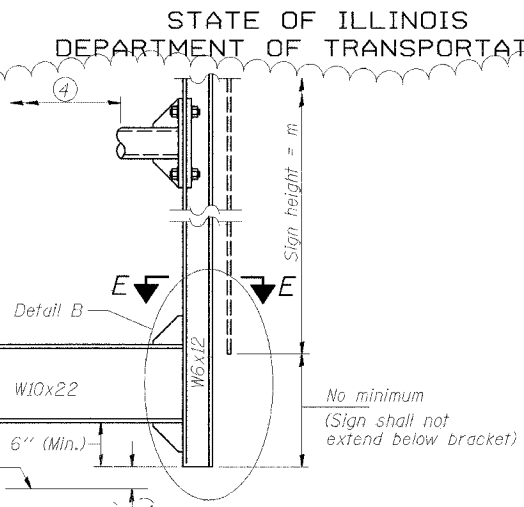
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	302
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. - SHEETS

62300 *11818, ETC, 2324.6-IPR-8

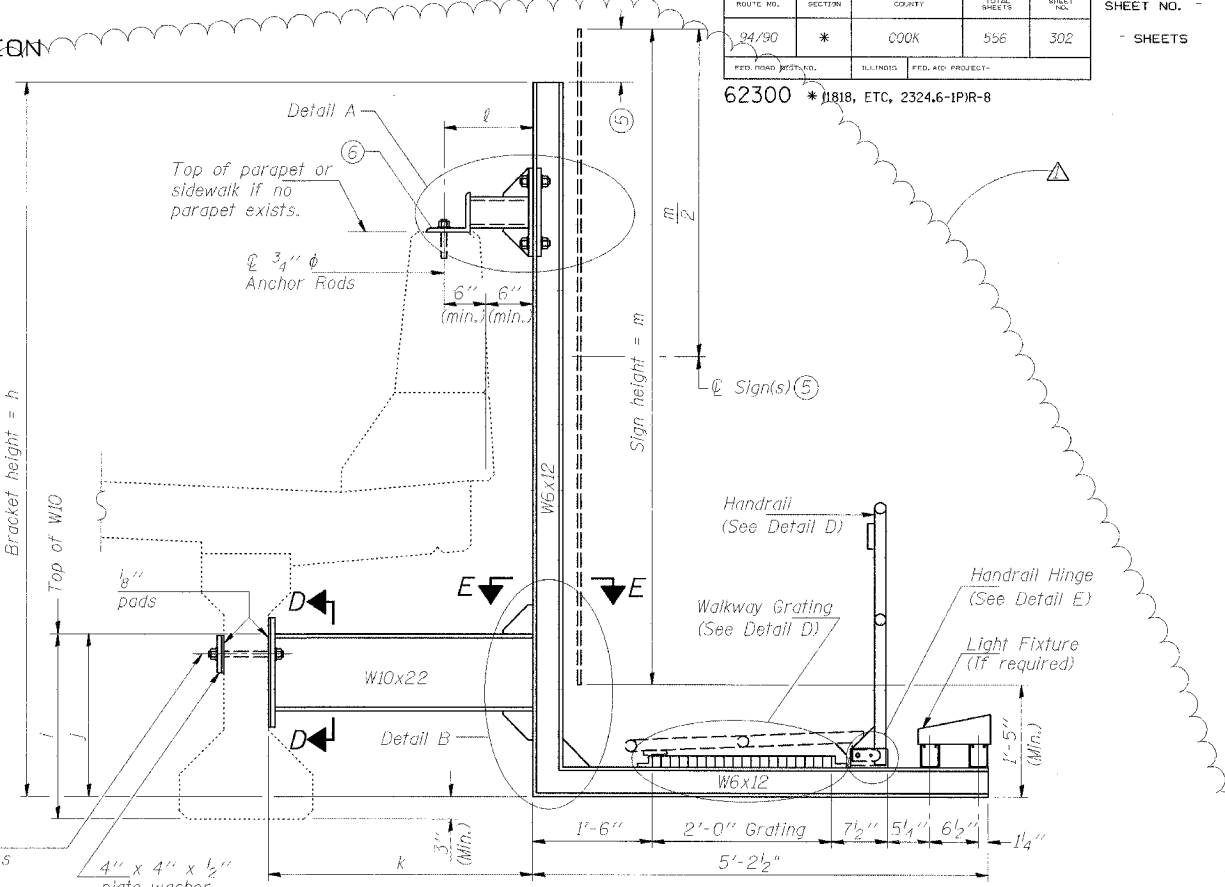


SECTION A-A
Details for mounting to steel beam or girder
& Details for mounting with existing parapet mounted rail



SECTION A-A
Alternate with no lights or walkways

(4) For attachment details of 3/2" pipe and W10x22, see other sections as applicable.



SECTION A-A
Details for mounting to PPC I Beam or Bulb "T"
& Details for mounting to parapet w/o rail

NOTES:
Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.
Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.
All holes in bridge beams or girders should be located in the middle half of the member's depth. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.
The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

(5) Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
(6) For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

Structure Number	Station	h	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
IB0161094L055.73	4562+26±	14.92'	1.69'	1.44'	3.64'	1.13'	14'
IB0161094L054.97	4622+31±	14.92'	1.69'	1.44'	3.50'	1.09'	14'
IB0161094L054.72	4635+47±	14.92'	1.81'	1.56'	3.50'	1.09'	14'
IB0161094L057.2	2501+77.65	13.5'	1.5'	1.75'	3'-8"	1'-1"	12.5'
IB0161094L057.8	2474+11.88	13.5'	1.5'	1.75'	3'-7"	1'-1"	12.5'
IB0161094L056.7	4528+51.01	13.5'	1.5'	1.75'	3'-1"	1'-1"	12.5'

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM 3 Special.
For Details D & E, see Base Sheet BM 4 Special.

- Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6" min. Minimize spalling during field drilling of existing beams.
- For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6" min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.

DESIGNED	RLK	20
CHECKED	EL	EXAMINED
DRAWN	ABW	PASSED
CHECKED	PJM	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE
1	ADDENDUM 1	8/21/05

BM-2 Special 1/7/05

SGN-22

**BRIDGE MOUNT SIGN STRUCTURES
WALKWAY AND CONNECTION DETAILS**

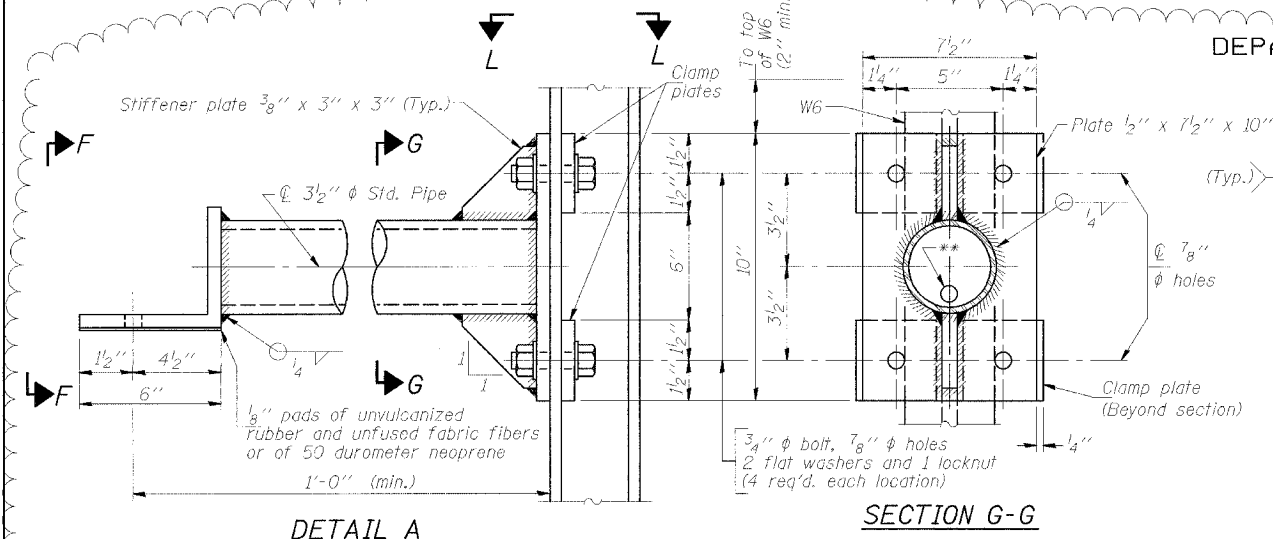
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)

31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION

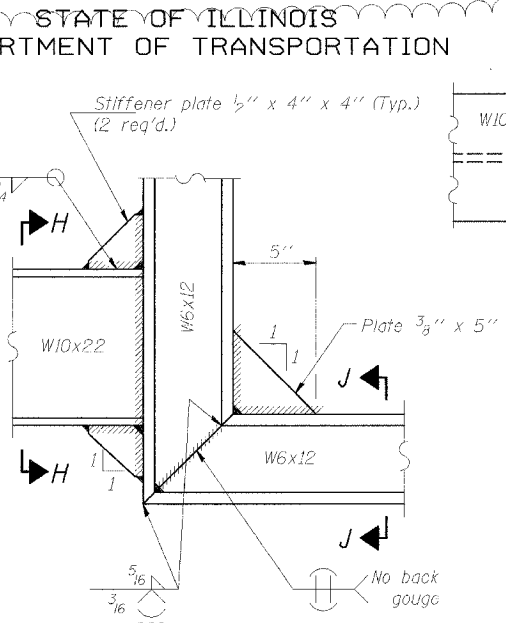
**BRIDGE MOUNT SIGN STRUCTURES
WALKWAY AND CONNECTION DETAILS**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEETS
94/90	*	COOK	556	303	-
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

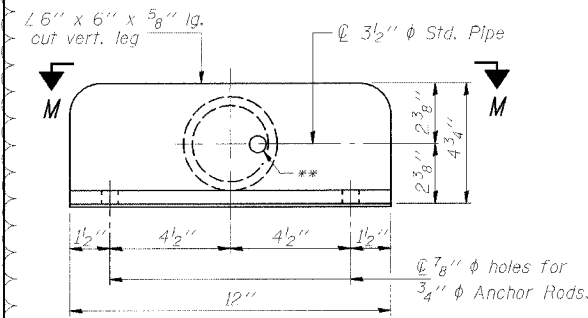
62300 * (1818, ETC, 2324.6-IPR-8)



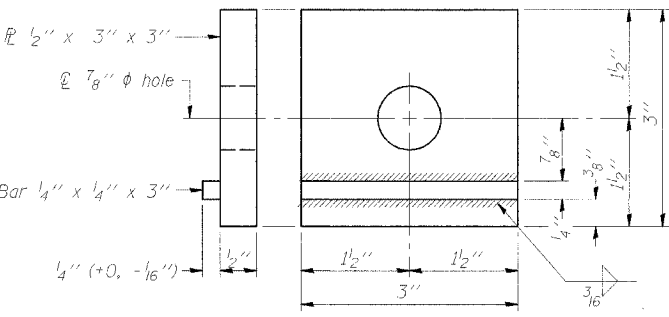
DETAIL A



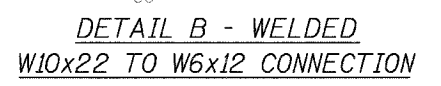
SECTION G-G



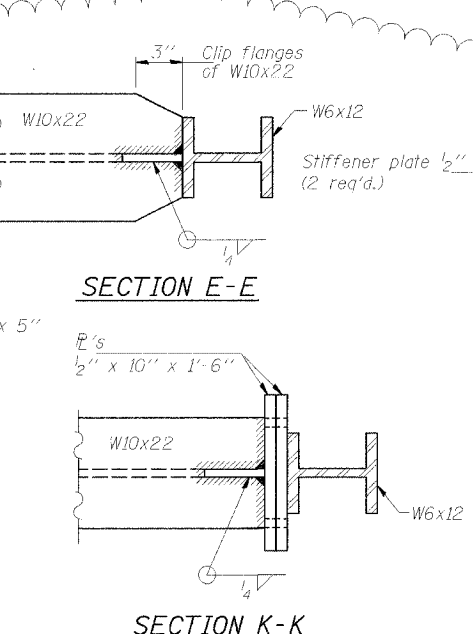
VIEW F-F



CLAMP PLATE DETAILS

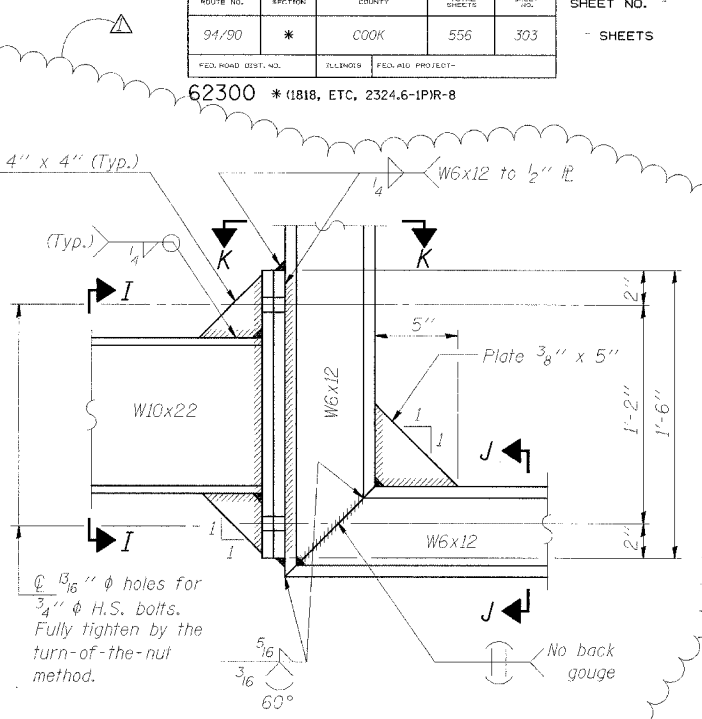


DETAIL B - WELDED
W10x22 TO W6x12 CONNECTION



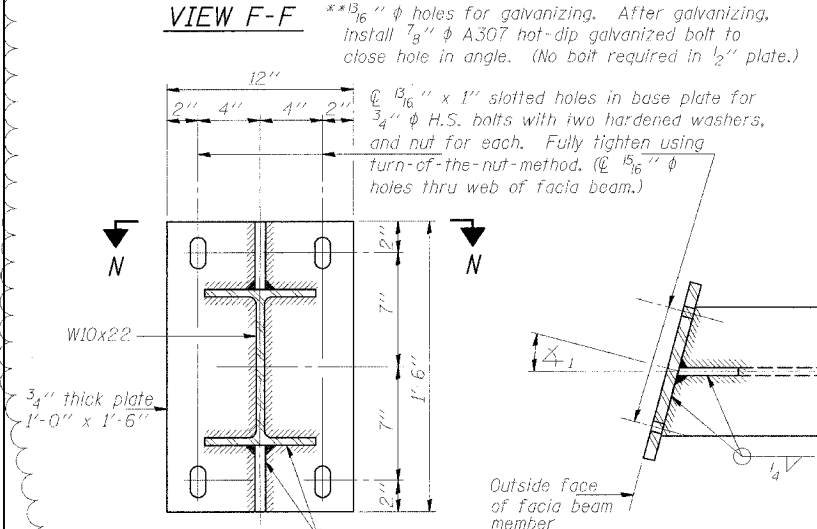
SECTION E-E

SECTION K-K



DETAIL B - ALTERNATE BOLTED
W10x22 TO W6x12 CONNECTION

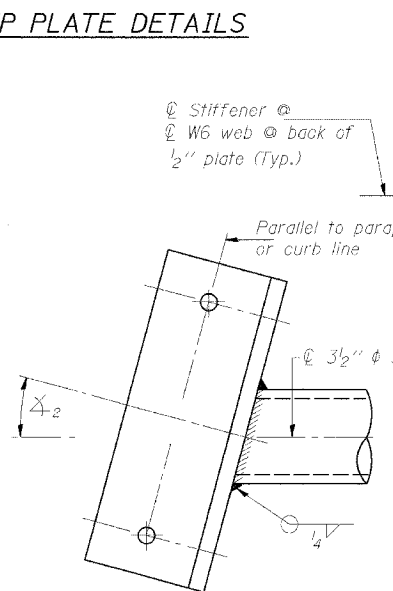
Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.



SECTION C-C

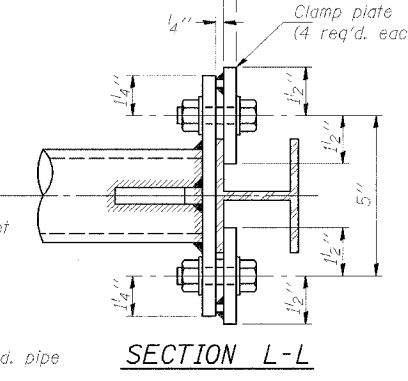
Steel beam or girder connection plate details

Note: For constant slab overhang at fascia beam, $\alpha_1 = \alpha_2 =$ sign angle. For flared beams or other special cases where $\alpha_1 \neq \alpha_2$, $\alpha_1 =$ sign angle.

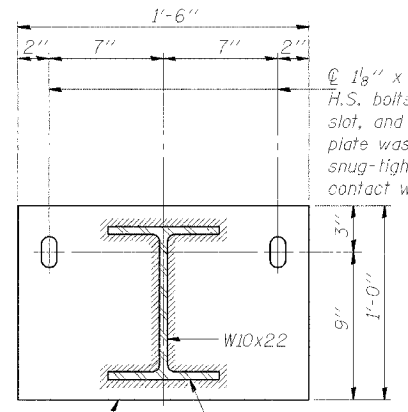


SECTION M-M

Skewed connection detail for 3/2" pipe to parapet.

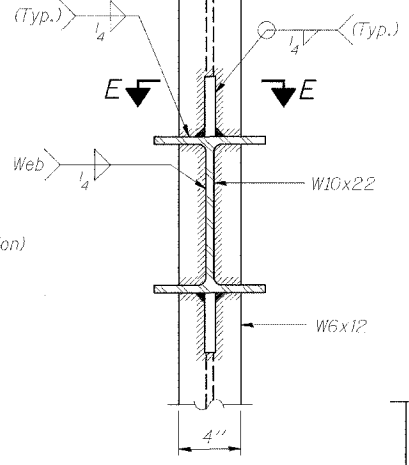


SECTION L-L

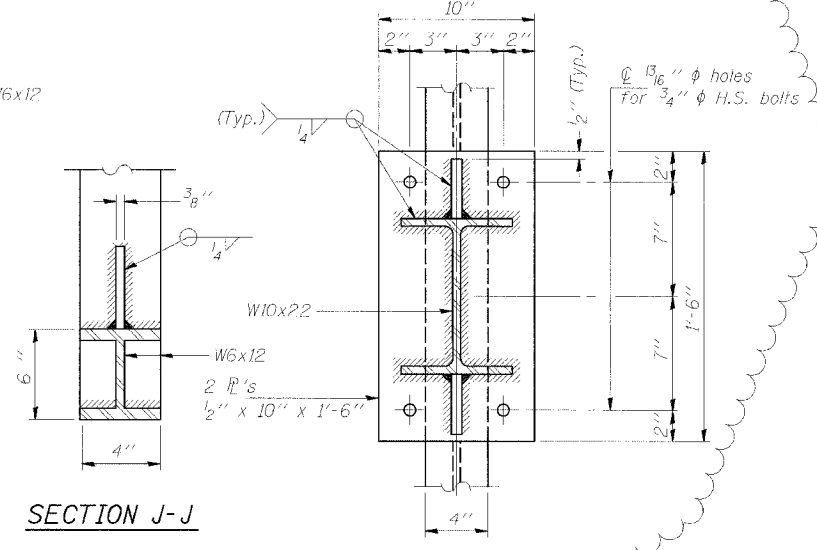


SECTION D-D

Concrete beam or girder connection plate details.



SECTION H-H



SECTION J-J

SECTION I-I

DESIGNED	RTK
CHECKED	EL
DRAWN	ABW
CHECKED	PJM

EXAMINED	20
PASSED	

NUMBER	REVISION	DATE
1	ADDENDUM 1	8/21/05

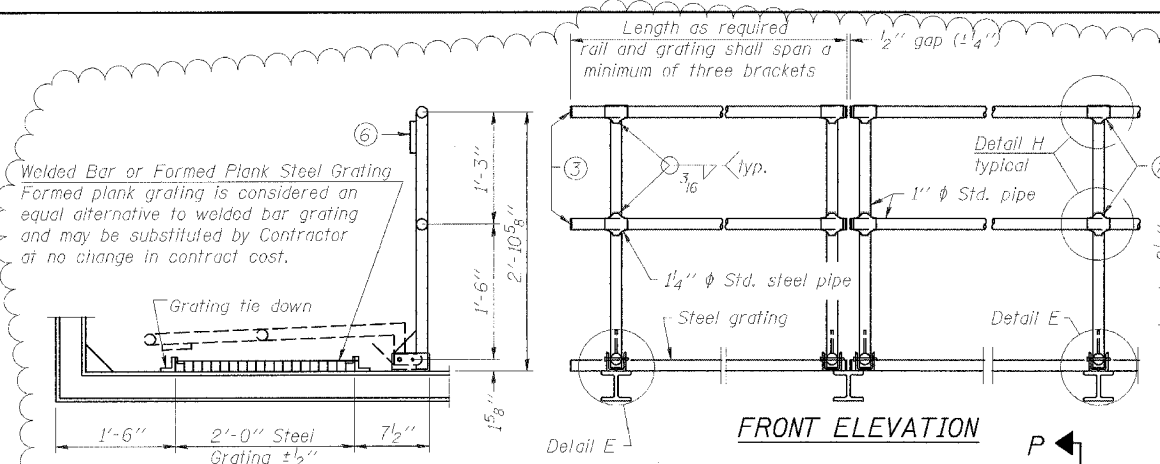
BM-3 Special 1/7/05

BRIDGE MOUNT SIGN STRUCTURES
CONNECTION DETAILS
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
BRIDGE MOUNT SIGN STRUCTURES
CONNECTION DETAILS

SGN-23

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

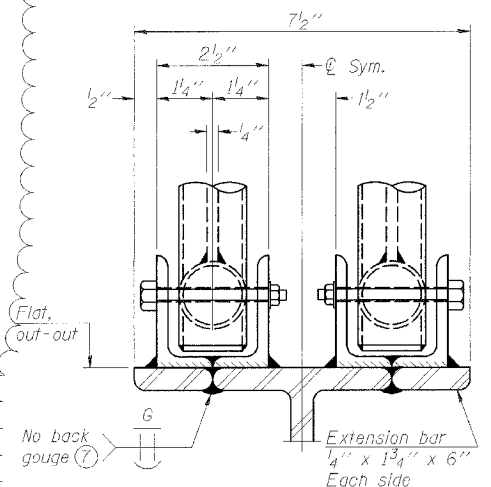
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
94/90	*	COOK	556	304
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT-				



SIDE ELEVATION

DETAIL D HANDRAIL

SECTION P-P



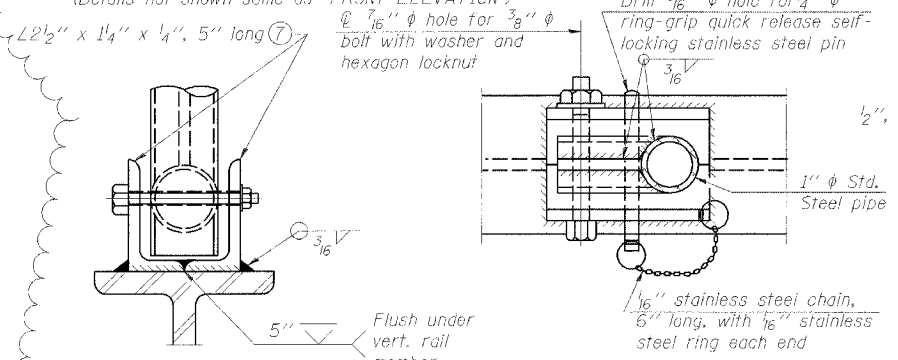
ELEVATION AT HANDRAIL JOINT

SIDE ELEVATION

SAFETY CHAIN ATTACHMENT

GRATING CONTINUOUS AT GRATING SPLICE

VIEW W-W



FRONT ELEVATION

PLAN AT SINGLE HANDRAIL HINGE

DETAIL E

PLAN AT HANDRAIL JOINT

SECTION F-F LIGHTING FIXTURE MOUNTS

NOTES

SAFETY CHAIN

One (1) required for each end of each walkway.

NUMBER	REVISION	DATE
1	ADDENDUM 1	8/21/05

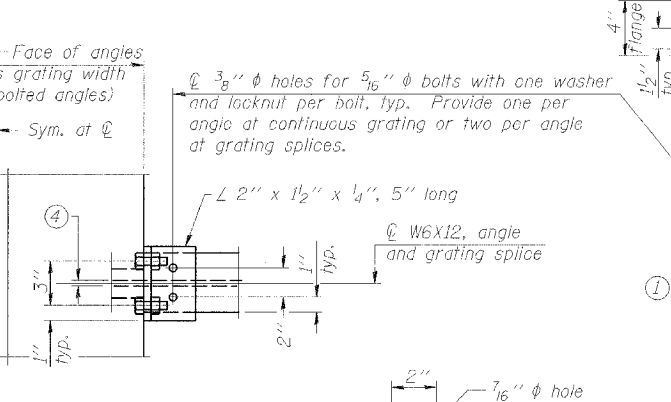
DESIGNED RLK	20
CHECKED EC	EXAMINED
DRAWN ABW	PASSED
CHECKED PJM	ENGINEER OF BRIDGES AND STRUCTURES

BM-4 Special 1/7/05

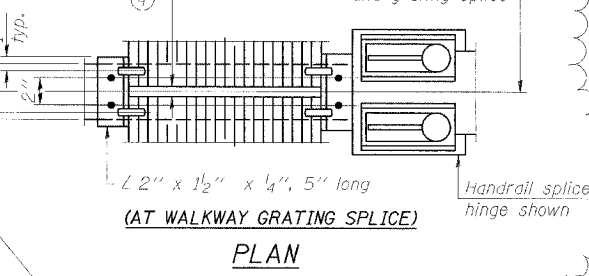
- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment. Field drilled holes must be touched up with galvanized paint.
- Horizontal rail member shall be continuous thru 1 1/4" φ pipe. Provide 7/16" φ hole in fitting for 3/8" φ bolt. Field drill 7/16" φ hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/8" eyebolts in 1/2" φ holes on top rail at ends only.)
- Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends.)
- 3/8" (± 1/4") gap between grating panels at splice.
- Chain to be hot dip galvanized after manufacture or stainless steel suitable for prolonged exterior exposure. Approximately 3'-6" long chain per location. Maximum sag with handrail erected = 4".
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Extrusions may be used in lieu of details shown, with approval by Engineer.
- Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

ALTERNATE FORMED PLANK GRATING DETAILS

Plank Grating: nominal depth = 2 1/2" (± 1/2"); perforated or expanded steel sheet with a non-skid surface (non-serrated) concentrated load capacity = 500 lbs. with 6'-0" clear span.

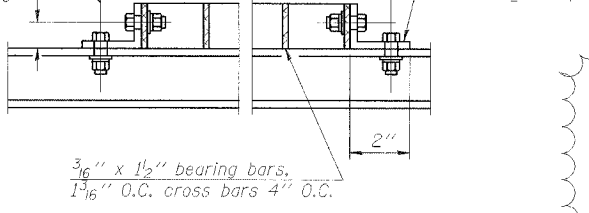


WALKWAY GRATING CONTINUOUS



AT WALKWAY GRATING SPLICE

PLAN



WELDED BAR GRATING DETAILS

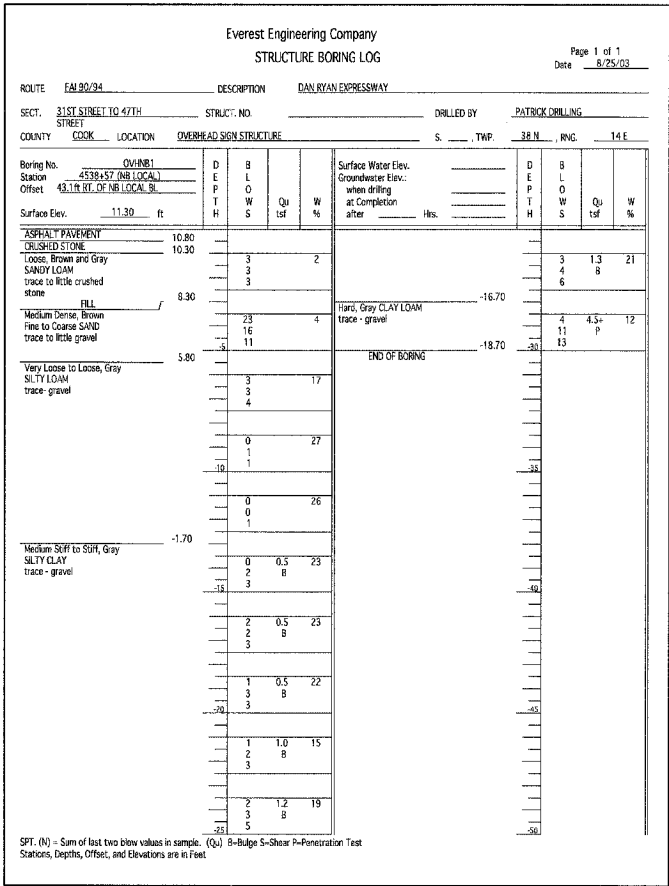
DETAIL F

DETAIL G

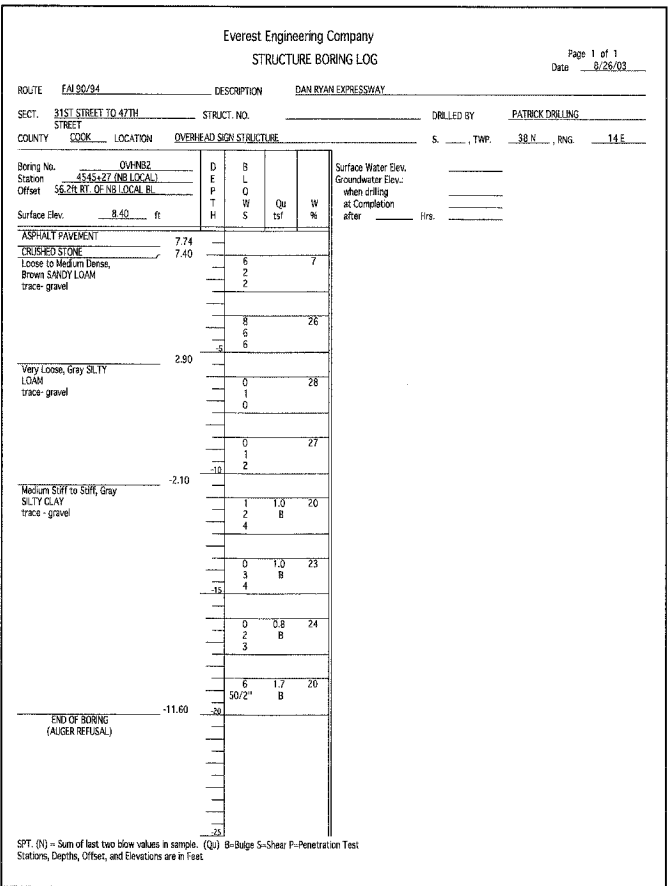
BRIDGE MOUNT SIGN STRUCTURES
WALKWAY DETAILS

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
OVERHEAD SIGN STRUCTURES
(BRIDGE MOUNTED)

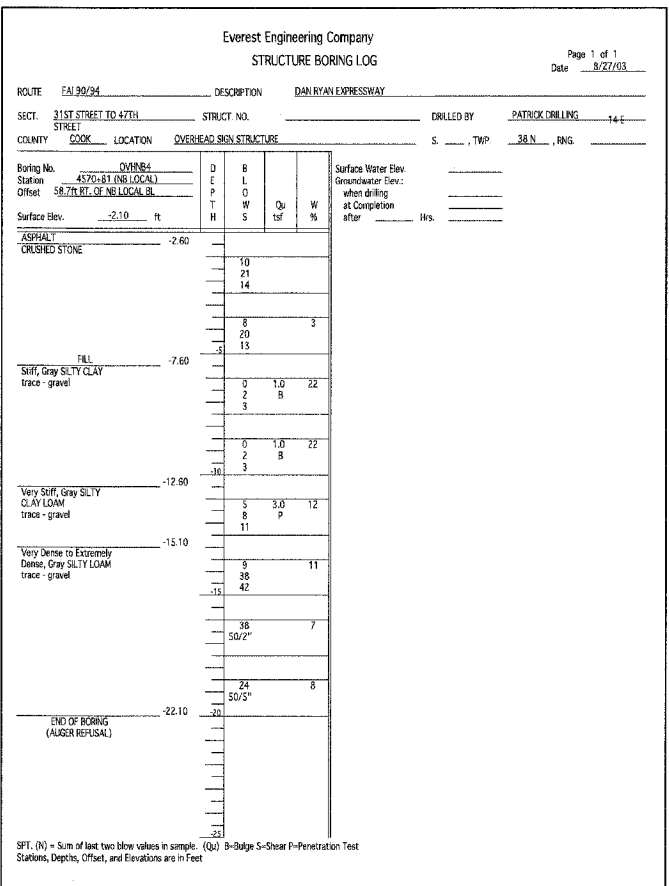
SGN-24



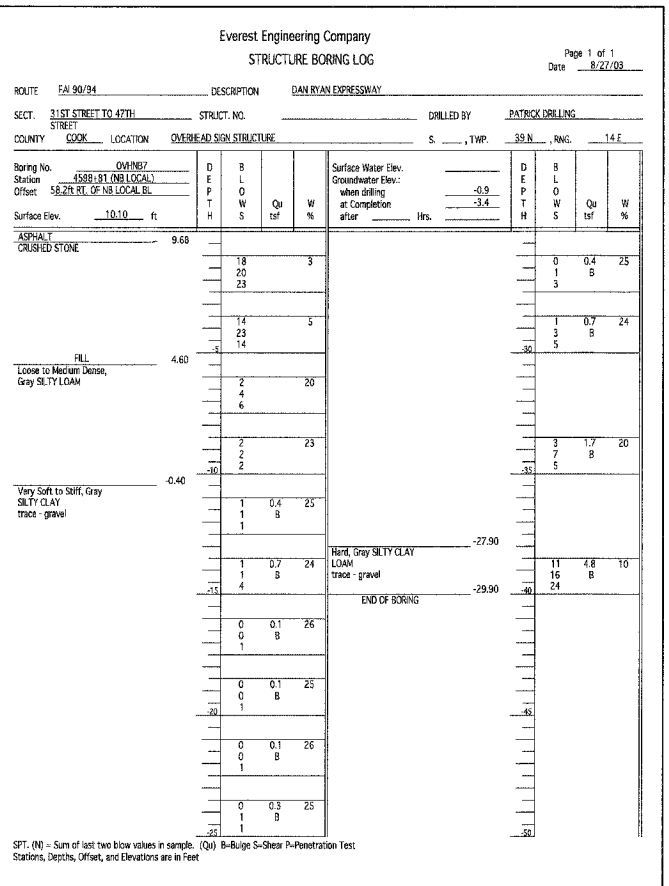
OVHNB1



OVHNB2



OVHNB4



OVHNB7

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
OVERHEAD SIGN STRUCTURES
SOIL BORING LOGS

SCALE: NTS
DATE: 07/07/05
DRAWN BY: MTR
CHECKED BY: JDC

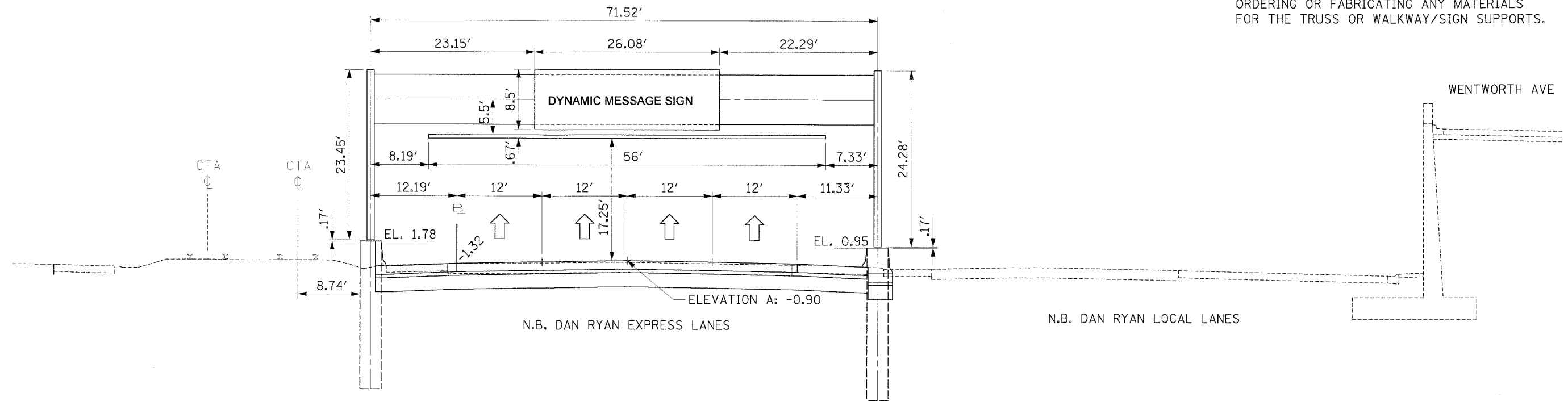
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	COOK	556	307
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
		• (1818, ETC, 2324.6-1)R-8	

62300

NOTES:

1. DYNAMIC MESSAGE SIGN WILL BE INSTALLED IN ANOTHER CONTRACT. COORDINATE WITH CONTRACT 62583 FOR LOCATION, TYPE, AND ORIENTATION OF HARDWARE AND CONDUIT.
2. THE FABRICATOR SHALL COORDINATE WITH THE MANUFACTURER OF THE DYNAMIC MESSAGE SIGN (DMS) TO DETERMINE THE ACTUAL SIZE, WEIGHT AND MOUNTING DETAILS OF THE DMS BEFORE ORDERING OR FABRICATING ANY MATERIALS FOR THE TRUSS OR WALKWAY/SIGN SUPPORTS.



1S016I094L058.0
MOUNTING DETAIL
PROPOSED OVERHEAD SIGN STRUCTURE
FOR DYNAMIC MESSAGE SIGN
STA. 2461+51.44/4461+50 N.B. I-90/94
LOOKING NORTH

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 90/94 (DAN RYAN EXPRESSWAY) 31st STREET TO 71st STREET (NB Express Lanes)
NAME	DATE	
		PROPOSED DYNAMIC MESSAGE SIGN INSTALLATION
		SCALE: NONE
		DATE: JULY 7, 2005
		DRAWN BY: SWANG
		CHECKED BY: JAL

CTE | AECOM

CTE
300 East Wacker Drive, Suite 400, Chicago, Illinois 60601-3176
312.438.0300 F 312.438.0305 www.cteaecom.com

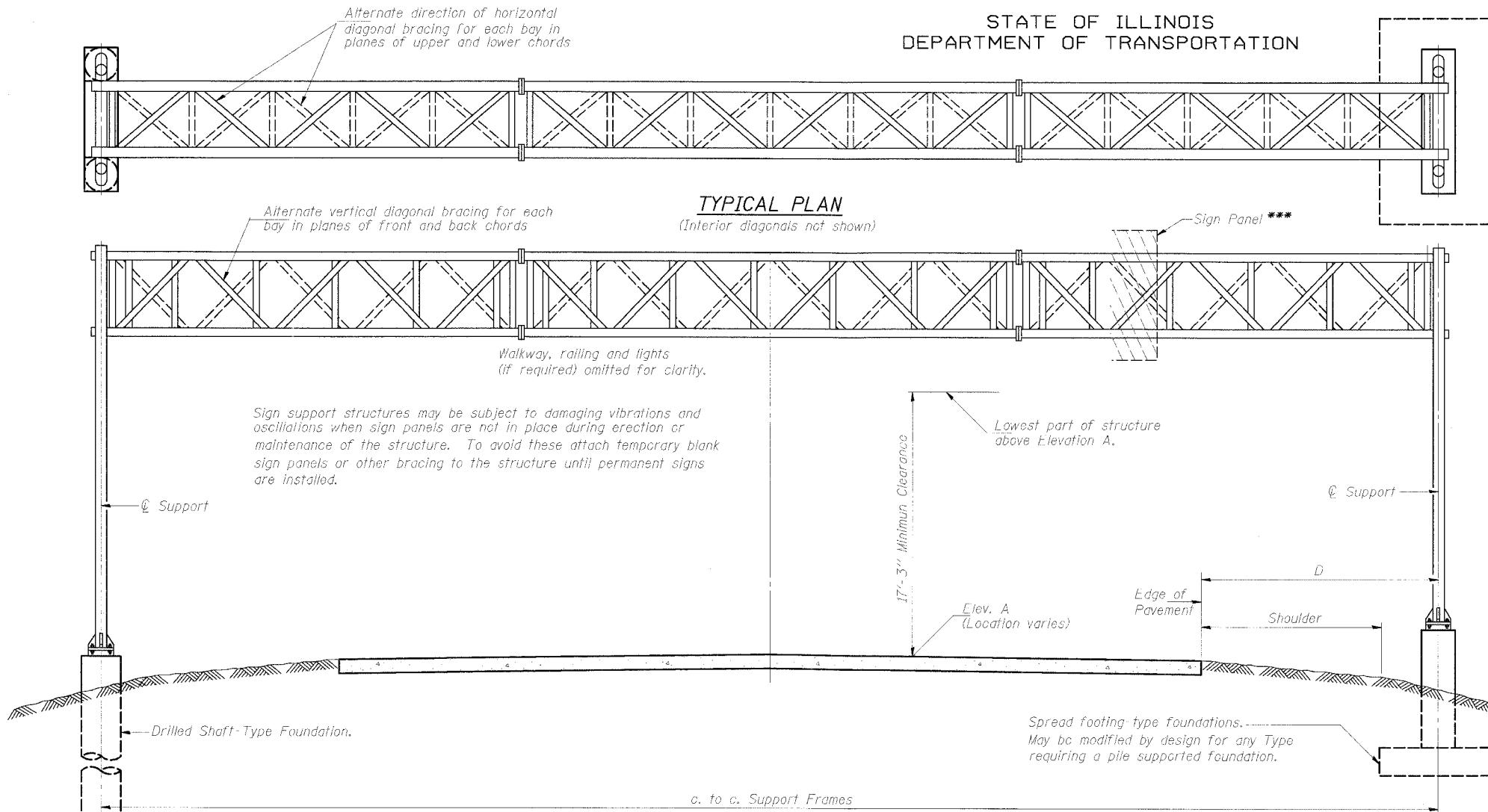
6/24/2005 2:20:01 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	PROJECT	SHEET	SHEET NO.
90/94	*	COOK	556	308
ILLINOIS		FED. AID PROJECT		
* (1818, ETC, 2324.6-1P) R-8		62300		

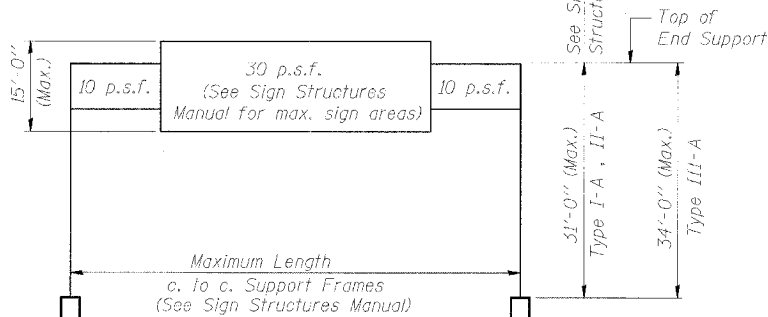
GENERAL NOTES

- DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")
- CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")
- LOADING: 90 M.P.H. WIND VELOCITY
WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.
- DESIGN STRESSES:
Field Units
 $f' = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (reinforcement)
- WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.
- MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.
- FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04(f) of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.
- U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.
- GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after Fabrication in accordance with AASHTO M111. Painting is not permitted.
- ANCHOR RODS: Shall conform to AASHTO M314 Gr. 36 or 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.
- CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.
- REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.



TYPICAL ELEVATION
(Looking at Face of Signs)**

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total*** Sign Area
ISO161094L058.0	2461+51.44	III-A	71.52'	-0.90	12.19' L 11.33' R	8.5'	221.7 SF



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

**Looking upstation for structures with signs both sides.
***A DYNAMIC MESSAGE SIGN (DMS) WILL BE INSTALLED ON THIS TRUSS IN CONTRACT 62583

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE TYPE I-A (4'-0" x 4'-6")	Foot	
OVERHEAD SIGN STRUCTURE TYPE II-A (4'-6" x 5'-3")	Foot	
OVERHEAD SIGN STRUCTURE TYPE III-A (5'-0" x 7'-0")	Foot	71.6
OVERHEAD SIGN WALKWAY TYPE A	Foot	56
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	38.3

NUMBER	REVISION	DATE

DESIGNED - SWANG	20
CHECKED - JAL	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-1 11/1/2002

OVERHEAD SIGN STRUCTURES
GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL SUPPORTS

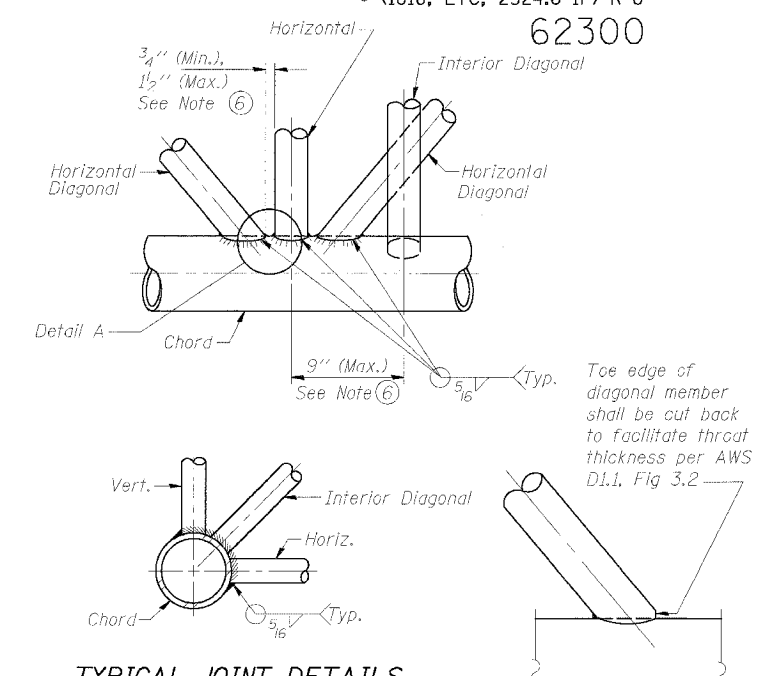
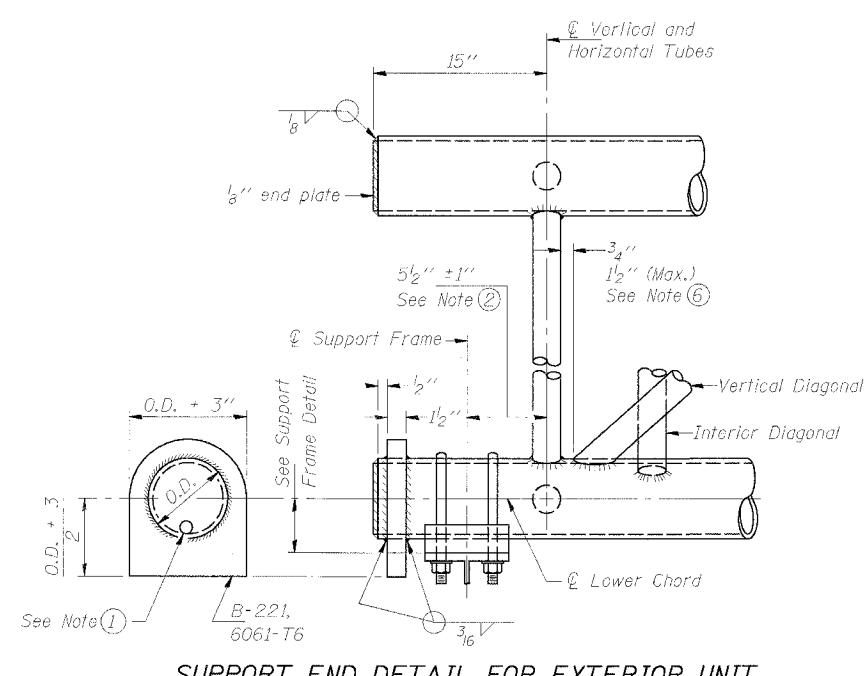
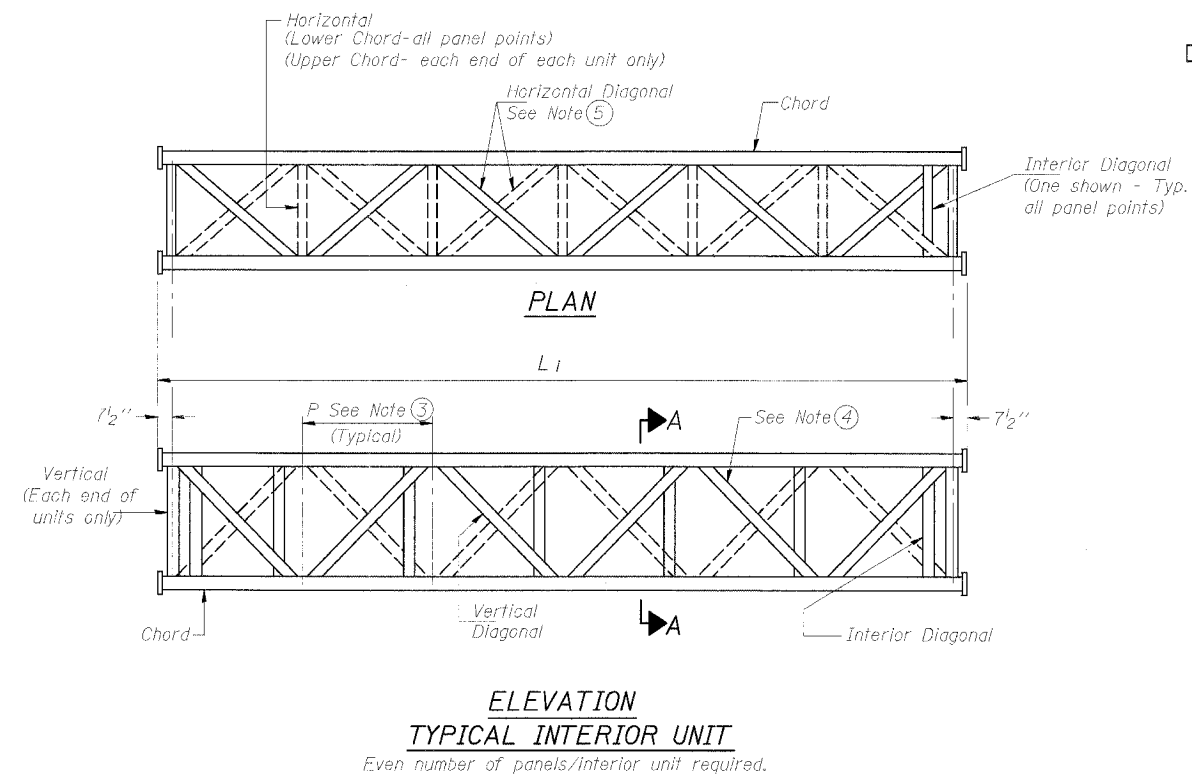
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

6/24/2005 2:02:22 PM

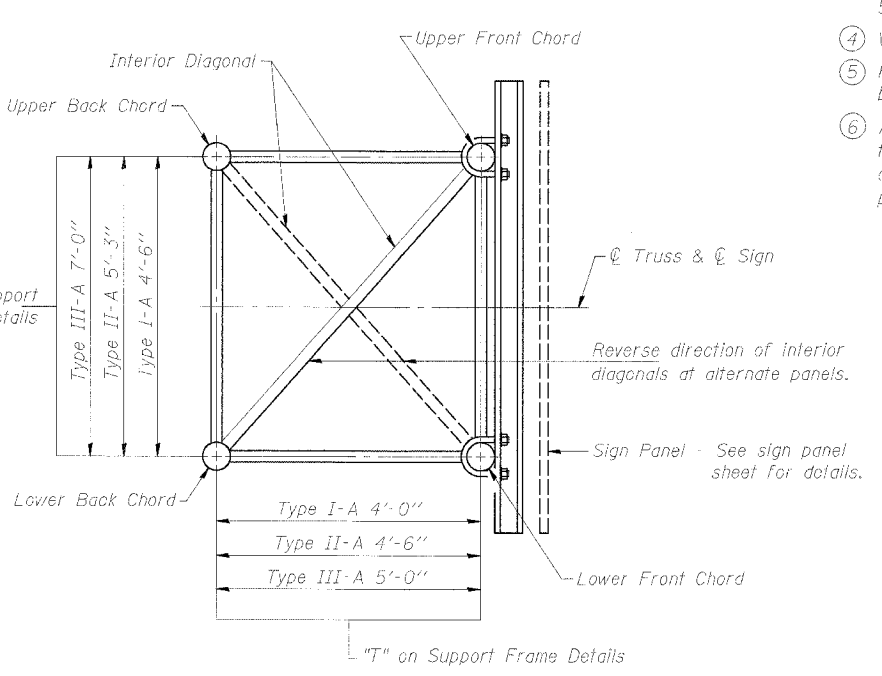
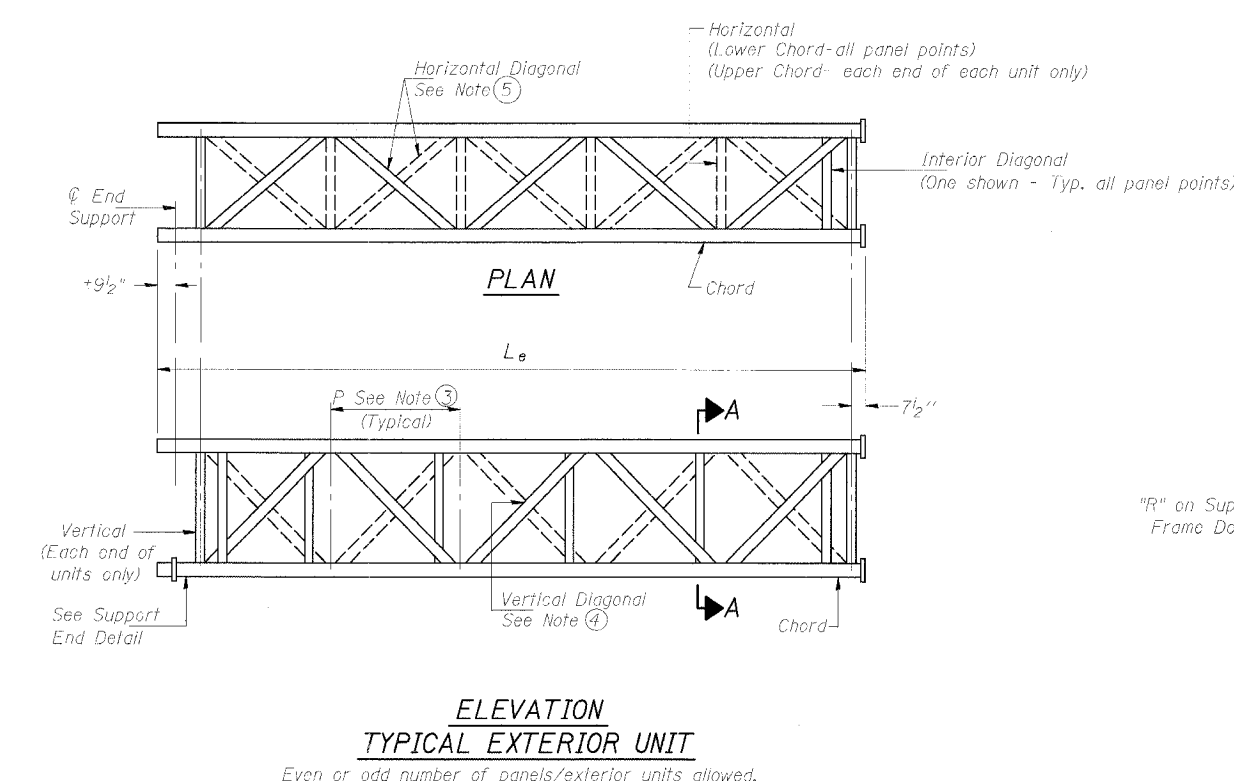
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN NO.	SECTION	COUNTY	SHEET	SHEET NO.
90/94	*	COOK	556	309
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT	
* (1818, ETC, 2324.6-1P) R-8				

62300



- NOTES**
- Contractor may alternatively use standard aluminum drive-fit cap to close end. $\frac{1}{2}$ " ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
 - $5\frac{1}{2}$ " end dimension may vary by ± 1 " to provide uniform panel spacing (P).
 - Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
 - Vertical Diagonals in front and back face shall alternate.
 - Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
 - All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a $\frac{3}{4}$ " minimum to $1\frac{1}{2}$ " maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.



**OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A and III-A**

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

DESIGNED - SWANG	EXAMINED	20
CHECKED - JAL	PASSED	ENGINEER OF STRUCTURAL SERVICES
DRAWN -		PHYSICIAN OF BRIDGES AND STRUCTURES
CHECKED -		

NUMBER	REVISION	DATE

OS-A-2 11/1/2002

P:\94066\Struct\EBK\Draws\Chtr\62300\CI_Signs\SS\100322.rvt 5/24/2005 2:25:37 PM

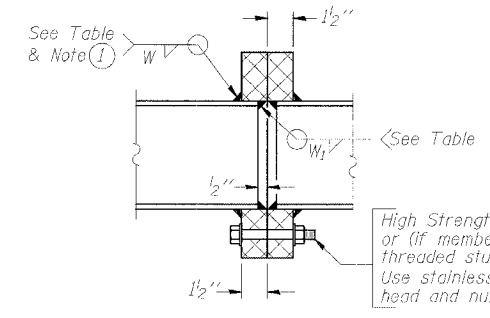
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
90/94	*	COOK	556	310	
FED. ROAD DIST. NO. 7					SHEETS

* (1818, ETC, 2324.6-1P) R-8
62300

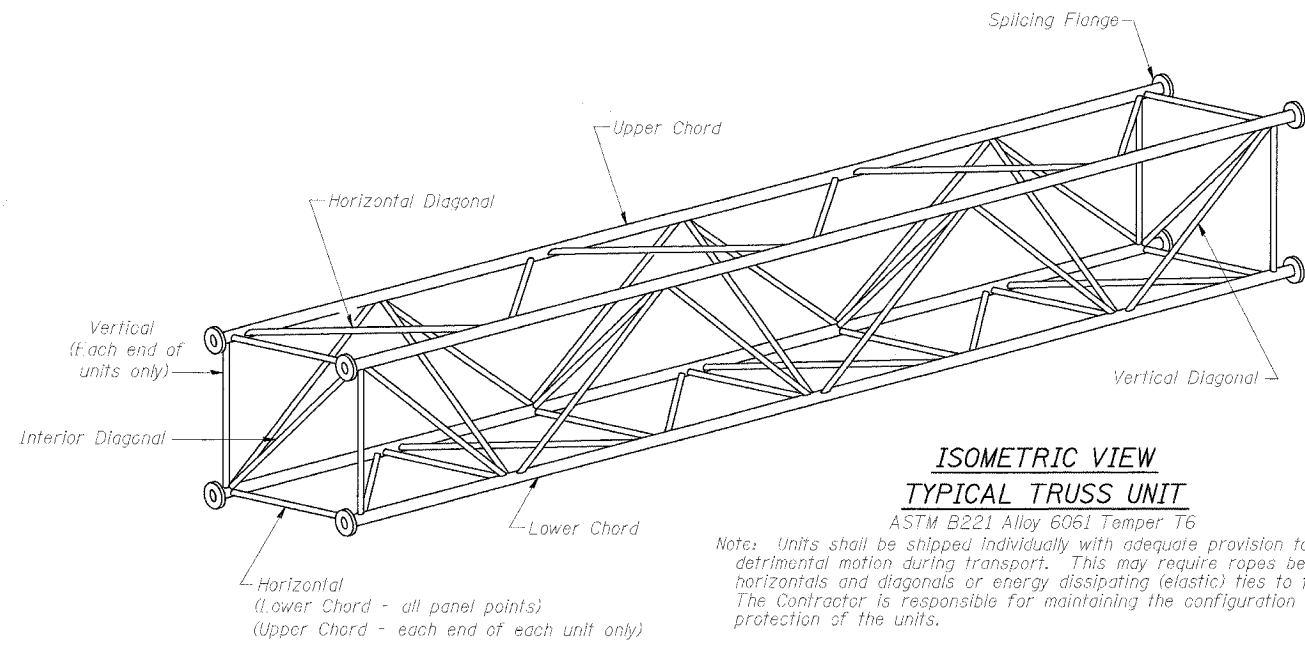
TRUSS UNIT TABLE

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L _u)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L _i)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W ₁		
ISO161094L058.0	2461+51.44	III - A	7	36.58'	4.96'					7"	5/16"	3 1/4"	5/16"	1.8"	6	1"	7/16"	5/16"	11 1/2"	15"



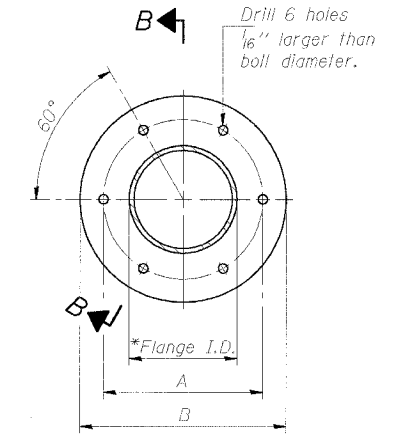
SECTION B-B

① Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.

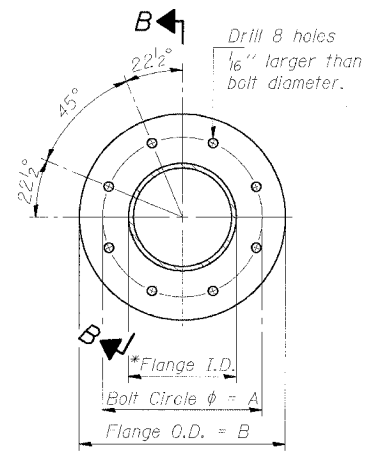


ISOMETRIC VIEW
TYPICAL TRUSS UNIT

Note: Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



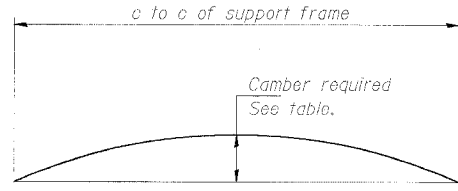
TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

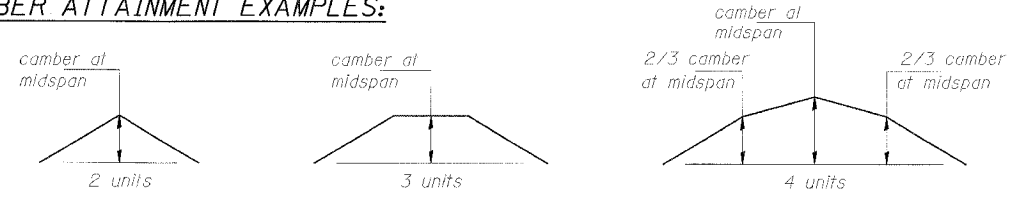
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".



CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)

NUMBER	REVISION	DATE

DESIGNED - SLW	EXAMINED - 20
CHECKED - RD	PASSED - ENGINEER OF STRUCTURAL SERVICES
DRAWN -	PASSED - ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -	

OS4-A-2 11/1/2002

OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A and III-A

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

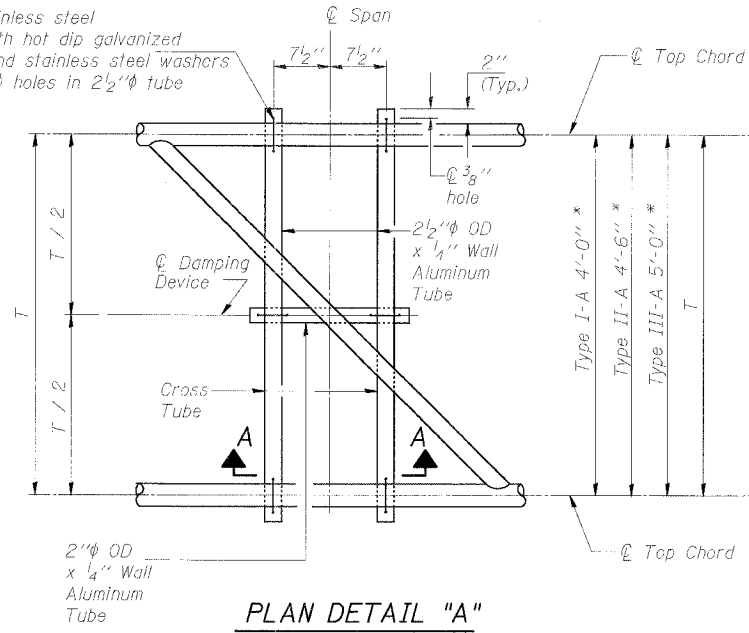
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

ROUTE S.D.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
90/94	*	COOK	556	311	- SHEETS

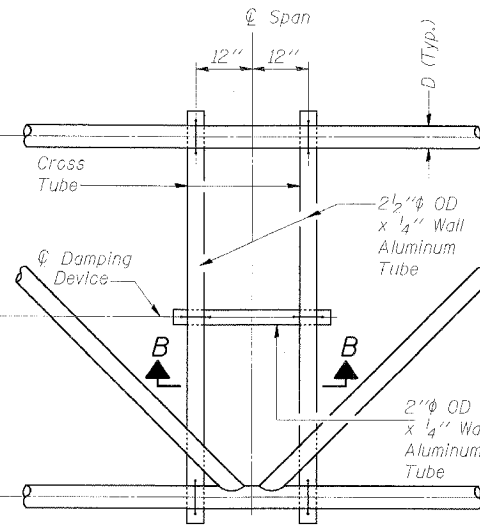
• (1818, ETC, 2324.6-1P) R-8

62300

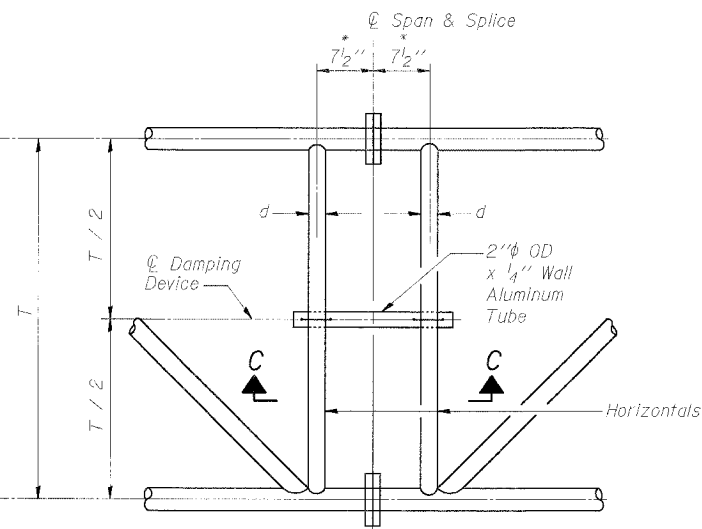
5/16" φ stainless steel U-bolt with hot dip galvanized locknuts and stainless steel washers (Typ.) 3/8" φ holes in 2 1/2" φ tube



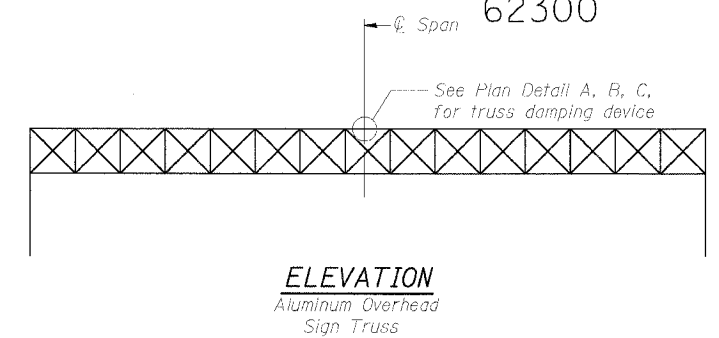
PLAN DETAIL "A"
Span BETWEEN PANEL POINTS



PLAN DETAIL "B"
Span AT PANEL POINT



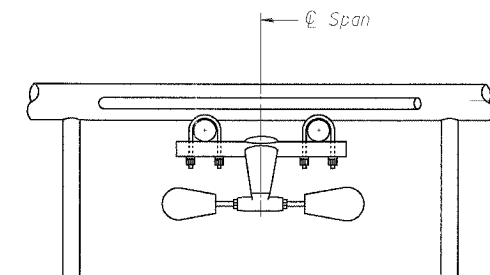
PLAN DETAIL "C"
Span AT CHORD SPLICE



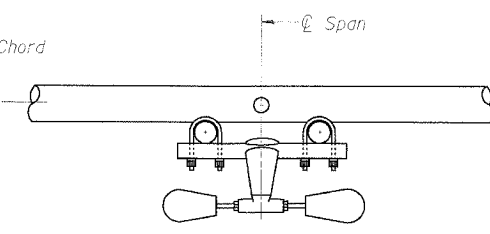
ELEVATION
Aluminum Overhead Sign Truss

NOTES

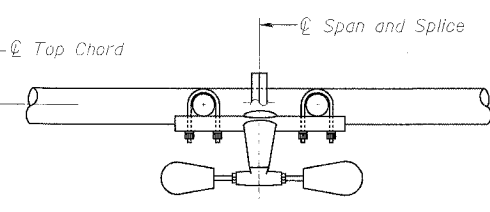
Damper: One damper per truss.
(31 lbs. Stockbridge-Type Aluminum)
Cost included in "Overhead Sign Structure..."
Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in "Overhead Sign Structure..."



SECTION A-A

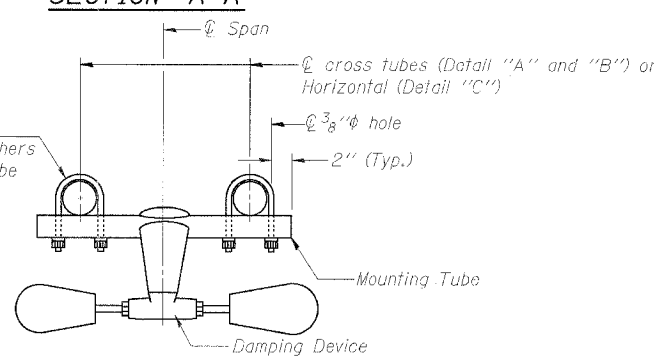


SECTION B-B

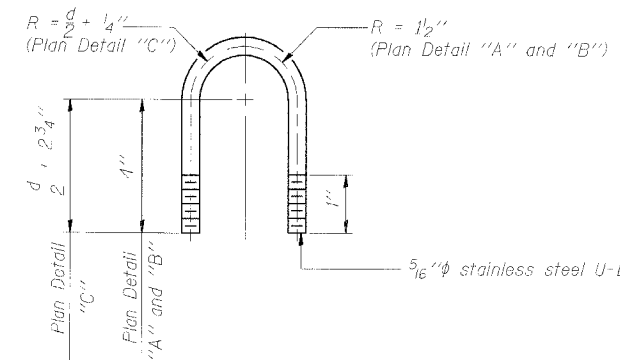


SECTION C-C

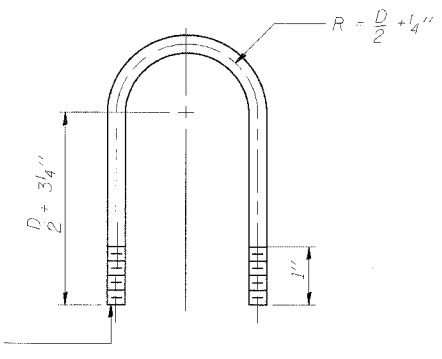
5/16" φ stainless steel U-bolt with hot dip galvanized locknuts and stainless steel washers (Typ.) 3/8" φ holes in mounting tube



TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")

DESIGNED - SWANG	20
CHECKED - JAL	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES

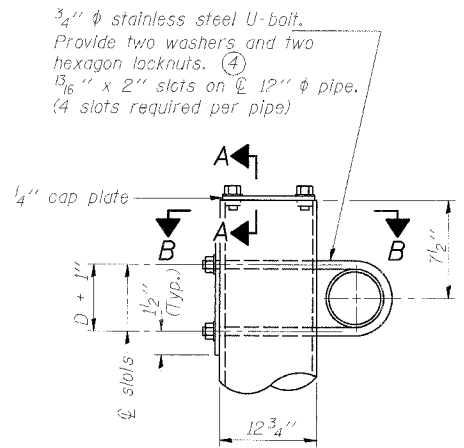
OS-A-D 11/1/2002

OVERHEAD SIGN STRUCTURE DAMPING DEVICE
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

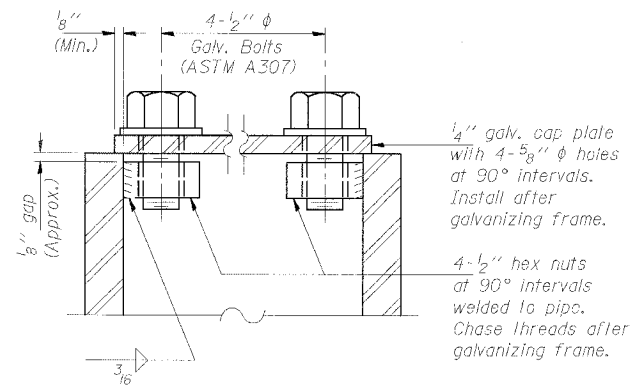
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	POST MILE	SHEET NO.	SHEET NO.
90/94	*	COOK	556	312	- SHEETS
FED. ROAD EST. NO. 7		FED. AID PROJECT			

* (1818, ETC, 2324.6-1P) R-8
62300

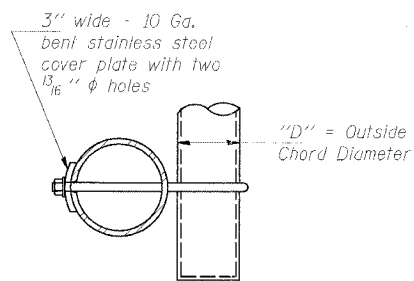


DETAIL A

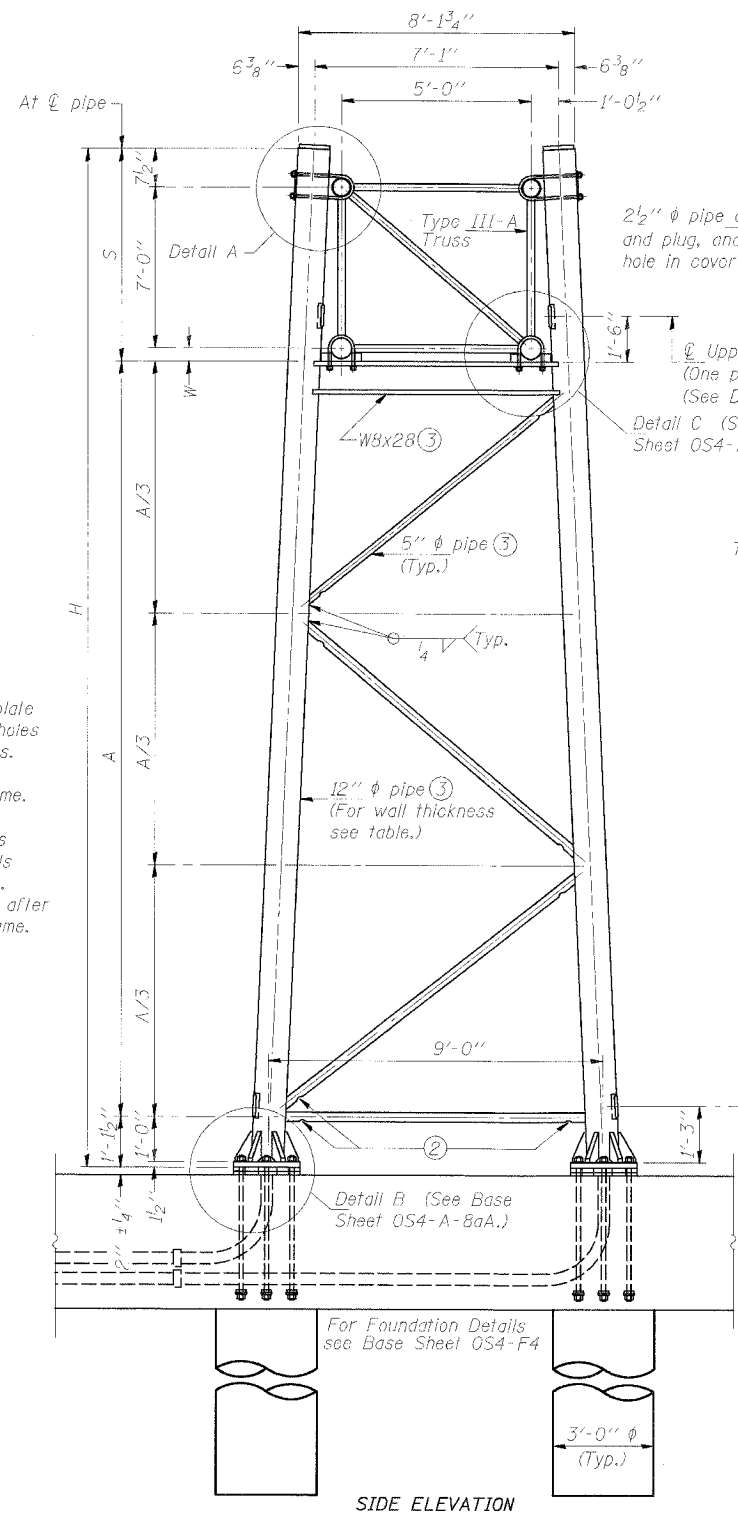


SECTION A-A

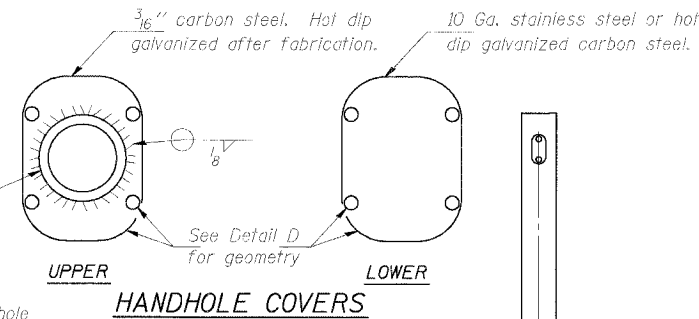
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



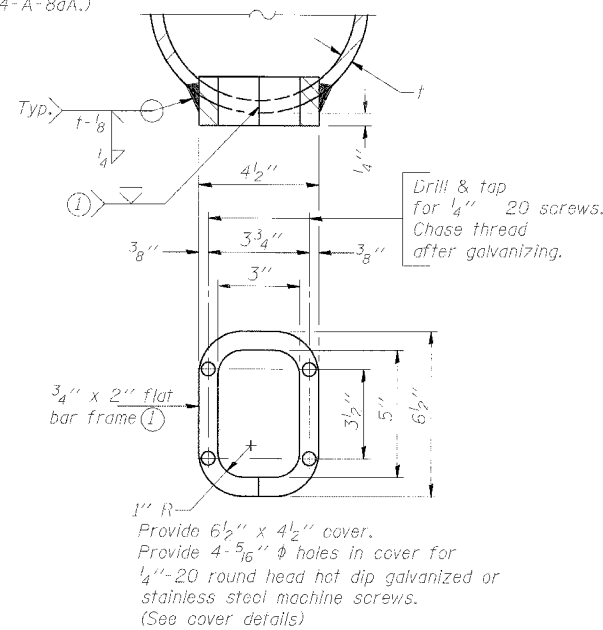
SECTION B-B



SIDE ELEVATION



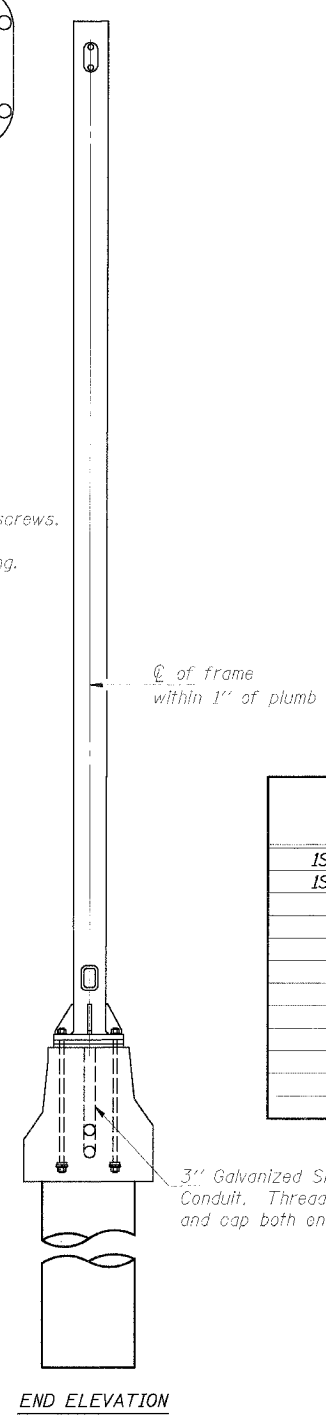
HANDHOLE COVERS



DETAIL D

Truss Chord Nominal Dia.	Dimensions	
	W	S
7"	4 3/4"	8'-0 1/4"
8 1/2"	5 1/2"	8'-1"
9"	5 3/4"	8'-1 1/4"

TRUSS SUPPORT DETAILS
(12" ϕ Pipe-Type III-A Truss)



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 \sqrt{in} or less.
- Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred. (Typ.)
- Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
- See General Notes for fasteners.
- Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

Structure Number	Station	Support		Pipe Wall Thickness	H	A
		Left	Right			
ISO161094L058.0	2461+51.44	X		.33	23.45'	14.30'
ISO161094L058.0	2461+51.44		X	.33	24.28'	15.13'

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME for TYPE III-A ALUMINUM TRUSS

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

DESIGNED - XXX	20
CHECKED - XXX	EXAMINED
DRAWN	PASSED
CHECKED	

NUMBER	REVISION	DATE

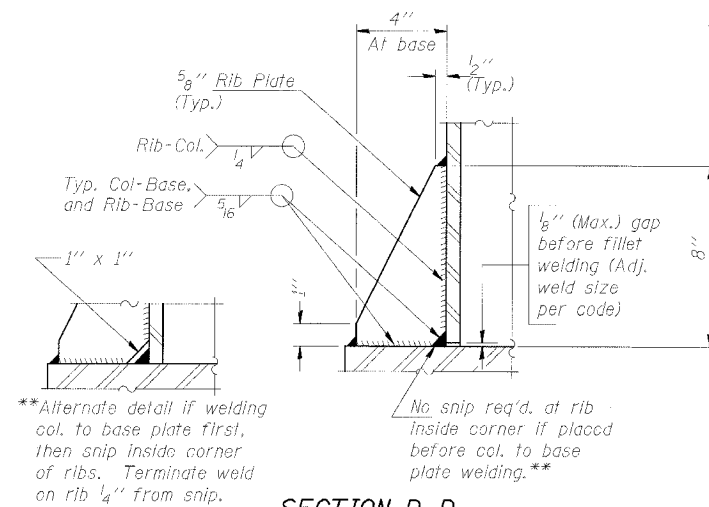
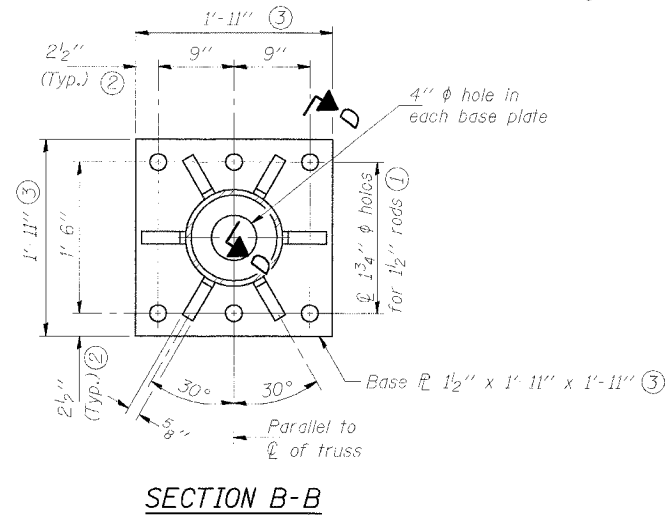
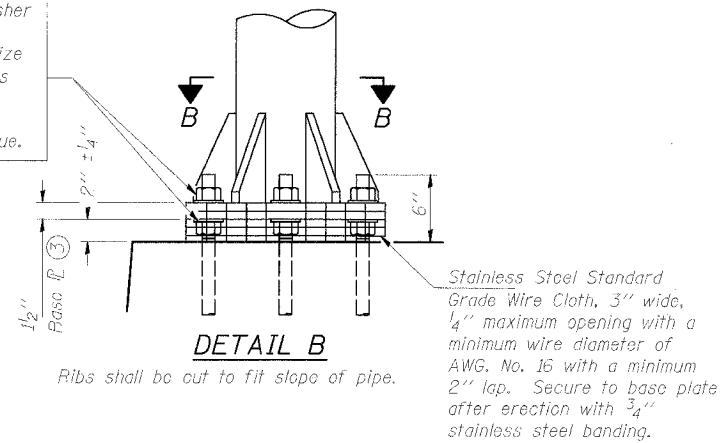
* COORDINATE WITH CONTRACT 62583 FOR LOCATION, TYPE, AND ORIENTATION OF CONDUIT.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

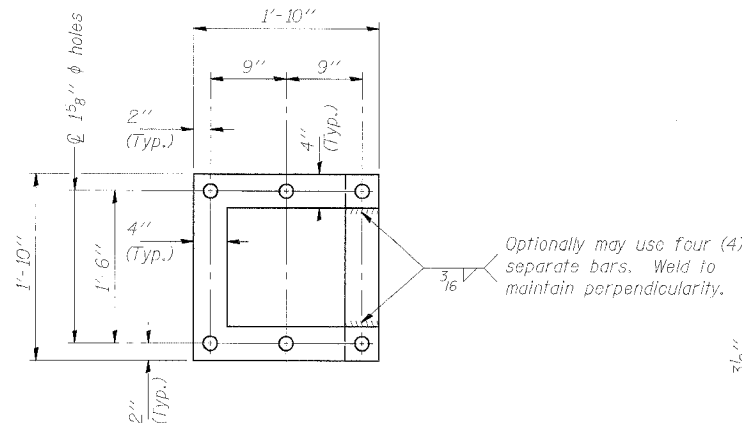
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
90/94	*	COOK	556	313	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

(1818, ETC, 2324.6-1P) R-8
62300

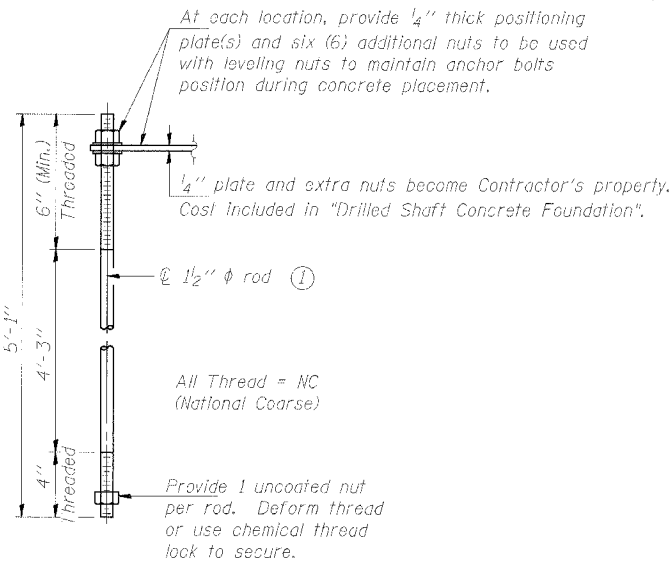
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



SECTION D-D



POSITIONING PLATE(S)



ANCHOR ROD DETAIL

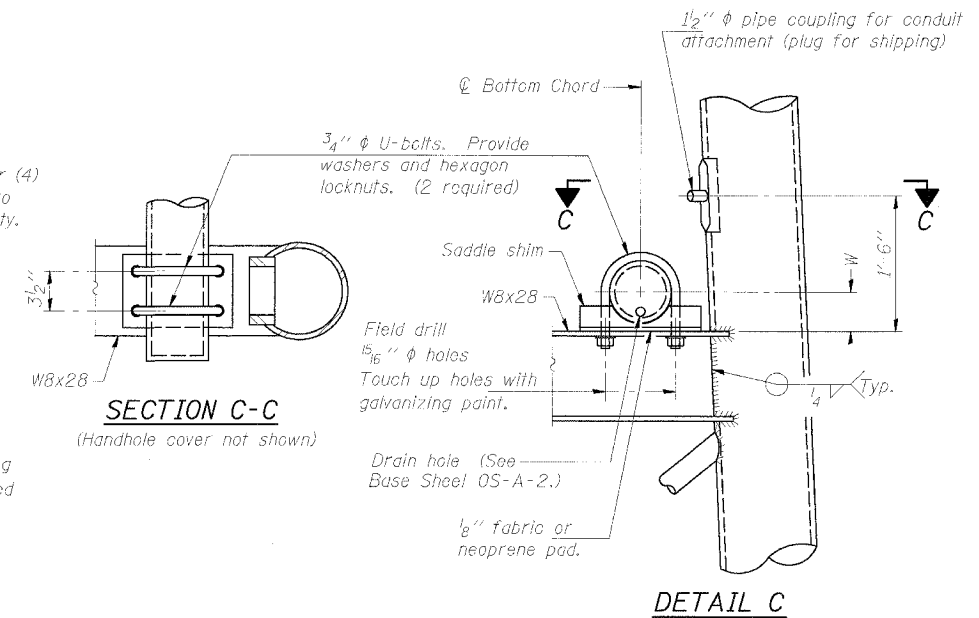
Anchor rods shall conform to AASHTO M314 Grade 36 or 55 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. Galvanize upper 12" per AASHTO M232. No welding shall be permitted on rods.

TYPE III-A TRUSS

12" ϕ PIPE SUPPORT FRAME DETAILS

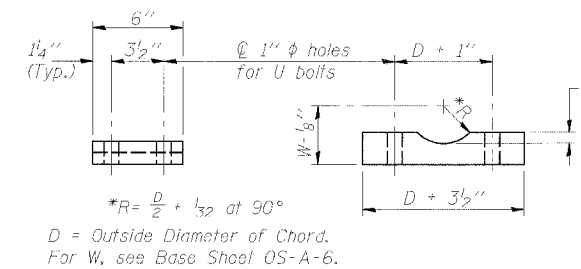
Notes: For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

- 1 3/4" ϕ rod, 2" ϕ holes
- 2 3/4" edge distance
- Base ϕ 1 5/8" x 1' 11 1/2" x 1' 11 1/2"



SECTION C-C

(Handhole cover not shown)



Truss Chord Nominal Dia.	a
7"	1"
8 1/2"	1 1/4"
9"	1 3/8"

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F

or

ASTM B209 Alloy 6061-T6S1

(4 required per sign truss)

DESIGNED - SWANG	20
CHECKED - JAL	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS4-A-8aA 11/1/2002

**OVERHEAD SIGN STRUCTURES
SUPPORT FRAME for TYPE III-A ALUMINUM TRUSS**

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

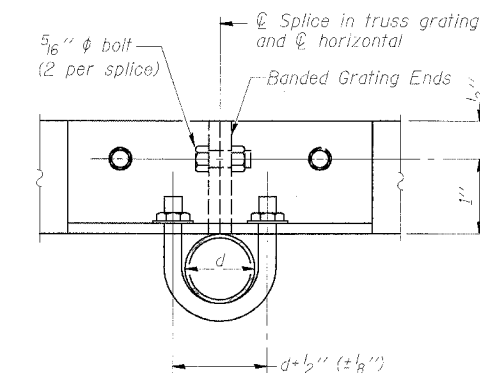
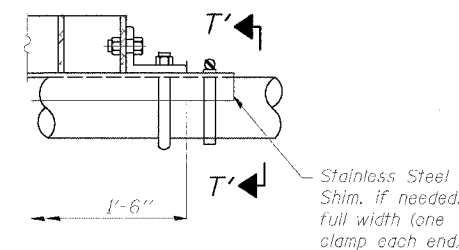
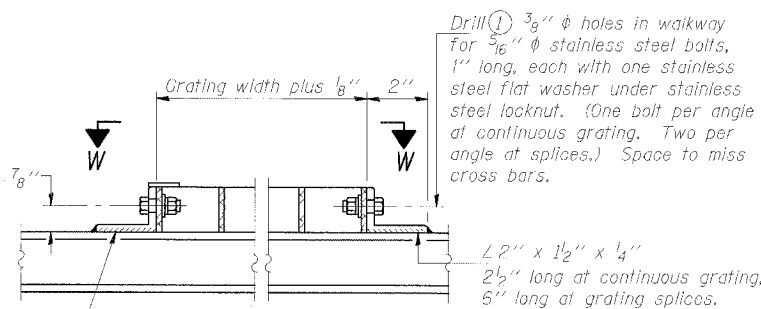
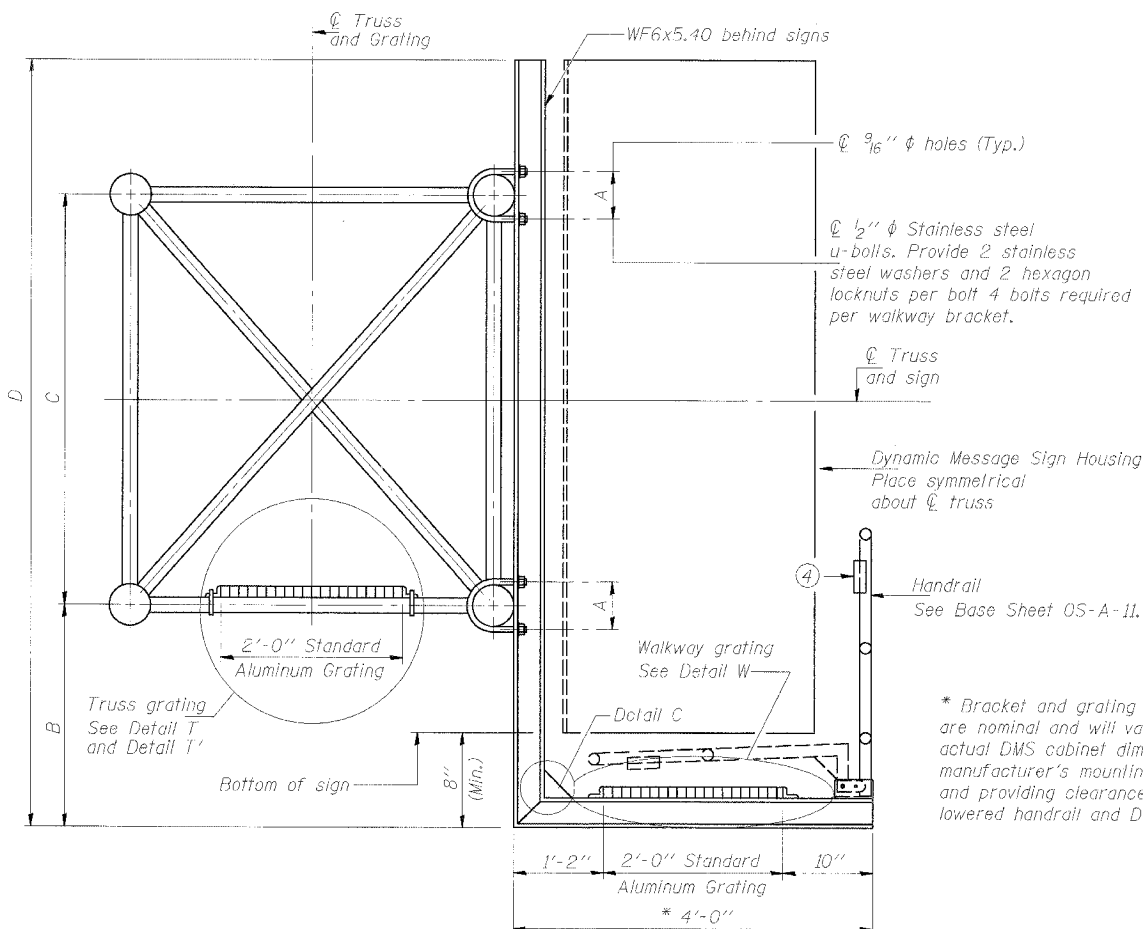
6/24/2005 2:53:37 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	PROJECT	SHEET
90/94	*	COOK	556	315

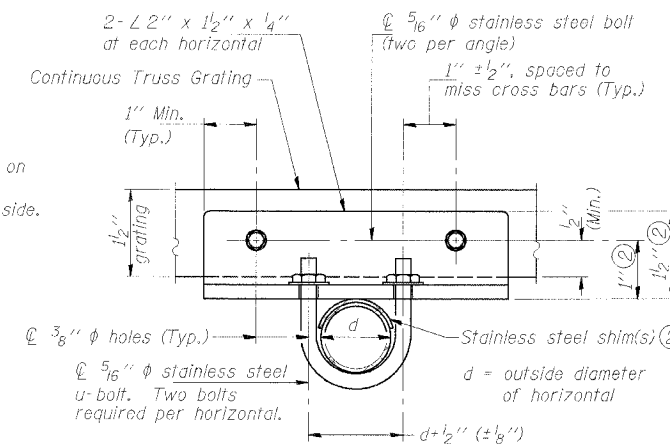
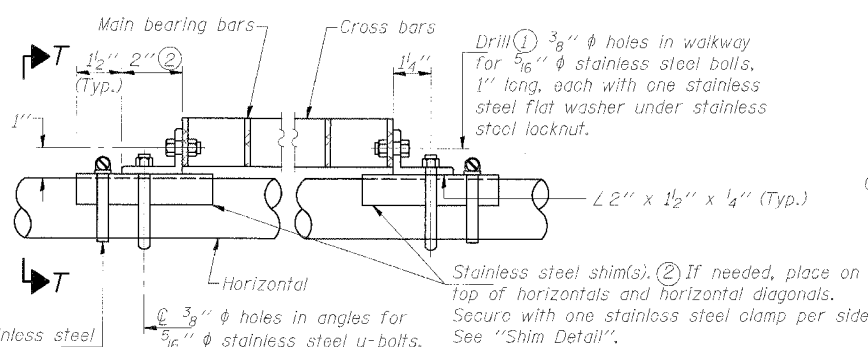
*(1818, ETC, 2324.6-1P) R-8

62300



DETAIL W
(Walkway grating)

DETAIL T'
(Truss grating splice)
Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.



SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.
Cross bars shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

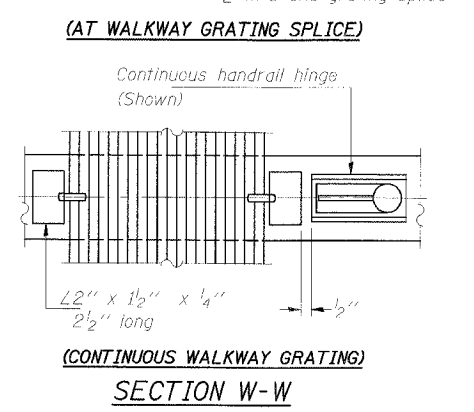
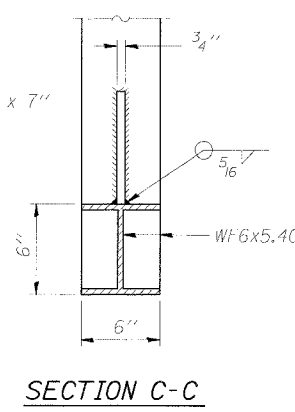
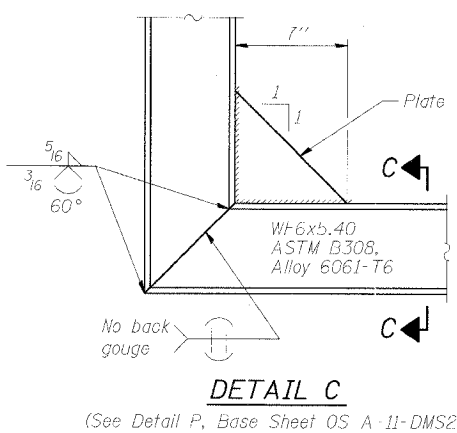
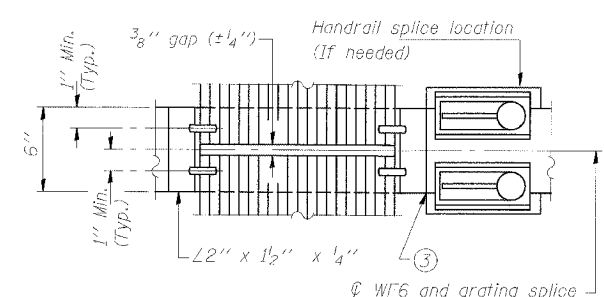
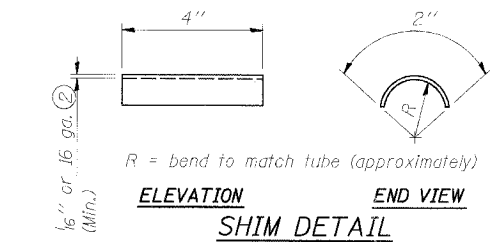
Aluminum Grating with modified "4" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- If Handrail Joint present, weld angle to WF6 and 1/4" extension bars. (See Base Sheet OS-A-11-DMS2.)
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.

Structure Number	Station	A	B	C	D
IS0161094R057.7	1476+25.00	7 1/2"	1'-5"	7'-0"	9'-2"

OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS

F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
31st Street to 71st Street
(NB Express Lanes)



DESIGNED	19
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BUSINESS AND STRUCTURES

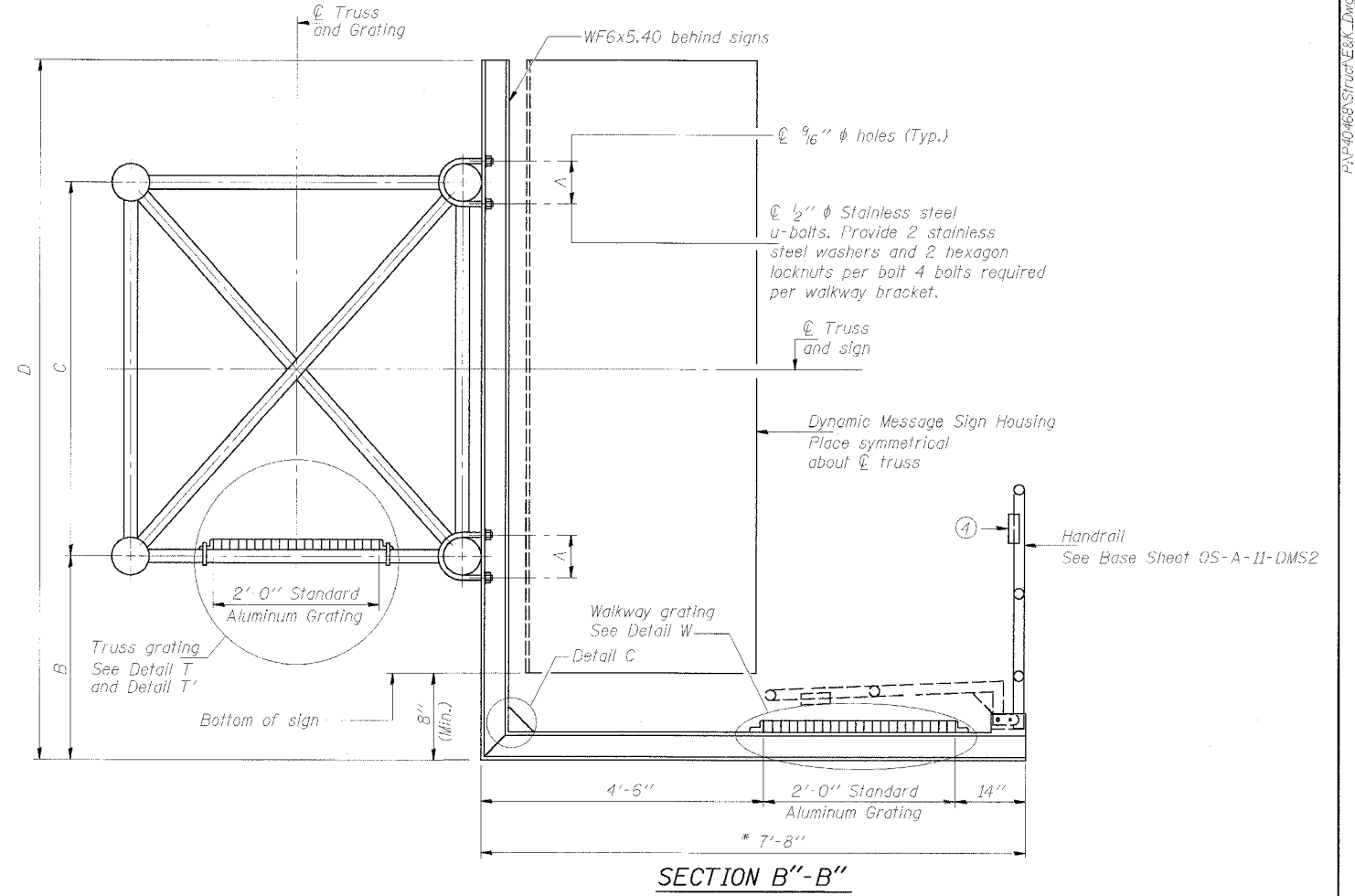
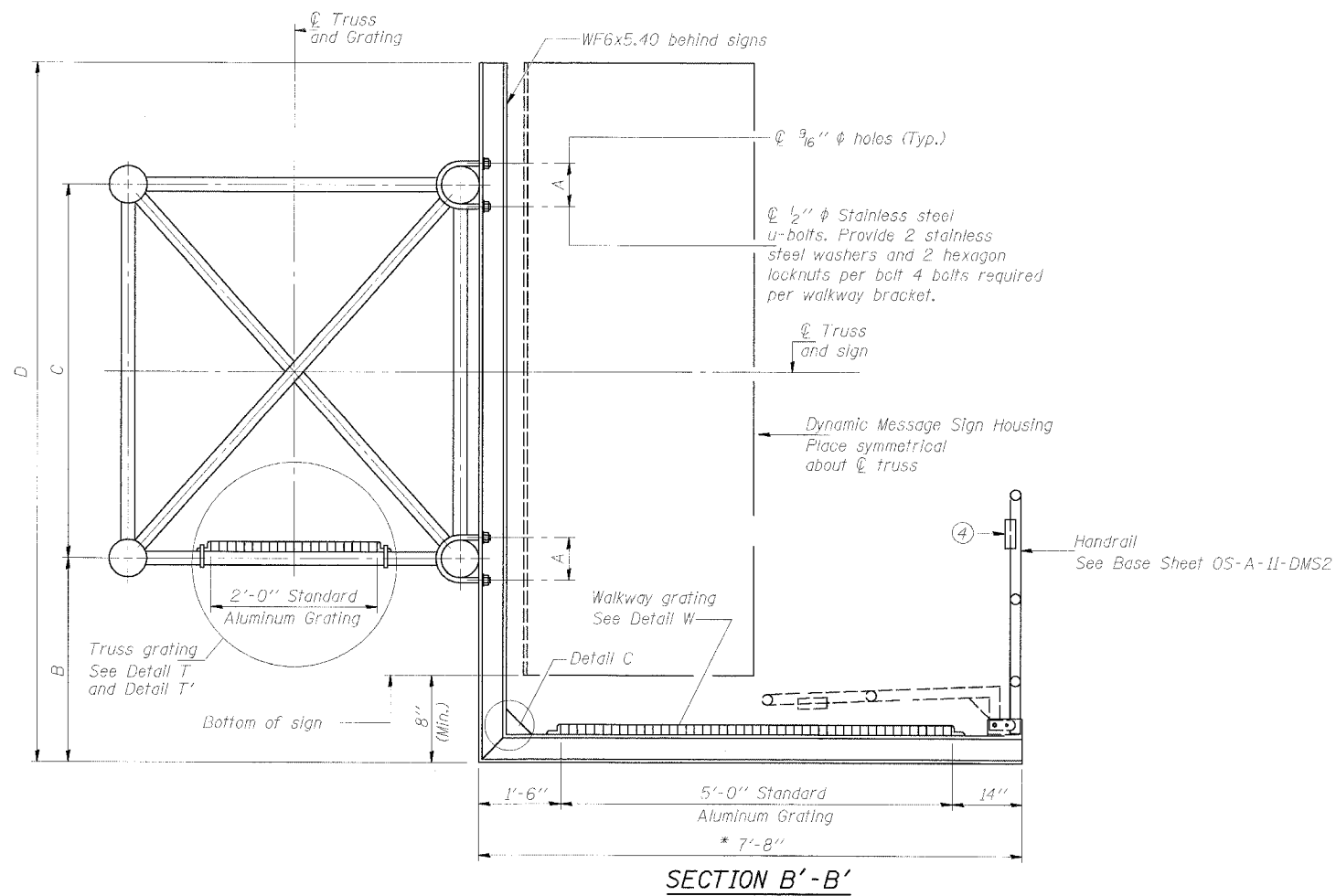
NUMBER	REVISION	DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET TOTAL
90/94	*	COOK	556	316

*(1818, ETC, 2324.6-1P) R-8
62300



* Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices, and providing clearance between the lowered handrail and DMS cabinet.

Note:
For dimensions "A" to "D" and remaining details, see sheet OS-A-10-DMS2

DESIGNED	19
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-10a-DMS2 7/1/2001

NUMBER	REVISION	DATE

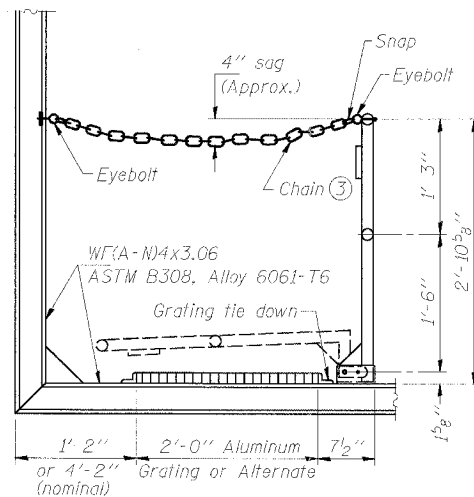
OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS

F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
31st Street to 71st Street
(NB Express Lanes)

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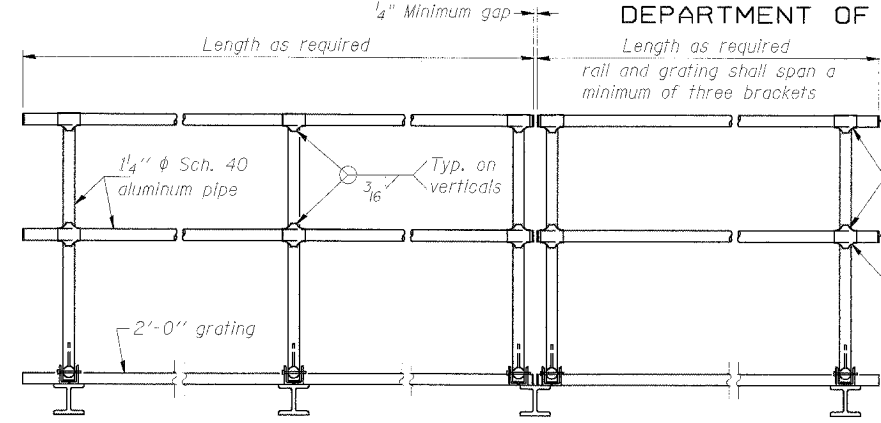
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
90/94	*	COOK	556	317	
FED. AID PROJ. NO. 7		ILLINOIS		FED. AID PROJECT	



SIDE ELEVATION

(Showing safety chain w/o sign)



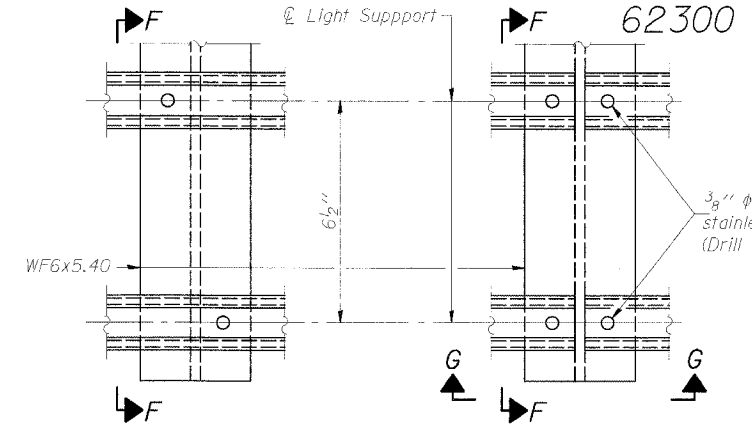
FRONT ELEVATION

HANDRAIL DETAILS

Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.

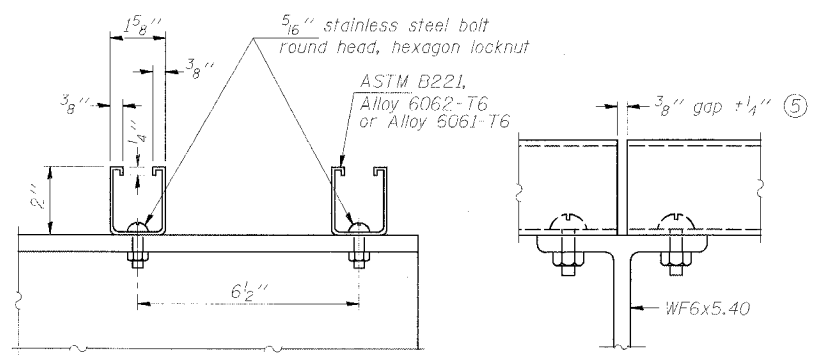
① Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)

② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" hole in fitting for 3/8" bolt. Field drill 1/16" hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" holes on top rail at ends only.)



DETAIL F

DETAIL G

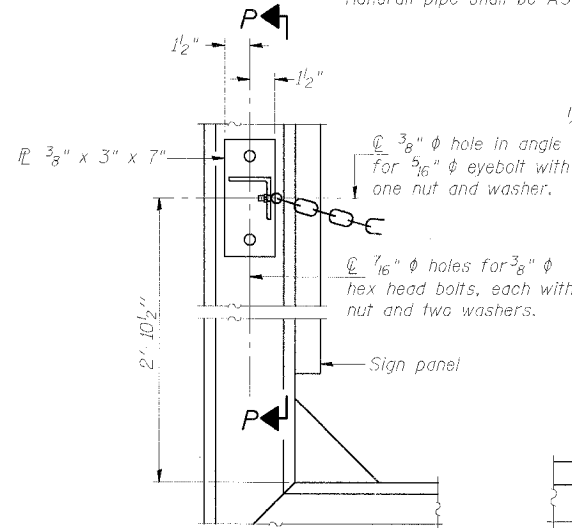


SECTION F-F

SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

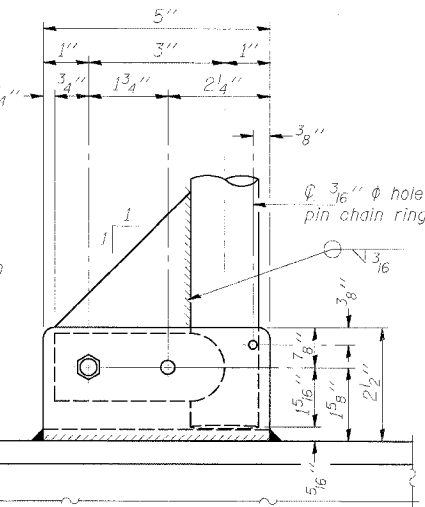
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



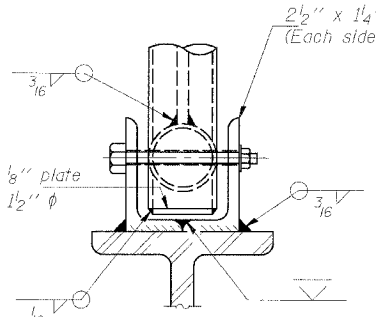
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

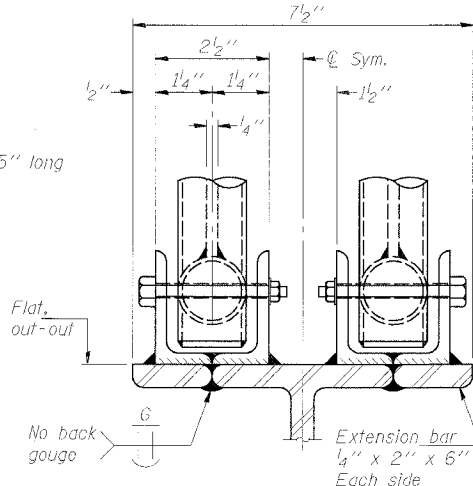


SIDE ELEVATION

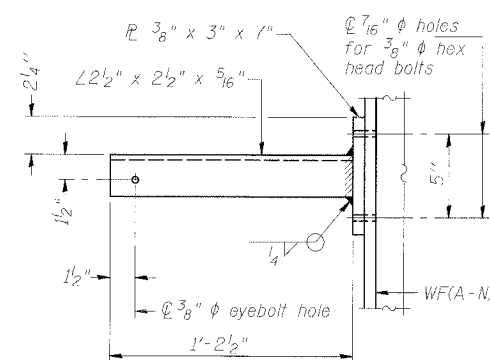


FRONT ELEVATION

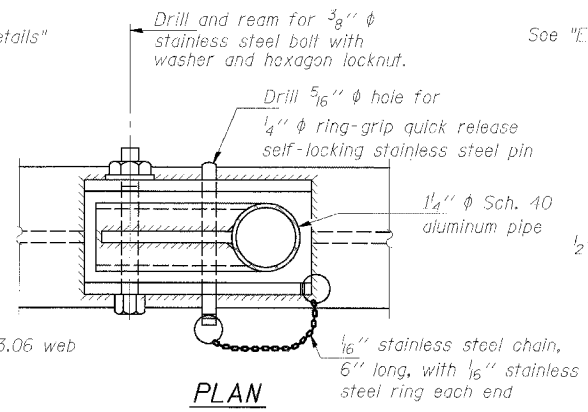
See "ELEVATION" at right for dimensions.



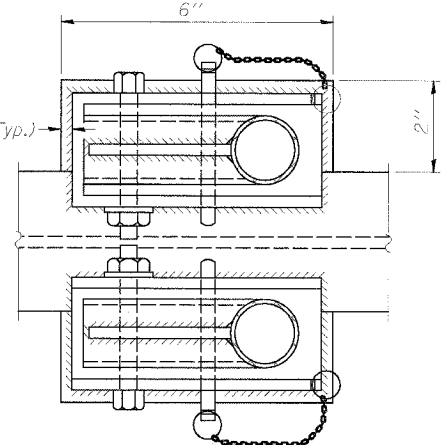
ELEVATION AT HANDRAIL JOINT



SECTION P-P

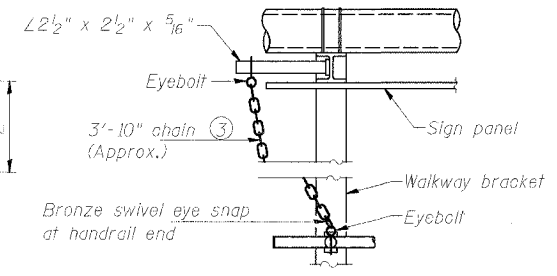


PLAN DETAIL E HANDRAIL HINGE



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

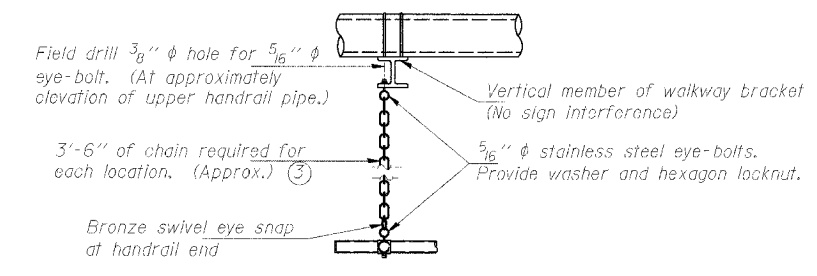


ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

DESIGNED	19
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

**OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM HANDRAIL DETAILS**

F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
31st Street to 71st Street
(NB Express Lanes)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	PLANITY	SHEET NO.	SHEET NO.
90/94	*	COOK	556	318
FED. ROAD DIST. NO. 7	DISTRICT	FED. AID PROJECT		

(1818, ETC, 2324.6-1P) R-8
62300

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

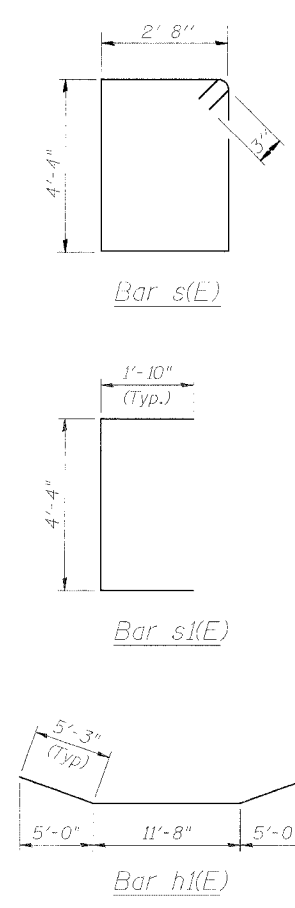
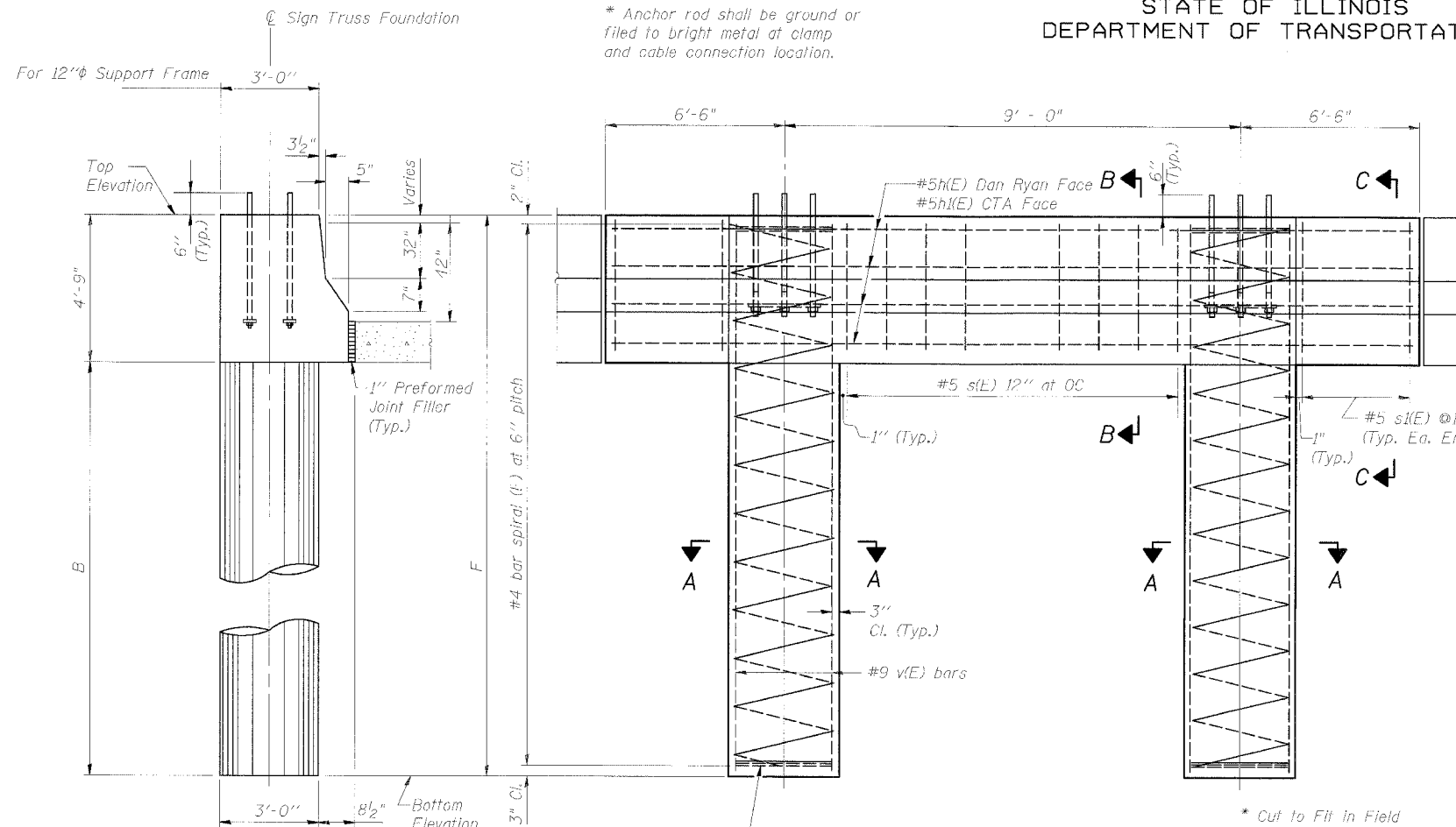
No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints. Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seal Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Face of median support foundation shall match dimensions of permanent barrier wall F shape.

Refer to CONTRACT 62583 for location and orientation of the conduit.

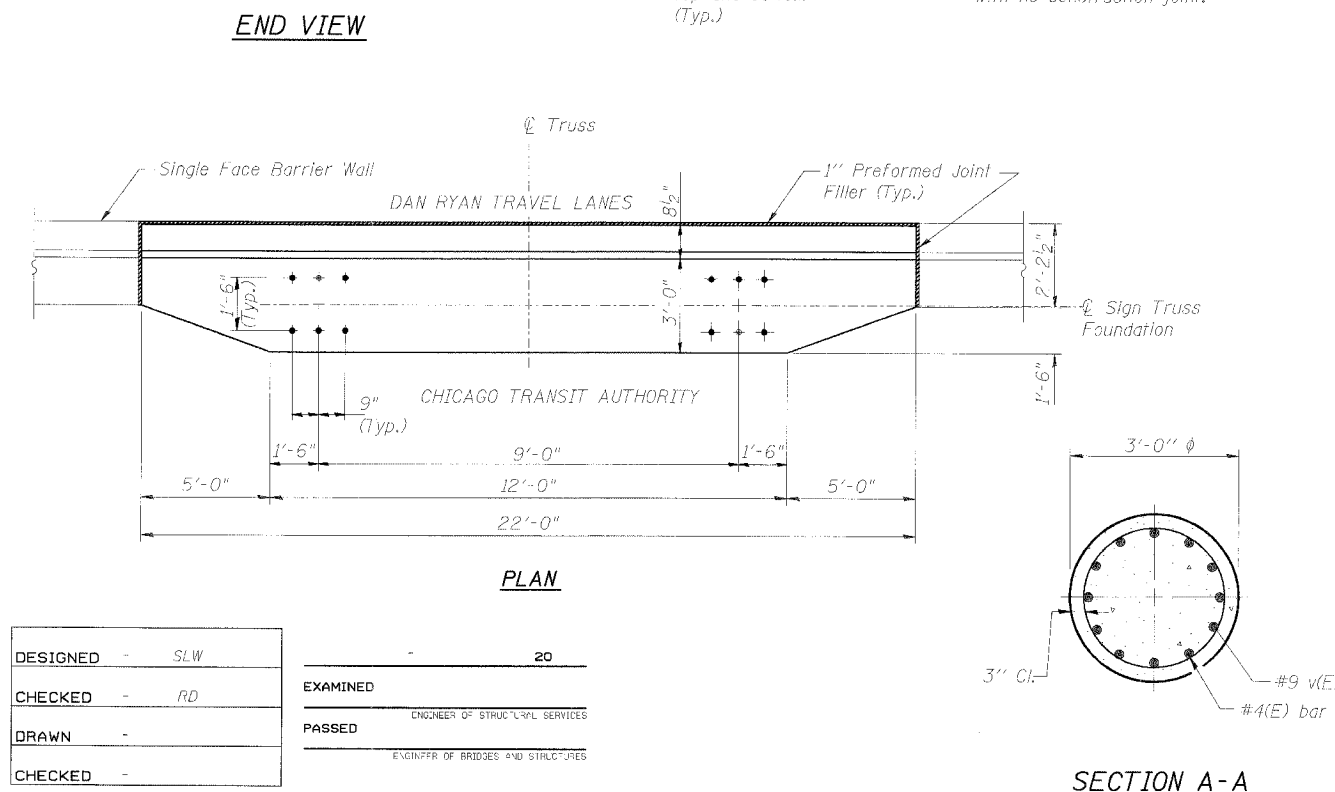


BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(F)	6	#5	21'-8"	—
h(E)	4	#5	22'-2"	—
s(E)	Varies	#5	14'-6"	□
s(F)	24	#5	8'-0"	□
v(E)	24	#9	22'-4"	—
#4(E) bar spiral - see Side Elevation				

RIGHT FOUNDATION USES DOUBLE FACE MEDIAN SUPPORT

Structure Number	Station	Left Foundation				Right Foundation				Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
IS0161094L058.0	2461+51.44	1.78'	-20.97'	18'	22.75'					21.1



DESIGNED - SLW	EXAMINED - 20
CHECKED - RD	PASSED - ENGINEER OF STRUCTURAL SERVICES
DRAWN -	PASSED - ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -	

MODIFIED BY CTE ENGINEERS, INC. FROM OS4-MED

OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS

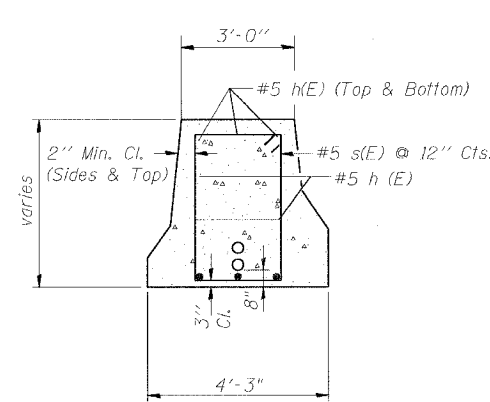
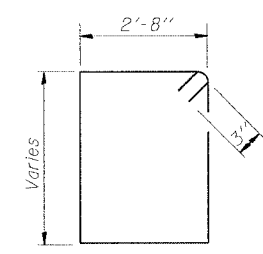
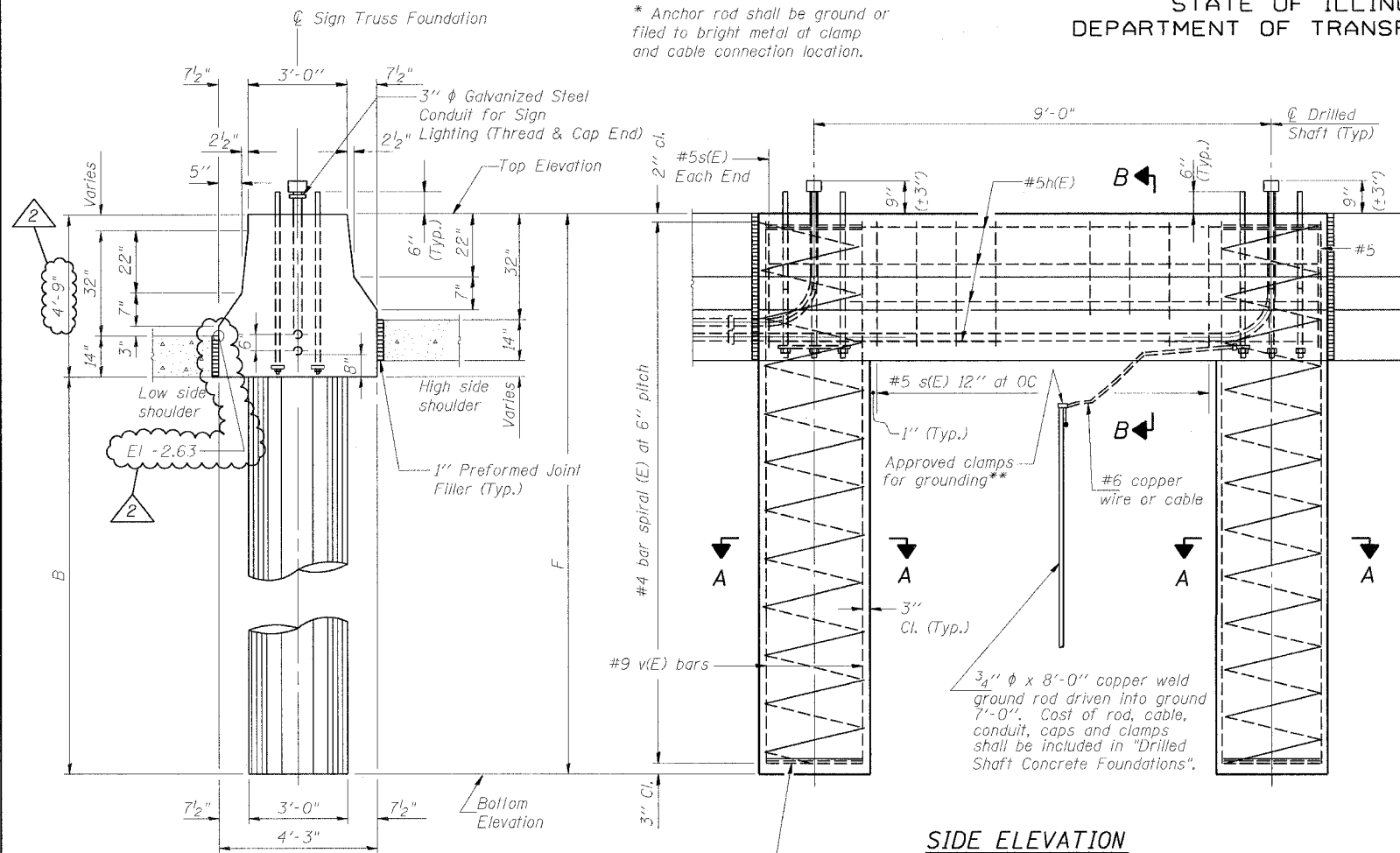
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

SINGLE FACE MEDIAN SUPPORT FOUNDATION

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
90/94		COOK	556	318A	- SHEETS
FED. ROAD DIST. NO. 7					
ILL. STATE PROJECT					
• (1818, ETC. 2324.6-1P) R-8					
62300					

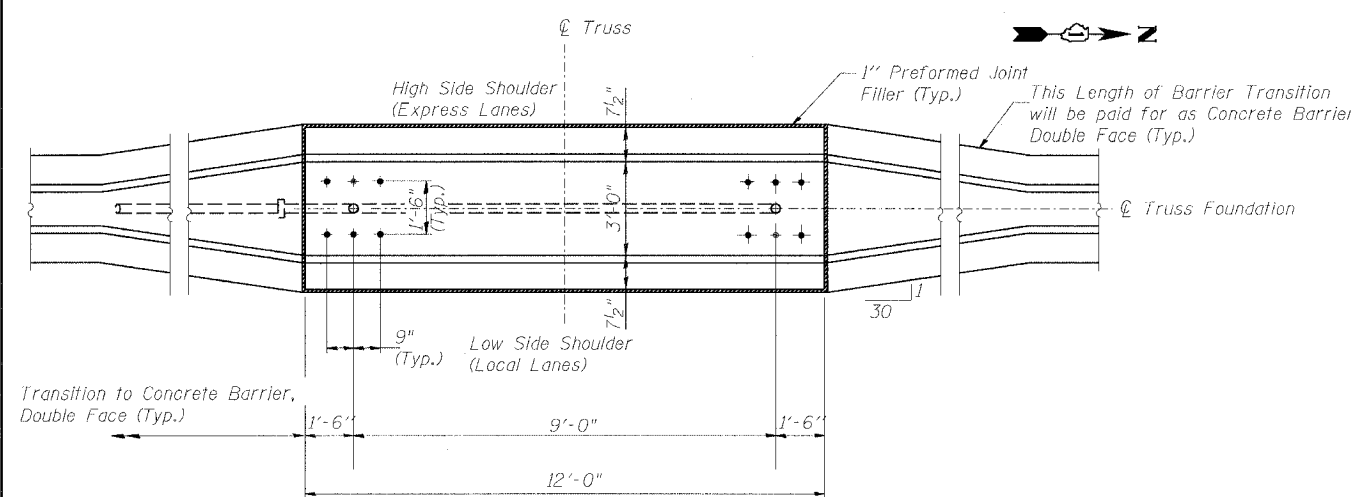


SECTION B-B

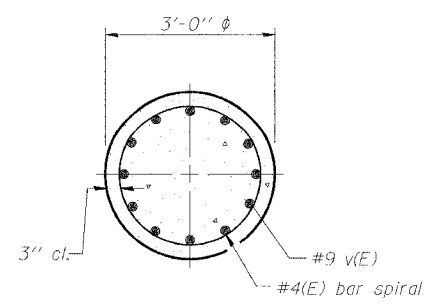
SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.

END VIEW



PLAN



SECTION A-A

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Face of median support foundation shall match dimensions of permanent barrier wall F shape.

Refer to CONTRACT 62583 for orientation and location of the conduit.

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	10	#5	11'-8"	—
s(E)	9	#5	Varies	□
v(E)	24	#9	F less 0'-5"	—
#4(E) bar spiral - see Side Elevation				

LEFT FOUNDATION USES SINGLE FACE MEDIAN SUPPORT FOUNDATION

Structure Number	Station	Left Foundation		Right Foundation		Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	
ISO161094L058.0	2461+51.44					17.2
					-21.80'	
						22.75'

DESIGNED - SWANG	20
CHECKED - JAL	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

REVISIONS	
NAME	DATE
JSS	8-12-05
JSS & RDP	9-16-05

OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO 71st STREET
(NB Express Lanes)

DOUBLE FACE MEDIAN SUPPORT FOUNDATION

MODIFIED BY CTE ENGINEERS, INC. FROM OS4-MED

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ROUTE: F.A.I. 90/94 / I-94 DESCRIPTION: Dan Ryan Expressway (I-94-I-55) LOGGED BY: B.P.
 SECTION: 1199-154-ETC LOCATION: Chicago, Illinois

STRUCT. NO.	STATION	BORING NO.	STATION	DEPTH (ft)	DRILLING METHOD			HOLLOW STEM AUGER			HAMMER TYPE			Automatic		
					D	C	M	D	L	J	M	D	L	J	M	
SURFACE WATER ELEV. 11.00 STREAM BED ELEV. 11.00 GROUNDWATER ELEV.: 11.00 FIRST ENCOUNTER: Dry UPON COMPLETION: 11.00 AFTER: 11.00																
Asphalt 2" (1.50) Sub Base Gravel (12.00) Vary Stiff Grey CLAY (13.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (14.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (15.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (16.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (17.00) Auger Refused @ 30 feet (21.29) End of Boring																

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 (ASTM 1206) (Rev. 8-99).

ROUTE: F.A.I. 90/94 / I-94 DESCRIPTION: Dan Ryan Expressway (I-94-I-55) LOGGED BY: A.P.
 SECTION: 1201-222PT 1-2-4 LOCATION: Chicago, Illinois

STRUCT. NO.	STATION	BORING NO.	STATION	DEPTH (ft)	DRILLING METHOD			HOLLOW STEM AUGER			HAMMER TYPE			Automatic		
					D	C	M	D	L	J	M	D	L	J	M	
SURFACE WATER ELEV. 11.00 STREAM BED ELEV. 11.00 GROUNDWATER ELEV.: 11.00 FIRST ENCOUNTER: Dry UPON COMPLETION: 11.00 AFTER: 11.00																
Asphalt 5" (2.50) Crushed Stone (3.07) (FILL) Vary Stiff to Hard Grey CLAY (4.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (5.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (6.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (7.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (8.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (9.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (10.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (11.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (12.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (13.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (14.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (15.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (16.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (17.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (18.00) Hard / Vary Dense Grey SILTY CLAY LOAM / SILTY LOAM (19.00) Vary Stiff to Hard Grey SILTY CLAY LOAM (20.00) End of Boring																

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 (ASTM 1206) (Rev. 8-99).

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	318B
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT
• (1818, ETC. 2324.6-1PR-8				62300

CTE | AECOM

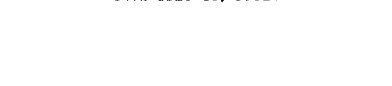
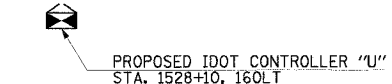
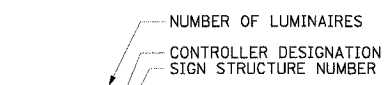
303 East Wacker Drive, Suite 600, Chicago, Illinois 60601-5776
 T 312.438.0000 F 312.438.0005 www.cte.aecom.com

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 90/94 (DAN RYAN EXPRESSWAY) 31st STREET TO 71st STREET (NB Express Lanes)	SCALE: NONE DATE: JULY 7, 2005	DRAWN BY: JSS CHECKED BY: PJO
NAME	DATE			

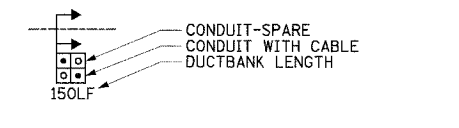
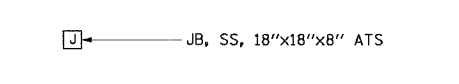
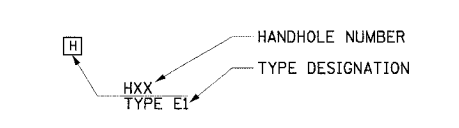
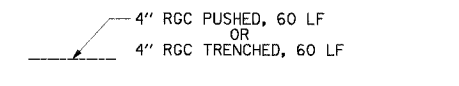
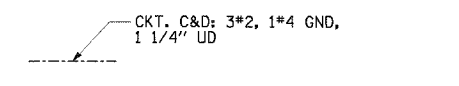
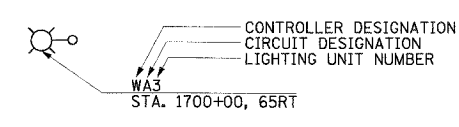
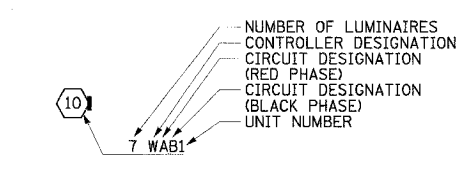
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	319
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62300 * (1818, ETC, 2324.6-1P1R-8



GENERAL ELECTRICAL CALLOUTS



ELECTRICAL SYMBOLS FOR PROPOSED WORK

- LIGHT TOWER FOUNDATION
NUMBER INSIDE HEXAGON INDICATES TOWER TYPE
HANDHOLE LOCATION AS INDICATED
TOWER INSTALLED BY OTHERS,
UNDER A SEPARATE CONTRACT
- TYPE TOWER HEIGHT
10 - 100 FEET
11 - 110 FEET
12 - 120 FEET
- LIGHT POLE FOUNDATION
POLE INSTALLED BY OTHERS
UNDER A SEPARATE CONTRACT
- TEMPORARY LIGHTING UNIT INCLUDING 60 FOOT
WOOD POLE (GLASS 4), 8'-0" MAST ARM WITH
400 WATT HPS LUMINAIRE
- ELECTRIC HANDHOLE: TYPE AS INDICATED
TYPE E1: PC CONCRETE, 21.5"x21.5"x30"
IDOT STANDARD 814001
TYPE E2: PC CONCRETE-HEAVY DUTY, 22"x22"x30",
IDOT STANDARD 814001
TYPE C1: COMMUNICATIONS VAULT
TYPE S1: PC CONCRETE-HEAVY DUTY, 22"x22"x36"
TYPE S2: PC CONCRETE-HEAVY DUTY SPECIAL,
30"x30"x36"
- JUNCTION BOX: TYPE AND SIZE AS INDICATED
ON PLANS
- PULL BOX: TYPE AND SIZE AS INDICATED
ON PLANS
- TELEPHONE CONNECTION
- FIBER OPTIC COMMUNICATIONS HUT
- LIGHTED SIGN STRUCTURE-CANTILEVER TYPE
(NUMBER OF FLUORESCENT FIXTURES AS
INDICATED WITH ASSOCIATED DISCONNECT
SWITCH - TYP.) (N.I.C.)
- LIGHTED SIGN STRUCTURE-TRUSS TYPE (N.I.C.)
- TEMPORARY LIGHTED SIGN STRUCTURE-TRUSS
TYPE, QUANTITY OF LUMINAIRES AS SHOWN
ON SIGNING PLANS
- LIGHTED SIGN STRUCTURE-BRIDGE MOUNT TYPE (N.I.C.)
- DYNAMIC MESSAGE SIGN (N.I.C.)
- FLASHING BEACON SIGN (N.I.C.)
- CLOSED CIRCUIT TELEVISION CAMERA (N.I.C.)
- MICROWAVE DETECTOR (N.I.C.)
- DETECTOR LOOP
- CONTROLLER CABINET FOUNDATION
- CONTROLLER CABINET FOUNDATION: SURVEILLANCE
- CONTROLLER CABINET FOUNDATION: SURVEILLANCE,
TYPE 334
- RAMP METER SIGNAL POLE/HEAD FOUNDATION
- RAMP METER FLASHER FOUNDATION
- TEMPORARY WOOD POLE, 50 FOOT LENGTH
(10 FOOT BURIED, 40 FOOT INSTALLED HEIGHT)
- HIGHWAY ADVISORY RADIO ANTENNA (N.I.C.)
- ELECTRIC UTILITY POLE
- CCTV CAMERA POLE (N.I.C.)
- POLE MOUNTED ELECTRIC UTILITY TRANSFORMER(S)
- PAD MOUNTED ELECTRIC UTILITY TRANSFORMER
- GROUND ROD
- MAIN SERVICE FUSED DISCONNECT SWITCH
(RATING AS INDICATED)
- EXISTING RACEWAY OR CONDUIT RUN
AS INDICATED ON PLANS
- RACEWAY EMBEDDED IN STRUCTURE
- RACEWAY OR DIRECT BURIAL CABLE
UNDERGROUND WITHOUT ENCASEMENT
- RIGID GALVANIZED STEEL CONDUIT
SLEEVE, TRENCHED OR PUSHED
- UNDERGROUND REINFORCED CONCRETE ENCASED
DUCTBANK, UNO. (NUMBER, TYPE, AND SIZE OF
DUCTS AS SHOWN)
- RACEWAY OR CONDUIT IN TRENCH, TYPE AS
INDICATED ON PLANS
- AERIAL CABLE, TYPE AS INDICATED ON PLANS
- CONDUIT TURNED DOWN
- CONDUIT TURNED UP

ELECTRICAL SYMBOLS FOR EXISTING CONDITIONS

- EXISTING LIGHTING UNIT, TWIN LUMINAIRE
- EXISTING LIGHTING UNIT
- EXISTING TEMPORARY LIGHTING UNIT
- EXISTING CDOT LIGHTING UNIT
- EXISTING UNDERPASS LUMINAIRE
- EXISTING ELECTRIC HANDHOLE
- EXISTING JUNCTION BOX
- EXISTING PULL BOX
- EXISTING TELEPHONE CONNECTION
- EXISTING FIBER OPTIC COMMUNICATIONS HUT
- EXISTING ELECTRIC HANDHOLE/MANHOLE
- EXISTING CDOT ELECTRIC HANDHOLE/MANHOLE
- EXISTING LIGHTED SIGN STRUCTURE-
CANTILEVER TYPE
- EXISTING LIGHTED SIGN STRUCTURE-TRUSS TYPE
- EXISTING LIGHTED SIGN STRUCTURE-
BRIDGE MOUNT TYPE
- EXISTING DYNAMIC MESSAGE SIGN
- EXISTING FLASHING BEACON SIGN
- EXISTING CLOSED CIRCUIT TELEVISION CAMERA
- EXISTING MICROWAVE DETECTOR
- EXISTING DETECTOR LOOP
- EXISTING LIGHTING CONTROLLER, DUPLEX
- EXISTING CONTROLLER CABINET
- EXISTING RAMP METER SIGNAL POLE/HEAD
- EXISTING RAMP METER FLASHER
- EXISTING HIGHWAY ADVISORY RADIO ANTENNA
- EXISTING CCTV CAMERA POLE
- EXISTING UTILITY SERVICE CONNECTION,
POLE MOUNTED
- EXISTING UTILITY SERVICE CONNECTION,
PAD MOUNTED
- EXISTING CONCEALED CONDUIT IN STRUCTURE
- EXISTING EXPOSED CONDUIT
- EXISTING RACEWAY OR DIRECT BURIED CABLE
WITHOUT ENCASEMENT
- EXISTING CONCEALED CONDUIT UNDERGROUND,
TRENCHED OR PUSHED
- EXISTING ELECTRIC CABLE IN CONDUIT

EI-100

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL SYMBOLS

SCALE: NOT TO SCALE
DATE: 7/7/05
DRAWN BY: CJM
CHECKED BY: WDS

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

06/24/2005 05:02:57 PM

ABBREVIATIONS

A	AMPERES	ID	INNERDUCT	WB	WESTBOUND
AC	ALTERNATING CURRENT	IDOT	ILLINOIS DEPARTMENT OF TRANSPORTATION	WM	WALL MOUNTED
A/C	AERIAL CABLE	IN	INCHES	WP	WOOD POLE
AFG	ABOVE FINISHED GRADE	J, JB	JUNCTION BOX	XFMR	TRANSFORMER
ANT	ANTENNA	KVA	KILOVOLT-AMPERE		
AOBE	AS ORDERED BY THE ENGINEER	KW	KILOWATT		
ASPH	ASPHALT	LF	LINEAR FEET		
ATS	ATTACHED TO STRUCTURE	LP	LIGHT POLE		
AVE	AVENUE	L SUM	LUMP SUM		
BHD	BULKHEAD	LT	LEFT		
BIT	BITUMINOUS	M	METER		
BLK	BLOCK	MA	MAST ARM		
BR	BRIDGE	MD	MICROWAVE DETECTOR		
C	CONDUIT, CONDUCTOR	MM	MULTI-MODE		
CAB	CABINET	MW	MESSENGER WIRE		
CBW	CONCRETE BLOCK WALL	NB	NORTHBOUND		
CC	COMMUNICATIONS CENTER	NIC	NOT IN CONTRACT		
CCTV	CLOSED CIRCUIT TELEVISION	NM	NONMETALLIC		
CDOT	CDOT-CHICAGO DEPARTMENT OF TRANSPORTATION	NO	NUMBER		
COMED	COMED	NTS	NOT TO SCALE		
CKT	CIRCUIT	OH	OVERHEAD		
CLF	CHAIN LINK FENCE	PL	PROPERTY LINE		
CNC	COILABLE NONMETALLIC CONDUIT	PH	PHASE		
COMM	COMMUNICATIONS	PIN	PROJECT IDENTIFICATION NUMBER		
CONC	CONCRETE	PNL	PANEL		
CONST	CONSTRUCTION	PROP	PROPOSED		
CORR	CORRUGATED	PTZ	PAN-TILT-ZOOM		
CW	CONCRETE WALL	PEC	POLYETHYLENE CONDUIT		
☉	CENTERLINE	PVC	POLYVINYL CHLORIDE		
DB	DIRECT BURIED	PVCC	POLYVINYL CHLORIDE COATED		
DC	DIRECT CURRENT	R	EXISTING UNIT TO BE REMOVED (OWNER SALVAGED UNO)		
DF	DARK FIBER	RC	REINFORCED CONCRETE		
DIA	DIAMETER	RD	ROAD		
DMS	DYNAMIC MESSAGE SIGN	RGC	RIGID GALVANIZED STEEL CONDUIT		
DWG	DRAWING(S)	RM	RAMP METER		
E	EXISTING UNIT TO REMAIN	ROW	RIGHT OF WAY		
EA	EACH	RR	EXISTING UNIT TO BE REMOVED AND REINSTALLED		
EB	EASTBOUND	RT	RIGHT		
ECA	ELECTRIC CABLE ASSEMBLY	RW	RETAINING WALL		
EL	ELEVATION	SB	SOUTHBOUND		
EM	EXISTING UNIT TO BE MODIFIED (e.g. NEW LUMINAIRE, BALLAST, OR MAST ARM)	SH	SHEET		
ER	EXISTING RELOCATED UNIT	SM	SINGLE MODE		
ET	EXISTING TEMPORARY UNIT TO REMAIN OR MODIFIED	SS	STAINLESS STEEL		
ETP	EMERGENCY TRAFFIC PATROL	ST	STREET		
ETR	EXISTING TEMPORARY RELOCATED UNIT	STA	STATION		
EXCAV	EXCAVATION	STD	STANDARD		
F, FT	FOOT, FEET	STL	STEEL		
FDN	FOUNDATION	STRUCT	STRUCTURE		
FO	FIBER OPTIC	SURF	SURFACE		
GM	GROUND MOUNTED	SURV	SURVEILLANCE		
GND, GRD	GROUND	SW	SIDEWALK		
GR	GUARD RAIL	T	TEMPORARY		
GSC	GALVANIZED STEEL CONDUIT	TAN	TANGENT		
HAR	HIGHWAY ADVISORY RADIO	TC	TRAY CABLE		
HD	HEAVY DUTY	TEL	TELEPHONE		
HH	HANDHOLE	TS	TRAFFIC SIGNAL		
HPS	HIGH PRESSURE SODIUM	TSC	TRAFFIC SYSTEMS CENTER		
HYD	HYDRANT	TYP	TYPICAL		
I	INTERSTATE	UD	UNIT DUCT		
		UND	UNDERDRAIN		
		UNO	UNLESS NOTED OTHERWISE		
		V	VOLT		
		W	WATT		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90 *		COOK	556	320
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	* (1818, ETC, 2324.6-1PR-8			

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EI-101



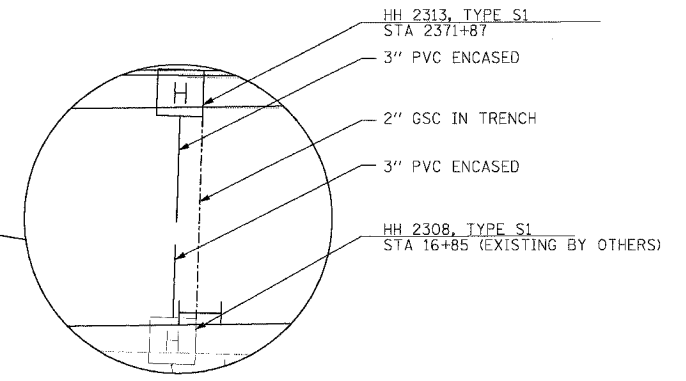
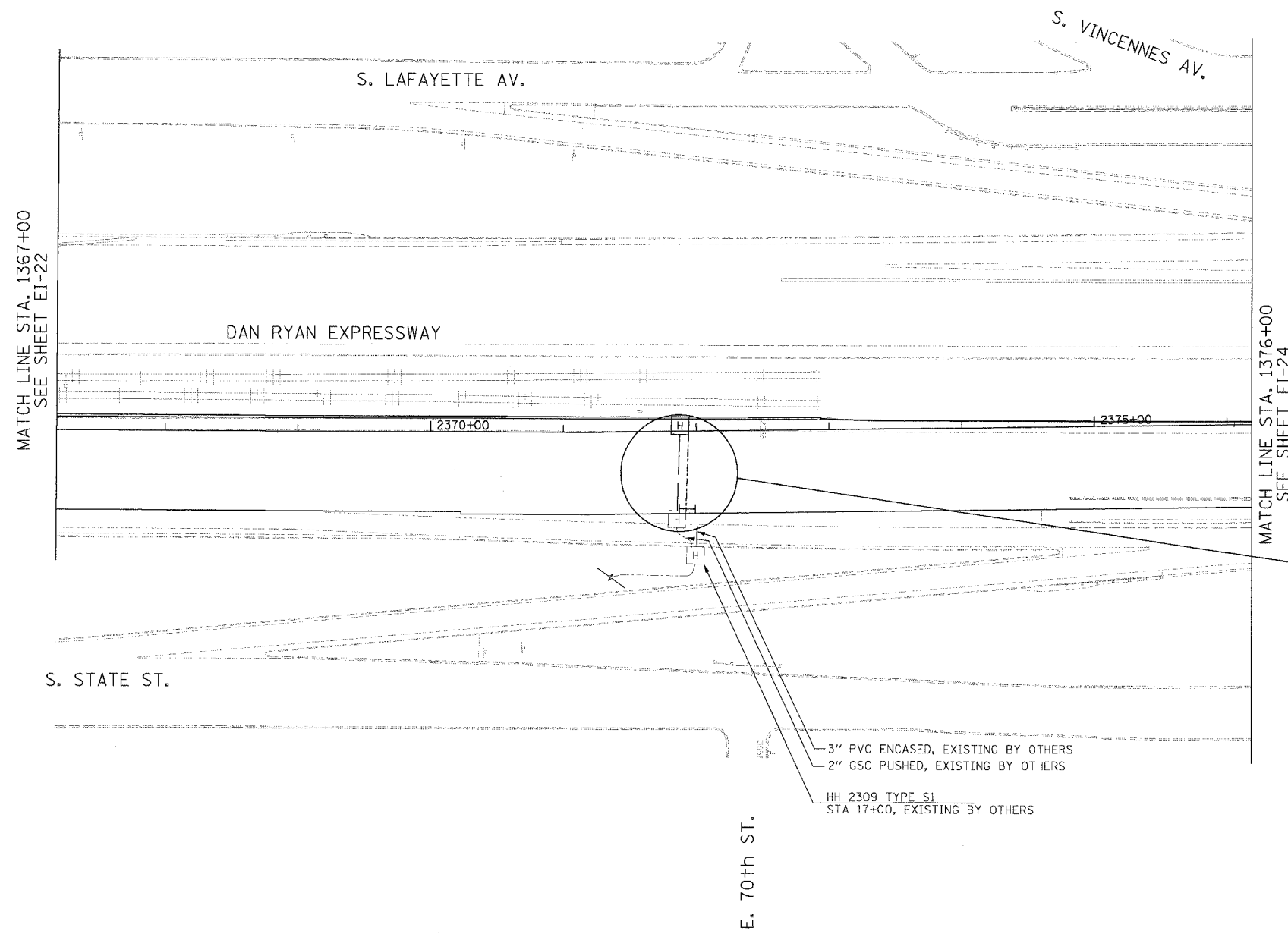
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 ELECTRICAL ABBREVIATIONS

SCALE: NOT TO SCALE
 DATE: 7/7/05
 DRAWN BY: CJM
 CHECKED BY: WDS

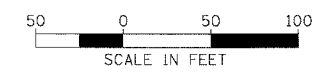
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	321
STA. 1366+00		TO STA. 1376+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300		• (1818, ETC, 2324.6-1P)R-8		



NOTE:
 3" PVC ENCASED, EXISTING BY OTHERS
 2" GSC PUSHED, EXISTING BY OTHERS
 HH 2309 TYPE S1
 STA 17+00, EXISTING BY OTHERS

- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DET-29



EI-23

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 ELECTRICAL INFRASTRUCTURE PLAN
 NORTHBOUND STA. 1367+00 TO 1376+00

SCALE: 1"=50'
 DATE: 7/7/05

DRAWN BY: CJH
 CHECKED BY: MJL

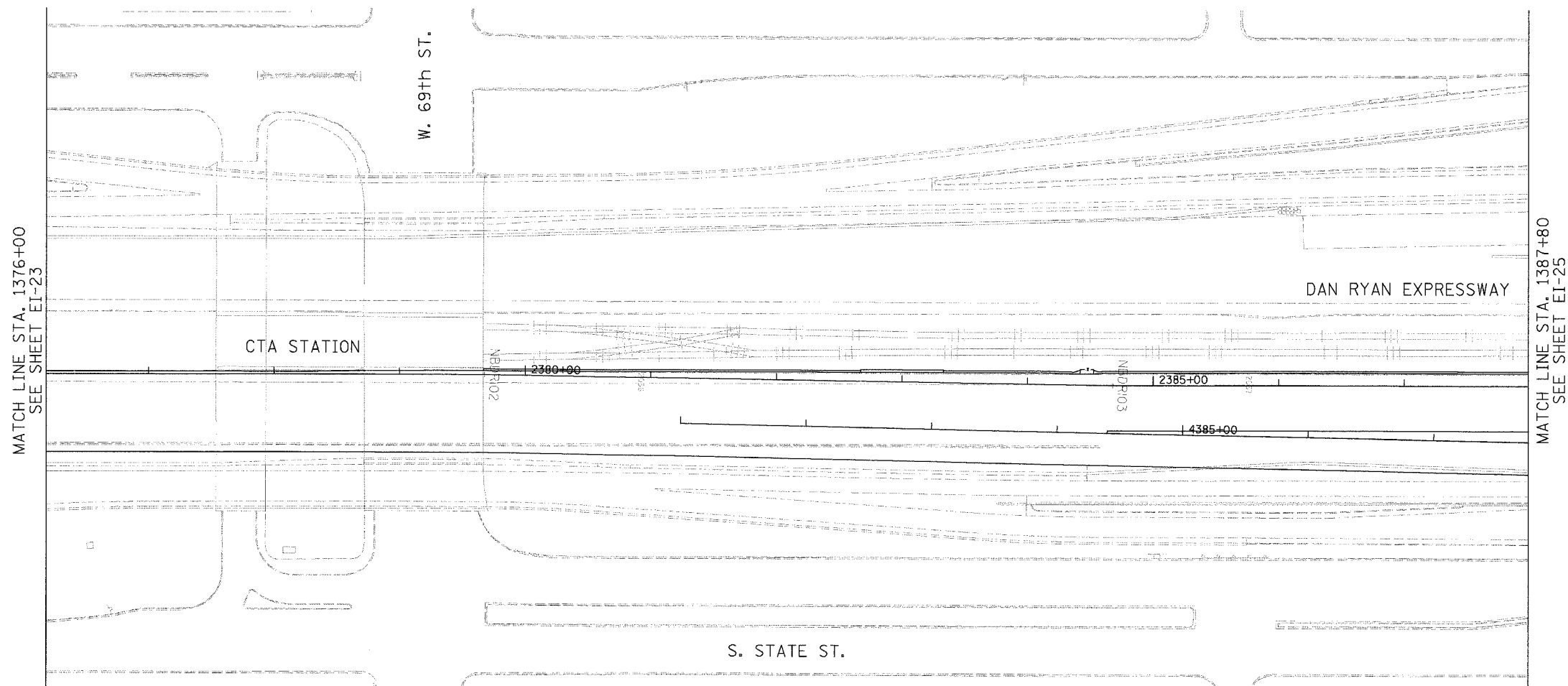
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	322
STA. 1376+00		TO STA. 1388+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300		1818, ETC, 2324.6-1PIR-8		

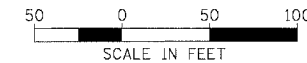
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ON THIS SHEET



NOTES:

1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
5. DETECTOR LOOPS INSTALLED BY OTHERS.
6. REFER TO HANDHOLE DETAILS. SEE DRAWING DET-29

**Edwards
AND Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1376+00 TO 1387+80

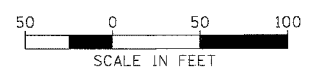
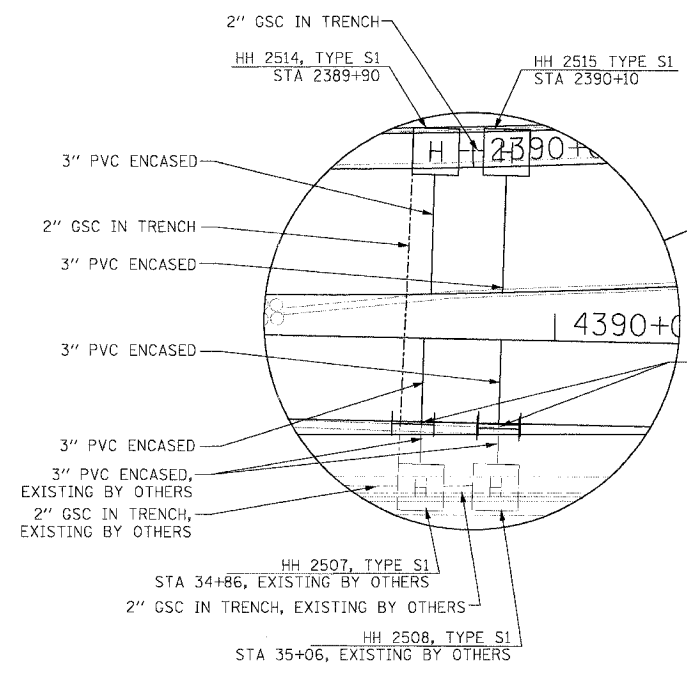
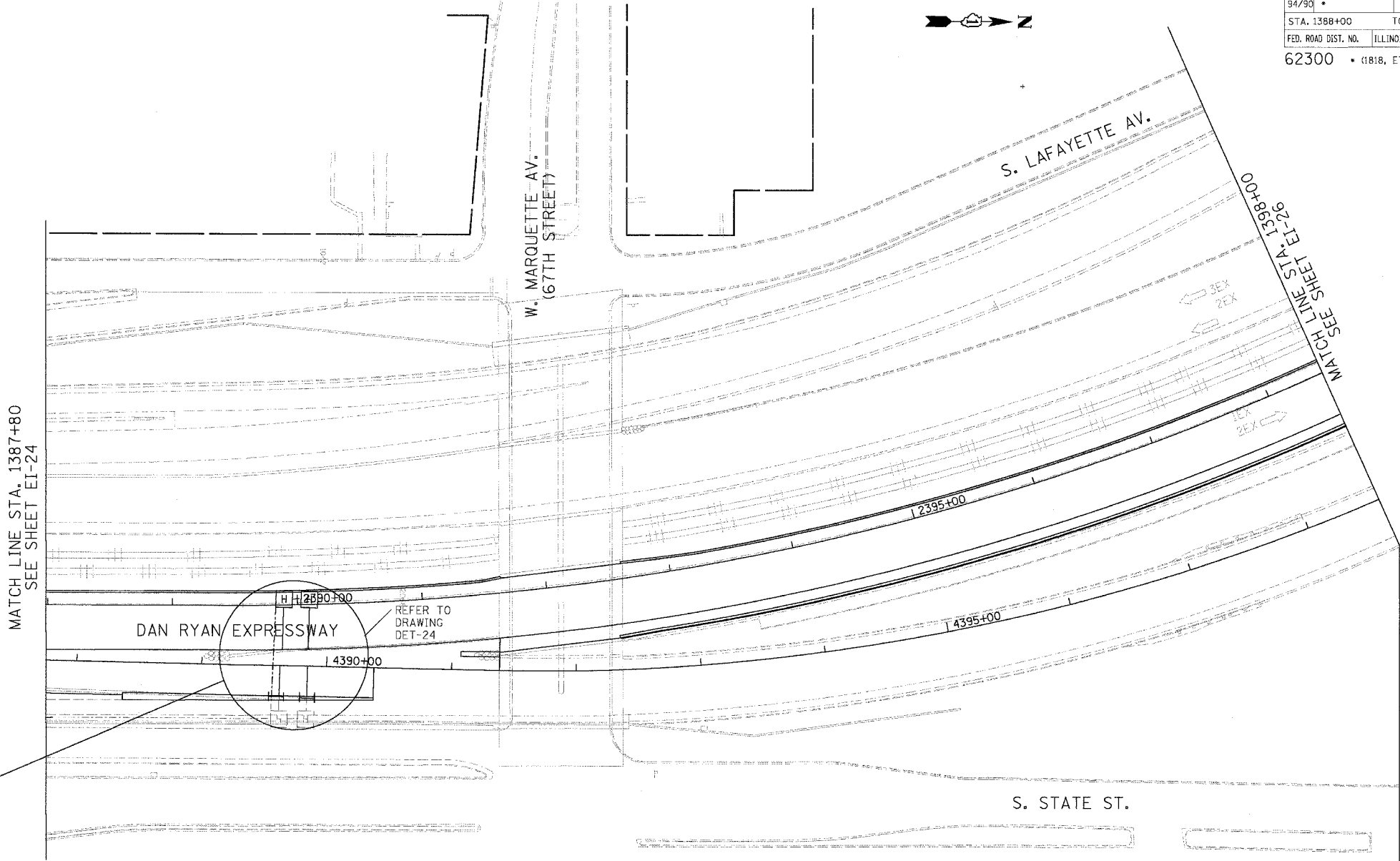
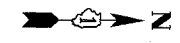
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DATE: 7/7/05

DRAWN BY: CJH
CHECKED BY: MJL

EI-24

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	323
STA. 1388+00		TO STA. 1398+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300		1818, ETC. 2324.6-1P1R-8		



EI-25

- NOTES:
- SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - DETECTOR LOOPS INSTALLED BY OTHERS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 ELECTRICAL INFRASTRUCTURE PLAN
 NORTHBOUND STA. 1387+80 TO 1398+00

SCALE: 1"=50'
 DATE: 7/7/05

DRAWN BY: CJH
 CHECKED BY: MJL

**Edwards
 AND Kelcey**

ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

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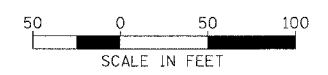
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	324
STA. 1398+00			TO STA. 1406+00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300		• (1818, ETC, 2324.6-1P)R-8		



NO PROPOSED WORK
ON THIS SHEET



- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DE-29.



EI-26

**Edwards
AND Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

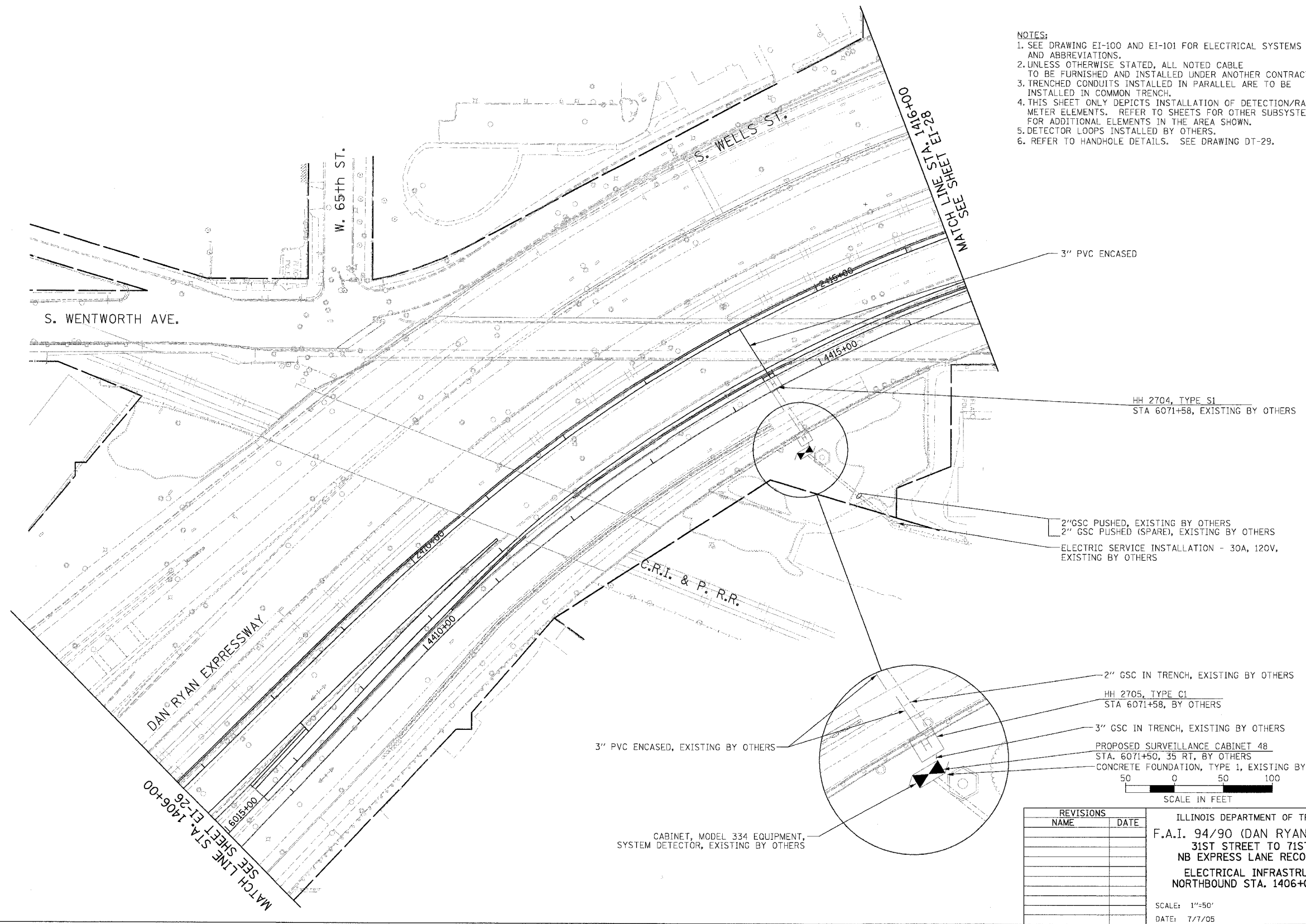
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31ST STREET TO 71ST STREET NB EXPRESS LANE RECONSTRUCTION ELECTRICAL INFRASTRUCTURE PLAN NORTHBOUND STA 1398+00 TO 1406+00
NAME	DATE	
		SCALE: 1"=50' DATE: 7/7/05 DRAWN BY: CJH CHECKED BY: MJL

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	325
STA. 1406+00		TO STA. 1416+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62300		• 11818, ETC, 2324.6-1PIR-8		



- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



3" PVC ENCASED

HH 2704, TYPE S1
STA 6071+58, EXISTING BY OTHERS

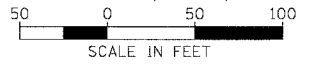
2" GSC PUSHED, EXISTING BY OTHERS
2" GSC PUSHED (SPARE), EXISTING BY OTHERS
ELECTRIC SERVICE INSTALLATION - 30A, 120V,
EXISTING BY OTHERS

2" GSC IN TRENCH, EXISTING BY OTHERS
HH 2705, TYPE C1
STA 6071+58, BY OTHERS

3" GSC IN TRENCH, EXISTING BY OTHERS
PROPOSED SURVEILLANCE CABINET 48
STA. 6071+50, 35 RT, BY OTHERS
CONCRETE FOUNDATION, TYPE 1, EXISTING BY OTHERS

3" PVC ENCASED, EXISTING BY OTHERS

CABINET, MODEL 334 EQUIPMENT,
SYSTEM DETECTOR, EXISTING BY OTHERS



EI-27

REVISIONS		NAME	DATE
NO.	DESCRIPTION		

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1406+00 TO 1416+00

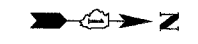
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DRAWN BY: CJH
CHECKED BY: MJL

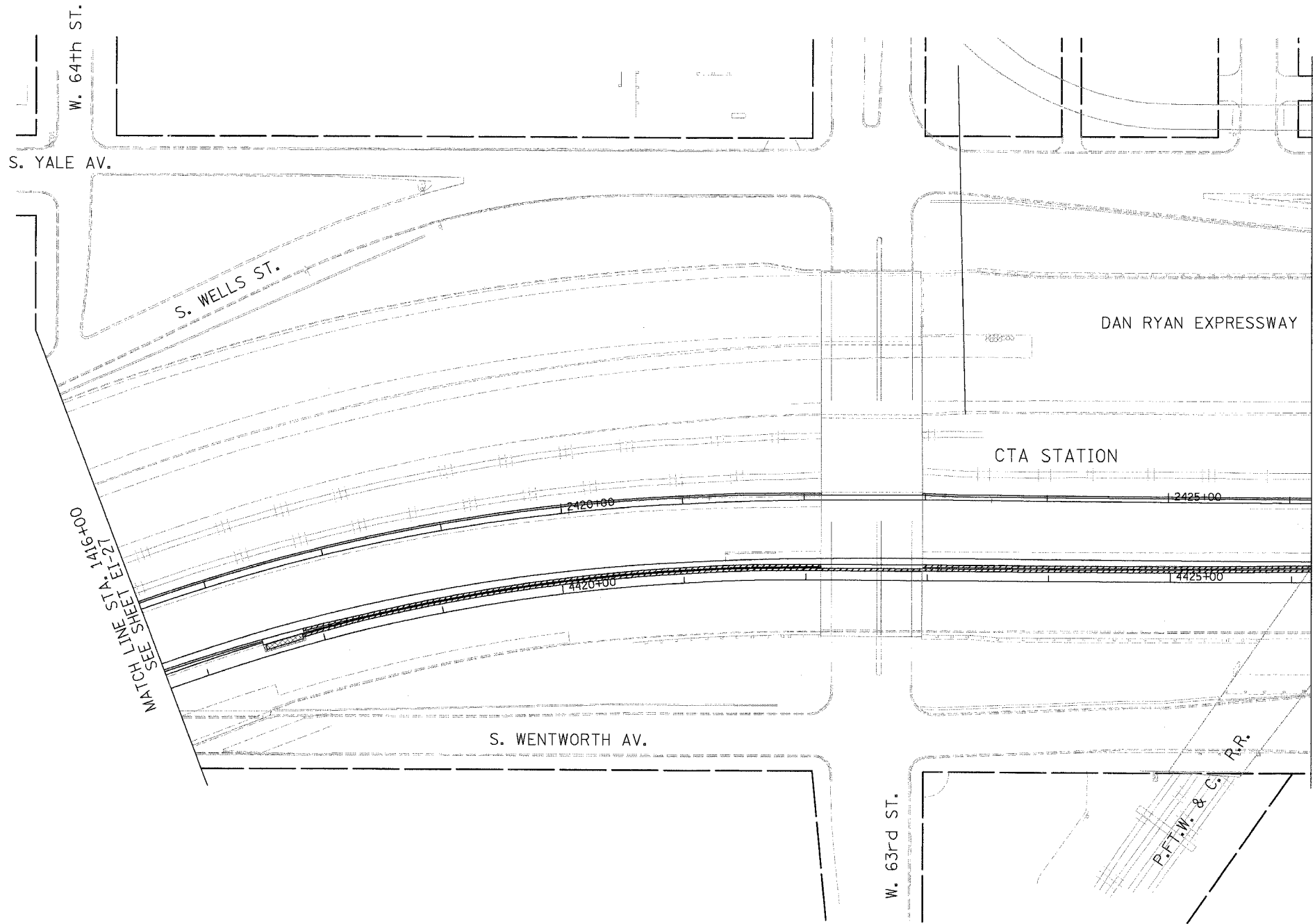
**Edwards
AND Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

P:\0307910\91035\91035.dwg 14815\CADD\WAD\ET020279.FLT

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	326
STA. 1416+00		TO STA. 1426+00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62300	• (1818, ETC, 2324.6-1PIR-8			



P:\03009035\Con 148\5\CONDA\40ET020282E.SHT

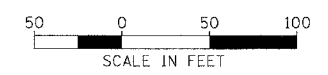


NO PROPOSED WORK
ON THIS SHEET

MATCH LINE STA. 1426+00
SEE SHEET EI-29

MATCH LINE STA. 1416+00
SEE SHEET EI-27

- NOTES:**
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DET-29.



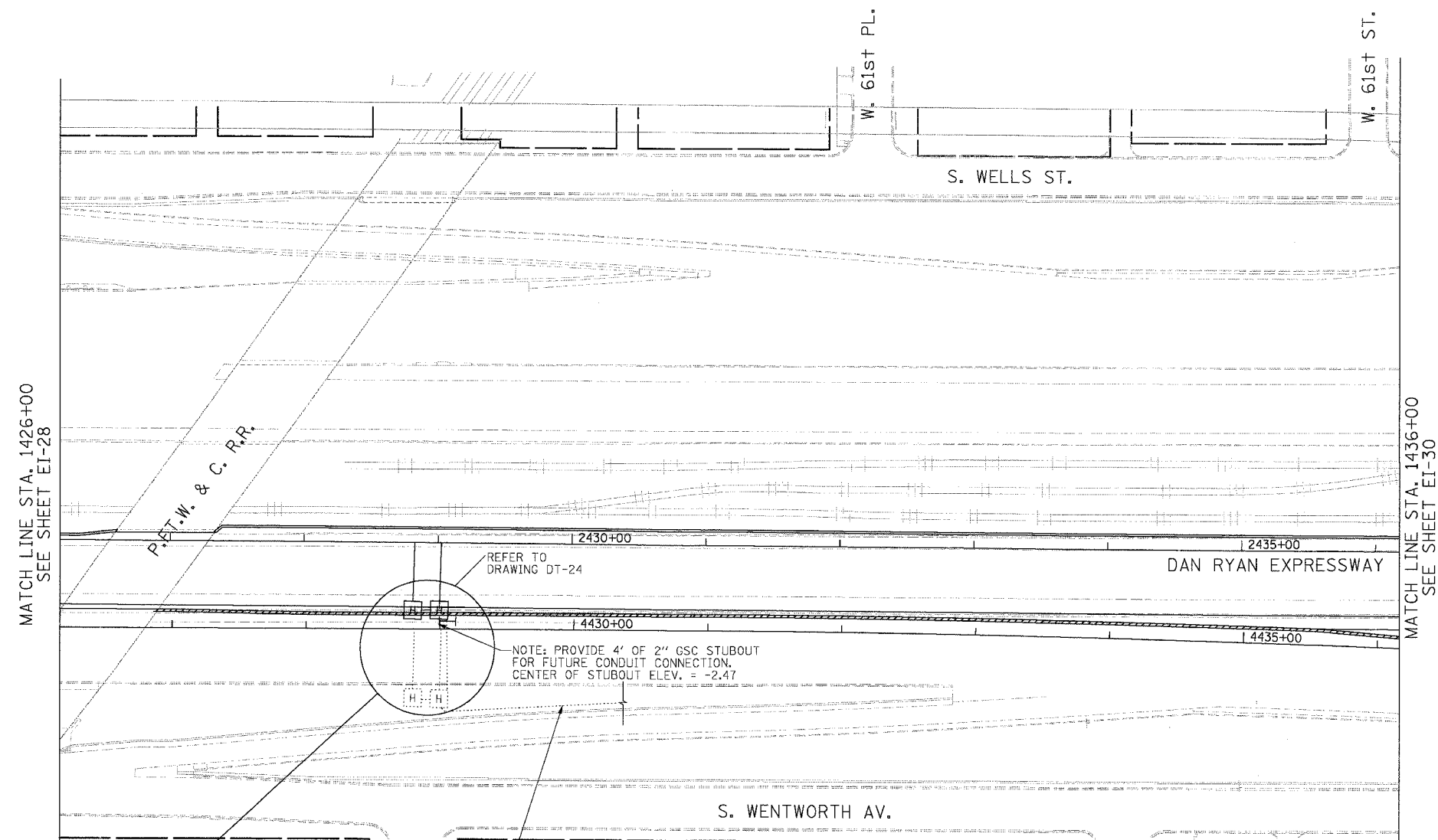
EI-28

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

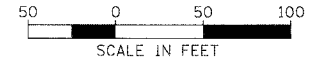
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31ST STREET TO 71ST STREET NB EXPRESS LANE RECONSTRUCTION ELECTRICAL INFRASTRUCTURE PLAN NORTHBOUND STA. 1416+00 TO 1426+00
NAME	DATE	
SCALE: 1"=50'		DRAWN BY: CJH
DATE: 7/7/05		CHECKED BY: MJL

06/24/2005 01:11:49 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	327
STA. 1426+00		TO STA. 1436+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62300		• (1818, ETC, 2324.6-1P1R-8		



- NOTES:
- SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - DETECTOR LOOPS INSTALLED BY OTHERS.
 - REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-29

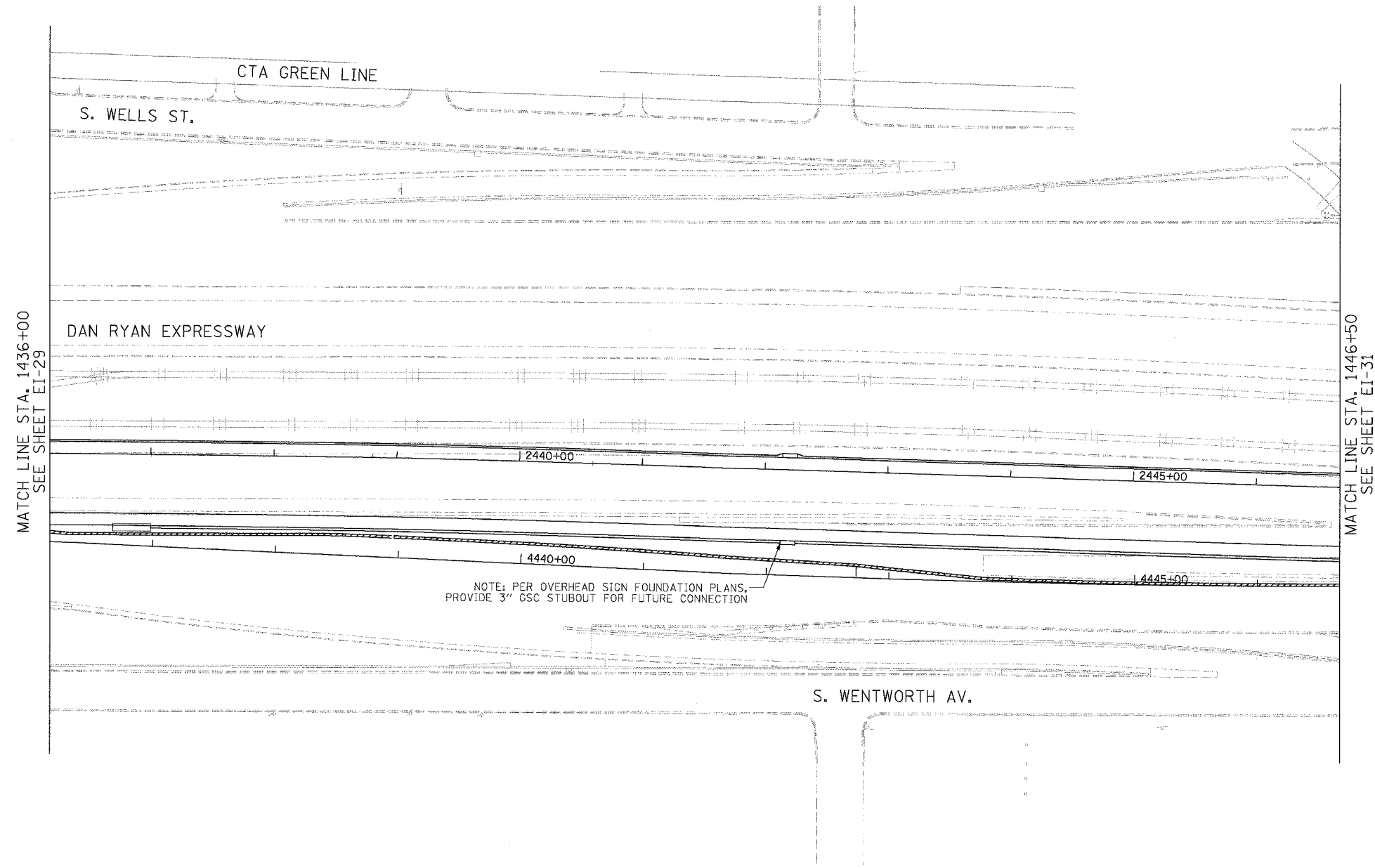
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31ST STREET TO 71ST STREET NB EXPRESS LANE RECONSTRUCTION ELECTRICAL INFRASTRUCTURE PLAN NORTHBOUND STA 1426+00 TO 1436+00
NAME	DATE	
SCALE: 1"=50'		DRAWN BY: CJH
DATE: 7/7/05		CHECKED BY: MJL

- (7) 4/C #18, BY OTHERS
- 2" GSC IN TRENCH, BY OTHERS
- 3" PVC ENCASED
- HH 2913, TYPE S1 (SPECIAL)
STA 2429+01
2" GSC IN TRENCH
- HH 2911, TYPE S1 (SPECIAL)
STA 2428+82
3" PVC ENCASED, FUTURE WORK BY OTHERS
- 2" GSC IN TRENCH, FUTURE WORK BY OTHERS
- HH 2912, TYPE S1
STA 2429+01, FUTURE WORK BY OTHERS
2" GSC IN TRENCH, FUTURE WORK BY OTHERS
- HH 2910, TYPE S1
STA 2428+82, FUTURE WORK BY OTHERS

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.E&KCORP.COM

06/24/2005 09:22:22 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	328
STA. 1436+00		TO STA. 1446+50		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
62300		11818, ETC, 2324.6-1P1R-8		

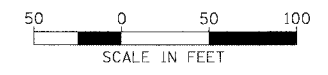


MATCH LINE STA. 1436+00
SEE SHEET EI-29

MATCH LINE STA. 1446+50
SEE SHEET EI-31

NOTE: PER OVERHEAD SIGN FOUNDATION PLANS,
PROVIDE 3" GSC STUBOUT FOR FUTURE CONNECTION

- NOTES:**
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-30

**Edwards
AND
Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
SOUTHBOUND STA. 1436+00 TO 1446+50

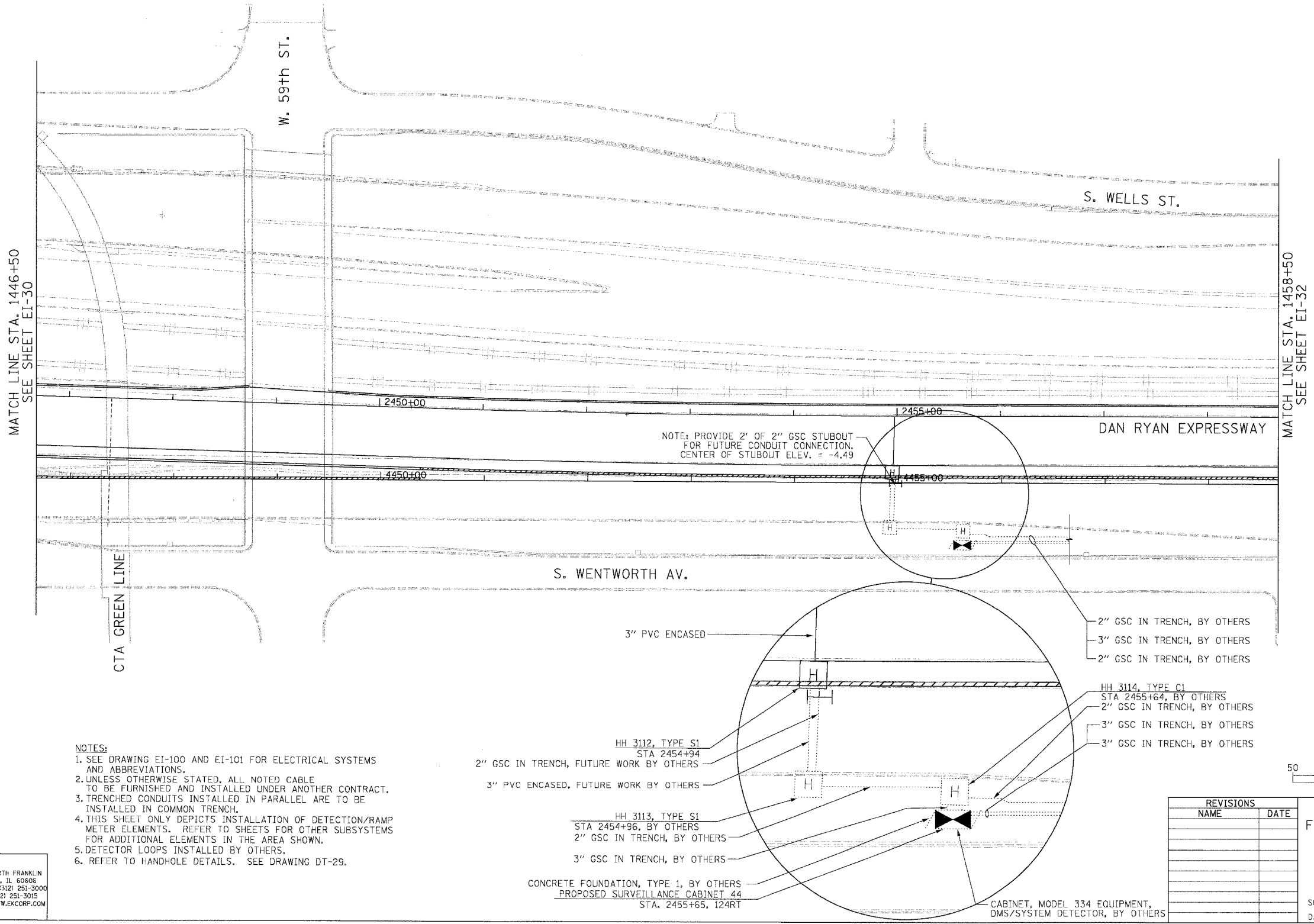
SCALE: 1"=50'
DATE: 7/7/05

DRAWN BY: CJH
CHECKED BY: MJL

P:\G\300190335\Com 148\5\CADD\IN\IE1020302\SH1

06/24/2005 09:25:17 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	329
STA. 1446+50	TO STA. 1458+50			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62300	11818, ETC. 2324.6-1P1R-8			



MATCH LINE STA. 1446+50
SEE SHEET EI-30

MATCH LINE STA. 1458+50
SEE SHEET EI-32

- NOTES:**
- SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - DETECTOR LOOPS INSTALLED BY OTHERS.
 - REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.

NOTE: PROVIDE 2' OF 2" GSC STUBOUT FOR FUTURE CONDUIT CONNECTION. CENTER OF STUBOUT ELEV. = -4.49

2" GSC IN TRENCH, BY OTHERS
3" GSC IN TRENCH, BY OTHERS
2" GSC IN TRENCH, BY OTHERS

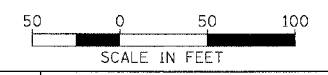
HH 3114, TYPE C1
STA 2455+64, BY OTHERS
2" GSC IN TRENCH, BY OTHERS
3" GSC IN TRENCH, BY OTHERS
3" GSC IN TRENCH, BY OTHERS

HH 3112, TYPE S1
STA 2454+94
2" GSC IN TRENCH, FUTURE WORK BY OTHERS
3" PVC ENCASED, FUTURE WORK BY OTHERS

HH 3113, TYPE S1
STA 2454+96, BY OTHERS
2" GSC IN TRENCH, BY OTHERS
3" GSC IN TRENCH, BY OTHERS

CONCRETE FOUNDATION, TYPE 1, BY OTHERS
PROPOSED SURVEILLANCE CABINET 44
STA. 2455+65, 124RT

CABINET, MODEL 334 EQUIPMENT, DMS/SYSTEM DETECTOR, BY OTHERS



EI-31

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA 1446+50 TO 1458+50

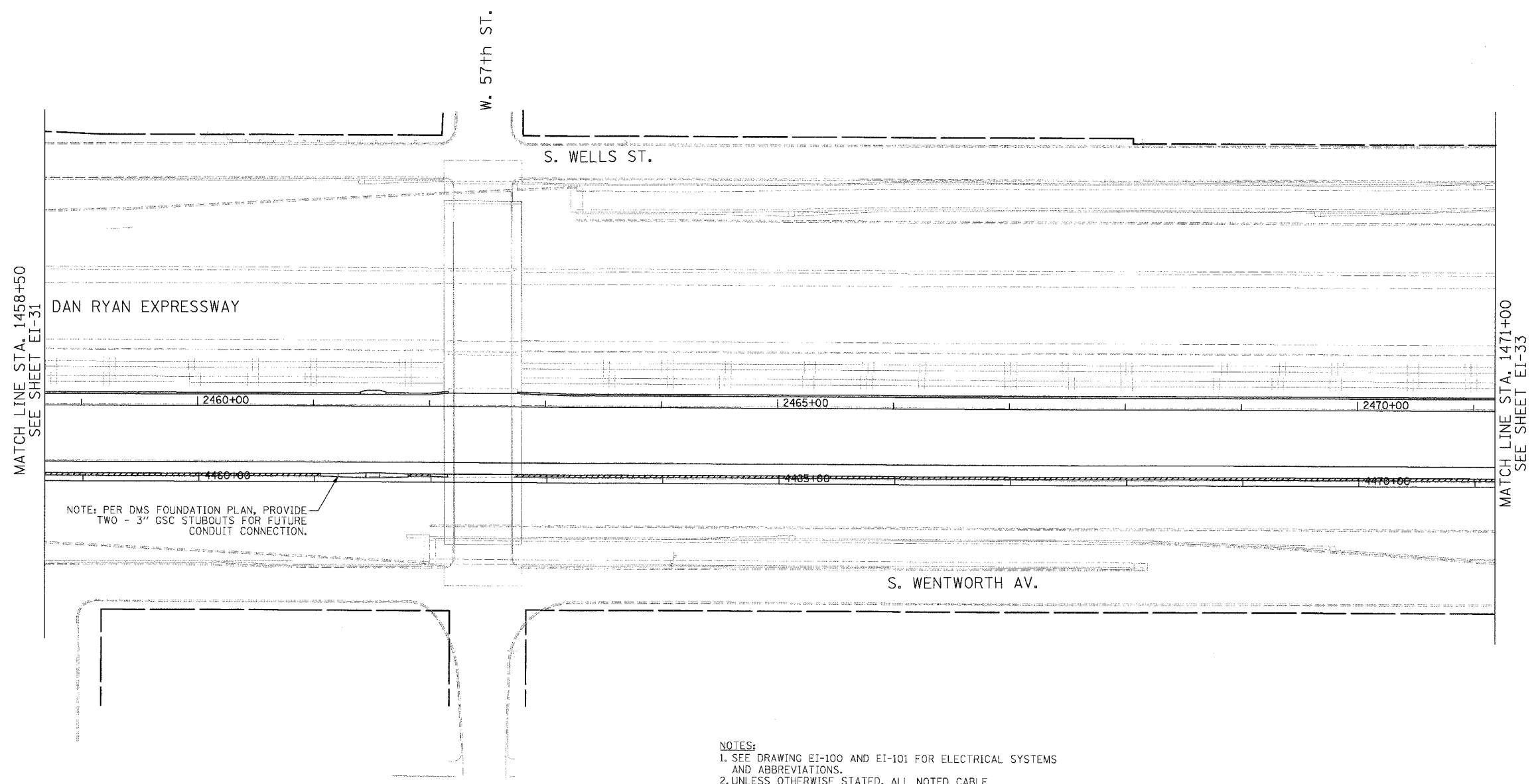
SCALE: 1"=50'
DATE: 7/7/05

DRAWN BY: CJH
CHECKED BY: MJL

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

06/27/2005 09:32:29 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	330
STA. 1458+50		TO STA. 1471+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	11818, ETC, 2324.6-1P1R-8			

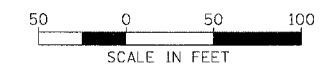


MATCH LINE STA. 1458+50
SEE SHEET EI-31

MATCH LINE STA. 1471+00
SEE SHEET EI-33

NOTE: PER DMS FOUNDATION PLAN, PROVIDE
TWO - 3" GSC STUBOUTS FOR FUTURE
CONDUIT CONNECTION.

- NOTES:**
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
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 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-32

**Edwards
AND Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

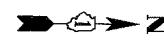
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1458+50 TO 1471+00

SCALE: 1"=50'
DATE: 7/7/05

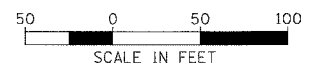
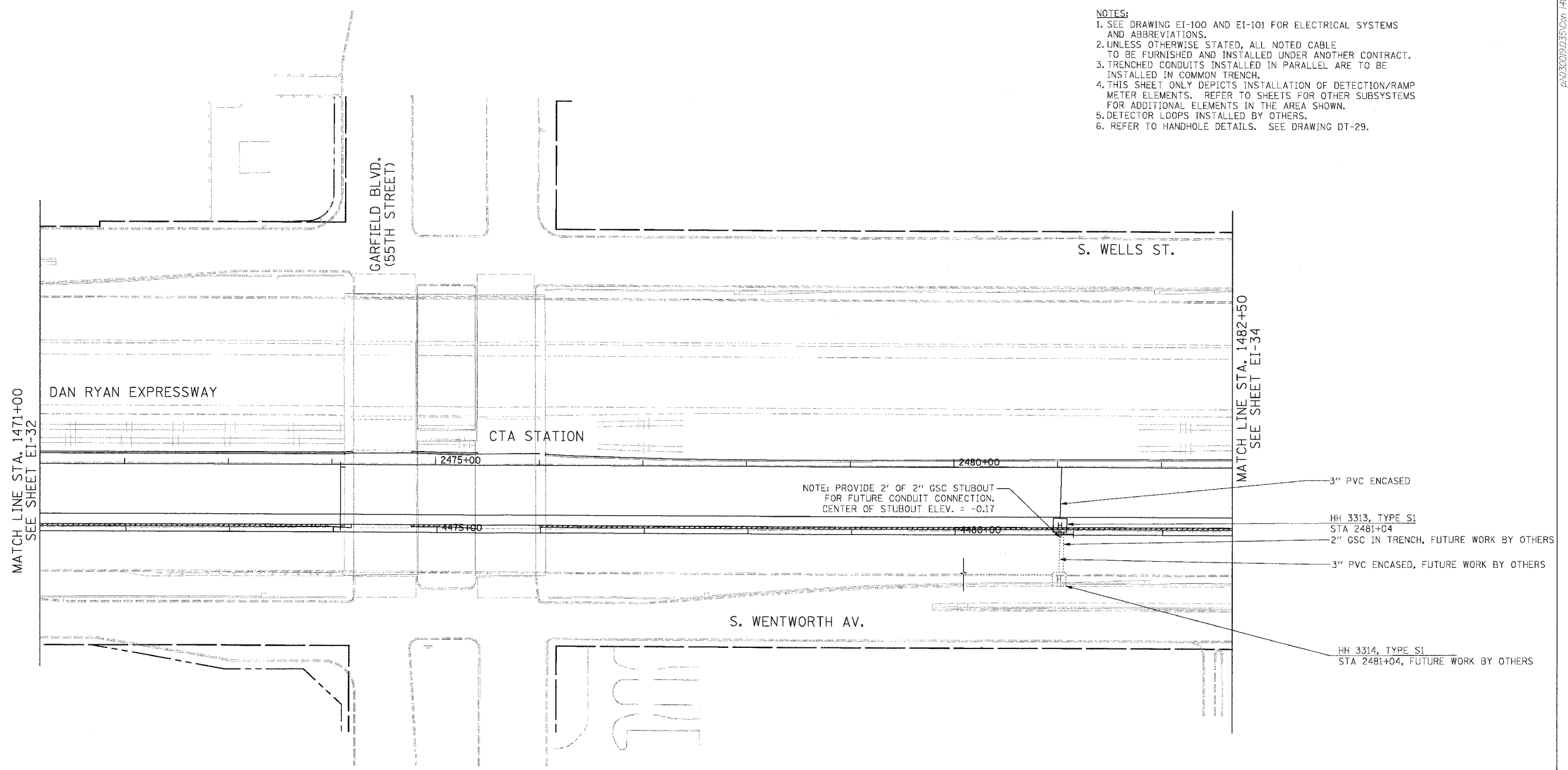
DRAWN BY: CJH
CHECKED BY: MJL

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90 *		COOK	556	331
STA. 1471+00		TO STA. 1482+50		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62300	1818, ETC, 2324.6-1PR-8			

- NOTES:**
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
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 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-33

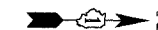
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 ELECTRICAL INFRASTRUCTURE PLAN
 NORTHBOUND STA 1471+00 TO 1482+50
 SCALE: 1"=50'
 DATE: 7/7/05
 DRAWN BY: CJH
 CHECKED BY: MJL

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

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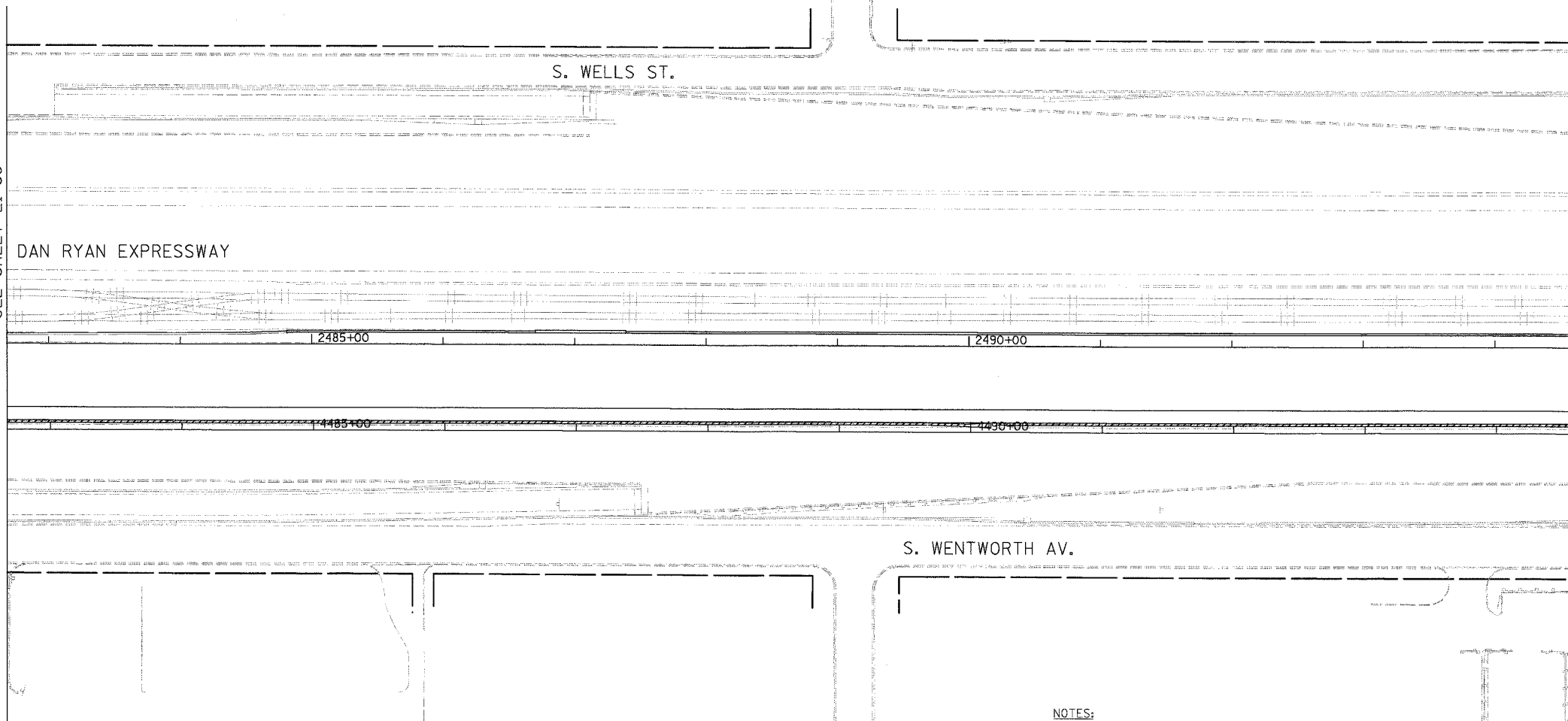
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
94/90		COOK	556	332
STA. 1482+50		TO STA. 1494+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300 • 11818, ETC, 2324.6-1P1R-8				



NO PROPOSED WORK
ON THIS SHEET

MATCH LINE STA. 1482+50
SEE SHEET EI-33

MATCH LINE STA. 1494+50
SEE SHEET EI-35



- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
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 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-34

**Edwards
AND
Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

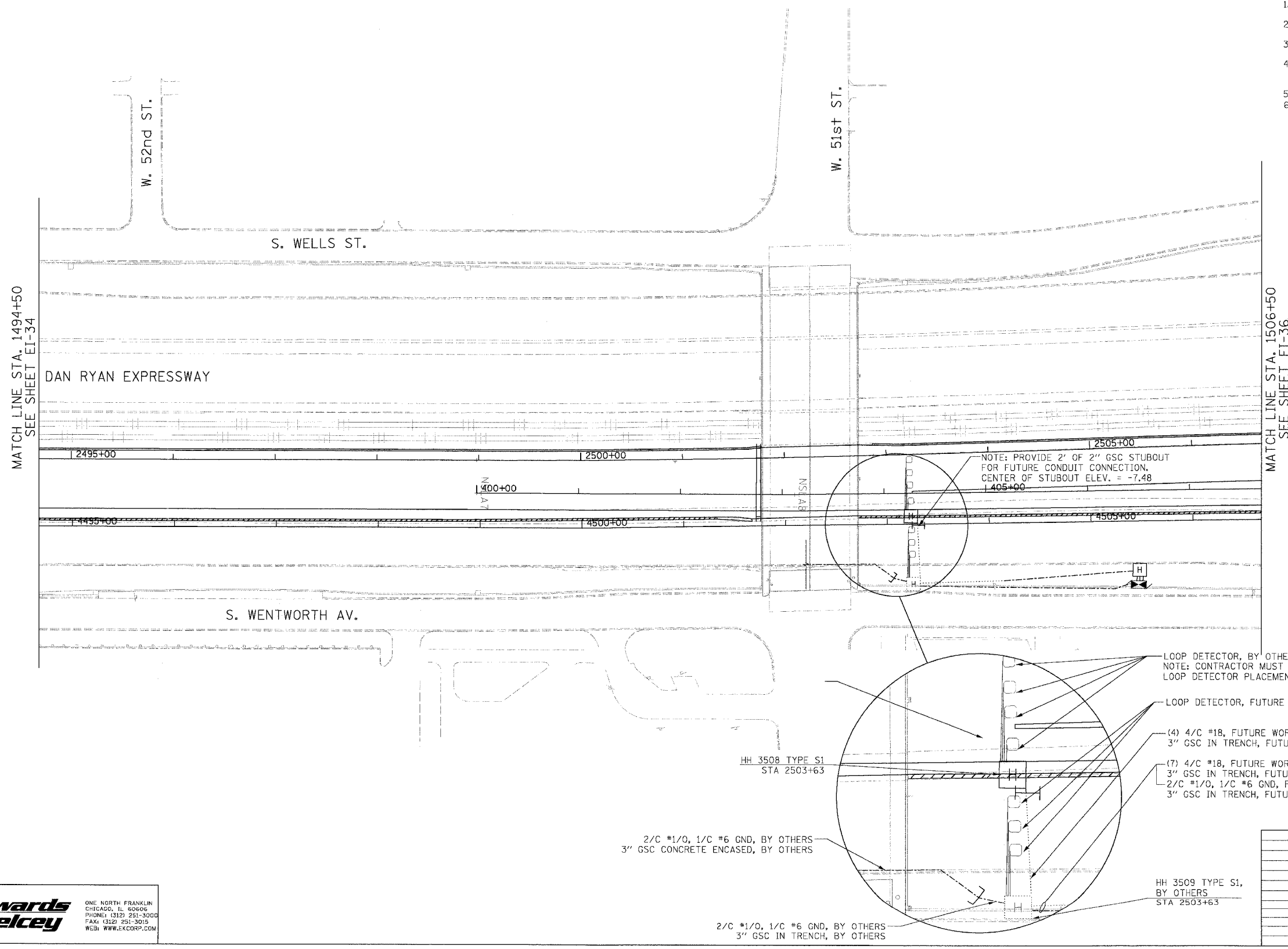
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31ST STREET TO 71ST STREET NB EXPRESS LANE RECONSTRUCTION ELECTRICAL INFRASTRUCTURE PLAN NORTHBOUND STA 1482+50 TO 1495+50
NAME	DATE	
SCALE: 1"=50'		DRAWN BY: CJH
DATE: 7/7/05		CHECKED BY: MJL

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	333
STA. 1494+50		TO STA. 1506+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	• (1818, ETC, 2324.6-1P)R-8			



- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
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 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 ELECTRICAL INFRASTRUCTURE PLAN
 NORTHBOUND STA. 1494+50 TO 1506+50

SCALE: 1"=50'
 DATE: 7/7/05

DRAWN BY: CJH
 CHECKED BY: MJL

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EDKORP.COM

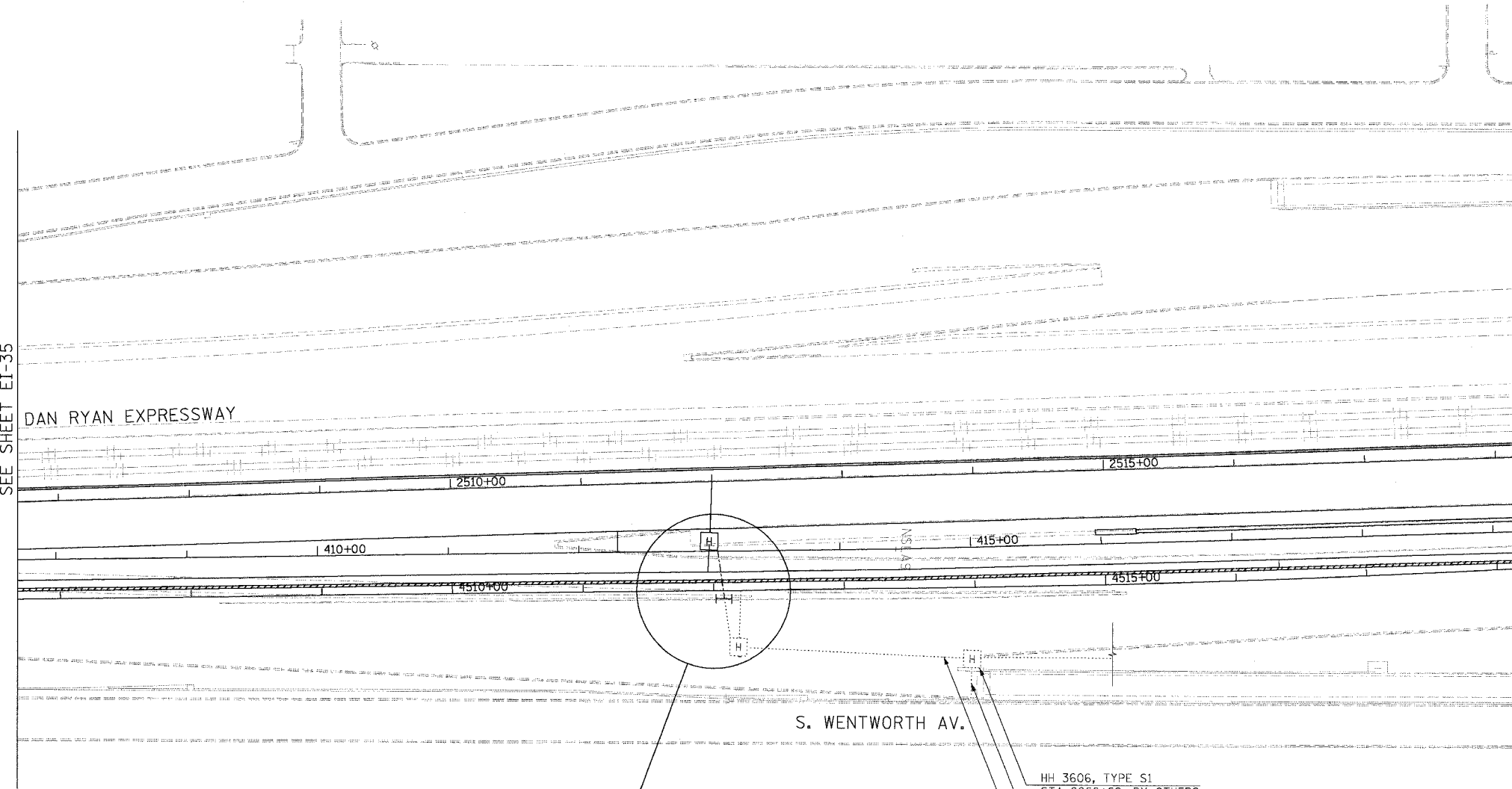
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	334
STA. 1506+50		TO STA. 1518+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	11818, ETC, 2324.6-IPR-8			



MATCH LINE STA. 1506+50
SEE SHEET EI-35

MATCH LINE STA. 1518+00
SEE SHEET EI-37



DAN RYAN EXPRESSWAY

S. WENTWORTH AV.

3" PVC ENCASED

2" GSC IN TRENCH, FUTURE WORK BY OTHERS
3" PVC IN TRENCH, FUTURE WORK BY OTHERS

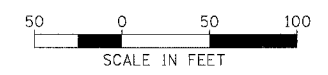
HH 3604, TYPE S1
STA 2512+00

2" GSC IN TRENCH STUBOUT FOR FUTURE
CONDUIT CONNECTION. CENTER OF
STUBOUT ELEV. = 2.86

HH 3605, TYPE S1
STA 2512+17, FUTURE WORK BY OTHERS

HH 3606, TYPE S1
STA 8068+62, BY OTHERS
3" PVC IN TRENCH, BY OTHERS
2" GSC IN TRENCH, BY OTHERS

- NOTES:**
- SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
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 - THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - DETECTOR LOOPS INSTALLED BY OTHERS.
 - REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-36

**Edwards
AND
Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE

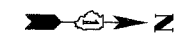
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
SOUTHBOUND STA 1506+50 TO 1518+00

SCALE: 1"=50'
DATE: 7/7/05

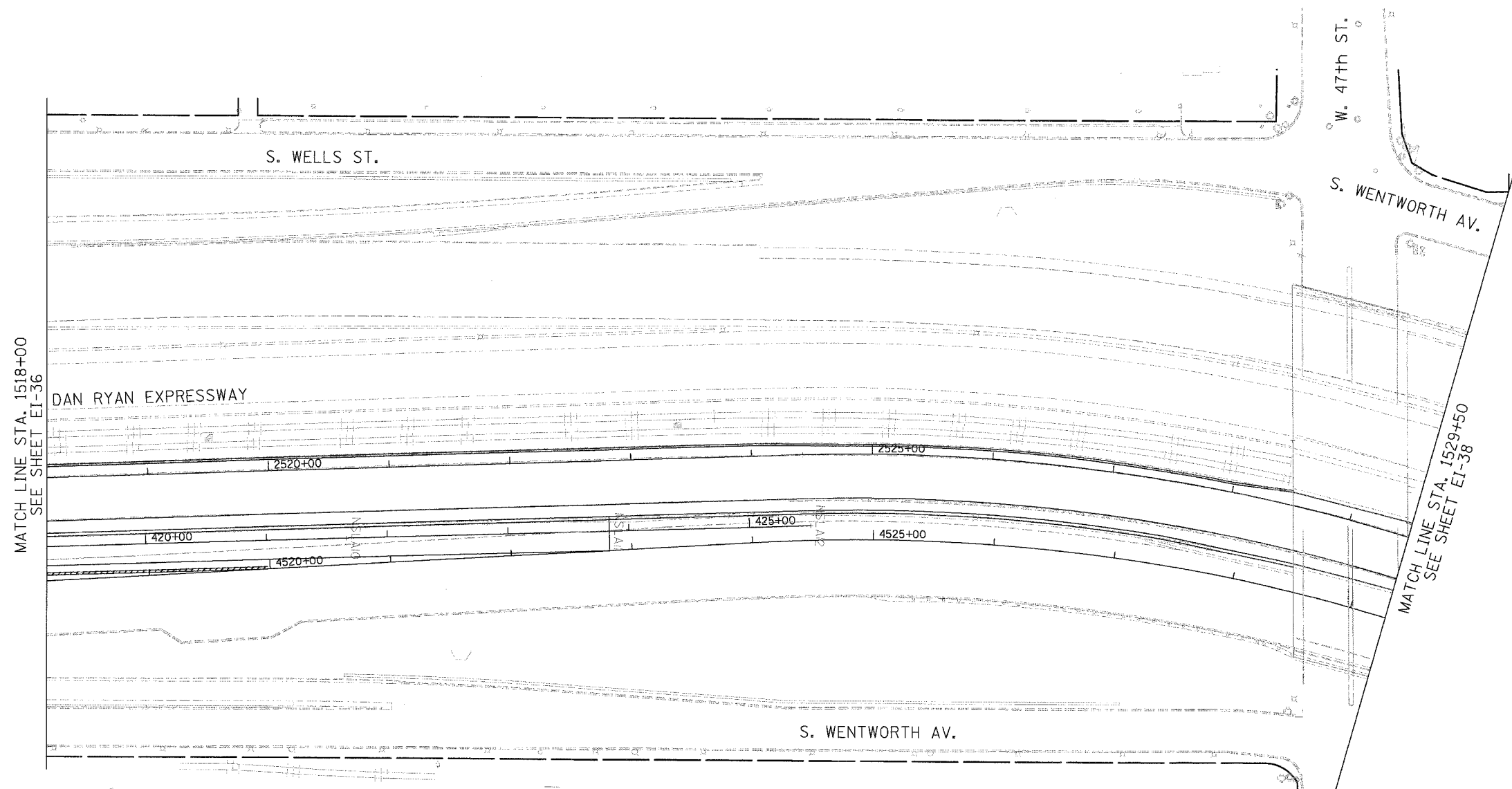
DRAWN BY: CJH
CHECKED BY: M.JL

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	335
STA. 1518+00		TO STA. 1529+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300		• (1818, ETC, 2324.6-1P)R-8		



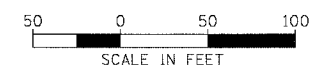
NO PROPOSED WORK
ON THIS SHEET



MATCH LINE STA. 1518+00
SEE SHEET EI-36

MATCH LINE STA. 1529+50
SEE SHEET EI-38

- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-37

**Edwards
AND
Kelcey**
ONE NORTH FRANKLIN
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA 1518+00 TO 1529+50

SCALE: 1"=50'
DATE: 7/7/05

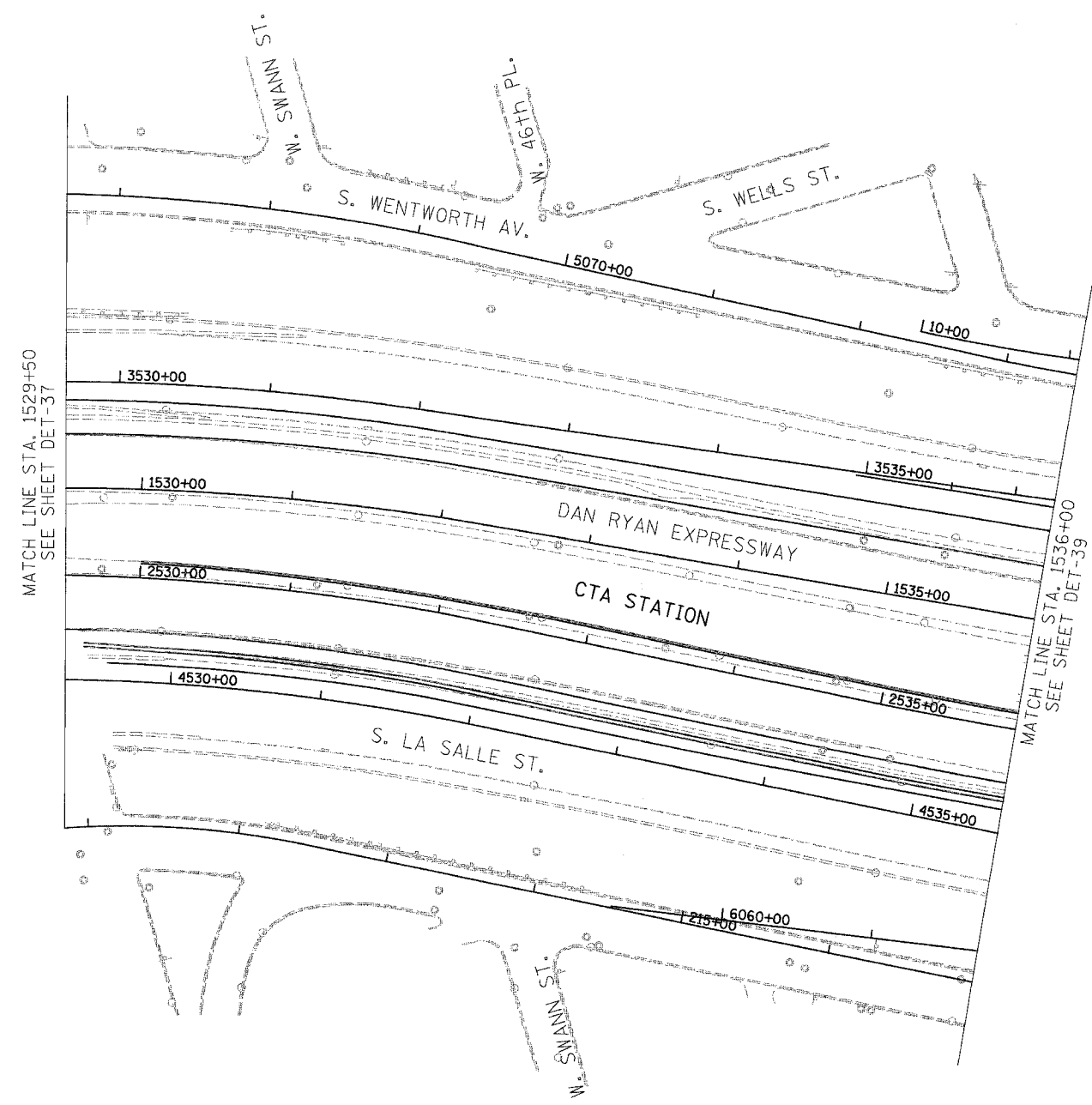
DRAWN BY: CJH
CHECKED BY: M.JL

06/24/2005 09:46:13 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	336
STA.	1529+50	TO STA.	1536+00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300 • 11818, ETC, 2324.6-1PR-8				

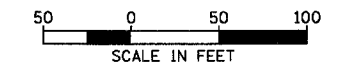


NO PROPOSED WORK ON THIS SHEET



- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.

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EI-38

REVISIONS	
NAME	DATE

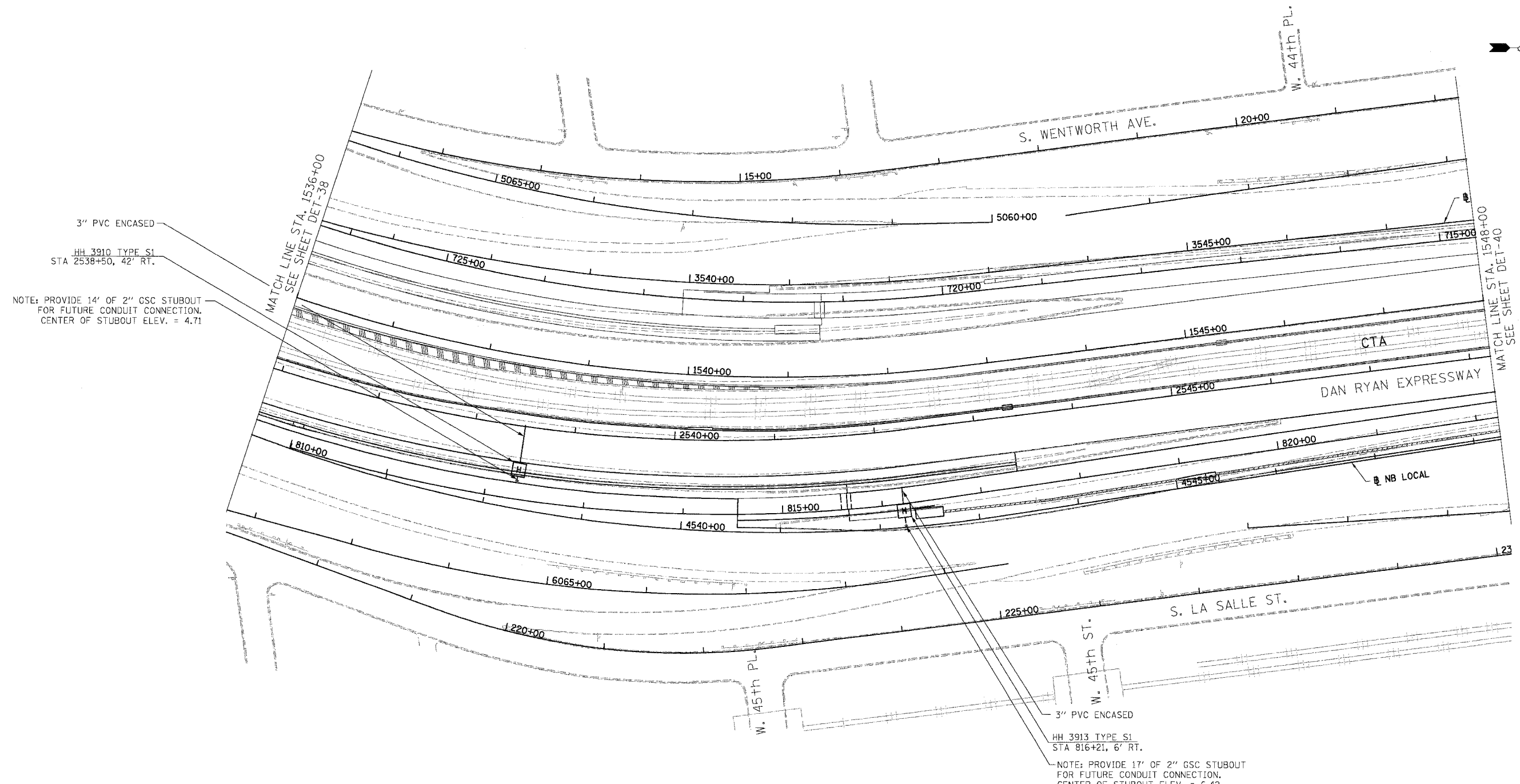
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1529+50 TO STA. 1536+00

SCALE: 1"=50'
DATE: 07/07/05

DRAWN BY: TER
CHECKED BY: JDC

6/27/2005 5:08:55 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	337
STA. 1536+00	TO STA. 1548+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	*1818, ETC, 2324.6-1PR-B			

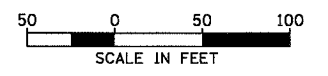


3" PVC ENCASED
 HH 3910 TYPE S1
 STA 2538+50, 42' RT.
 NOTE: PROVIDE 14' OF 2" GSC STUBOUT FOR FUTURE CONDUIT CONNECTION. CENTER OF STUBOUT ELEV. = 4.71

3" PVC ENCASED
 HH 3913 TYPE S1
 STA 816+21, 6' RT.
 NOTE: PROVIDE 17' OF 2" GSC STUBOUT FOR FUTURE CONDUIT CONNECTION. CENTER OF STUBOUT ELEV. = 6.42

- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.

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EI-39

REVISIONS	
NAME	DATE

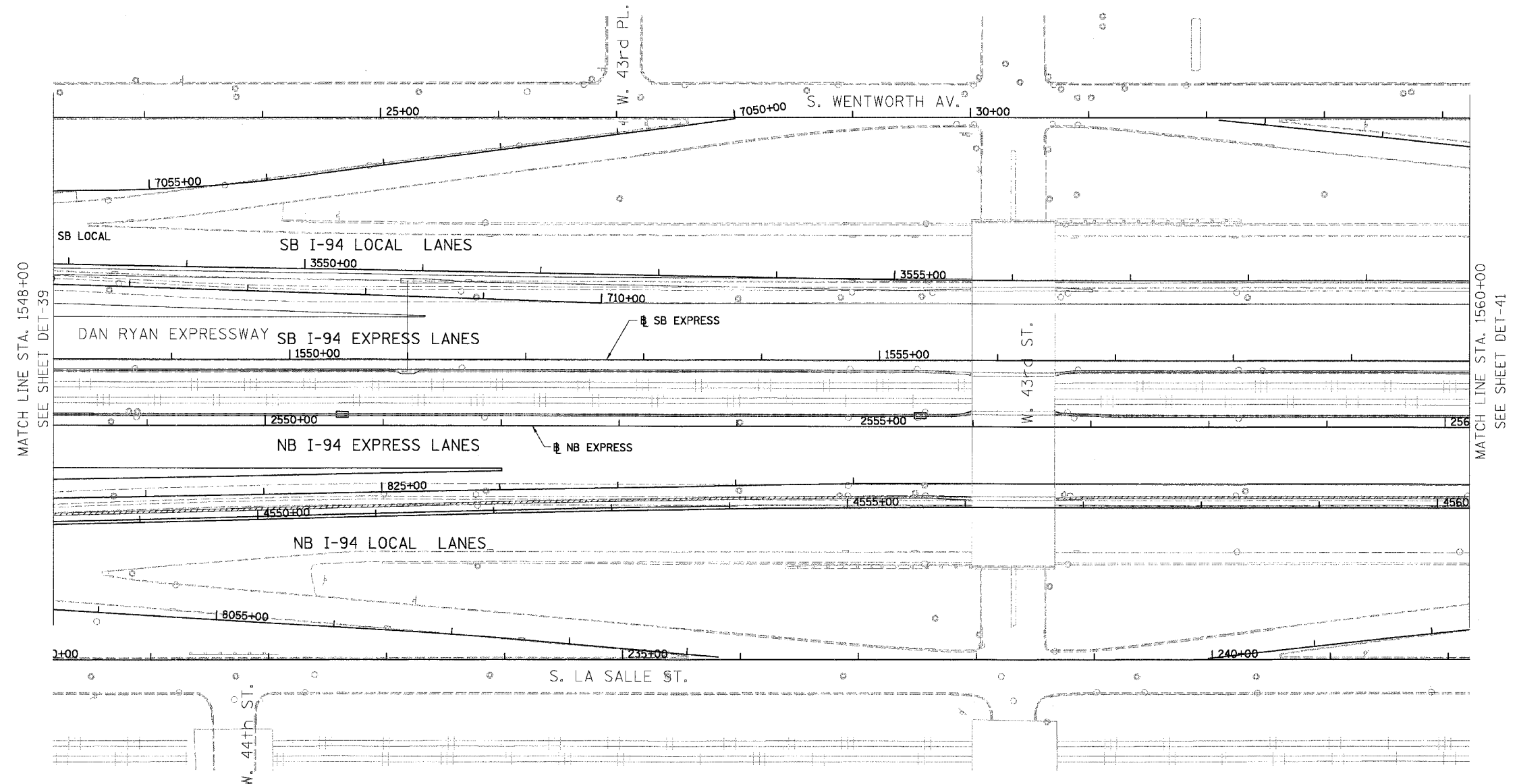
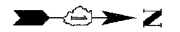
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 ELECTRICAL INFRASTRUCTURE PLAN
 NORTHBOUND STA. 1536+00 TO STA. 1548+00
 SCALE: 1"=50'
 DATE: 07/07/05
 DRAWN BY: TER
 CHECKED BY: JDC

6/27/2005 5:06:56 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	338
STA. 1548+00	TO STA. 1560+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62300 *181B, ETC, 2324.6-1P1R-8

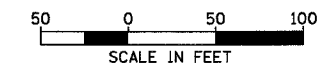
NO PROPOSED WORK ON THIS SHEET



MATCH LINE STA. 1548+00
SEE SHEET DET-39

MATCH LINE STA. 1560+00
SEE SHEET DET-41

- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-40

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REVISIONS	
NAME	DATE

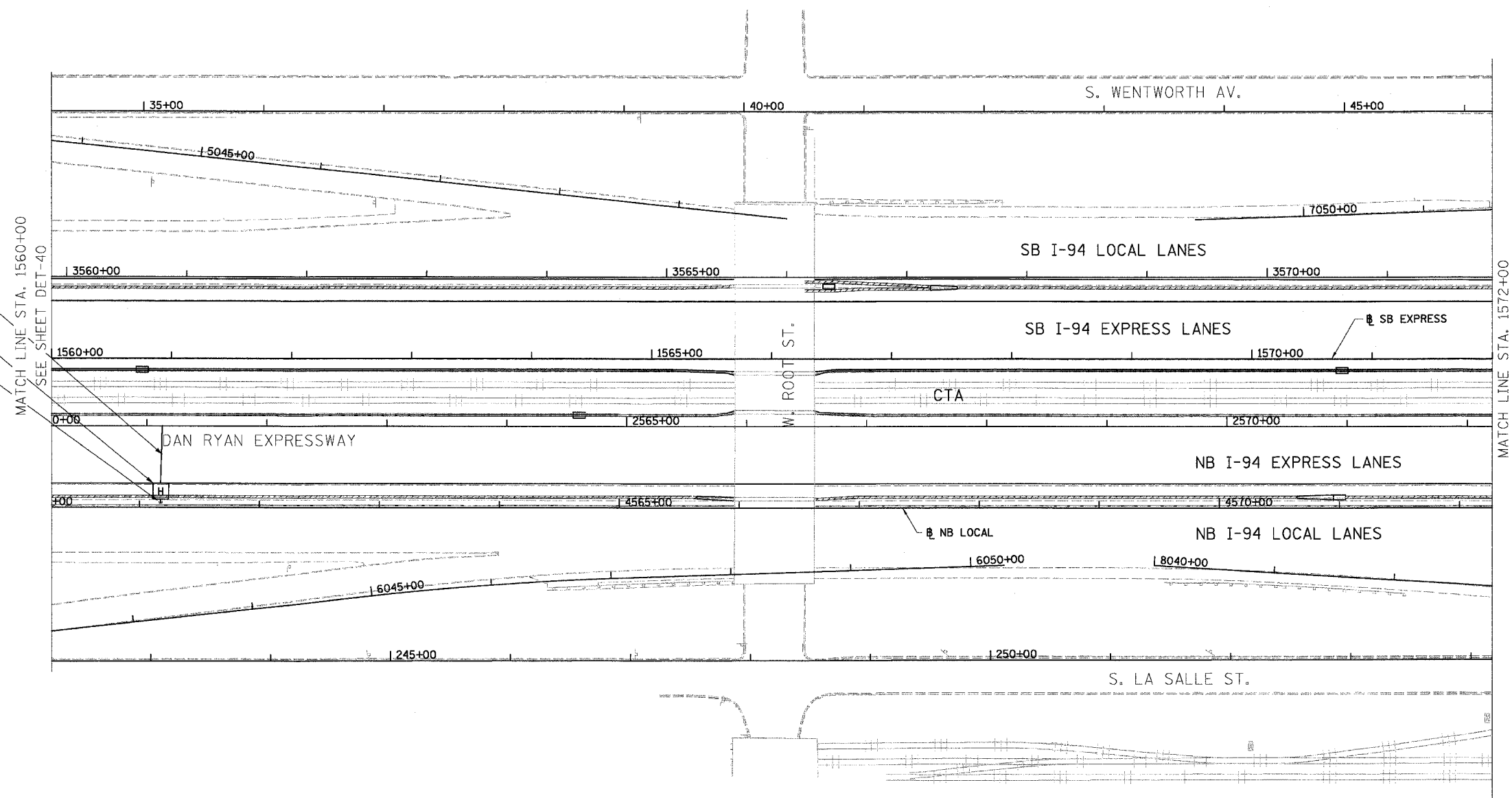
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1548+00 TO STA. 1560+00

SCALE: 1"=50'
DATE: 07/07/05

DRAWN BY: TER
CHECKED BY: JDC

6/27/2005 5:08:57 PM

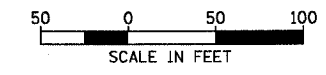
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	339
STA. 1560+00	TO STA. 1572+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	•(1818, ETC, 2324.6-IPR-8			



3" PVC ENCASED
 HH 4107 TYPE S1
 STA 2561+13, 54' RT.
 NOTE: PROVIDE 12' OF 2" GSC STUBOUT
 FOR FUTURE CONDUIT CONNECTION.
 CENTER OF STUBOUT ELEV. = -4.77

- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 ELECTRICAL INFRASTRUCTURE PLAN
 NORTHBOUND STA. 1560+00 TO 1572+00

SCALE: 1"=50'
 DATE: 07/07/05

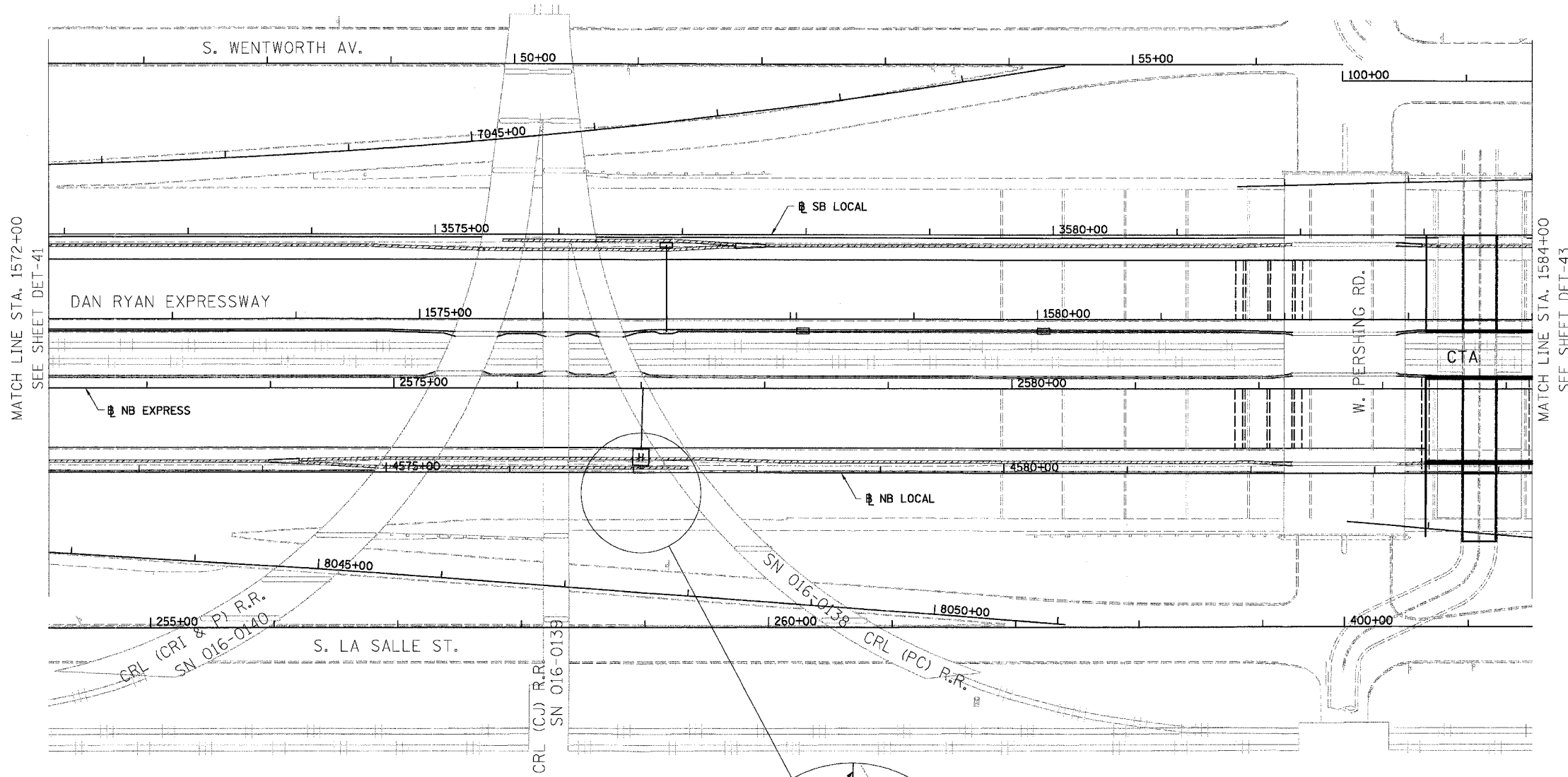
DRAWN BY: TER
 CHECKED BY: JDC

EI-41

6/27/2005 5:08:56 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	340
STA. 1572+00	TO STA. 1584+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

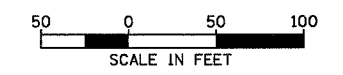
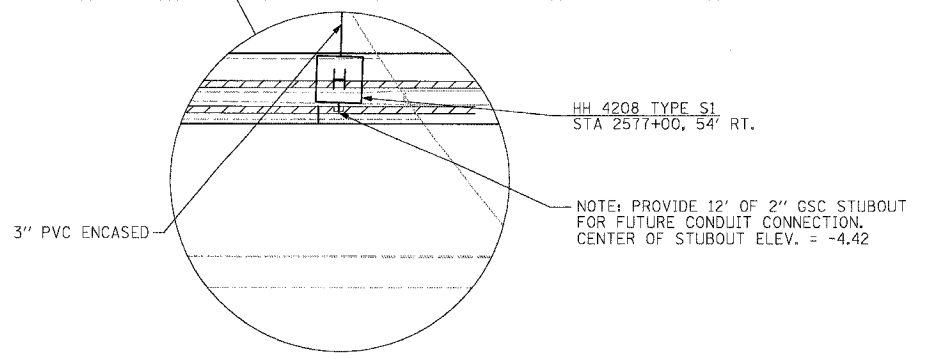
62300 •(1816, ETC. 2324.6-1P)R-8



MATCH LINE STA. 1572+00
SEE SHEET DET-41

MATCH LINE STA. 1584+00
SEE SHEET DET-43

- NOTES:**
- SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAMP METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - DETECTOR LOOPS INSTALLED BY OTHERS.
 - REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-42

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1572+00 TO 1584+00

SCALE: 1"=50'
DATE: 07/07/05

DRAWN BY: TER
CHECKED BY: JDC

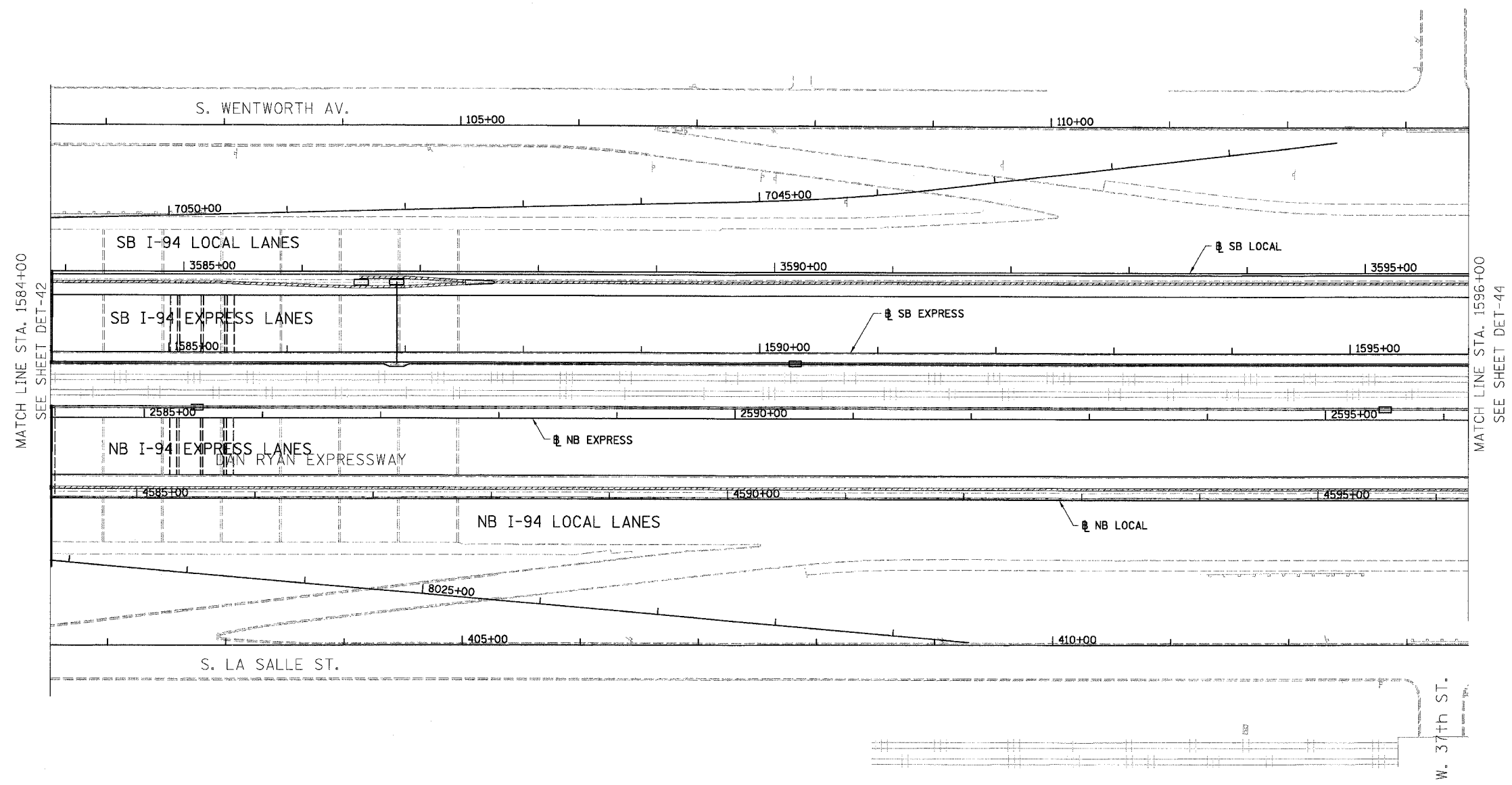
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	341
STA. 1584+00	TO STA. 1596+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62300 *1818, ETC, 2324.6-1PR-8



NO PROPOSED WORK ON THIS SHEET



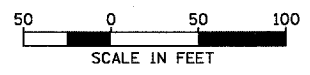
MATCH LINE STA. 1584+00
SEE SHEET DET-42

MATCH LINE STA. 1596+00
SEE SHEET DET-44

W. 37th ST.

- NOTES:
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RAIL BVC ENCASED METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.

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EI-43

REVISIONS	
NAME	DATE

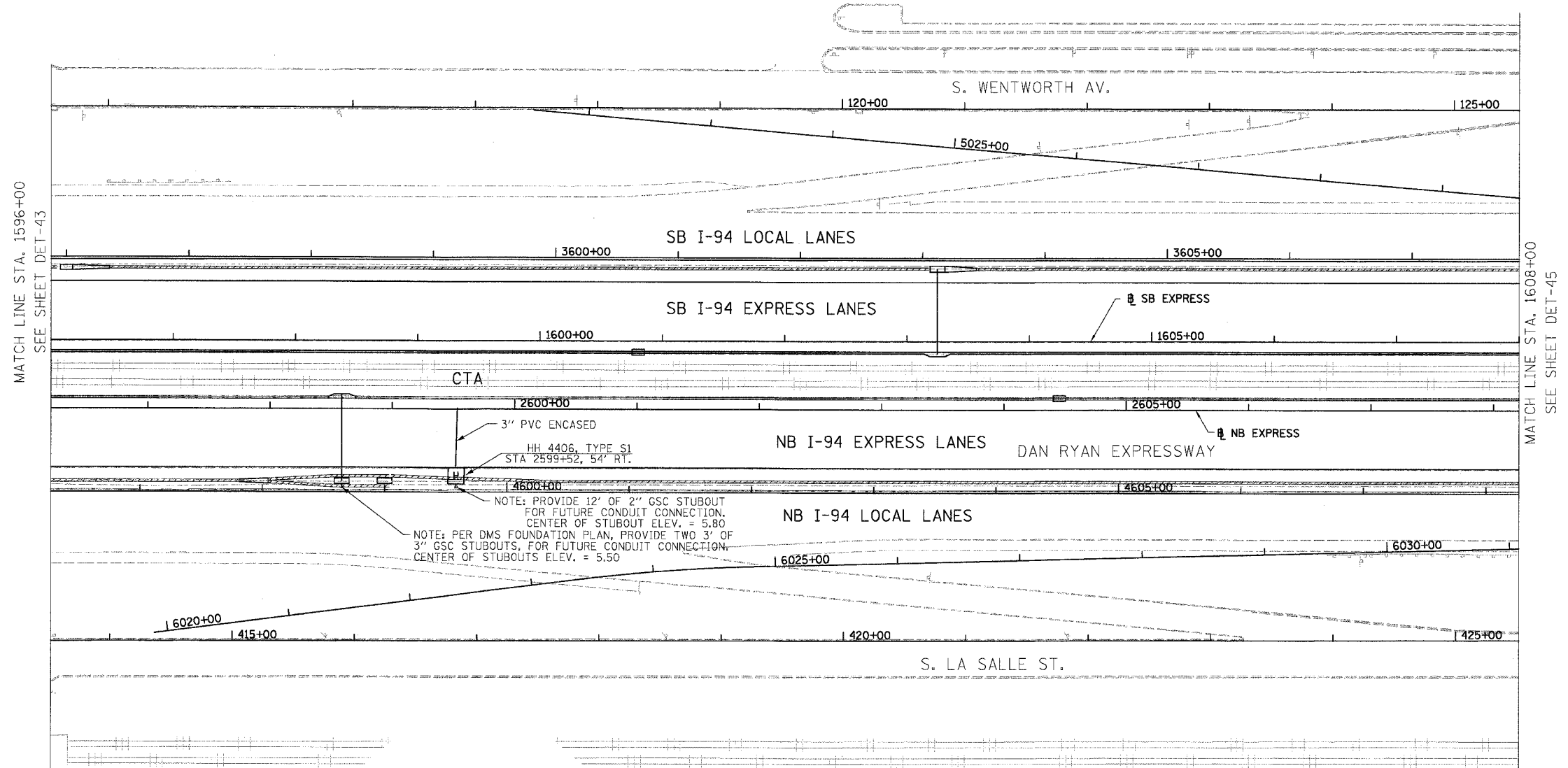
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1584+00 TO STA. 1596+00

SCALE: 1"=50'
DATE: 07/07/05
DRAWN BY: TER
CHECKED BY: JDC

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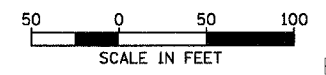
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	342
STA. 1596+00	TO STA. 1608+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62300 • 11818, ETC, 2324.6-1PJR-8



MATCH LINE STA. 1596+00
SEE SHEET DET-43

MATCH LINE STA. 1608+00
SEE SHEET DET-45



- NOTES:**
- SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/3" PVC ENCASED METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - DETECTOR LOOPS INSTALLED BY OTHERS.
 - REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1596+00 TO STA. 1608+00

SCALE: 1"=50'
DATE: 07/07/05

DRAWN BY: TER
CHECKED BY: JDC

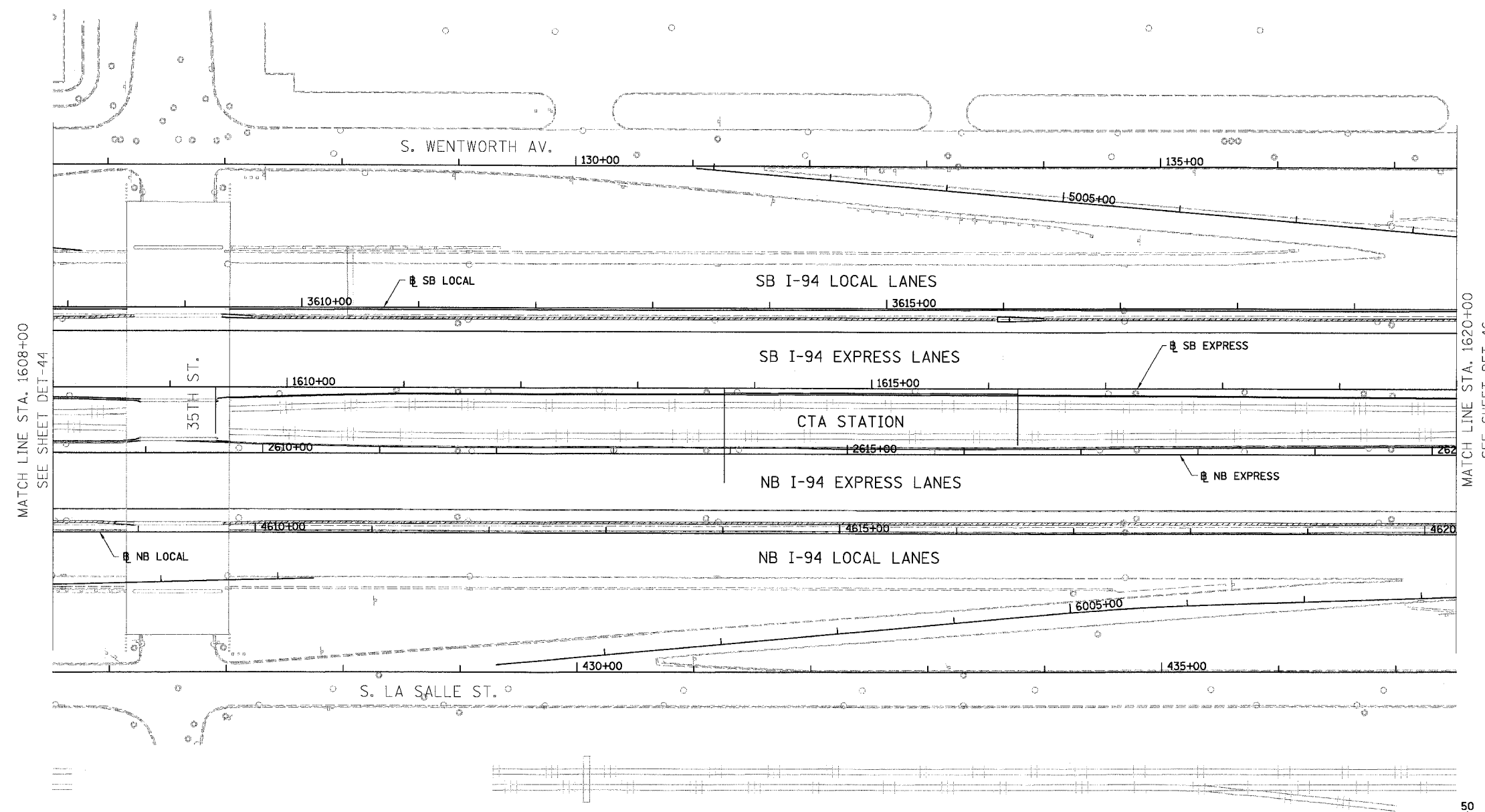
EI-44

6/27/2005 5:09:02 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	343
STA. 1608+00		TO STA. 1620+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300 *1818, ETC, 2324.6-1PR-8				



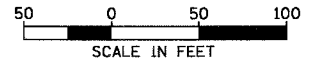
NO PROPOSED WORK ON THIS SHEET



MATCH LINE STA. 1608+00
SEE SHEET DET-44

MATCH LINE STA. 1620+00
SEE SHEET DET-46

- NOTES:
- SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/RTM BVC ENCASED METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - DETECTOR LOOPS INSTALLED BY OTHERS.
 - REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.



EI-45

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REVISIONS	
NAME	DATE

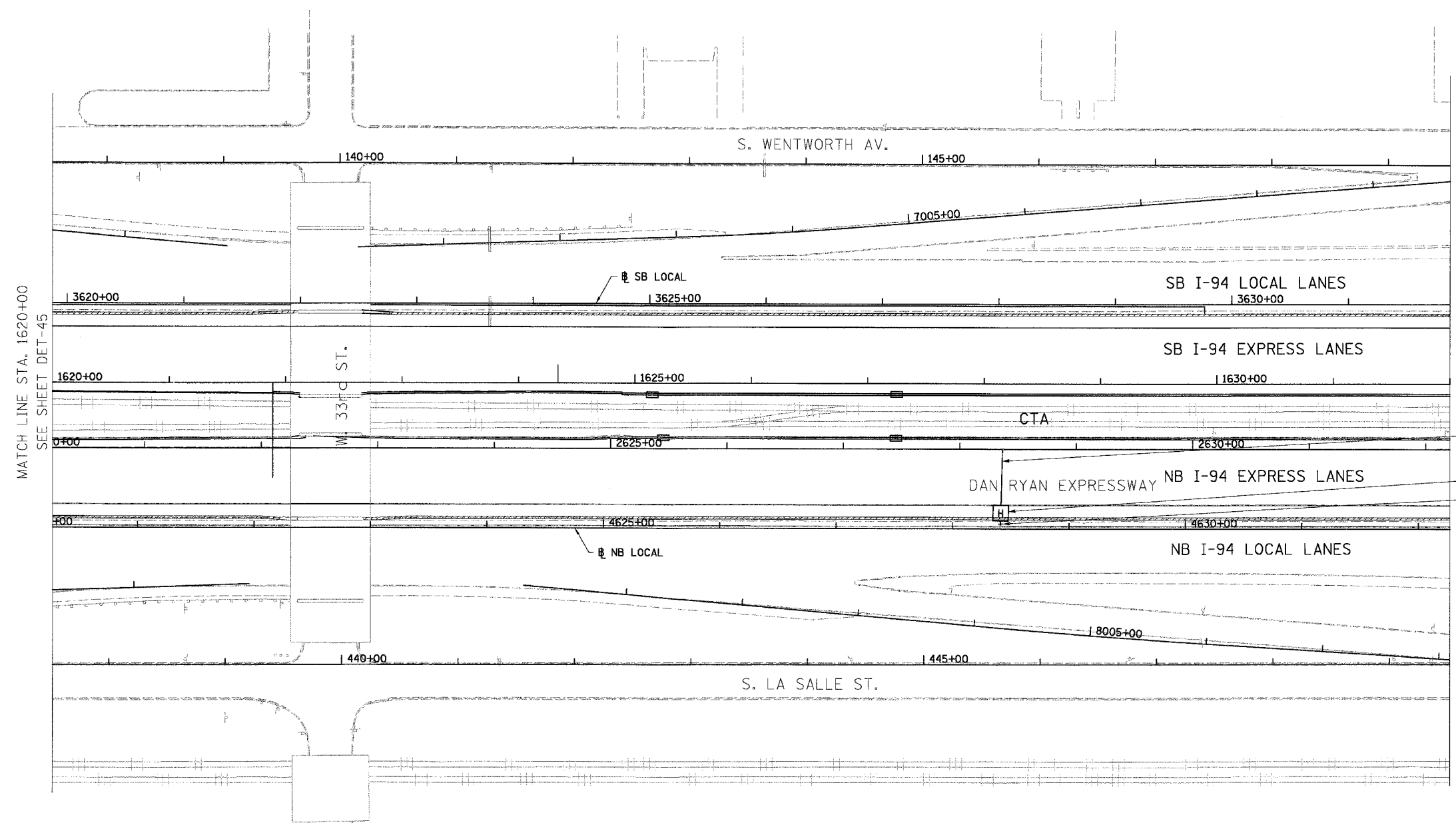
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1608+00 TO STA. 1620+00

SCALE: 1"=50'
DATE: 07/07/05

DRAWN BY: TER
CHECKED BY: JDC

6/27/2005 5:09:07 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	344
STA. 1620+00		TO STA. 1632+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300 *0818, ETC, 2324.6-1PR-8				



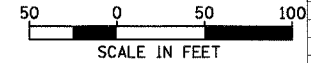
MATCH LINE STA. 1632+00
END OF ELECTRICAL INFRASTRUCTURE WORK

MATCH LINE STA. 1620+00
SEE SHEET DET-45

3" PVC ENCASED
HH 4612 TYPE S1
STA. 2628+35, 54' RT.
NOTE: PROVIDE 12' OF 2" GSC STUBOUT
FOR FUTURE CONDUIT CONNECTION
CENTER OF STUBOUT ELEV. = -3.43

- NOTES:**
1. SEE DRAWING EI-100 AND EI-101 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE TO BE FURNISHED AND INSTALLED UNDER ANOTHER CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF DETECTION/3" PVC ENCASED METER ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. DETECTOR LOOPS INSTALLED BY OTHERS.
 6. REFER TO HANDHOLE DETAILS. SEE DRAWING DT-29.

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CONSULTING ENGINEERS
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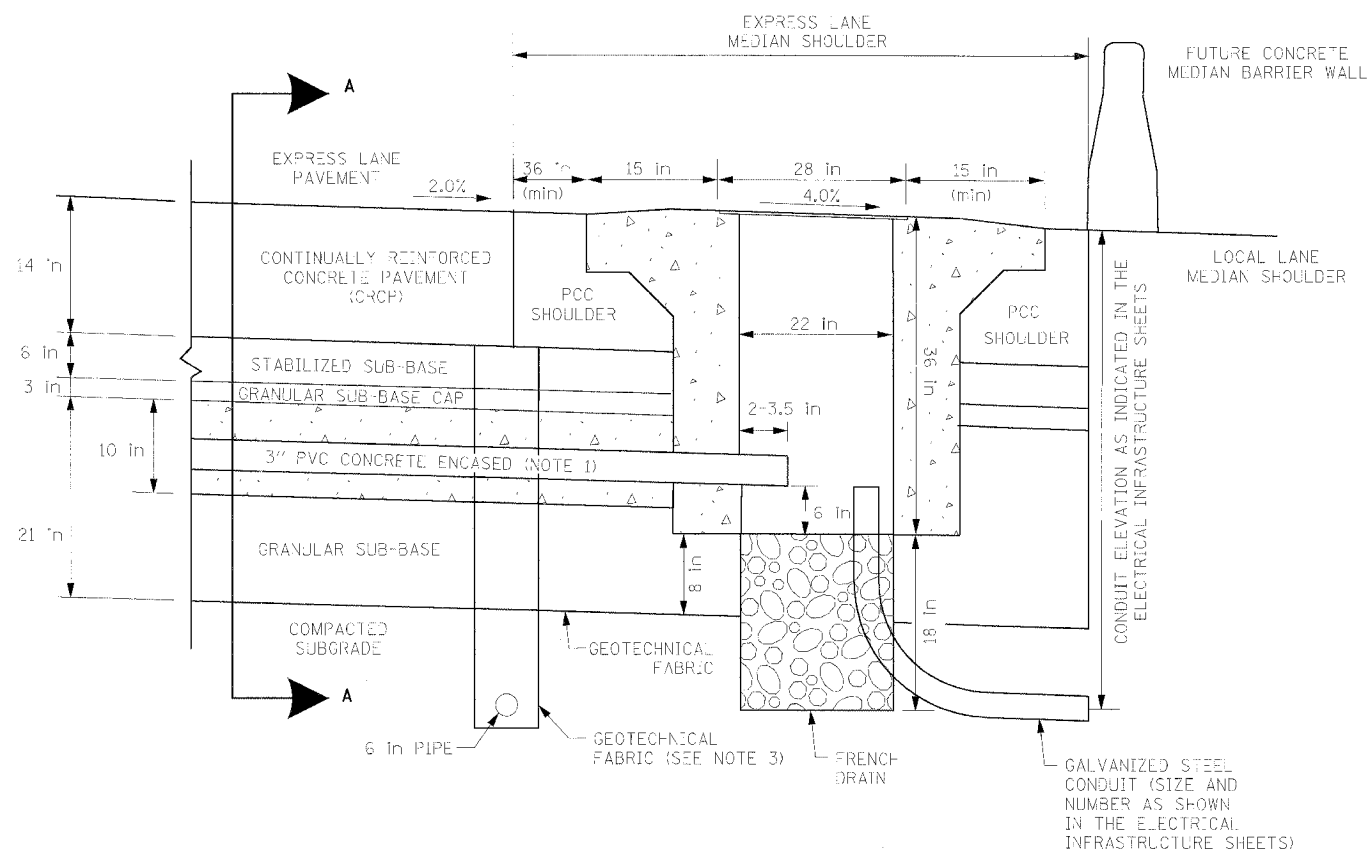
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
ELECTRICAL INFRASTRUCTURE PLAN
NORTHBOUND STA. 1620+00 TO STA. 1632+00
SCALE: 1"=50'
DATE: 07/07/05
DRAWN BY: TER
CHECKED BY: JDC

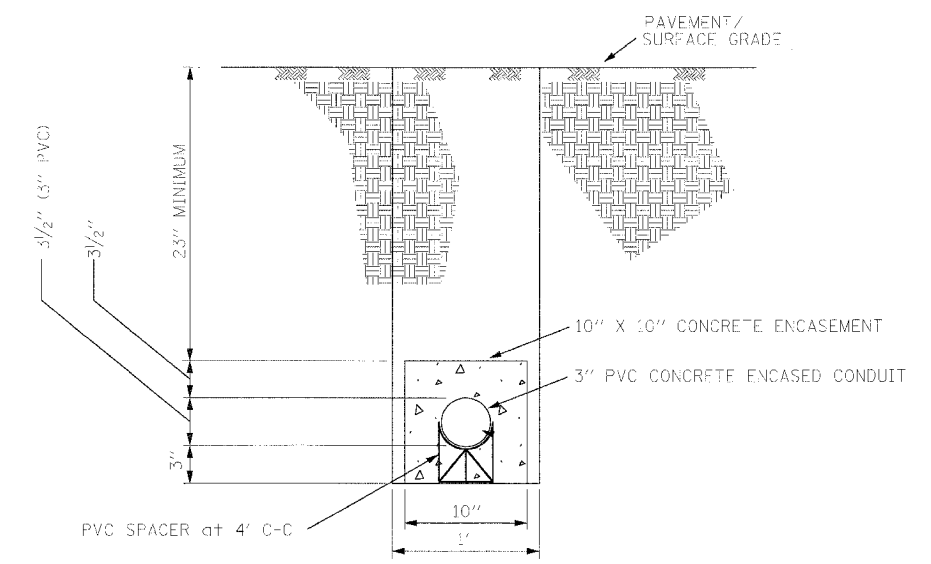
EI-46

6/27/2005 5:09:56 PM

F.A.I. R/F.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	345
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	• (1818, ETC, 2324.6-1)PR-8			



HEAVY DUTY HANDHOLE IN MAINLINE SHOULDER (TYPICAL)



SECTION A-A
TYPICAL 3" PVC CONCRETE ENCASED CONDUIT UNDER PAVEMENT DETAIL
(FOR MICROLOOP INSTALLATION IN PROPOSED MAINLINE PAVEMENT)

- NOTES
1. 3" PVC CONCRETE ENCASED CONDUIT IS REQUIRED ONLY WHERE SHOWN ON THE PLAN DRAWINGS. WHEN INSTALLED, THE CONDUIT MUST MAINTAIN THE SAME ANGLE AS THE PAVEMENT THROUGHOUT ITS ENTIRE LENGTH.
 2. FOR HANDHOLE DETAIL SEE SHEET DT-46.
 3. WHEN INSTALLING CONDUIT NEAR OR THROUGH UNDERDRAIN GEOTECHNICAL FABRIC, THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY AND UNIFORMITY OF THE UNDERDRAIN FABRIC THROUGH OVERLAP TO THE SATISFACTION OF THE ENGINEER.

DT-29

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
TYPICAL HANDHOLE INSTALLATION DETAIL -
MAINLINE SHOULDER

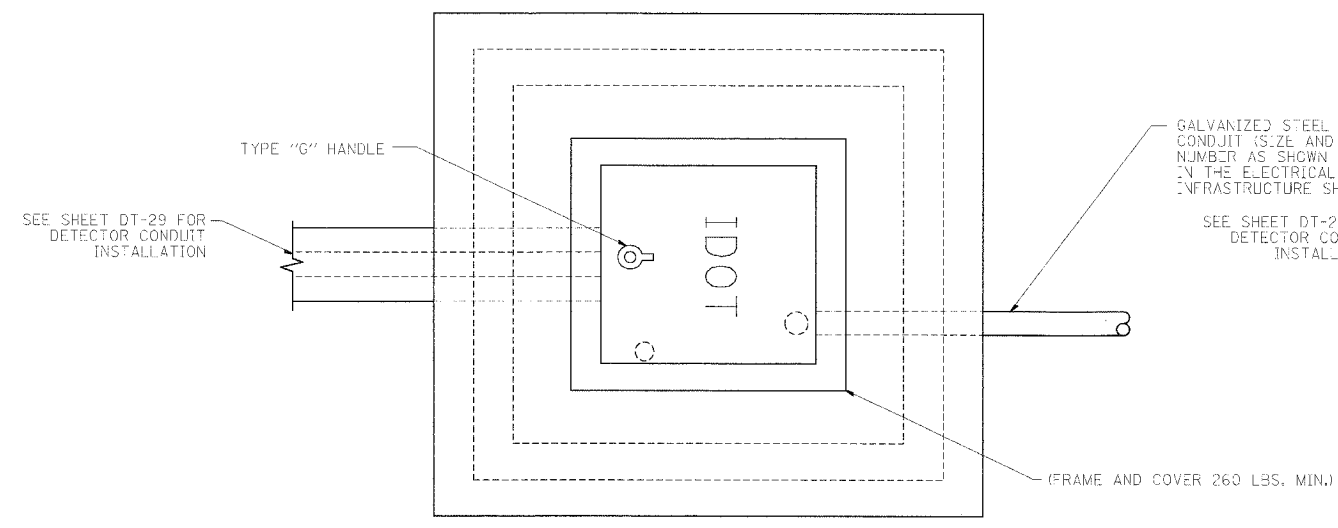
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DATE: 7/7/05

DRAWN BY: NB
CHECKED BY: CTC

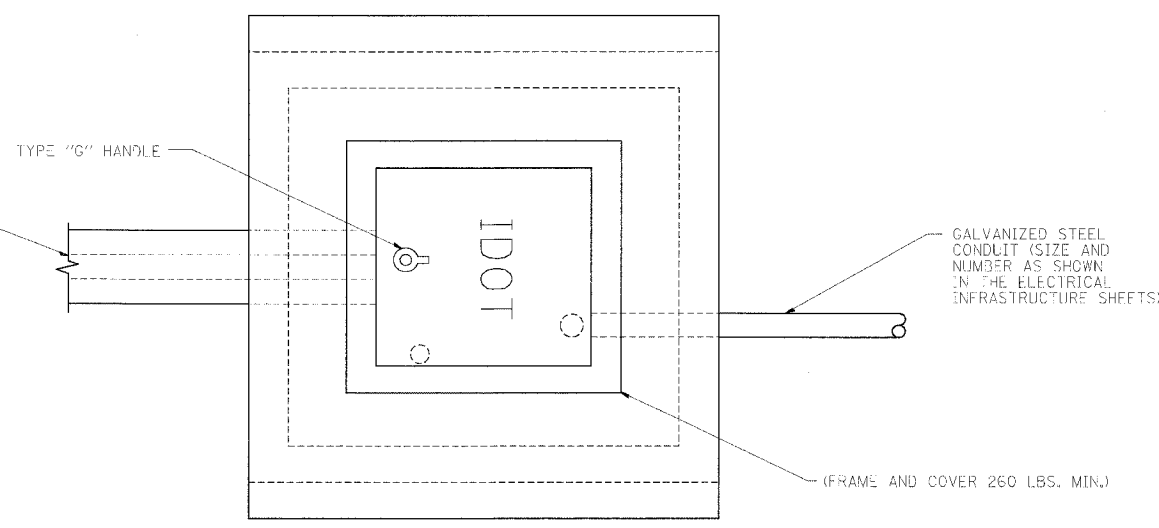
Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

06/24/2005 04:10 PM

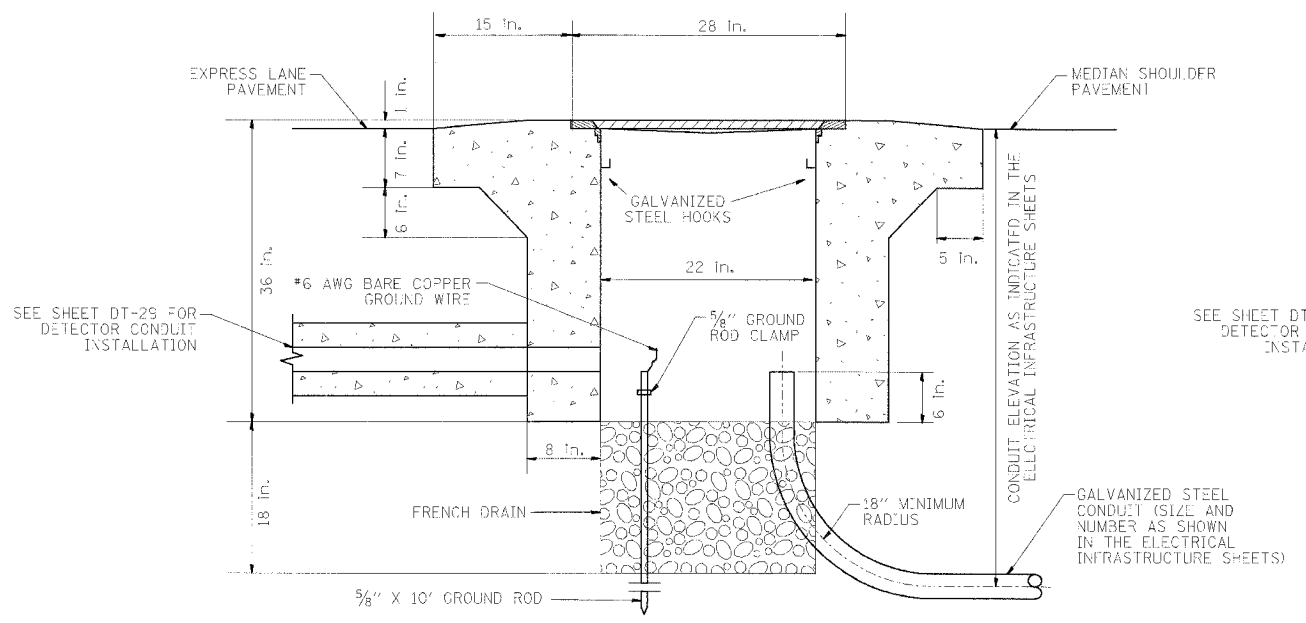
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	346
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62300	11818, ETC, 2324.6-1PJR-8			



PLAN

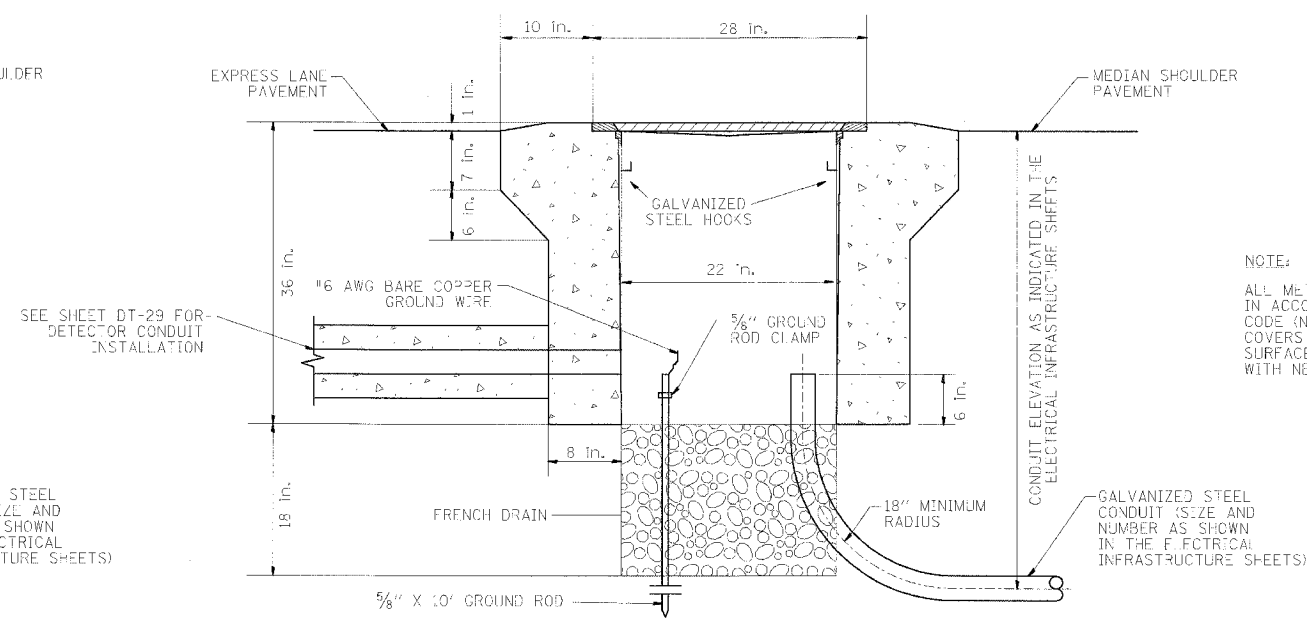


PLAN



ELEVATION

PC CONCRETE - HEAVY DUTY HANDHOLE



ELEVATION

PC CONCRETE - HEAVY DUTY HANDHOLE (SPECIAL)

NOTE:
ALL METALLIC ELEMENTS SHALL BE GROUND IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), SECTION 250, GROUNDING, METAL COVERS AND OTHER EXPOSED CONDUCTIVE SURFACES SHALL BE BONDED IN ACCORDANCE WITH NEC ARTICLE 250.96 (A).

DT-46

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

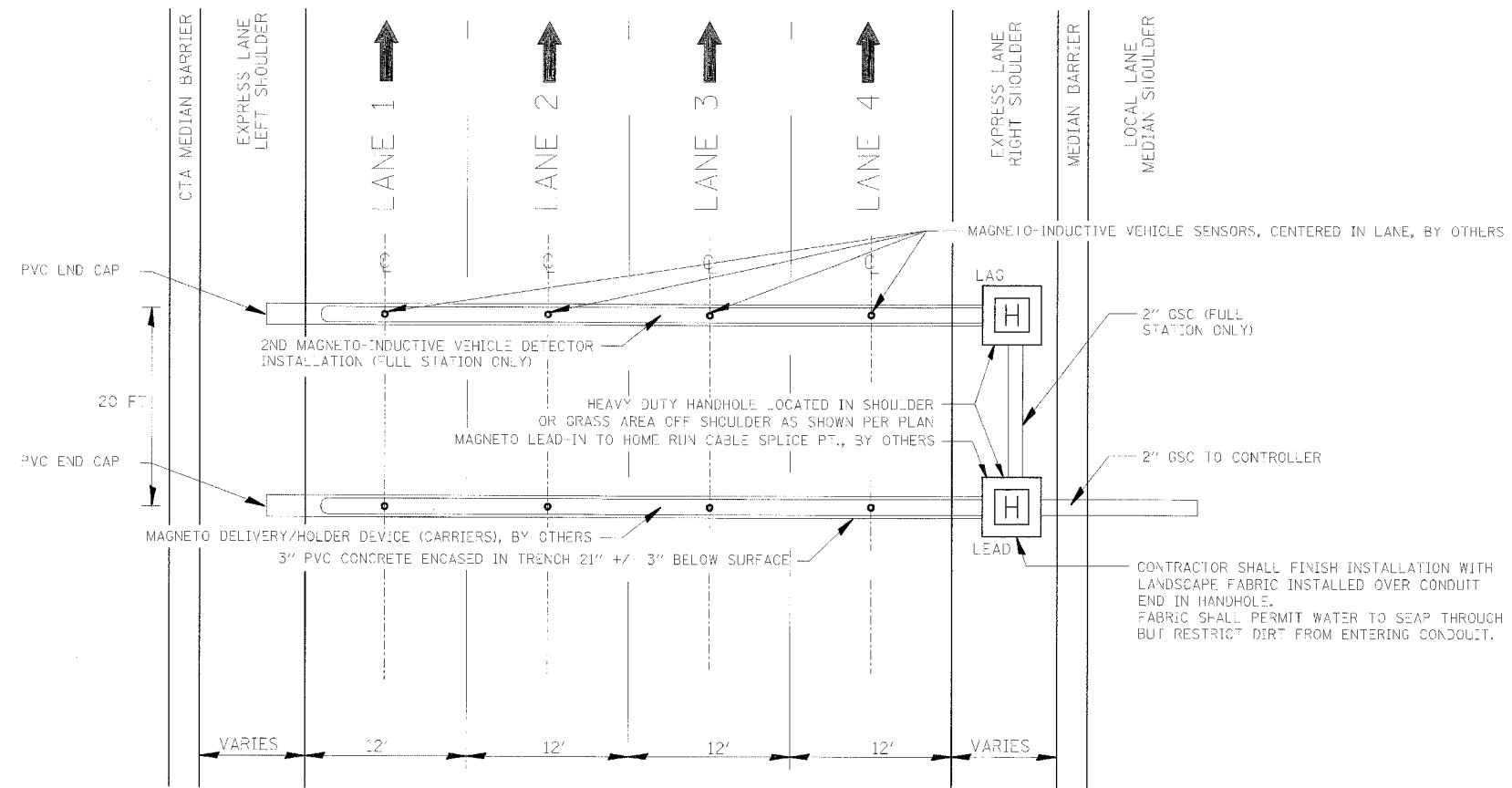
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
PC CONCRETE - HEAVY DUTY HANDHOLE DETAIL (TYPE S1)
SCALE: NTS
DATE: 7/7/05
DRAWN BY: CJH
CHECKED BY: MJL

06/24/2005 01:43 PM

NOTES:

1. ANY DEVIATION IN CONDUIT ALIGNMENT SHALL BE LESS THAN 1/2 IN. PER FT.
2. CONDUIT END CAP TO BE PRESS FITTED (NO ADHESIVE). 1/8 IN. DRAINAGE HOLE TO BE DRILLED IN END CAP. HOLE TO BE POSITIONED AT BOTTOM.
3. CONDUIT TO EXTEND APPROXIMATELY 3 IN. INTO HANDHOLE.
4. FOR 3" PVC CONCRETE ENCASED IN TRENCH DETAIL, SEE SHEET DT-29. FOR HANDHOLE DETAIL, SEE SHEET DT-46.



DAN RYAN TYPICAL 4 LANE CROSS SECTION WITH NON-INVASIVE MAGNETO-INDUCTIVE VEHICLE SENSOR (PROBE) INSTALLED IN ALL LANES

DT-24

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31ST STREET TO 71ST STREET NB EXPRESS LANE RECONSTRUCTION TYPICAL MULTIPLE MAGNETO-INDUCTIVE VEHICLE SENSOR (MICROLOOP) - FULL INSTALLATION/SPEED MEASURING LAYOUT
NAME	DATE	

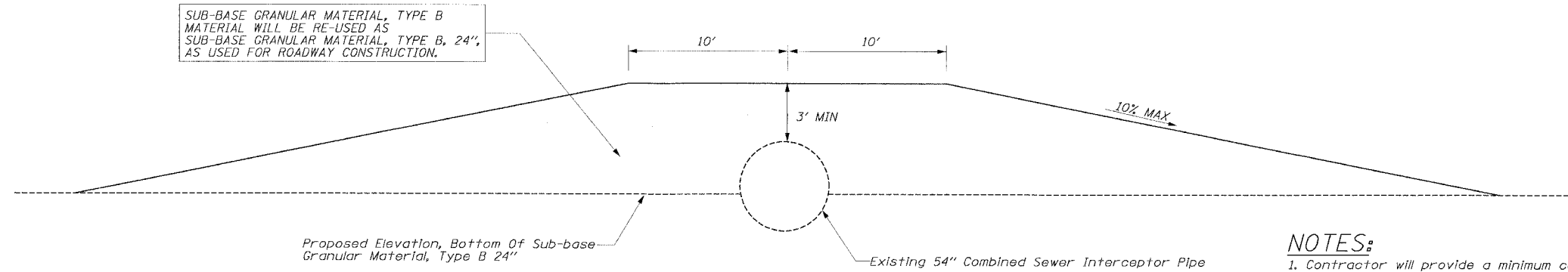
SCALE: NTS
DATE: 7/7/05

DRAWN BY: NB
CHECKED BY: CTC

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	348
STA. 7111+80.00		TO STA. 7114+90.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300		1818, ETC, 2324.6-1P1R-8		



54" SEWER INTERCEPTOR (STA. 1385+44 SB, 2385+64 NB)
 36" WATER MAIN (STA. 1533+28 SB, 2533+49 NB)
 CONSTRUCTION PROTECTION

NOTES:

- Contractor will provide a minimum cover, as shown above at all times during construction and prior to the installation of the permanent Water Main/Sewer Protection Cap. Construction traffic shall not cross the water main/sewer pipe without protection in place.
- CONTRACTOR IS RESPONSIBLE FOR THE INTEGRITY OF WATER MAIN/SEWER PIPE THROUGH THE DURATION OF THE PROJECT, AND WILL NOT BE PAID FOR ANY REPAIRS REQUIRED, AS DETERMINED BY THE ENGINEER, TO THE PIPE, DUE TO CONSTRUCTION ACTIVITIES.

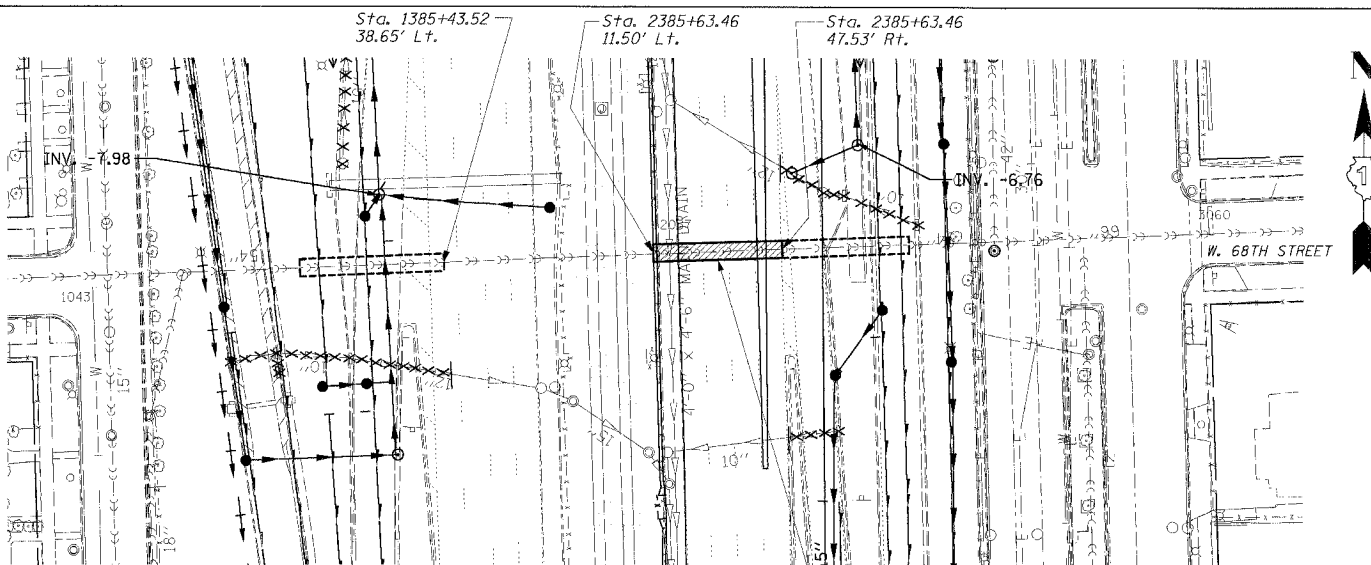
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE

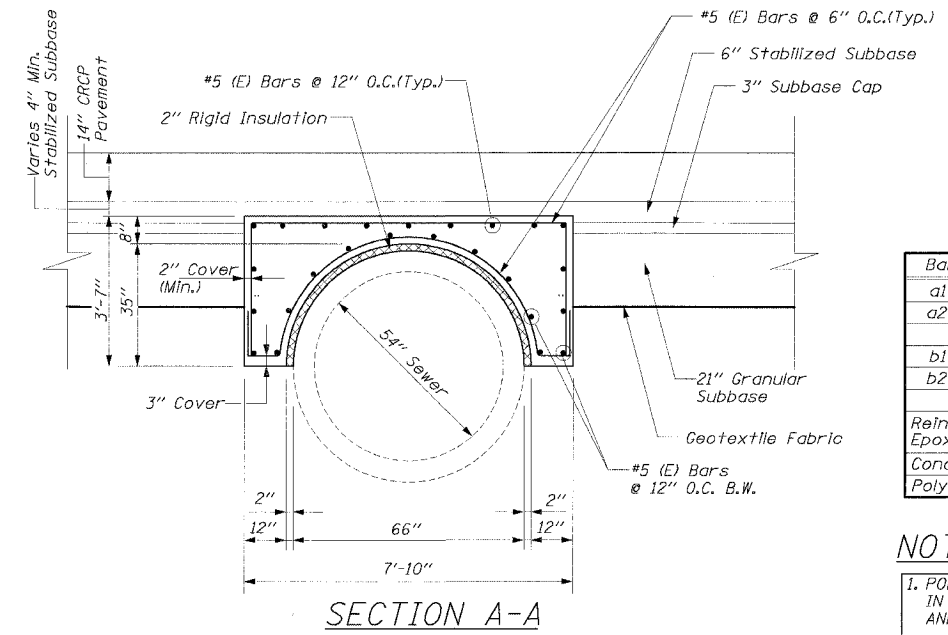
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 CIVIL DETAILS
 CONSTRUCTION PROTECTION
 SCALE: NOT TO SCALE
 DATE: 7/7/05
 DRAWN BY: TAI
 CHECKED BY: DPB

CDT-1
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90 *		COOK	556	349
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	• (1818, ETC, 2324.6-1PIR-8			



TOPOGRAPHIC PLAN



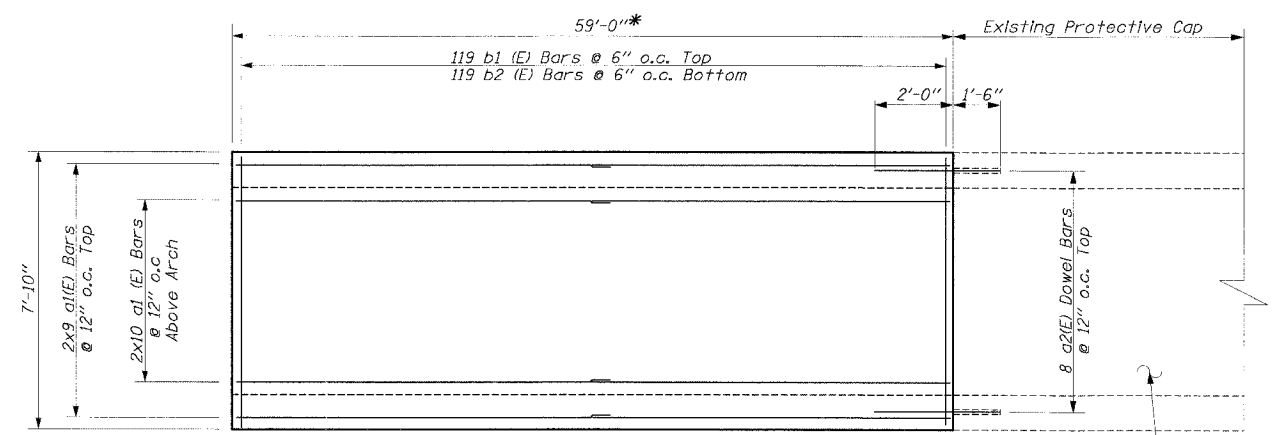
SECTION A-A

BILL OF MATERIAL

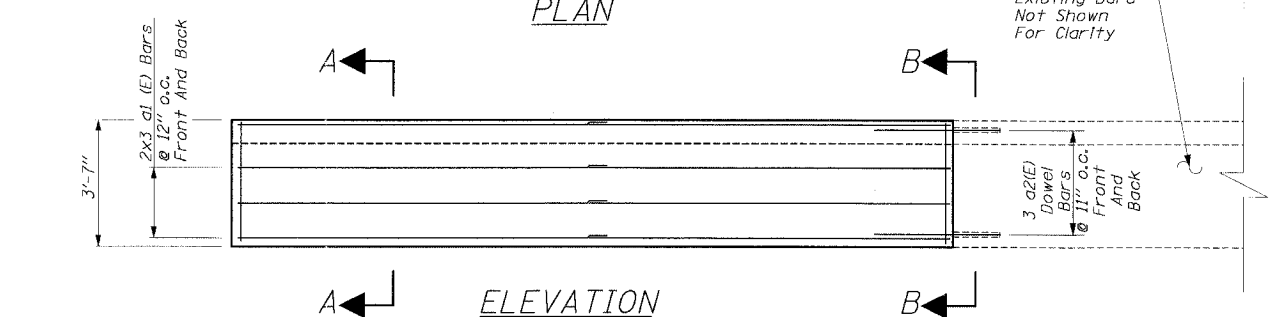
Bar	No.	Size	Length	Shape	
a1(E)	50	#5	30'-5"	—	
a2(E)	14	#6	3'-6"	—	
b1(E)	119	#5	13'-10"	⌒	
b2(E)	119	#5	13'-0"	⌒	
Reinforcement Bars, Epoxy Coated				Pounds	4,990
Concrete Structures				Cu. Yd.	32.1
Polystyrene Insulation				Sq. Ft.	540

NOTES

- POLYSTYRENE INSULATION SHALL BE INCLUDED IN 54" SEWER PROTECTION CAP CONSTRUCTION, AND WILL NOT BE PAID FOR SEPARATELY.
- DRILLING AND EPOXY GROUTING OF a2(E) BARS IS PAID FOR UNDER REINFORCEMENT BARS, EPOXY COATED.

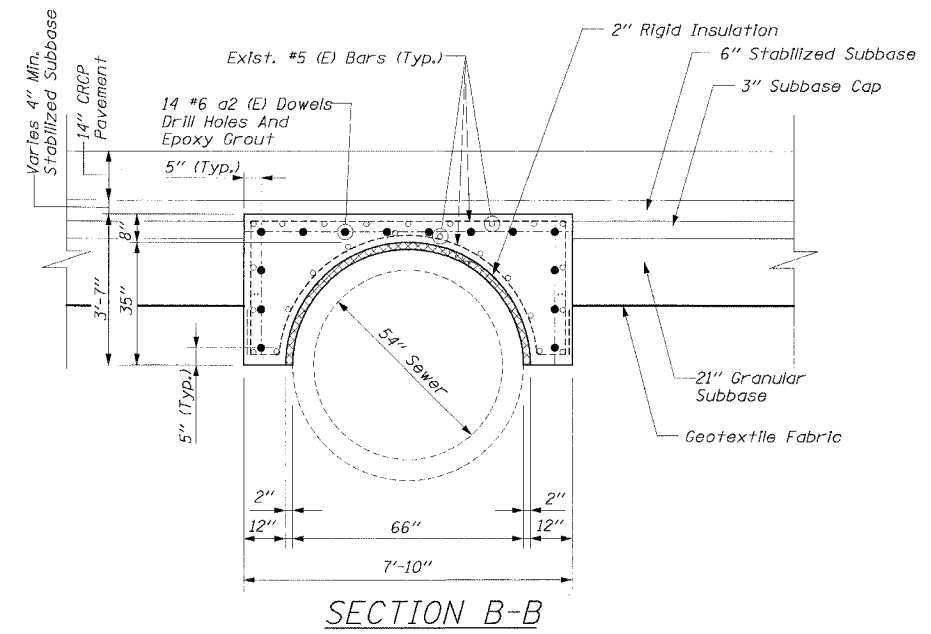


PLAN

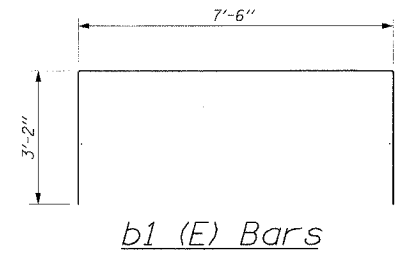


ELEVATION

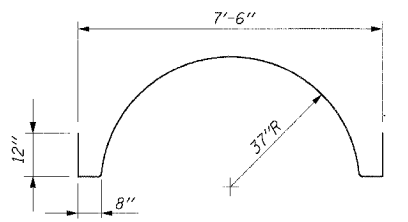
*Field Verify Dimension Prior to Ordering Reinforcement Bars



SECTION B-B



b1 (E) Bars



b2 (E) Bars

NOTES:

- All bars designated (E) must be epoxy coated.
- All bars must be #5 bars with a minimum overlap of 2'-2".
- All dowel bars must be #6 bars.
- Sewer location based on existing plans. Field adjustment of lengths may be necessary.

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

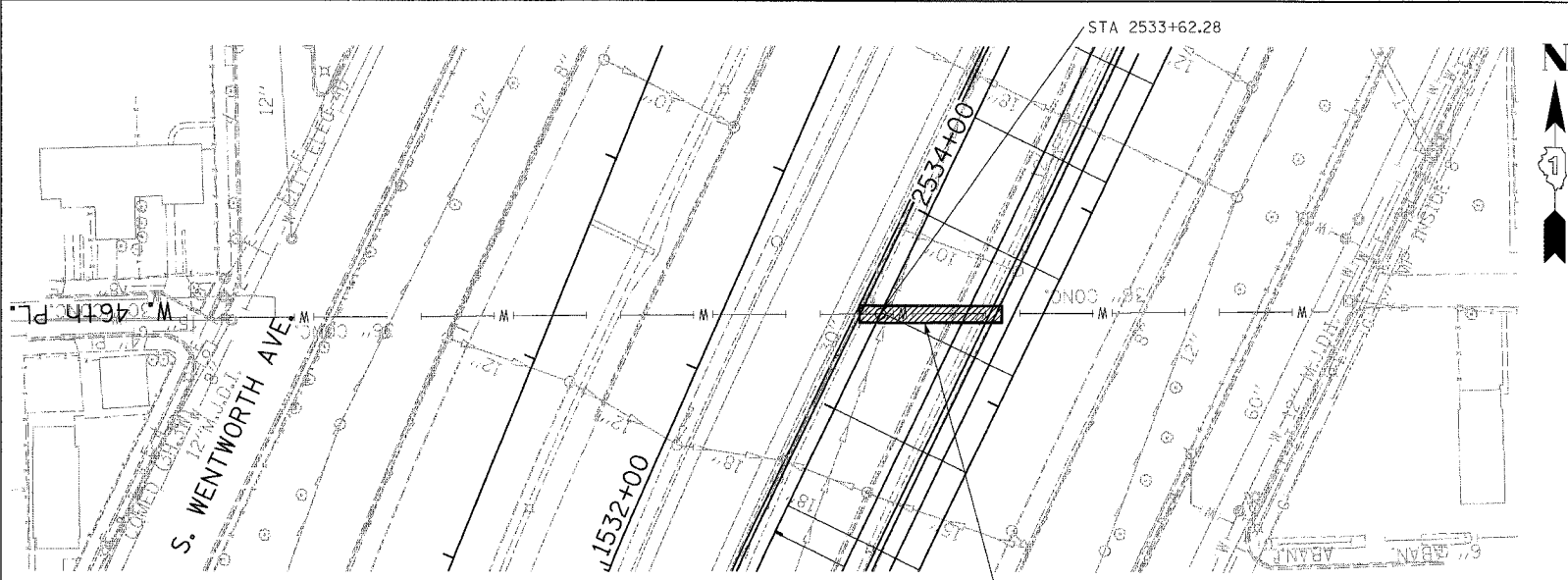
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 CIVIL DETAILS - 68TH STREET CROSSING
 54" SEWER PROTECTION CAP
 STA. 2385+63.46
 SCALE: NOT TO SCALE
 DATE: 7/7/05
 DRAWN BY: AJW
 CHECKED BY: EL

CDT-2

06/24/2005 09:27:08 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	350
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	*1818, ETC, 2324.6-1PR-8			



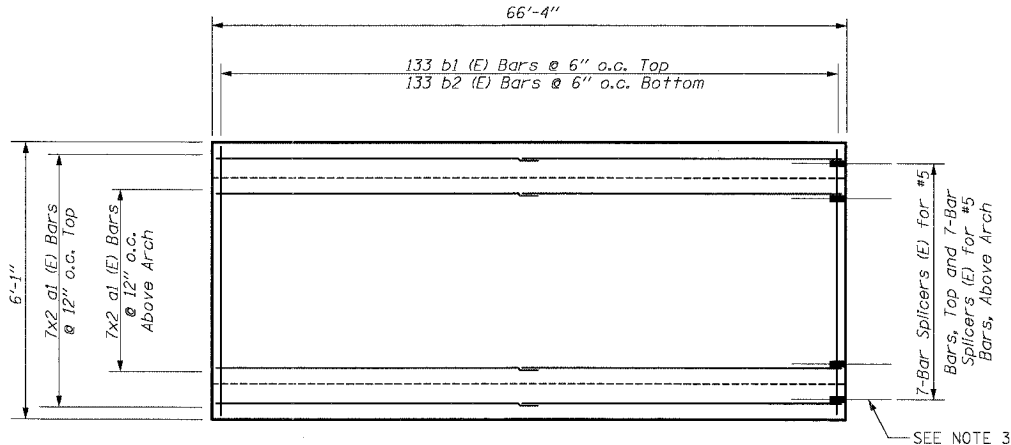
TOPOGRAPHIC PLAN

BILL OF MATERIAL

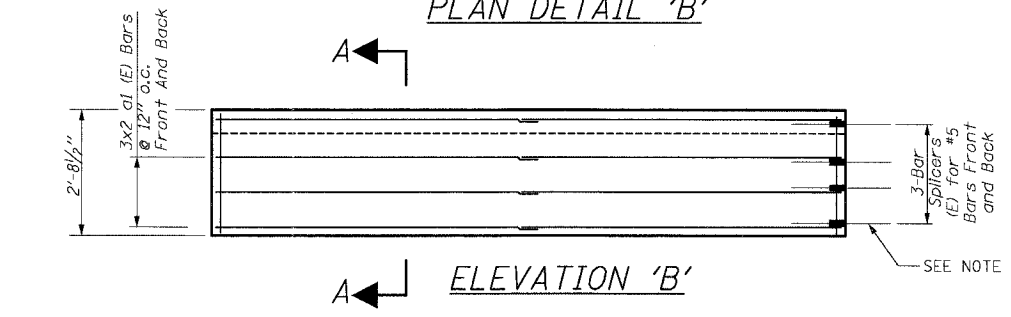
Bar	No.	Size	Length	Shape
a1(E)	40	#5	34'-1"	—
b1(E)	133	#5	10'-4"	□
b2(E)	133	#5	10'-3"	⤴
Reinforcement Bars, Epoxy Coated		Pounds	4,280	
Bar Splicers		Each	20	
Concrete Structures		Cu. Yd.	24.4	

NOTES:

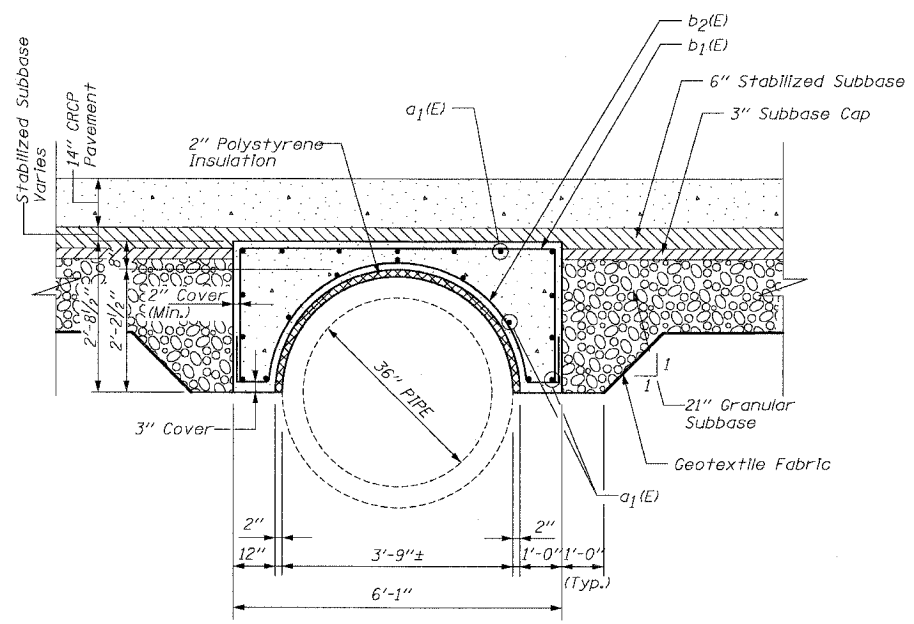
1. THE 2" POLYSTYRENE INSULATION SHALL BE INCLUDED IN THE COST OF 36" WATER MAIN PROTECTION CAP CONSTRUCTION. THE ESTIMATED QUANTITY IS 426 SQ. FT.
2. ADDITIONAL GRANULAR SUB-BASE REQUIRED AS SHOWN IN SECTION A-A OR AS DIRECTED BY ENGINEER WILL BE INCLUDED IN THE COST OF SUB-BASE GRANULAR MATERIAL, TYPE B 24".
3. CONTRACTOR SHALL PROVIDE BAR SPLICERS AS SHOWN. INSTALL STAGE I PORTION AND PROVIDE STAGE II PORTION TO THE ENGINEER. PLUG THREADED COUPLER WITH PLASTIC NIPPLE OR H.S. BOLT FOR PROTECTION. COST INCLUDED WITH "BAR SPLICERS".



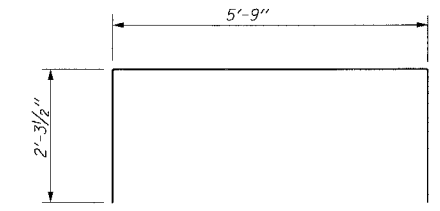
PLAN DETAIL 'B'



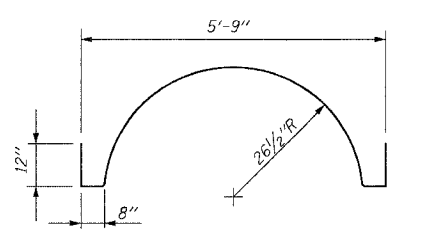
ELEVATION 'B'



SECTION A-A



b1(E) Bars



b2(E) Bars

NOTES:

1. All bars designated (E) must be epoxy coated.
2. All bars must be #5 bars with a minimum overlap of 2'-2".

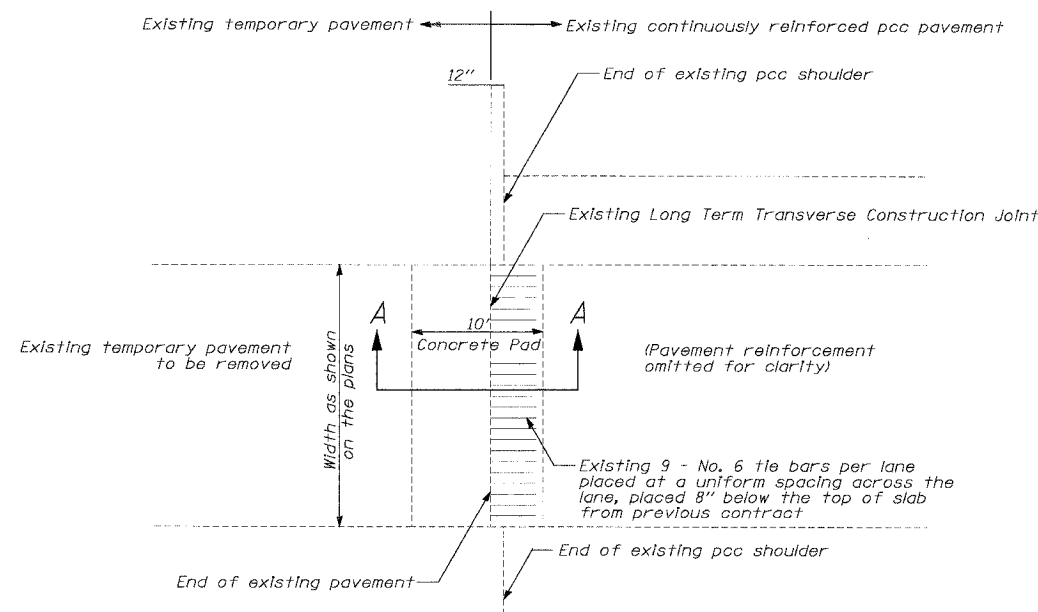
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
CIVIL DETAILS - 46TH ST CROSSING
36" WATER MAIN PROTECTION CAP
SCALE: =NTS DRAWN BY: EGH
DATE: 07/07/05 CHECKED BY: CBB

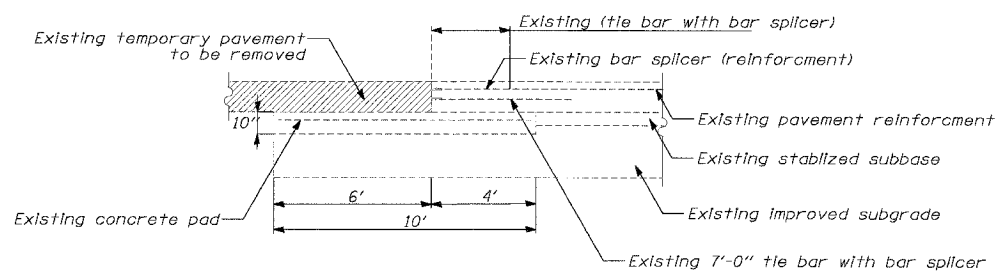
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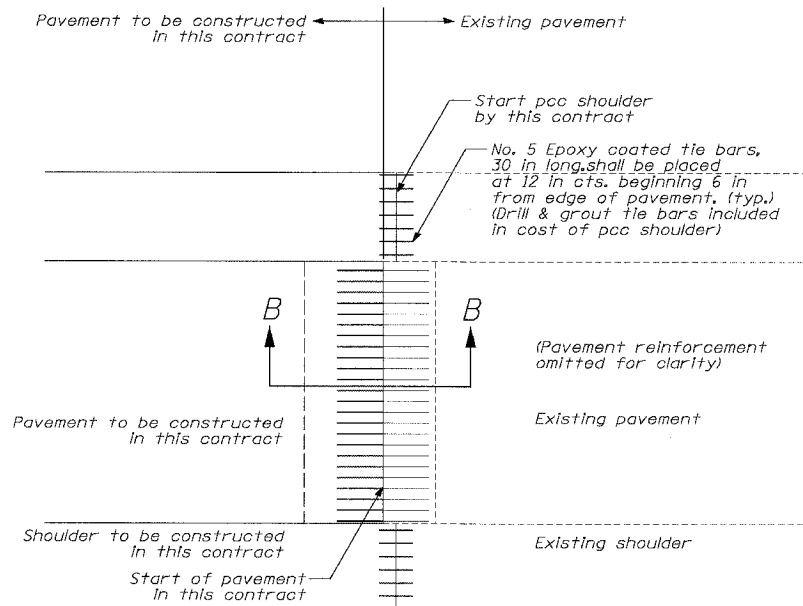


PLAN

(EXISTING LONG TERM TRANSVERSE CONSTRUCTION JOINT)

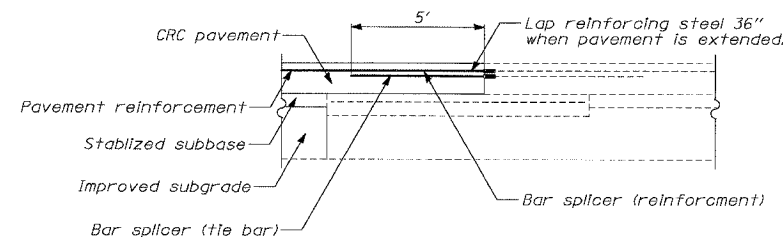


LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION A-A



PLAN

(CONNECTION TO EXISTING LONG TERM TRANSVERSE CONSTRUCTION JOINT)



LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION B-B

NOTES

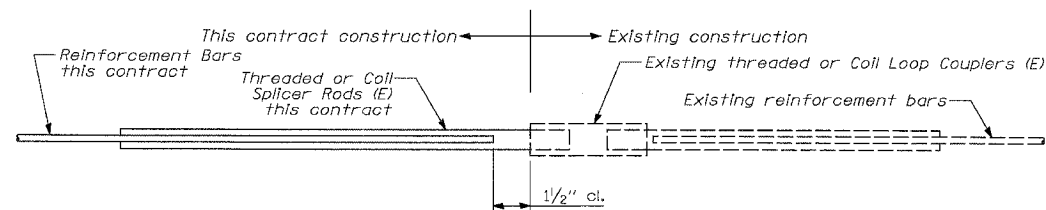
- This detail shows connection of proposed CRC pavement to existing pavement at an existing long term transverse construction joint.
- Bar splicer assemblies shall be of an IDOT approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
- Bar splicers shall be of the "coupler" type, and shall not have flanges.
- 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:

- Minimum Capacity (Tension in ksi) = $1.25 \times f_y \times A(t)$
- Minimum Pull-out Strength (Tension in ksi) = $1.25 \times f_s(\text{allow}) \times A(t)$

Where:
 f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_s(\text{allow})$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 $A(t)$ = Tensile stress area of lapped reinforcement bars (in^2).
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	STRENGTH REQUIREMENTS	
		Min. Capacity (kips) tension	Min. Pull-Out Strength (kips) tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0

- Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted.
- Reinforcement shall not be paid for separately but included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT PAVEMENT, of the thickness specified.
- Connection to long term transverse construction joint work includes the installation of the bar splicers, payment for this work will be included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT PAVEMENT of the thickness specified. Tie bars to be drilled and grouted shall not be paid for separately but included in the cost of PORTLAND CEMENT CONCRETE SHOULDERS, of the thickness specified.



BAR SPLICER ASSEMBLY DETAIL

(E) : Indicates epoxy coating.



ROLLED THREAD DOWEL BAR

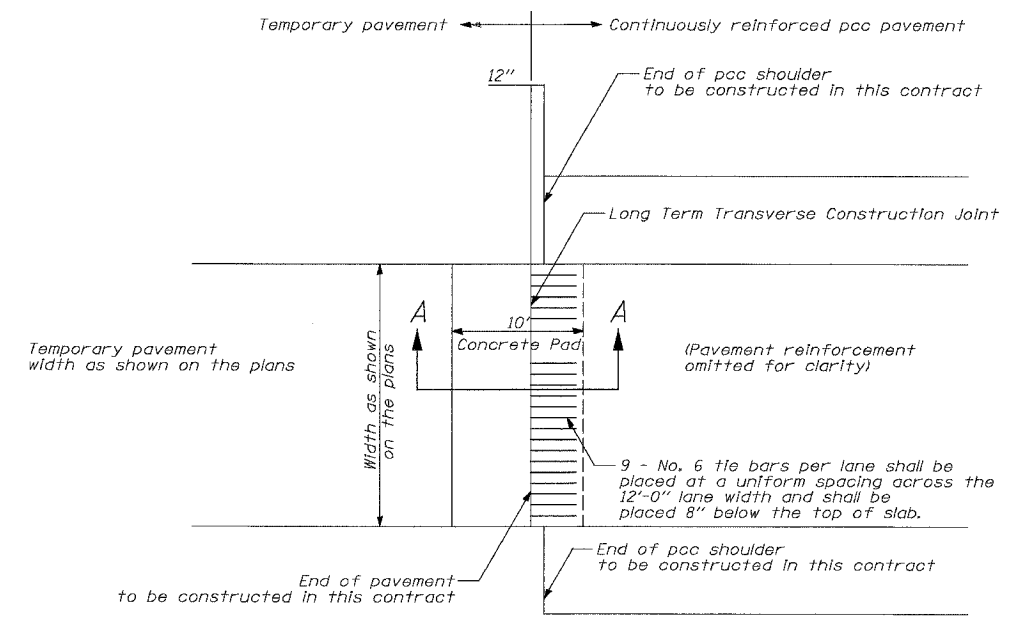
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NOTES

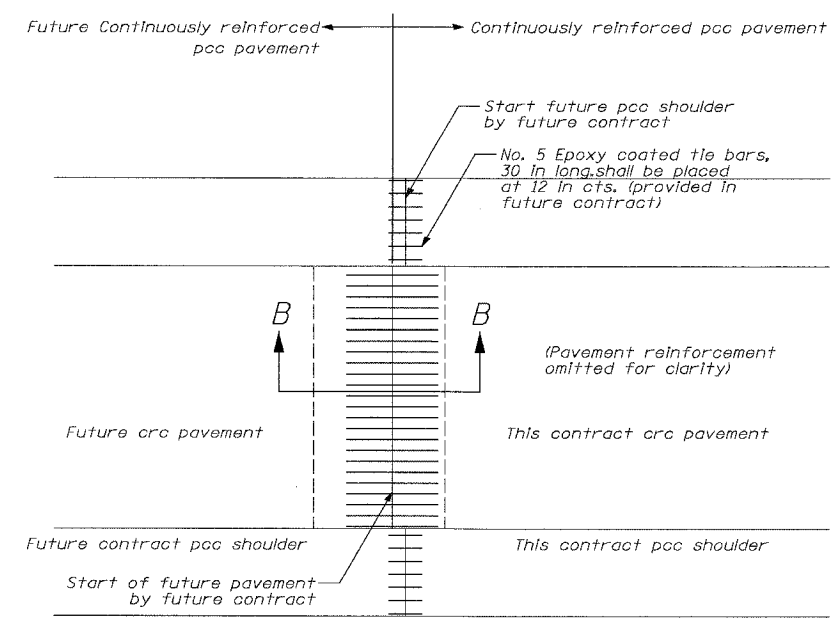
- This detail shows the termination of proposed CRC pavement that will be extended by future construction.
 - Bar splicer assemblies shall be of an IDOT approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 - Bar splicers shall be of the "coupler" type, and shall not have flanges.
 - 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:
 - A. Minimum Capacity (Tension in ksi) = $1.25 \times f_y \times A(t)$
 - B. Minimum Pull-out Strength (Tension in ksi) = $1.25 \times f_s(\text{allow}) \times A(t)$
- Where:
 f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_s(\text{allow})$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 $A(t)$ = Tensile stress area of lapped reinforcement bars (in²).
 * = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	STRENGTH REQUIREMENTS	
		Min. Capacity (kips) tension	Min. Pull-Out Strength (kips) tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0

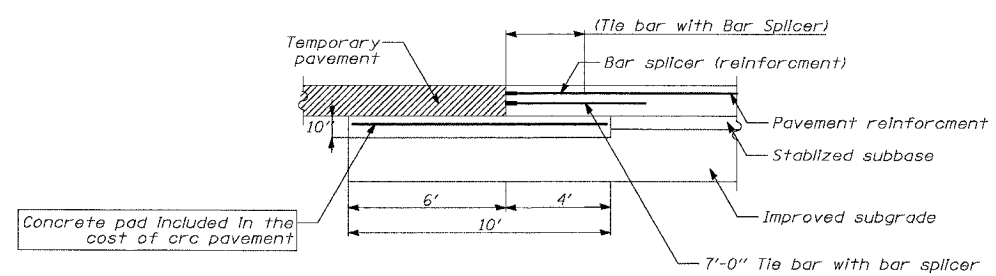
- Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted.
- Reinforcement shall not be paid for separately but included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT PAVEMENT, of the thickness specified.
- Connection to long term transverse construction joint work includes the installation of the bar splicers, payment for this work will be included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT of the thickness specified. Tie bars to be drilled and grouted shall not be paid for separately but included in the cost of PORTLAND CEMENT CONCRETE SHOULDERS, of the thickness specified.



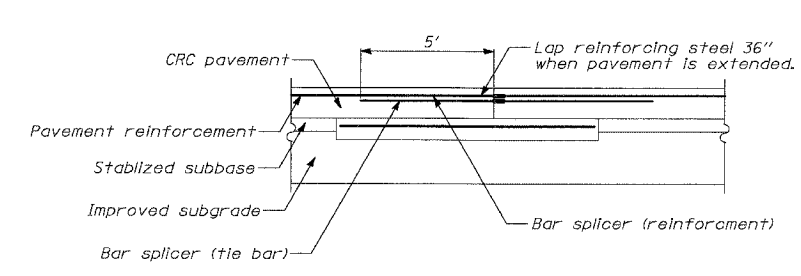
PLAN
(LONG TERM TRANSVERSE CONSTRUCTION JOINT IN THIS CONTRACT)



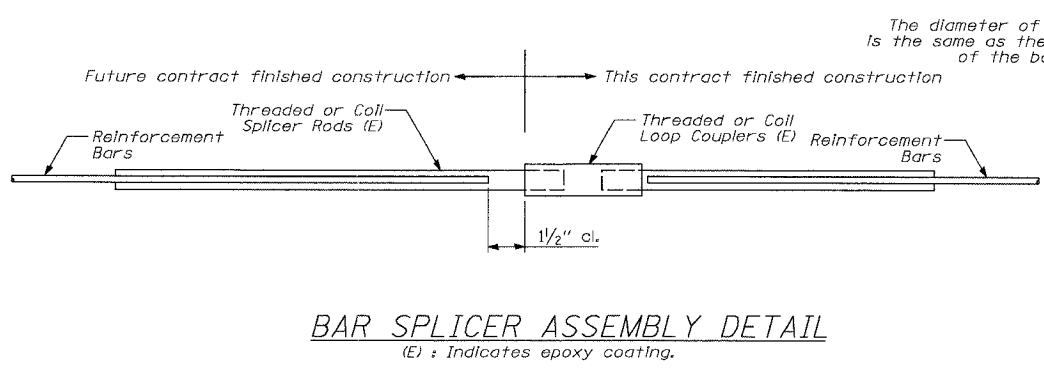
PLAN
(CONNECTION TO LONG TERM TRANSVERSE CONSTRUCTION JOINT BY FUTURE CONTRACT)



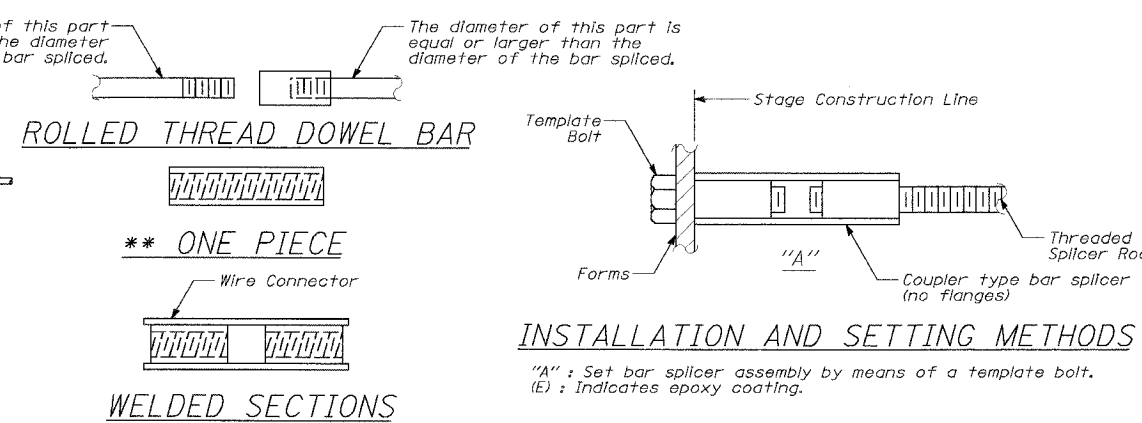
LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION A-A



LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION B-B



BAR SPLICER ASSEMBLY DETAIL
(E) : Indicates epoxy coating.



BAR SPLICER ASSEMBLY ALTERNATIVES
** Heavy Hex Nuts conforming to ASTM A 563M, Grade C, D or DH may be used.

Edwards AND Kelcey
ONE NORTH FRANKLIN CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

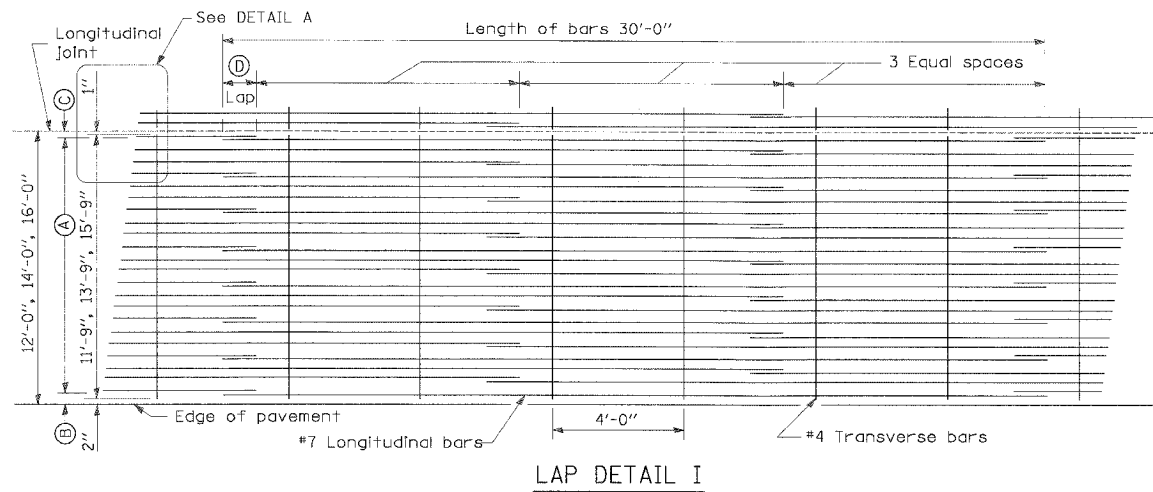
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 CIVIL DETAILS
 LONG TERM TRANSVERSE CONSTRUCTION JOINT
 (SHEET 2 OF 2)
 SCALE: NONE
 DATE: 7/7/05
 DRAWN BY:
 CHECKED BY:

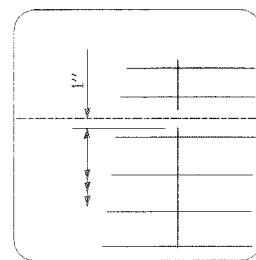
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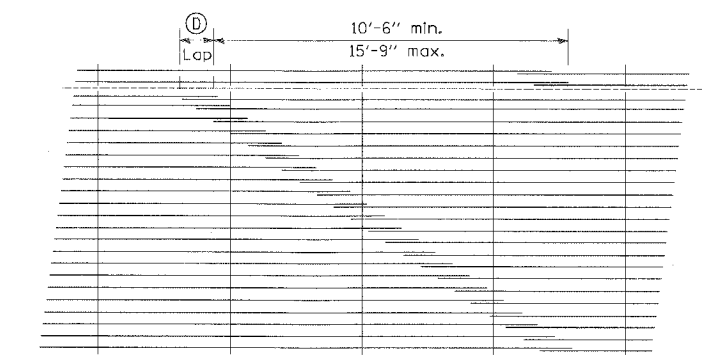
F.A.I. SHEETS	SECTION	COUNTY	TOTAL SHEETS
94/90		COOK	556
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62300	• (1818, ETC, 2324.6-1P)R-8		



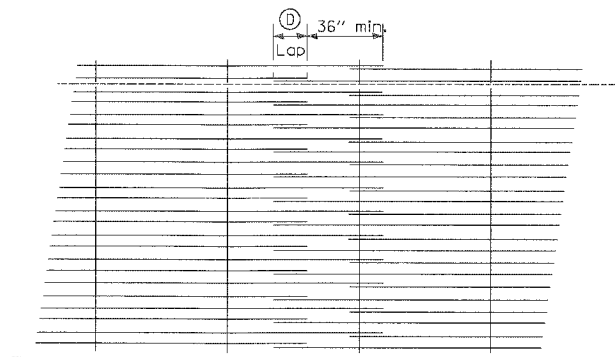
Pavement Width	Bar Size	Pavement Thickness	(A) (Approx. Spacing)	(B)	(C)	(D)
12 feet	#7	14"	26 spaces (27 bars) @ 5 1/4"	3 1/2"	3"	26"
14 feet	#7	14"	30 spaces (31 bars) @ 5 5/8"	3 1/2"	3"	26"
16 feet	#7	14"	35 spaces (36 bars) @ 5 1/4"	3 1/2"	3"	26"



DETAIL A



LAP DETAIL II



LAP DETAIL III

GENERAL NOTES

1. THE PAVEMENT REINFORCEMENT SHALL BE 4.5" FROM THE TOP OF PAVEMENT.
2. EXCEPT AS NOTED OR SHOWN, THE DIMENSIONS AND NOTES SPECIFIED FOR LAP DETAIL I ARE TYPICAL FOR LAP DETAIL II AND III.
3. THE (D) DIMENSION AND THE DISTANCE FROM THE END OF THE TRANSVERSE BAR TO THE EDGE OF PAVEMENT MAY BE INCREASED BY 1" FOR SLIP FORM PAVING.

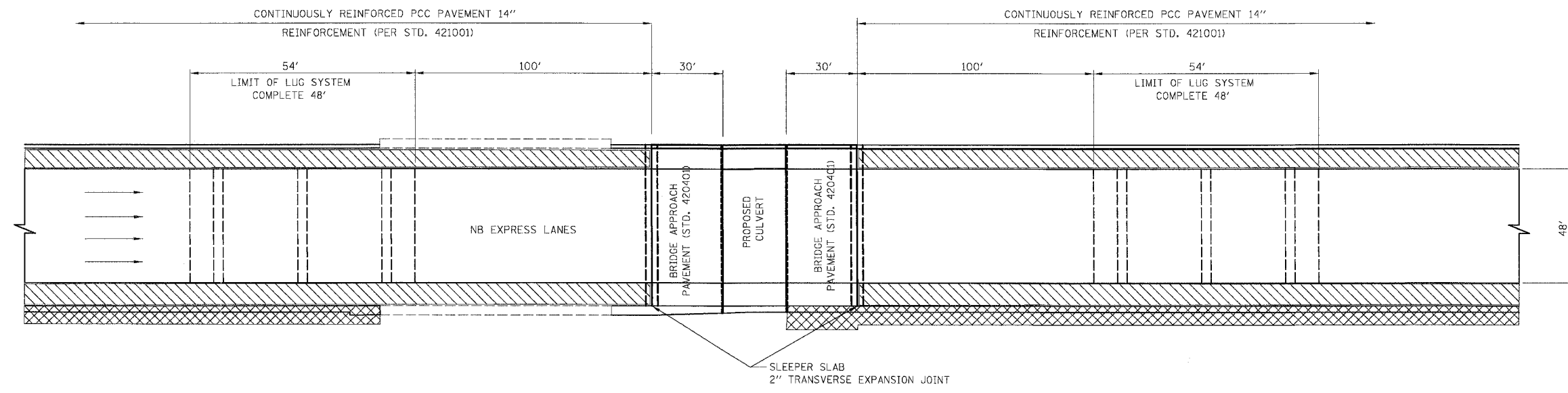
CDT-6

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31ST STREET TO 71ST STREET NB EXPRESS LANE RECONSTRUCTION CIVIL DETAILS EXTENDED LANE REINFORCEMENT FOR CONTINUOUSLY REINFORCED PCC PAVEMENT SCALE: NONE DATE: 7/7/05
NAME	DATE	
		DRAWN BY: TAI CHECKED BY: DPB

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

06/24/2005 09:30:59 PM

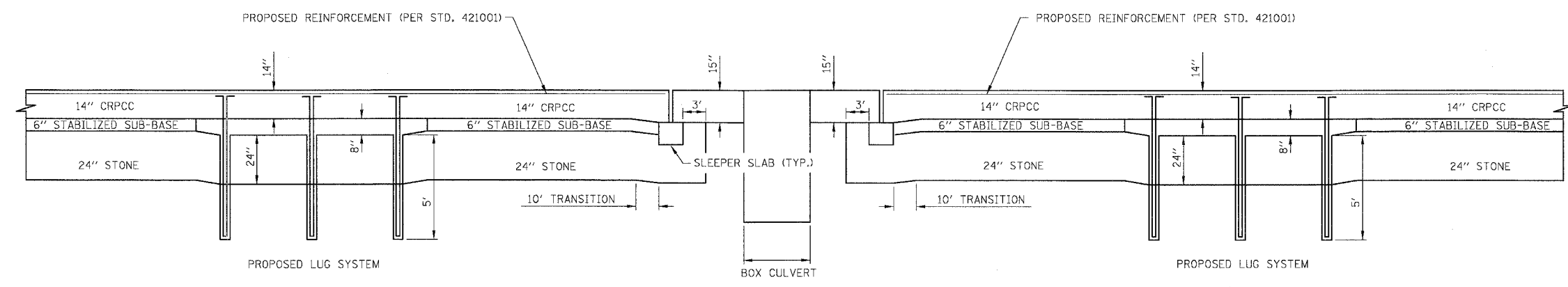
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	556	354
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	*1818, ETC, 2324.6-1PR-8			



PROPOSED PLAN

LEGEND:

	PCC SHOULDERS 14"
	TEMPORARY PAVEMENT



PROPOSED PROFILE

MATERIALS REQUIRED FOR ONE LUG SYSTEM COMPLETE 48'
(EXCLUDING PAVEMENT CONCRETE AND PAVEMENT REINFORCEMENT)

BAR	QTY.	SIZE	LENGTH	SHAPE
a	266	#8	16'-4"	
b	18	#5	48'-9"	
c	266	#5	20'-0"	
d	56	#4	11'-9"	

CONCRETE 116 CU. YDS.
REINFORCING BARS 18,502 LBS.

- NOTE
- ABOVE SCHEDULE ONLY ACCOUNTS FOR ONE OF THE TWO LUG SYSTEMS
 - LUG SYSTEM COMPLETE 48' IS SIMILAR TO (24") CRC PAVEMENT -WITH LUG SYSTEM (STD. 421201). SEE STANDARD 421201 FOR LAYOUT OF REINFORCING BARS.

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 LUG SYSTEM INTERFACE
 AT PERSHING ROAD

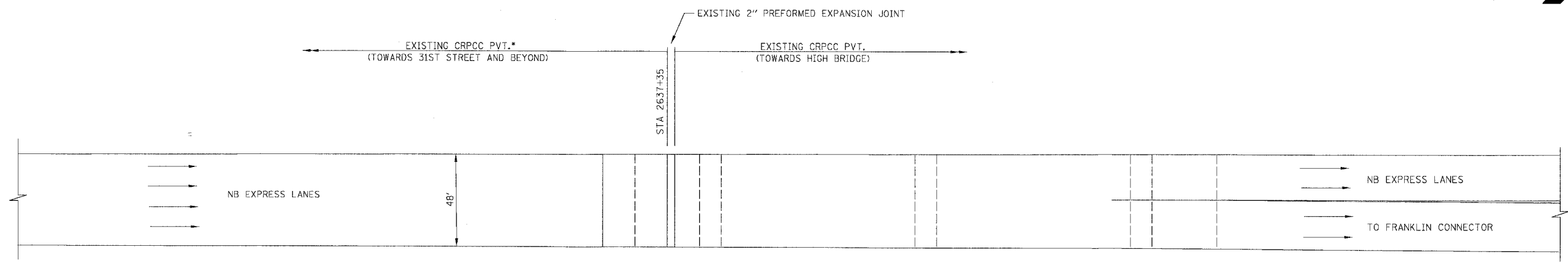
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DRAWN BY: JDC
 CHECKED BY: TF

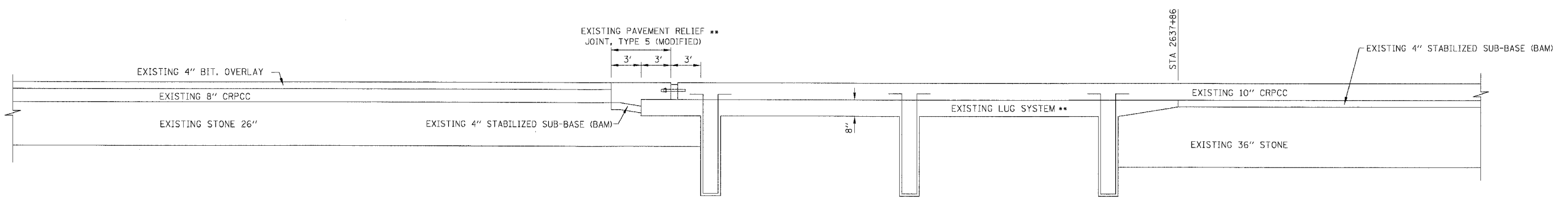
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 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
 www.bbainc.com

CDT-7
 5/4/05 PM
 6/27/2005

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90 *		COOK	556	355
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	*1818, ETC. 2324.6-IPR-8			



EXISTING PLAN



EXISTING PROFILE

- * LUGS FROM ORIGINAL 1961 CONSTRUCTION WERE REMOVED DURING 1987 HIGH BRIDGE (31ST TO I-290) RECONSTRUCTION.
- ** LUGS AND PAVEMENT RELIEF JOINTS FROM 1987 RECONSTRUCTION OF DAN RYAN HIGH BRIDGE AND APPROACH PAVEMENTS.

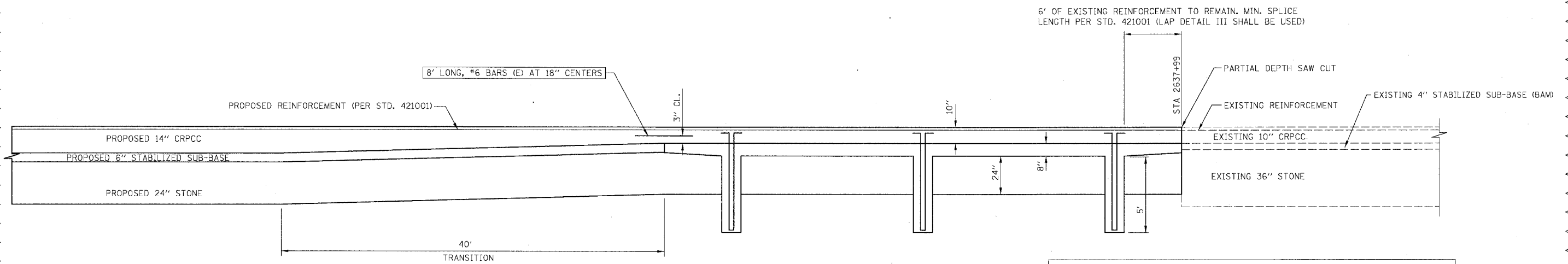
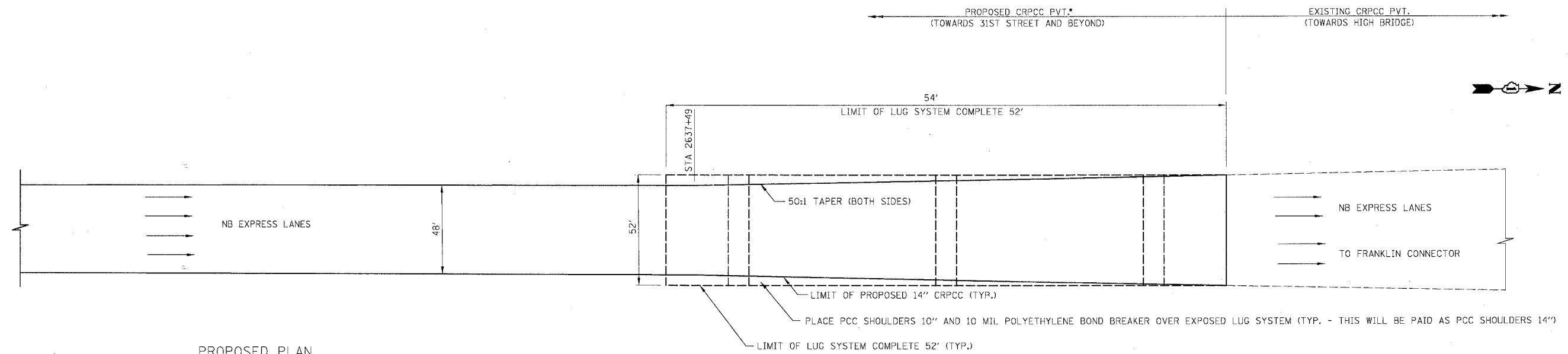
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
LUG SYSTEM INTERFACE
AT 31ST STREET
SCALE: NTS
DATE: 07/07/05
DRAWN BY: RR
CHECKED BY: JDC

CDT-8

5/15/34 PM 6/27/2005



MATERIALS REQUIRED FOR ONE LUG SYSTEM COMPLETE 52' (EXCLUDING PAVEMENT CONCRETE AND PAVEMENT REINFORCEMENT)

BAR	QTY.	SIZE	LENGTH	SHAPE
a	266	#8	15'-8"	
b	18	#5	52'-9"	
c	266	#5	20'-0"	
d	56	#4	12'-3"	
CONCRETE		126 CU. YDS.		
REINFORCING BARS		18,127 LBS.		

NOTES

- EXISTING LUG SYSTEM AND RELIEF JOINT LOCATIONS MAY DIFFER FROM STATIONING SHOWN IN PLANS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING LUG SYSTEMS AND RELIEF JOINTS PRIOR TO WORK BEING PERFORMED.
- THE CONTRACTOR SHALL TAKE CARE IN REMOVING THE EXISTING CRC PAVEMENT SO AS NOT TO DAMAGE THE PORTIONS OF THE LUG SYSTEM TO BE INCORPORATED. ANY DAMAGE TO THE EXISTING LUG SYSTEM IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE ENGINEER.

3. #6 BARS ARE TO BE SUPPORTED BY PINS OR OTHER METHOD AS APPROVED BY THE ENGINEER. MUCKING IN OF THE BARS IS NOT ACCEPTABLE. COST OF THESE ADDITIONAL BARS WILL NOT BE PAID FOR SEPRATE, BUT WILL BE INCLUDED IN THE PRICE FOR CRPCC PAVEMENT 14".

4. TRANSITION AREA FROM 10" TO 14" CRPCC AND 10" CRPCC WILL BE PAID AS CRPCC PAVEMENT 14".

5. LUG SYSTEM COMPLETE 52' IS SIMILAR TO (24') CRC PAVEMENT - WITH LUG SYSTEM (STD. 421201). SEE STANDARD 421201 FOR LAYOUT OF REINFORCING BARS.

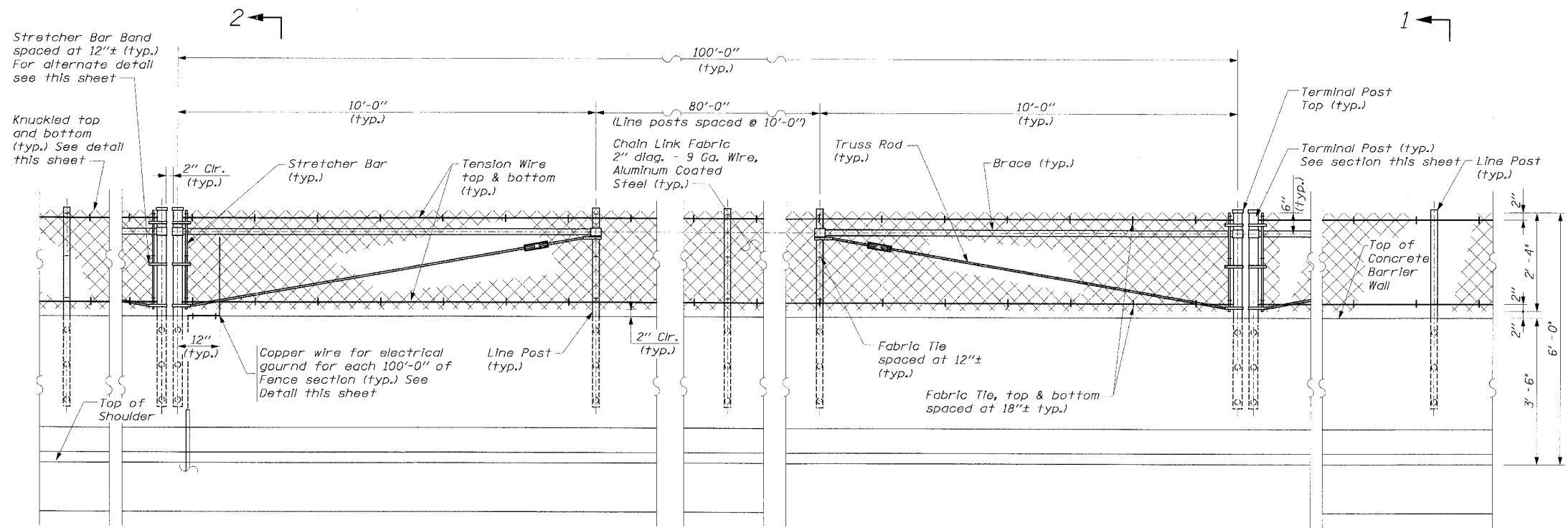
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NAME	DATE
ADDENDUM 1	8/12/05
ADDENDUM 1	9/16/05

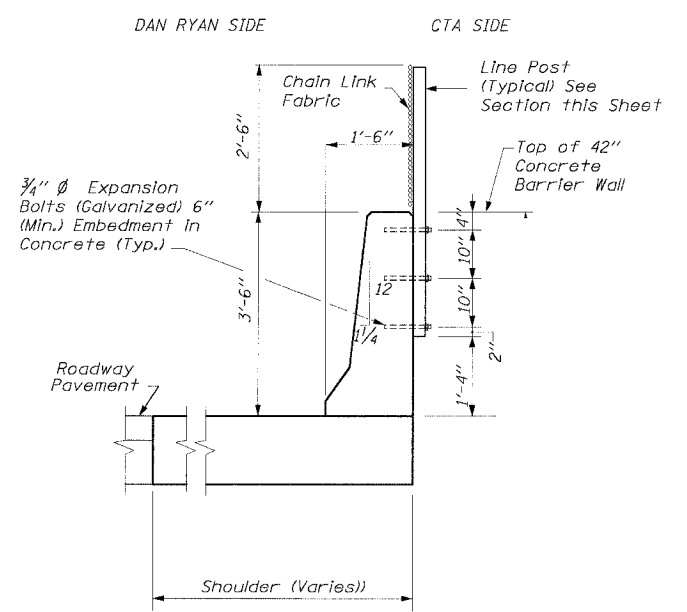
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
LUG SYSTEM INTERFACE
AT 31ST STREET

SCALE: NTS
DATE: 07/07/05
DRAWN BY: RR
CHECKED BY: JDC

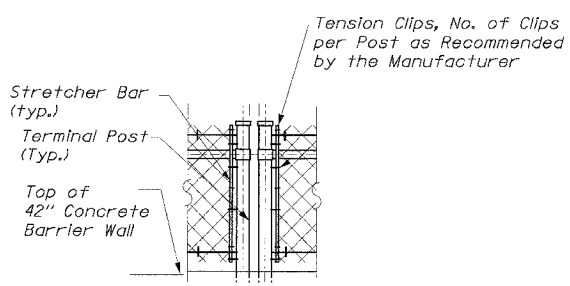
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	357
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	1818, ETC, 2324.6-1PIR-8			



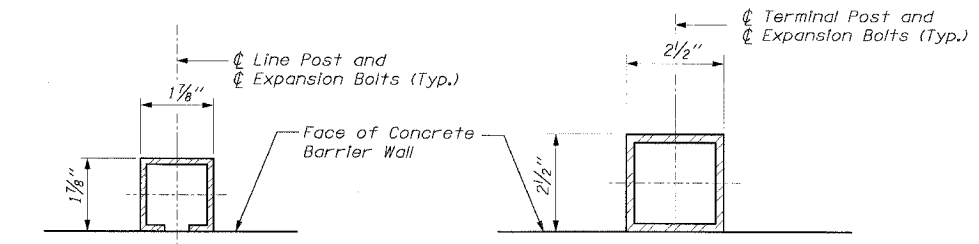
ELEVATION
CHAIN LINK FENCE ON CONCRETE BARRIER WALL



SECTION 1-1



ALTERNATE DETAIL FOR
STRETCHER BAR BAND

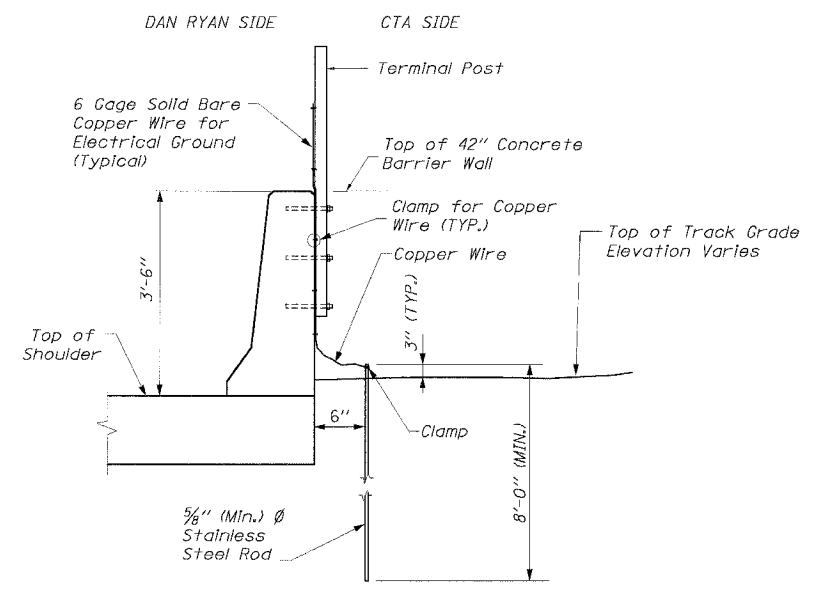


LINE POST SECTION

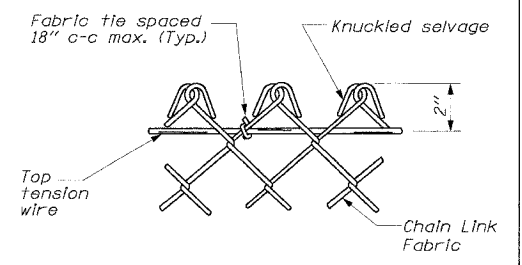
TERMINAL POST SECTION

NOTE:
The Contractor May Use Another C Section as per the Standards of the Illinois Department of Transportation.

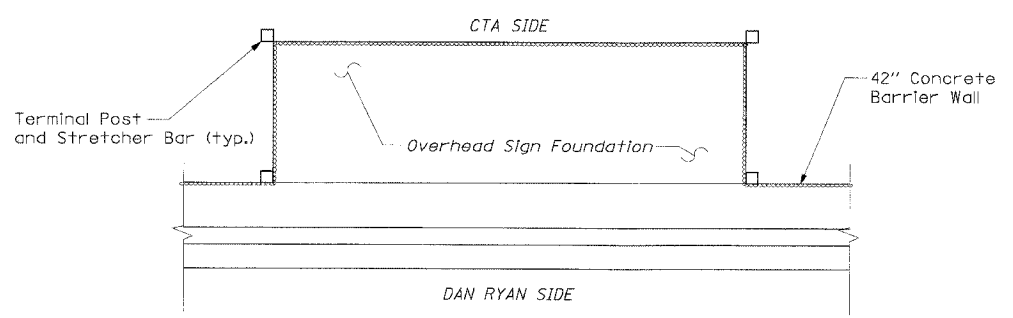
NOTE:
Where the fence meets bridge piers and other vertical structures taller than the fence a maximum gap of 2" clear between the terminal post is to be provided.



SECTION 2-2
ELECTRICAL GROUND DETAIL



KNUCKLED DETAIL



DETAIL AT OVERHEAD SIGN FOUNDATIONS

Fence, hardware and posts around the overhead sign foundation are paid for as CTA Fence.

REVISIONS	
NAME	DATE

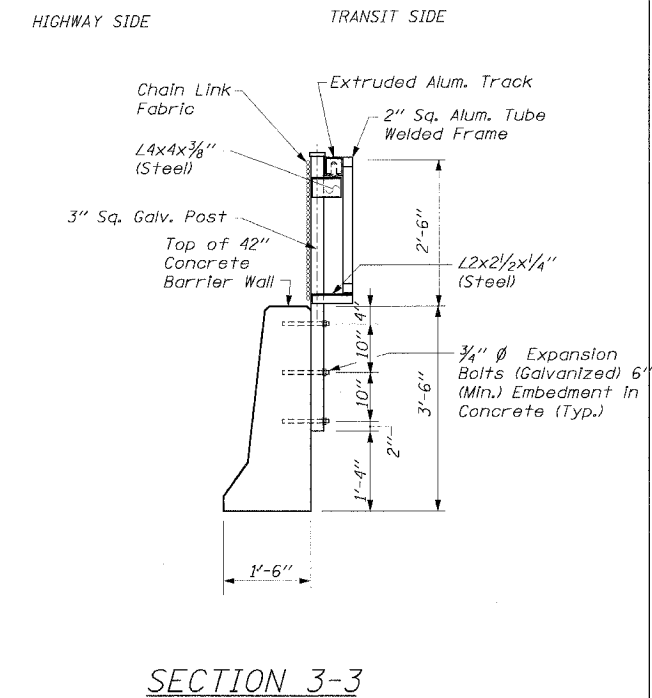
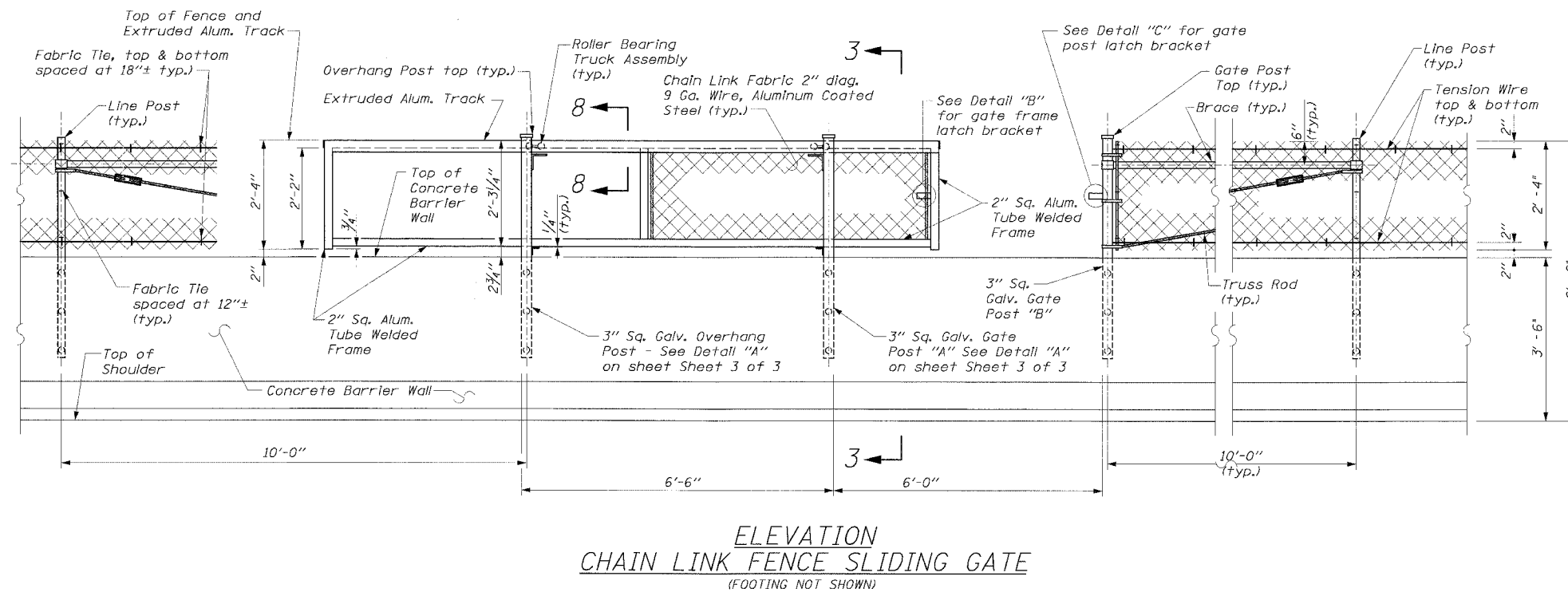
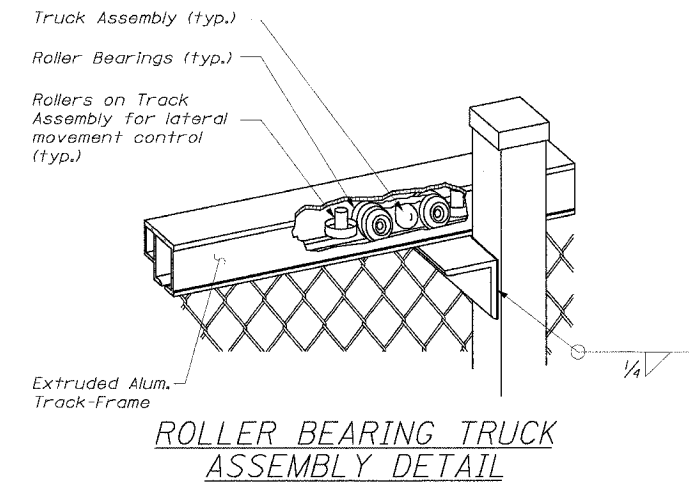
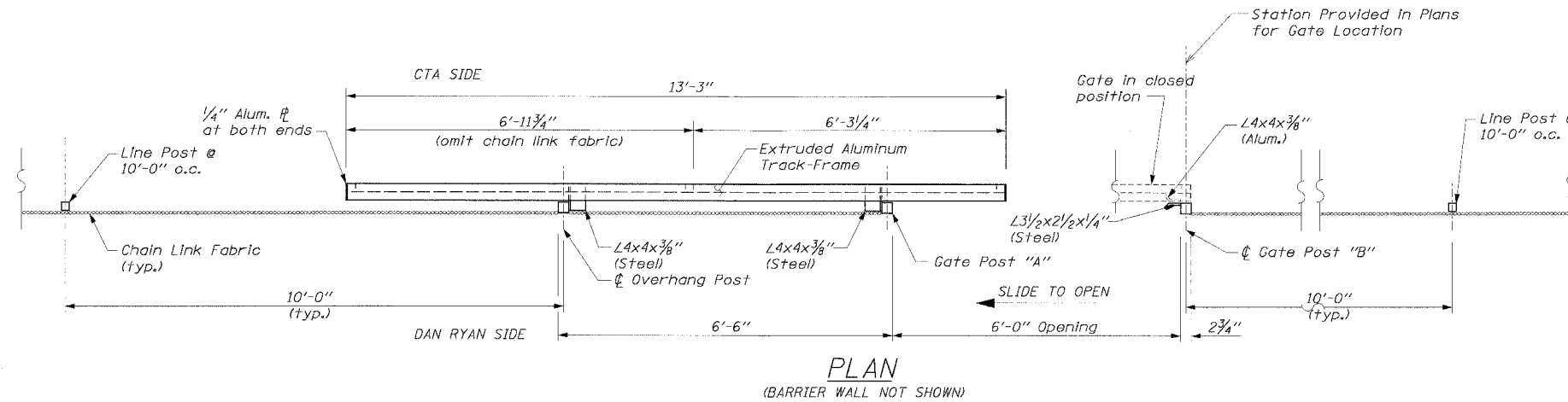
CDT-10
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION

CTA FENCE
ELEVATIONS AND DETAILS
SHEET 1 OF 3

SCALE: NONE
DATE: 7/7/05
DRAWN BY: RLK
CHECKED BY: EL

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

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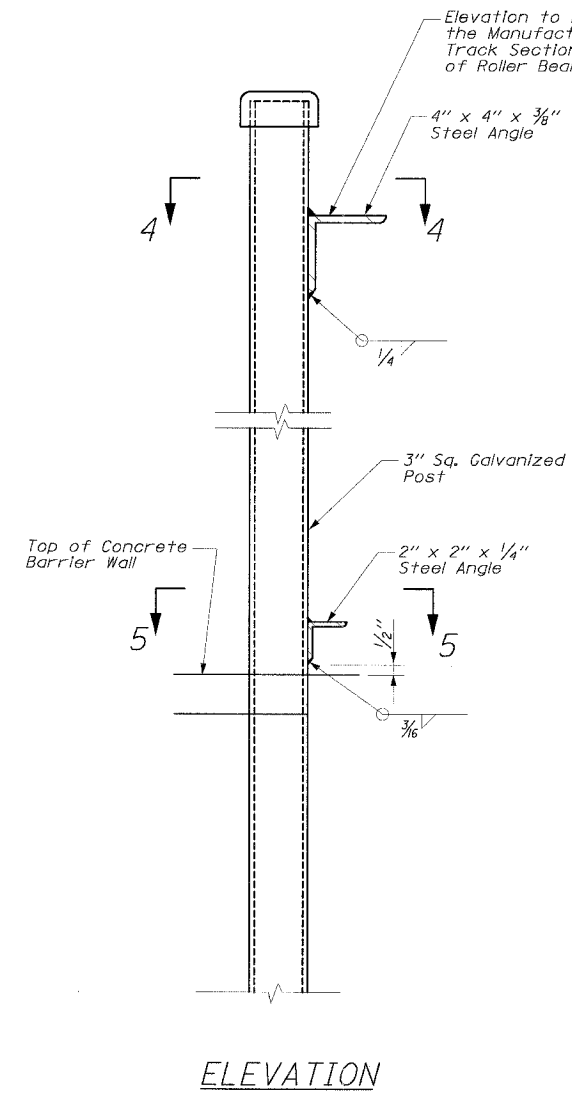


NOTE: For Additional Details and Sections see Sheet 3 of 3

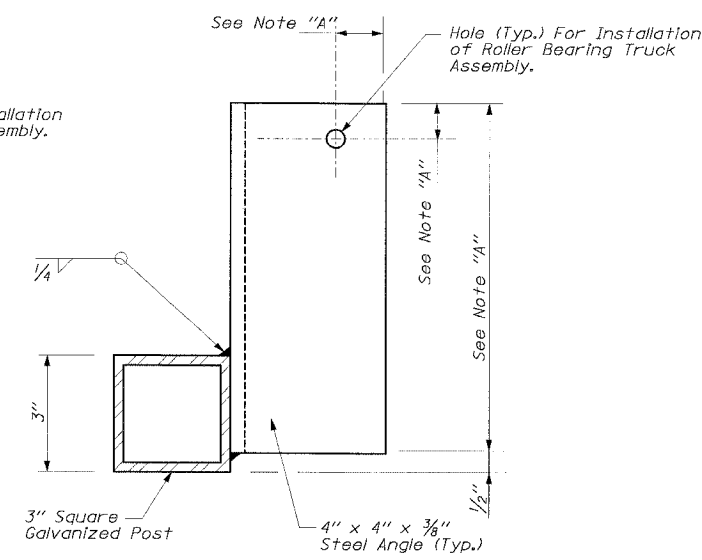
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 CTA FENCE
 ELEVATIONS AND DETAILS
 SHEET 2 OF 3
 SCALE: NONE
 DATE: 7/7/05
 DRAWN BY: RLK
 CHECKED BY: EL

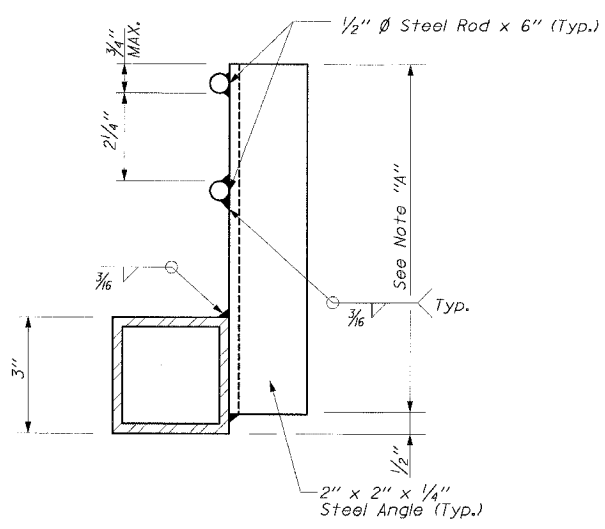
F.A.I. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	359
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	11818, ETC, 2324.6-IPR-8			



ELEVATION



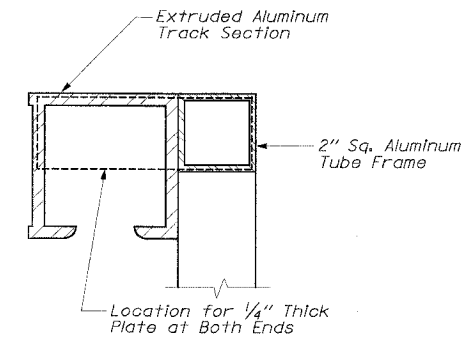
SECTION 4-4



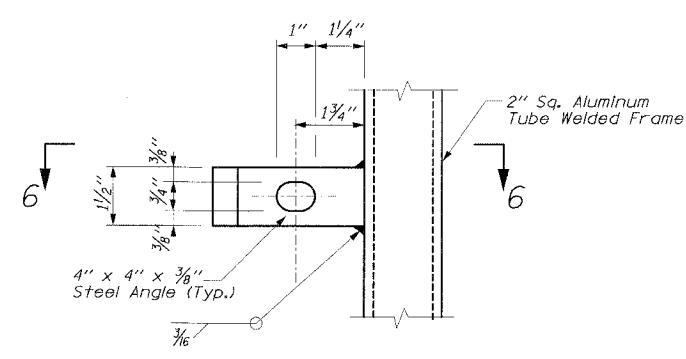
SECTION 5-5

DETAIL A
 For Overhang Post - As Shown
 For Gate Post "A" - Opposite Hand

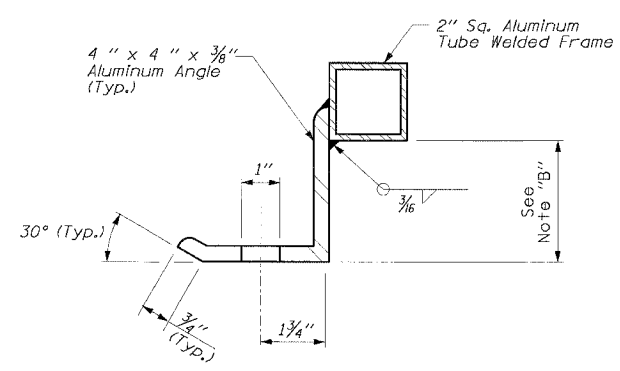
NOTE:
 "A": The Manufacturer of the Sliding Gate Shall Determine the Length of Angles and Location of Hole for Installation of Roller Bearing Truck Assembly.



SECTION 8-8



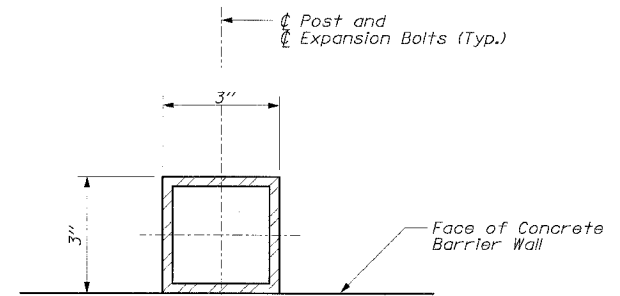
ELEVATION



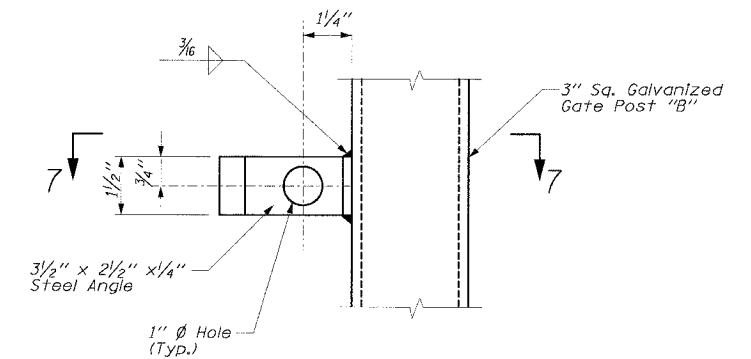
SECTION 6-6

DETAIL B

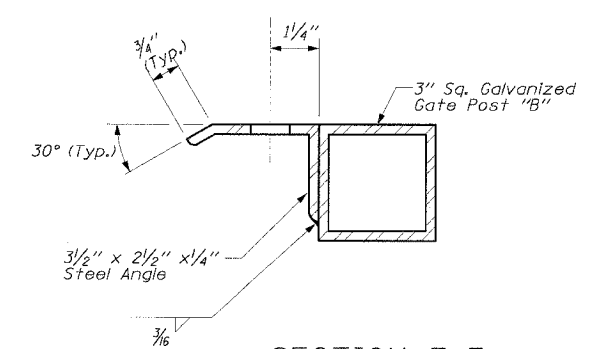
NOTE:
 "B": The Manufacturer of the Sliding Gate Shall Set the Angle Based on the Size of the Track Frame



GATE AND OVERHANG POST SECTION



ELEVATION



SECTION 7-7

DETAIL C

GENERAL NOTE:
 The Slide Gates Shall be of the Cantilevered Type with NO Track or Support Across the Opening.

Edwards AND Kelcey
 ONE NORTH FRANKLIN CHICAGO, IL 60606
 PHONE: (312) 251-3000 FAX: (312) 251-3015
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REVISIONS	
NAME	DATE

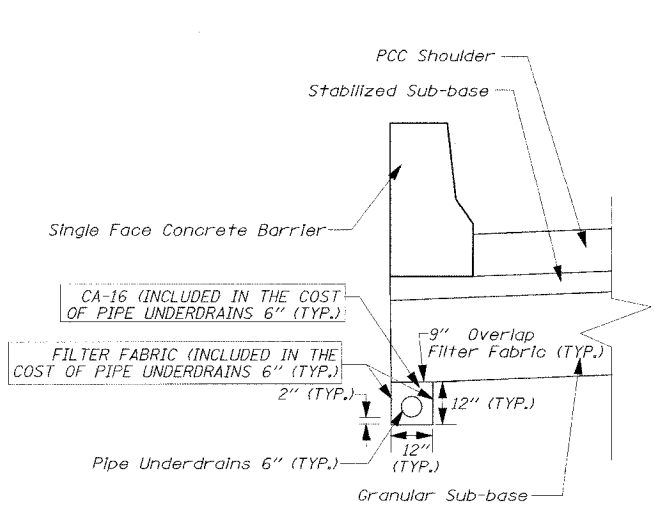
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 CTA FENCE
 ELEVATIONS AND DETAILS
 SHEET 3 OF 3
 SCALE: NONE DRAWN BY: RLK
 DATE: 7/7/05 CHECKED BY: EL

CDT-12

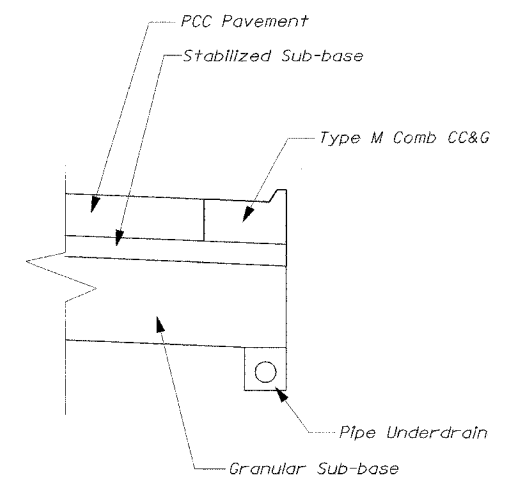
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	360
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	• (1818, ETC, 2324.6-1PIR-8			

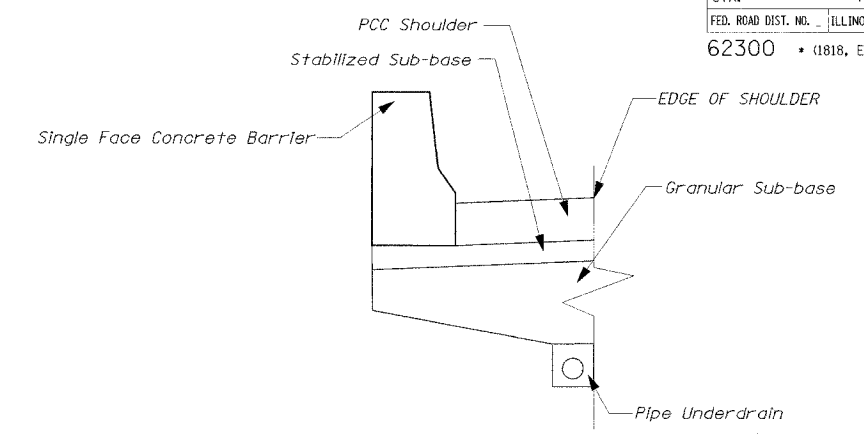
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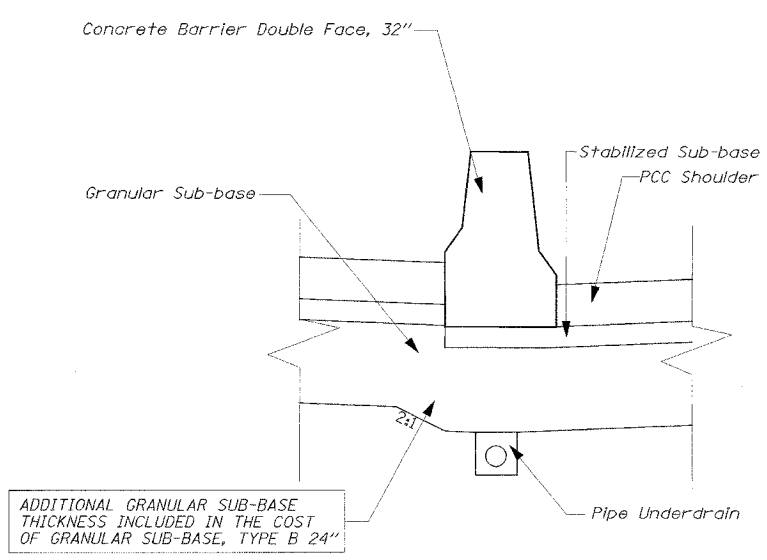
PIPE UNDERDRAINS 6" UNDER SINGLE FACE BARRIER WALL



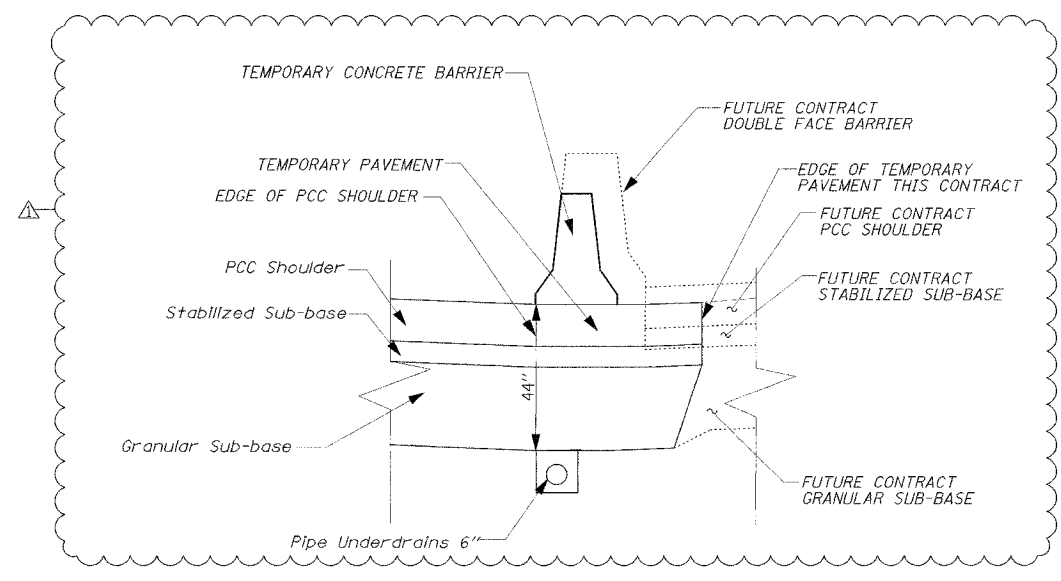
PIPE UNDERDRAINS 6" - UNDER TYPE M COMBINATION CONCRETE CURB & GUTTER



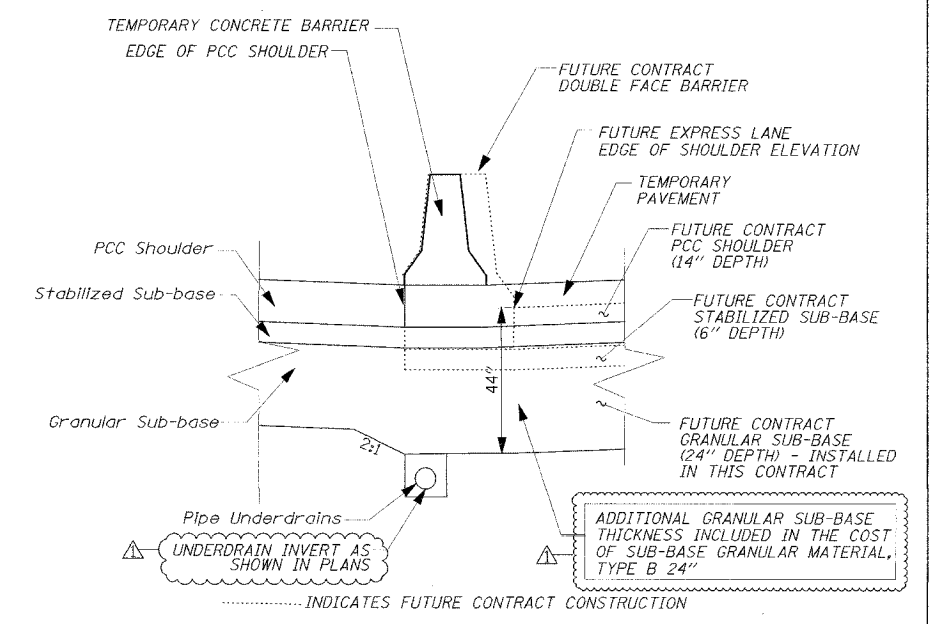
PIPE UNDERDRAINS 6" UNDER SHOULDER ADJACENT TO CTA



PIPE UNDERDRAINS 6" UNDER DOUBLE FACE BARRIER WALL



PIPE UNDERDRAINS 6" UNDER TEMPORARY CONCRETE BARRIER WALL SCENARIO A - FUTURE LOCAL LANES HIGHER THAN EXPRESS LANES



PIPE UNDERDRAINS 6" UNDER TEMPORARY CONCRETE BARRIER WALL SCENARIO B - FUTURE LOCAL LANES LOWER THAN EXPRESS LANES

NOTE:
 GRANULAR SUB-BASE REFERENCES SUB-BASE GRANULAR MATERIAL, TYPE B 24" SOUTH OF STA. 1530+00, AND A COMBINATION OF SUB-BASE GRANULAR MATERIAL TYPE B 12" AND EXCAVATE AND PLACE EXISTING GRANULAR MATERIAL NORTH OF STA. 1530+00 (SEE TYPICAL). THE NOTE "ADDITIONAL GRANULAR SUB-BASE THICKNESS INCLUDED IN THE COST OF SUB-BASE GRANULAR MATERIAL, TYPE B 24" IS ONLY APPLICABLE SOUTH OF STA. 1530+00, NORTH OF STA. 1530+00, ADDITIONAL SUB-BASE THICKNESS WILL BE PROVIDED UNDER THE ITEM EXCAVATE AND PLACE EXISTING GRANULAR MATERIAL.

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
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 WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE
ADDENDUM 1	8/12/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 CIVIL DETAILS
 PIPE UNDERDRAINS 6"
 SCALE: NONE
 DATE: 7/7/05
 DRAWN BY: TAI
 CHECKED BY: PJM

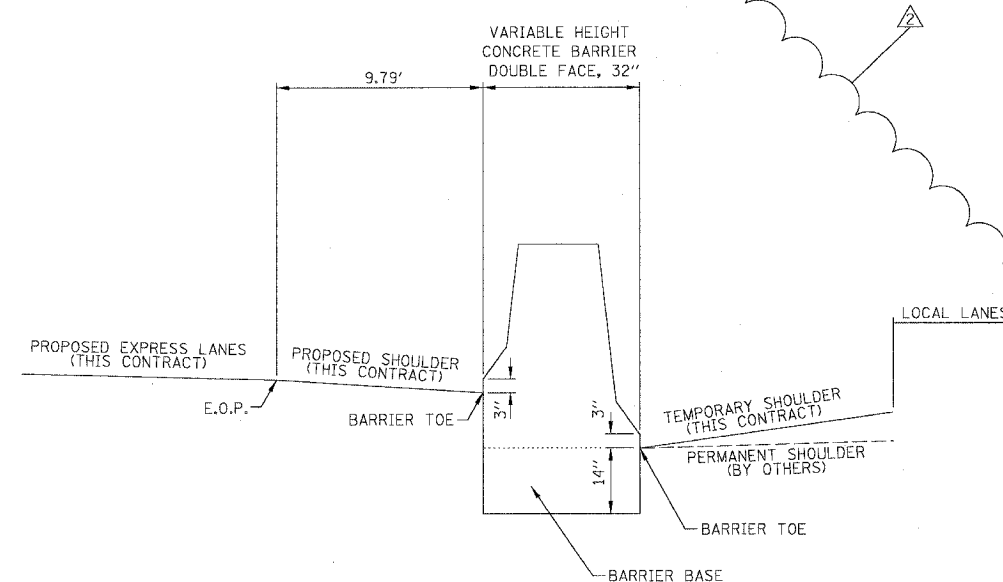
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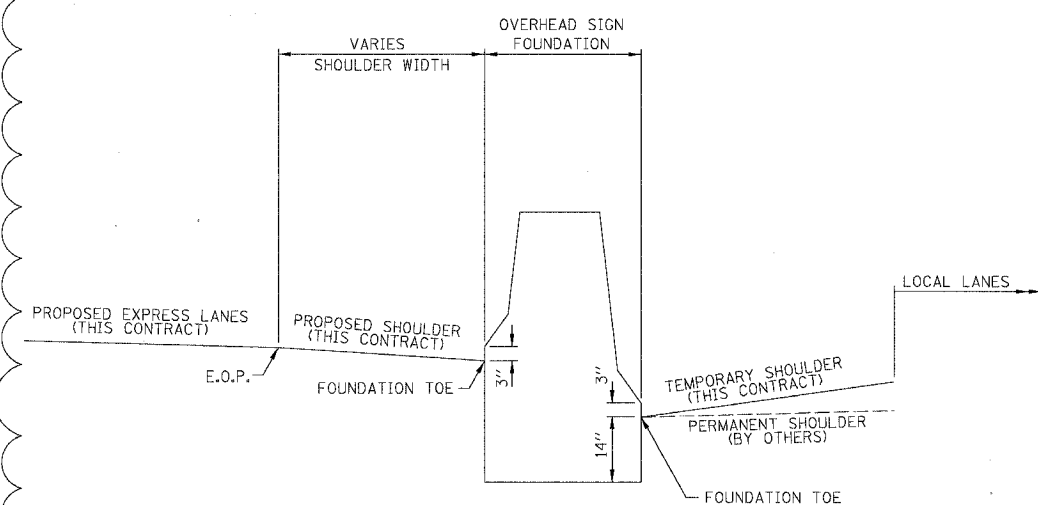
EXPRESS LANE STATION	E.O.P. ELEV. OUTSIDE EXPRESS LANES	SHOULDER WIDTH	TOE OF FOUNDATION ELEV. ALONG EXPRESS LANES	TOE OF FOUNDATION ELEV. ALONG LOCAL LANES	LOCAL LANE STATION
2536+25.78 2536+36.53	5.82 5.93	9.18 9.18	5.64 5.75	4.72 4.94	4535+94.62 810+07.19
819+24.43 819+34.43	8.22 8.16	13.64 13.64	7.67 7.61	8.37 8.25	4545+30 4545+40
2570+88.71 2570+98.71	-0.69 -0.53	9.25 9.25	-1.06 -0.90	-2.08 -1.91	4570+95 4571+05
2598+52.69 2598+64.69	11.71 11.63	8.94 8.94	11.35 11.27	10.77 10.69	4598+59 4598+71
2598+87.69 2598+99.69	11.48 11.40	8.94 8.94	11.12 11.04	10.53 10.45	4598+94 4599+06

EXPRESS LANE STATION	E.O.P. ELEV. OUTSIDE EXPRESS LANES	TOE OF BARRIER ELEV. ALONG EXPRESS LANES
2523+00	1.47	1.07
2523+25	0.90	0.50
2523+50	0.34	-0.06
2523+75	-0.22	-0.62
2524+00	-0.78	-1.18
2524+25	-1.34	-1.74
2524+50	-1.90	-2.32
2524+75	-2.46	-2.92
2525+00	-3.02	-3.53
2525+25	-3.58	-4.13
2525+50	-4.13	-4.72
2525+75	-4.51	-5.10
2526+00	-4.86	-5.45
2526+25	-5.16	-5.75
2526+50	-5.42	-6.01
2526+75	-5.64	-6.23
2527+00	-5.82	-6.41
2527+25	-5.96	-6.55
2527+50	-6.06	-6.65
2527+75	-6.11	-6.75
2528+00	-6.13	-6.79
2528+25	-6.10	-6.77
2528+50	-6.03	-6.68
2528+75	Bridge Pier	-
2529+00	Bridge Pier	-
2529+25	Bridge Pier	-
2529+50	Bridge Pier	-
2529+75	-5.09	-5.62
2530+00	-4.83	-5.41
2530+25	-4.58	-5.16
2530+50	-4.32	-4.90
2530+75	-4.07	-4.65
2531+00	-3.81	-4.39
2531+25	-3.56	-4.14
2531+50	-3.30	-3.88
2531+75	-2.91	-3.44
2532+00	-2.42	-2.89
2532+25	-1.94	-2.35
2532+50	-1.46	-1.85
2532+75	-0.97	-1.36
2533+00	-0.49	-0.88
2533+25	0.00	-0.39
2533+50	0.48	0.09
2533+75	0.97	0.58
2534+00	1.45	1.06
2534+25	1.94	1.55
2534+50	2.42	2.03
2534+75	2.90	2.51
2535+00	3.39	3.00
2535+25	3.87	3.48
2535+50	4.36	3.98
2535+75	4.84	4.52
2536+00	5.33	5.08
2536+25	5.81	5.63
2536+50	6.07	5.88
2536+75	6.32	6.12
2537+00	6.57	6.37
2537+25	6.83	6.63
2537+50	7.08	6.88
2537+75	7.34	7.14
2538+00	7.59	7.39
2538+25	7.85	7.65
2538+50	8.10	7.90
2538+75	8.36	8.16
2539+00	8.61	8.41
2539+25	8.87	8.67
2539+50	9.12	8.92
2539+75	9.37	9.17
2540+00	9.62	9.42
2540+25	9.85	9.65
2540+50	10.05	9.85
2540+75	10.24	10.04

LOCAL LANE STATION	E.O.P. ELEV. INSIDE LOCAL LANES	TOE OF BARRIER ELEV. ALONG LOCAL LANES
4523+00	1.47	1.10
4523+25	1.07	0.69
4523+50	0.65	0.27
4523+75	0.22	-0.14
4524+00	-0.21	-0.52
4524+25	-0.64	-0.90
4524+50	-1.06	-1.26
4524+75	-1.52	-1.71
4525+00	-1.99	-2.19
4525+25	-2.47	-2.66
4525+50	-2.93	-3.12
4525+75	-3.35	-3.54
4526+00	-3.73	-3.92
4526+25	-4.06	-4.25
4526+50	-4.36	-4.55
4526+75	-4.61	-4.80
4527+00	-4.82	-5.01
4527+25	-4.98	-5.17
4527+50	-5.11	-5.29
4527+75	-5.19	-5.36
4528+00	-5.24	-5.39
4528+25	-5.21	-5.37
4528+50	Bridge Pier	-
4528+75	Bridge Pier	-
4529+00	Bridge Pier	-
4529+25	Bridge Pier	-
4529+50	-4.60	-4.80
4529+75	-4.35	-4.53
4530+00	-4.07	-4.26
4530+25	-3.73	-3.91
4530+50	-3.35	-3.53
4530+75	-2.93	-3.11
4531+00	-2.48	-2.66
4531+25	-2.05	-2.23
4531+50	-1.66	-1.89
4531+75	-1.28	-1.54
4532+00	-0.89	-1.19
4532+25	-0.51	-0.81
4532+50	-0.12	-0.42
4532+75	0.27	-0.04
4533+00	0.65	0.35
4533+25	1.04	0.74
4533+50	1.42	1.13
4533+75	1.81	1.52
4534+00	2.19	1.91
4534+25	2.57	2.31
4534+50	2.94	2.70
4534+75	3.31	3.09
4535+00	3.67	3.46
4535+25	4.02	3.82
4535+50	4.37	4.16
4535+75	4.71	4.48
810+00	5.09	4.84
810+25	5.47	5.15
810+50	5.84	5.48
810+75	6.19	5.79
811+00	6.55	6.12
811+25	6.92	6.48
811+50	7.28	6.82
811+75	7.61	7.14
812+00	7.92	7.43
812+25	8.22	7.74
812+50	8.48	7.99
812+75	8.73	8.22
813+00	8.96	8.44
813+25	9.16	8.64
813+50	9.34	8.81
813+75	9.51	8.99
814+00	9.65	9.12
814+25	9.77	9.23
814+50	9.88	9.31
814+75	9.95	9.41



CONCRETE BARRIER DOUBLE FACE



DOUBLE FACE OVERHEAD SIGN FOUNDATION

EXPRESS LANE STATION	E.O.P. ELEV. OUTSIDE EXPRESS LANES	TOE OF BARRIER ELEV. ALONG EXPRESS LANES	LOCAL LANE STATION	E.O.P. ELEV. INSIDE LOCAL LANES	TOE OF BARRIER ELEV. ALONG LOCAL LANES
2541+00	10.41	10.21	815+00	10.01	9.47
2541+25	10.55	10.35	815+25	10.04	9.50
2541+50	10.55	10.32	815+50	10.06	9.53
2541+75	10.53	10.26	815+75	10.06	9.53
2542+00	10.49	10.18	816+00	10.12	9.65
2542+25	10.43	10.08	816+25	10.17	9.77
2542+50	10.35	9.97	816+50	10.17	9.84
2542+75	10.25	9.86	816+75	10.14	9.82
2543+00	10.15	9.75	817+00	10.07	9.77
2543+25	10.01	9.62	817+25	9.95	9.68
2543+37	9.94	9.55	817+38.5	9.87	9.61

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

REVISIONS	
NAME	DATE
ADDENDUM 2	9/16/05

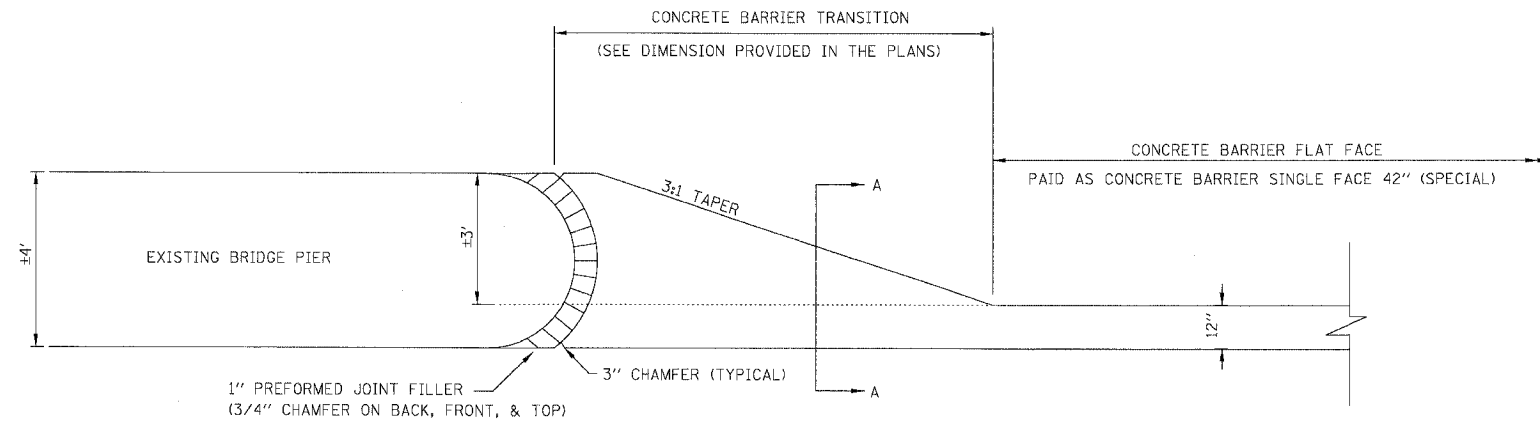
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
DOUBLE FACE BARRIER
ELEVATIONS

SCALE: NTS
DATE: 07/07/05
DRAWN BY: JDC
CHECKED BY: RS

CDT-14

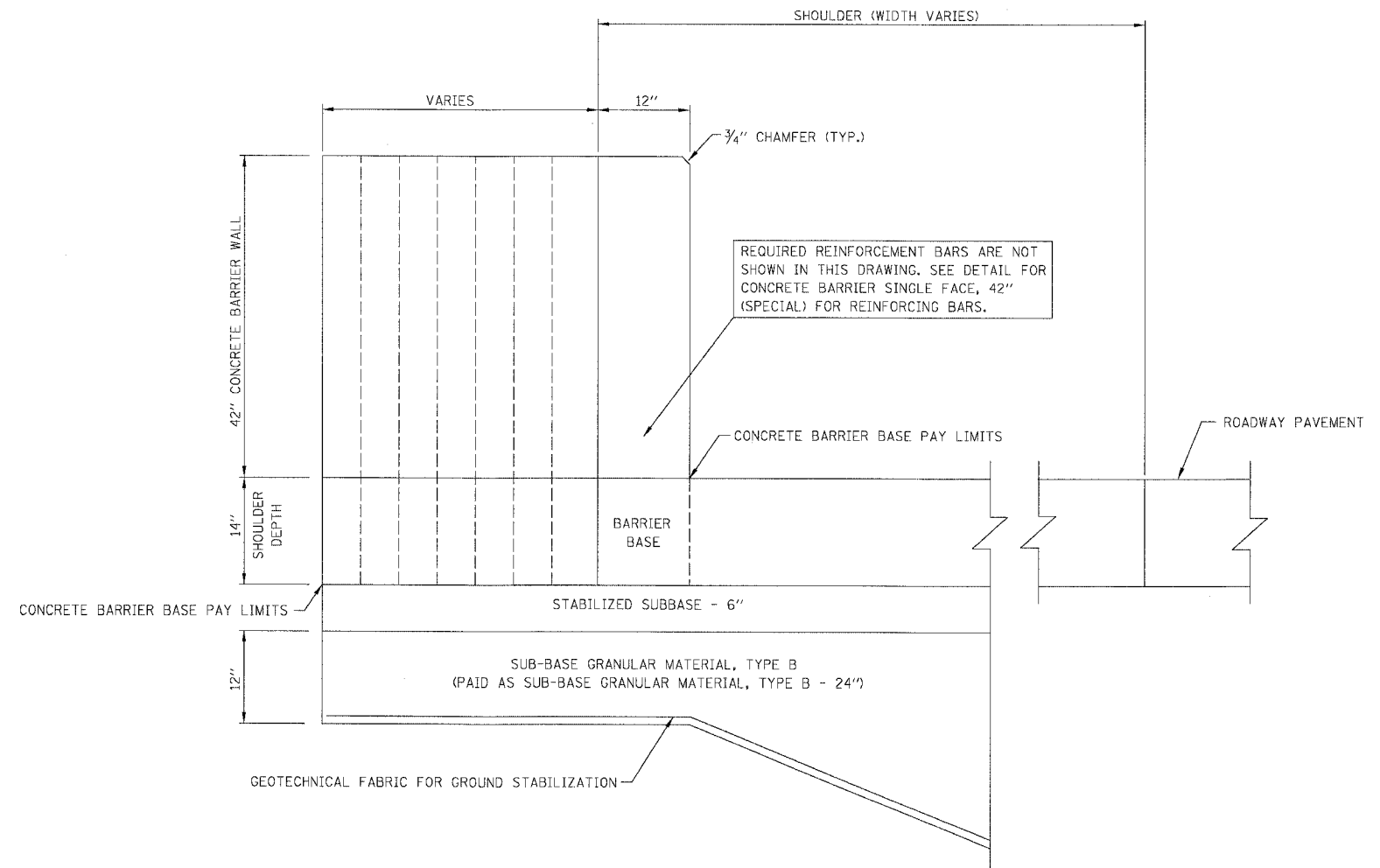
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	362
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	*1818, ETC, 2324.6-1PR-8			



CONCRETE BARRIER FLAT FACE

STA. 2575+72.07 TO STA. 2576+21.44
STA. 2576+40.50 TO STA. 2576+78.37



SECTION A-A

REVISIONS	
NAME	DATE

CDT-15

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION

CONCRETE BARRIER FLAT FACE

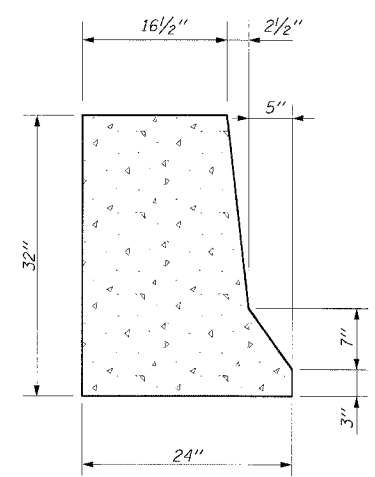
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DATE: 07/07/05

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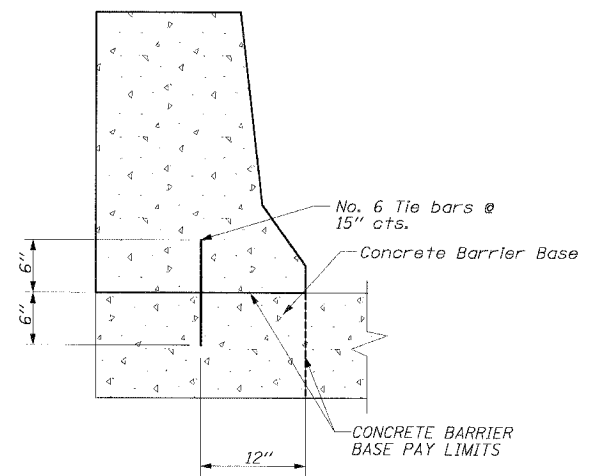
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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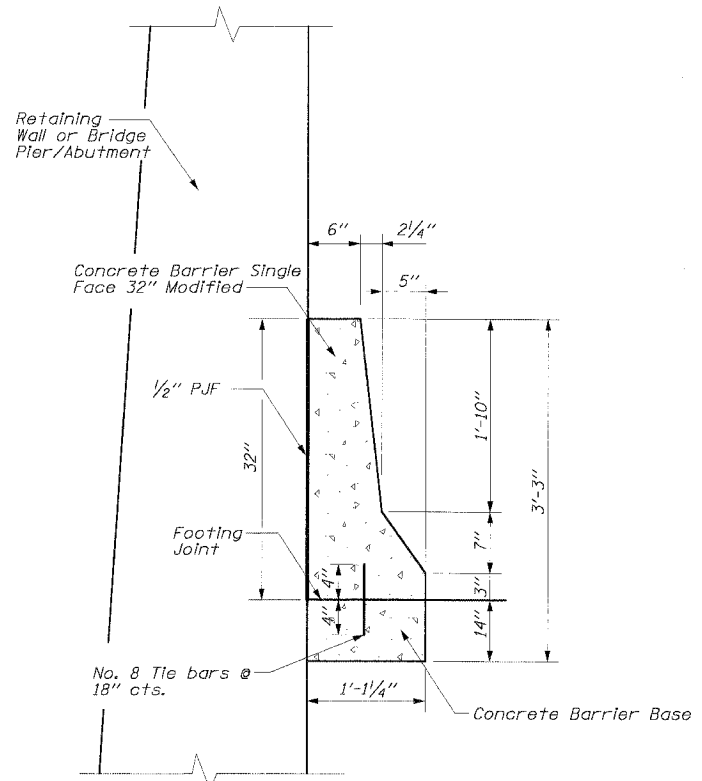
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94/90		COOK	556	363
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	• (181B, ETC, 2324.6-1PR-8			



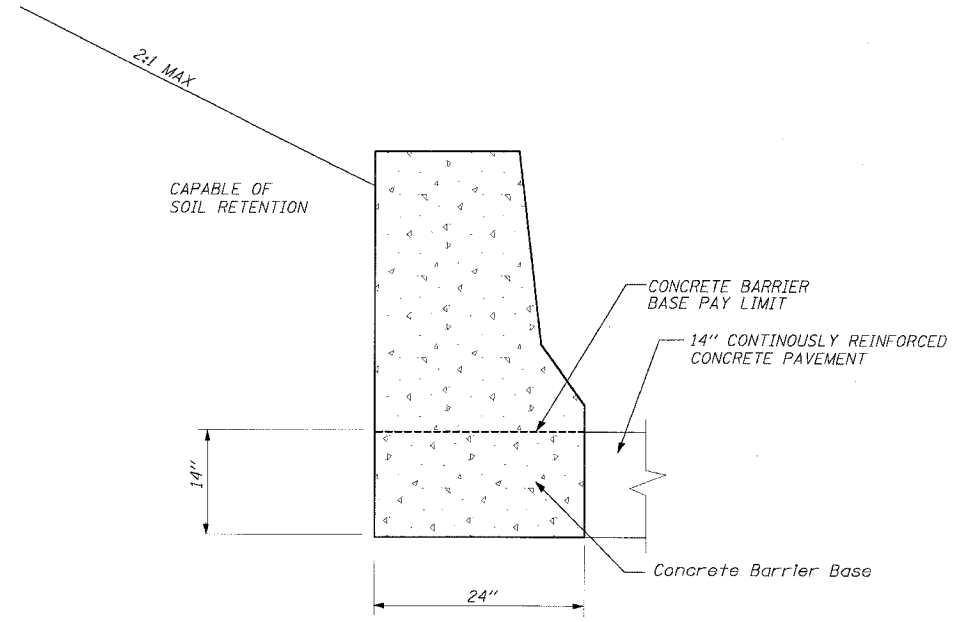
**CONCRETE BARRIER
TYPICAL SECTION**



ANCHORING METHOD

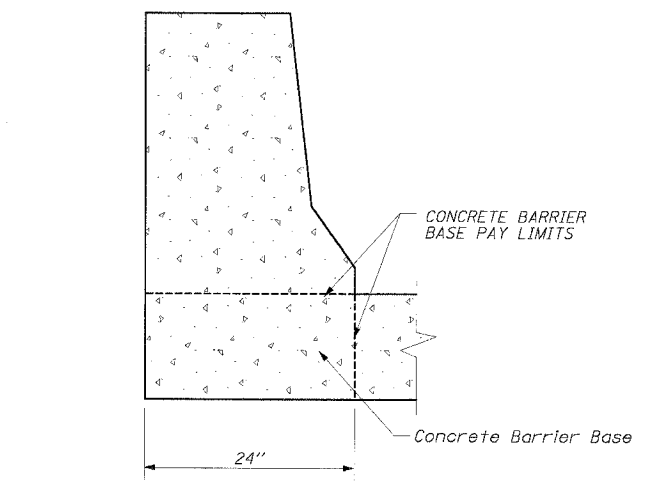


**CONCRETE BARRIER
SINGLE FACE, 32 IN, MODIFIED**
*(Used Adjacent to Retaining Walls
or Bridge Piers or Abutments)*

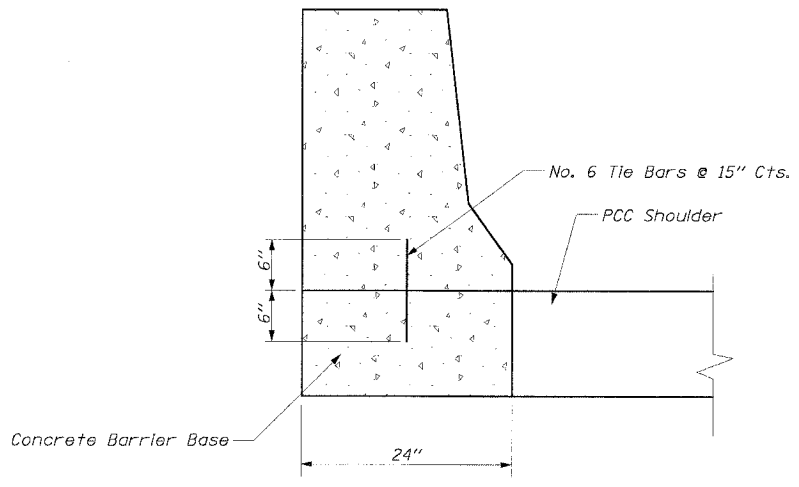


**CONCRETE BARRIER
ALTERNATE ANCHORING METHOD**

IF SOIL RETENTION IS USED, 14" CONTINUOUSLY REINFORCED CONCRETE PAVEMENT MUST BE IN PLACE PRIOR TO BACKFILLING BARRIER WALL



**CONCRETE BARRIER INTEGRAL
WITH PCC SHOULDER SLAB**



**CONCRETE BARRIER ON
INDEPENDANT FOUNDATION**

NOTE:

1. THE CONTRACTOR HAS THE OPTION OF CHOOSING BETWEEN ANCHORING METHODS SHOWN ON THIS SHEET.
2. ALL TIE BARS SHOWN ON THIS SHEET SHALL BE EPOXY COATED.

**Edwards
AND Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION

CIVIL DETAILS
CONCRETE BARRIER, SINGLE FACE, 32"

SCALE: NOT TO SCALE
DATE: 7/7/05

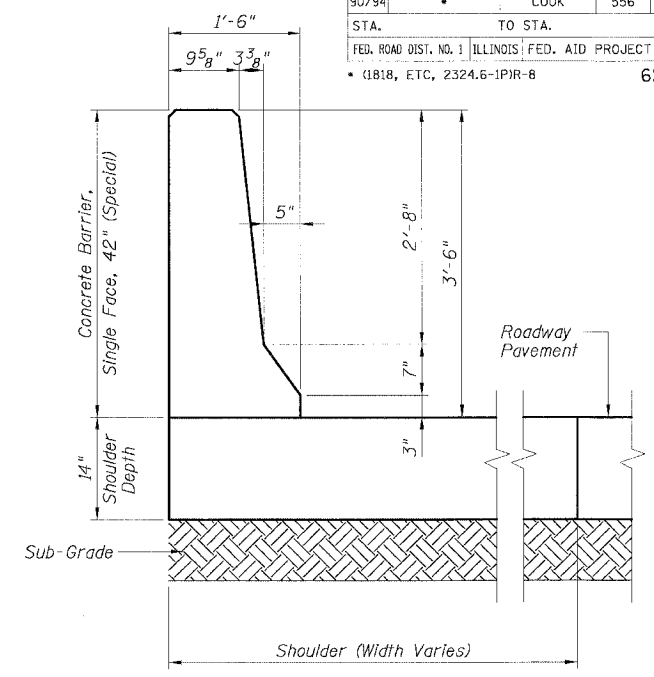
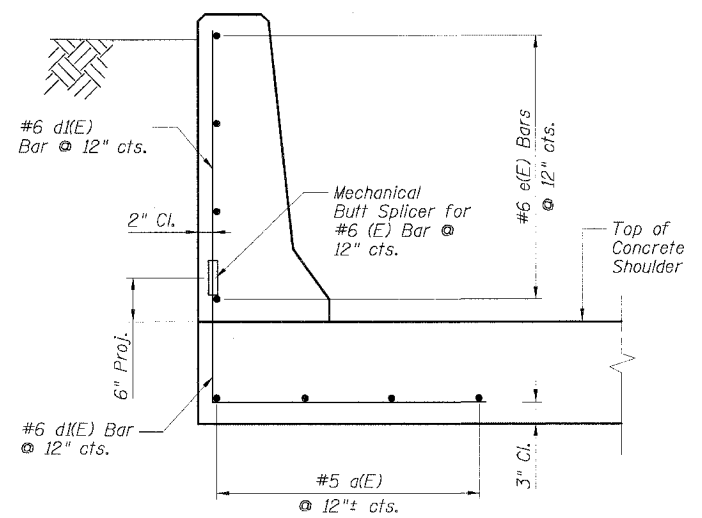
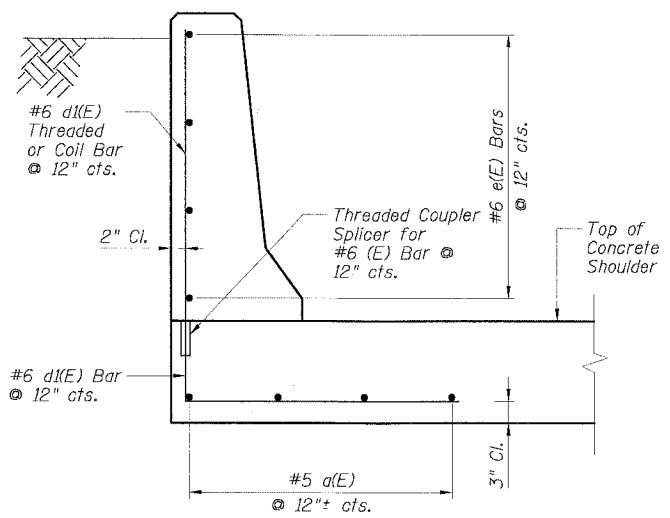
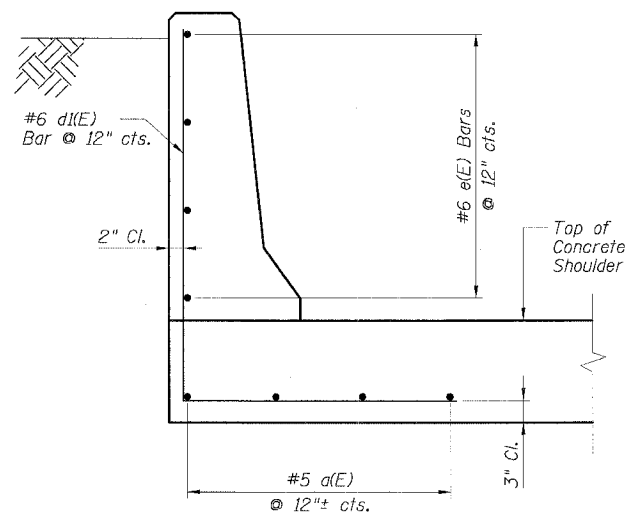
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CDT-16

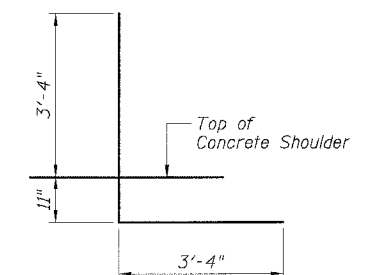
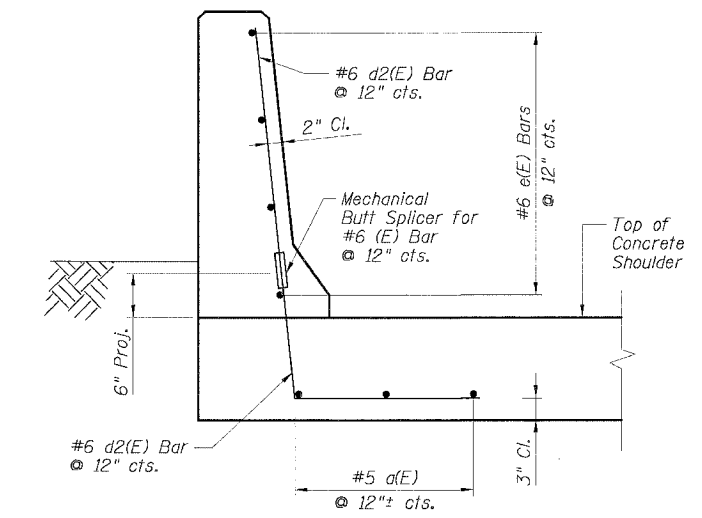
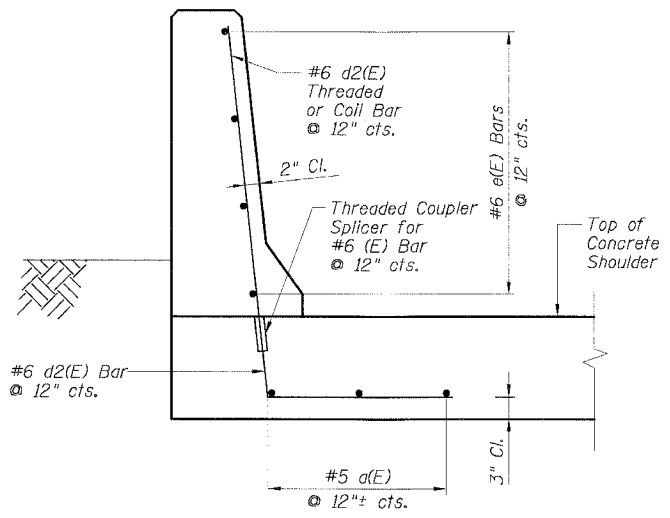
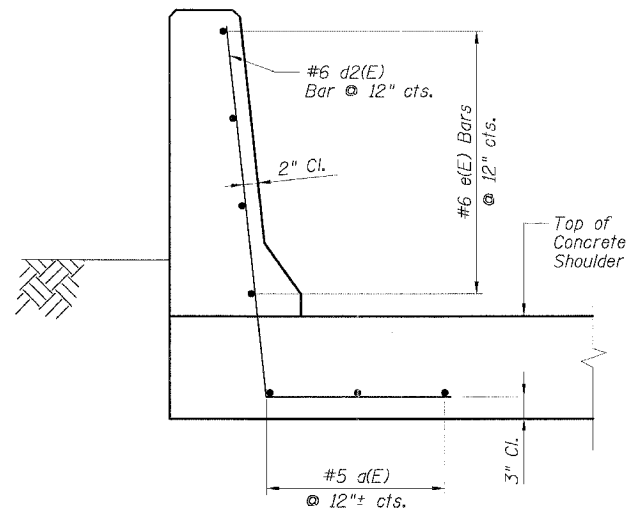
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

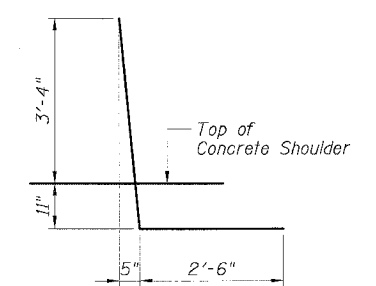
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90/94		COOK	556	365
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
• (1818, ETC., 2324.6-IPR-8				62300



DIMENSIONS



BAR d1(E)



BAR d2(E)

CONCRETE BARRIER,
SINGLE FACE, 42" (SPECIAL)
ALTERNATE I

CONCRETE BARRIER,
SINGLE FACE, 42" (SPECIAL)
ALTERNATE II

CONCRETE BARRIER,
SINGLE FACE, 42" (SPECIAL)
ALTERNATE III

NOTES:
1. The cost of furnishing and placing reinforcing in concrete shoulders and barriers shall be included in the cost per foot for "Concrete Barrier, Single Face, 42" (Special).

NOTES:
1. The cost of furnishing and placing reinforcing and threaded coupler splicer in concrete shoulders and barriers shall be included in the cost per foot for "Concrete Barrier, Single Face, 42" (Special).
2. Threaded coupler splicers shall be capable of developing a minimum of 125% of the yield strength of a #6 bar.

NOTES:
1. The cost of furnishing and placing reinforcing in concrete shoulders and barriers shall be included in the cost per foot for "Concrete Barrier, Single Face, 42" (Special).
2. Mechanical butt splicers shall be capable of developing a minimum of 125% of the yield strength of a #6 bar.

CTE AECOM

CTE
393 East Rocker Drive, Suite 600, Chicago, Illinois 60638-5078
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REVISIONS	
NAME	DATE

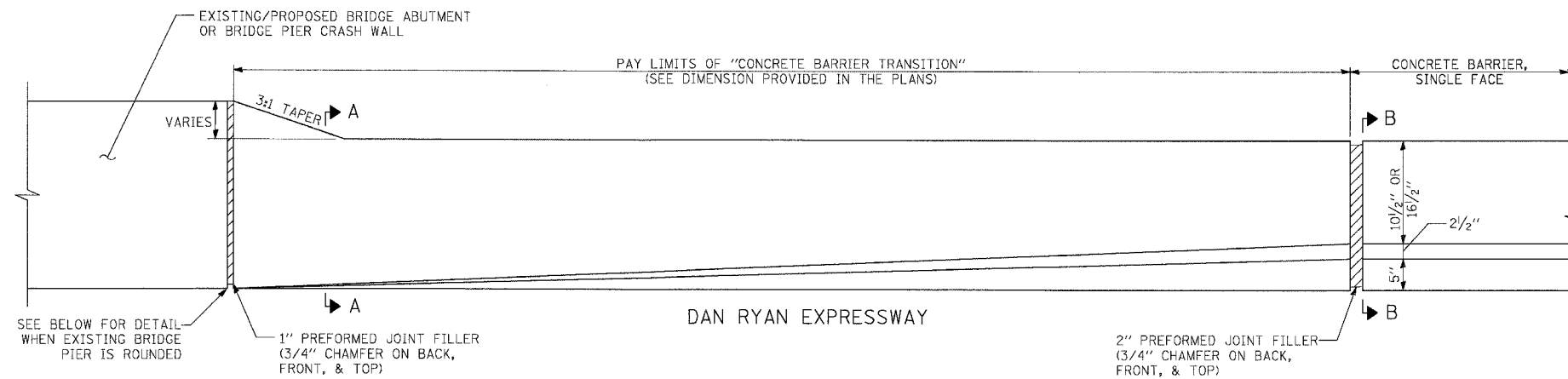
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)

CONCRETE BARRIER
SINGLE FACE, 42" (SPECIAL)
ALTERNATES

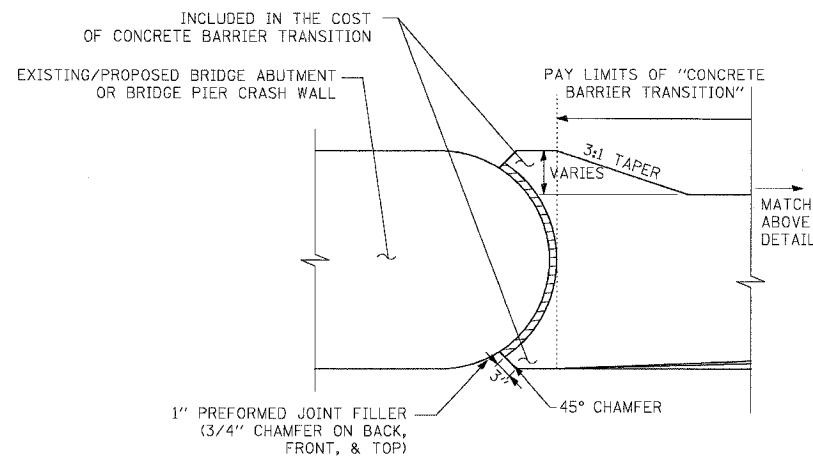
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DATE: JULY 7, 2005 CHECKED BY:

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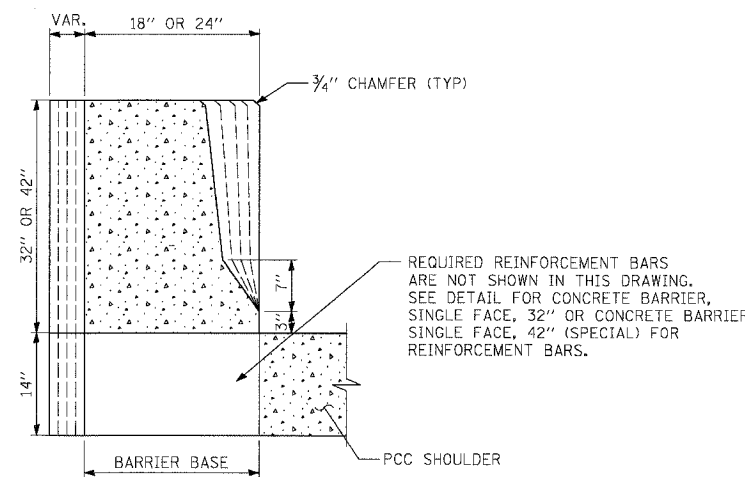
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94/90		COOK	556	366
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	• (1818, ETC, 2324.6-1)R-8			



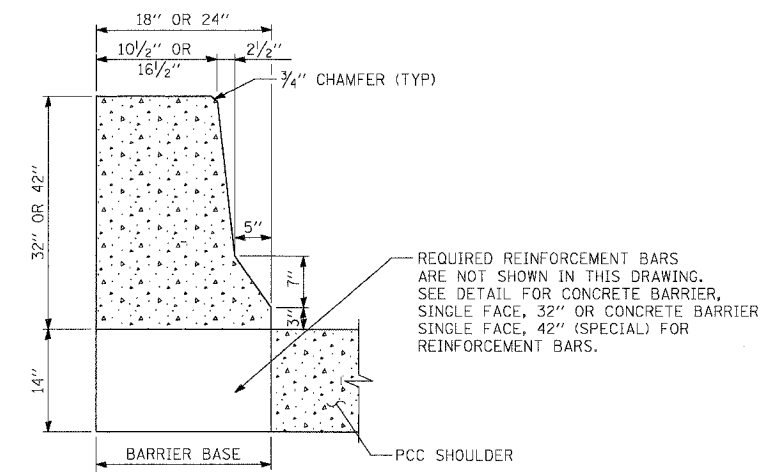
DETAIL OF "CONCRETE BARRIER TRANSITION"
FOR SINGLE FACE BARRIER WALL



DETAIL OF "CONCRETE BARRIER TRANSITION"
AT EXISTING ROUNDED PIER



SECTION A-A
CONCRETE BARRIER TRANSITION



SECTION B-B
CONCRETE BARRIER, SINGLE FACE
& CONCRETE BARRIER BASE

NOTE:
ALL TRANSITIONS PAID FOR AS
CONCRETE BARRIER TRANSITION

**Edwards
AND Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EDKORP.COM

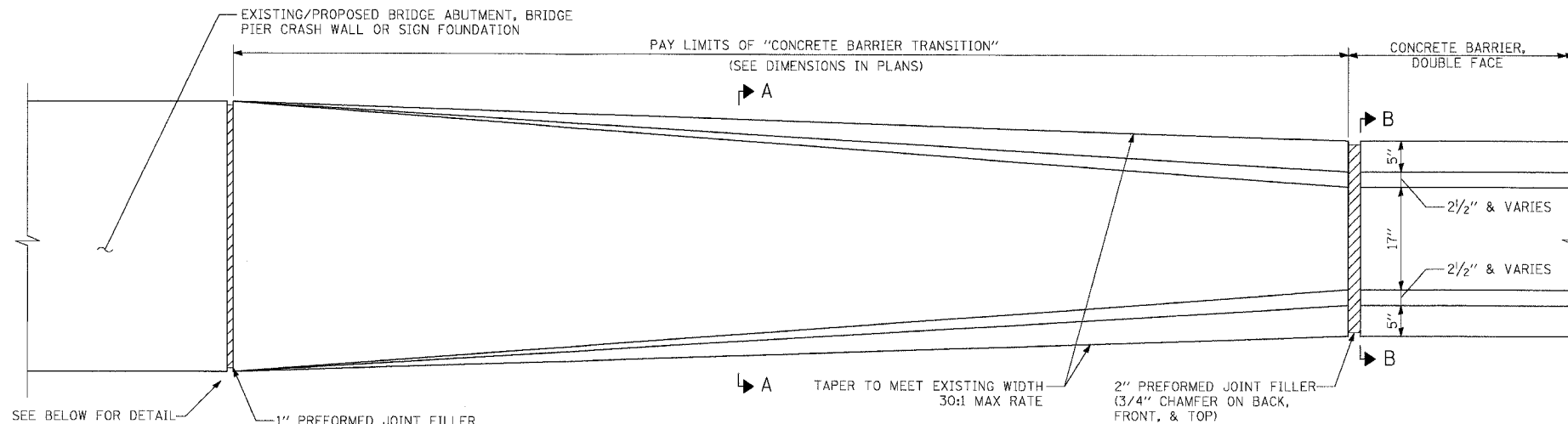
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
CONCRETE BARRIER TRANSITION
(SHEET 1 OF 3)
SCALE: NONE
DATE: 7/7/05
DRAWN BY: TAI
CHECKED BY: PJM

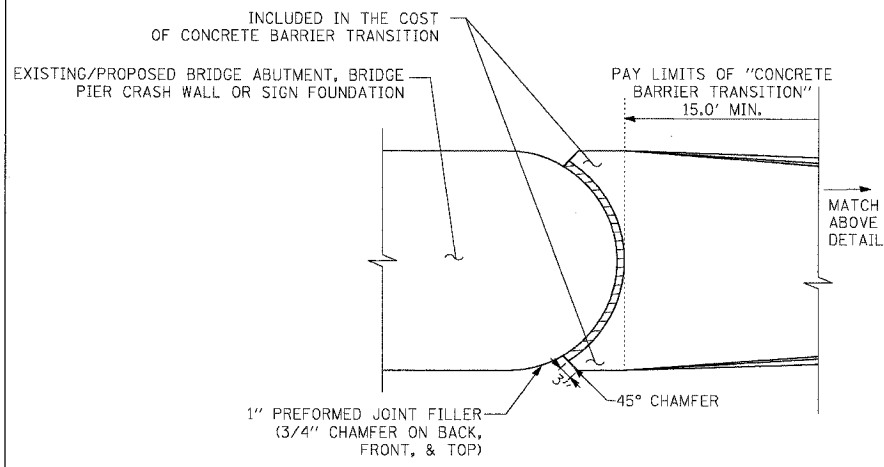
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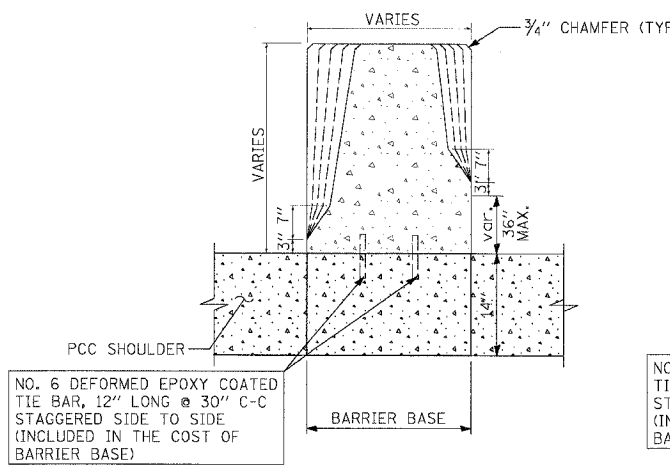
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94/90		COOK	556	367
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62300	1818, ETC, 2324.6-1P1R-8			



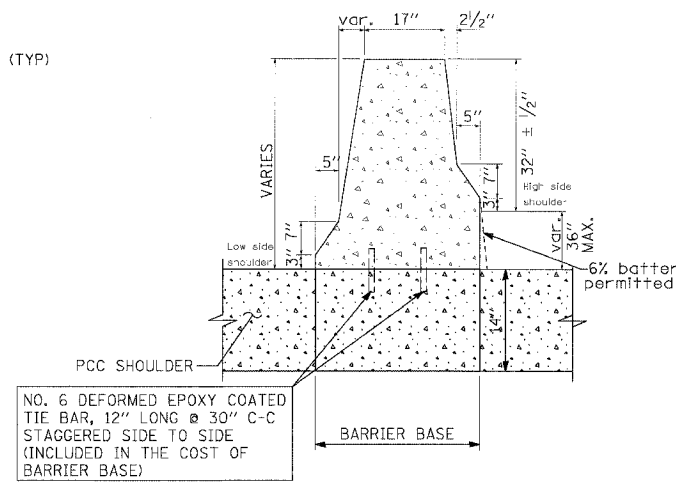
DETAIL OF "CONCRETE BARRIER TRANSITION"
FOR DOUBLE FACE BARRIER WALL



DETAIL OF "CONCRETE BARRIER TRANSITION" AT EXISTING ROUNDED PIER



SECTION A-A
CONCRETE BARRIER TRANSITION



SECTION B-B
DOUBLE FACE BARRIER WALL

NOTE:
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CONCRETE BARRIER TRANSITION

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CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

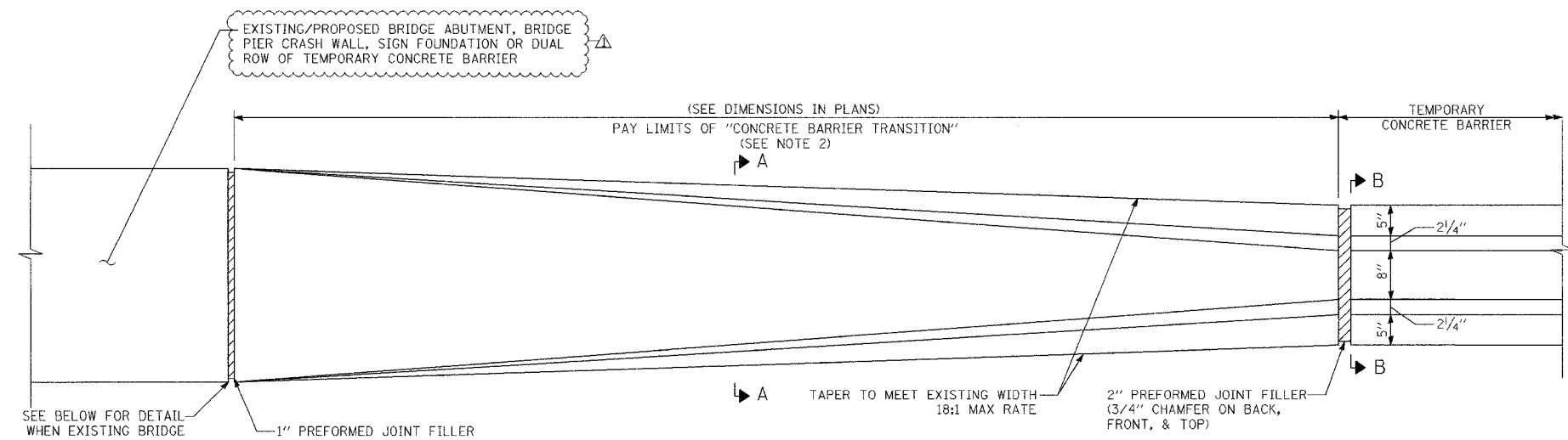
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
CONCRETE BARRIER TRANSITION
(SHEET 2 OF 3)
SCALE: NONE
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CHECKED BY: PJM

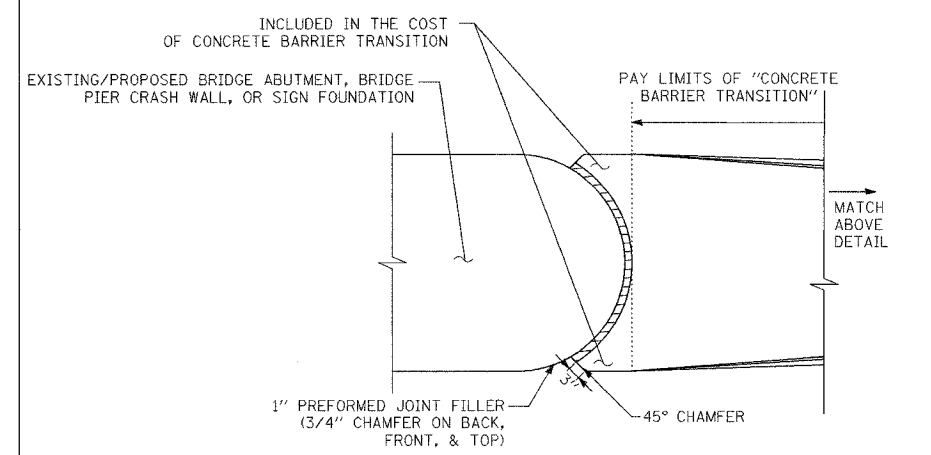
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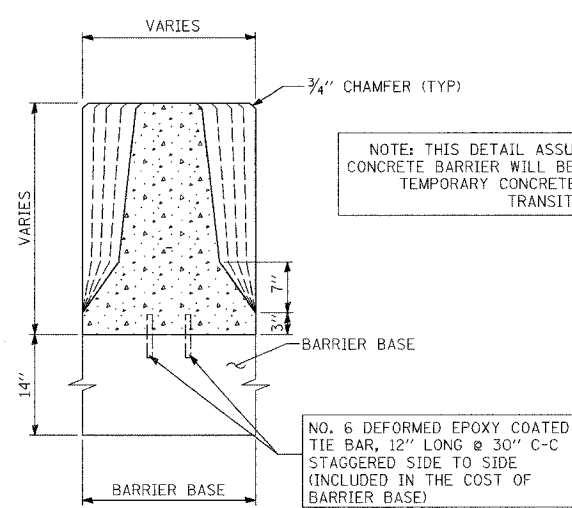
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94/90 *		COOK	556	368
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	* (1818, ETC, 2324.6-IPR-8			



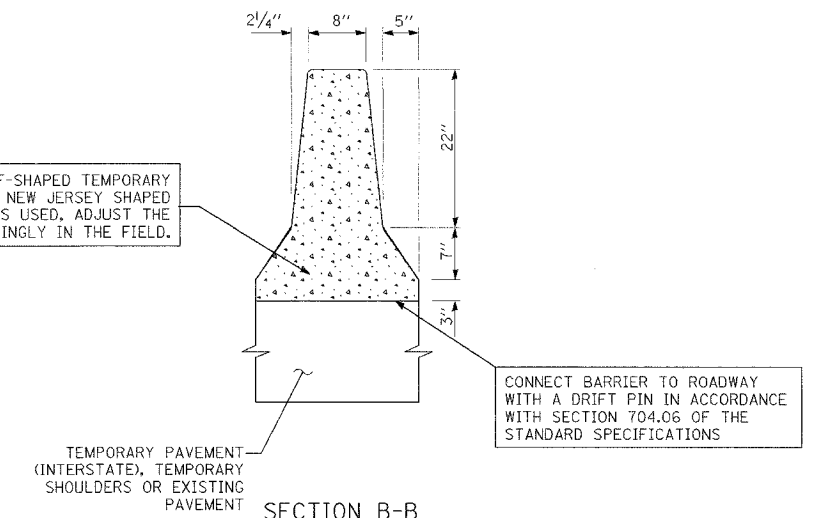
DETAIL OF "CONCRETE BARRIER TRANSITION"
FOR TEMPORARY CONCRETE BARRIER



DETAIL OF "CONCRETE BARRIER TRANSITION"
AT EXISTING ROUNDED PIER



SECTION A-A
CONCRETE BARRIER TRANSITION



SECTION B-B
TEMPORARY CONCRETE BARRIER

- NOTE:
- ALL TRANSITIONS PAID FOR AS CONCRETE BARRIER TRANSITION.
 - LENGTHS PROVIDED IN THE PLANS ARE APPROXIMATE. THE CONTRACTOR MUST ADJUST THE LENGTH OF CONCRETE BARRIER TRANSITION AS NECESSARY TO MEET TEMPORARY CONCRETE BARRIER SEGMENTS USED.

REVISIONS	
NAME	DATE
ADDENDUM 1	8/12/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
CONCRETE BARRIER TRANSITION
(SHEET 3 OF 3)
SCALE: NONE
DATE: 7/7/05
DRAWN BY: TAJ
CHECKED BY: PJM

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	369
STA.	TO STA.		PROJECT	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (1818, ETC, 2324.6-1PIR-8			62300	

CTA BARRIER WALL LOCATION AND MODIFICATION TABLE

STATION	CONTRACT 62300 - NORTH BOUND EXPRESS LANES						CONTRACT 62302 - SOUTH BOUND EXPRESS LANES							
	Soldier Piles			Proposed T / Shoulder At or Above Existing		Proposed T / Shoulder Below Existing		Soldier Piles			Proposed T / Shoulder At or Above Existing		Proposed T / Shoulder Below Existing	
	Size	Length	Max. Spacing	Location	Modification	Location	Modification	Size	Length	Max. Spacing	Location	Modification	Location	Modification
35th St.	W12x120	30'	5'-0"	Sta. 2609+61 to 2625+07 Sta. 2621+15 to 2622+34 Sta. 2622+86 to 2625+07	6" Facing	-----	-----	W12x120	30'	5'-0"	Sta. 1609+39 to 1624+89 Sta. 1622+12 to 1624+89	6" Facing	-----	-----
47th St.	W12x106	20'	5'-0"	-----	-----	Sta. 2529+46 to 2540+38	1'-4 1/2" Facing	W12x72	20'	6'-6"	Sta. 1529+36 to 1537+94	6" Facing	-----	-----
55th St.	W12x106	20'	8'-0"	-----	-----	Sta. 2476+01 to 2484+81	1'-4 1/2" Facing	W12x106	20'	8'-0"	-----	-----	Sta. 1475+84 to 1484+69	1'-4 1/2" Facing
69th St.	W12x72	20'	8'-0"	Sta. 2372+94 to 2379+56	②	-----	-----	W12x106	20'	8'-0"	Sta. 1372+75 to 1374+50	①	Sta. 1374+50 to 1378+53	①

- ① Replace Exist. 32" Barrier with Single Face Barrier, 42" Special
- ② Reface Existing CTA Barrier Wall with Vertical Facing

GENERAL NOTES:

1. Utility locations shown on these plans may not be correct or complete. The Contractor shall coordinate construction activities with the respective utilities of the city of Chicago. Before starting any excavation, the Contractor shall call "CUAN" (Chicago Utility Alert Network) at 312-744-7000 for field locations of buried electric, telephone, and gas facilities (48 hour notification is required). Contact the department of water management permit section at (312) 747-7893 for water and sewer locations.
2. In locations where the main sewers, drainage structures, public, and private drain connections are disturbed or damaged during construction by the Contractor, it will be the Contractor's responsibility to restore and replace the damaged facilities at his/her own expense to the satisfaction of the department of water management. The sewer flows must be maintained at all times.
3. In locations where pilings/drilled shafts are being proposed in the vicinity of the existing sewer facilities, a licensed Structural Engineer shall approve construction methods of support in order to maintain the structural integrity of the city's sewer system.
4. The Location of various items such as pavement, drainage structures, barrier walls and sign structure foundations built in contracts under construction during the preparation of these plans is based on the published contract plan drawings available during design. The Contractor must field verify limits, locations and elevations of these previously constructed items.
5. The Contractor shall use care in grading or excavating near any and all existing items which will not be removed. Any damage done to existing items by the Contractor shall be repaired by the Contractor at the Contractor's own expense.
6. The Contractor shall take all necessary safety precautions to protect and provide access to abutting CTA property, utilities and vehicular traffic.
7. It shall be the Contractor's responsibility to ensure that no gap remains between proposed CTA fencing or where proposed CTA fencing terminates and existing CTA fence remains in place.
8. Hammer driving of piles will not be allowed. All piles must be drilled or vibrated into place.
9. Plan dimensions and details relating to existing structures have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation or a change in the scope of work. However the Contractor will be paid for the quantity actually furnished at the unit price for the work.
10. All construction joints shall be bonded.
11. All exposed concrete edges shall have a 3/4" by 45° chamfer except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of 1 foot below the finished ground line.
12. A protective coat shall be applied within the limits shown on the plans according to Section 503.19 of the Standard Specifications.
13. Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
14. Reinforcement bars designated "(E)" shall be epoxy coated.

15. For Existing Barrier Wall Modifications for Proposed T / Shoulder Below Existing, See Sheets B2 and B3.
16. For Existing Barrier Wall Modifications for Proposed T / Shoulder At or Above Existing, See Sheet B4 and B5.
17. For Existing Barrier Wall Modifications for 69th St. Station (SB) See Sheet B6.
18. For Existing Barrier Wall Modifications for 69th St. Station (NB) See Sheet B7.
19. For Refaced Barrier to Pier, Transition Details (Taper), Proposed T / Shoulder Below Existing, See Sheet B8.
20. For Refaced Barrier to Pier, Transition Details (No Taper), Proposed T / Shoulder Below Existing, See Sheet B9.
21. For Refaced Barrier to Pier, Transition Details (Taper), Proposed T / Shoulder At or Above Existing, See Sheet B10.
22. For Refaced Barrier to Pier, Transition Details (No Taper), Proposed T / Shoulder At or Above Existing, See Sheet B11.
23. For New 42" Barrier to Vert. Refaced Barrier, Transition Details (Taper), Proposed T / Shoulder At or Above Existing, See Sheet B12.
24. For Vert. Refaced Barrier to Pier, Transition Details (No Taper), Proposed T / Shoulder At or Above Existing, See Sheet B13.
25. For Refaced Barrier to New 42" Barrier, Transition Details, Proposed T / Shoulder Below Existing, See Sheet B14.
26. For Refaced Barrier to New 42" Barrier, Transition Details, Proposed T / Shoulder At or Above Existing, See Sheet B15.
27. For New 42" Barrier to Pier, Transition Details, Proposed T / Shoulder Below or Above Existing, See Sheet B16.
28. For Refaced Barrier to New Sign Structure, Transition Plan, Elevation and Details, Proposed T / Shoulder Below Existing, See Sheets B17 and B18.
29. If the Contractor chooses to alter the temporary soldier pile and lagging system shown in the Plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

DESIGN STRESSES:

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

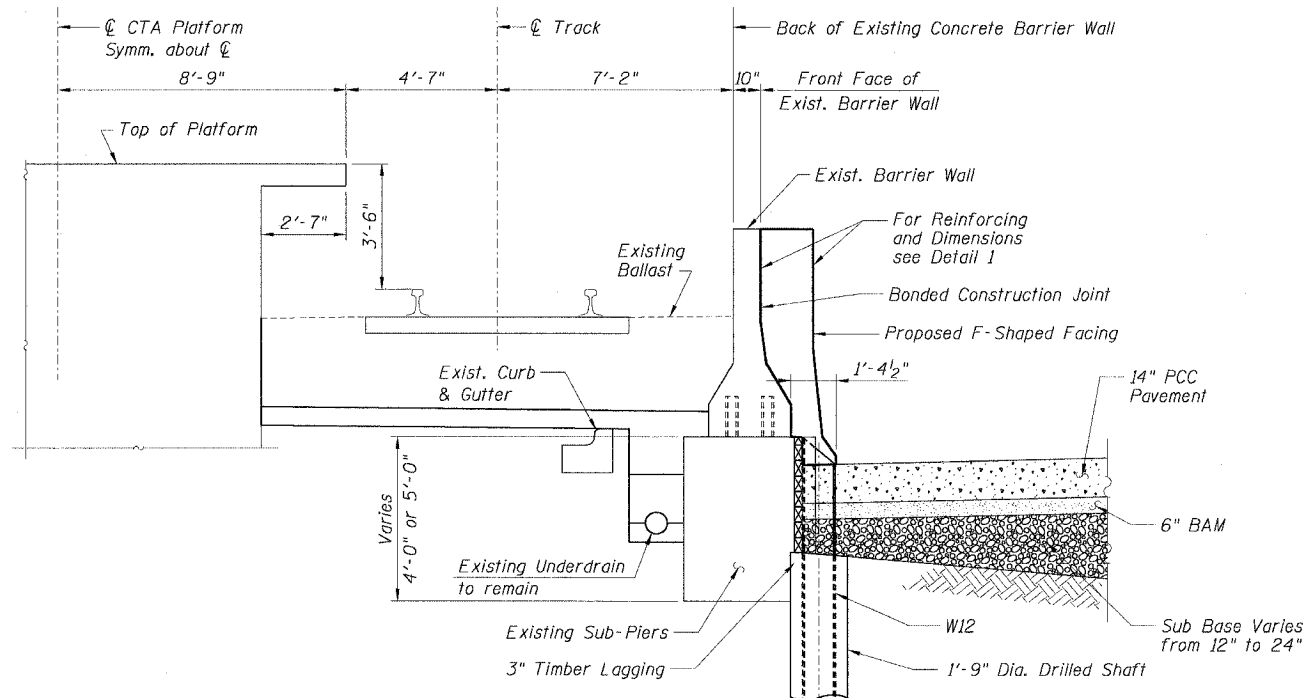
CTE | AECOM

REVISIONS	
NAME	DATE
MJP	8-12-05
MJP	9-16-05

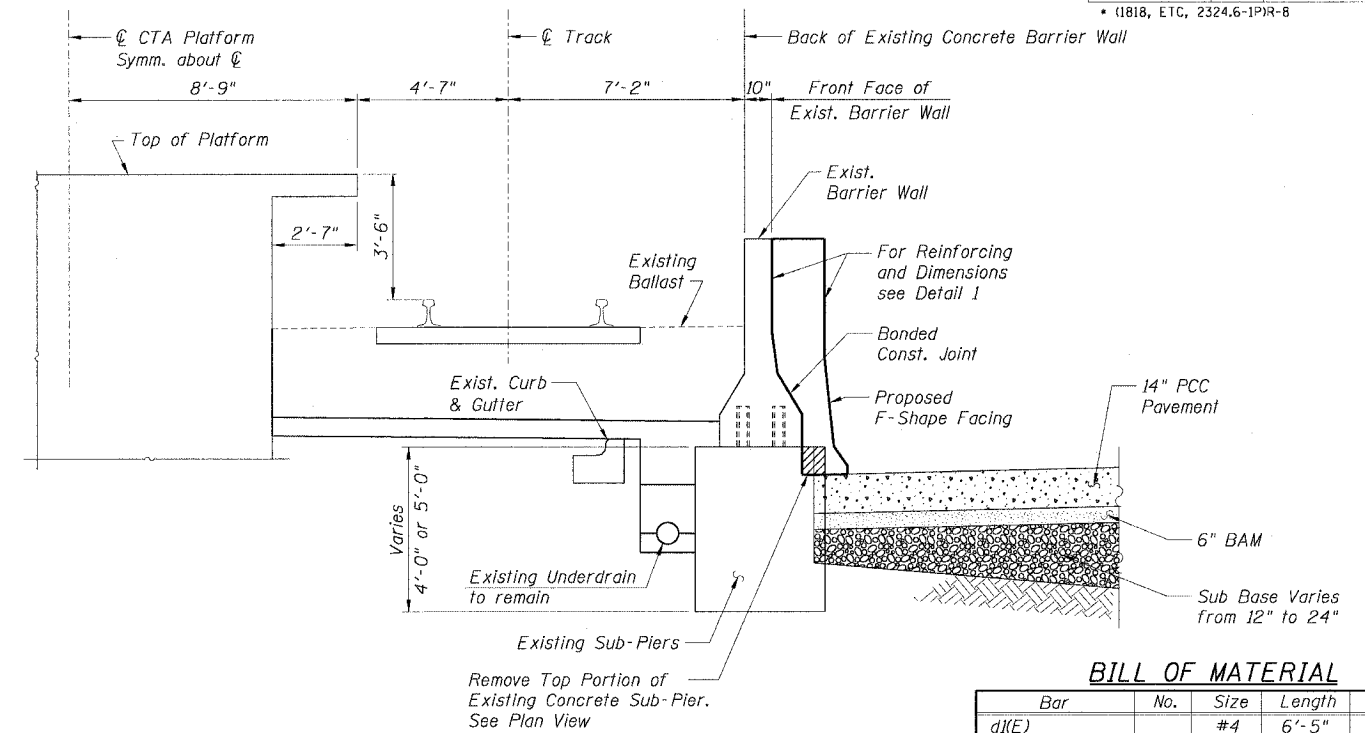
Sheet B1 of 16
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
**EXISTING BARRIER WALL
AT CTA STATIONS
LOCATION AND MODIFICATION TABLE**
SCALE: None DRAWN BY: KWT
DATE: July 7, 2005 CHECKED BY: RDP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
90/94		COOK	556 370
STA.	TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT
• (1818, ETC, 2324.6-1PR-8			62300



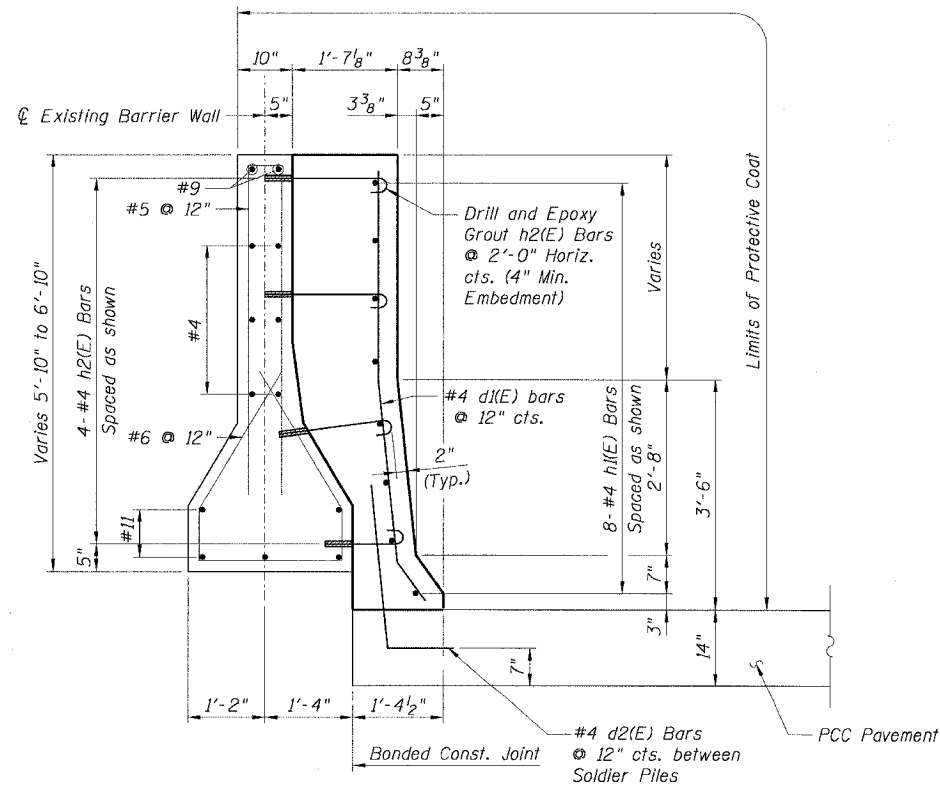
TYPICAL SECTION
BETWEEN SUB-PIERS



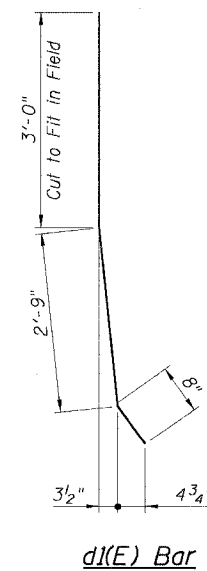
TYPICAL SECTION
AT SUB-PIER

BILL OF MATERIAL

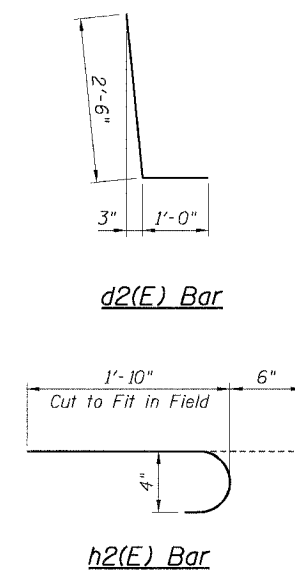
Bar	No.	Size	Length	Shape
d1(E)		#4	6'-5"	—
d2(E)		#4	3'-6"	—
h1(E)		#4		—
h2(E)		#4	2'-4"	—
Item	Unit	Quantity		
Furnishing Soldier Piles, W12x...	Foot			
Drilling and Setting Soldier Piles (in Soil)	Cu. Ft.			
Untreated Timber Lagging	Sq. Ft.			
Concrete Removal	Cu. Yd.			
Reinforcement Bars, Epoxy Coated	Pound			
Concrete Superstructure	Cu. Yd.			
Protective Coat	Sq. Yd.			



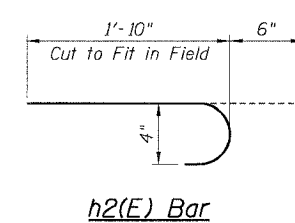
DETAIL 1



d1(E) Bar



d2(E) Bar



h2(E) Bar

LEGEND:

- Concrete Removal
- PCC Pavement
- BAM
- Sub Base
- Earth

NOTES:

- Drilling and grouting of #4 h2(E) bars shall be in accordance with Section 584 of the Standard Specifications.
- The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 h2(E) bars shall be included in the cost per cubic yard for Concrete Superstructure.
- #4 d2(E) bars shall be seated in their final position prior to the placement of the concrete shoulder. Bars shall be not mucked into place.
- Provide joints in facing to match those in the existing barrier wall. See Sheet B7 for details.
- Minimum lap length for #4 bars shall be 1'-8".
- For Typical Plan, see Sheet B3.
- For Existing Concrete Repair Details, see Sheet B3.
- For Facing Details at Existing Light Pole Foundation, see Sheet B5.

Sheet B2 of 16

REVISIONS	
NAME	DATE
MJP	8-12-05

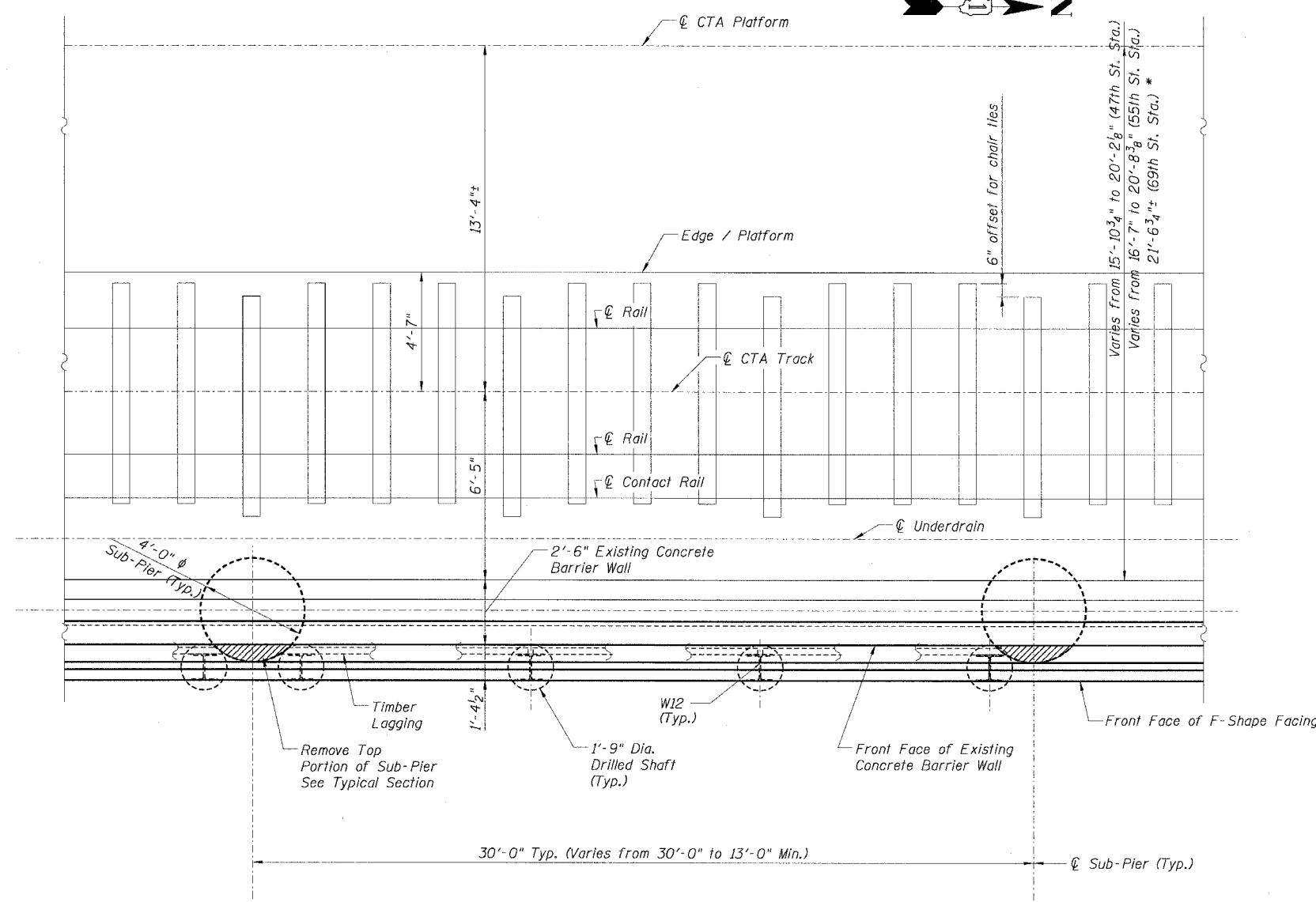
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER BELOW EXISTING
TYPICAL SECTIONS & DETAILS

SCALE: None DRAWN BY: KWT
DATE: July 7, 2005 CHECKED BY: RDP

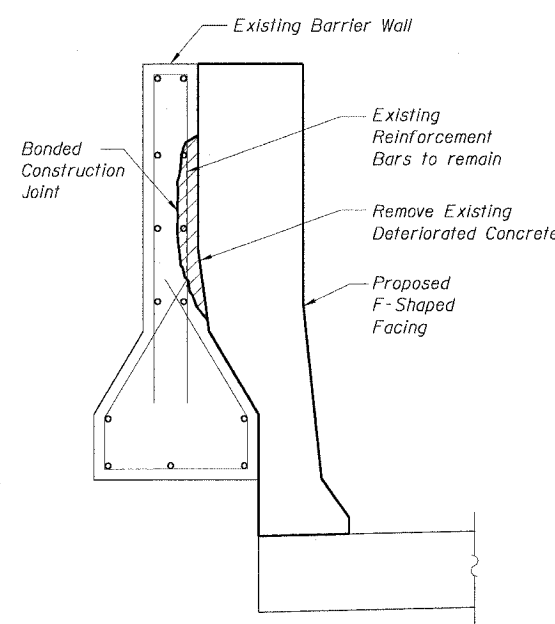
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	371
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT	62300	
(1818, ETC, 2324.6-IPR-8				



PLAN - (NORTH BOUND SHOWN)
(SOUTH BOUND SIMILAR)

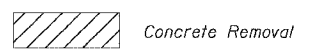


CONCRETE REPAIR DETAIL

NOTES:

- The Contractor shall remove deteriorated concrete to sound concrete at all locations designated by the Engineer in accordance with Section 501.03 of the Standard Specifications. Undercut exposed reinforcement bars by 3/4" to provide clearance between existing reinforcement bars and the remaining concrete.
- Exposed existing reinforcement bars shall remain in place and be blast cleaned to gray metal. Reinforcement bars that have been cut or have lost 25% or more of their original cross sectional area shall be supplemented by new epoxy coated reinforcement bars.
- The resulting voids shall be blast cleaned before applying a bonding agent and filled with Concrete Superstructure.
- The cost of removing deteriorated concrete, supplementing and cleaning existing reinforcement bars, blast cleaning and furnishing and placing a bonding agent and concrete shall be included in the cost per cubic yard for Concrete Superstructure.
- For Facing Details and Sections see Sheet B2.

LEGEND:



CTE | AECOM

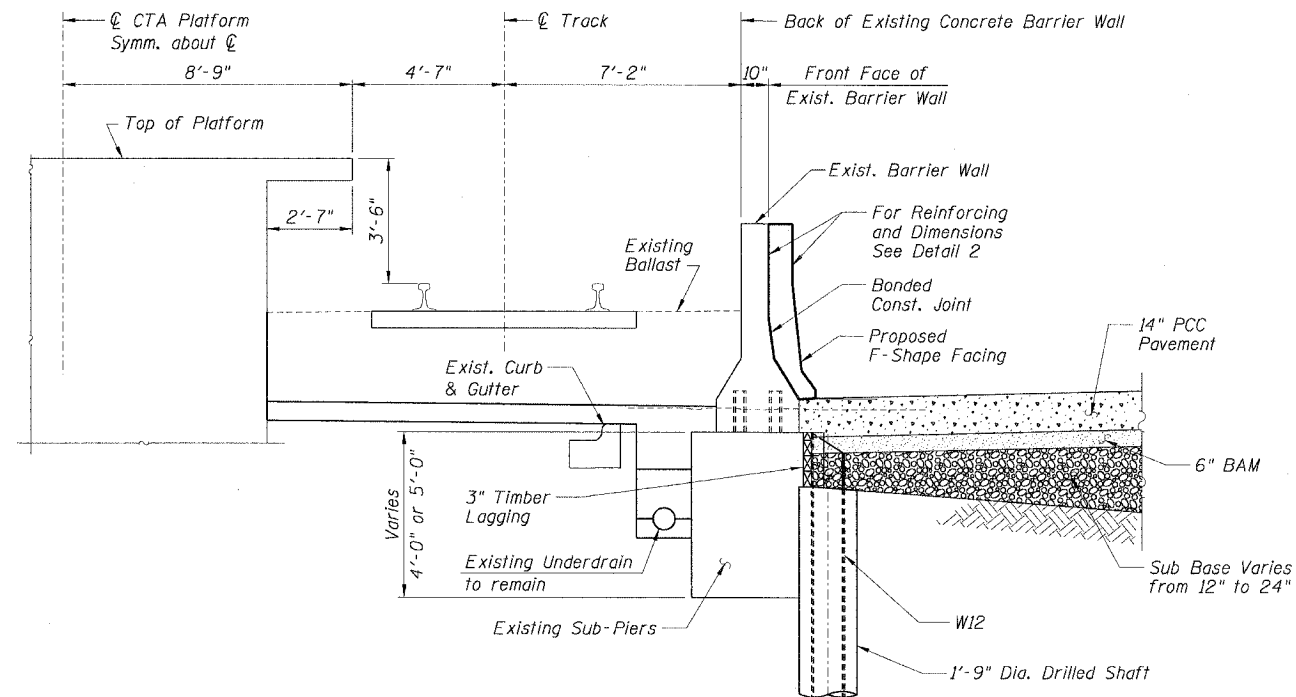
REVISIONS	
NAME	DATE
MJP	8-12-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
**EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER BELOW EXISTING
TYPICAL PLAN**
SCALE: None
DATE: July 7, 2005
DRAWN BY: KWT
CHECKED BY: RDP

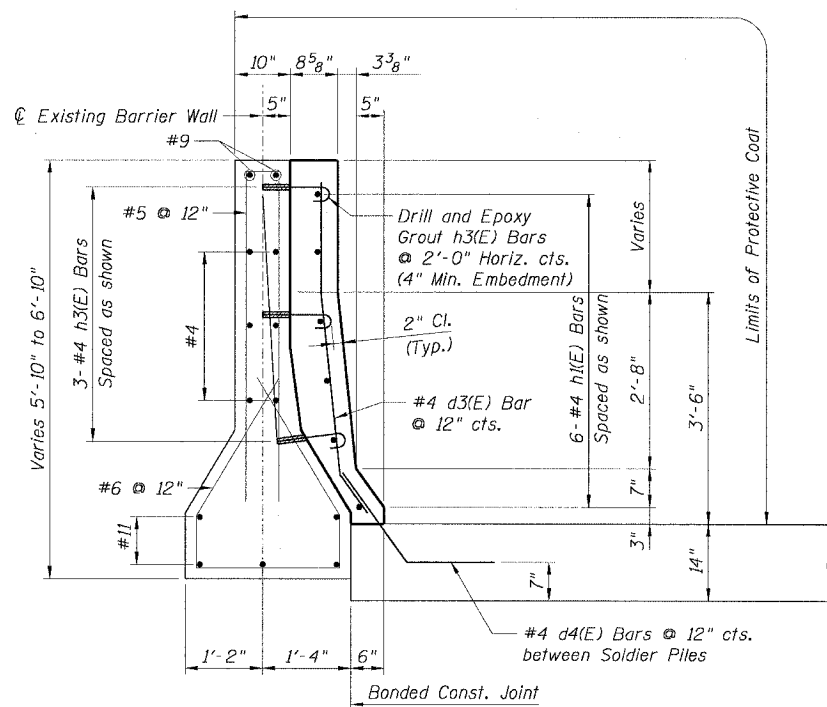
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

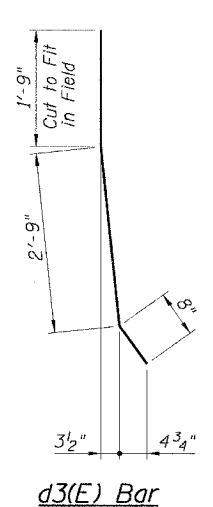
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	556	372
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT	
• (181B, ETC, 2324.6-1)PR-8			62300	



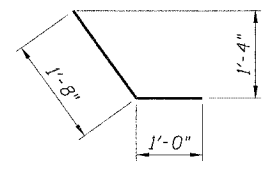
TYPICAL SECTION
BETWEEN SUB-PIERS



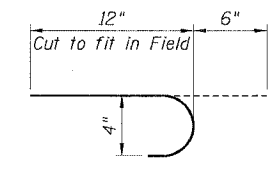
DETAIL 2



d3(E) Bar



d4(E) Bar



h3(E) Bar

LEGEND:

	PCC Pavement
	BAM
	Sub Base
	Earth

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d3(E)		#4	5'-2"	┌
d4(E)		#4	2'-8"	┌
h1(E)		#4		┌
h3(E)		#4	1'-6"	┌
Item	Unit	Quantity		
Furnishing Soldier Piles, W12x...	Foot			
Drilling and Setting				
Soldier Piles (in Soil)	Cu. Ft.			
Untreated Timber Lagging	Sq. Ft.			
Reinforcement Bars,				
Epoxy Coated	Pound			
Concrete Superstructure	Cu. Yd.			
Protective Coat	Sq. Yd.			

NOTES:

1. Drilling and grouting of #4 h3(E) bars shall be in accordance with Section 584 of the Standard Specifications.
2. The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 h3(E) bars shall be included in the cost per cubic yard for Concrete Superstructure.
3. #4 d4(E) bars shall be seated in their final position prior to the placement of the concrete shoulder. Bars shall be not mucked into place.
4. Provide joints in facing to match those in the existing barrier. See Sheet B7 for details.
5. Minimum lap length for #4 bars shall be 1'-8".
6. For Typical Plan see Sheet B5.
7. For Existing Concrete Repair Details see Sheet B3.
8. For Facing Details at Existing Light Pole Foundation see Sheet B5.

REVISIONS

NAME	DATE
MJP	8-12-05

Sheet B4 of 16

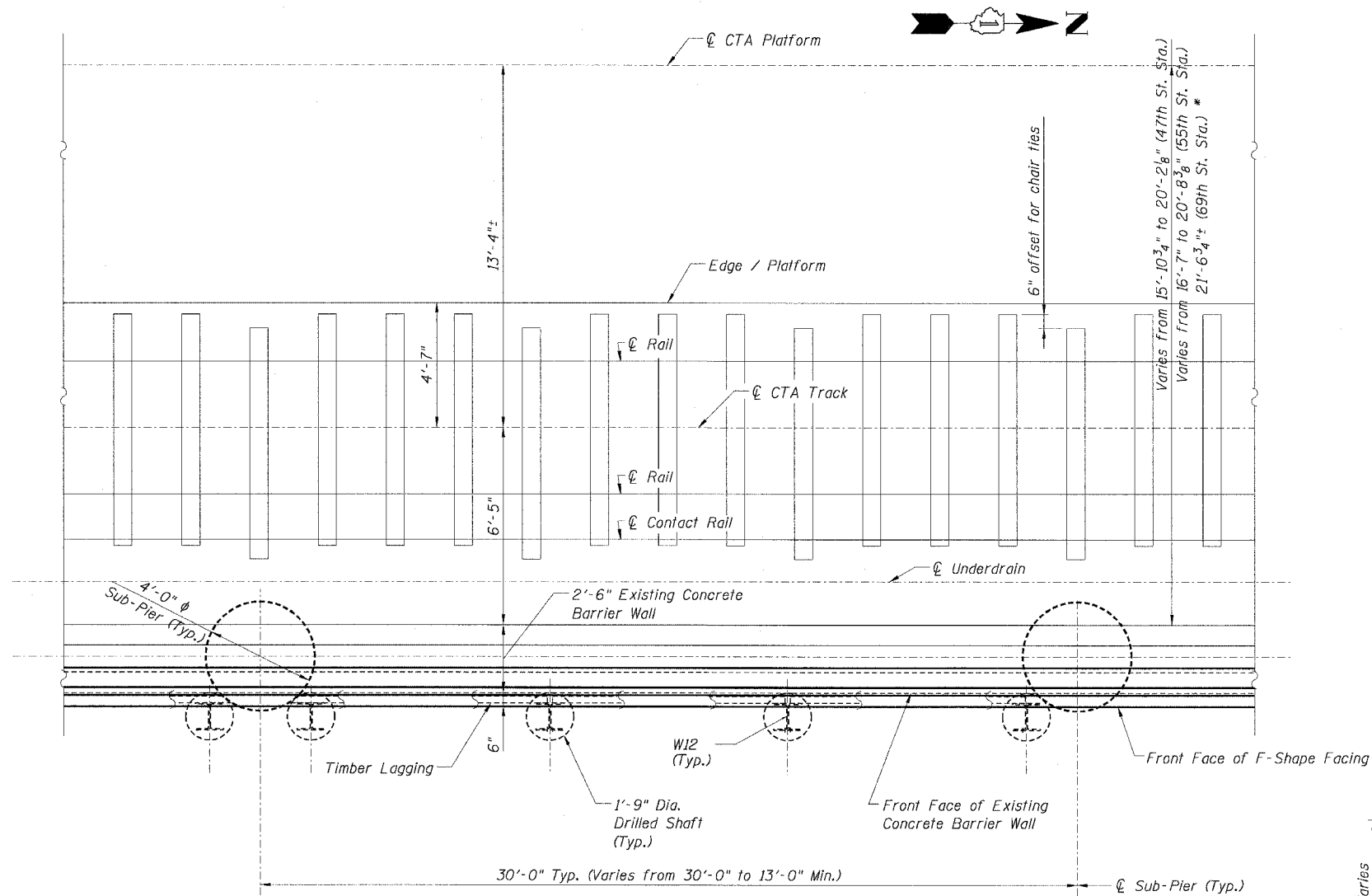
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER AT OR ABOVE EXISTING
TYPICAL SECTIONS & DETAILS

SCALE: None DRAWN BY: KWT
DATE: July 7, 2005 CHECKED BY: RDP

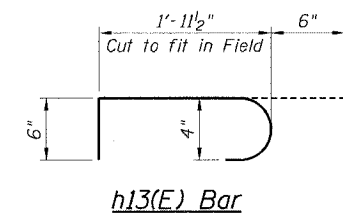
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

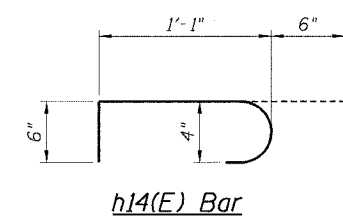
F.A.I. RTE. 90/94	SECTION •	COUNTY COOK	TOTAL SHEETS 556	SHEET NO. 373
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
• (1818, ETC, 2324.6-1PIR-8 62300				



PLAN - (NORTH BOUND SHOWN)
(SOUTH BOUND SIMILAR)



h13(E) Bar



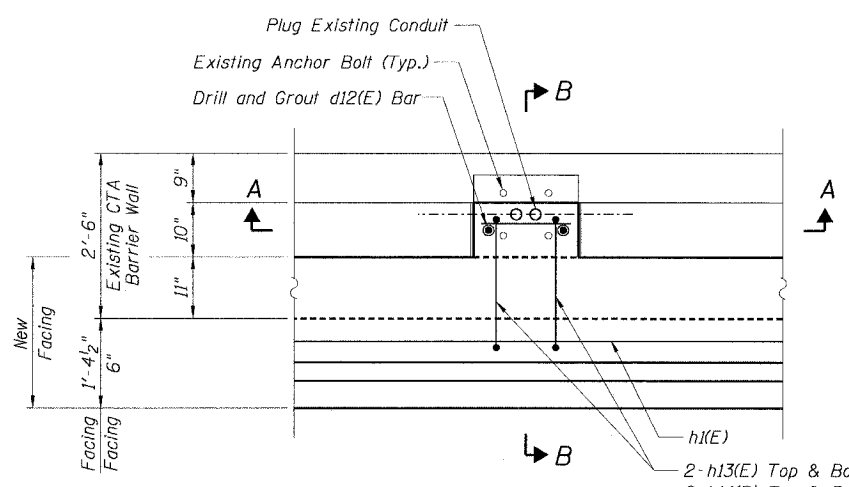
h14(E) Bar

BAR SCHEDULE
FOR 1'-4 1/2" FACING @ ONE LIGHT FDN.

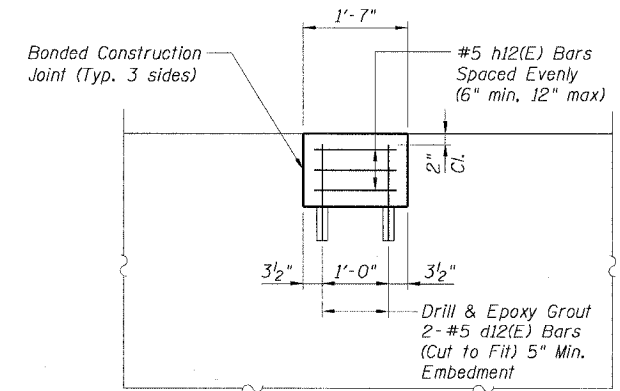
Bar	No.	Size	Length	Shape
d12(E)	2	#5	2'-9"	—
h12(E)	3	#4	1'-4"	—
h13(E)	4	#4	3'-0"	⌋

BAR SCHEDULE
FOR 6" FACING @ ONE LIGHT FDN.

Bar	No.	Size	Length	Shape
d12(E)	2	#5	2'-9"	—
h12(E)	3	#4	1'-4"	—
h14(E)	4	#4	2'-1"	⌋

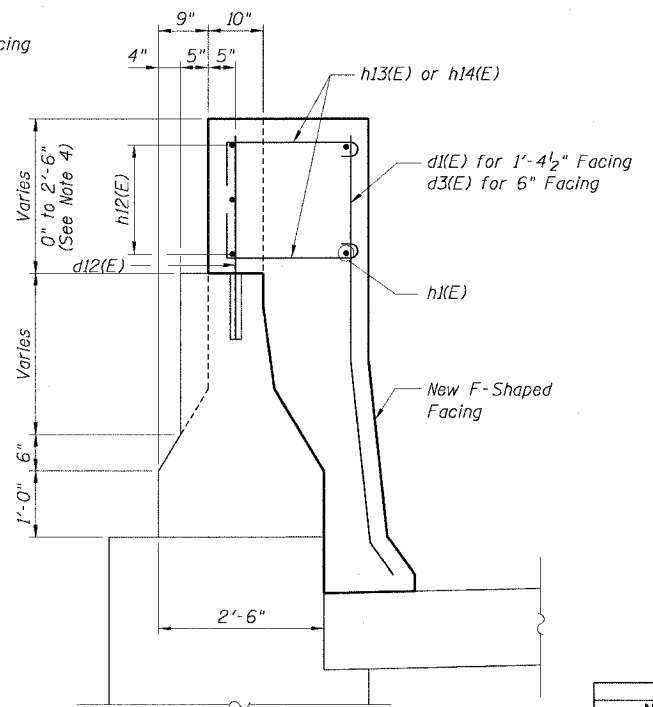


PLAN



SECTION A-A

FACING DETAILS AT
EXISTING LIGHT POLE FOUNDATION



SECTION B-B

NOTES:

- Existing anchor bolts shall remain in place and be blast cleaned to gray metal.
- Drilling and grouting #4 d12(E) bars shall be in accordance with Section 584 of the Standard Specifications.
- The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 d12(E) bars and blast cleaning existing anchor bolts shall be included in the cost per cubic yard for Concrete Superstructure.
- For depth of existing light pole notch less than 10", do not use reinforcement bars.
- Cast new concrete monolithically with new F-Shape Facing.
- For Facing Details and Sections see Sheet B2.

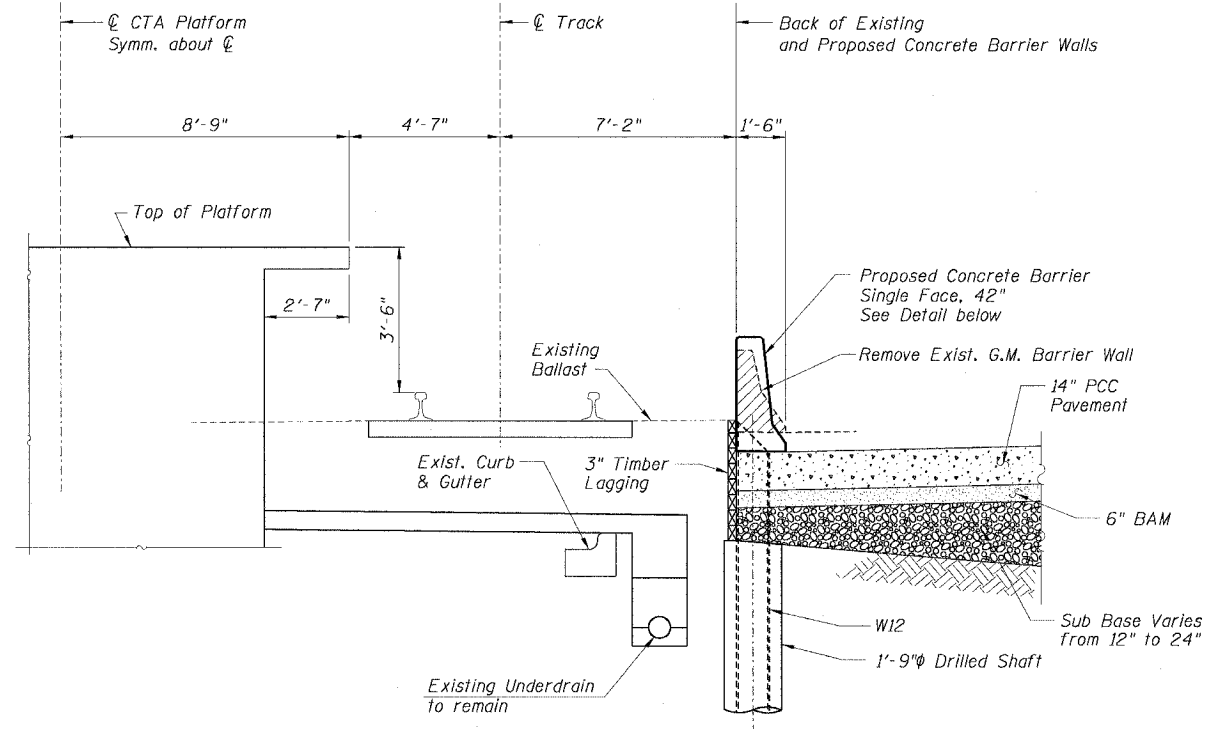
CTE | AECOM

REVISIONS	
NAME	DATE
MJP	8-12-05

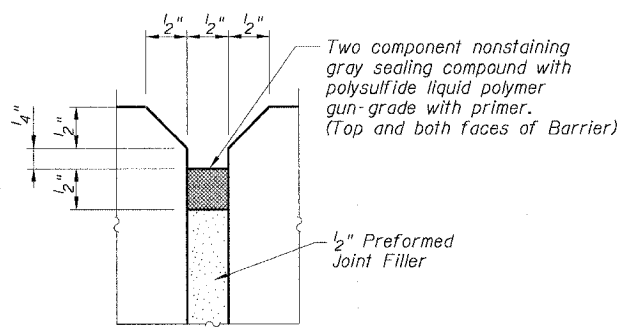
Sheet B5 of 16
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/SHOULDER AT OR ABOVE EXISTING
TYPICAL PLAN
SCALE: None DRAWN BY: KWT/CHD
DATE: July 7, 2005 CHECKED BY: RDP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	374
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (1B1B, ETC, 2324.6-1PIR-8			62300	



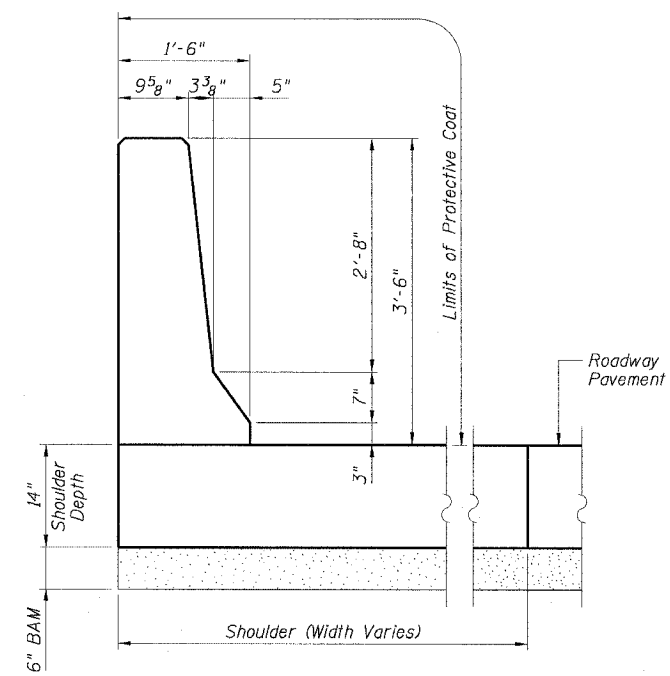
TYPICAL SECTION
AT 69TH ST. STATION (SB)



EXPANSION JOINT DETAIL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
Item	Unit	Quantity		
Concrete Barrier Removal	Foot			
Furnishing Soldier Piles W12x	Foot			
Drilling and Setting Soldier Piles (in Soil)	Cu. Ft.			
Untreated Timber Lagging	Sq. Ft.			
Concrete Barrier Single Face, 42\" (Special)	Foot			
Protective Coat	Sq. Yd.			



CONCRETE BARRIER
SINGLE FACE, 42\" (DIMENSIONS)

LEGEND:

	Concrete Removal
	PCC Pavement
	BAM
	Sub Base
	Earth

- NOTES:
- See "Concrete Barrier Single Face, 42\" (Special)" for reinforcing details.
 - Provide construction joints in the Single Face, 42\" Barrier on maximum of 30'-0\" centers.
 - Provide 1/2\" expansion joints in the Concrete Barrier Single Face, 42\" on maximum of 90'-0\" centers.
 - The cost of furnishing and installing sealing compound shall be included in the cost per cubic yard for Concrete Barrier Single Face, 42\" (Special).

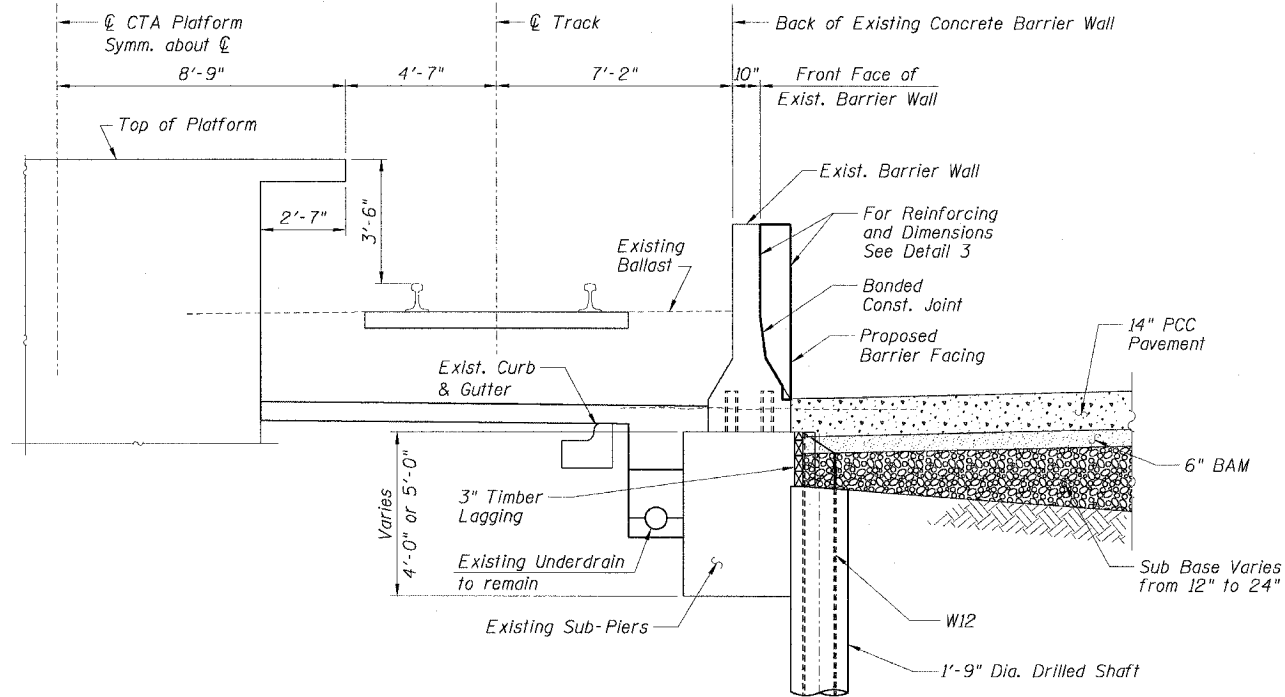
CTE | AECOM

REVISIONS	
NAME	DATE
MJP	8-12-05

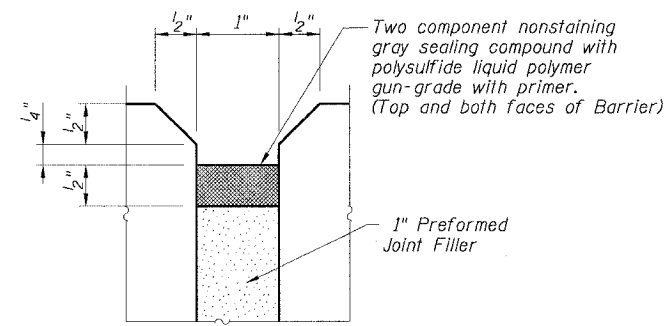
Sheet B6 of 16
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
TYPICAL SECTIONS & DETAILS
FOR 69TH ST. STATION (SB)
SCALE: None DRAWN BY: KWT
DATE: July 7, 2005 CHECKED BY: RDP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	375
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (1818, ETC. 2324.6-1)PR-8			62300	



TYPICAL SECTION
BETWEEN SUB-PIERS
AT 69TH ST. STATION (NB)



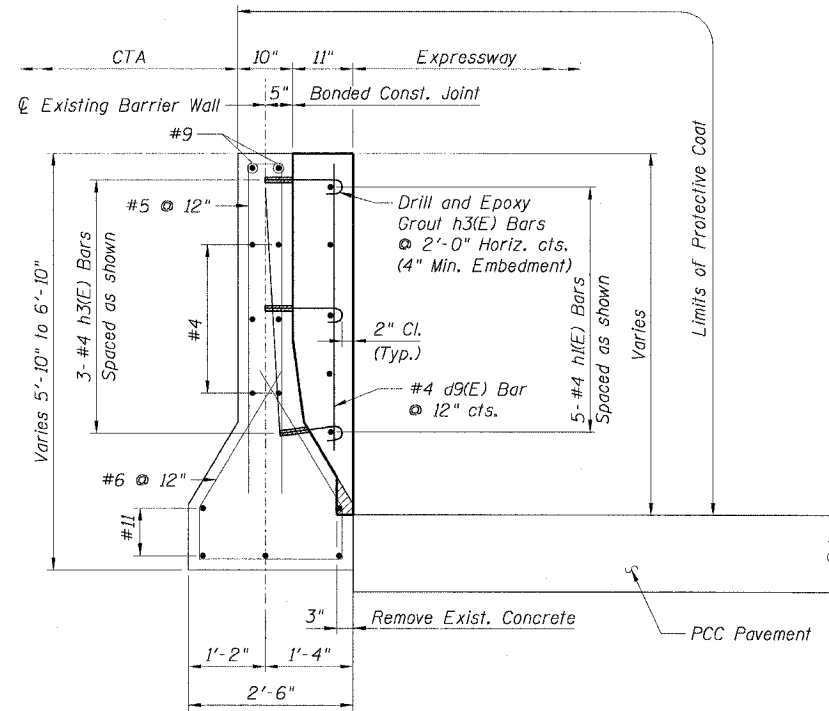
EXPANSION JOINT DETAIL
AT EXISTING JOINTS

BILL OF MATERIAL

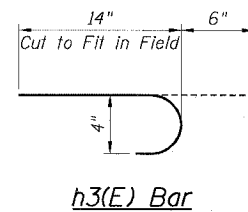
Bar	No.	Size	Length	Shape
d9(E)		#4	4'-2"	—
h1(E)		#4		—
h3(E)		#4	1'-8"	U
Item	Unit	Quantity		
Furnishing Soldier Piles W12x—	Foot			
Drilling and Setting Soldier Piles (in Soil)	Cu. Ft.			
Untreated Timber Lagging	Sq. Ft.			
Concrete Removal	Cu. Yd.			
Reinforcement Bars, Epoxy Coated	Pound			
Concrete Superstructure	Cu. Yd.			
Protective Coat	Sq. Yd.			

NOTES:

1. Drilling and grouting of #4 h3(E) bars shall be in accordance with Section 584 of the Standard Specifications.
2. The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 h3(E) bars shall be included in the cost per cubic yard for Concrete Superstructure.
3. Provide joints in facing to match those in the existing barrier.
4. The cost of furnishing and installing sealing compound shall be included in the cost per cubic yard for Concrete Superstructure.
5. Minimum lap length for #4 bars shall be 1'-8".
6. For Existing Concrete Repair Details see Sheet B3.
7. For Facing Details at Existing Light Pole Foundation see Sheet B5.



DETAIL 3



h3(E) Bar

LEGEND:

	Concrete Removal
	PCC Pavement
	BAM
	Sub Base
	Earth

REVISIONS	
NAME	DATE
MJP	8-12-05

Sheet B7 of 16
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
TYPICAL SECTIONS & DETAILS
FOR 69th ST. STATION (NB)
SCALE: None DRAWN BY: KWT
DATE: July 7, 2005 CHECKED BY: RDP

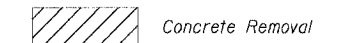
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	556	376
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
* (1818, ETC, 2324.6-1)PR-8			62300	

**BILL OF MATERIAL
FOR ONE TRANSITION**

Bar	No.	Size	Length	Shape
d1(E)	17	#4	6'-5"	—
d6(E)	50	#4	6'-0"	—
h6(E)	112	#4	1'-9"	—
h7(E)	8	#4	29'-0"	—
h8(E)	16	#4	21'-5"	—
Item	Unit	Quantity		
Reinforcement Bars, Epoxy Coated	Pound	788		
Concrete Superstructure	Cu. Yd.	18.0		
Protective Coat	Sq. Yd.	57		
Concrete Removal	Cu. Yd.	1.1		

LEGEND:



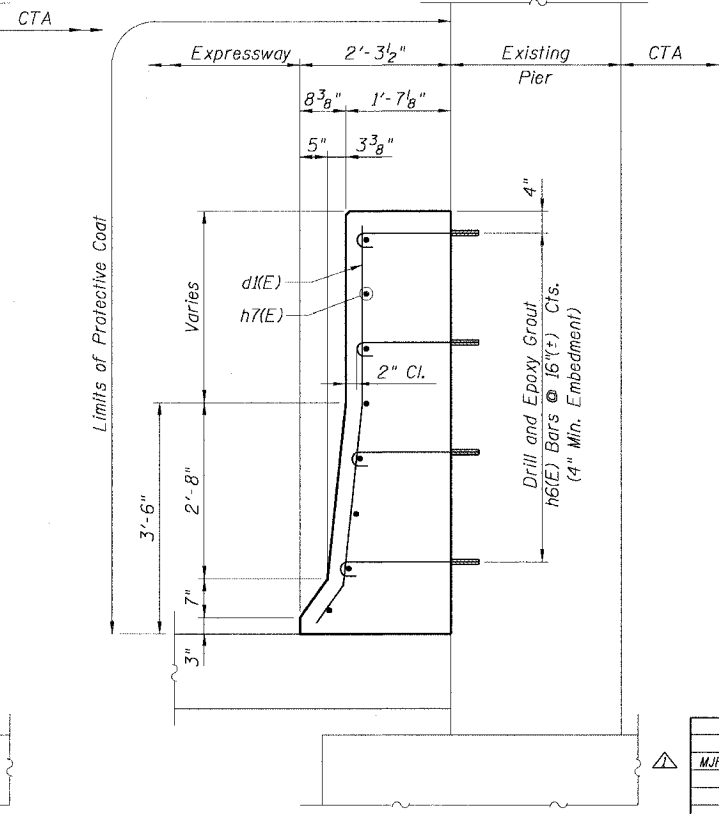
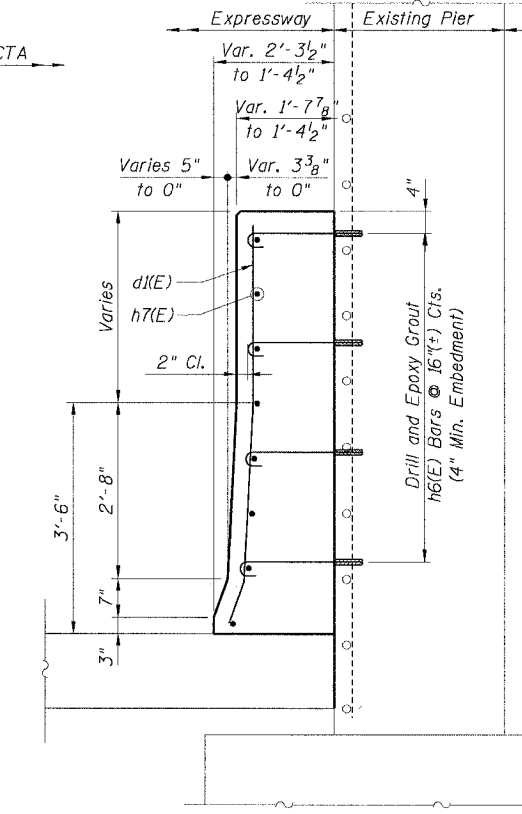
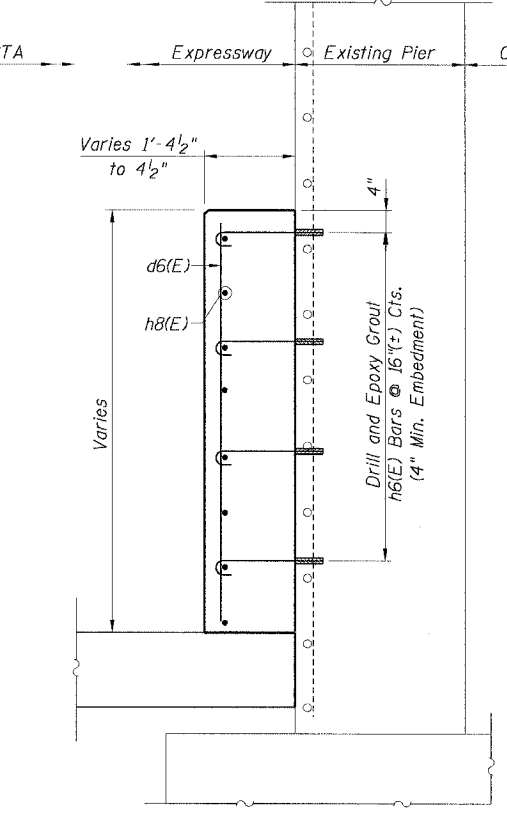
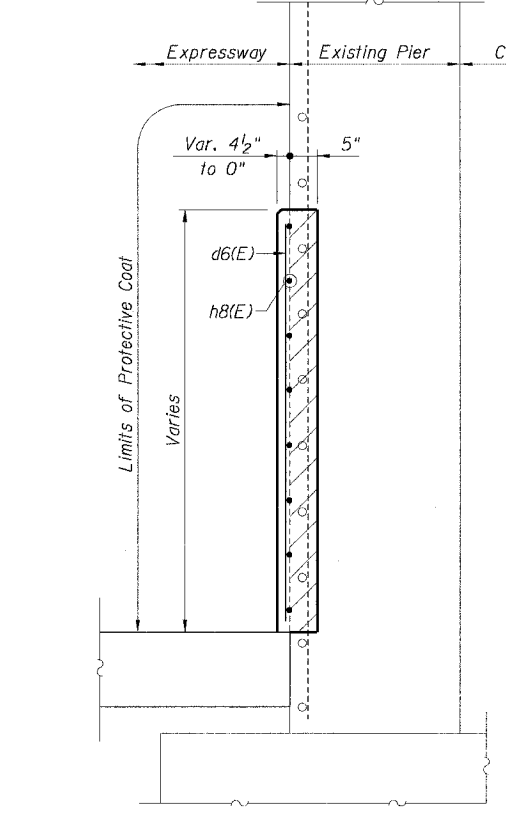
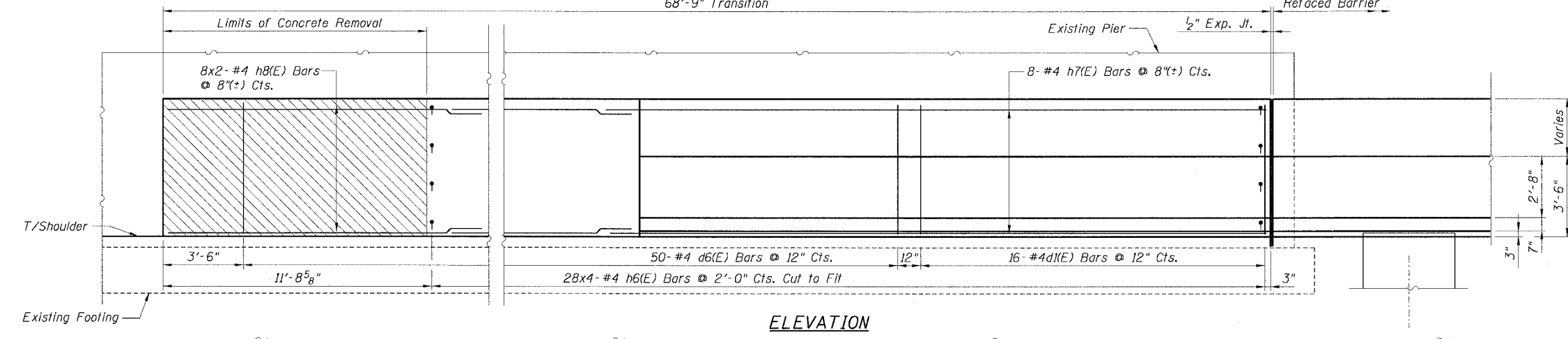
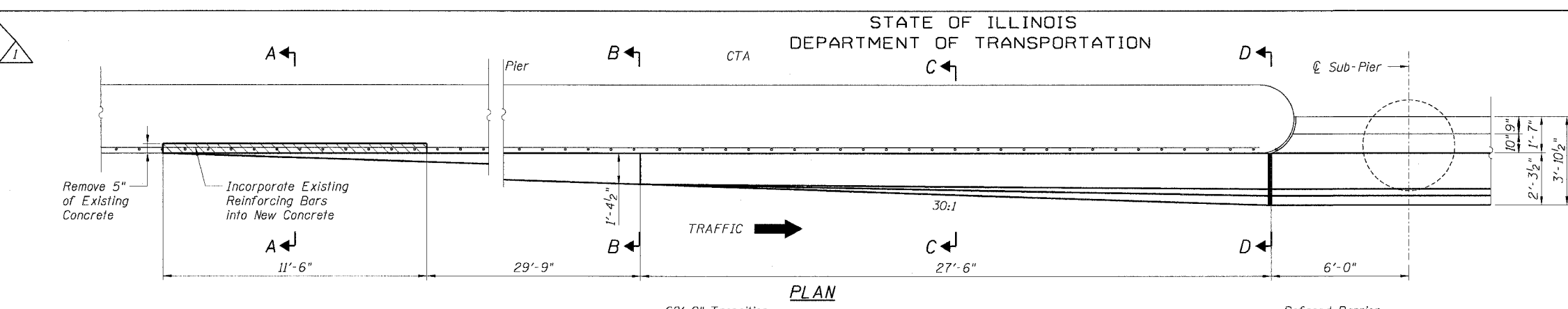
NOTES:

- Drilling and grouting of #4 h2(E) and h6(E) bars shall be in accordance with Section 584 of the Standard Specifications.
- The cost of drilling holes, furnishing and placing Epoxy Grout and setting h2(E) and h6(E) bars shall be included in the cost per cubic yard for Concrete Superstructure.
- Exposed existing reinforcement bars shall remain in place and be blast cleaned to gray metal. Reinforcement bars that have been cut or have lost 25% or more of their original cross sectional area shall be supplemented by new epoxy coated reinforcement bars.
- The cost of supplementing and cleaning existing reinforcement bars shall be included in the cost per cubic yard for Concrete Removal.
- For Refaced Barrier Wall Details see Sheets B2 and B3.
- For locations of Transition, see Roadway Plans.

Sheet B8 of 16

REVISIONS	
NAME	DATE
MJP	8-12-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER BELOW EXISTING
REFACED BARRIER TO PIER
TRANSITION DETAILS (TAPER)
SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: RDP



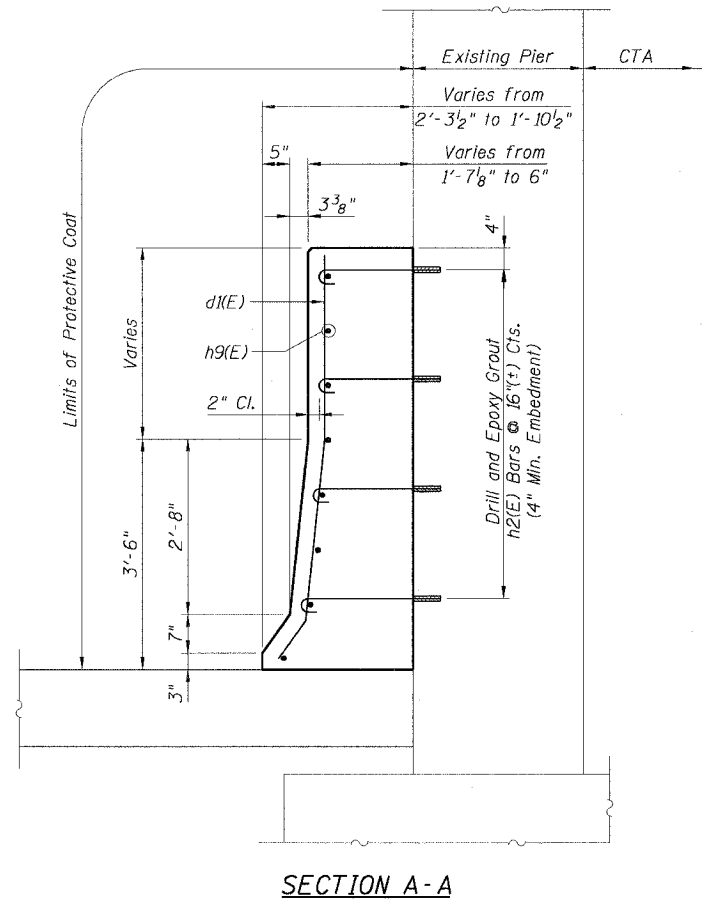
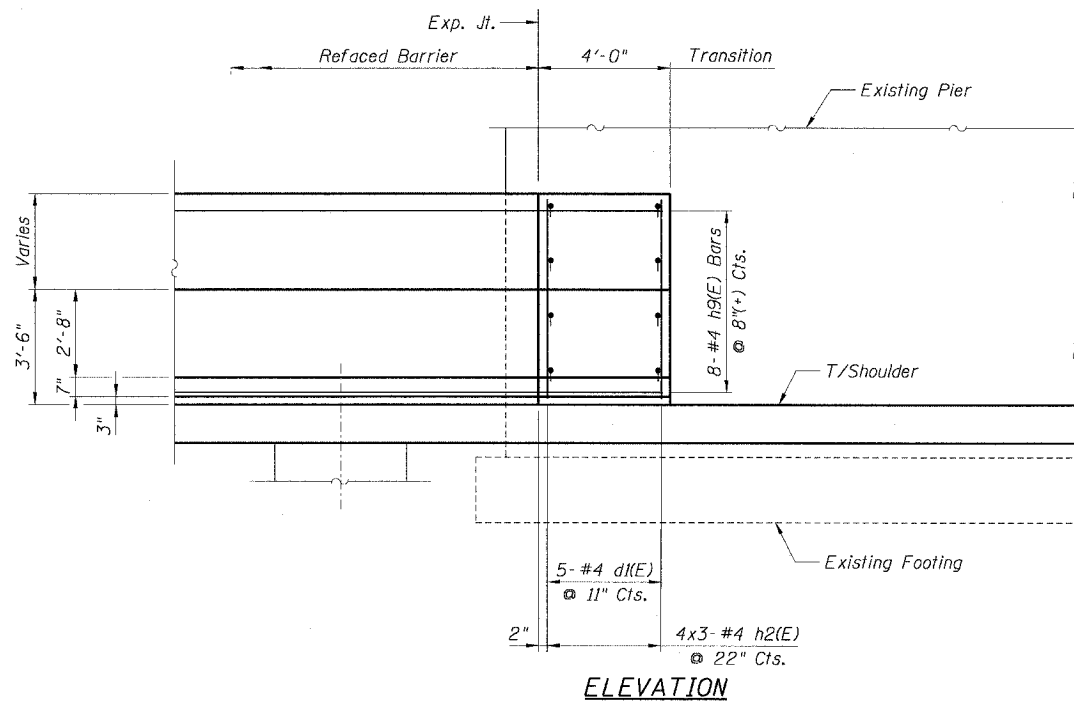
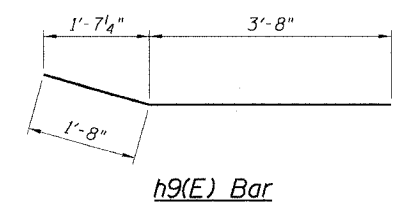
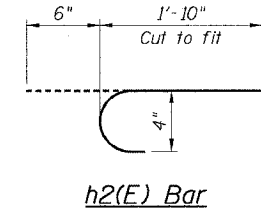
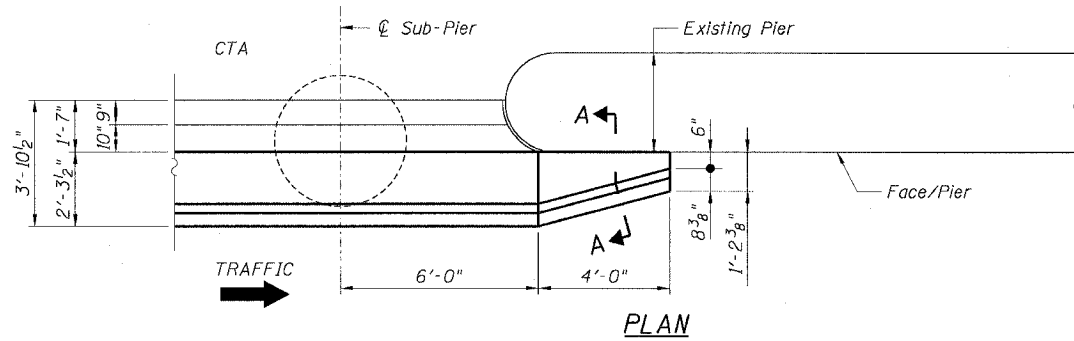
CTE | AECOM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	377
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
			62300	
* (181B, ETC, 2324.6-1P)R-8				

**BILL OF MATERIAL
FOR ONE TRANSITION**

Bar	No.	Size	Length	Shape
d(E)	5	#4	6'-5"	—
h2(E)	12	#4	2'-4"	⌋
h9(E)	8	#4	5'-4"	—
Item	Unit	Quantity		
Reinforcement Bars, Epoxy Coated	Pound	56		
Concrete Superstructure	Cu. Yd.	1.4		
Protective Coat	Sq. Yd.	4		



LEGEND:

Concrete Removal

NOTES:

1. Drilling and grouting of #4 h2(E) bars shall be in accordance with Section 584 of the Standard Specifications.
2. The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 h2(E) bars shall be included in the cost per cubic yard for Concrete Superstructure.
3. For d(E) bar details, see Sheet B2.
4. For Refaced Barrier Wall Details, see Sheets B2 and B3.
5. For locations of Transition, see Roadway Plans.

REVISIONS	
NAME	DATE
MJP	8-12-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER BELOW EXISTING
REFACED BARRIER TO PIER
TRANSITION DETAILS (NO TAPER)
SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: MJP

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	556	378
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
* (1B1B, ETC, 2324.6-1PIR-8			62300	

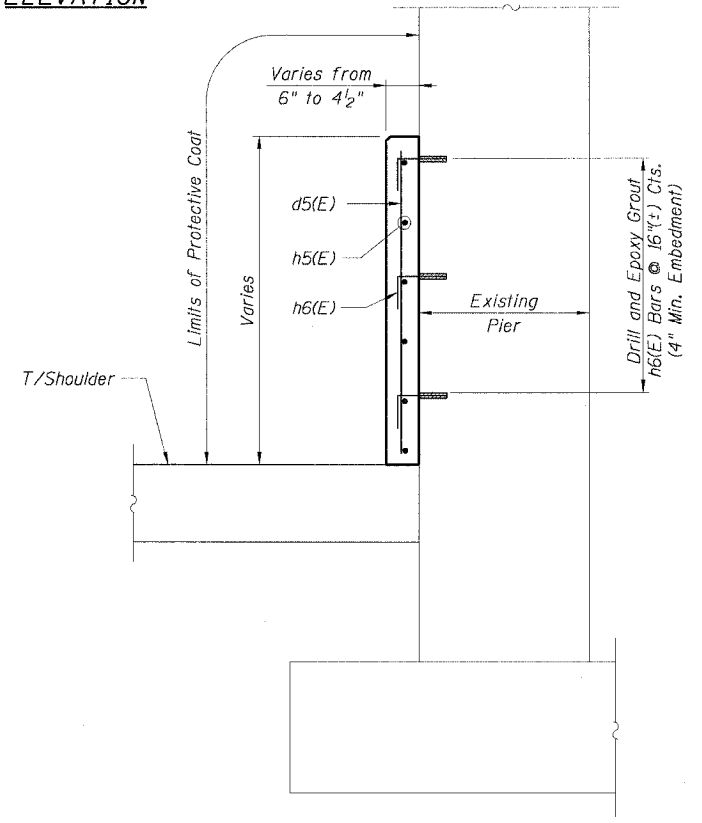
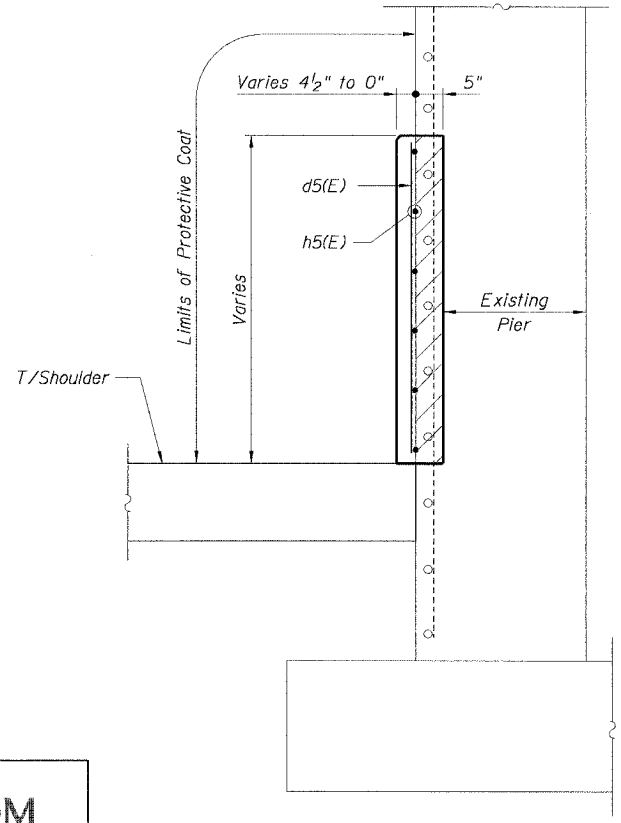
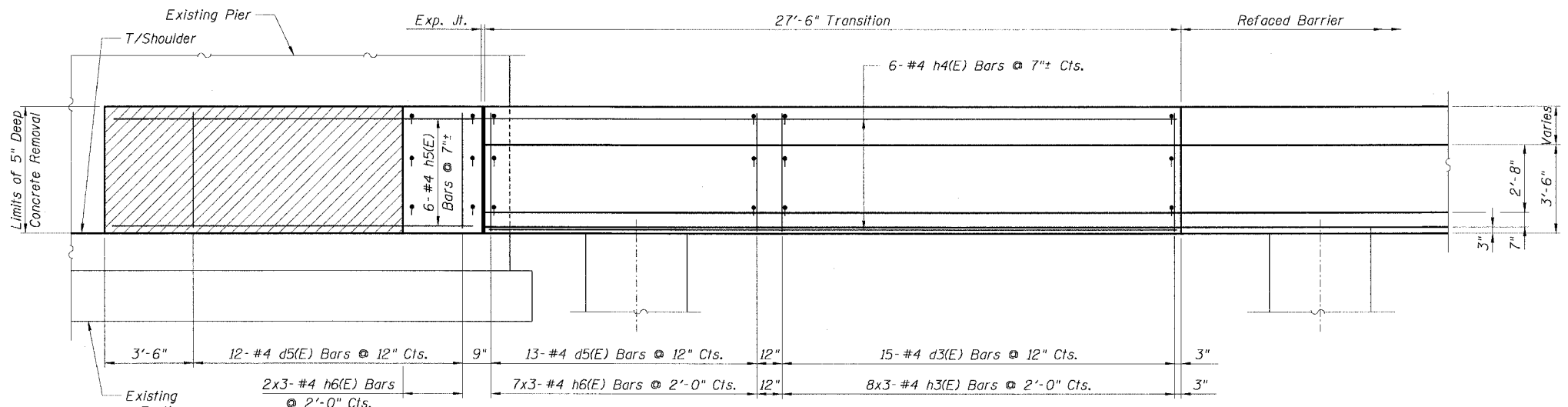
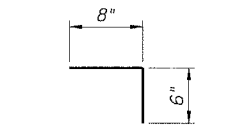
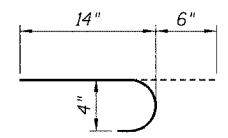
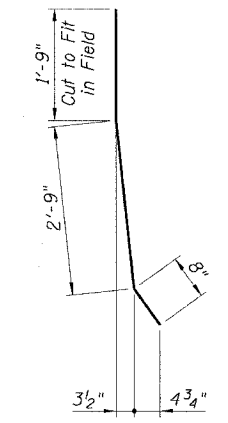
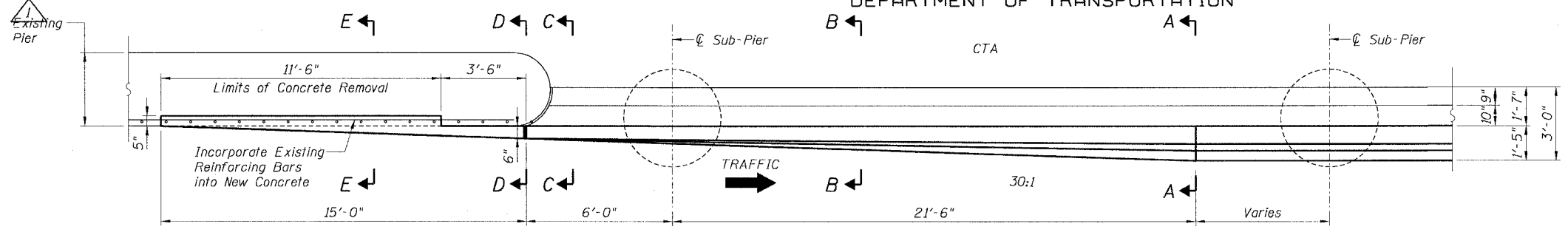
**BILL OF MATERIAL
FOR ONE TRANSITION**

Bar	No.	Size	Length	Shape
d3(E)	15	#4	5'-2"	—
d5(E)	25	#4	4'-8"	—
h3(E)	48	#4	1'-8"	⌋
h4(E)	6	#4	27'-2"	—
h5(E)	6	#4	14'-8"	—
h6(E)	27	#4	1'-2"	⌋
Item	Unit	Quantity		
Reinforcement Bars, Epoxy Coated	Pound	372		
Concrete Superstructure	Cu. Yd.	4.7		
Protective Coat	Sq. Yd.	25		
Concrete Removal	Cu. Yd.	0.9		

NOTES:

1. Drilling and grouting of #4 h3(E) and h6(E) bars shall be in accordance with Section 584 of the Standard Specifications.
2. The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 h3(E) and h6(E) bars shall be included in the cost per cubic yard for Concrete Superstructure.
3. Exposed existing reinforcement bars shall remain in place and be blast cleaned to gray metal. Reinforcement bars that have been cut or have lost 25% or more of their original cross sectional area shall be supplemented by new epoxy coated reinforcement bars.
4. The cost of supplementing and cleaning existing reinforcement bars shall be included in the cost per cubic yard for Concrete Removal.
5. Provide joints in facing to match those in the existing barrier. See Sheet B7 for details.
6. For Soldier Pile and Lagging Retention System, see Sheets B1, B4 and B5.
7. For Refaced Barrier Wall Details, see Sheets B4 and B5.
8. For Sections A-A, B-B and C-C, see Sheet B11.
9. For Existing Concrete Repair Details, see Sheet B3.
10. For Facing Details at Existing Light Pole Foundation, see Sheet B5.
11. For locations of Transition, see Roadway Plans.

Sheet B10 of 16



LEGEND:

Concrete Removal

REVISIONS	
NAME	DATE
MJP	8-12-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER AT OR ABOVE EXISTING
REFACED BARRIER TO PIER
TRANSITION DETAILS (TAPER)

SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: MJP

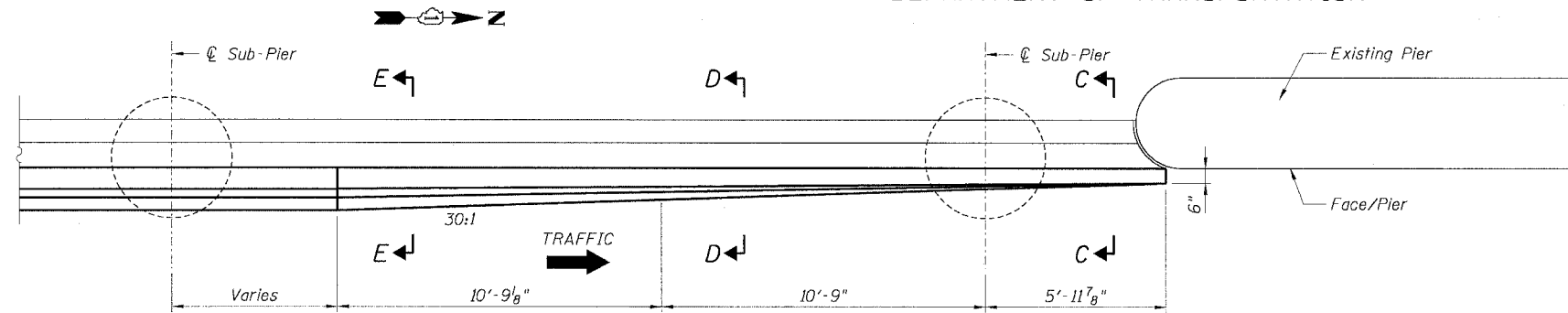
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DEPARTMENT OF TRANSPORTATION

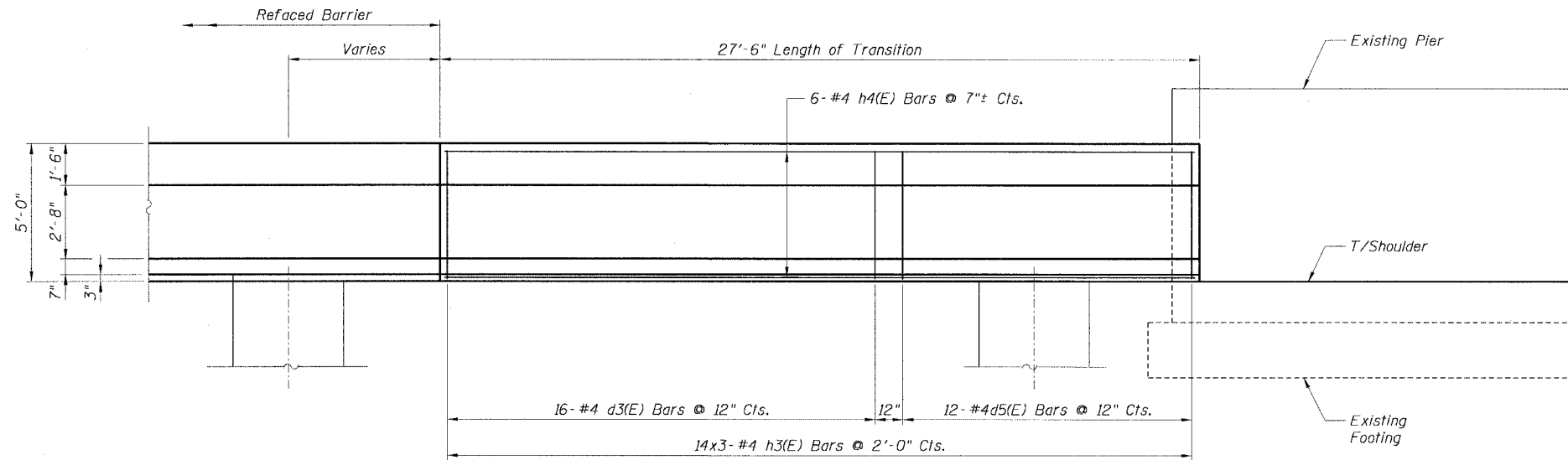
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	556	379
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* (1818, ETC. 2324.6-1P1R-8				62300

**BILL OF MATERIAL
FOR ONE TRANSITION**

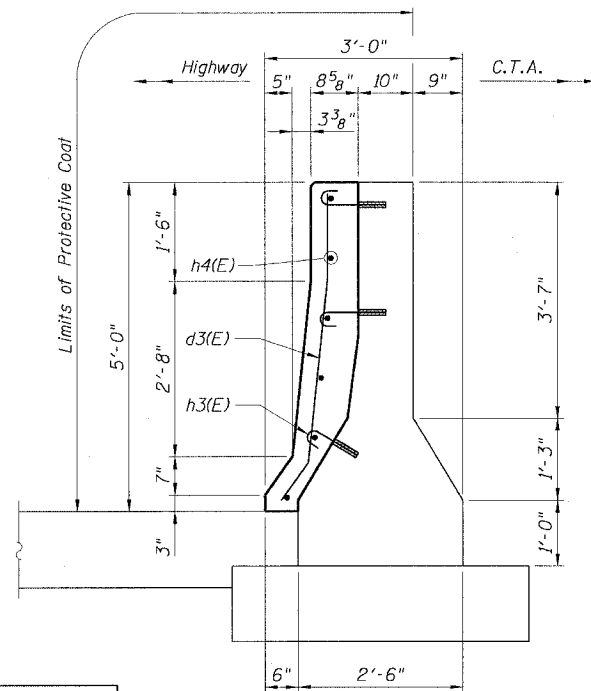
Bar	No.	Size	Length	Shape
d3(E)	16	#4	5'-3"	—
d5(E)	12	#4	4'-8"	—
h3(E)	42	#4	1'-6"	—
h4(E)	6	#4	26'-8"	—
Item	Unit	Quantity		
Reinforcement Bars, Epoxy Coated		250		
Concrete Structures		3.0		
Protective Coat		19.6		
Concrete Removal				



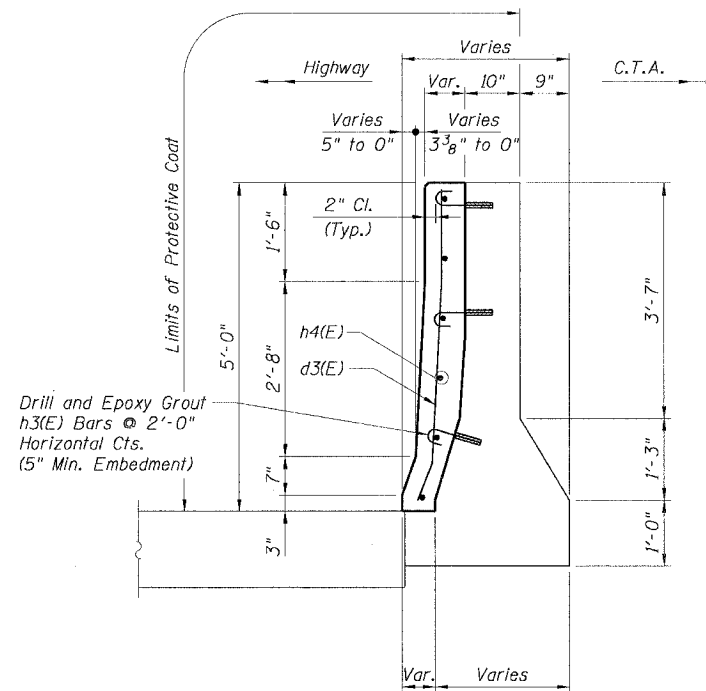
PLAN



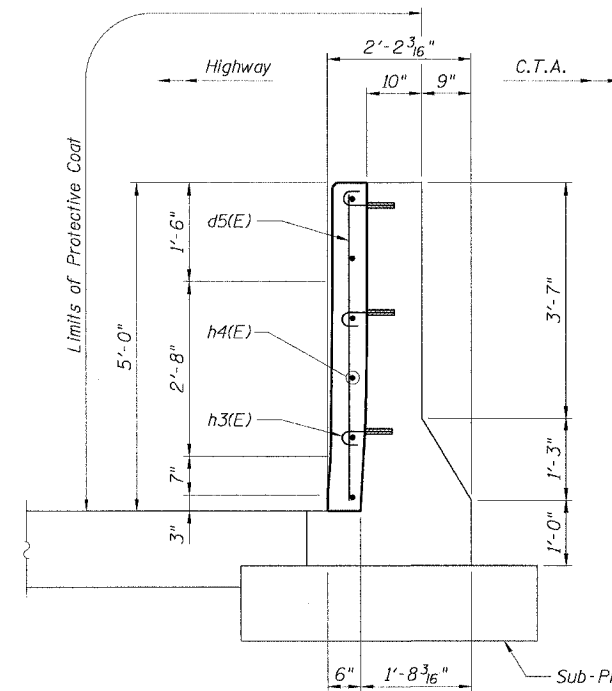
ELEVATION



SECTION E-E



SECTION D-D



SECTION C-C

LEGEND:

Concrete Removal

NOTES:

1. Drilling and grouting of #4 h3(E) bars shall be in accordance with Section 584 of the Standard Specifications.
2. The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 h3(E) bars shall be included in the cost per cubic yard for Concrete Structures.
3. Provide joints in facing to match those in the existing barrier.
4. For Refaced Barrier details, see Sheets B4 and B5.
5. For locations of Transition, see Roadway Plans.

REVISIONS	NAME	DATE

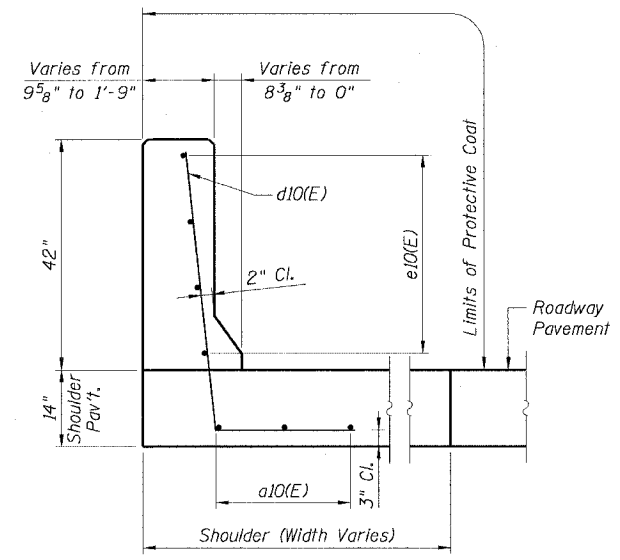
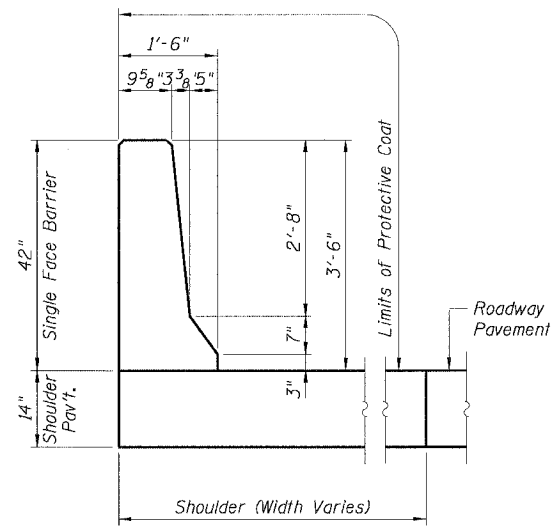
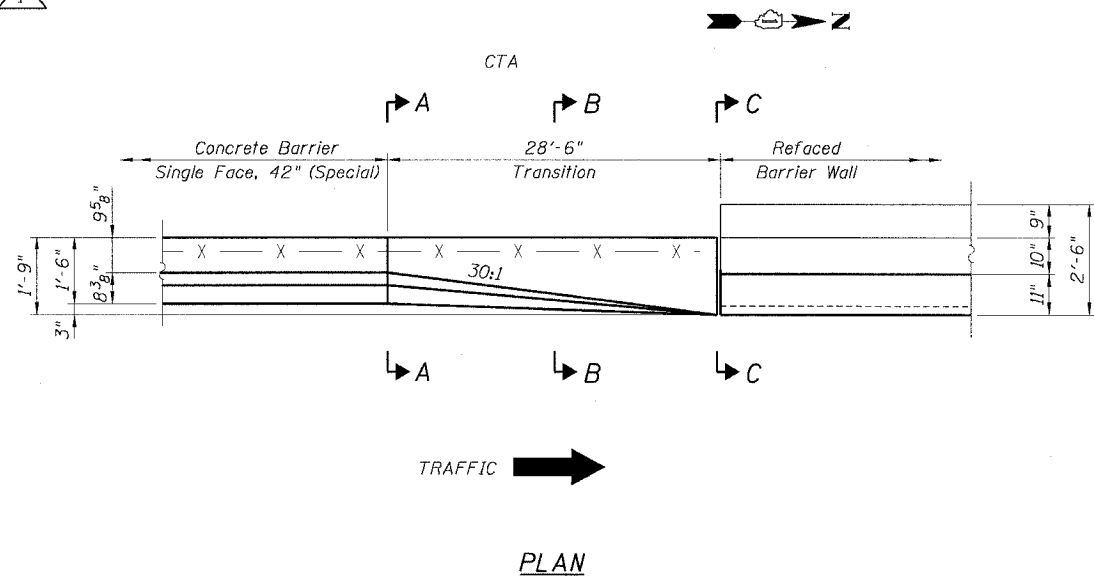
Sheet B11 of 16
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
**EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS**
**PROPOSED T/S SHOULDER AT OR ABOVE EXISTING
REFACED BARRIER TO PIER
TRANSITION DETAILS (NO TAPER)**
SCALE: None
DATE: JULY 7, 2005
DRAWN BY: CHD
CHECKED BY: RDP

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	380
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
(1818, ETC, 2324.6-1PIR-B			62300	

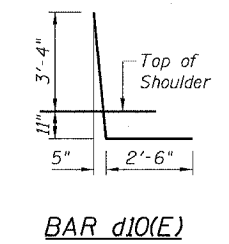


SECTION A-A

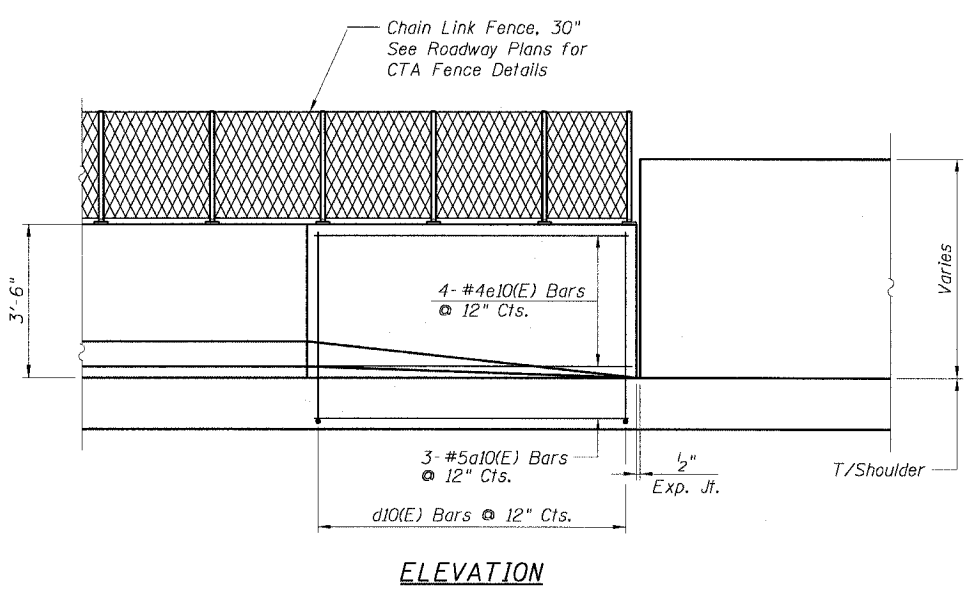
SECTION B-B

BILL OF MATERIAL FOR ONE TRANSITION

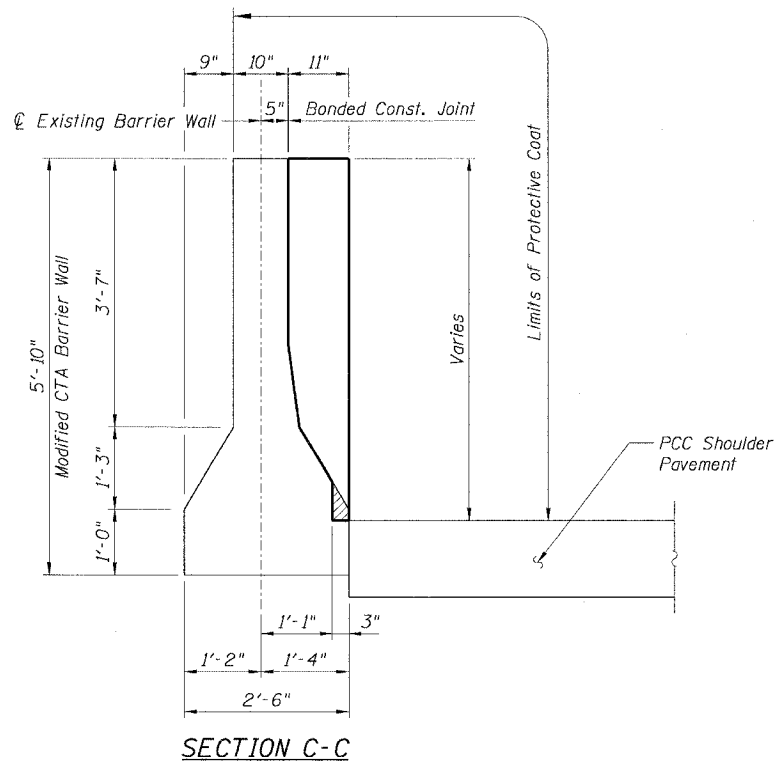
Bar	No.	Size	Length	Shape
a10	3	#5	28'-2"	—
d10	29	#6	6'-9"	L
e10	4	#4	28'-2"	—
Item			Unit	Quantity
Reinforcement Bars, Epoxy Coated			Pound	457
Concrete Superstructure			Cu. Yd.	5.2
Protective Coat			Sq. Yd.	15



BAR d10(E)



ELEVATION



SECTION C-C

- NOTES:**
- For alternative vertical reinforcing details, see "Concrete Barrier Single Face, 42" Alternates".
 - For existing CTA Barrier modifications - vertical facing, see sheet B7.
 - For Expansion Joint details see Sheet B6.
 - For locations of Transition, see Roadway Plans.

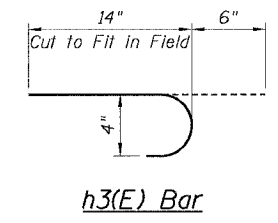
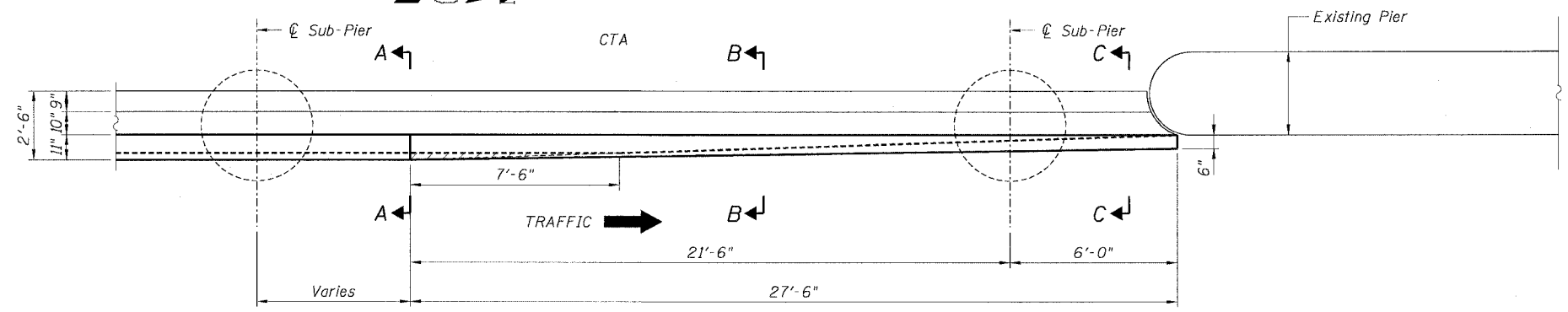
CTE | AECOM

REVISIONS	
NAME	DATE
MJP	8-12-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/SOULDER AT OR ABOVE EXISTING
NEW 42" BARRIER TO VERT. REFACED BARRIER
TRANSITION DETAILS (TAPER)
SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: RDP

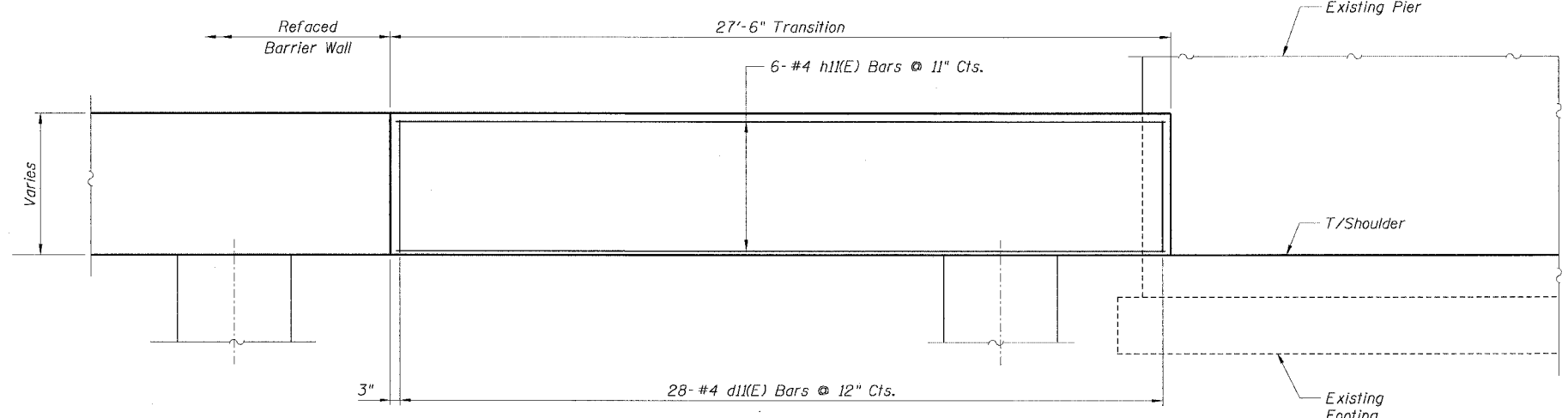
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	556	381
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* (1818, ETC, 2324.6-1PIR-8		62300		

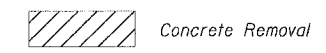


BILL OF MATERIAL FOR ONE TRANSITION

Bar	No.	Size	Length	Shape
d1(E)	28	#4	4'-8"	—
h3(E)	42	#4	1'-8"	U
h1(E)	6	#4	24'-8"	—
Item		Unit	Quantity	
Reinforcement Bars, Epoxy Coated		Pound	233	
Concrete Superstructure		Cu. Yd.	3.2	
Protective Coat		Sq. Yd.	20	
Concrete Removal		Cu. Yd.	0.1	

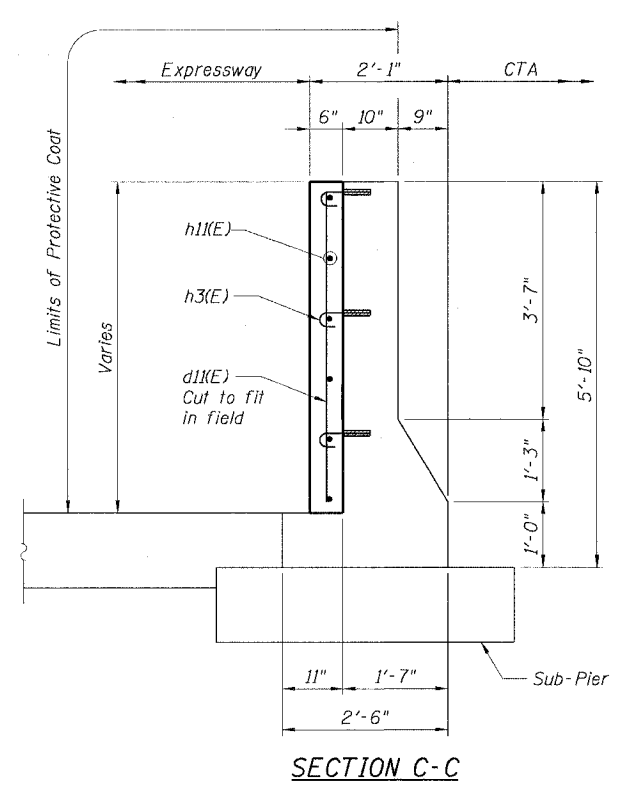
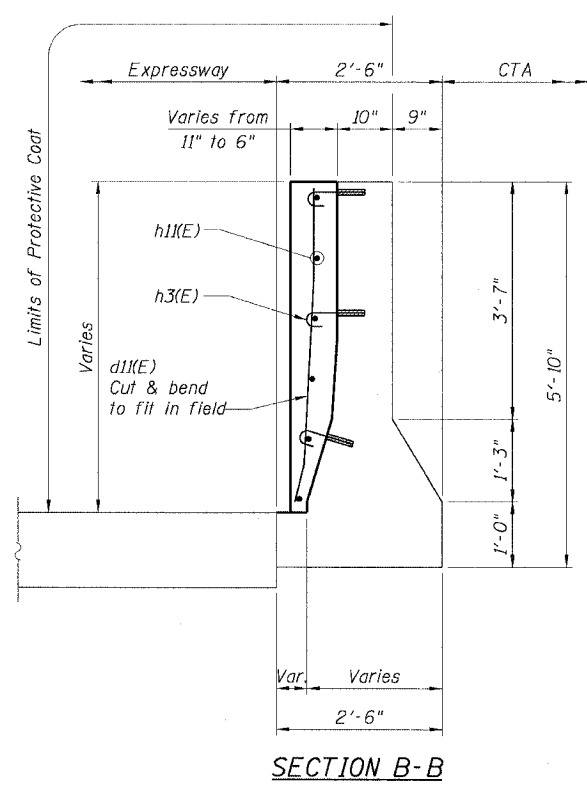
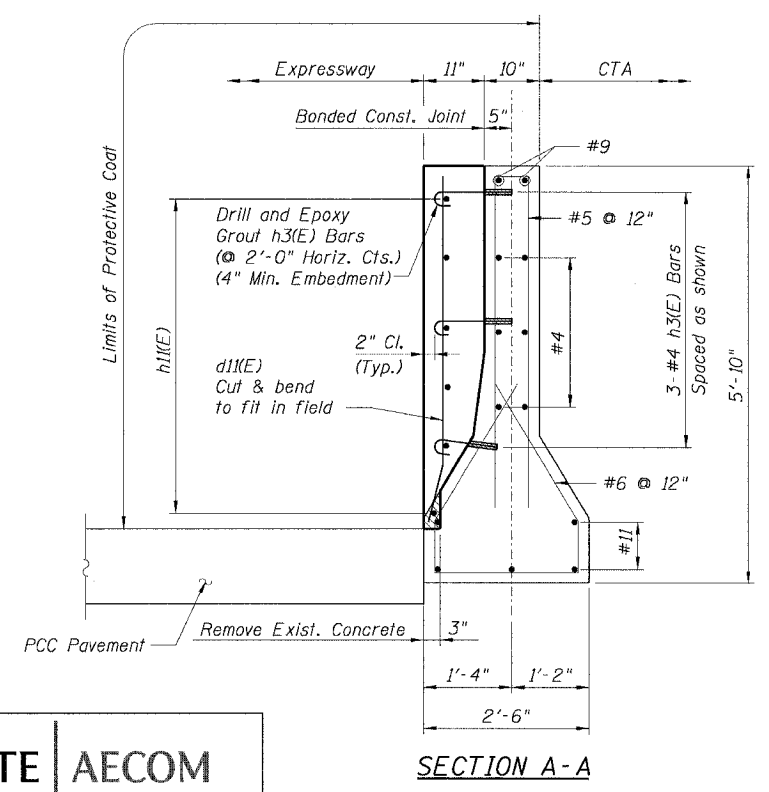


LEGEND:



NOTES:

1. Drilling and grouting of #4 h3(E) bars shall be in accordance with Section 584 of the Standard Specifications.
2. The cost of drilling holes, furnishing and placing Epoxy Grout and setting #4 h3(E) bars shall be included in the cost per cubic yard for Concrete Superstructure.
3. Provide joints in facing to match those in the existing barrier. See Sheet B7 for details.
4. For Soldier Pile and Lagging Retention System see Sheets B1, B4 and B5.
5. For Refaced Barrier Wall Details, see Sheet B7.
6. For Existing Concrete Repair Details, see Sheet B3.
7. For Facing Details at Existing Light Pole Foundation, see Sheet B5.
8. For locations of Transition, see Roadway Plans.



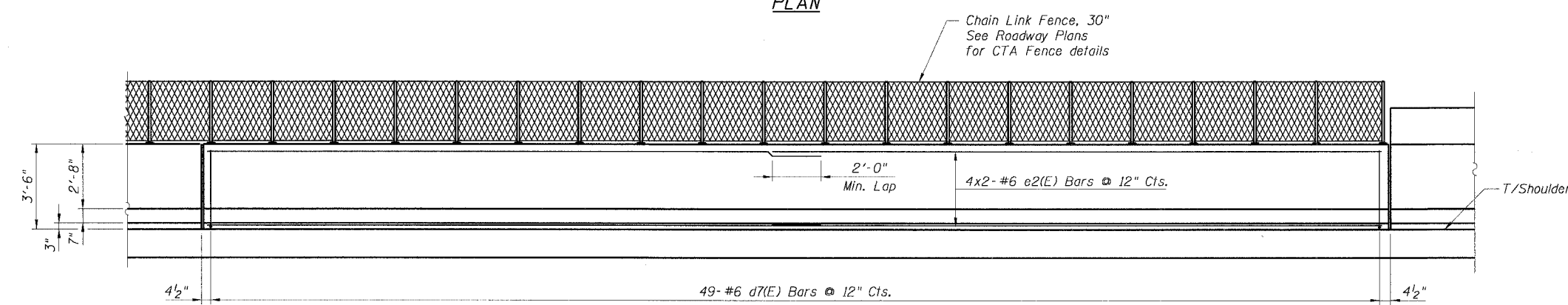
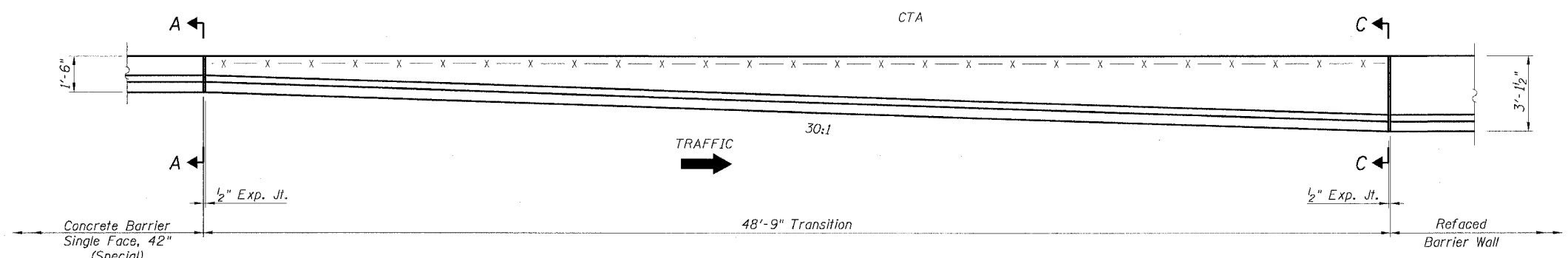
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REVISIONS	
NAME	DATE
MJP	8-12-05

Sheet B13 of 16
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
FOR 69TH ST. STATION (NB)
VERT. REFACED BARRIER TO PIER
TRANSITION DETAILS (NO TAPER)
SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: RDP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

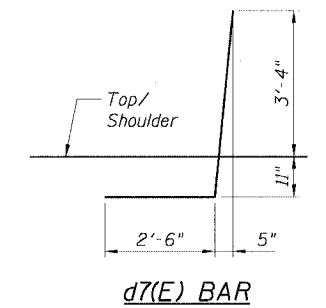
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	382
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (1818, ETC, 2324.6-1PJR-8			62300	



BILL OF MATERIAL FOR ONE TRANSITION

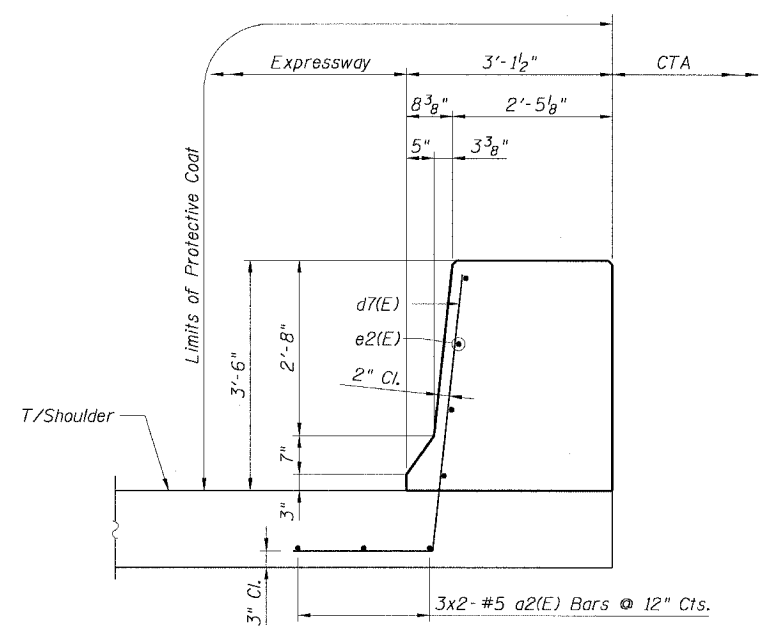
Bar	No.	Size	Length	Shape
a2(E)	6	#5	25'-3"	—
d7(E)	49	#6	6'-9"	—
e2(E)	8	#6	25'-3"	—

Item	Unit	Quantity
Reinforcement Bars, Epoxy Coated	Pound	958
Concrete Superstructure	Cu. Yd.	11.7
Protective Coat	Sq. Yd.	28.5



NOTES:

1. Provide Construction Joint in the transition.
2. For Expansion Joint Details, see Sheet B6.
3. For Section A-A, see Sheet B15.
4. For alternative vertical reinforcing details, see "Concrete Barrier Single Face, 42" Alternatives".
5. For Refaced Barrier Wall Details, see Sheets B2 and B3.
6. For Soldier Pile and Logging Retention System, see Sheets B1 thru B3.
7. For Concrete Barrier Single Face, 42" (Special) Details, see Roadway details.
8. For locations of Transition, see Roadway Plans.



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NAME	DATE
MJP	8-12-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER BELOW EXISTING
REFACED BARRIER TO NEW 42" BARRIER
TRANSITION DETAILS

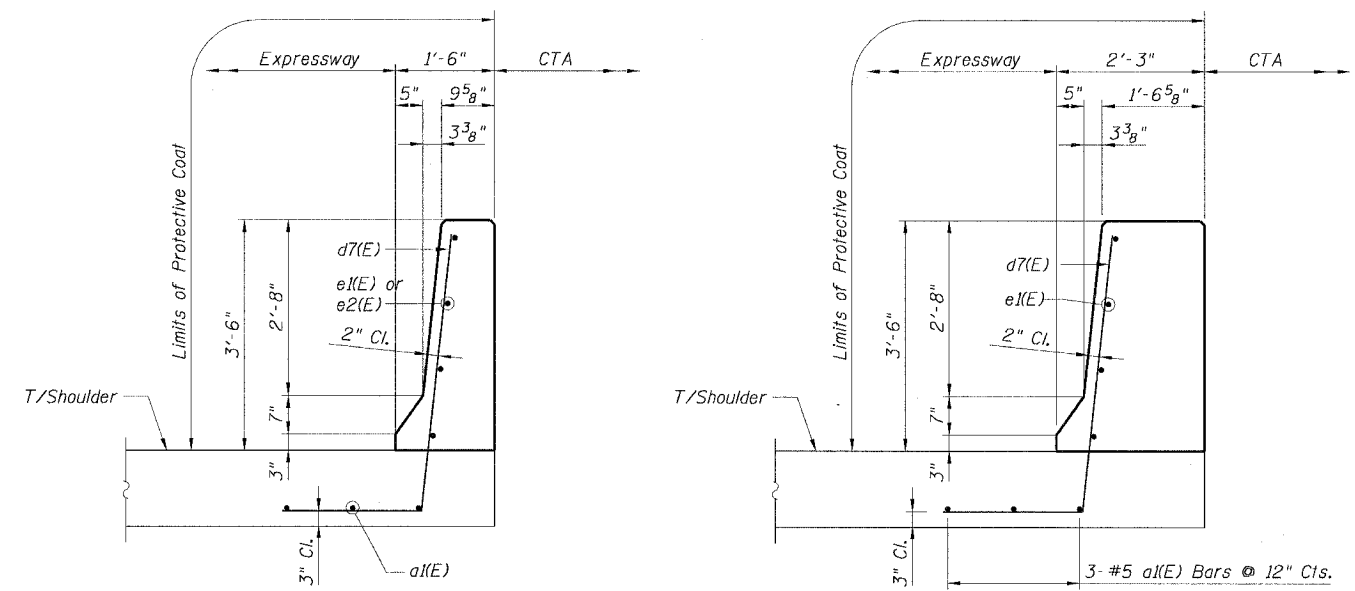
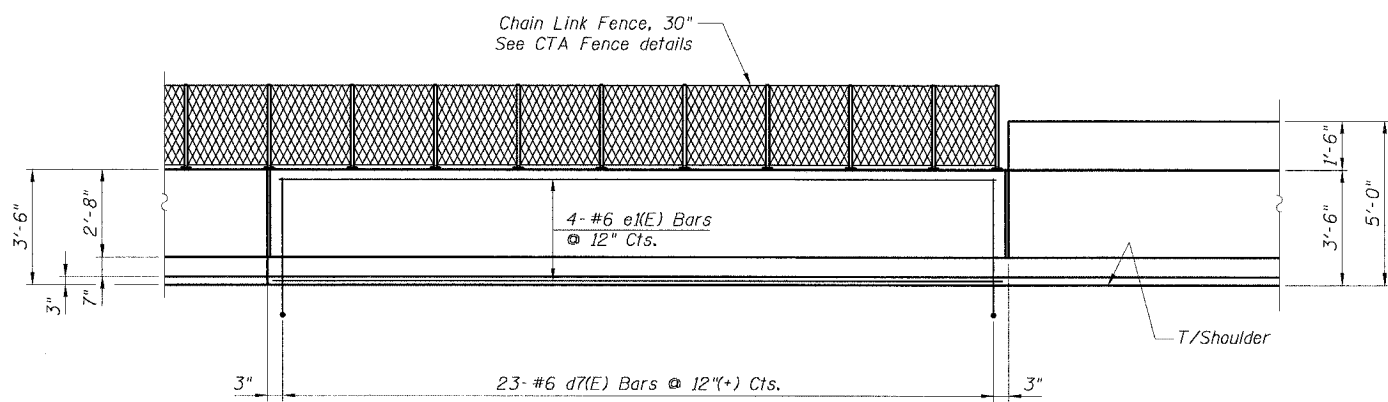
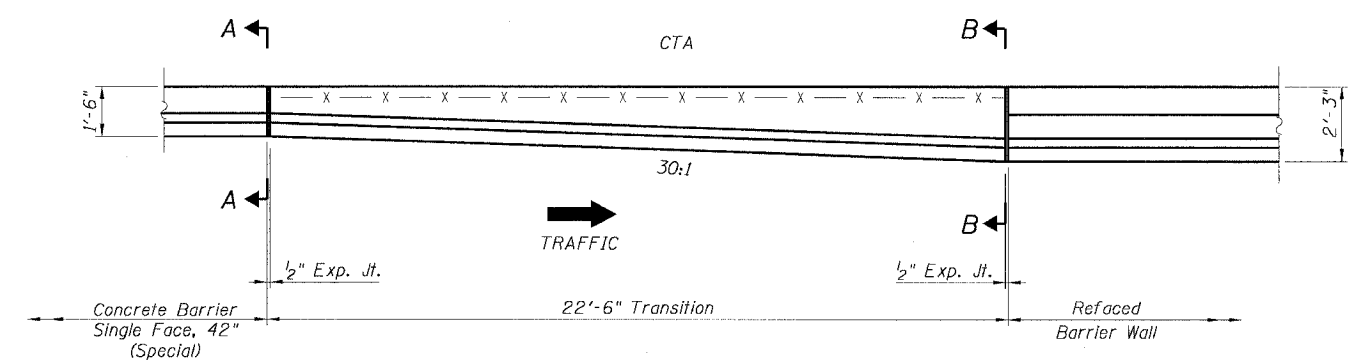
SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: RDP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RT.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	556	383
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
* (181B, ETC. 2324.6-1)PR-B			62300	

**BILL OF MATERIAL
FOR ONE TRANSITION**

Bar	No.	Size	Length	Shape
a(E)	3	#5	22'-2"	
d7(E)	23	#6	6'-9"	
e(E)	4	#6	22'-2"	
Item	Unit	Quantity		
Reinforcement Bars, Epoxy Coated	Pound	436		
Concrete Superstructure	Cu. Yd.	4.2		
Protective Coat	Sq. Yd.	12		



NOTES:

1. For Expansion Joint Details, see Sheet B6.
2. For alternative vertical reinforcing details, see "Concrete Barrier Single Face, 42" Alternatives".
3. For d7(E) bar details, see Sheet B14.
4. For Refaced Barrier Wall details, see Sheets B4 and B5.
5. For Soldier Pile and Lagging Retention System, see Sheets B1, B4 and B5.
6. For Concrete Barrier Single Face, 42" (Special), see Roadway details.
7. For locations of Transition, see Roadway Plans.

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REVISIONS	
NAME	DATE
MJP	8-12-05

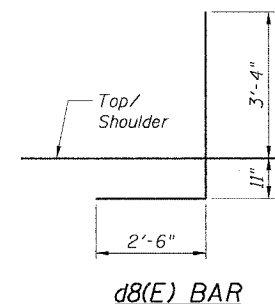
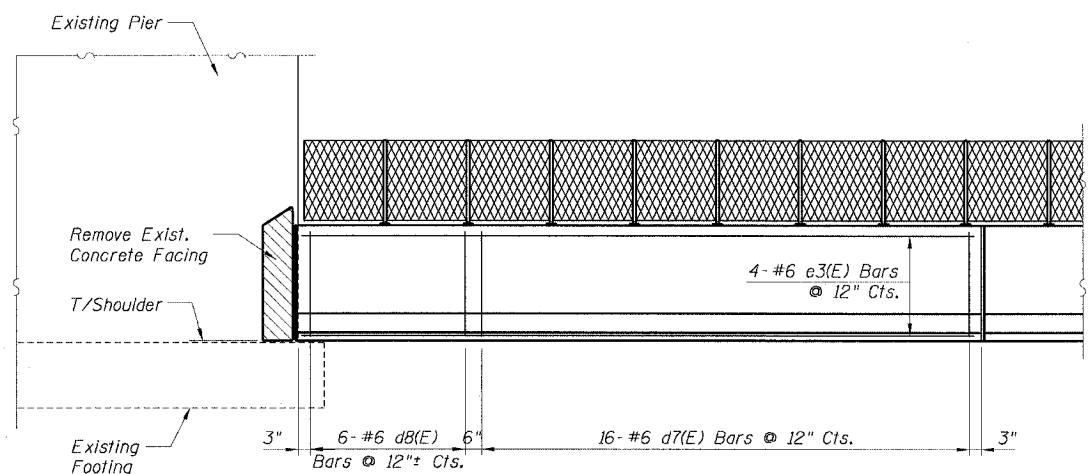
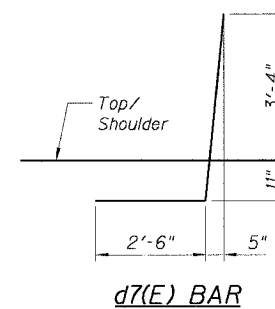
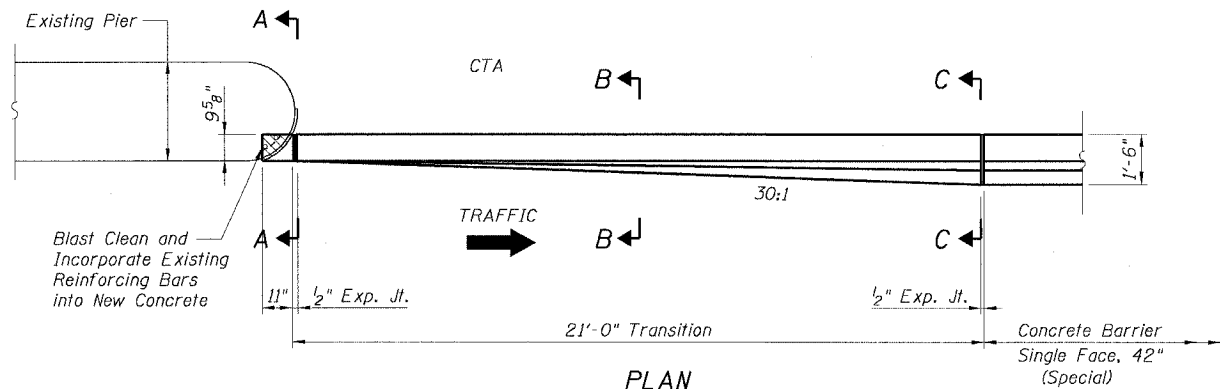
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROPOSED T/S SHOULDER AT OR ABOVE EXISTING
REFACED BARRIER TO NEW 42" BARRIER
TRANSITION DETAILS
SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: RDP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (181B, ETC, 2324.6-1PJR-8			62300	

**BILL OF MATERIAL
FOR ONE TRANSITION**

Bar	No.	Size	Length	Shape
a3(E)	3	#5	20'-8"	
d7(E)	15	#6	6'-9"	
d8(E)	5	#6	6'-9"	
e3(E)	4	#6	20'-8"	
Item		Unit	Quantity	
Reinforcement Bars, Epoxy Coated		Pound	392	
Concrete Superstructure		Cu. Yd.	2.6	
Protective Coat		Sq. Yd.	10	
Concrete Removal		Cu. Yd.	0.1	

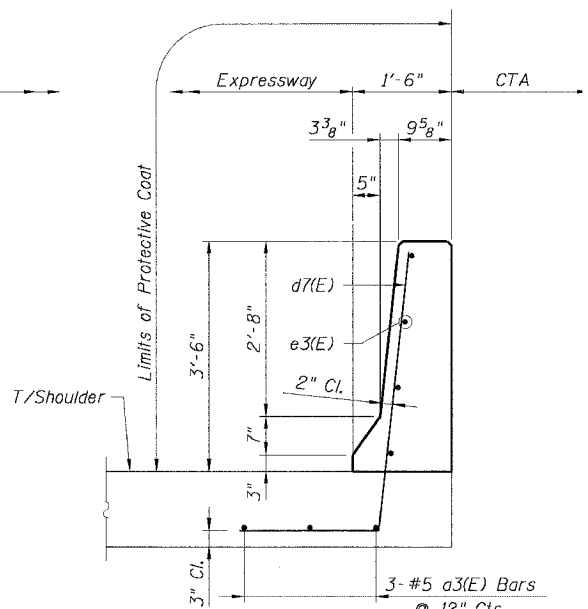
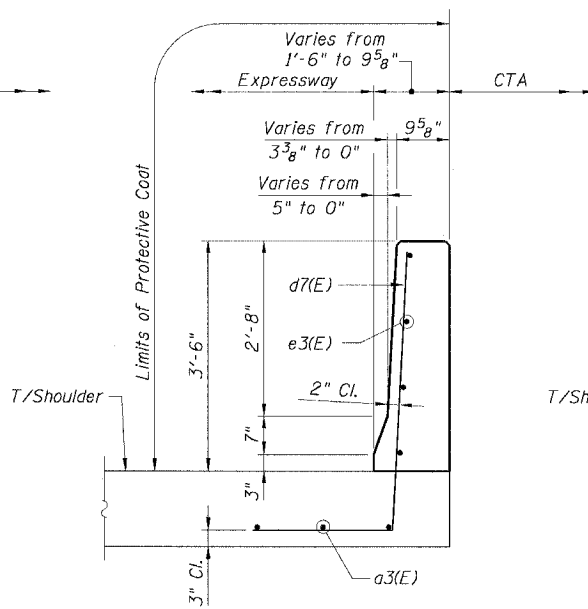
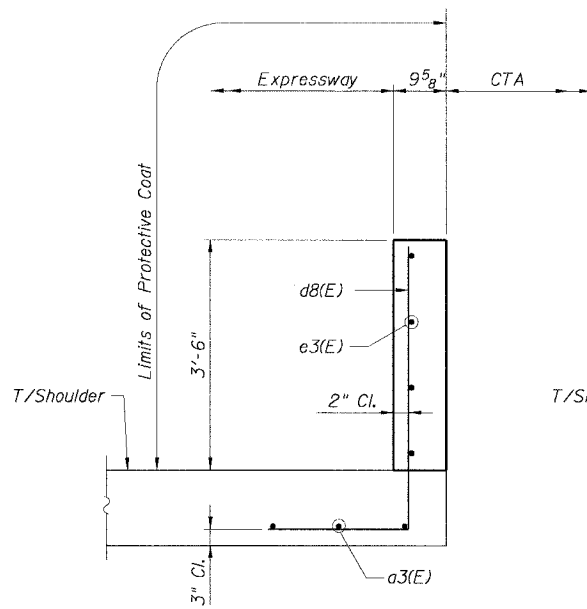


LEGEND:

Concrete Removal

NOTES:

1. For Expansion Joint Details see Sheet B6.
2. For alternative vertical reinforcing details see "Concrete Barrier Single Face, 42" Alternatives".
3. For Concrete Barrier Single Face, 42" (Special), see Roadway details.
4. For locations of Transition, see Roadway Plans.



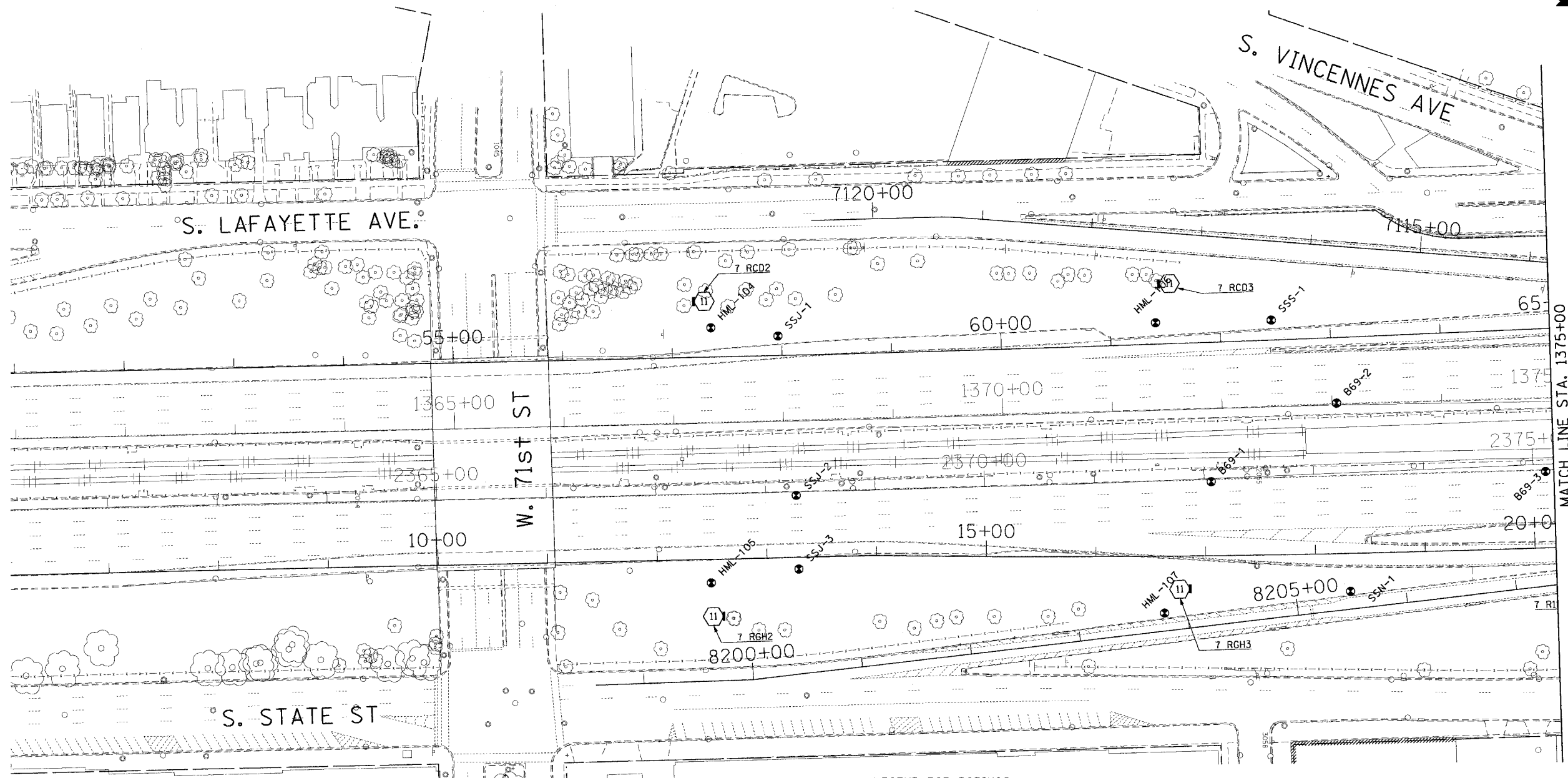
CTE | AECOM

REVISIONS	
NAME	DATE
MJP	8-12-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
EXISTING BARRIER WALL MODIFICATIONS
AT CTA STATIONS
PROP. T/SOULDER ABOVE OR BELOW EXISTING
NEW 42" BARRIER TO PIER
TRANSITION DETAILS

SCALE: None DRAWN BY: CHD
DATE: July 7, 2005 CHECKED BY: RDP

F.A.I. RTE. 90/94	SECTION •	COUNTY COOK	TOTAL SHEETS 556	SHEET NO. 384A
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
• (1818, ETC, 2324.6-1P1R-8			62300	



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



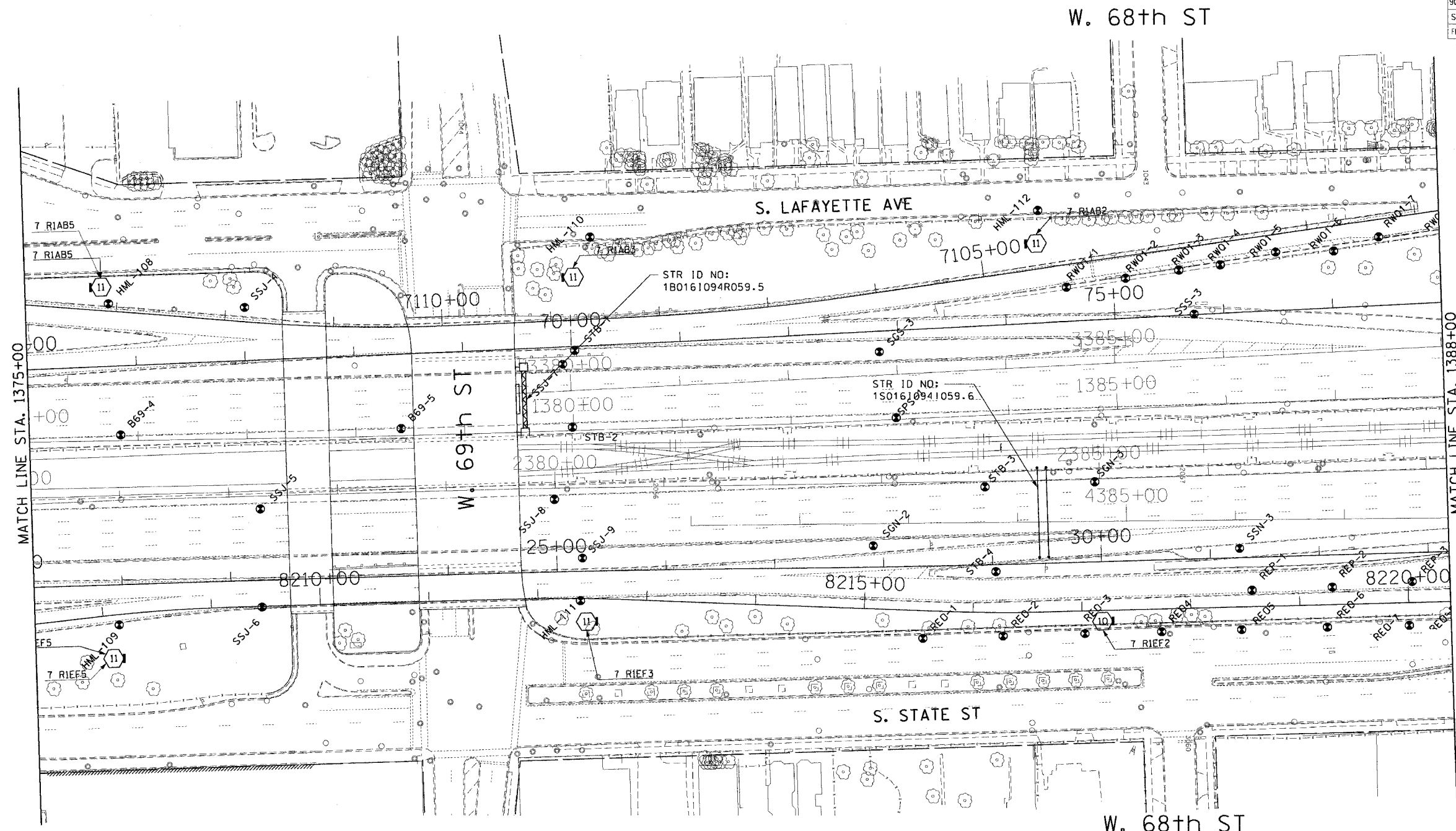
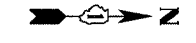
REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 71ST STREET TO 31ST STREET (NB EXPRESS LANES)
 SOIL BORING LOCATIONS

SCALE: 1"=50'
 DATE: September 16, 2005
 DRAWN BY: PHP
 CHECKED BY: JAL

9/16/2005 9:27:05 AM

F.A.I. RITE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384B
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
(1818, ETC, 2324.6-IPR-8			62300	



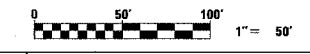
MATCH LINE STA. 1375+00

MATCH LINE STA. 1388+00

LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



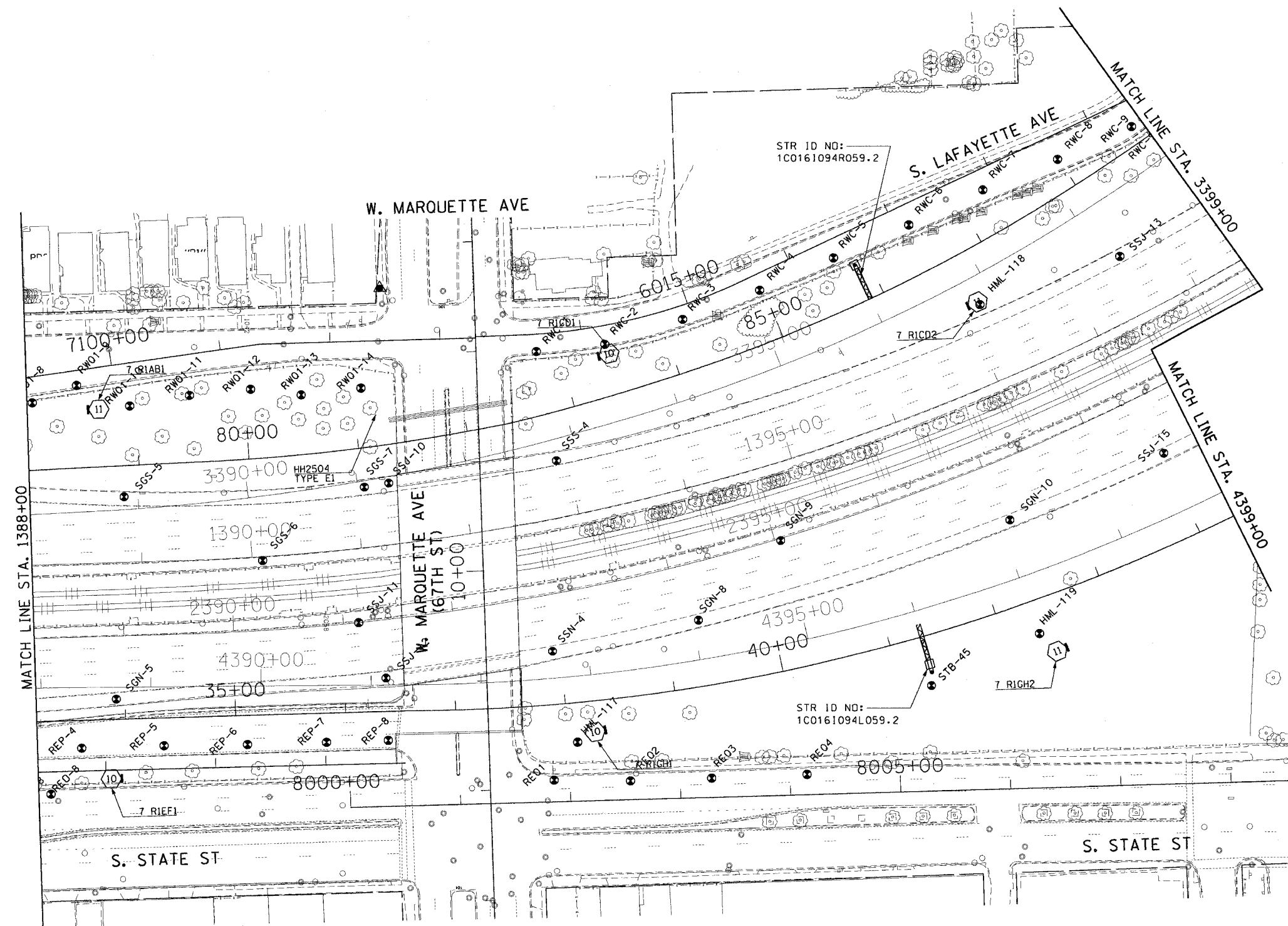
REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 71ST STREET TO 31ST STREET (NB EXPRESS LANES)
SOIL BORING LOCATIONS

SCALE: 1"=50'
 DATE: September 16, 2005
 DRAWN BY: PHP
 CHECKED BY: JAL

9/16/2005 9:27:38 AM

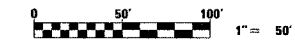
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	556	384C
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
(1818, ETC, 2324.6-1PR-8		62300		



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- RED : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



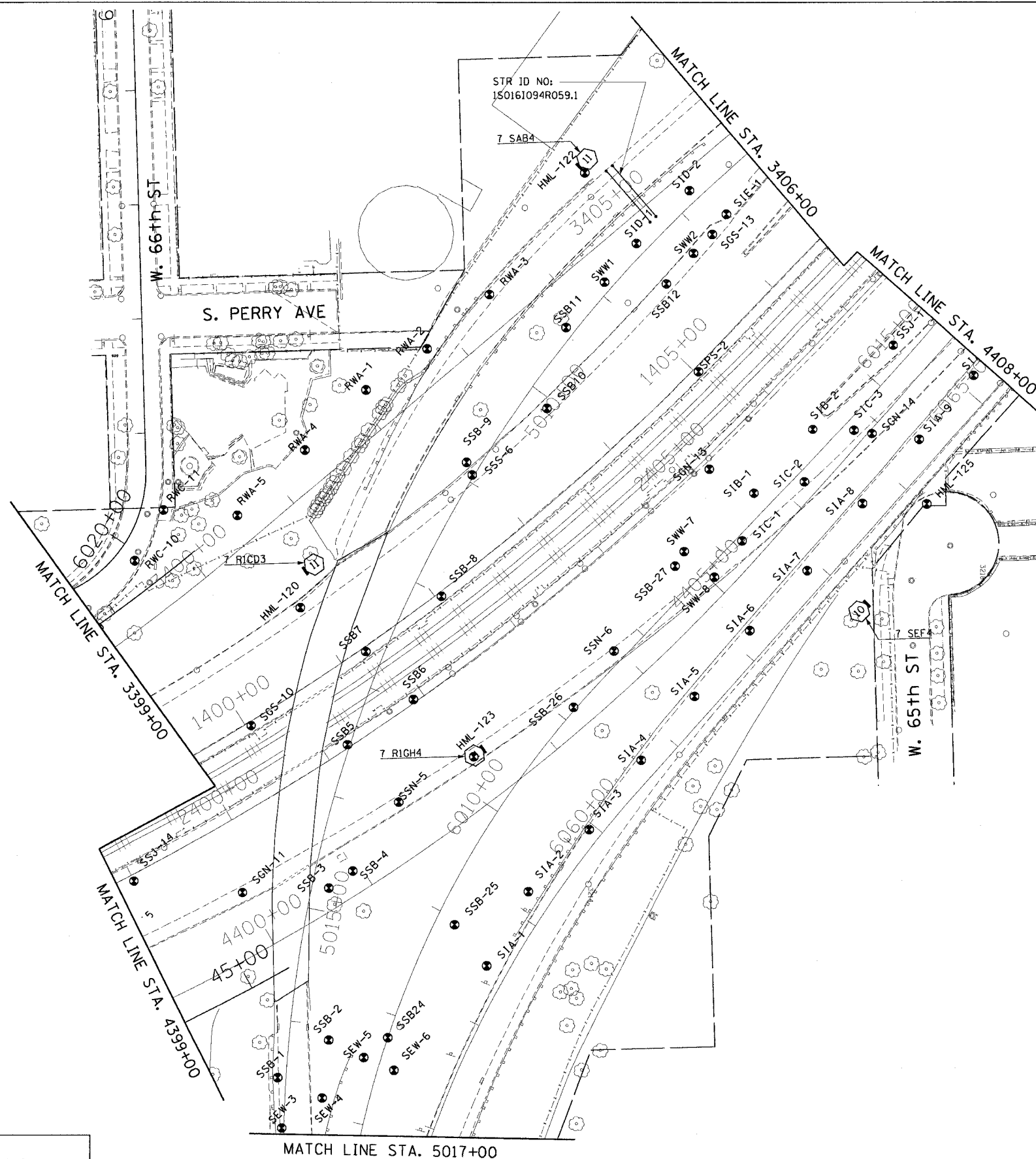
REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 71ST STREET TO 31ST STREET (NB EXPRESS LANES)
 SOIL BORING LOCATIONS

SCALE: 1"=50'
 DATE: September 16, 2005
 DRAWN BY: PHP
 CHECKED BY: JAL

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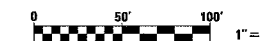
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	3840
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	62300	
• (1818, ETC. 2324.6-1PR-8				



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW,SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

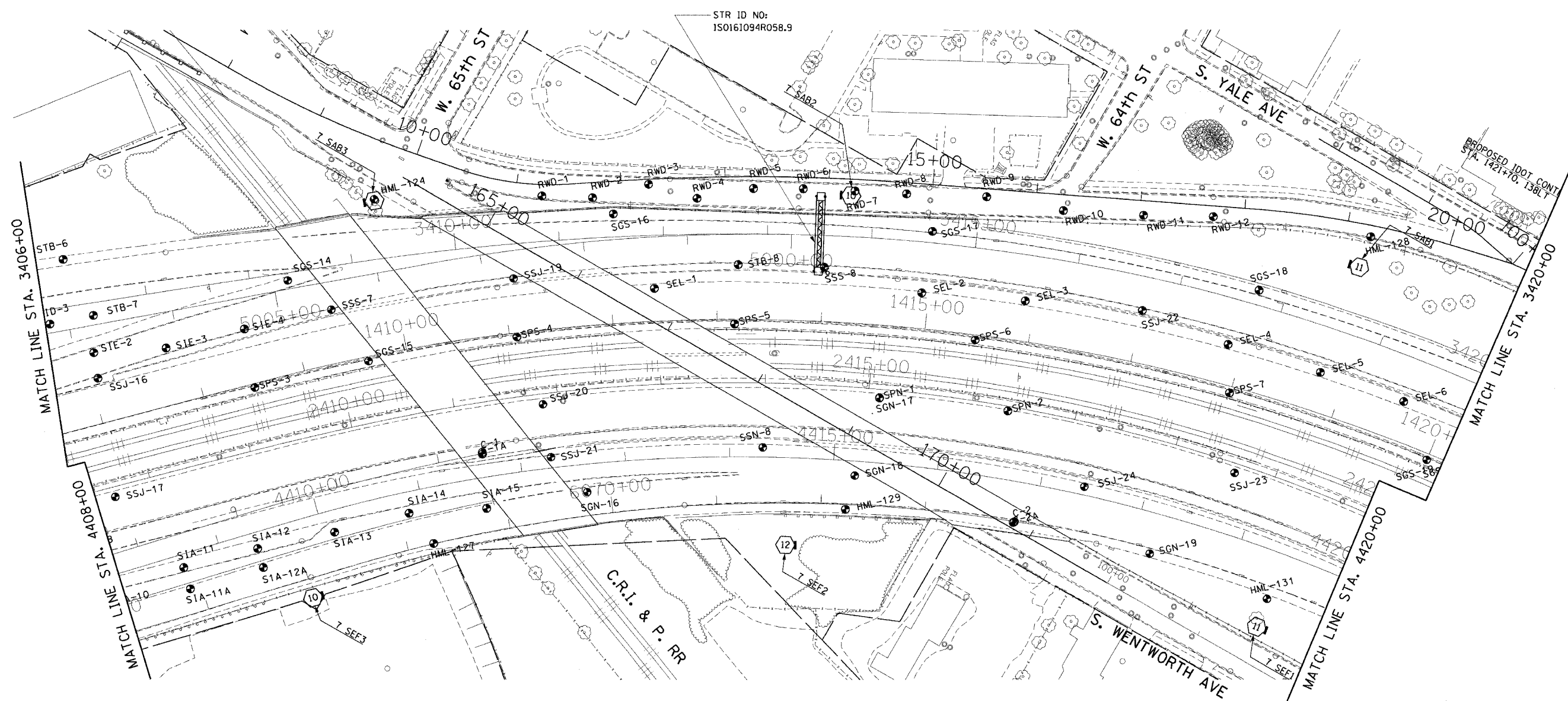
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
 DATE: September 16, 2005
 DRAWN BY: PHP
 CHECKED BY: JAL

9/18/2005 9:28:40 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384E
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (1818, ETC, 2324.6-1P1R-8			62300	



STR ID NO:
1S0161094R058.9

PROPOSED IDOT CONT.
STA. 1421+00, 1381

MATCH LINE STA. 3406+00

MATCH LINE STA. 3420+00

MATCH LINE STA. 4408+00

MATCH LINE STA. 4420+00

LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- RED : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
DATE: September 16, 2005
DRAWN BY: PHP
CHECKED BY: JAL

9/18/2005 9:29:02 AM

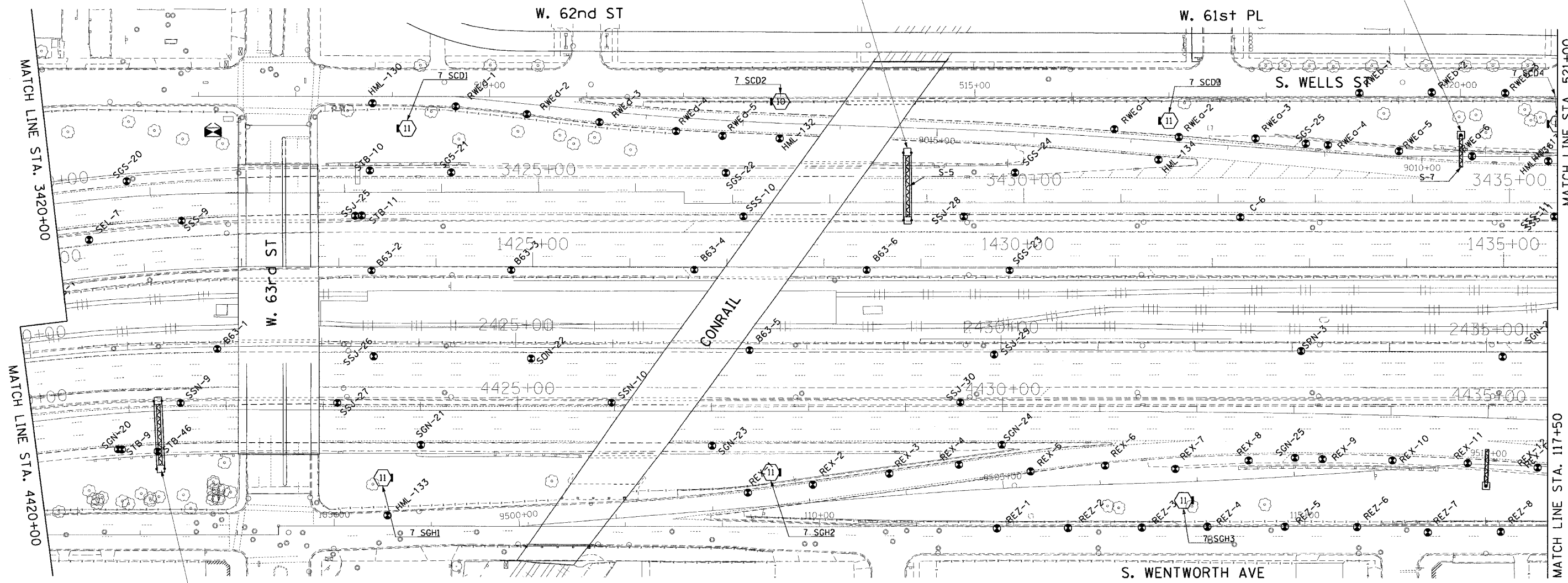
F.A.I. RTE. 90/94	SECTION •	COUNTY COOK	TOTAL SHEETS 556	SHEET NO. 384F
STA. •	TO STA.		FED. AID PROJECT 62300	
FED. ROAD DIST. NO. 1 ILLINOIS • (1818, ETC, 2324.6-IPR-8)				



STR ID NO:
150161094R058.6

STR ID NO:
1C0161094R058.5

STR ID NO:
150161094L058.8



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REZ : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)

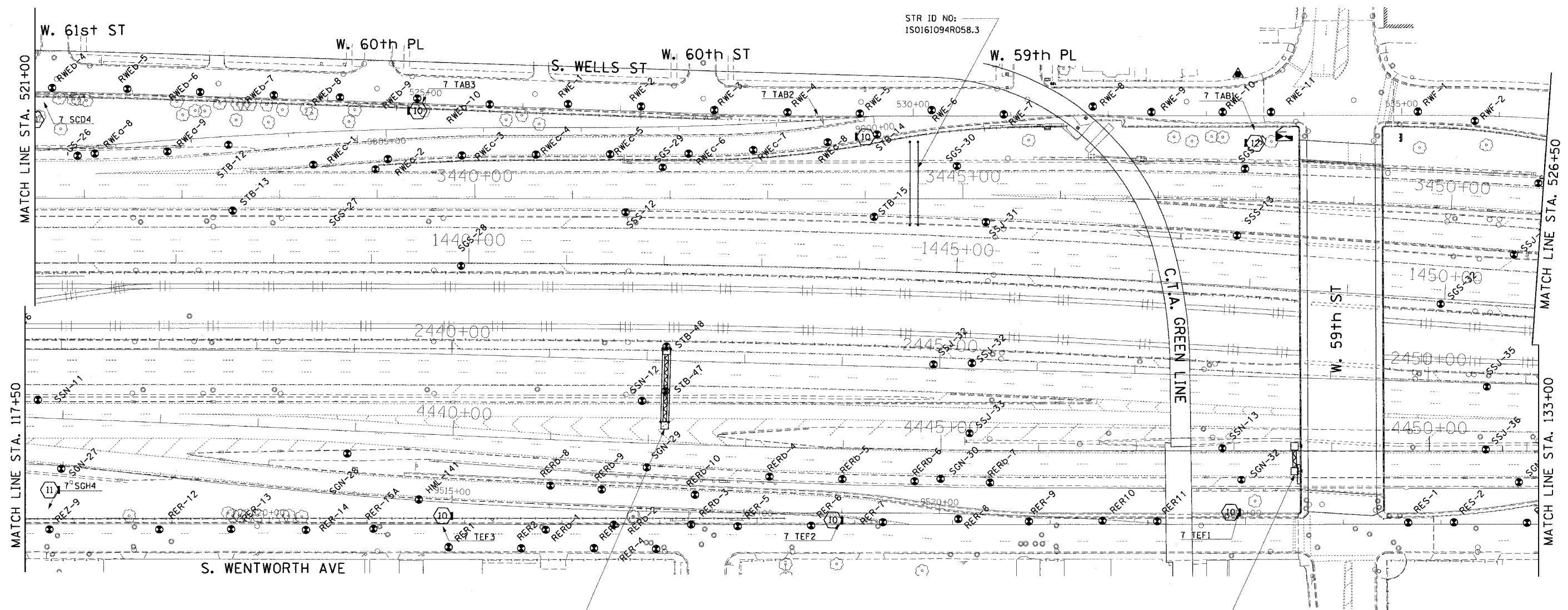
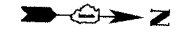
SOIL BORING LOCATIONS

SCALE: 1"=50'
DATE: September 16, 2005
DRAWN BY: PHP
CHECKED BY: JAL



P:\PROJECTS\9094\94058\94058.DWG

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384G
STA.	TO STA.		FED. AID PROJECT	
			• (181B, ETC, 2324.6-1P1R-8	
			62300	



STR ID NO:
150161094L058.4

LEGEND FOR BORINGS

- ===== PROPOSED SIGN STRUCTURE
- (H) HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW,SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

STR ID NO:
1B0161094L058.2

▲ ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

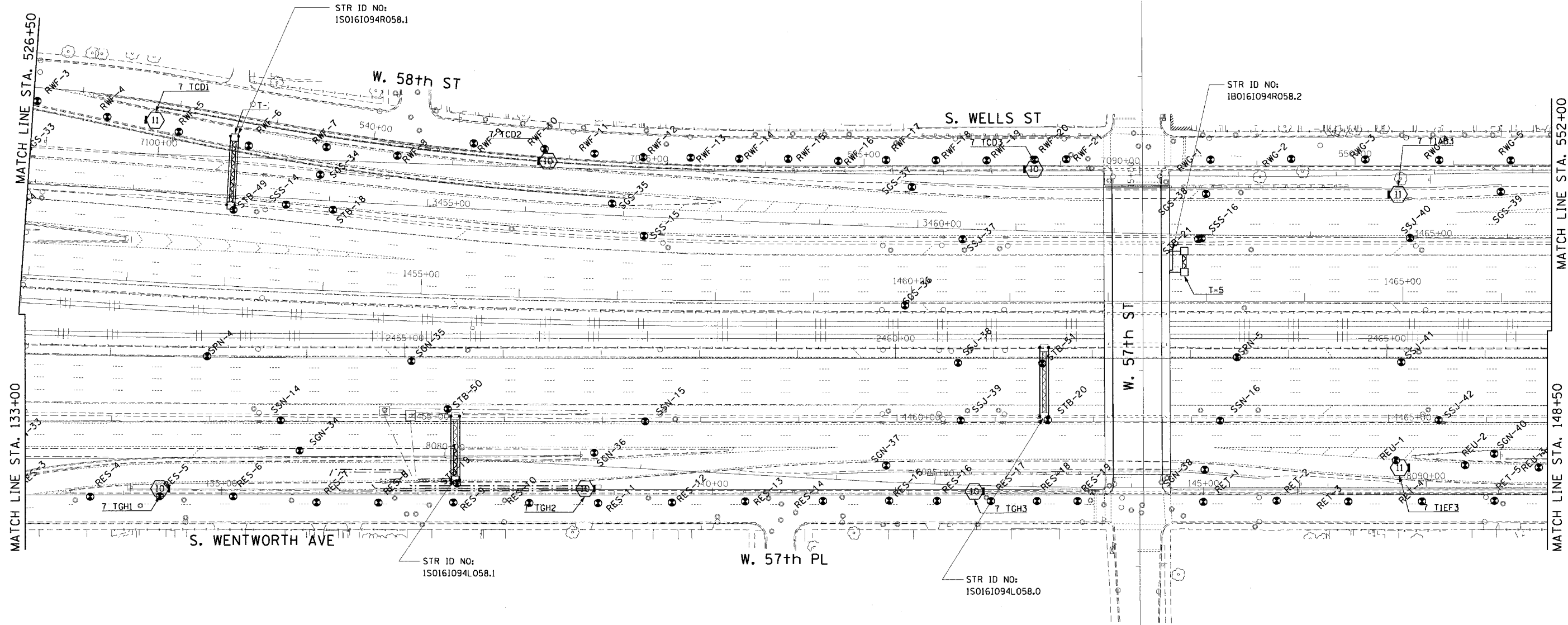
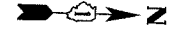
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
DATE: September 16, 2005
DRAWN BY: PHP
CHECKED BY: JAL

9/18/2005 9:30:44 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384H
STA.	TO STA.		FED. AID PROJECT	
			11B18, ETC, 2324.6-1P1R-8	
			62300	



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

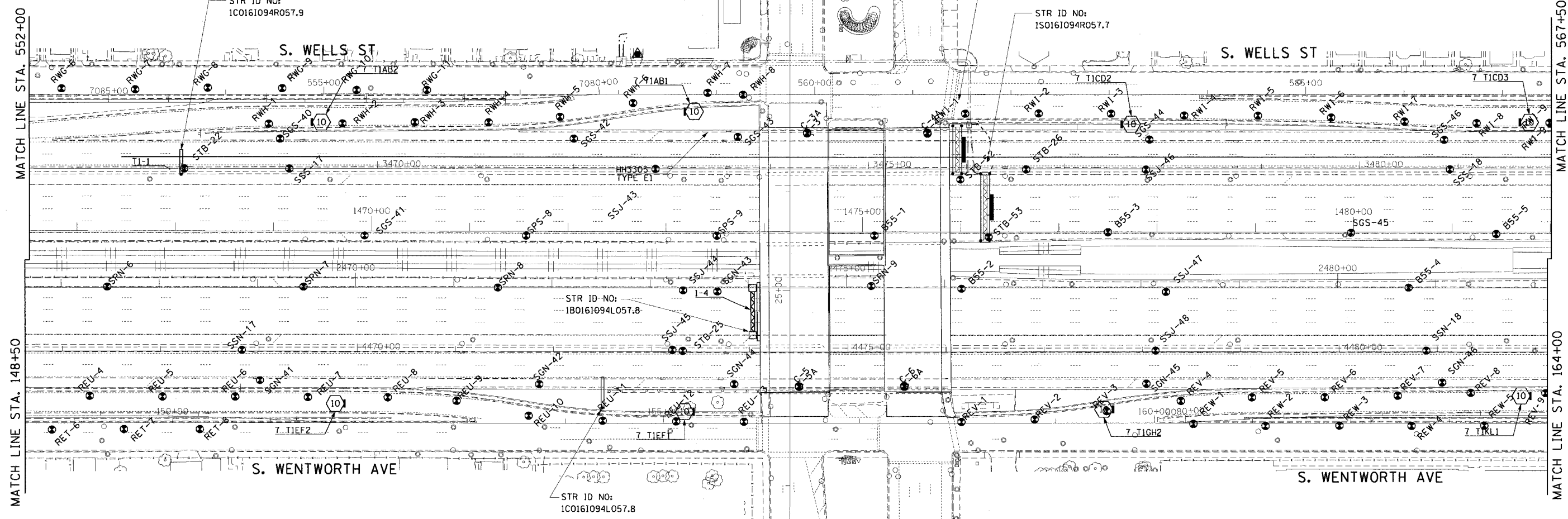
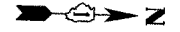
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
 DATE: September 16, 2005
 DRAWN BY: PHP
 CHECKED BY: JAL

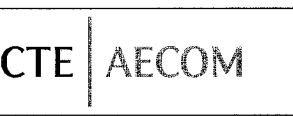
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F.A.I. RTE. 90/94	SECTION •	COUNTY COOK	TOTAL SHEETS 556	SHEET NO. 3841
STA. FED. ROAD DIST. NO. 1	TO STA. ILLINOIS	FED. AID PROJECT • (1818, ETC, 2324.6-JPR-8	62300	



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05



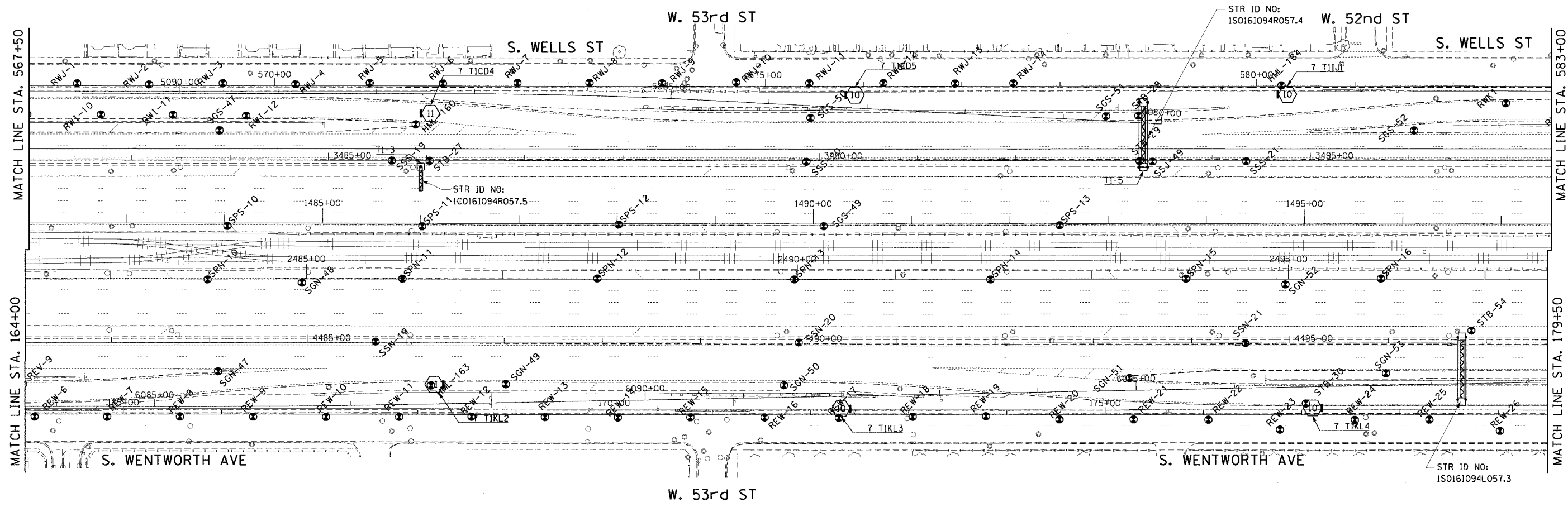
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
DATE: September 16, 2005
DRAWN BY: PHP
CHECKED BY: JAL

9/16/2005 9:34:47 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384J
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• 11B18, ETC, 2324.6-1P1R-8			62300	



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- RED : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW, SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

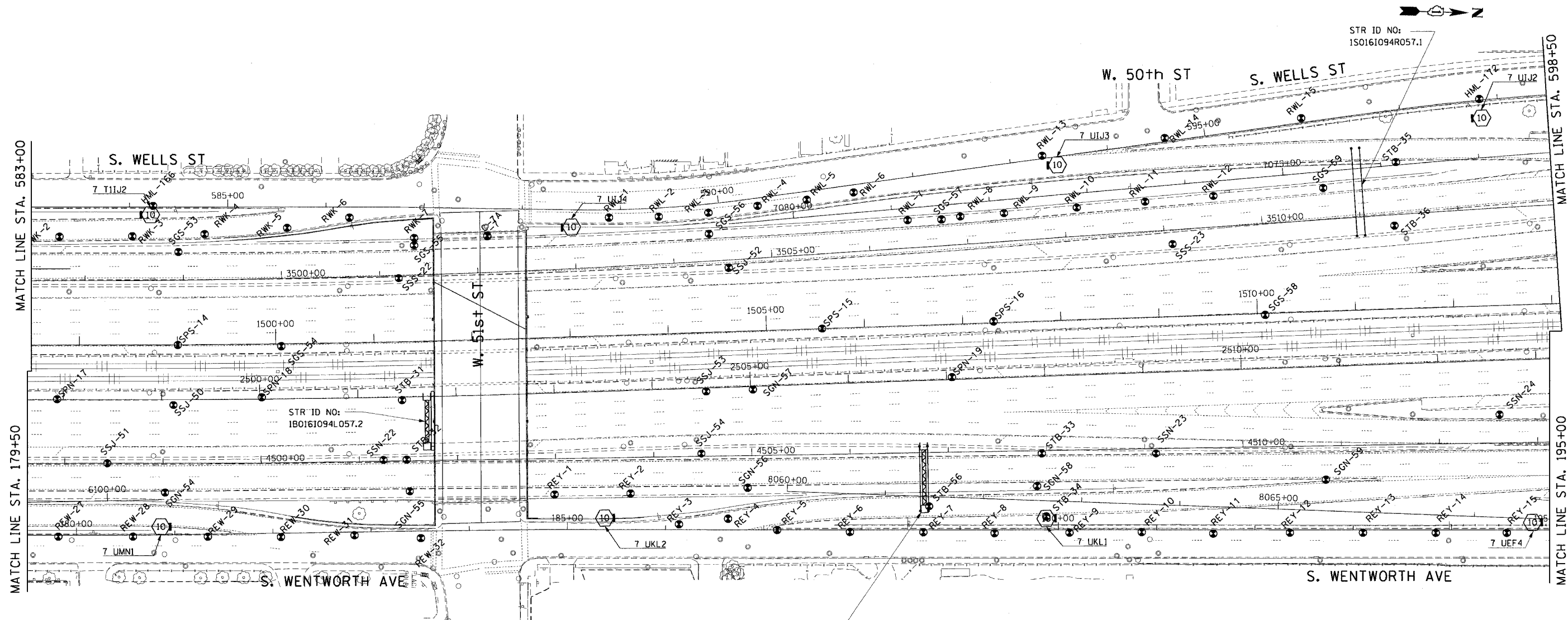
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
 DATE: September 16, 2005
 DRAWN BY: PHP
 CHECKED BY: JAL

9/16/2005 9:32:50 AM
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F.A.I. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	COOK	556	384K
STA. TO STA.		FED. AID PROJECT	
FED. ROAD DIST. NO. 1 ILLINOIS		• 0818, ETC, 2324.6-1PR-8	
			62300



STR ID NO:
1S0161094L057.1

LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE

- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

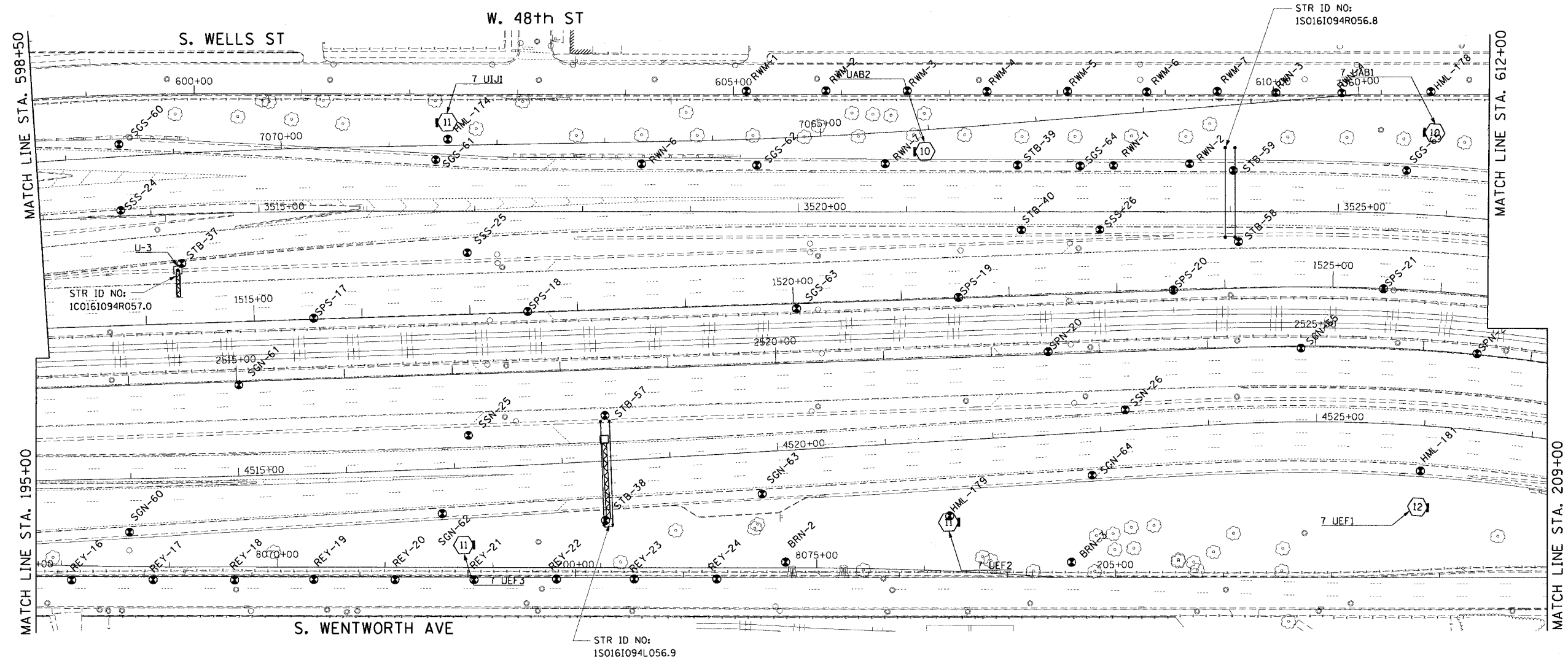
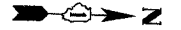
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
DATE: September 16, 2005
DRAWN BY: PHP
CHECKED BY: JAL

CTE | AECOM

9/8/2005 9:33:44 AM



LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

ADDED SHEET



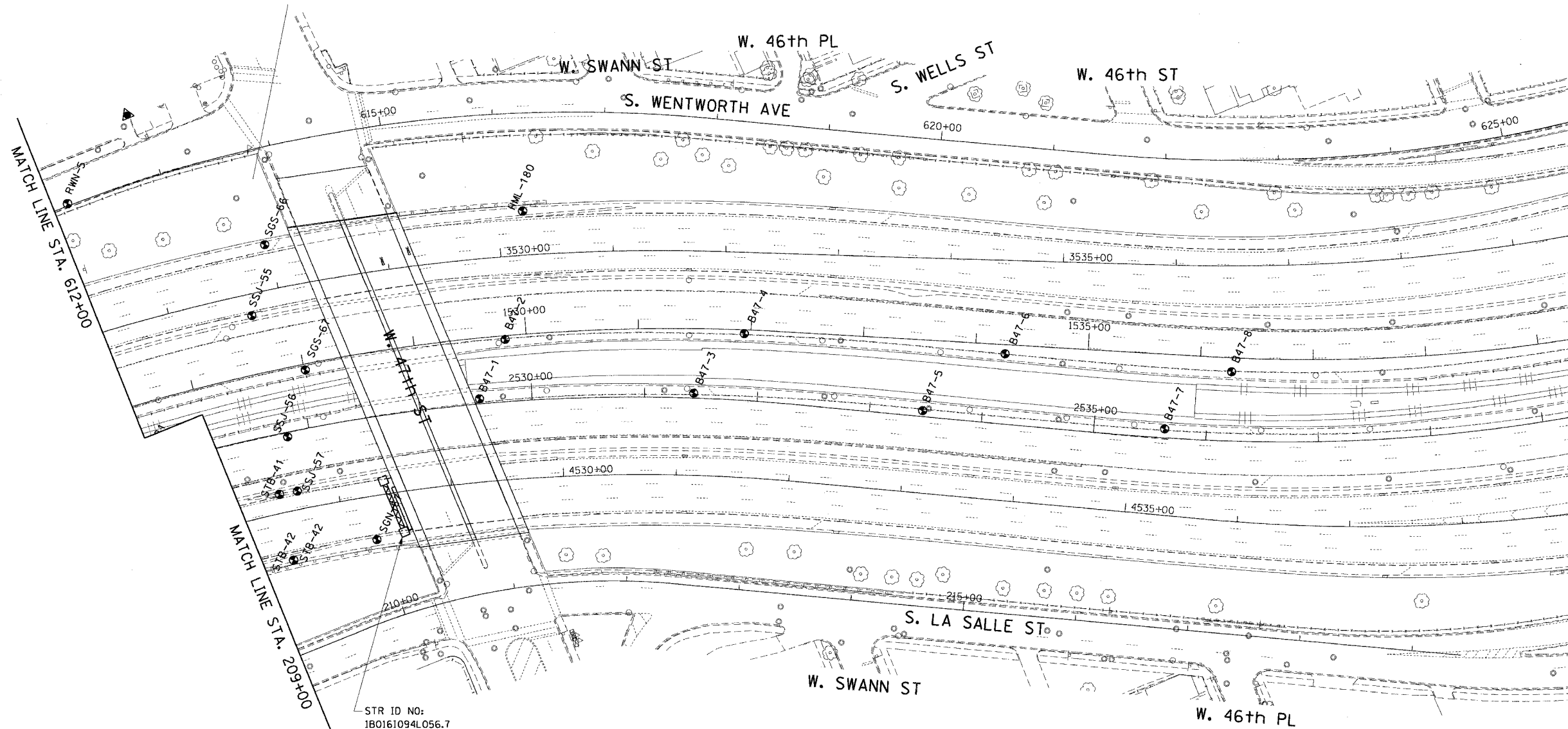
REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 71ST STREET TO 31ST STREET (NB EXPRESS LANES)
 SOIL BORING LOCATIONS

SCALE: 1"=50'
 DATE: September 16, 2005
 DRAWN BY: PHP
 CHECKED BY: JAL

9/18/2005 9:33:35 AM

F.A.I. RTE. 90/94	SECTION •	COUNTY COOK	TOTAL SHEETS 556	SHEET NO. 384M
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS				FED. AID PROJECT
• (1818, ETC, 2324.6-1PR-8				62300

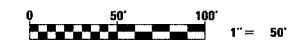


STR ID NO:
1B0161094L056.7

LEGEND FOR BORINGS

- PROPOSED SIGN STRUCTURE
- ⊠ HIGH MAST LIGHT POLE
- HML : HIGH MAST LIGHT POLE
- REO : RETAINING WALL, EAST SIDE, WALL-O
- REW : RETAINING WALL, EAST SIDE, WALL-W
- RWC : RETAINING WALL, WEST SIDE, WALL-C
- RWL : RETAINING WALL, WEST SIDE, WALL-L
- SIA : RETAINING WALL, INTERCHANGE, WALL IA
- SSN : STORM SEWER, NORTHBOUND
- SSS : STORM SEWER, SOUTHBOUND
- SSJ : STORM SEWER, JACKING
- STB : SIGN STRUCTURE
- SSB : BRIDGE
- SEW.SWW : BRIDGE
- SGN : SUBGRADE, NORTHBOUND
- SGS : SUBGRADE, SOUTHBOUND
- BRN : 47th ST. RAMP
- C : CORING

▲ ADDED SHEET



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)

SOIL BORING LOCATIONS

SCALE: 1"=50'
DATE: September 16, 2005
DRAWN BY: PHP
CHECKED BY: JAL

9/18/2005 9:44:05 AM F:\P\40466\CIVIL\CONTRIS\SW SOIL BORING\CLASBP\4043A.DWG



Illinois Department of Transportation
SOIL BORING LOG

Page 1 of 1

Date 6/28/85

ROUTE F.A.I. 90 / I-94		DESCRIPTION Dan Ryan Expressway (I-91-419-81)		LOGGED BY	R.P.
SECTION		LOCATION Chicago, Illinois			
COUNTY Cook		DRILLING METHOD	Hollow Stem Auger	HAMMER TYPE	Automatic
STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	S	Stream Bed Elev.
BORING NO. SPN-07	P	W	O	S	Groundwater Elev.
Station 2469+46.51	H	S	O	T	First Encounter
Offset 8.91 ft LT					Upon Completion
Ground Surface Elev. 256	ft	#/	W/	ft	After
					Hrs.
Asphalt, 3"	0	0	0	0	Hard / Very Dense
Concrete, 15"	0	0	0	0	Gray SILTY CLAY LOAM / SILTY LOAM (continued)
Gravel and Sub Base, some Clay FILL	1.65	6	3	15.0	16 5.4 11.0
	3	3			20 S
	-8.44				
Stiff to Very Stiff Gray CLAY	2	3	1.8	15.0	16 7.3 18.0
	3	3	B		24 26 S
	-5				
	2	3	2.8	18.0	
	3	3	B		
	-7.44				
Very Stiff Gray SILTY CLAY LOAM	3	3	2.2	15.0	
	5	5	B		
	3	3	2.5	15.0	
	5	5	B		
	-12.44				
Hard / Very Dense Gray SILTY CLAY LOAM / SILTY LOAM	0	4	2.2	18.0	
	11	13	S		
	8	14	5.2	11.0	
	16	16	S		
	-28				

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 (ASTM D 1586) BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
SOIL BORING LOG

Page 1 of 1

Date 6/28/85

ROUTE F.A.I. 90 / I-94		DESCRIPTION Dan Ryan Expressway (I-91-419-81)		LOGGED BY	R.P.
SECTION		LOCATION Chicago, Illinois			
COUNTY Cook		DRILLING METHOD	Hollow Stem Auger	HAMMER TYPE	Automatic
STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	S	Stream Bed Elev.
BORING NO. SPN-08	P	W	O	S	Groundwater Elev.
Station 2471+44.84	H	S	O	T	First Encounter
Offset 8.32 ft LT					Upon Completion
Ground Surface Elev. 8.75	ft	#/	W/	ft	After
					Hrs.
Asphalt, 7"	0	0	0	0	Very Stiff to Hard / Very Dense
Concrete, 12"	0	0	0	0	Gray SILTY CLAY LOAM / SILTY LOAM (continued)
Gravel and Sub Base, some Clay FILL	-8.29	3	2.6	18.0	45 350 8.0
		3	B		
	-21.21				
Stiff to Very Stiff Gray SILTY CLAY LOAM	2	4	2.1	18.0	
	4	4	B		
	-5				
	2	3	3.8	18.0	
	4	4	B		
	-11.71				
Very Stiff to Hard / Very Dense Gray SILTY CLAY LOAM / SILTY LOAM	3	3	2.6	18.0	
	5	5	B		
	3	4	2.6	19.0	
	5	5	B		
	-16				
	6	12	6.6	11.0	
	11	11	S		
	10	15	7.5	11.0	
	20	20	S		
	-28				

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 (ASTM D 1586) BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
SOIL BORING LOG

Page 1 of 1

Date 6/28/85

ROUTE F.A.I. 90 / I-94		DESCRIPTION Dan Ryan Expressway (I-91-419-81)		LOGGED BY	R.P.
SECTION		LOCATION Chicago, Illinois			
COUNTY Cook		DRILLING METHOD	Hollow Stem Auger	HAMMER TYPE	Automatic
STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	S	Stream Bed Elev.
BORING NO. SPN-09	P	W	O	S	Groundwater Elev.
Station 2475+25.23	H	S	O	T	First Encounter
Offset 2.28 ft LT					Upon Completion
Ground Surface Elev. 8.15	ft	#/	W/	ft	After
					Hrs.
Asphalt, 3"	0	0	0	0	Very Stiff to Hard / Very Dense
Concrete, 12"	0	0	0	0	Gray SILTY CLAY LOAM / SILTY LOAM (continued)
Gravel and Sub Base, some Clay FILL	-1.28	7	3	17.0	17 28 3.8 12.0
		6	3		50 S
	-2.84				
Stiff to Very Stiff Gray CLAY	2	3	1.8	17.0	
	3	4	B		
	-8				
	3	3	3.8	19.0	
	5	6	B		
	-7.34				
Stiff to Very Stiff Gray SILTY CLAY LOAM	3	4	2.8	23.0	
	3	3	B		
	-10				
	3	3	1.8	13.0	
	3	3	B		
	-14.84				
Very Stiff to Hard / Very Dense Gray SILTY CLAY LOAM / SILTY LOAM	2	3	1.8	14.0	
	4	4	B		
	-15				
	5	6	5.4	13.0	
	6	6	S		
	6	6	S		
	18	18	2.6	12.0	
	19	19	S		
	-28				

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 (ASTM D 1586) BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
SOIL BORING LOG

Page 1 of 1

Date 6/29/85

ROUTE F.A.I. 90 / I-94		DESCRIPTION Dan Ryan Expressway (I-91-419-81)		LOGGED BY	R.P.
SECTION		LOCATION Chicago, Illinois			
COUNTY Cook		DRILLING METHOD	Hollow Stem Auger	HAMMER TYPE	Automatic
STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	S	Stream Bed Elev.
BORING NO. SPN-10	P	W	O	S	Groundwater Elev.
Station 2483+99.29	H	S	O	T	First Encounter
Offset 8.47 ft RT					Upon Completion
Ground Surface Elev. 8.83	ft	#/	W/	ft	After
					Hrs.
Asphalt, 8"	0	0	0	0	Stiff to Very Stiff
Concrete, 9"	0	0	0	0	Gray CLAY (continued)
Sub Base FILL	7.58	17	12	16.0	2 12 16.0
		17	2		13.67
	6.88				
Medium Dense Brown, Coarse SAND	6	2	1.8	17.0	
	10	3	B		
	10	3	B		
	-16.17				
Loose Gray SILT	5	4	2.1		
	4	4			
	-1.33				
Stiff to Very Stiff Gray CLAY	3	3	1.8	28.0	
	4	4	B		
	-10				
	3	4	2.8	19.0	
	4	4	B		
	-30				
	3	4	2.1	19.0	
	4	4	B		
	-30				
	3	4	2.2	19.0	
	4	4	B		
	-10				
	2	3	2.2	28.0	
	4	4	B		
	-28				

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 (ASTM D 1586) BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
SOIL BORING LOG

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Date 6/29/85

ROUTE F.A.I. 90 / I-94		DESCRIPTION Dan Ryan Expressway (I-91-419-81)		LOGGED BY	R.P.
SECTION		LOCATION Chicago, Illinois			
COUNTY Cook		DRILLING METHOD	Hollow Stem Auger	HAMMER TYPE	Automatic
STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	S	Stream Bed Elev.
BORING NO. SPN-11	P	W	O	S	Groundwater Elev.
Station 2485+97.78	H	S	O	T	First Encounter
Offset 8.41 ft LT					Upon Completion
Ground Surface Elev. 18.51	ft	#/	W/	ft	After
					Hrs.
Asphalt, 8"	0	0	0	0	Very Stiff
Concrete, 18"	0	0	0	0	Gray SILTY CLAY LOAM (continued)
Sub Base FILL	9.28	10	4	15.0	3 2.0 15.0
		15	4		4 B
	7.78				
Dense Brown, Coarse SAND	12	2	2.8	13.0	
	15	3	B		
	15	5	2.8	13.0	
	18	4	B		
	-14.39				
Loose to Medium Dense Gray SILT	9	9	16.0		
	4	4			
	-38				
Very Stiff Gray CLAY	2	2	2.3		
	3	3			
	-38				
	2	4	2.1	28.0	
	5	5	B		
	-38				
	3	4	2.4	19.0	
	5	5	S		
	-38				
	3	4	2.4	12.0	
	5	5	B		
	-6.81				
Very Stiff Gray SILTY CLAY LOAM	3	3	2.8	18.0	
	5	5	B		
	-28				

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 (ASTM D 1586) BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
SOIL BORING LOG

Page 1 of 1

Date 6/29/85

ROUTE F.A.I. 90 / I-94		DESCRIPTION Dan Ryan Expressway (I-91-419-81)		LOGGED BY	R.P.
SECTION		LOCATION Chicago, Illinois			
COUNTY Cook		DRILLING METHOD	Hollow Stem Auger	HAMMER TYPE	Automatic
STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	S	Stream Bed Elev.
BORING NO. SPN-12	P	W	O	S	Groundwater Elev.
Station 2487+96.28	H	S	O	T	First Encounter
Offset 8.38 ft LT					Upon Completion
Ground Surface Elev. 11.43	ft	#/	W/	ft	After
					Hrs.
Asphalt, 3"	0	0	0	0	Very Stiff / Medium Dense
Concrete, 15"	0	0	0	0	Gray SILTY CLAY LOAM / SILTY LOAM
Sub Base FILL	9.93	12	5	15.0	4 3.8 15.0
		16	7		7 B
	8.43				
Dense Brown, Coarse SAND, trace silt	8	4	2.8	17.0	
	17	4	B		
	17	4	2.8	17.0	
	15	5	B		
	-13.57				
Loose to Medium Dense Gray SILT	10	9	24.0		
	9	9			
	-24.0				
	2	2	22.0		
	2	2			
	-38				
Very Stiff Gray CLAY	3	4	2.5	19.0	
	5	5	S		
	-38				
	2	3	2.2	19.0	
	5	5	B		
	-38				
	3	4	2.2	18.0	
	5	5	B		
	-6.87				
Very Stiff Gray SILTY CLAY LOAM	4	3	3.8	19.	



Illinois Department of Transportation
Division of Highways
AMERICAN ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 6/29/05

ROUTE		DESCRIPTION		LOCATION		LOGGED BY							
F.A.I. 90 / I-94		Dan Ryan Expressway (I-91-419-81)		Chicago, Illinois		R.P.							
SECTION		LOCATION		COUNTY		DRILLING METHOD							
		Chicago, Illinois		Cook		Hollow Stem Auger							
						HAMMER TYPE							
						Automatic							
STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	ft	D	B	U	M	Stream Bed Elev.	ft
		P	L	C	O			P	L	C	O		
		H	W	S	I			H	W	S	I		
BORING NO. SPN-13		Station 2459+96.99		Groundwater Elev.		7.1		ft		H		W	
		Offset 8.85 ft		Upon Completion						ft		H	
		Ground Surface Elev. 11.87		After						ft		H	
Asphalt, 2"		Concrete, 16"		Silty to Very Stiff		Gray		SILTY CLAY LOAM (continued)		ft		H	
Sub Base		FILL		Hard / Medium Dense		Gray		SILTY CLAY LOAM / SILTY		ft		H	
Loose to Medium Dense		Brown to Gray, Wet SAND		End of Boring						ft		H	
Very Loose		Gray		SILT						ft		H	
Silty to Very Stiff		Gray		SILTY CLAY LOAM						ft		H	

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
AMERICAN ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 6/29/05

ROUTE		DESCRIPTION		LOCATION		LOGGED BY							
F.A.I. 90 / I-94		Dan Ryan Expressway (I-91-419-81)		Chicago, Illinois		R.P.							
SECTION		LOCATION		COUNTY		DRILLING METHOD							
		Chicago, Illinois		Cook		Hollow Stem Auger							
						HAMMER TYPE							
						Automatic							
STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	ft	D	B	U	M	Stream Bed Elev.	ft
		P	L	C	O			P	L	C	O		
		H	W	S	I			H	W	S	I		
BORING NO. SPN-14		Station 2491+96.64		Groundwater Elev.		5.4		ft		H		W	
		Offset 8.85 ft		Upon Completion						ft		H	
		Ground Surface Elev. 5.48		After						ft		H	
Asphalt, 2"		Concrete, 16"		Very Stiff		Gray		SILTY CLAY LOAM (continued)		ft		H	
Sub Base		FILL		Hard / Medium Dense		Gray		SILTY CLAY LOAM / SILTY		ft		H	
Medium Dense		Brown, Coarse, Wet SAND		End of Boring						ft		H	
Loose to Medium Dense		Gray		SILT						ft		H	
Very Stiff		Gray		SILTY CLAY LOAM						ft		H	

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
AMERICAN ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 6/29/05

ROUTE		DESCRIPTION		LOCATION		LOGGED BY							
F.A.I. 90 / I-94		Dan Ryan Expressway (I-91-419-81)		Chicago, Illinois		R.P.							
SECTION		LOCATION		COUNTY		DRILLING METHOD							
		Chicago, Illinois		Cook		Hollow Stem Auger							
						HAMMER TYPE							
						Automatic							
STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	ft	D	B	U	M	Stream Bed Elev.	ft
		P	L	C	O			P	L	C	O		
		H	W	S	I			H	W	S	I		
BORING NO. SPN-15		Station 2493+96.72		Groundwater Elev.		Dry		ft		H		W	
		Offset 8.45 ft		Upon Completion						ft		H	
		Ground Surface Elev. 7.44		After						ft		H	
Asphalt, 2"		Concrete, 16"		Hard / Medium Dense		Gray		SILTY CLAY LOAM / SILTY		ft		H	
Sub Base		FILL		Medium Dense		Brown		SAND with Silt		ft		H	
Loose to Medium Dense		Gray		SILT						ft		H	
Very Stiff		Gray		CLAY						ft		H	
Very Stiff		Gray		SILTY CLAY LOAM						ft		H	

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
AMERICAN ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 6/30/05

ROUTE		DESCRIPTION		LOCATION		LOGGED BY							
F.A.I. 90 / I-94		Dan Ryan Expressway (I-91-419-81)		Chicago, Illinois		R.P.							
SECTION		LOCATION		COUNTY		DRILLING METHOD							
		Chicago, Illinois		Cook		Hollow Stem Auger							
						HAMMER TYPE							
						Automatic							
STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	ft	D	B	U	M	Stream Bed Elev.	ft
		P	L	C	O			P	L	C	O		
		H	W	S	I			H	W	S	I		
BORING NO. SPN-16		Station 2495+94.88		Groundwater Elev.		1.4		ft		H		W	
		Offset 8.63 ft		Upon Completion						ft		H	
		Ground Surface Elev. 5.37		After						ft		H	
Asphalt, 2"		Concrete, 16"		Hard / Medium Dense		Gray		SILTY CLAY LOAM / SILTY		ft		H	
Sub Base		FILL		Medium Dense		Brown, Coarse, Wet SAND		End of Boring		ft		H	
Silty to Very Stiff		Gray		CLAY						ft		H	
Very Stiff		Gray		SILTY CLAY LOAM						ft		H	

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
AMERICAN ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 6/30/05

ROUTE		DESCRIPTION		LOCATION		LOGGED BY							
F.A.I. 90 / I-94		Dan Ryan Expressway (I-91-419-81)		Chicago, Illinois		R.P.							
SECTION		LOCATION		COUNTY		DRILLING METHOD							
		Chicago, Illinois		Cook		Hollow Stem Auger							
						HAMMER TYPE							
						Automatic							
STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	ft	D	B	U	M	Stream Bed Elev.	ft
		P	L	C	O			P	L	C	O		
		H	W	S	I			H	W	S	I		
BORING NO. SPN-17		Station 2497+93.71		Groundwater Elev.		Dry		ft		H		W	
		Offset 8.48 ft		Upon Completion						ft		H	
		Ground Surface Elev. 3.48		After						ft		H	
Asphalt, 2"		Concrete, 16"		Hard / Dense		Gray		SILTY CLAY LOAM / SILTY		ft		H	
Sub Base		FILL		Very Stiff to Hard		Gray		SILTY CLAY LOAM		ft		H	
Medium Dense		Brown, Coarse, Wet SAND		2-inch Silt Seen		End of Boring				ft		H	
Silty to Very Stiff		Gray		CLAY						ft		H	
Very Stiff		Gray		SILTY CLAY LOAM						ft		H	

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
AMERICAN ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 6/30/05

ROUTE		DESCRIPTION		LOCATION		LOGGED BY							
F.A.I. 90 / I-94		Dan Ryan Expressway (I-91-419-81)		Chicago, Illinois		R.P.							
SECTION		LOCATION		COUNTY		DRILLING METHOD							
		Chicago, Illinois		Cook		Hollow Stem Auger							
						HAMMER TYPE							
						Automatic							
STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	ft	D	B	U	M	Stream Bed Elev.	ft
		P	L	C	O			P	L	C	O		
		H	W	S	I			H	W	S	I		
BORING NO. SPN-18		Station 2500+82.13		Groundwater Elev.		Dry		ft		H		W	
		Offset 1.87 ft		Upon Completion						ft		H	
		Ground Surface Elev. 1.29		After						ft		H	
Asphalt, 2"		Concrete, 16"		Hard / Dense		Gray		SILTY CLAY LOAM / SILTY		ft		H	
Sub Base		FILL		Very Stiff to Hard		Gray		SILTY CLAY LOAM		ft		H	
Medium Dense		Brown, Coarse, Wet SAND		End of Boring						ft		H	
Silty to Very Stiff		Gray		CLAY						ft		H	
Very Stiff		Gray		SILTY CLAY LOAM / SILTY						ft		H	

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384P
STA. TO STA.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
(1818, ETC, 2324.6-1P)R-8 62300				



REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
SOIL BORING LOGS

SCALE: NONE DRAWN BY: PHP
DATE: September 16, 2005 CHECKED BY: JAL

F.A.I. 90/94	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			556	3840
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (1B1B, ETC, 2324.6-1P1R-8			62300	

Illinois Department of Transportation
SOIL BORING LOG
Page 1 of 1
Date 6/27/05

ROUTE F.A.I. 90 / 1-94 DESCRIPTION Dan Ryan Expressway (I-91-419-81) LOGGED BY RP

SECTION LOCATION Chicago, Illinois

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ LOCATION _____
Station _____

BORING NO. SPN-19
Station 2567+85.61
Offset 2.54 ft LT
Ground Surface Elev. 1.43 ft

DEPTH (ft)	SOIL DESCRIPTION	WATER	TESTS	REMARKS
0	Asphalt, 2"			
0	Concrete, 12"			
0.87	Sub Base FILL			
1.57	Very Stiff Gray SILTY CLAY LOAM			
2				
4				
5				
7				
11.87	Very Stiff to Hard / Dense Gray SILTY CLAY LOAM / SILTY LOAM			
15				
16				
18				
20				

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 (ASTM D 1586)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
SOIL BORING LOG
Page 1 of 1
Date 6/27/05

ROUTE F.A.I. 90 / 1-94 DESCRIPTION Dan Ryan Expressway (I-91-419-81) LOGGED BY RP

SECTION LOCATION Chicago, Illinois

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ LOCATION _____
Station _____

BORING NO. SPN-20
Station 2572+52.62
Offset 2.54 ft LT
Ground Surface Elev. 2.94 ft

DEPTH (ft)	SOIL DESCRIPTION	WATER	TESTS	REMARKS
0	Asphalt, 2"			
0	Concrete, 12"			
1.36	Sub Base FILL			
8.14	Gray Silt and Gravel, little Clay (FILL)			
13				
17				
21				
25				
37				
38				
39				
40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
SOIL BORING LOG
Page 1 of 1
Date 6/27/05

ROUTE F.A.I. 90 / 1-94 DESCRIPTION Dan Ryan Expressway (I-91-419-81) LOGGED BY RP

SECTION LOCATION Chicago, Illinois

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ LOCATION _____
Station _____

BORING NO. SPN-21
Station 2526+49.85
Offset 8.7 ft LT
Ground Surface Elev. -2.85 ft

DEPTH (ft)	SOIL DESCRIPTION	WATER	TESTS	REMARKS
0	Asphalt, 2"			
0	Concrete, 12"			
4.43	Sub Base FILL			
5				
7.65	No Recoveries			
9.35	Auger Refusal at 6.5 feet			
10	End of Boring			

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 (ASTM D 1586)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
SOIL BORING LOG
Page 1 of 1
Date 7/5/05

ROUTE F.A.I. 90 / 1-94 DESCRIPTION Dan Ryan Expressway (I-91-419-81) LOGGED BY RP

SECTION LOCATION Chicago, Illinois

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ LOCATION _____
Station _____

BORING NO. SPN-22
Station 2617+95.98
Offset 8.88 ft LT
Ground Surface Elev. 2.37 ft

DEPTH (ft)	SOIL DESCRIPTION	WATER	TESTS	REMARKS
0	Asphalt, 2"			
0	Concrete, 12"			
8.87	Sub Base FILL			
8.63	Soft to Stiff Gray CLAY			
10				
15				
18				
22.63	End of Boring			
22				
22.8				
24.8				
28				
30				
32.8				
34.8				
36.8				
38.8				
40.8				
42.8				
44.8				
46.8				
48.8				

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 (ASTM D 1586)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
SOIL BORING LOG
Page 1 of 1
Date 7/5/05

ROUTE F.A.I. 90 / 1-94 DESCRIPTION Dan Ryan Expressway (I-91-419-81) LOGGED BY RP

SECTION LOCATION Chicago, Illinois

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ LOCATION _____
Station _____

BORING NO. SPN-23
Station 2619+83.65
Offset 8.83 ft LT
Ground Surface Elev. 8.28 ft

DEPTH (ft)	SOIL DESCRIPTION	WATER	TESTS	REMARKS
0	Asphalt, 2"			
0	Concrete, 12"			
1.14	Sub Base FILL			
3.27	Soft to Stiff Gray CLAY			
5				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				
42				
44				
46				
48				

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 (ASTM D 1586)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
SOIL BORING LOG
Page 1 of 1
Date 7/5/05

ROUTE F.A.I. 90 / 1-94 DESCRIPTION Dan Ryan Expressway (I-91-419-81) LOGGED BY RP

SECTION LOCATION Chicago, Illinois

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ LOCATION _____
Station _____

BORING NO. SPN-24
Station 2621+94.76
Offset 1.42 ft LT
Ground Surface Elev. -1.62 ft

DEPTH (ft)	SOIL DESCRIPTION	WATER	TESTS	REMARKS
0	Asphalt, 2"			
0	Concrete, 12"			
3.28	Sub Base, some Clay (FILL)			
5				
6.62	Soft to Medium Stiff Gray CLAY			
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				
42				
44				
46				
48				

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 (ASTM D 1586)
BBS, from 137 (Rev. 8-99)

ADDED SHEET SB-04

CTE | AECOM

REVISIONS	NAME	DATE
ADDENDUM #2		9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
SOIL BORING LOGS

SCALE: NONE DRAWN BY: PHP
DATE: September 16, 2005 CHECKED BY: JAL

F:\40460\AVI\7-CR\15\SOIL BORING\15-SB-04.DWG



Illinois Department
of Transportation
Division of Highway
Engineering

SOIL BORING LOG

Page 1 of 1
Date 7/5/05
LOGGED BY RP

ROUTE F.A.I. 90 / J-94 DESCRIPTION Dan Ryan Expressway (I-91-419-01) LOCATION Chicago, Illinois
SECTION _____ COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ Station _____
BORING NO. SPN-26 Station 2623+95.36
Offset 8.87 ft LT
Ground Surface Elev. -1.65 ft

DEPTH (ft)	SOIL DESCRIPTION	TEST RESULTS	REMARKS
0.0	Asphalt 8"		
0.8	Concrete 12"		
1.6	Sub Base FILL		
2.0	Soft to Medium Stuff Gray CLAY (continued)		
2.4			
2.8			
3.2			
3.6			
4.0			
4.4			
4.8			
5.2			
5.6			
6.0			
6.4			
6.8			
7.2			
7.6			
8.0			
8.4			
8.8			
9.2			
9.6			
10.0			
10.4			
10.8			
11.2			
11.6			
12.0			

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)



Illinois Department
of Transportation
Division of Highway
Engineering

SOIL BORING LOG

Page 1 of 1
Date 7/5/05
LOGGED BY RP

ROUTE F.A.I. 90 / J-94 DESCRIPTION Dan Ryan Expressway (I-91-419-01) LOCATION Chicago, Illinois
SECTION _____ COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____ Station _____
BORING NO. SPN-26 Station 2623+95.73
Offset 8.75 ft LT
Ground Surface Elev. -1.65 ft

DEPTH (ft)	SOIL DESCRIPTION	TEST RESULTS	REMARKS
0.0	Asphalt 8"		
0.8	Concrete 12"		
1.6	Sub Base FILL		
2.0	Very Soft to Soft Gray CLAY (continued)		
2.4			
2.8			
3.2			
3.6			
4.0			
4.4			
4.8			
5.2			
5.6			
6.0			
6.4			
6.8			
7.2			
7.6			
8.0			
8.4			
8.8			
9.2			
9.6			
10.0			
10.4			
10.8			
11.2			
11.6			
12.0			

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 (ASTM 1286) BBS, From 137 (Rev. 8-99)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	556	384
STA. _____	TO STA. _____		62300	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
• (1818, ETC, 2324.6-1P)R-8				

ADDED SHEET SB-05

CTE | AECOM

REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
SOIL BORING LOGS

SCALE: NONE DRAWN BY: PHP
DATE: September 16, 2005 CHECKED BY: JAL

9/16/2005 9:25:53 AM



Illinois Department of Transportation
Division of Highways
AMERICAN GEOTECHNICAL ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 1/25/05

ROUTE F.A.I. I-94 / I-90 DESCRIPTION Dan Ryan Expressway (I-94-419-01) LOGGED BY RP

SECTION _____ LOCATION Chicago, Illinois
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STREET NO. Station	DEPTH Feet	TYPE	MOISTURE %	SOUNDNESS No. 20	LIQUID LIMIT % (LL)	PLASTICITY INDEX % (PI)	UNIFORMITY COEFFICIENT Cu	CONE RESISTANCE qc (kips/sq ft)	SPT Blows/ft	Soil Description	
										Soil	Remarks
35th Street	0.00										Surface Water Elev. _____ ft. Stream Bed Elev. _____ ft.
	0.14										Groundwater Elev. _____ ft. First Encounter Upon Completion _____ ft. After _____ Hrs. _____ ft.
	3.45										Ground Surface Elev. _____ ft.
	2.95										Asphalt, 6"
	2.45										Concrete, 6"
	0.95										Sub Base (Gravel) (FILL)
	-0.55										Improved Subgrade (FILL)
	11										Soft to Soft Clay
	11		12		16.0						
	11										
	4		8.4		14.0						
	4										
	2		8.7		22.0						
	3										
	2		8.8		21.0						
	2										
	2		8.6		24.0						
	2										
	3		8.7		23.0						
	2										
	3		8.6		24.0						
	3										
	1										
	-16.55										

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (R) (kips/sq ft), (S) (Shear, P) (Penetrometer)
The SPT (N) values is the sum of the last two blow values in each sampling zone (ASTM D1586)

BBS, Form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
AMERICAN GEOTECHNICAL ENGINEERING, INC.

SOIL BORING LOG

Page 1 of 1

Date 1/25/05

ROUTE F.A.I. I-94 / I-90 DESCRIPTION Dan Ryan Expressway (I-94-419-01) LOGGED BY RP

SECTION _____ LOCATION Chicago, Illinois
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STREET NO. Station	DEPTH Feet	TYPE	MOISTURE %	SOUNDNESS No. 20	LIQUID LIMIT % (LL)	PLASTICITY INDEX % (PI)	UNIFORMITY COEFFICIENT Cu	CONE RESISTANCE qc (kips/sq ft)	SPT Blows/ft	Soil Description	
										Soil	Remarks
35th Street	0.00										Surface Water Elev. _____ ft. Stream Bed Elev. _____ ft.
	0.85										Groundwater Elev. _____ ft. First Encounter Upon Completion _____ ft. After _____ Hrs. _____ ft.
	1.35										Ground Surface Elev. _____ ft.
	0.68										Asphalt, 6"
	0.25										Concrete, 6"
	-0.75										Sub Base (Gravel) (FILL)
	15										Improved Subgrade (FILL)
	15										
	7										
	6										
	-23.65										End of Boring
	-5.15										
	2		8.25		21.8						Gray Clay and Sand (FILL)
	2										
	1		8.25		26.0						
	2										
	2		8.65		26.0						Very Soft to Medium Stiff Gray CLAY
	2										
	2		8.25		23.8						
	2										
	1										
	2		8.3		22.8						
	2										
	2		8.5		26.0						
	3										
	1										
	2		8.5		24.0						
	3										

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (R) (kips/sq ft), (S) (Shear, P) (Penetrometer)
The SPT (N) values is the sum of the last two blow values in each sampling zone (ASTM D1586)

BBS, Form 137 (Rev. 8-99)

F.A.I. 90/94	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			556	384U
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			62300	
• (1818, ETC, 2324.6-1P)R-8				

ADDED SHEET SB-08

CTE | AECOM

REVISIONS	
NAME	DATE
ADDENDUM #2	9-16-05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
71ST STREET TO 31ST STREET (NB EXPRESS LANES)
SOIL BORING LOGS

SCALE: NONE DRAWN BY: LAM
DATE: September 16, 2005 CHECKED BY: JAL

9/18/2005 9:26:38 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90 *		COOK	556	385
STA.		TO STA.		
62300		* (1818, ETC, 2324.6-1PJR-8		

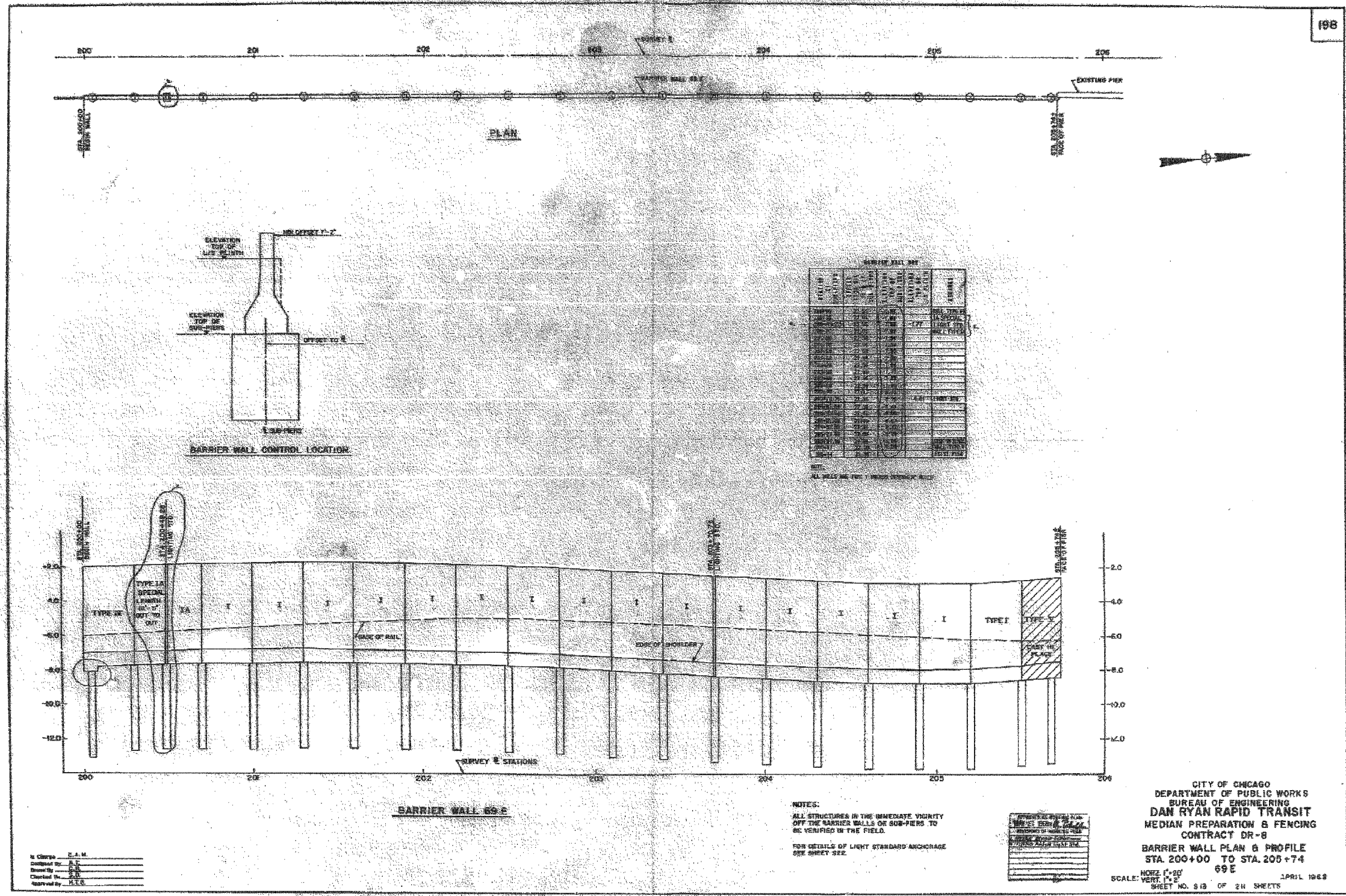


TABLE OF MATERIAL QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	CONCRETE	1200	CU YD
2	STEEL	1500	LB
3	GRAVEL	800	CU YD
4	ASPHALT	100	CU YD
5	PAINT	50	GALES
6	REINFORCING BARS	200	LB
7	FORMWORK	1000	SQ YD
8	BRICK	500	CU YD
9	CEMENT	100	BALES
10	WATER	1000	CU YD
11	ELECTRICITY	100	HOURS
12	LABOR	1000	HOURS
13	TRAVEL	100	HOURS
14	INSURANCE	100	DOLLARS
15	PERMITS	100	DOLLARS
16	TESTING	100	DOLLARS
17	CONTRACTOR'S PROFIT	100	DOLLARS
18	TOTAL	10000	DOLLARS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
DAN RYAN RAPID TRANSIT
MEDIAN PREPARATION & FENCING
CONTRACT DR-8
BARRIER WALL PLAN & PROFILE
STA. 200+00 TO STA. 205+74
69 E
SCALE: HORIZ. 1"=20' VERT. 1"=2'
SHEET NO. 818 OF 24 SHEETS APRIL 1968

NOTES:
ALL STRUCTURES IN THE IMMEDIATE VICINITY OFF THE BARRIER WALLS OR SUB-PIERS TO BE VERIFIED IN THE FIELD.
FOR DETAILS OF LIGHT STANDARD ANCHORAGE SEE SHEET 822.

IN CHARGE: E.A.M.
DESIGNED BY: J.L.
CHECKED BY: J.L.
APPROVED BY: J.L.

SHEET SD-1 OF SD-11

FOR INFORMATION ONLY

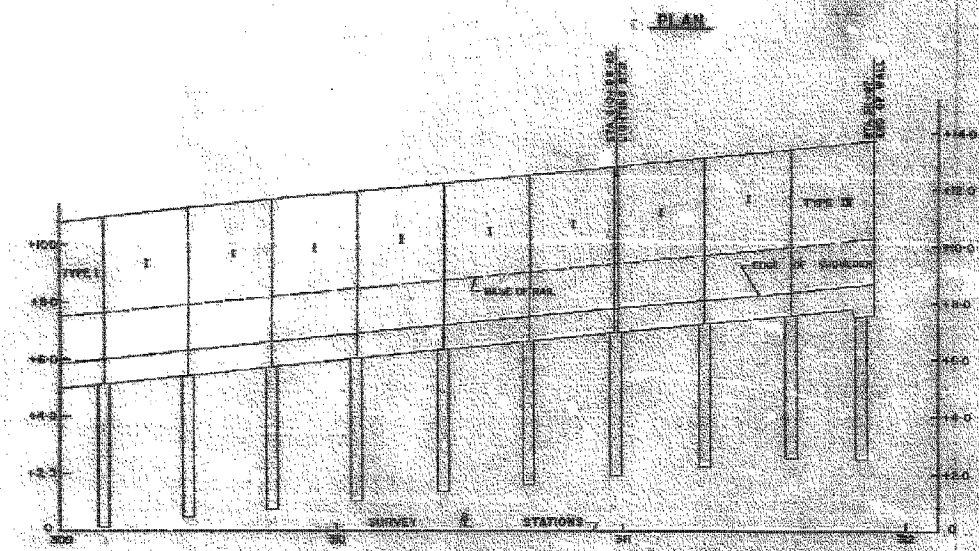
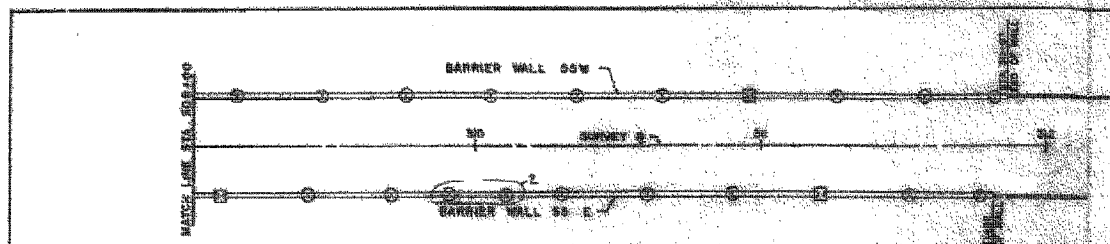
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
EXISTING BARRIER WALL PLANS
AT CTA STATIONS

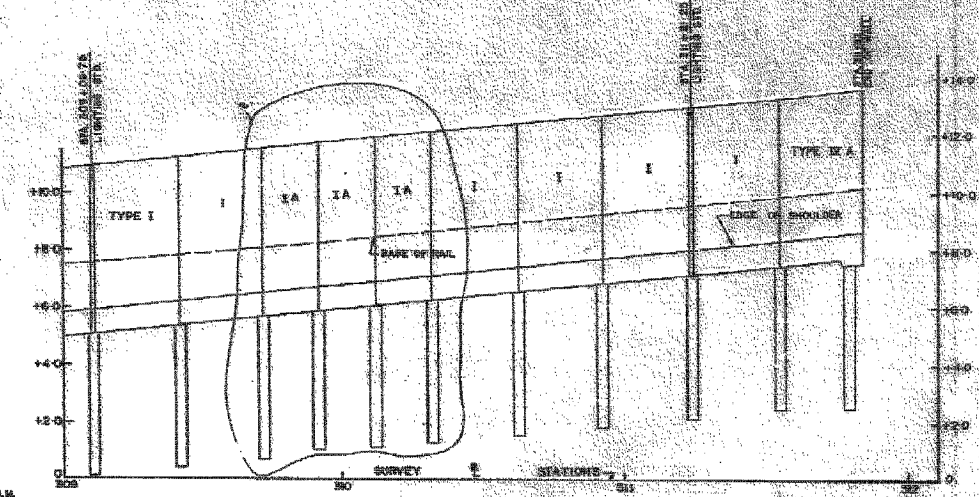
SCALE: NONE
DATE: 7/7/05
DRAWN BY: CTA
CHECKED BY: CTA

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90 *		COOK	556	387
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62300	• (1818, ETC, 2324.6-1PR)-8			

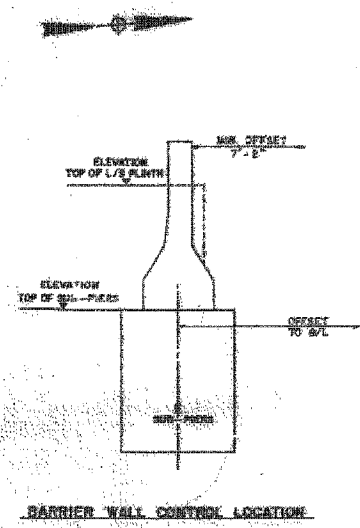


BARRIER WALL 55W



BARRIER WALL 55E

In Charge: E.S.M.
 Designed by: J.L.
 Drawn by: J.D.
 Checked by: J.D.
 Approved by: H.T.B.



BARRIER WALL CONTROL LOCATION

BARRIER WALL 55W						BARRIER WALL 55E					
STATION	TYPE	HEIGHT	WIDTH	SPACING	REMARKS	STATION	TYPE	HEIGHT	WIDTH	SPACING	REMARKS
309+00	I	10.0	4.0	10.0		309+00	I	10.0	4.0	10.0	
309+10	I	10.0	4.0	10.0		309+10	I	10.0	4.0	10.0	
309+20	I	10.0	4.0	10.0		309+20	I	10.0	4.0	10.0	
309+30	I	10.0	4.0	10.0		309+30	I	10.0	4.0	10.0	
309+40	I	10.0	4.0	10.0		309+40	I	10.0	4.0	10.0	
309+50	I	10.0	4.0	10.0		309+50	I	10.0	4.0	10.0	
309+60	I	10.0	4.0	10.0		309+60	I	10.0	4.0	10.0	
309+70	I	10.0	4.0	10.0		309+70	I	10.0	4.0	10.0	
309+80	I	10.0	4.0	10.0		309+80	I	10.0	4.0	10.0	
309+90	I	10.0	4.0	10.0		309+90	I	10.0	4.0	10.0	
310+00	I	10.0	4.0	10.0		310+00	I	10.0	4.0	10.0	
310+10	I	10.0	4.0	10.0		310+10	I	10.0	4.0	10.0	
310+20	I	10.0	4.0	10.0		310+20	I	10.0	4.0	10.0	
310+30	I	10.0	4.0	10.0		310+30	I	10.0	4.0	10.0	
310+40	I	10.0	4.0	10.0		310+40	I	10.0	4.0	10.0	
310+50	I	10.0	4.0	10.0		310+50	I	10.0	4.0	10.0	
310+60	I	10.0	4.0	10.0		310+60	I	10.0	4.0	10.0	
310+70	I	10.0	4.0	10.0		310+70	I	10.0	4.0	10.0	
310+80	I	10.0	4.0	10.0		310+80	I	10.0	4.0	10.0	
310+90	I	10.0	4.0	10.0		310+90	I	10.0	4.0	10.0	
311+00	I	10.0	4.0	10.0		311+00	I	10.0	4.0	10.0	

NOTES:
 ALL WALLS ARE TYPE I UNLESS OTHERWISE NOTED.
 ALL WALLS ARE TYPE I UNLESS OTHERWISE NOTED.

NOTES:
 ALL STRUCTURES IN THE IMMEDIATE VICINITY OF THE BARRIER WALLS OR S/W - PILES TO BE VERIFIED IN THE FIELD.
 FOR DETAILS OF LIGHT STANDARD ANCHORAGE SEE SHEET 9-22

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 DAN RYAN RAPID TRANSIT
 MEDIAN PREPARATION & FENCING
 CONTRACT DR-8
 BARRIER WALL PLAN & PROFILES
 STA. 309+00 TO STA. 311+87
 HORIZ. 1"=20' 55E & 55W
 SCALE: VERT. 1"=2'
 SHEET NO. 3 OF 21 SHEETS

NO.	DATE	BY	REVISION

SHEET SD-3 OF SD-11

FOR INFORMATION ONLY

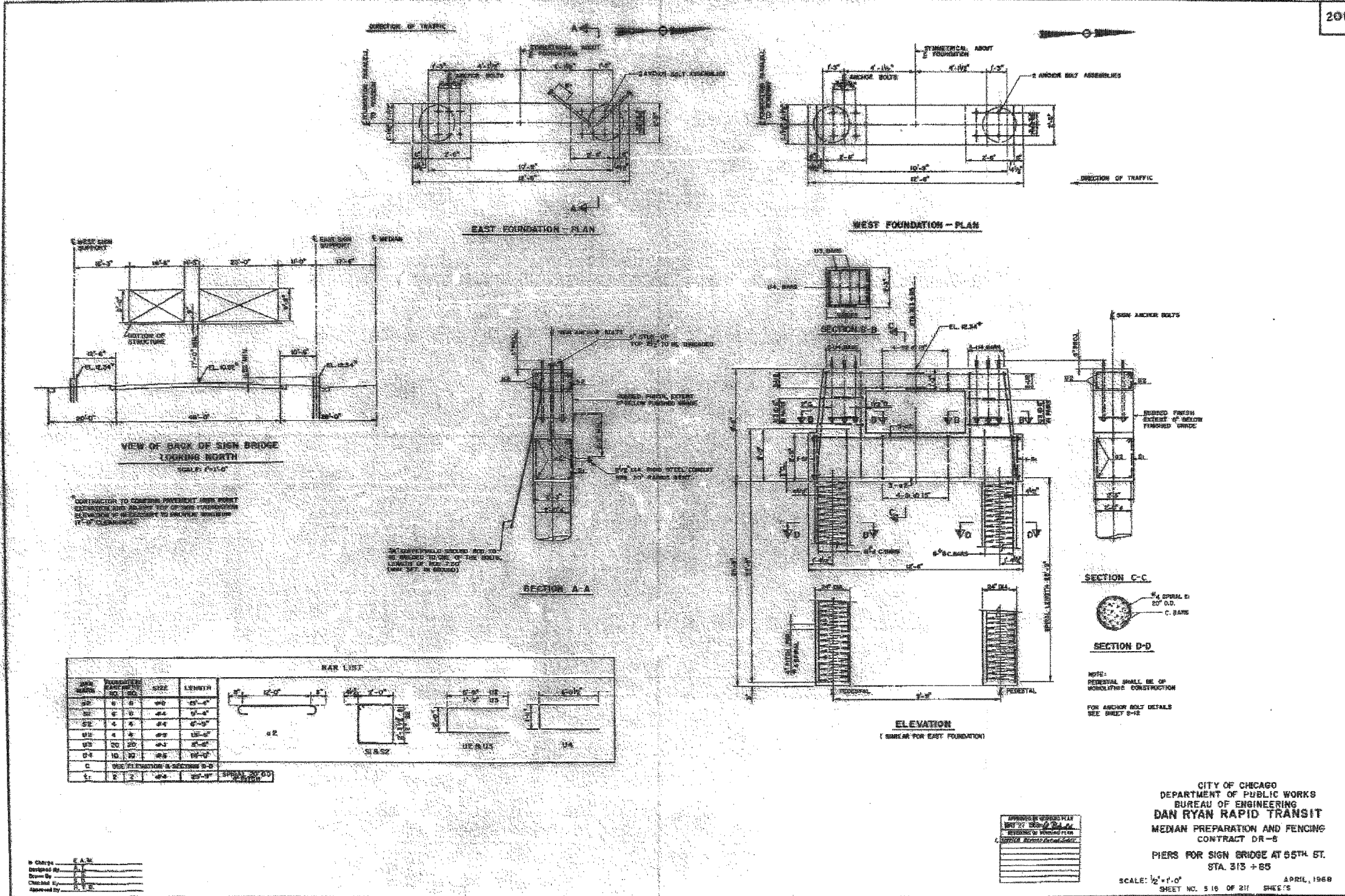
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EDKORP.COM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 EXISTING BARRIER WALL PLANS
 AT CTA STATIONS
 SCALE: NONE
 DATE: 7/7/05
 DRAWN BY: CTA
 CHECKED BY: CTA

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	388
STA.	TO STA.			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62300		• (1818, ETC, 2324.6-1PR-8		

201



SHEET SD-4 OF SD-11

FOR INFORMATION ONLY

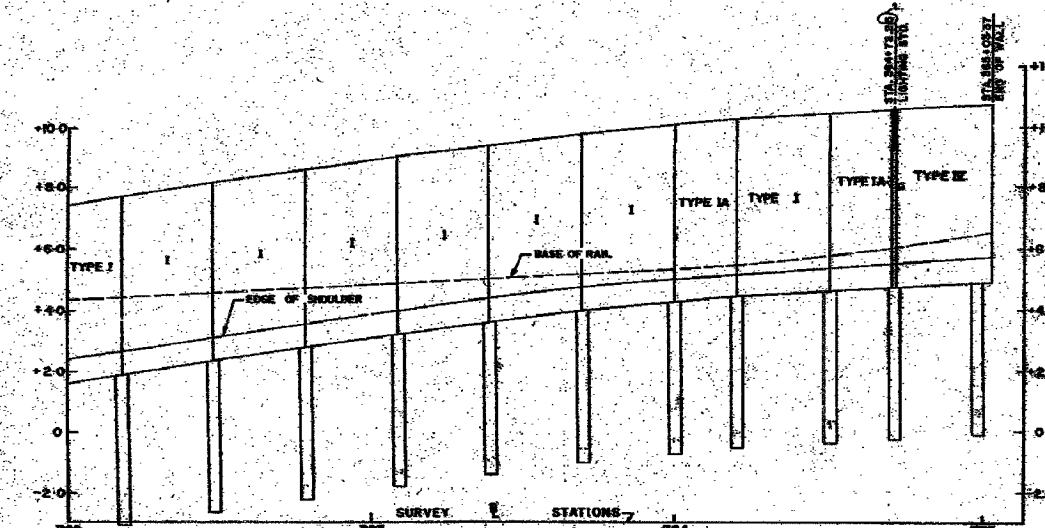
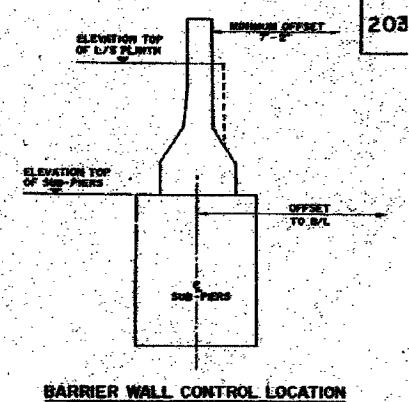
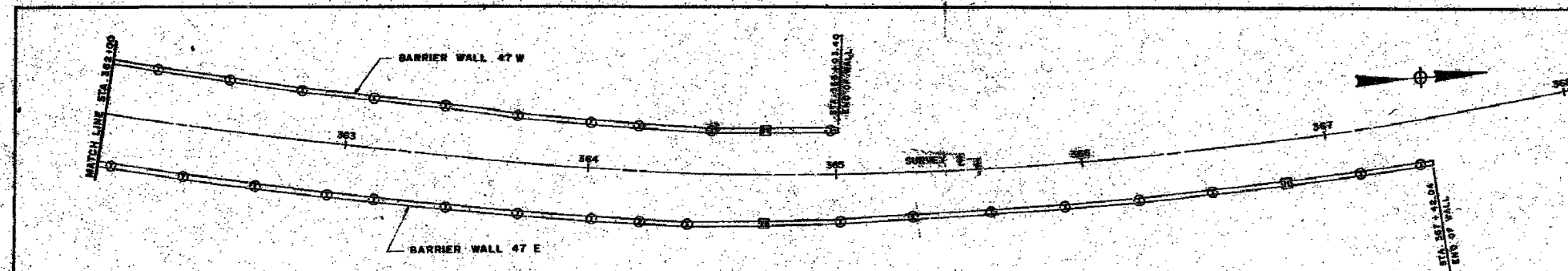
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
EXISTING BARRIER WALL PLANS
AT CTA STATIONS

SCALE: NONE
DATE: 7/7/05

DRAWN BY: CTA
CHECKED BY: CTA

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM



NOTES
 ALL CONCERNING THE IMMEDIATE VICINITY OF THE BARRIER WALLS OR SUB-FIERS SHALL BE CHECKED IN THE FIELD.
 FOR DETAILS OF CONSTRUCTION, REFER TO DRAWINGS SEE SHEET S-22

BARRIER WALL 47W

STATION	TYPE	HEIGHT	WIDTH	SPACING	REMARKS
362+00	I	21.15	1.33		
362+10	I	21.02	1.33		
362+20	I	20.89	1.33		
362+30	I	20.76	1.33		
362+40	I	20.63	1.33		
362+50	I	20.50	1.33		
362+60	I	20.37	1.33		
362+70	I	20.24	1.33		
362+80	I	20.11	1.33		
362+90	I	19.98	1.33		
363+00	I	19.85	1.33		
363+10	I	19.72	1.33		
363+20	I	19.59	1.33		
363+30	I	19.46	1.33		
363+40	I	19.33	1.33		
363+50	I	19.20	1.33		
363+60	I	19.07	1.33		
363+70	I	18.94	1.33		
363+80	I	18.81	1.33		
363+90	I	18.68	1.33		
364+00	I	18.55	1.33		
364+10	I	18.42	1.33		
364+20	I	18.29	1.33		
364+30	I	18.16	1.33		
364+40	I	18.03	1.33		
364+50	I	17.90	1.33		
364+60	I	17.77	1.33		
364+70	I	17.64	1.33		
364+80	I	17.51	1.33		
364+90	I	17.38	1.33		
365+00	I	17.25	1.33		
365+10	I	17.12	1.33		
365+20	I	16.99	1.33		
365+30	I	16.86	1.33		
365+40	I	16.73	1.33		
365+50	I	16.60	1.33		
365+60	I	16.47	1.33		
365+70	I	16.34	1.33		
365+80	I	16.21	1.33		
365+90	I	16.08	1.33		
366+00	I	15.95	1.33		
366+10	I	15.82	1.33		
366+20	I	15.69	1.33		
366+30	I	15.56	1.33		
366+40	I	15.43	1.33		
366+50	I	15.30	1.33		
366+60	I	15.17	1.33		
366+70	I	15.04	1.33		
366+80	I	14.91	1.33		
366+90	I	14.78	1.33		
367+00	I	14.65	1.33		
367+10	I	14.52	1.33		
367+20	I	14.39	1.33		
367+30	I	14.26	1.33		
367+40	I	14.13	1.33		
367+50	I	14.00	1.33		
367+60	I	13.87	1.33		
367+70	I	13.74	1.33		
367+80	I	13.61	1.33		
367+90	I	13.48	1.33		

BARRIER WALL 47E

STATION	TYPE	HEIGHT	WIDTH	SPACING	REMARKS
362+00	I	21.15	1.33		
362+10	I	21.02	1.33		
362+20	I	20.89	1.33		
362+30	I	20.76	1.33		
362+40	I	20.63	1.33		
362+50	I	20.50	1.33		
362+60	I	20.37	1.33		
362+70	I	20.24	1.33		
362+80	I	20.11	1.33		
362+90	I	19.98	1.33		
363+00	I	19.85	1.33		
363+10	I	19.72	1.33		
363+20	I	19.59	1.33		
363+30	I	19.46	1.33		
363+40	I	19.33	1.33		
363+50	I	19.20	1.33		
363+60	I	19.07	1.33		
363+70	I	18.94	1.33		
363+80	I	18.81	1.33		
363+90	I	18.68	1.33		
364+00	I	18.55	1.33		
364+10	I	18.42	1.33		
364+20	I	18.29	1.33		
364+30	I	18.16	1.33		
364+40	I	18.03	1.33		
364+50	I	17.90	1.33		
364+60	I	17.77	1.33		
364+70	I	17.64	1.33		
364+80	I	17.51	1.33		
364+90	I	17.38	1.33		
365+00	I	17.25	1.33		
365+10	I	17.12	1.33		
365+20	I	16.99	1.33		
365+30	I	16.86	1.33		
365+40	I	16.73	1.33		
365+50	I	16.60	1.33		
365+60	I	16.47	1.33		
365+70	I	16.34	1.33		
365+80	I	16.21	1.33		
365+90	I	16.08	1.33		
366+00	I	15.95	1.33		
366+10	I	15.82	1.33		
366+20	I	15.69	1.33		
366+30	I	15.56	1.33		
366+40	I	15.43	1.33		
366+50	I	15.30	1.33		
366+60	I	15.17	1.33		
366+70	I	15.04	1.33		
366+80	I	14.91	1.33		
366+90	I	14.78	1.33		
367+00	I	14.65	1.33		
367+10	I	14.52	1.33		
367+20	I	14.39	1.33		
367+30	I	14.26	1.33		
367+40	I	14.13	1.33		
367+50	I	14.00	1.33		
367+60	I	13.87	1.33		
367+70	I	13.74	1.33		
367+80	I	13.61	1.33		
367+90	I	13.48	1.33		

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
DAN RYAN RAPID TRANSIT
 MEDIAN PREPARATION & FENCING
 CONTRACT DR-8
 BARRIER WALL PLAN & PROFILES
 STA 362+00 TO STA 367+42.32
 47E & 47W
 HORIZ 1"=20'
 SCALE: VERT 1"=2'
 SHEET NO. S 16 OF 20 SHEETS
 APRIL, 1968

Checked by: E. J. M.
 Designed by: E. J. M.
 Drawn by: E. J. M.
 Checked by: E. J. M.
 Approved by: H. T. B.

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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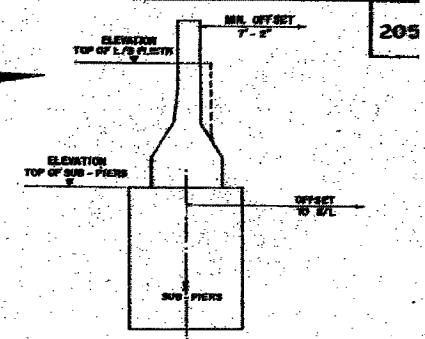
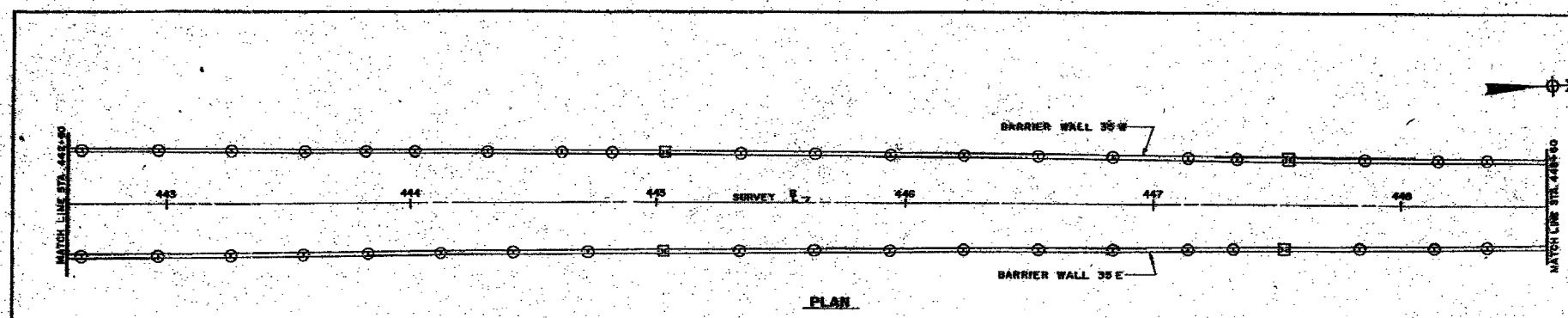
FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 EXISTING BARRIER WALL PLANS
 AT CTA STATIONS
 SCALE: N.T.S.
 DATE: 07/07/05
 DRAWN BY: MTR
 CHECKED BY: BLU

SHEET SD-6 OF SD-11

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BARRIER WALL CONTROL LOCATION

BARRIER WALL 35W

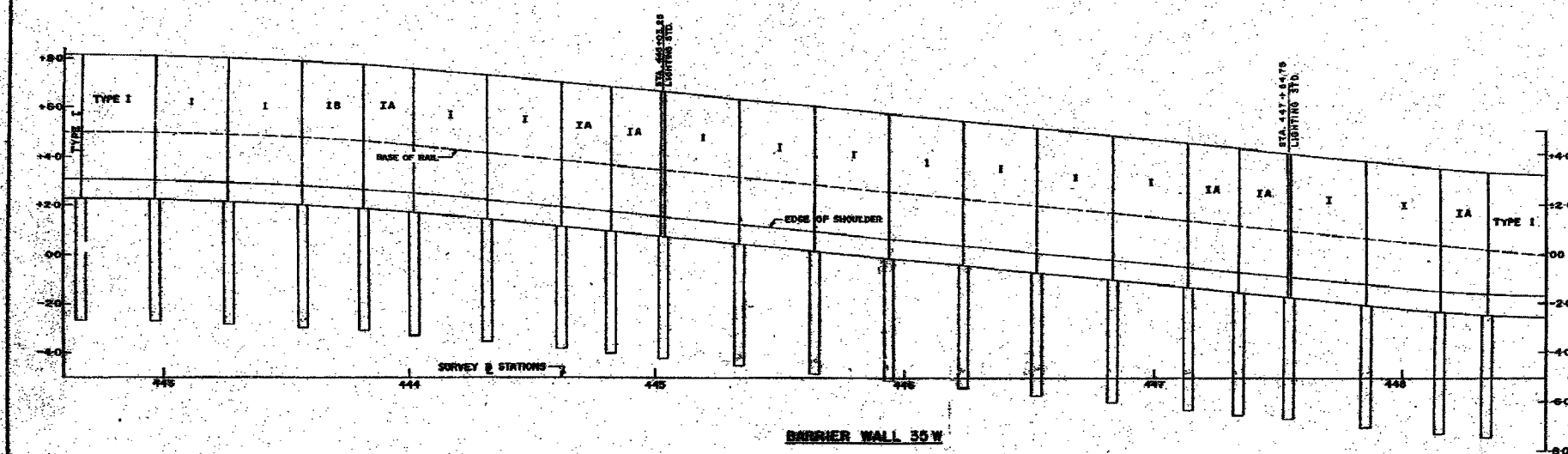
STATION	OFFSET	ELEVATION TOP OF SUB-PIERS	ELEVATION TOP OF L.P. PIER	MIN. OFFSET	REMARKS
443+00	0.00	11.80	12.25	0.45	
443+10	0.00	11.80	12.25	0.45	
443+20	0.00	11.80	12.25	0.45	
443+30	0.00	11.80	12.25	0.45	
443+40	0.00	11.80	12.25	0.45	
443+50	0.00	11.80	12.25	0.45	
443+60	0.00	11.80	12.25	0.45	
443+70	0.00	11.80	12.25	0.45	
443+80	0.00	11.80	12.25	0.45	
443+90	0.00	11.80	12.25	0.45	
444+00	0.00	11.80	12.25	0.45	
444+10	0.00	11.80	12.25	0.45	
444+20	0.00	11.80	12.25	0.45	
444+30	0.00	11.80	12.25	0.45	
444+40	0.00	11.80	12.25	0.45	
444+50	0.00	11.80	12.25	0.45	
444+60	0.00	11.80	12.25	0.45	
444+70	0.00	11.80	12.25	0.45	
444+80	0.00	11.80	12.25	0.45	
444+90	0.00	11.80	12.25	0.45	
445+00	0.00	11.80	12.25	0.45	
445+10	0.00	11.80	12.25	0.45	
445+20	0.00	11.80	12.25	0.45	
445+30	0.00	11.80	12.25	0.45	
445+40	0.00	11.80	12.25	0.45	
445+50	0.00	11.80	12.25	0.45	
445+60	0.00	11.80	12.25	0.45	
445+70	0.00	11.80	12.25	0.45	
445+80	0.00	11.80	12.25	0.45	
445+90	0.00	11.80	12.25	0.45	
446+00	0.00	11.80	12.25	0.45	
446+10	0.00	11.80	12.25	0.45	
446+20	0.00	11.80	12.25	0.45	
446+30	0.00	11.80	12.25	0.45	
446+40	0.00	11.80	12.25	0.45	
446+50	0.00	11.80	12.25	0.45	
446+60	0.00	11.80	12.25	0.45	
446+70	0.00	11.80	12.25	0.45	
446+80	0.00	11.80	12.25	0.45	
446+90	0.00	11.80	12.25	0.45	
447+00	0.00	11.80	12.25	0.45	
447+10	0.00	11.80	12.25	0.45	
447+20	0.00	11.80	12.25	0.45	
447+30	0.00	11.80	12.25	0.45	
447+40	0.00	11.80	12.25	0.45	
447+50	0.00	11.80	12.25	0.45	
447+60	0.00	11.80	12.25	0.45	
447+70	0.00	11.80	12.25	0.45	
447+80	0.00	11.80	12.25	0.45	
447+90	0.00	11.80	12.25	0.45	
448+00	0.00	11.80	12.25	0.45	

NOTE:
ALL WALLS ARE TYPE I UNLESS OTHERWISE NOTED.

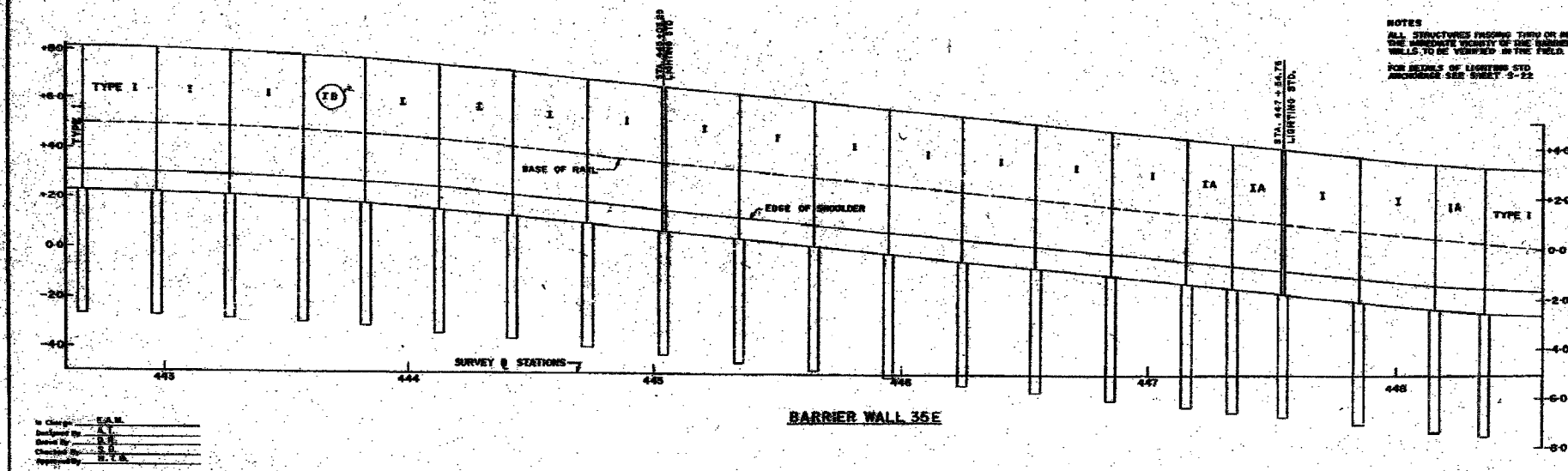
BARRIER WALL 35E

STATION	OFFSET	ELEVATION TOP OF SUB-PIERS	ELEVATION TOP OF L.P. PIER	MIN. OFFSET	REMARKS
443+00	0.00	11.80	12.25	0.45	
443+10	0.00	11.80	12.25	0.45	
443+20	0.00	11.80	12.25	0.45	
443+30	0.00	11.80	12.25	0.45	
443+40	0.00	11.80	12.25	0.45	
443+50	0.00	11.80	12.25	0.45	
443+60	0.00	11.80	12.25	0.45	
443+70	0.00	11.80	12.25	0.45	
443+80	0.00	11.80	12.25	0.45	
443+90	0.00	11.80	12.25	0.45	
444+00	0.00	11.80	12.25	0.45	
444+10	0.00	11.80	12.25	0.45	
444+20	0.00	11.80	12.25	0.45	
444+30	0.00	11.80	12.25	0.45	
444+40	0.00	11.80	12.25	0.45	
444+50	0.00	11.80	12.25	0.45	
444+60	0.00	11.80	12.25	0.45	
444+70	0.00	11.80	12.25	0.45	
444+80	0.00	11.80	12.25	0.45	
444+90	0.00	11.80	12.25	0.45	
445+00	0.00	11.80	12.25	0.45	
445+10	0.00	11.80	12.25	0.45	
445+20	0.00	11.80	12.25	0.45	
445+30	0.00	11.80	12.25	0.45	
445+40	0.00	11.80	12.25	0.45	
445+50	0.00	11.80	12.25	0.45	
445+60	0.00	11.80	12.25	0.45	
445+70	0.00	11.80	12.25	0.45	
445+80	0.00	11.80	12.25	0.45	
445+90	0.00	11.80	12.25	0.45	
446+00	0.00	11.80	12.25	0.45	
446+10	0.00	11.80	12.25	0.45	
446+20	0.00	11.80	12.25	0.45	
446+30	0.00	11.80	12.25	0.45	
446+40	0.00	11.80	12.25	0.45	
446+50	0.00	11.80	12.25	0.45	
446+60	0.00	11.80	12.25	0.45	
446+70	0.00	11.80	12.25	0.45	
446+80	0.00	11.80	12.25	0.45	
446+90	0.00	11.80	12.25	0.45	
447+00	0.00	11.80	12.25	0.45	
447+10	0.00	11.80	12.25	0.45	
447+20	0.00	11.80	12.25	0.45	
447+30	0.00	11.80	12.25	0.45	
447+40	0.00	11.80	12.25	0.45	
447+50	0.00	11.80	12.25	0.45	
447+60	0.00	11.80	12.25	0.45	
447+70	0.00	11.80	12.25	0.45	
447+80	0.00	11.80	12.25	0.45	
447+90	0.00	11.80	12.25	0.45	
448+00	0.00	11.80	12.25	0.45	

NOTE:
ALL WALLS ARE TYPE I UNLESS OTHERWISE NOTED.



BARRIER WALL 35W



BARRIER WALL 35E

NOTES
ALL STRUCTURES EXISTING THERE OR IN THE VICINITY OF THE BARRIER WALLS TO BE VERIFIED IN THE FIELD.
FOR DETAILS OF LIGHTNING STRIKE ARCHITECTURE SEE SHEET S-22.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
DAN RYAN RAPID TRANSIT
MEDIAN PREPARATION & FENCING
CONTRACT DR-8
BARRIER WALL PLAN & PROFILES
STA. 442+60.0 TO STA. 448+60.0
SCALE: HORIZ. 1"=20' VERT. 1"=2'
APRIL, 1988
SHEET NO. 8 20 OF 28 SHEETS

Designed by: E.A.M.
Checked by: J.S.B.
Approved by: S.P.A.

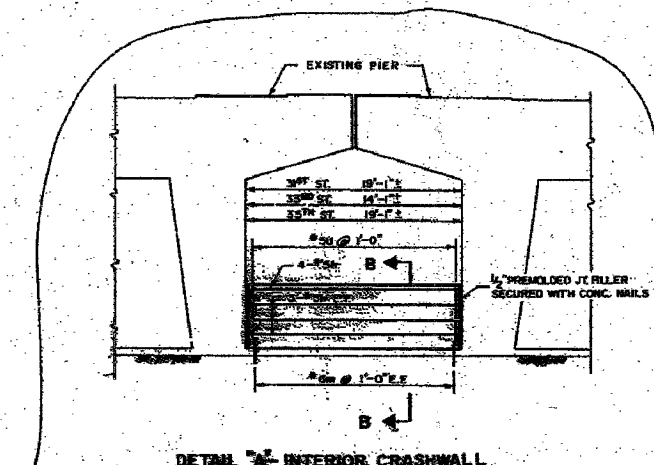
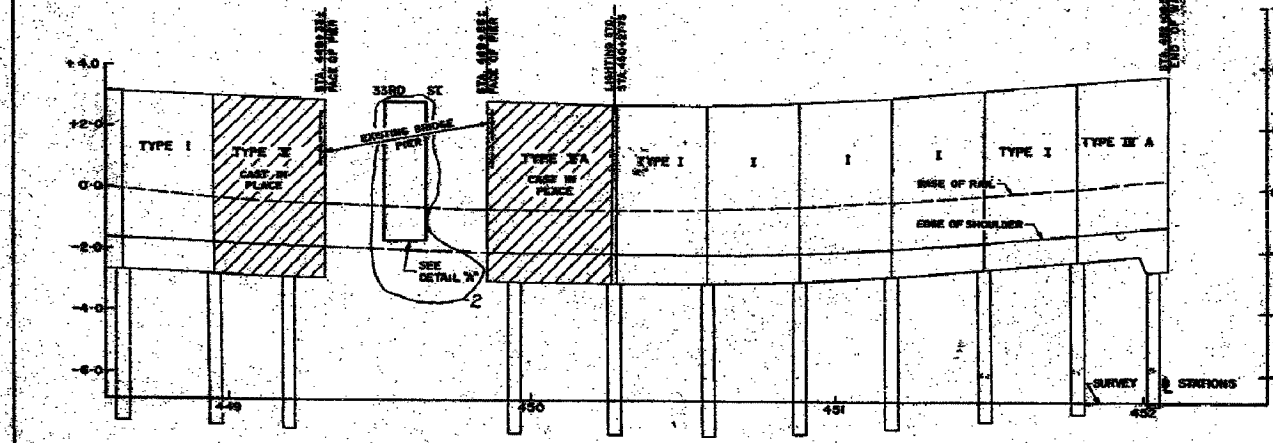
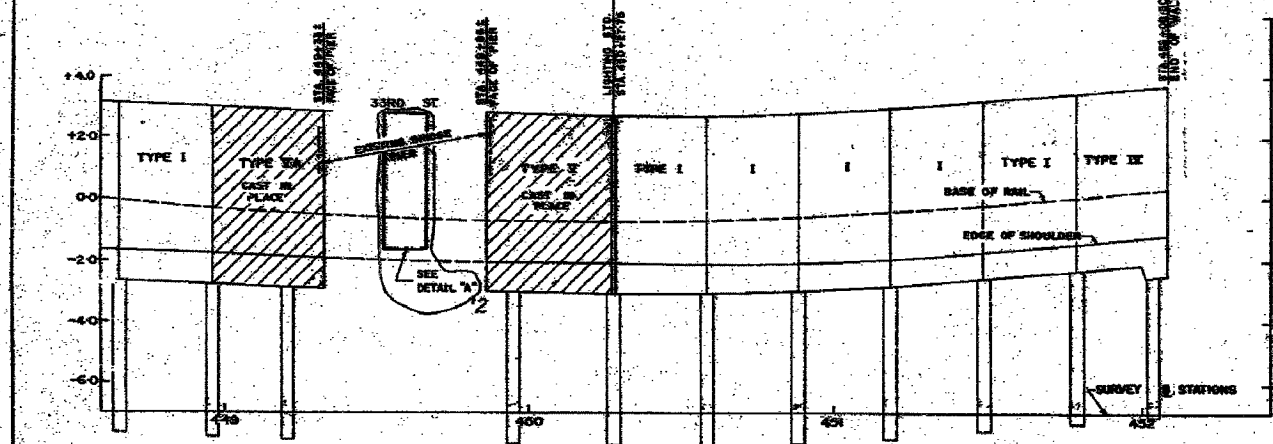
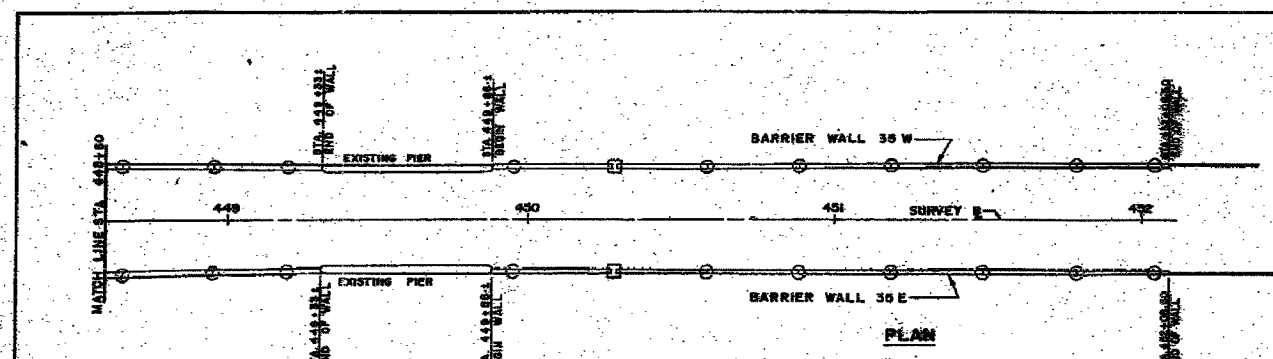
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312 228.0100
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REVISIONS	NAME	DATE

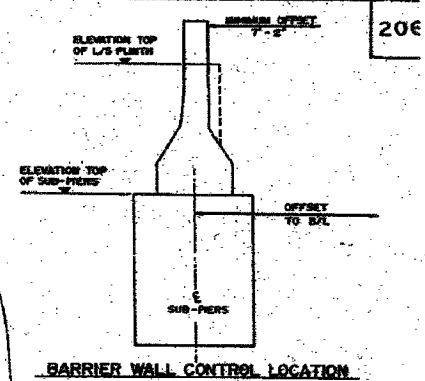
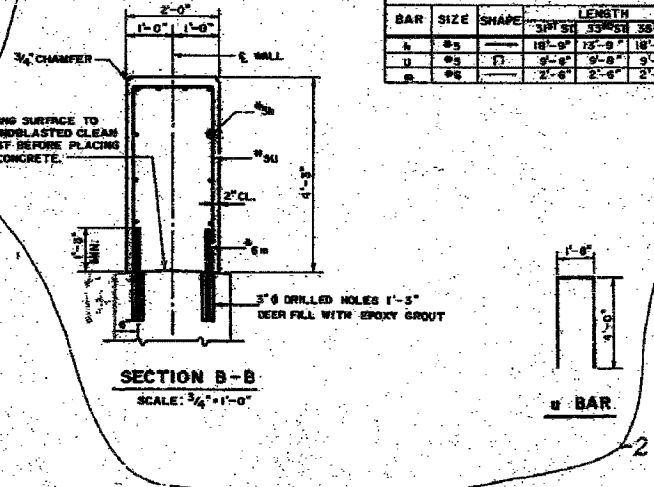
SHEET SD-8 OF SD-11
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
EXISTING BARRIER WALL PLANS
AT CTA STATIONS
SCALE: N.T.S. DRAWN BY: MTR
DATE: 07/07/05 CHECKED BY: BLU

6/27/2005 4:41:41 PM n:\660\cont\CONVA\STRUCTURES\CTA Barrier AS-BUILT\SD-800.HECTA.BARRIER.PLOT



BAR LIST

BAR	SIZE	SHAPE	LENGTH
A	#5	18"-9"	13'-9"
B	#5	9'-9"	9'-9"
C	#5	2'-6"	2'-6"



BARRIER WALL 35W

STATION	OFFSET	ELEVATION	REMARKS
448+00	17.77	-2.75	EXIST. PI
448+00	17.82	-2.80	EXIST. WALL
448+00	17.88	-3.14	TYPE I
448+00	17.93	-3.20	EXIST. PIER
448+00	17.98	-3.25	EXIST. WALL
448+00	18.03	-3.32	TYPE II
448+00	18.08	-3.38	EXIST. PIER
448+00	18.13	-3.44	EXIST. WALL
448+00	18.18	-3.50	TYPE III
448+00	18.23	-3.56	EXIST. PIER
448+00	18.28	-3.62	EXIST. WALL

BARRIER WALL 35E

STATION	OFFSET	ELEVATION	REMARKS
448+00	17.83	-2.75	EXIST. PI
448+00	17.88	-2.80	EXIST. WALL
448+00	17.93	-3.14	TYPE I
448+00	17.98	-3.20	EXIST. PIER
448+00	18.03	-3.25	EXIST. WALL
448+00	18.08	-3.32	TYPE II
448+00	18.13	-3.38	EXIST. PIER
448+00	18.18	-3.44	EXIST. WALL
448+00	18.23	-3.50	TYPE III
448+00	18.28	-3.56	EXIST. PIER
448+00	18.33	-3.62	EXIST. WALL

NOTES
 ALL STRUCTURES IN THE IMMEDIATE VICINITY OF THE BARRIER WALLS OR SUB-PIERS TO BE VERIFIED IN THE FIELD.
 FOR DETAILS OF LIGHTING STANDARD ANCHORAGE SEE SHEET S-22

NOTE:
 ALL WALLS ARE TYPE I UNLESS OTHERWISE NOTED.

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
DAN RYAN RAPID TRANSIT
 MEDIAN PREPARATION AND FENCING
 CONTRACT DR-8
BARRIER WALL PLAN & PROFILES
 STA. 448+60-0 TO STA. 452+08.5
 HORZ. 1" = 20'
 VERT. 1" = 2'
 APRIL, 1968
 SHEET NO. 321 OF 211 SHEETS

BOWMAN, BARRETT & ASSOCIATES INC.
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 Chicago, Illinois
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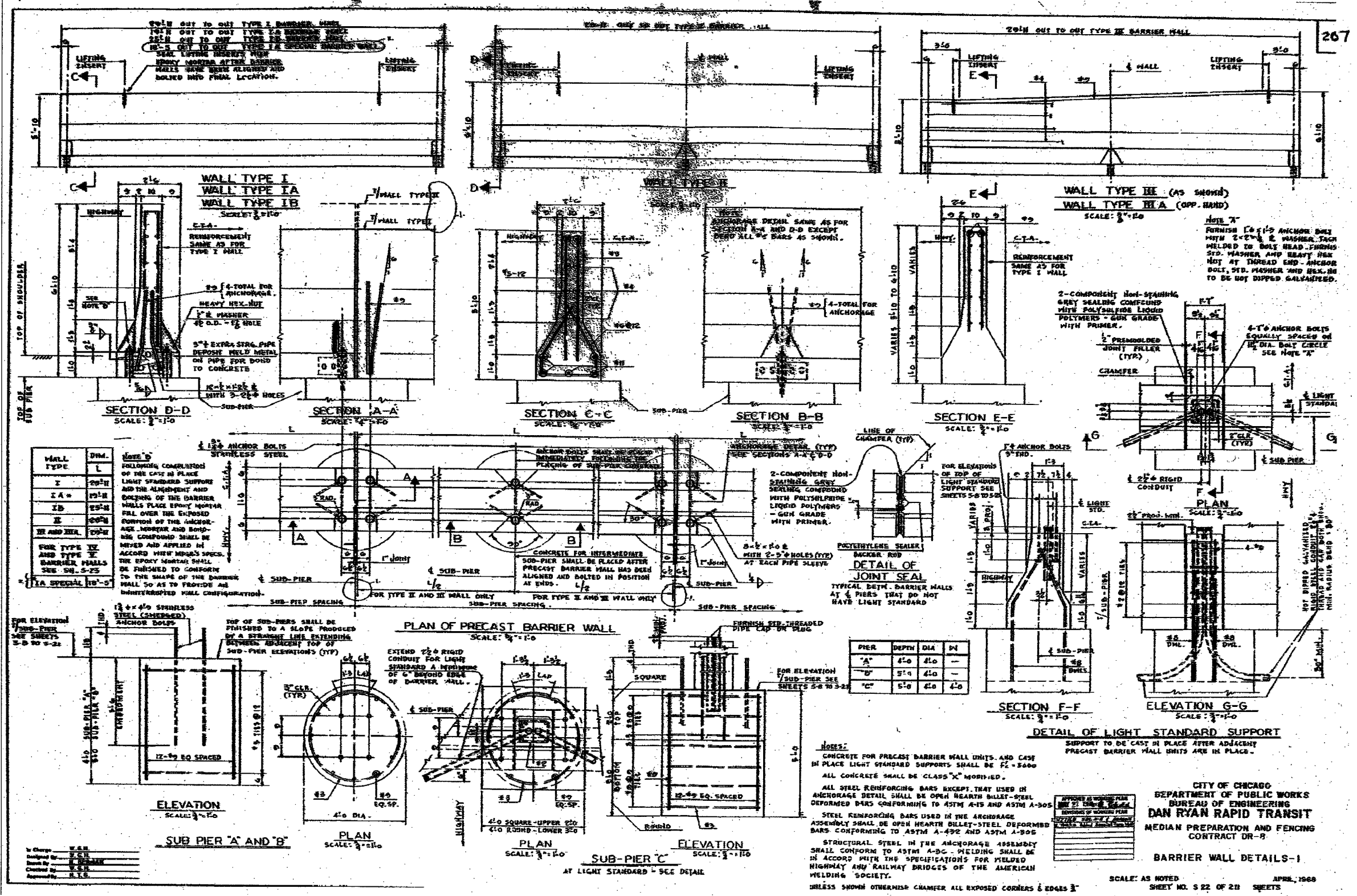
FOR INFORMATION ONLY

REVISIONS	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 EXISTING BARRIER WALL PLANS
 AT CTA STATIONS

SCALE: N.T.S.
 DATE: 07/07/05

DRAWN BY: MTR
 CHECKED BY: BLU



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Chicago, Illinois
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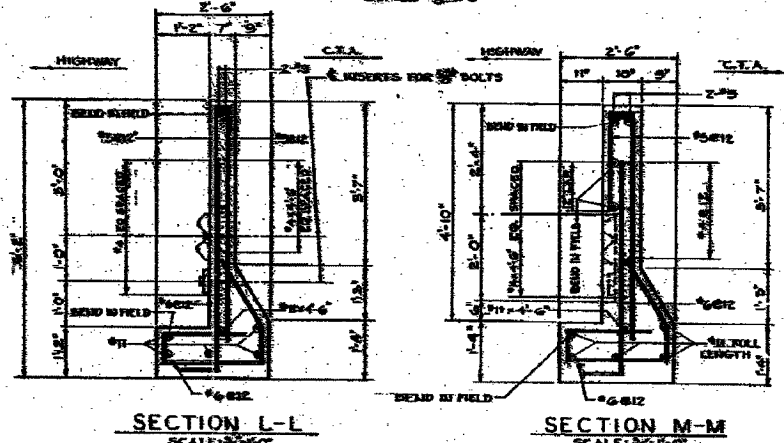
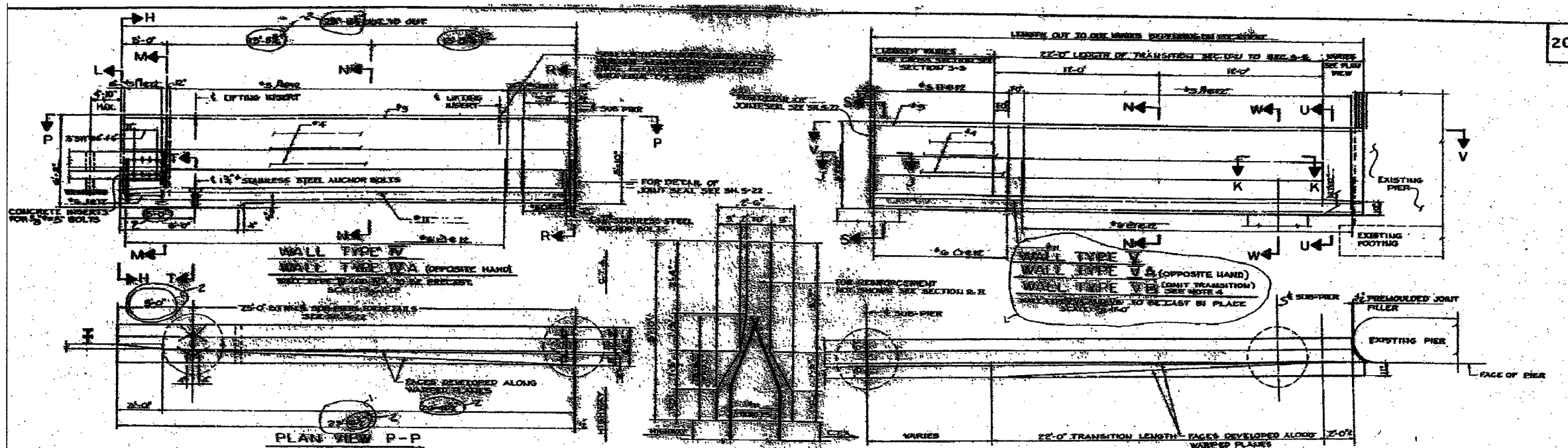
REVISIONS	
NAME	DATE

SHEET SD-10 OF SD-11

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
EXISTING BARRIER WALL PLANS
AT CTA STATIONS

SCALE: N.T.S. DRAWN BY: MTR
DATE: 07/07/05 CHECKED BY: BLU

I:\9400\CONTRACT\STRUCTURE\CTA Barrier As-Built\9400-148CTA Barrier.dwg



NOTE:
ALL HORIZONTAL BARS ARE CONTINUOUS, EXCEPT AS NOTED

- NOTES:
1. CONCRETE FOR PRECAST AND CAST IN PLACE BARRIER WALLS SHALL BE f'_c 5000.
 2. ALL CONCRETE SHALL BE CLASS X MODIFIED.
 3. FOR ANCHOR BOLT AND SUB-PIER DETAILS AND SUPPLEMENTARY NOTES AND DETAILS SEE SM S-22
 4. WALL TYPE V B SHALL HAVE HIGHWAY FACE SAME AS WALL TYPE I BUT SHALL BE CAST IN PLACE.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
DAN RYAN RAPID TRANSIT
MEDIAN PREPARATION AND FENCING
CONTRACT DR-8
BARRIER WALL DETAILS-2

SCALE: AS NOTED
SHEET NO. 8 23 OF 211 SHEETS
APRIL, 1968

REVISIONS	
NAME	DATE

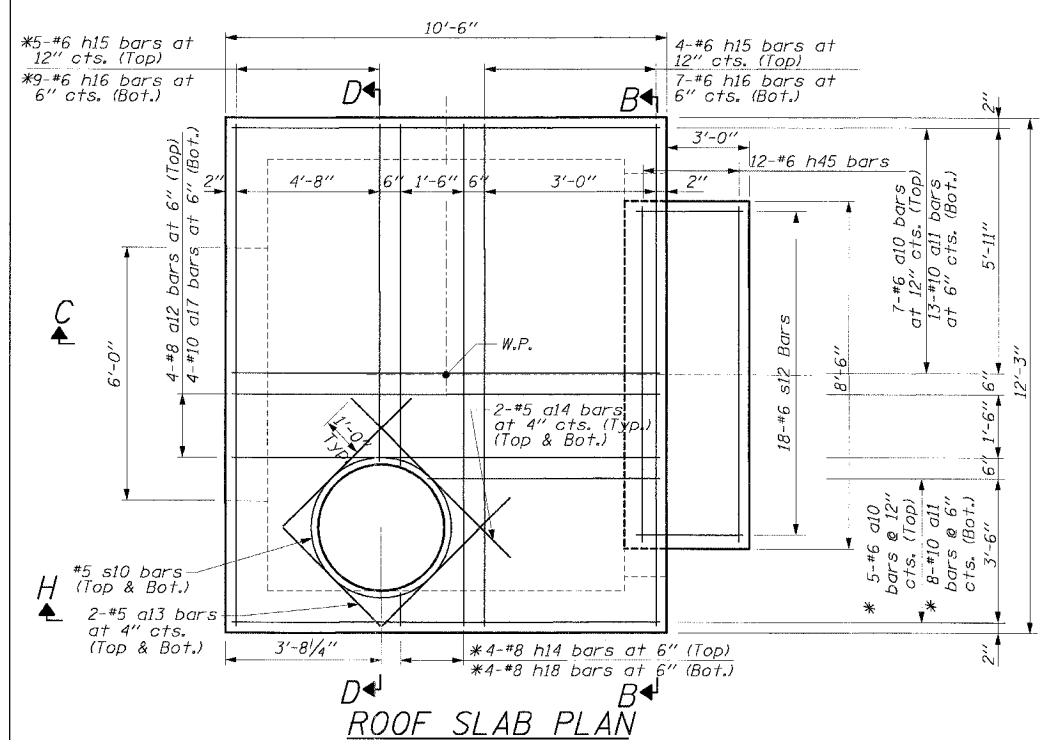
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
EXISTING BARRIER WALL PLANS
AT CTA STATIONS

SCALE: N.T.S.
DATE: 07/07/05
DRAWN BY: MTR
CHECKED BY: BLU

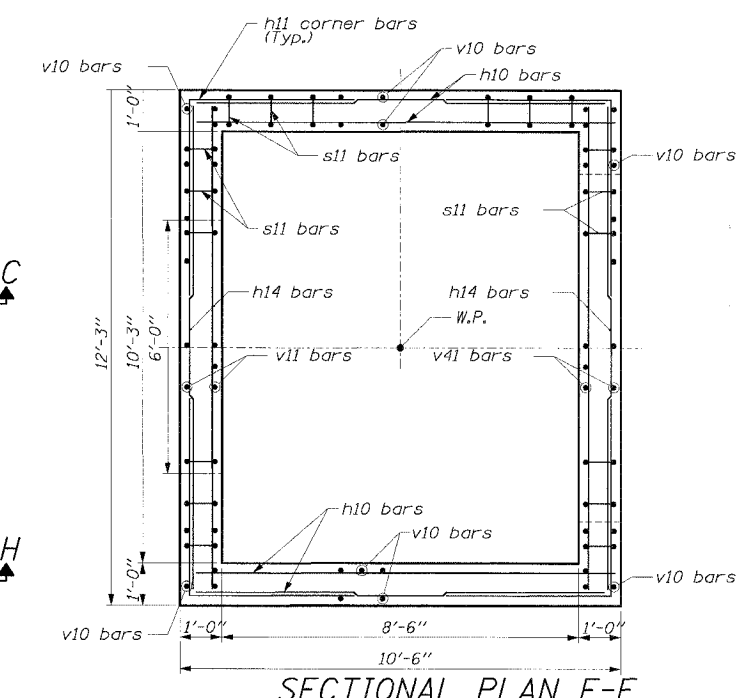
FOR INFORMATION ONLY

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

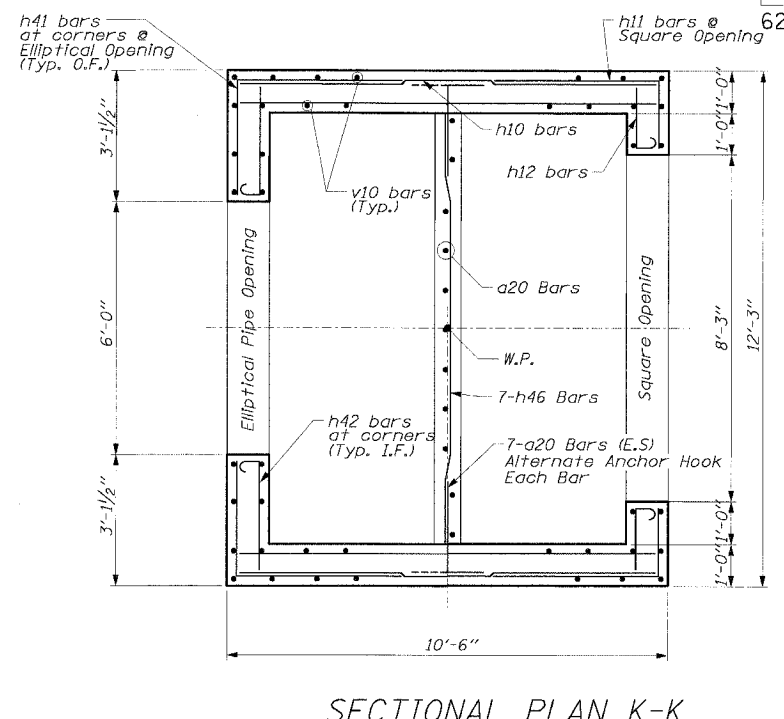
6/27/2005 4:48:42 PM



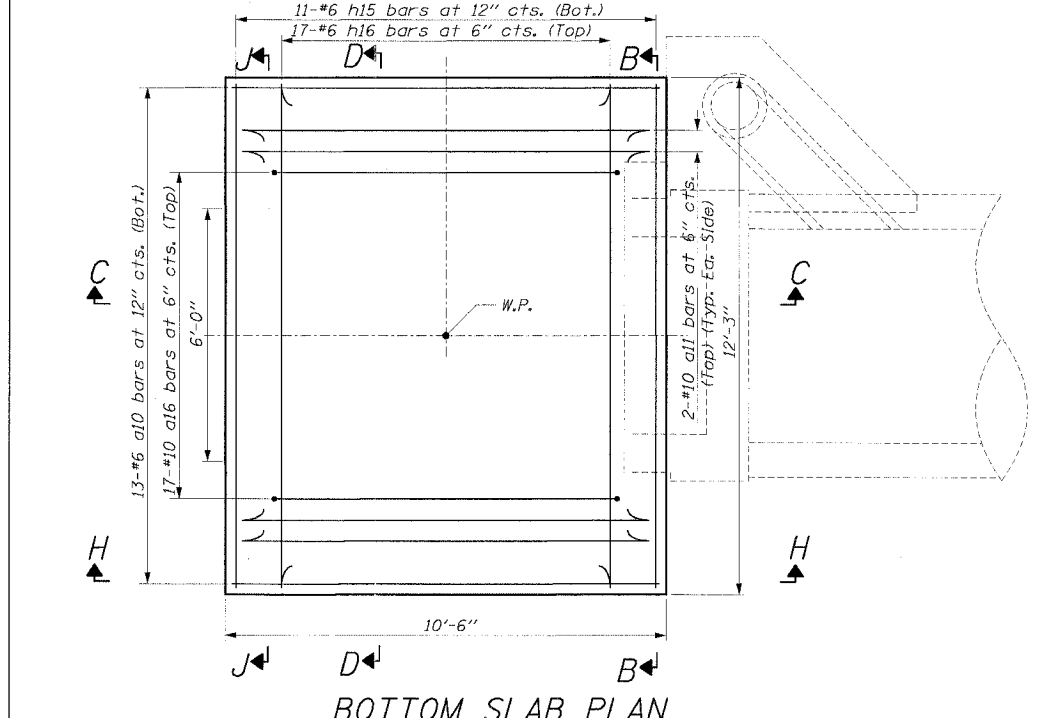
ROOF SLAB PLAN



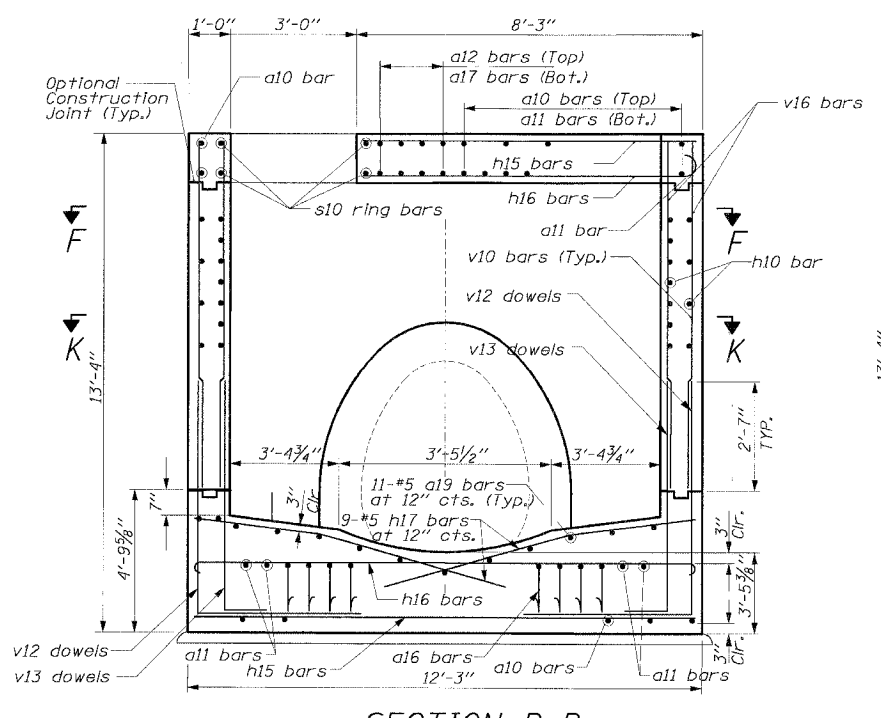
SECTIONAL PLAN F-F



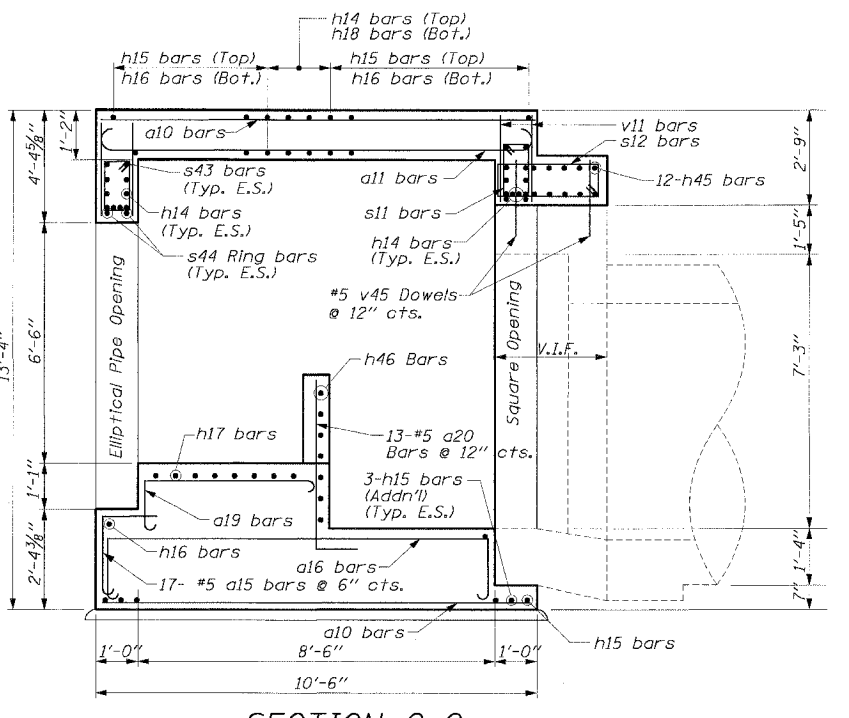
SECTIONAL PLAN K-K



BOTTOM SLAB PLAN



SECTION D-D



SECTION C-C

- NOTES:**
- All dimensions and elevations shall be field verified prior to construction.
 - Concrete pipe sizes shall be coordinated with openings provided into junction chamber before pouring concrete.
 - Manhole Frame, Ladder Rungs, and any Inserts Installation shall be coordinated with Roadway Plans.
 - Concrete cover for reinforcement steel to be 2" unless otherwise noted.

- All concrete edges shall be chamfered 1 inch.
- All lap splices marked on the drawings are minimum.
- Concrete Compressive Strength $f_c' = 3,500$ psi.
- Steel Yield Strength = 60,000 psi.
- Work this Sheet with other Junction Chamber Sheets.

- LEGEND:**
- * Cut bars to fit in field.
 - E.F. - denotes Each Face
 - E.S. - denotes Each Side
 - I.F. - denotes Inside Face
 - O.F. - denotes Outside Face

Edwards and Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

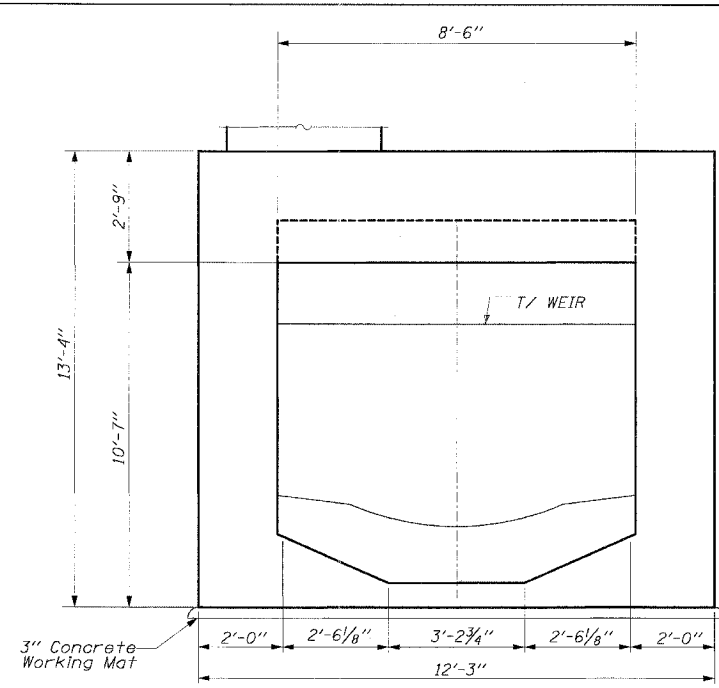
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 JUNCTION CHAMBER 4-01
 DETAILS 1

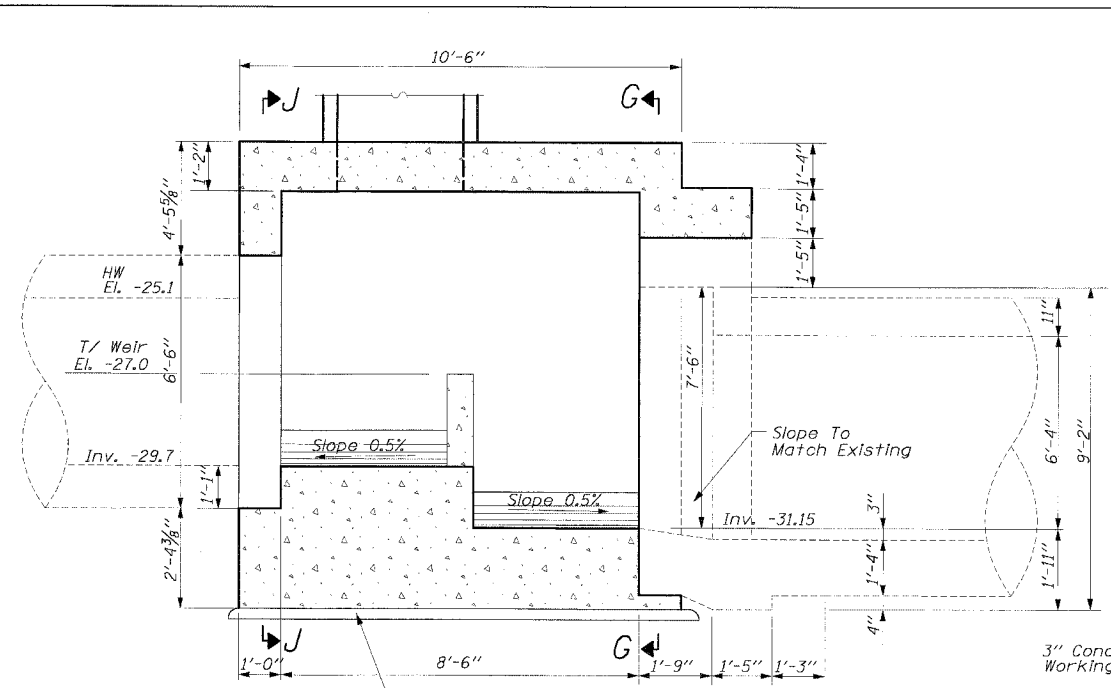
SCALE: DRAWN BY: JRW
 DATE: 7/17/05 CHECKED BY: EL

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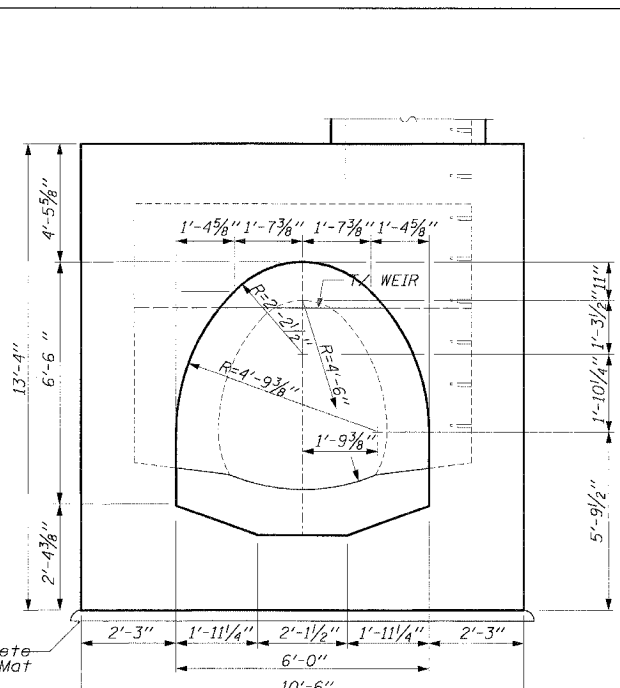
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	556	398
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62300	• (1818, ETC, 2324.6-IPR-8			



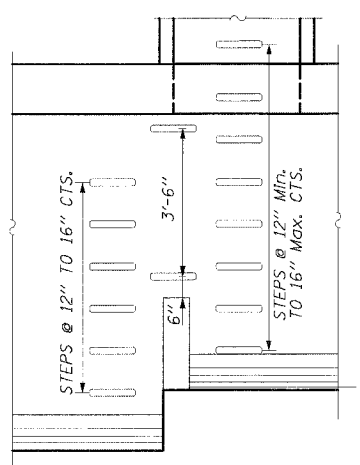
ELEVATION VIEW B-B



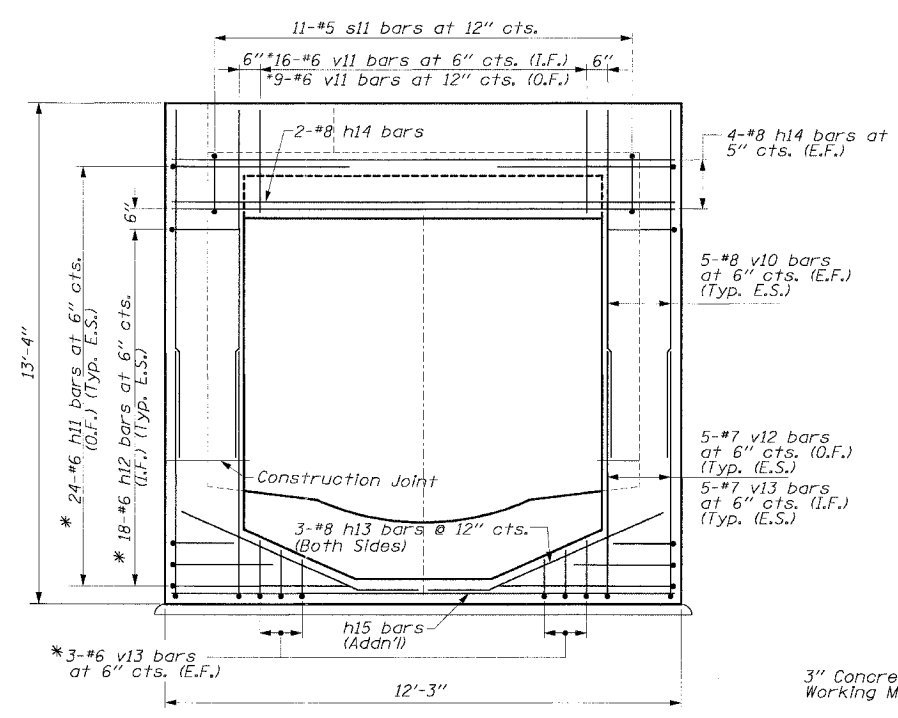
SECTION C-C



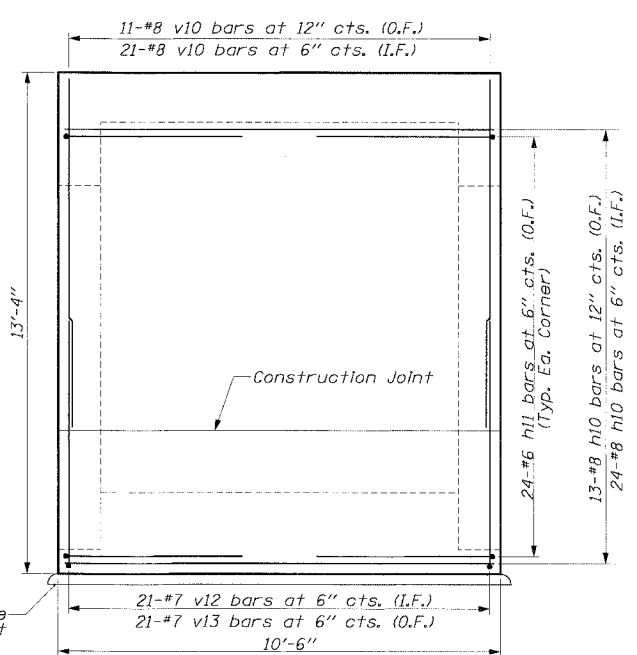
ELEVATION VIEW E-E



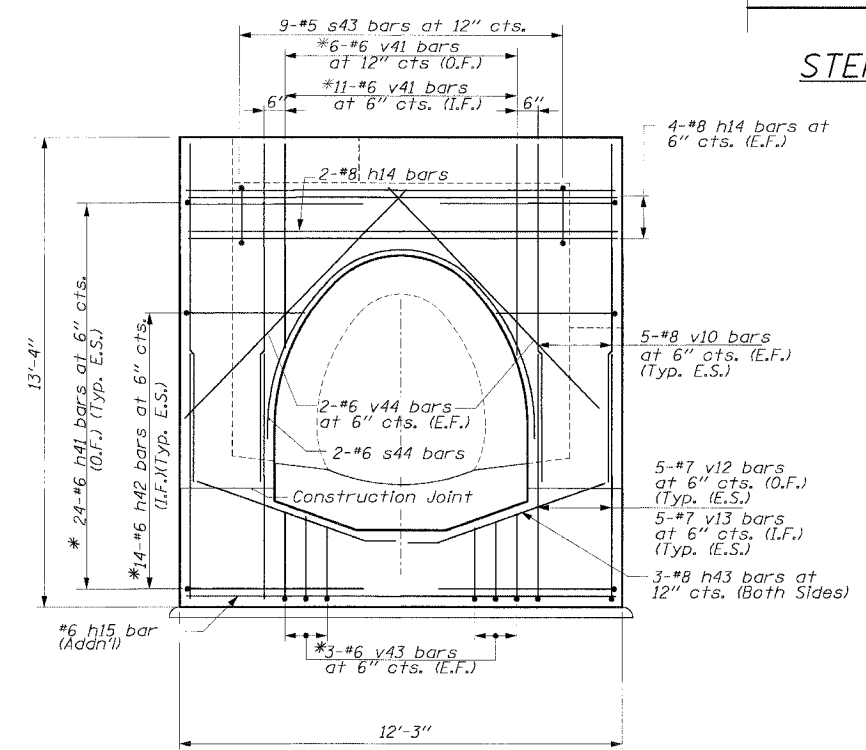
STEP PATTERN



SECTION G-G



SECTION H-H
(Typ. Both Sides)



SECTION J-J

NOTES:

- All dimensions and elevations shall be field verified prior to construction.
- Concrete pipe sizes shall be coordinated with openings provided into junction chamber before pouring concrete.
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- Concrete cover for reinforcement steel to be 2" unless otherwise noted.
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- All lap splices marked on the drawings are minimum.
- Concrete Compressive Strength $f_c' = 3,500$ psi.
- Steel Yield Strength = 60,000 psi.
- Work this Sheet with other 2 Sheets.

LEGEND

- * Cut bars to fit in field.
- E.F. - denotes Each Face
- E.S. - denotes Each Side
- I.F. - denotes Inside Face
- O.F. - denotes Outside Face

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31ST STREET TO 71ST STREET
 NB EXPRESS LANE RECONSTRUCTION
 JUNCTION CHAMBER 4-01
 DETAILS 2

SCALE: DATE: 7/7/05 DRAWN BY: JRW CHECKED BY: EL

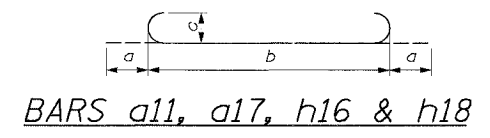
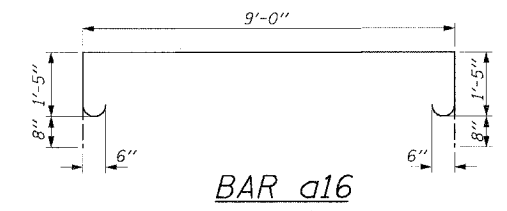
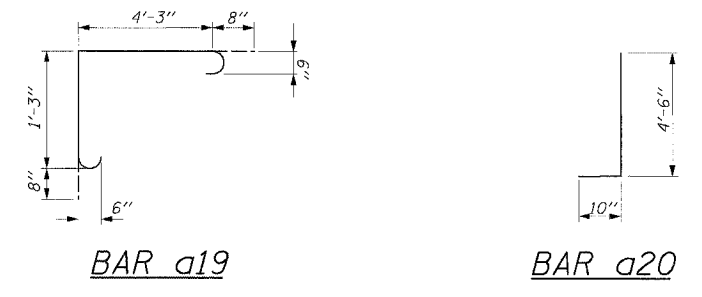
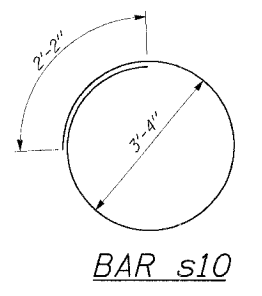
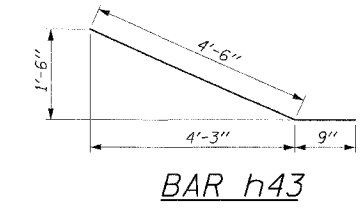
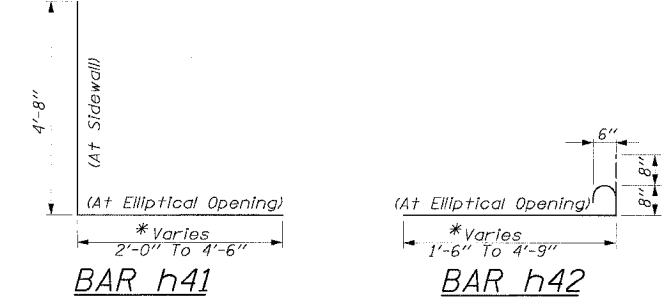
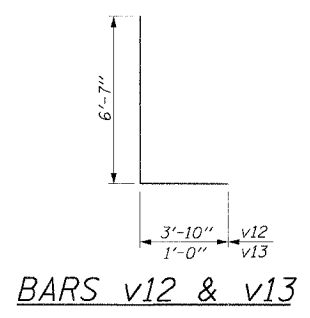
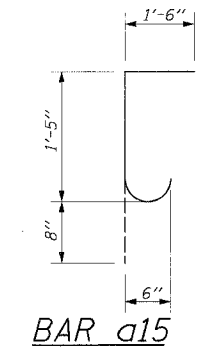
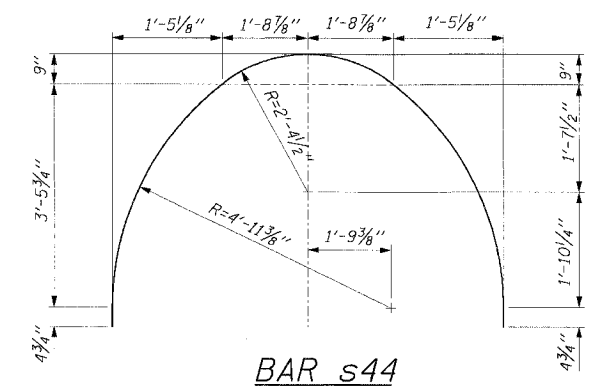
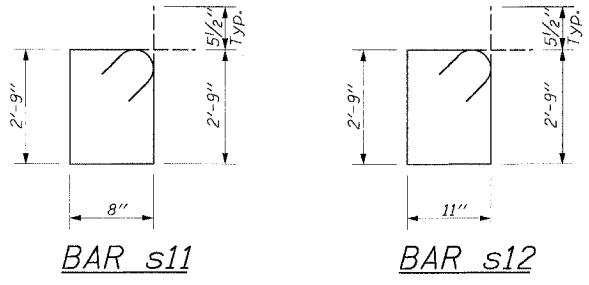
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS, NO.
94/90	*	COOK	556 399
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62300	11818, ETC, 2324.6-1PR-8		

**BILL OF MATERIAL
JUNCTION CHAMBER 4-01**

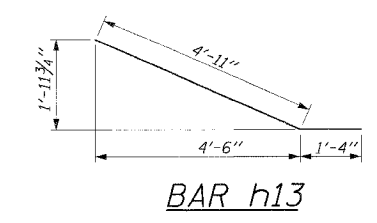
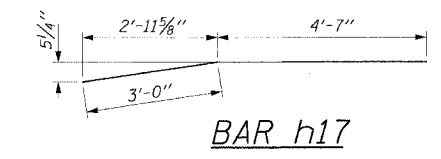
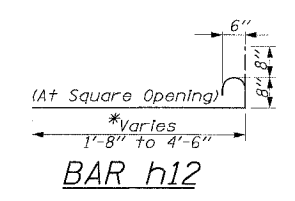
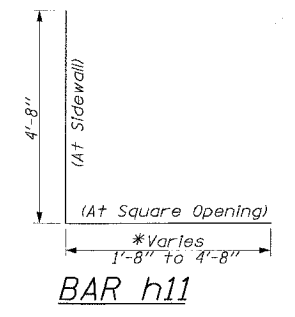
Bar	No.	Size	Length	Shape
a10	25	#6	10'-2"	—
a11	25	#10	11'-8"	—
a12	4	#8	10'-2"	—
a13	4	#5	5'-0"	—
a14	4	#5	6'-0"	—
a15	17	#5	3'-7"	—
a16	17	#10	13'-2"	—
a17	4	#10	11'-6"	—
a19	11	#6	6'-10"	—
a20	27	#5	5'-0"	—
h10	74	#8	10'-2"	—
h11	48	#6	9'-4"	—
h12	36	#6	9'-4"	—
h13	6	#8	6'-3"	—
h14	24	#8	11'-9"	—
h15	24	#6	11'-9"	—
h16	33	#6	13'-3"	—
h17	18	#5	7'-7"	—
h18	4	#8	13'-9"	—
h41	48	#6	10'-2"	—
h42	28	#6	9'-2"	—
h43	6	#8	5'-3"	—
h45	12	#6	7'-11"	—
h46	7	#5	9'-11"	—
s10	2	#5	12'-8"	—
s11	11	#5	7'-10"	—
s12	18	#6	7'-4"	—
s43	9	#5	8'-3"	—
s44	2	#6	12'-5"	—
v10	104	#8	8'-5"	—
v11	25	#6	3'-0"	—
v12	20	#7	10'-5"	—
v13	20	#7	7'-7"	—
v41	17	#6	7'-6"	—
v44	4	#6	8'-6"	—
v45	18	#5	2'-6"	—
Reinforcement Bars	Lbs.	15,540		
Concrete Structures	Cu. Yd.	25		

NOTE:
Quantities included for information only. All quantities associated with the junction chamber are included with the pay item Junction Chamber No. 1 except for Braced Excavation and Trench Backfill which shall be paid for separately.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31ST STREET TO 71ST STREET NB EXPRESS LANE RECONSTRUCTION JUNCTION CHAMBER 4-01 DETAIL 3
NAME	DATE	
SCALE:	DATE: 7/7/05	ILLINOIS DEPARTMENT OF TRANSPORTATION DRAWN BY: JRW CHECKED BY: EL

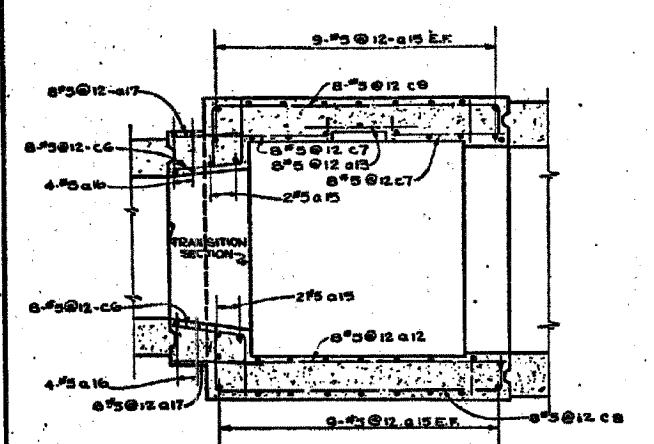


Bar	a	b	c
a11	8"	10'-2"	6"
a17	11"	10'-2"	8"
h16	8"	11'-11"	6"
h18	11"	11'-11"	8"

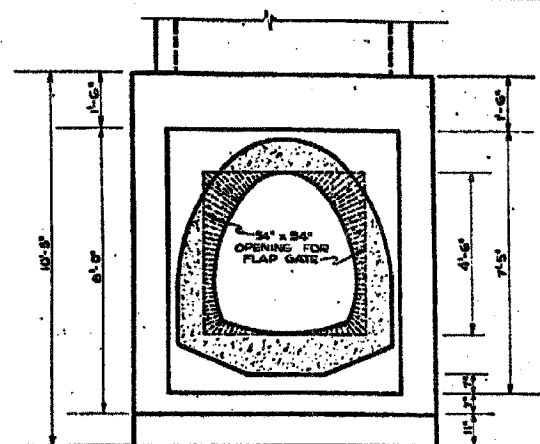


Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EDKCONR.COM

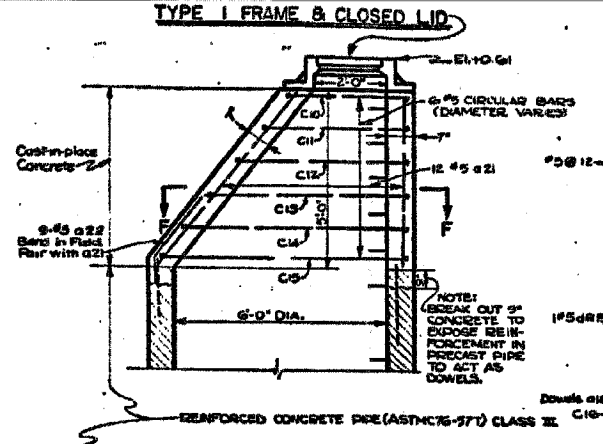
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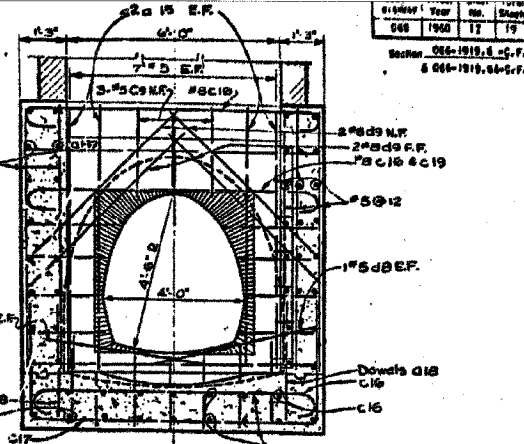
SECTION E-E
REINFORCING-AS PLACED AS SHOWN



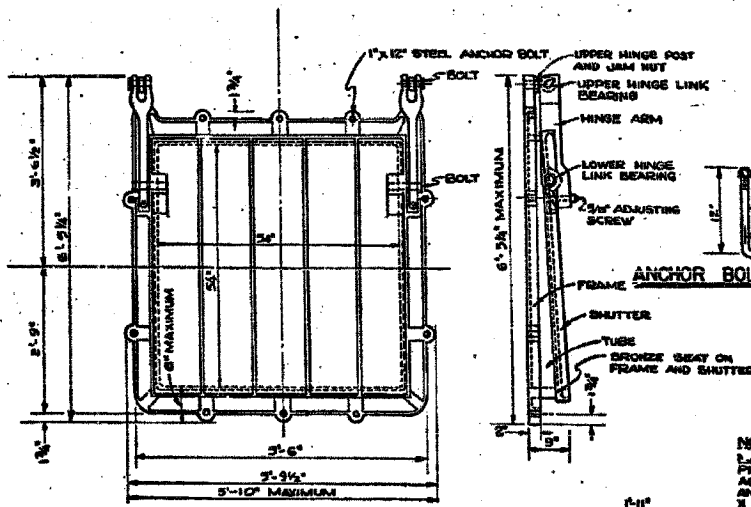
SECTION D-D



TYPE I FRAME & CLOSED LID



SECTION B-B



FLAP GATE
SCALE: 3/4\"/>

REINFORCING STEEL					
Straight Bars	Bent Bars				
Bar No.	Size	Length	Bar No.	Size	Length
a12	8	8'-3"	c6	10	5
a13	8	3'-0"	c7	10	4'-0"
a14	4	8'-0"	c8	10	10'-3"
a15	4	7'-9"	c9	12	10'-3"
a16	8	7'-9"	c10	1	9'-9"
a17	24	2'-0"	c11	1	12'-6"
a18	26	4'-0"	c12	1	19'-0"
a19	4	2'-9"	c13	1	17'-0"
a20	11	2'-9"	c14	1	19'-0"
a21	12	5'-6"	c15	1	21'-9"
a22	9	3'-3"	c16	3	10'-9"
b1	4	8	c17	10	19'-6"
b2	4	8	c18	3	13'-6"
b3	4	8	c19	6	8'-9"
b4	4	8			
b5	4	8			
b6	4	8			
b7	4	8			
b8	4	8			
b9	4	8			
b10	4	8			
b11	2	8			

Size	Quantity
2'-11"	5 MK C10
3'-8"	5 MK C11
4'-5"	5 MK C12
5'-1"	5 MK C13
5'-10"	5 MK C14
6'-7"	5 MK C5

NOTES
LATERALS THAT PORTION OF THE FLAP GATE CHAMBER PROVIDED FOR ACCESS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 72\"/>

METHOD OF CONSTRUCTION: SEE PLAN & PROFILE SHEETS FOR LOCATION OF FLAP GATE CHAMBER AND ELEVATION OF INVERT SEMI-ELLIPTICAL STORM SEWER. THIS WORK SHALL COMPLY WITH SECTIONS 52 AND 73 OF THE STANDARD SPECIFICATIONS. MINIMUM STEEL CLEARANCE SHALL BE 2 INCHES.

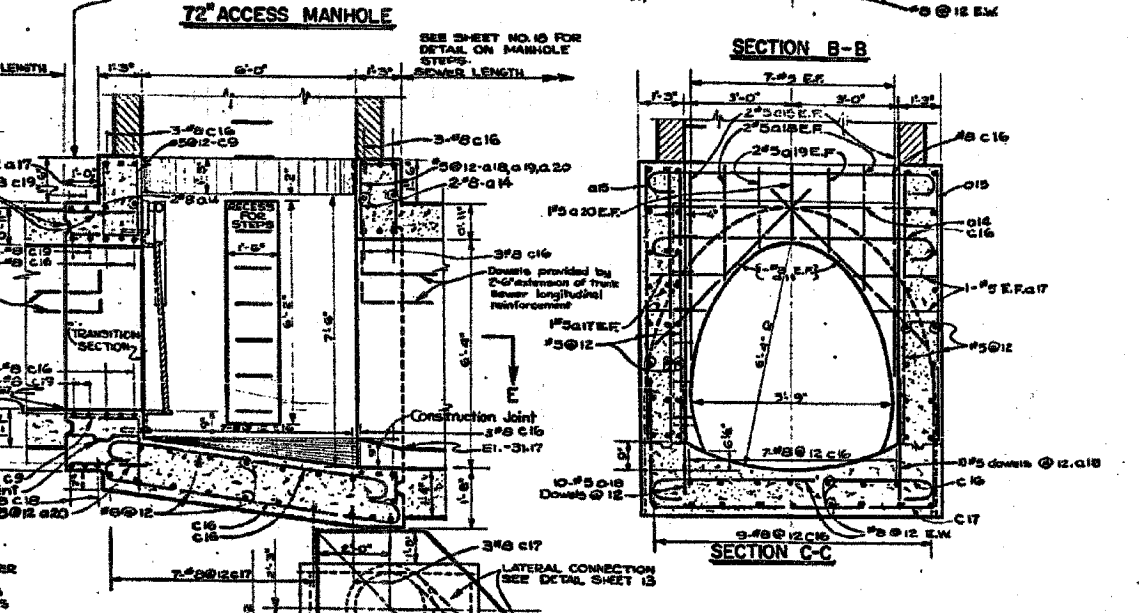
BASE OF PAYMENT: THE CONTRACT UNIT PRICE OF FLAP GATE CHAMBER SHALL INCLUDE ALL EXCAVATION AND BACK FILL, FURNISHING AND PLACING ALL MATERIALS REQUIRED INCLUDING COMPLETE FLAP GATE & SEAT, 72\"/>

SEWER FLAP GATE SHALL BE INSTALLED AS INDICATED ON THE PLAN. THIS GATE SHALL BE A FLAP GATE CONFORMING TO THE REQUIREMENTS OF THE SPECIAL PROVISIONS.

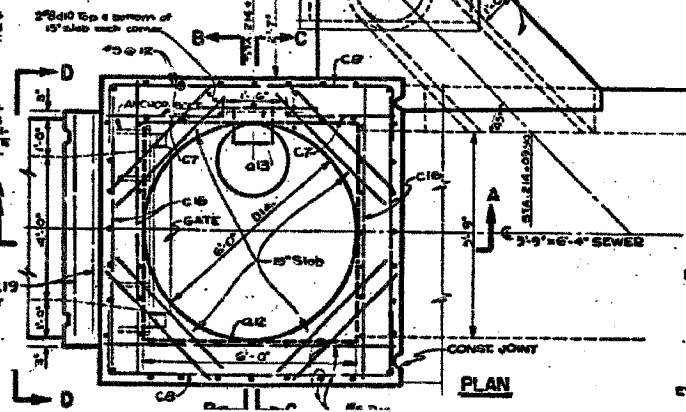
THE GATE SHALL BE DESIGNED TO WITHSTAND A MAXIMUM HYDRAULIC HEAD OF 30 FEET ABOVE THE CENTRLINE OF THE GATE.

THE FRAME AND SHUTTER ARE TO BE MADE IF CAST BENT WITH BRONZE HINGE FITTINGS WITH BRONZE SEATS ON FRAME AND SHUTTER. ALL REINFORCEMENT BARS ARE #7 @ 12\"/>

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FLAP GATE FOR APPROVAL PRIOR TO SHIPMENT.



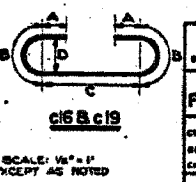
72\"/>



PLAN

BILL OF MATERIAL
Reinforcing Steel - 3275 Lbs
Class X Concrete - 17.8 Cu.Yds
Reinforced Concrete Pipe (ASTM C76-57T) Class III-17.25 L.H.Ft.

Bar	A	B	C	D
c16	6	1	1	7
c19	6	1	1	7



SECTION C-C

SCALE: 1/8\"/>

REVISIONS	
NAME	DATE

COUNTY OF COOK
DEPARTMENT OF HIGHWAYS
FLAP GATE CHAMBER DETAILS
CREATED: E.G.G. DATE: 7/1/05
DRAWN: M.L.F.
CHECKED: S.G. DATE: 7/1/05
BY LEUK, CATHY & COMPANY

FOR INFORMATION ONLY

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION
JUNCTION CHAMBER 4-01
DETAIL 4
SCALE: DATE: 7/1/05
DRAWN BY: JRW
CHECKED BY: EL