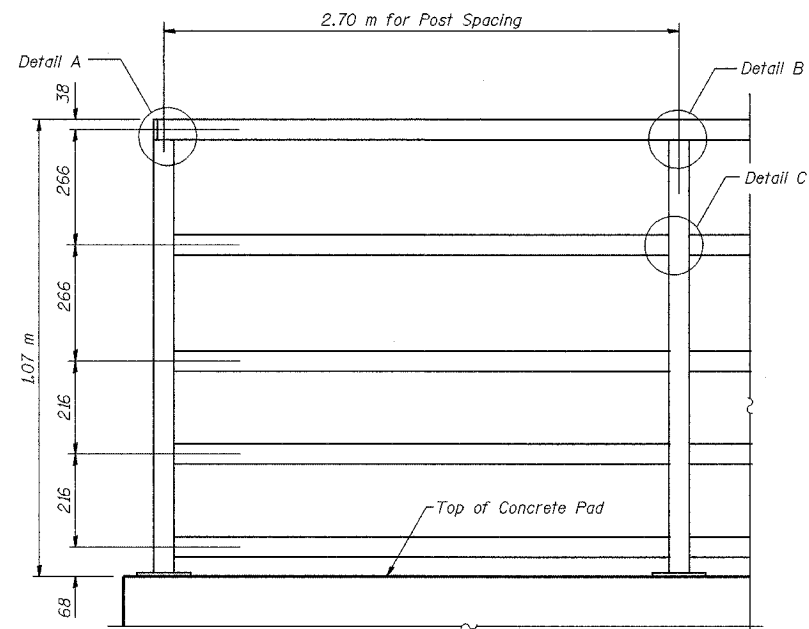
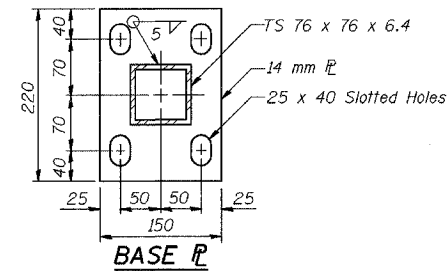
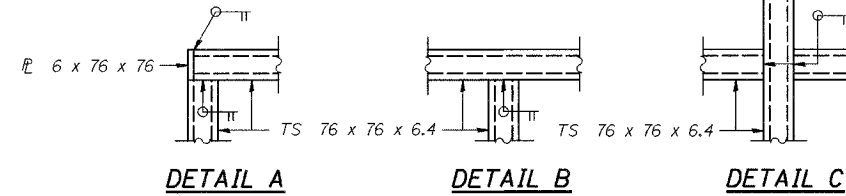


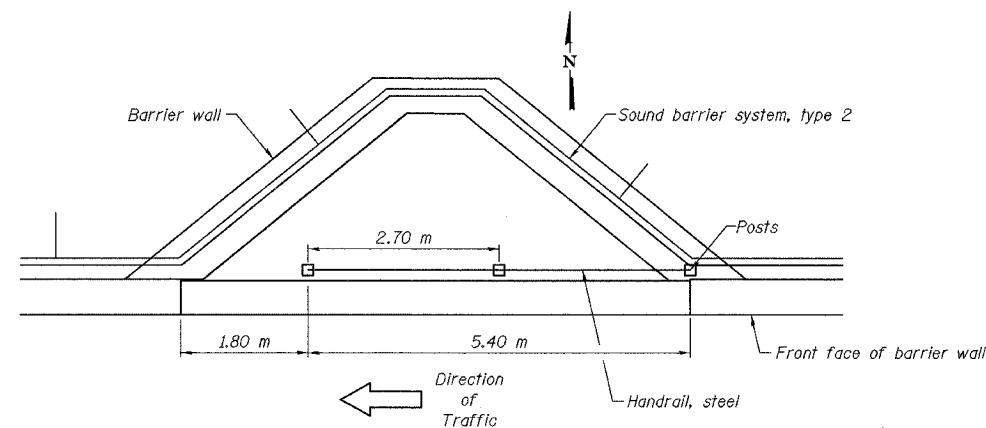
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80/94	2626.2-R-2	COOK/LAKE	1207	501
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



HANDRAIL, STEEL
(Inside Face of Rail)

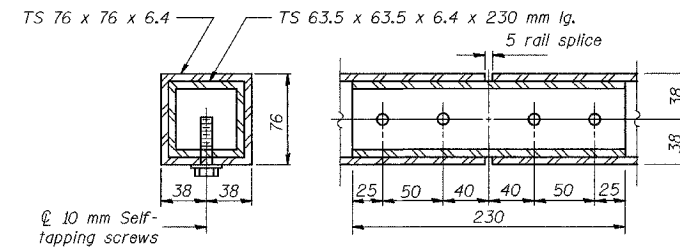


BASE PL

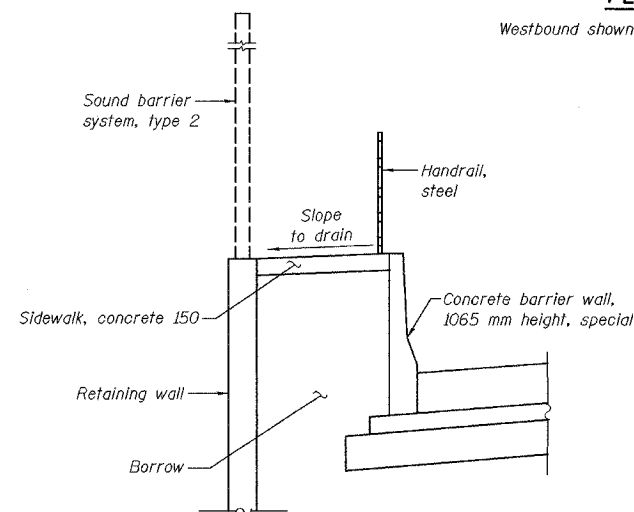


PLAN

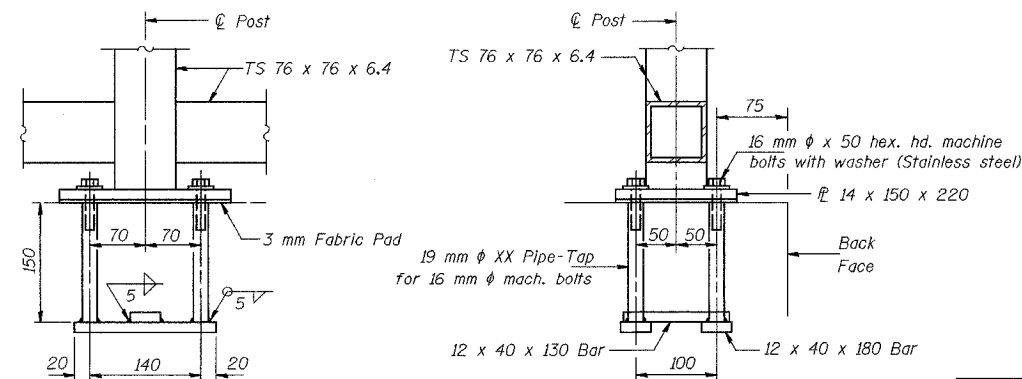
Westbound shown, Eastbound similar



RAIL SPLICE



SECTION



ANCHOR BOLT DETAILS

(In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting M16 anchor rods for the connections on top of the parapets. Embedment shall be according to the manufacturer's specifications.)

NOTES

Railing shall be according to Section 604 of the Indiana Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per meter for Handrail steel (Indiana).
Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 250.
If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.
Space reinforcement to miss anchor rods.
All dimensions are in millimeters (mm) except as noted.
All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.
Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6 (KINGERY EXPRESSWAY)
BURNAM ROAD TO US 41 (CALUMET AVE)
**HANDRAIL DETAIL AT
WEIGH-IN-MOTION SYSTEM**

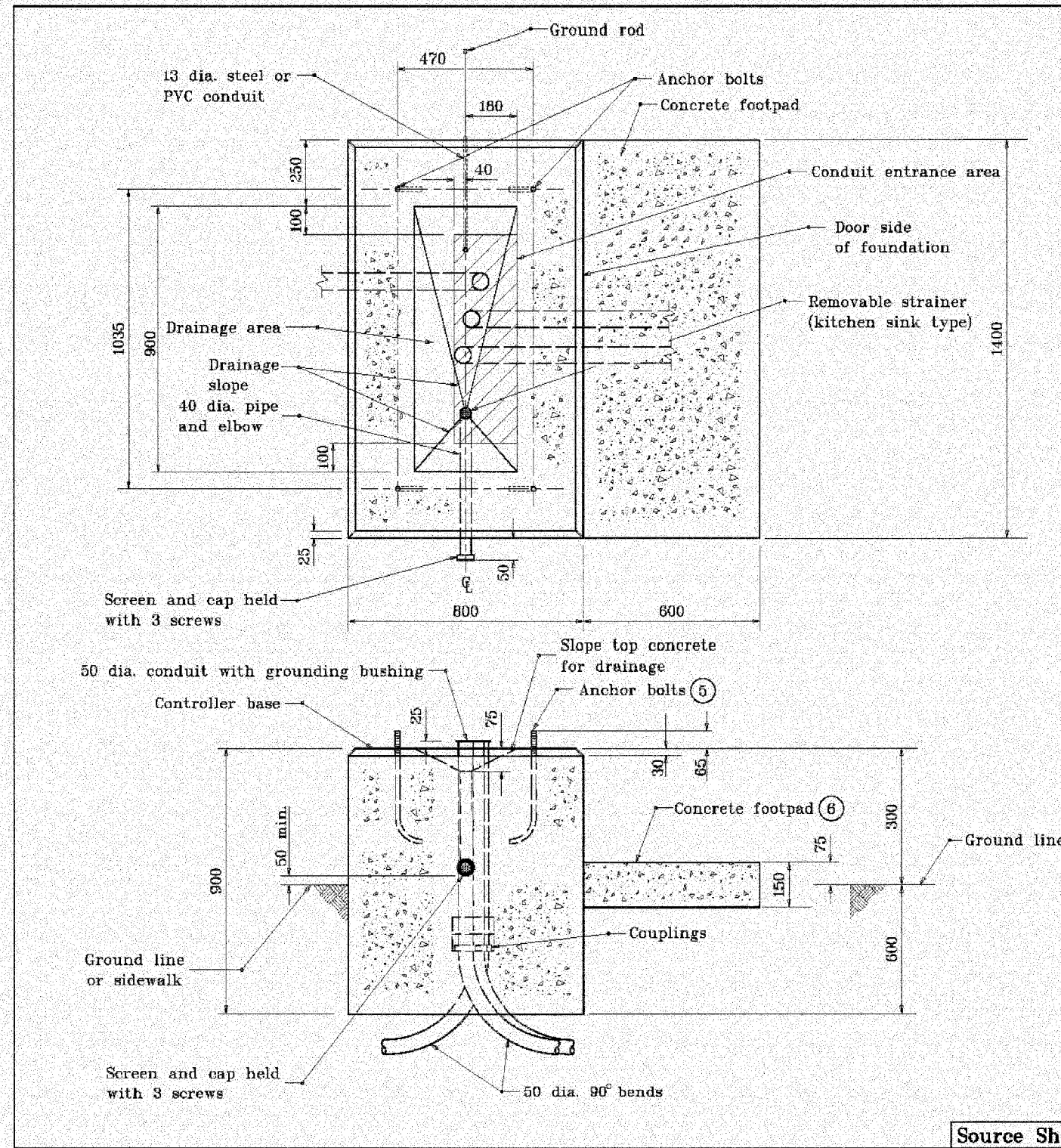
SCALE: DATE 07/05
DRAWN BY ACE/CAD
CHECKED BY TAE



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	501A
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62114		INDOT DES. NO. 0100987		

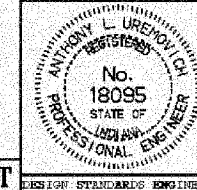
NOTES

See Standard Drawing 805-SGCF-03 for General Notes.



All dimensions are in mm unless otherwise specified.

INDIANA DEPARTMENT OF TRANSPORTATION
CONTROLLER CABINET
FOUNDATION TYPE P-1
 SEPTEMBER 1998
 STANDARD DRAWING NO. **805-SGCF-01**



/s/ Anthony L. Uremovich 9-01-98
 DESIGN STANDARDS ENGINEER DATE

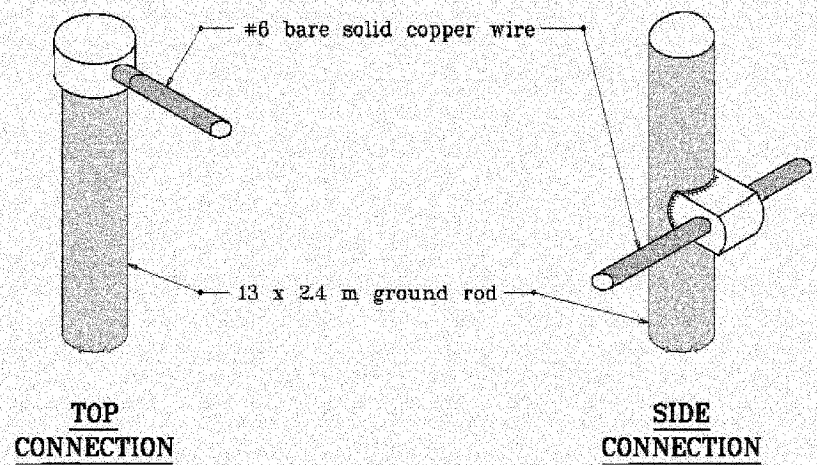
/s/ Donald W. Lucas 9-01-98
 CHIEF HIGHWAY ENGINEER DATE

Source Sheet: **MT**

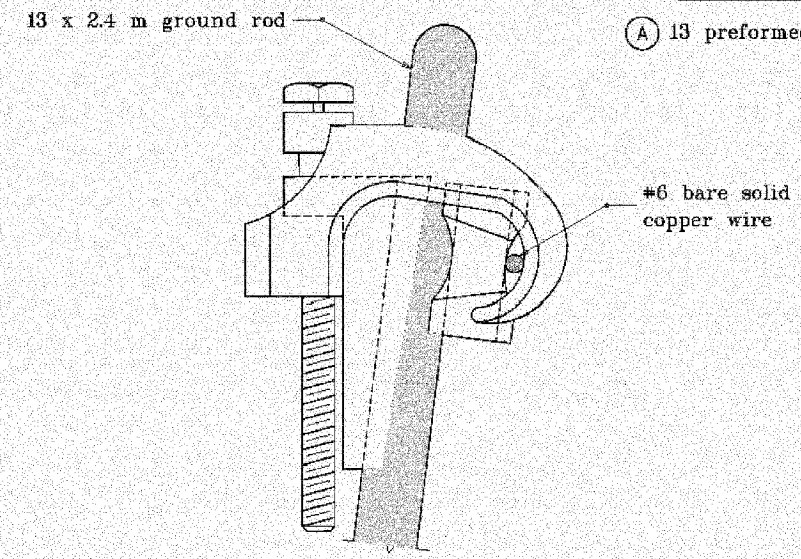
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80/94	2626.2-R-2	COOK/LAKE	1207	501B
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			

GENERAL NOTES

(A) 13 preformed joint

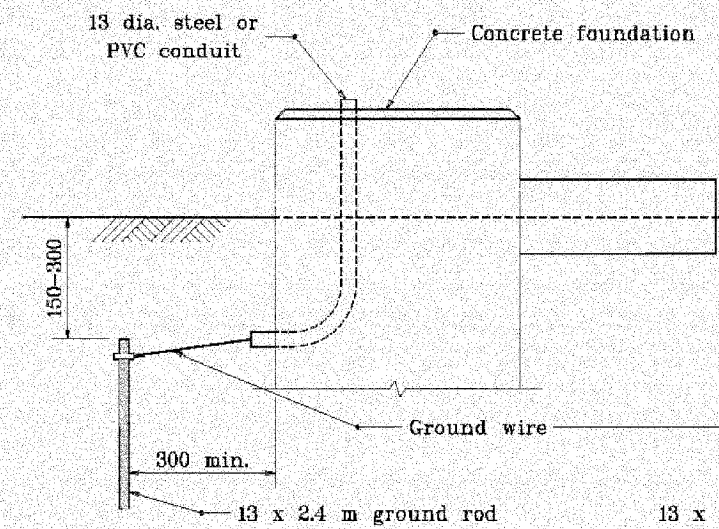


THERMO WELD

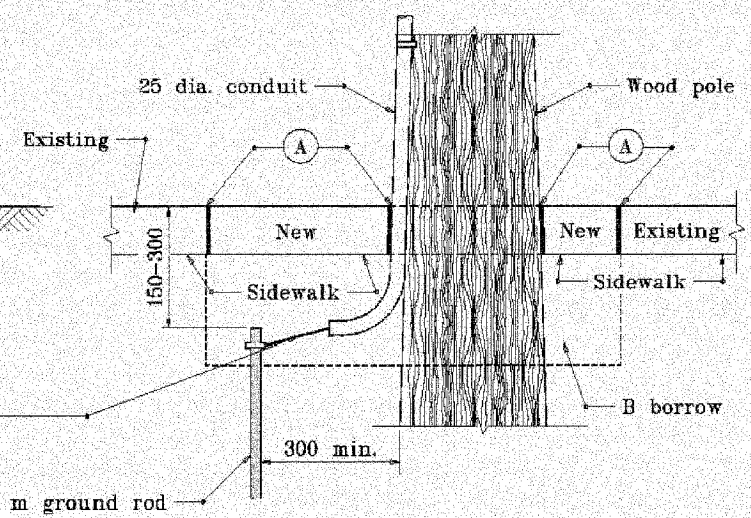


GROUNDING GRID

GROUND ROD CONNECTIONS



TYPICAL DETAIL GROUND ROD IN EARTH



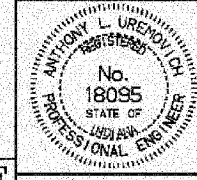
TYPICAL DETAIL GROUND ROD IN SIDEWALK

All dimensions are in mm unless otherwise specified.
INDIANA DEPARTMENT OF TRANSPORTATION

GROUND ROD

SEPTEMBER 1998

STANDARD DRAWING NO. 805-SGGR-01

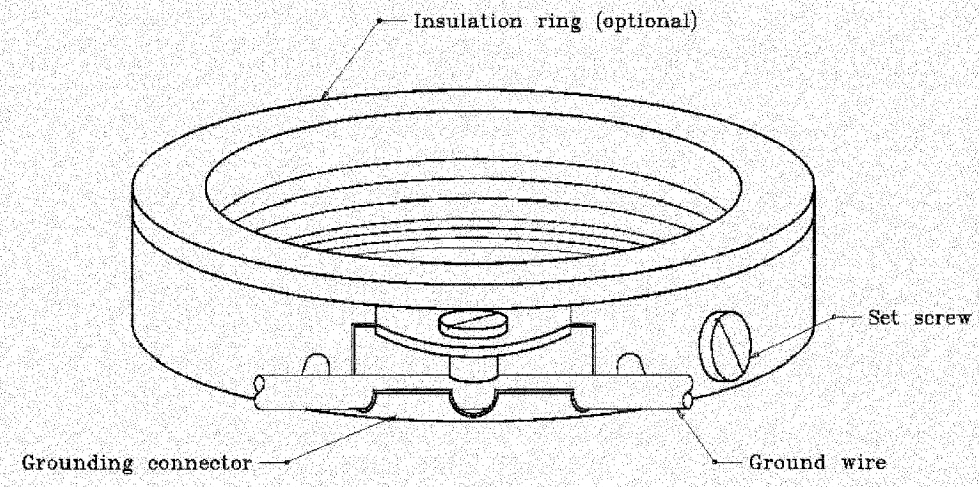


/s/ Anthony L. Uremovich 8-01-98
DESIGN STANDARDS ENGINEER DATE

/s/ Donald W. Lucas 8-01-98
CHIEF HIGHWAY ENGINEER DATE

Source Sheet: NONE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	501C
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



All dimensions are in mm unless otherwise specified.

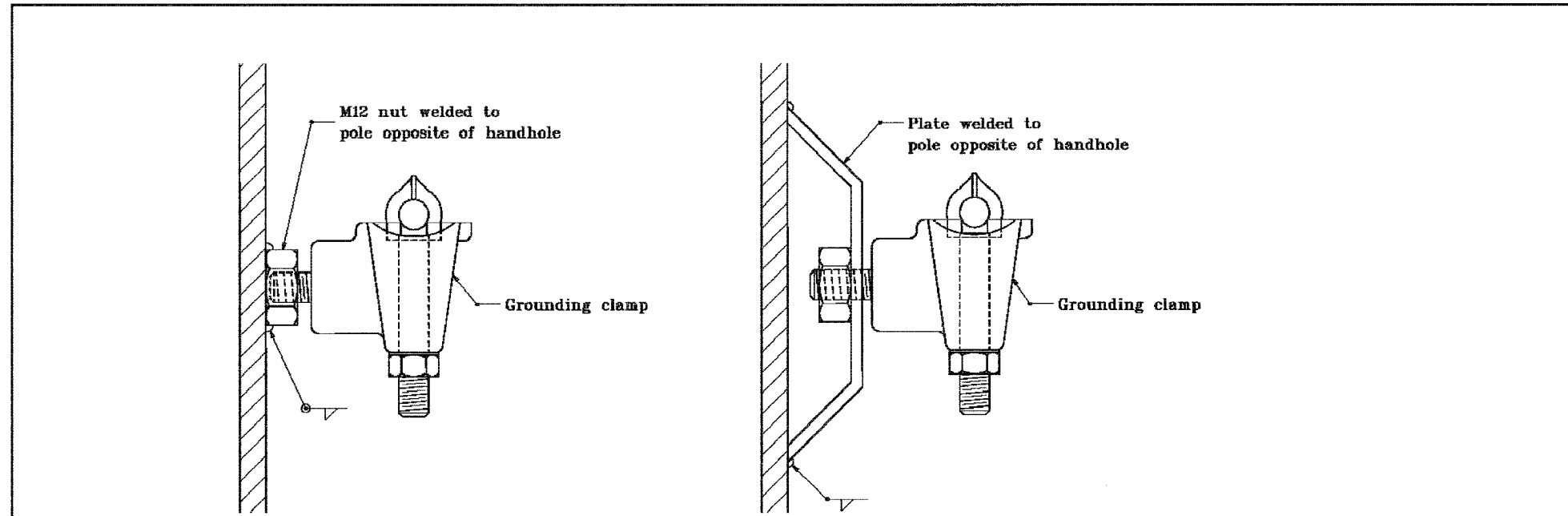
INDIANA DEPARTMENT OF TRANSPORTATION
THREADED GROUNDING BUSHING
 SEPTEMBER 1998

STANDARD DRAWING NO. 805-SGGR-02

	/s/ Anthony L. Uremovich 9-01-98 DESIGN STANDARDS ENGINEER DATE
	/s/ Donald W. Lucas 5-01-98 CHIEF HIGHWAY ENGINEER DATE

Source Sheet: NONE

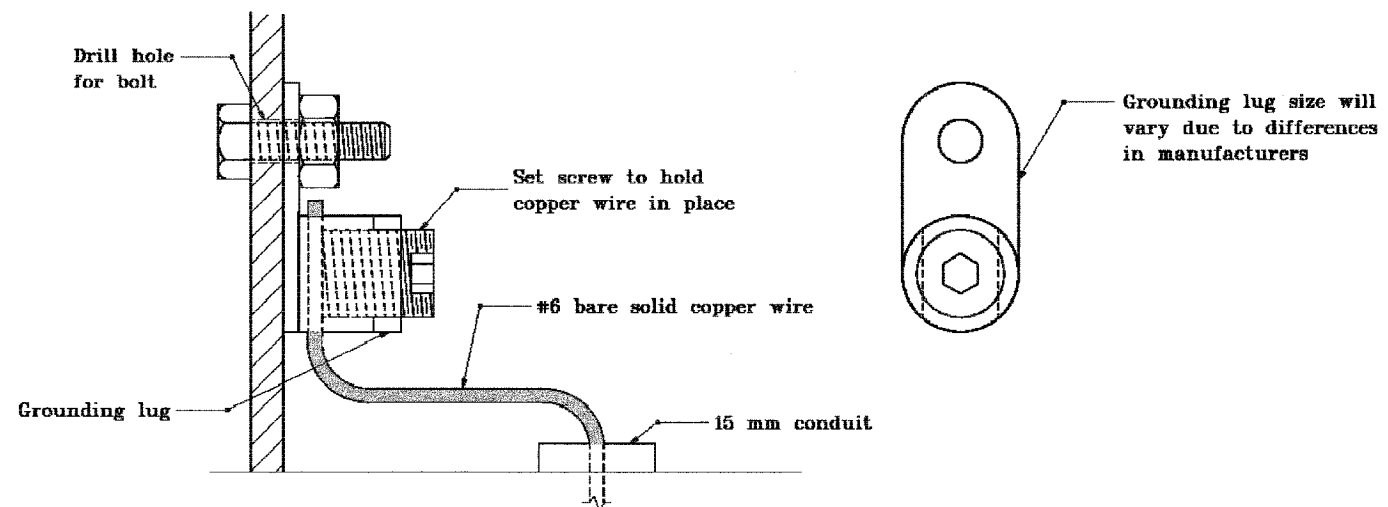
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80/94	2626.2-R-2	COOK/LAKE	1207	501D
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



ALUMINUM POLES

STEEL POLES

GROUNDING POST DETAIL



**GROUNDING LUG DETAIL
(FIELD CONNECTION)**

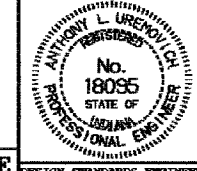
All dimensions are in mm unless otherwise specified.

INDIANA DEPARTMENT OF TRANSPORTATION

GROUNDING DETAILS

MARCH 1995

STANDARD DRAWING NO. 805-SGGR-03



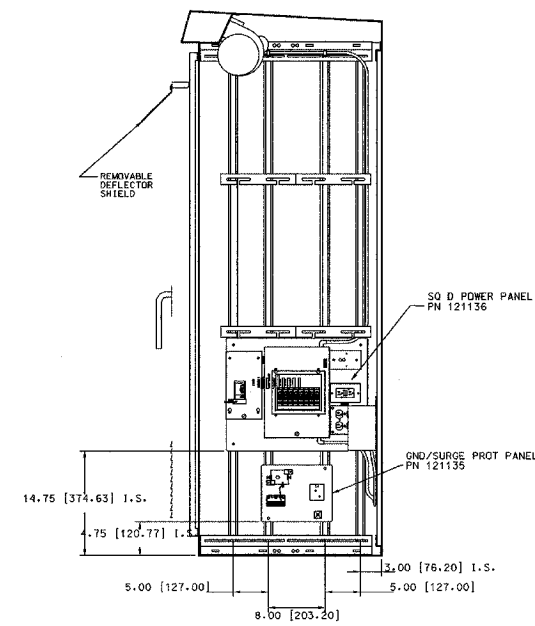
/s/ Anthony L. Uremovich 3-01-95
DESIGN STANDARDS ENGINEER DATE

/s/ Donald W. Lucas 3-01-95
CHIEF HIGHWAY ENGINEER DATE

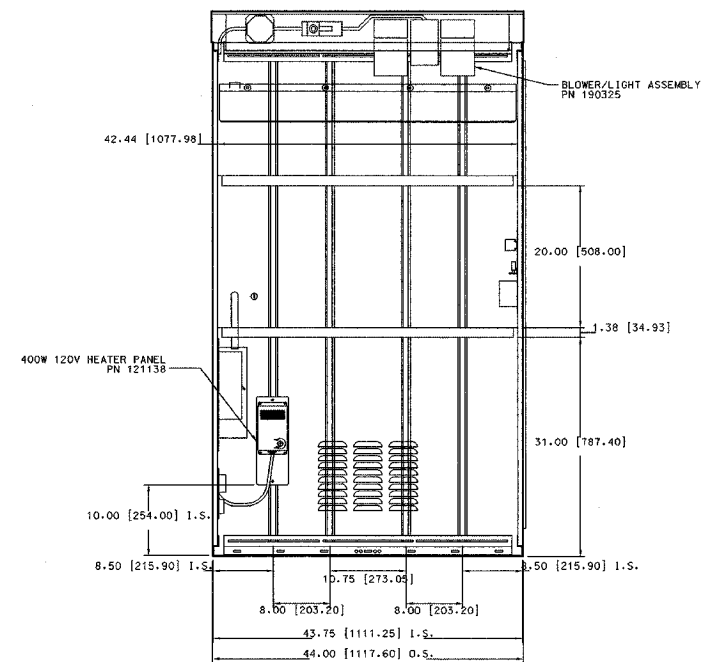
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UNITS ARE IN INCHES [mm].

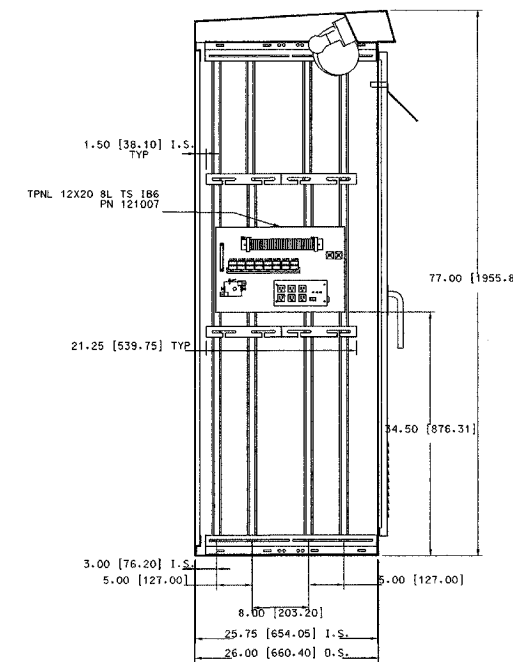
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80/94	2626.2-R-2	COOK/LAKE	1207	501E
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



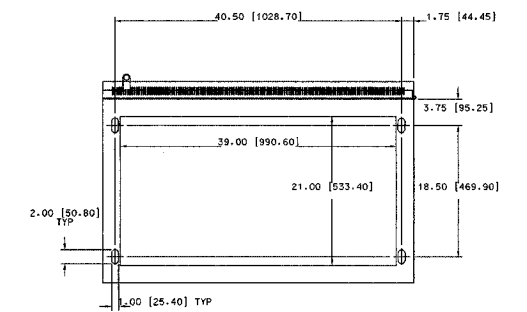
LEFT END VIEW



FRONT VIEW



RIGHT END VIEW



TOP VIEW

NOTE:
COMPONENTS IN CABINET ARE SHOWN FOR INFORMATION ONLY AND EXACT LOCATIONS ARE TO BE DETAILED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
TYPE R SIGNAL CONTROLLER CABINET

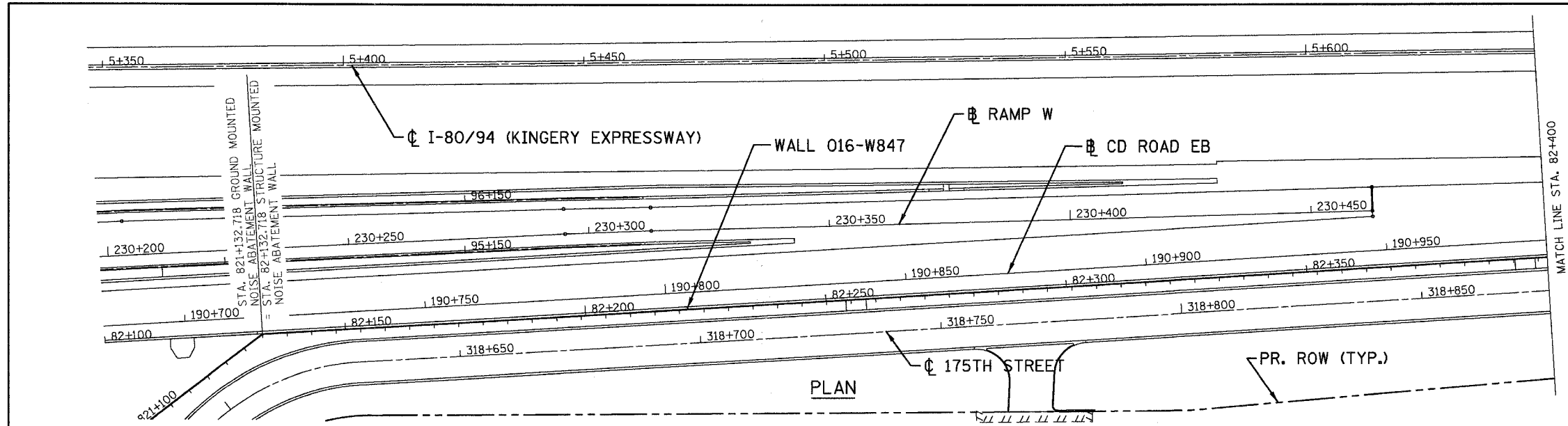
SCALE NTS
DATE 07/05
DRAWN BY ACE/CAD
CHECKED BY



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	505
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114				



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



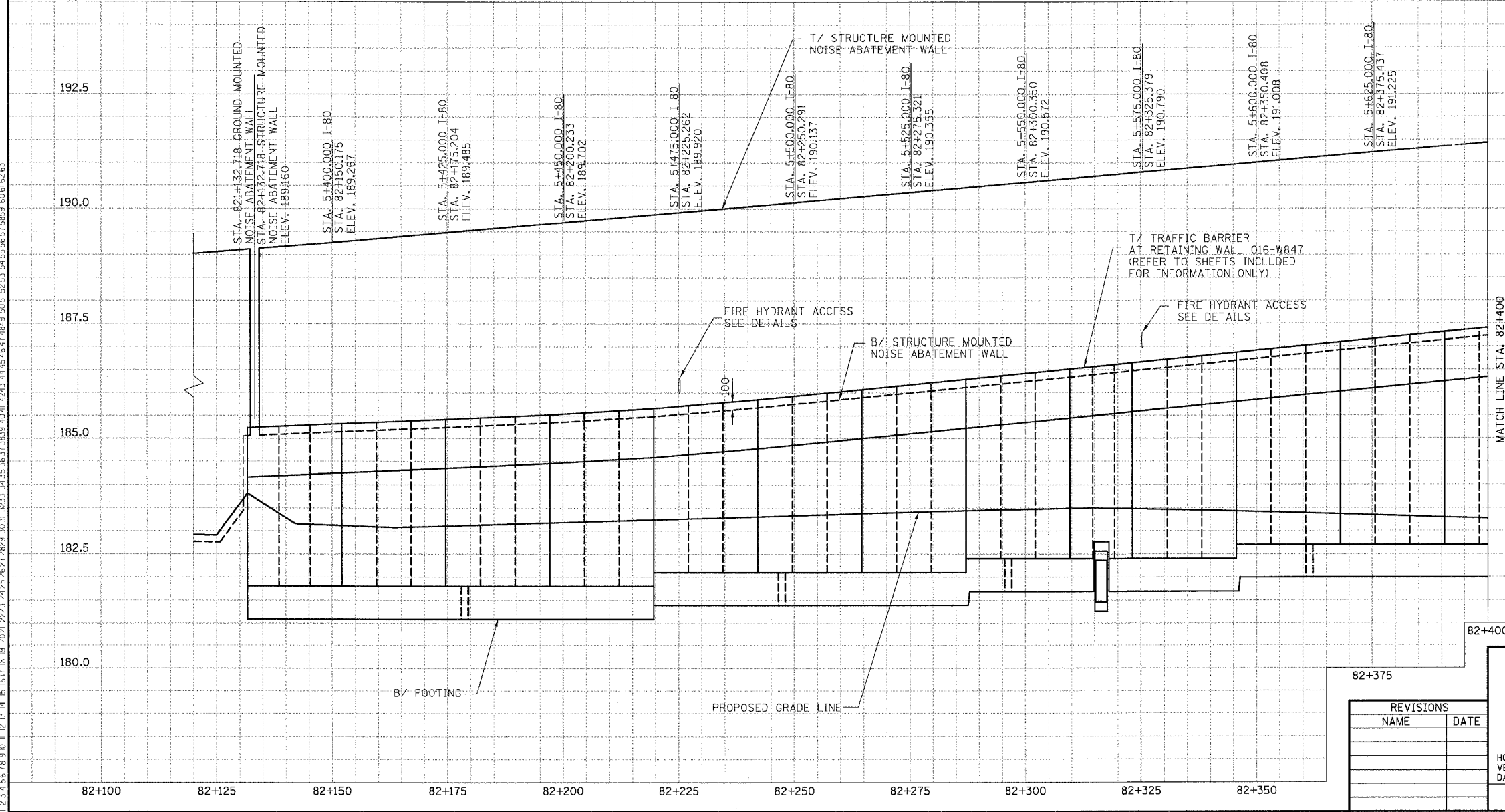
LEGEND:

 NOISE ABATEMENT WALL

NOTE:
 FOR WALL STATIONING,
 REFER TO GENERAL
 PLAN AND ELEVATION OF
 RESPECTIVE STRUCTURE.

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

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**NOISE ABATEMENT WALL
 PLAN AND PROFILE
 STA. 82+132.718 TO STA. 82+400**

HORIZ SCALE: 1"=50'
 VERT SCALE:
 DATE: 7/18/2005

DRAWN BY: MK
 CHECKED BY: MKJ

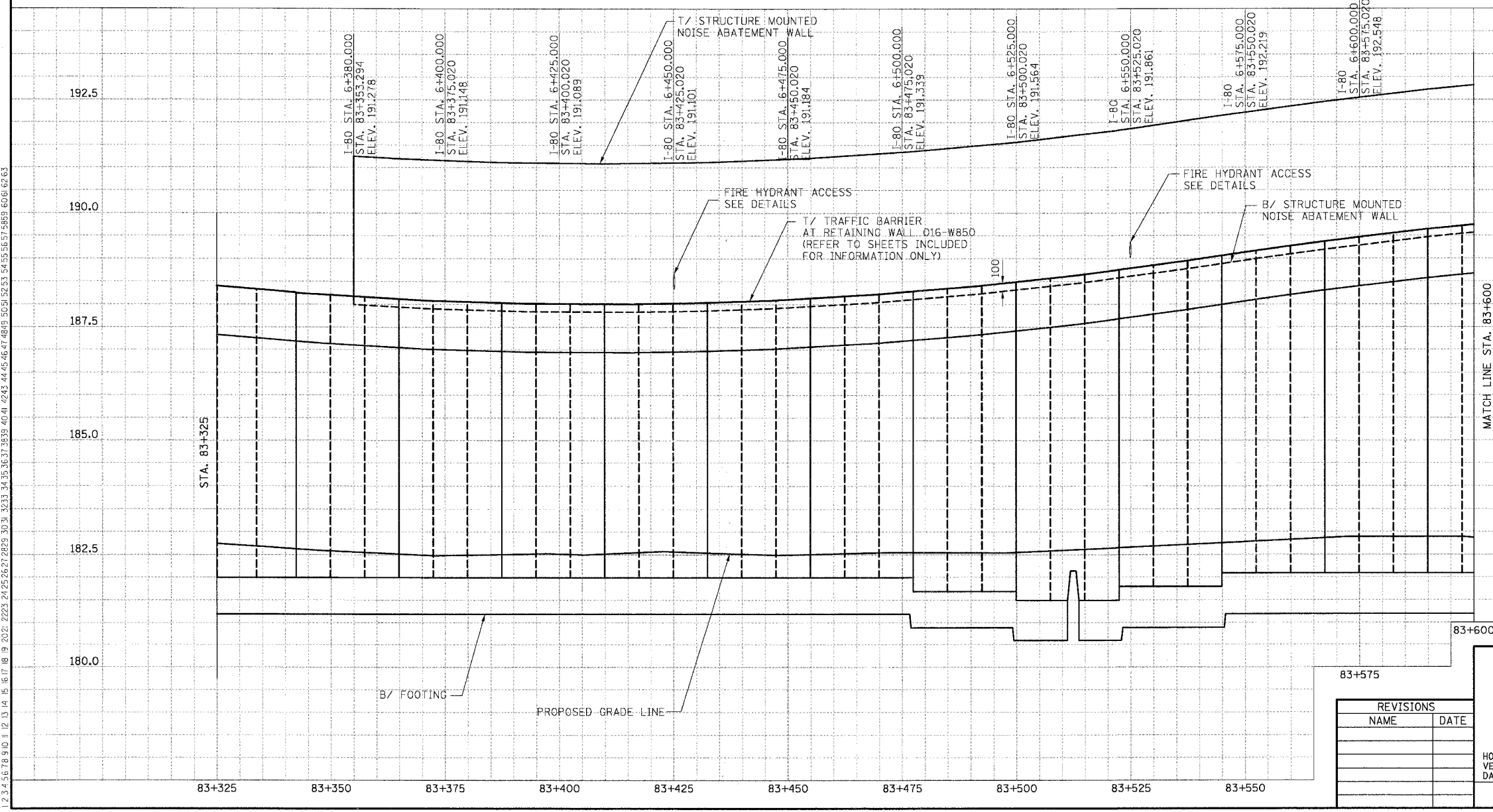
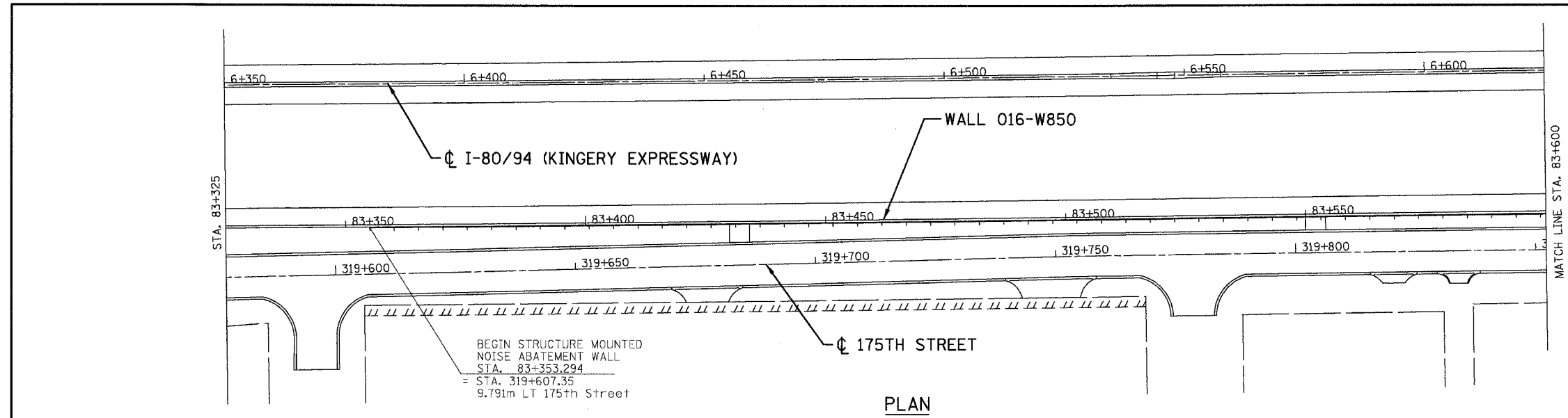
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	507
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114				

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

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

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LEGEND:
 NOISE ABATEMENT WALL

NOTE:
 FOR WALL STATIONING,
 REFER TO GENERAL
 PLAN AND ELEVATION OF
 RESPECTIVE STRUCTURE.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

NOISE ABATEMENT WALL
PLAN AND PROFILE
STA. 83+353.294 TO STA. 83+600

HORIZ SCALE: 1/500
 VERT SCALE:
 DATE: 7/18/2005

DRAWN BY: MJK
 CHECKED BY: MJK

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

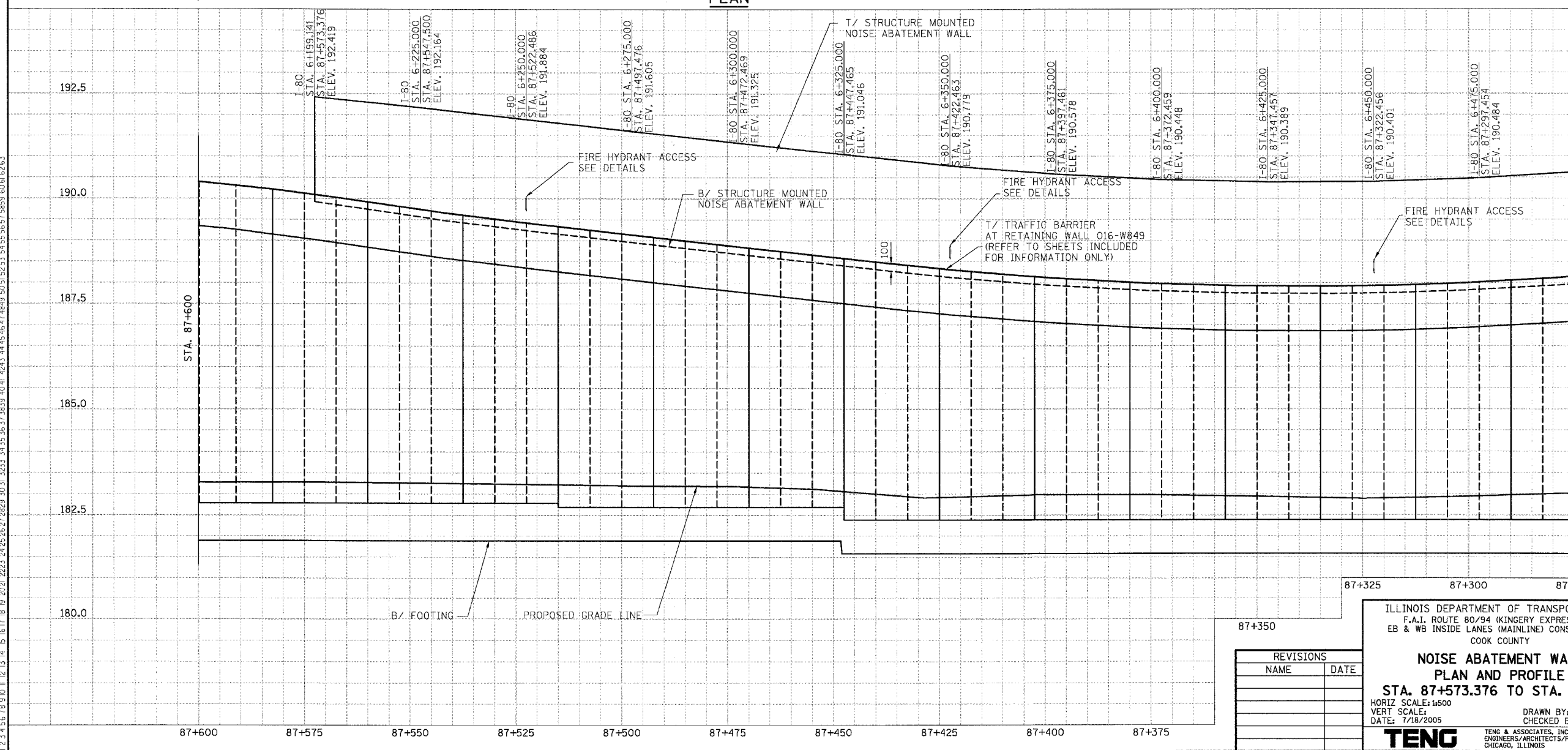
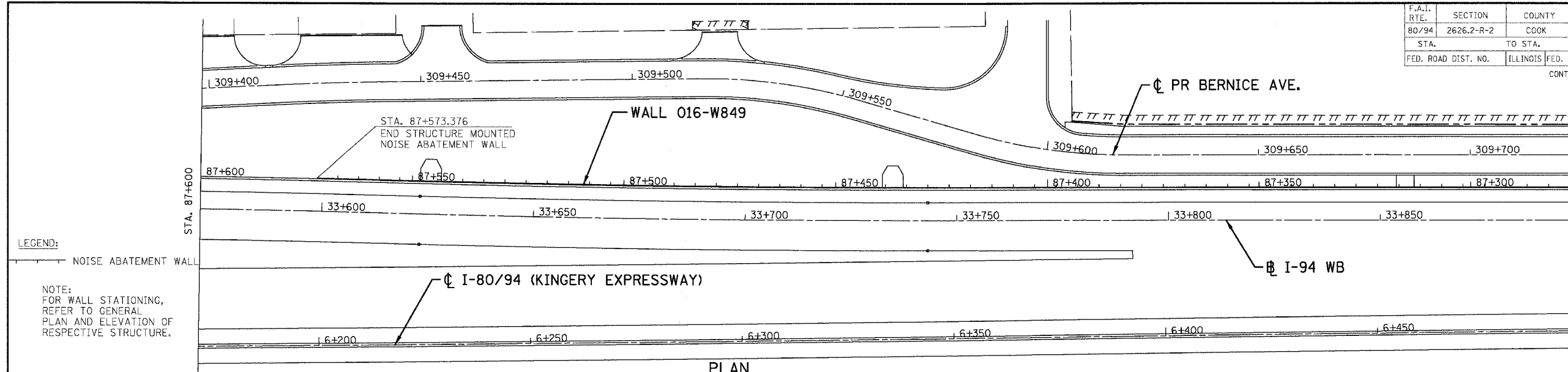
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	509
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62114

PRE-FINAL	SURVEYED	DATE
NO.	BY	DATE

ORIGINAL	SURVEYED	DATE
NO.	BY	DATE

\P\989002A.DGN, \H\989002A.DGN, \N\989002A.DGN, \V\989002A.DGN, \RRS002A.DGN, \PF\0072A.DGN, \PF\0072A.DGN
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**NOISE ABATEMENT WALL
 PLAN AND PROFILE**
 STA. 87+573.376 TO STA. 87+275

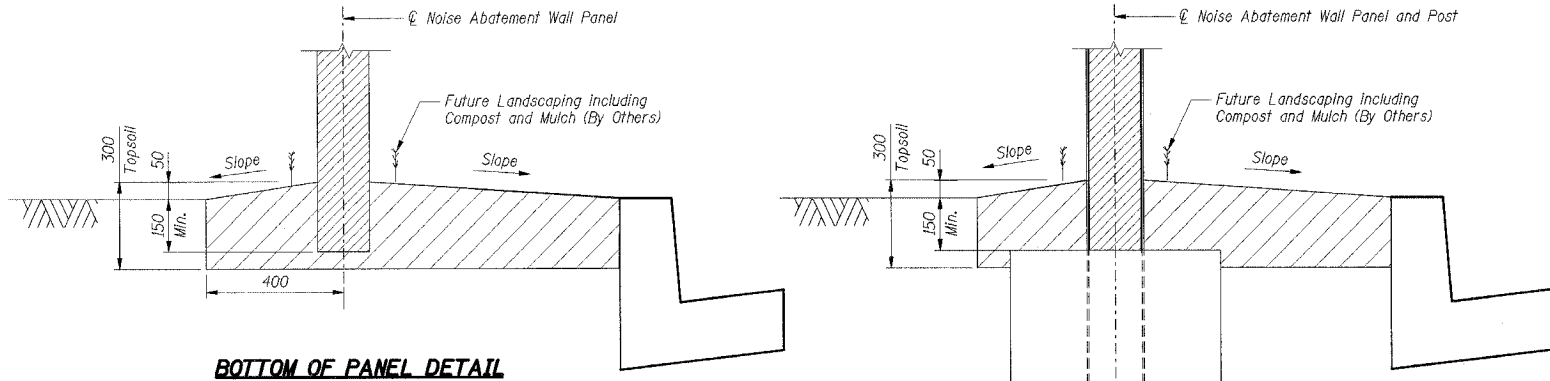
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 VERT SCALE: 1/10
 DATE: 7/18/2005

DRAWN BY: WK
 CHECKED BY: MWK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	511
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

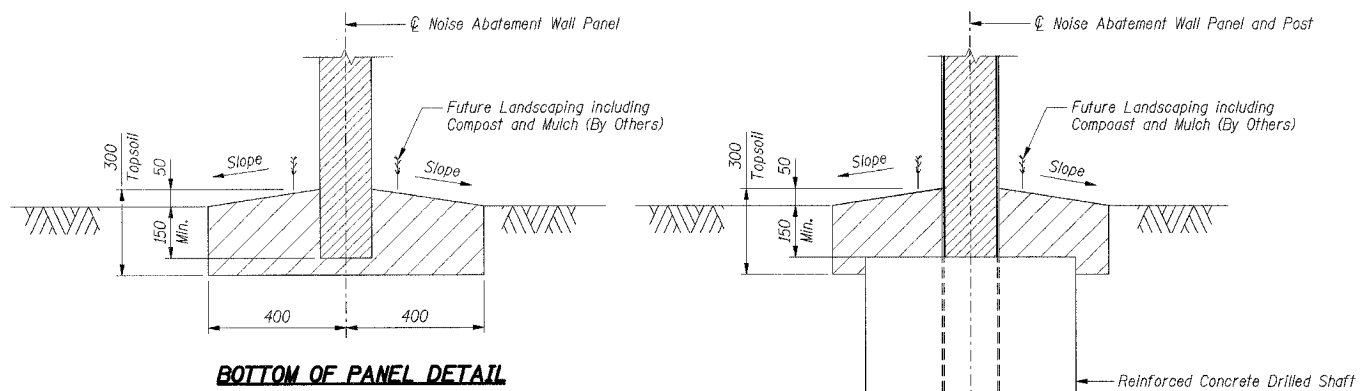
CONTRACT NO. 62114



BOTTOM OF PANEL DETAIL

FOUNDATION DETAIL

NOISE ABATEMENT WALL A ALONG 175th STREET STA. 811+012.174 TO 811+080.756



BOTTOM OF PANEL DETAIL

FOUNDATION DETAIL

NOISE ABATEMENT WALL B STA. 812+644.790 TO 812+683.820
NOISE ABATEMENT WALL C STA. 821+035.684 TO 821+035.684

LEGEND
 Topsoil Furnish and Place, 300 mm

NOTE
 THE COST OF EARTH EXCAVATION NECESSARY FOR THE PLACEMENT OF TOPSOIL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR NOISE ABATEMENT WALL, GROUND MOUNTED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

GROUND MOUNTED NOISE ABATEMENT WALL DETAILS

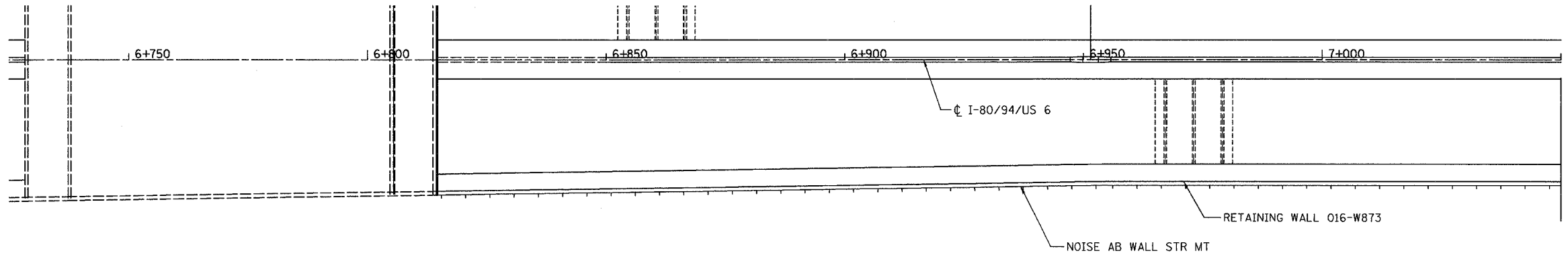
SCALE: DATE: 7/18/2005
 DRAWN BY: MJ
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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ALL DIMENSIONS IN METERS EXCEPT PAVEMENT ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	512
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62114		INDOT DES. NO. 0100987		

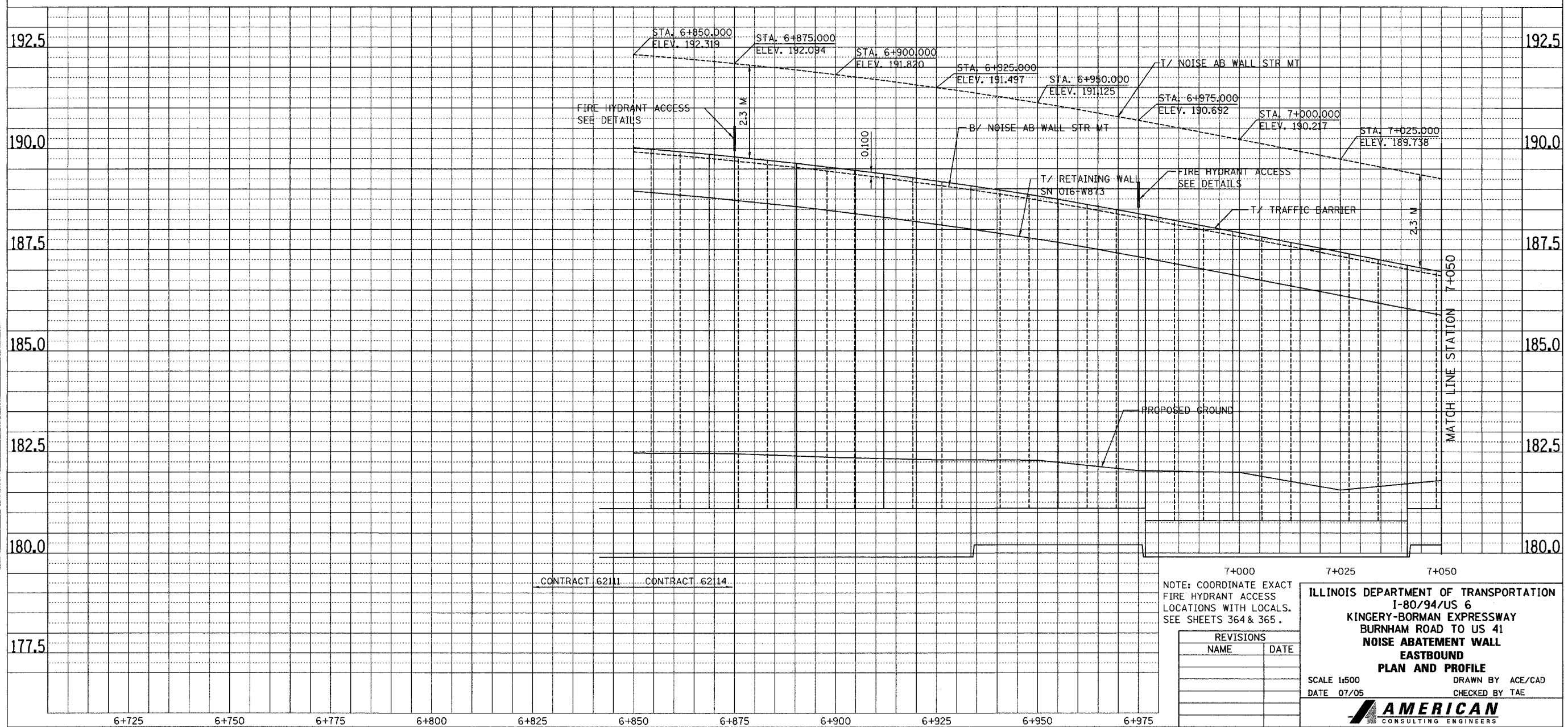


MATCH LINE
STATION 7+050



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

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



CONTRACT 62111 CONTRACT 62114

7+000 7+025 7+050
NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
EASTBOUND
PLAN AND PROFILE**

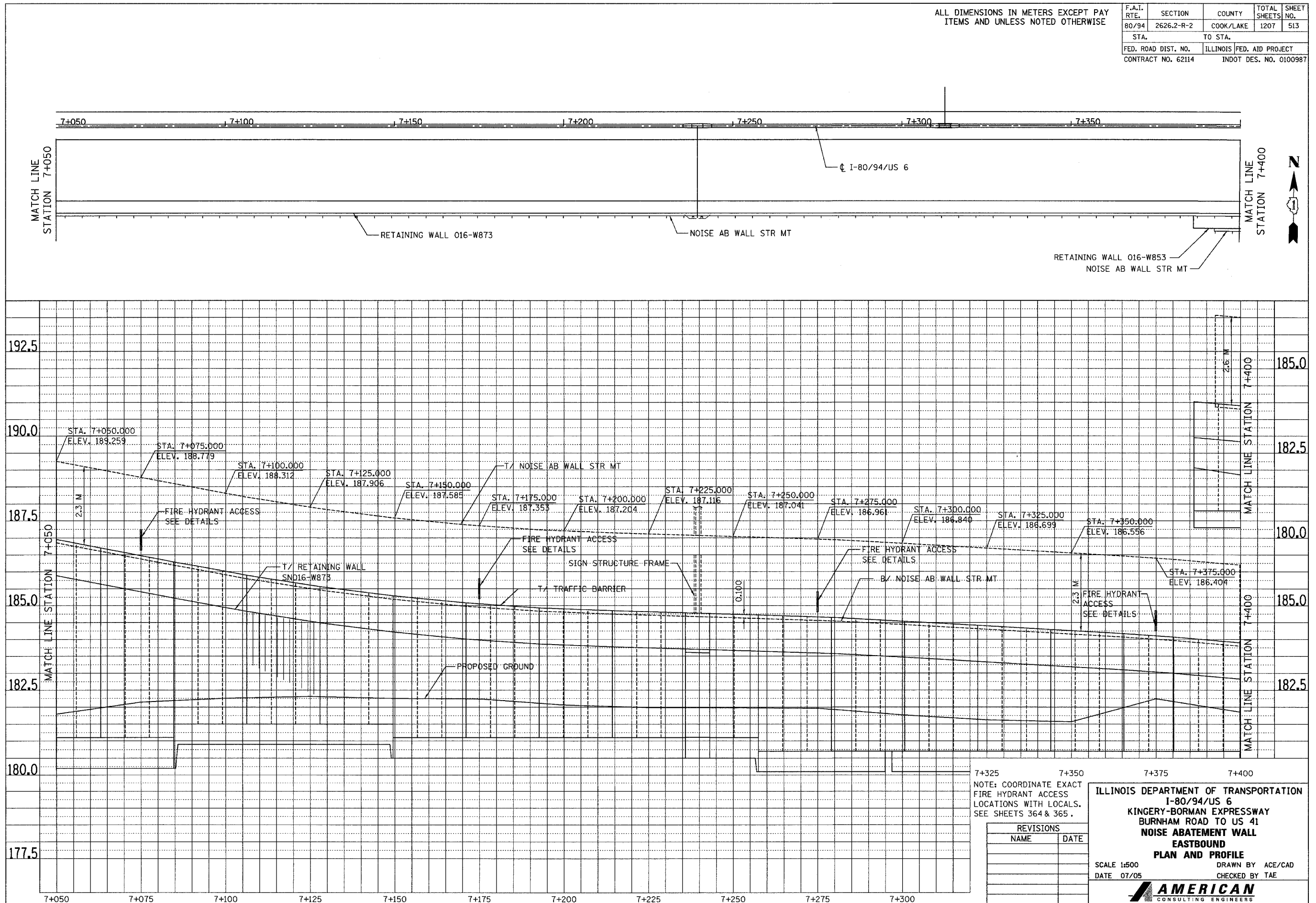
SCALE 1:500 DRAWN BY ACE/CAD
DATE 07/05 CHECKED BY TAE

ALL DIMENSIONS IN METERS EXCEPT PAVEMENT ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	513
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			

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

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



7+325 7+350 7+375 7+400

NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
 EASTBOUND**
PLAN AND PROFILE

SCALE 1:500 DRAWN BY ACE/CAD
 DATE 07/05 CHECKED BY TAE

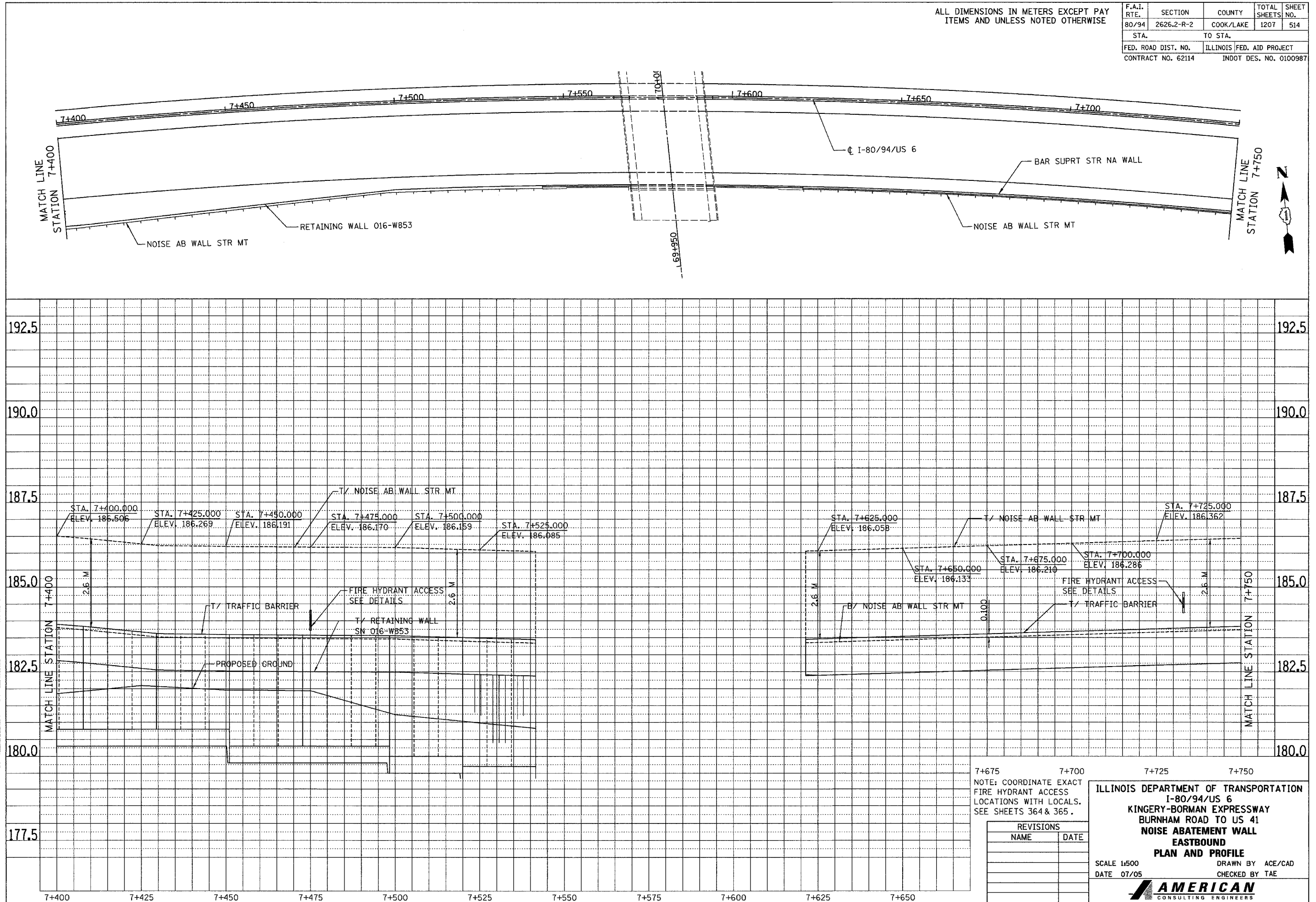
AMERICAN
 CONSULTING ENGINEERS

ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	514
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			

BY	DATE
SURVEYED	
PLOTTED	
NOTE BOOK TEMPLATE	
AREAS CHECKED	
NO.	

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



7+675 7+700 7+725 7+750
 NOTE: COORDINATE EXACT
 FIRE HYDRANT ACCESS
 LOCATIONS WITH LOCALS.
 SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
 EASTBOUND**
PLAN AND PROFILE
 SCALE 1:500 DRAWN BY ACE/CAD
 DATE 07/05 CHECKED BY TAE

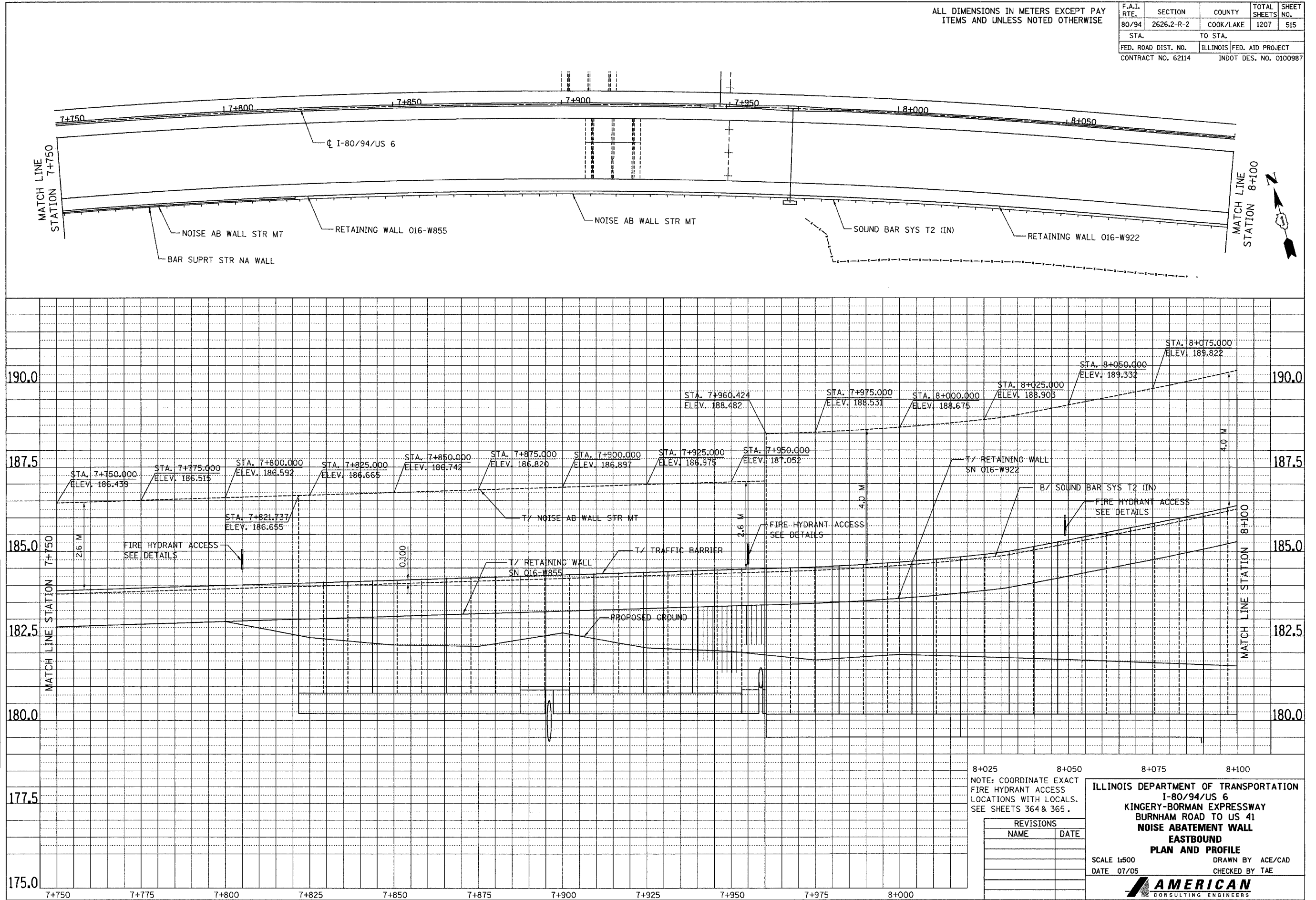
AMERICAN
 CONSULTING ENGINEERS

ALL DIMENSIONS IN METERS EXCEPT PAV
ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	515
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 62114 INDOT DES. NO. 0100987		

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

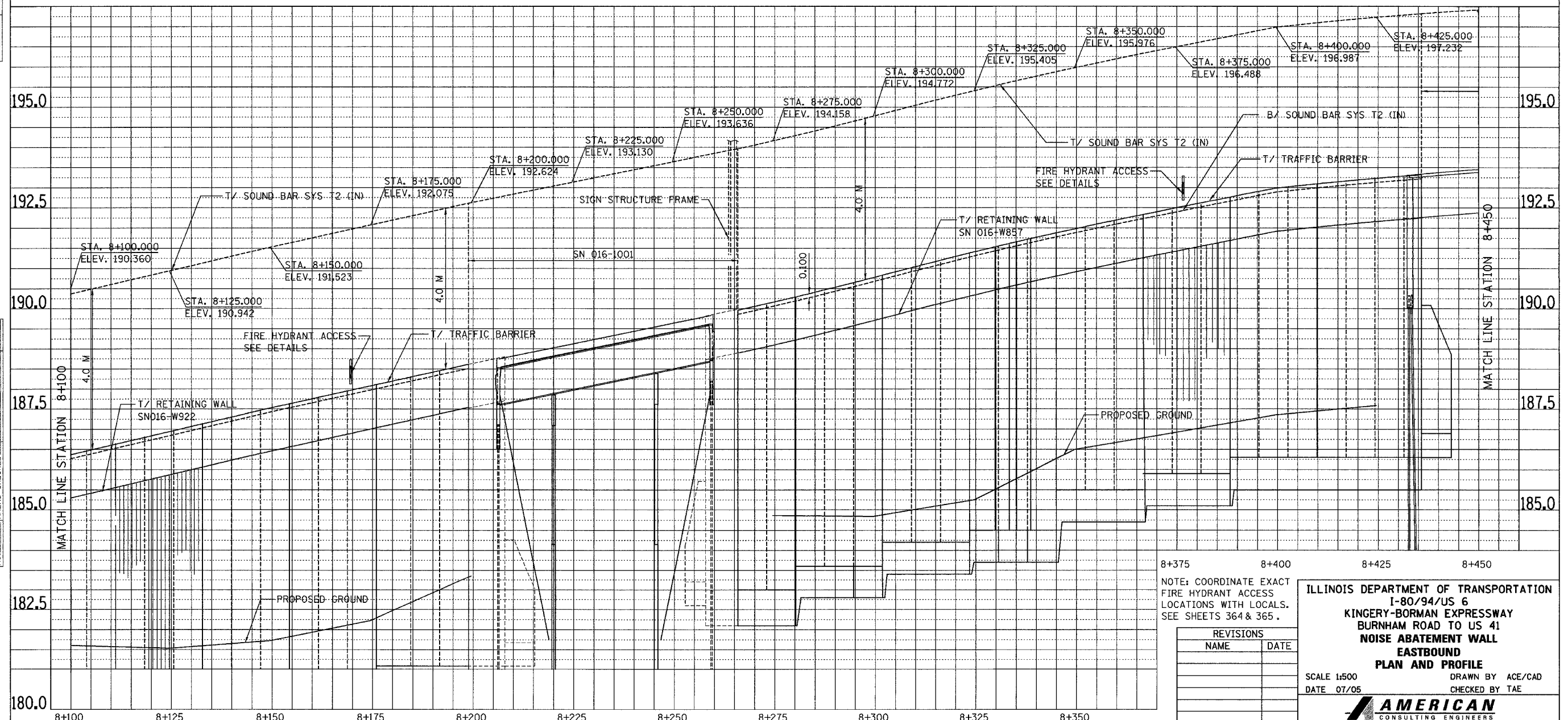
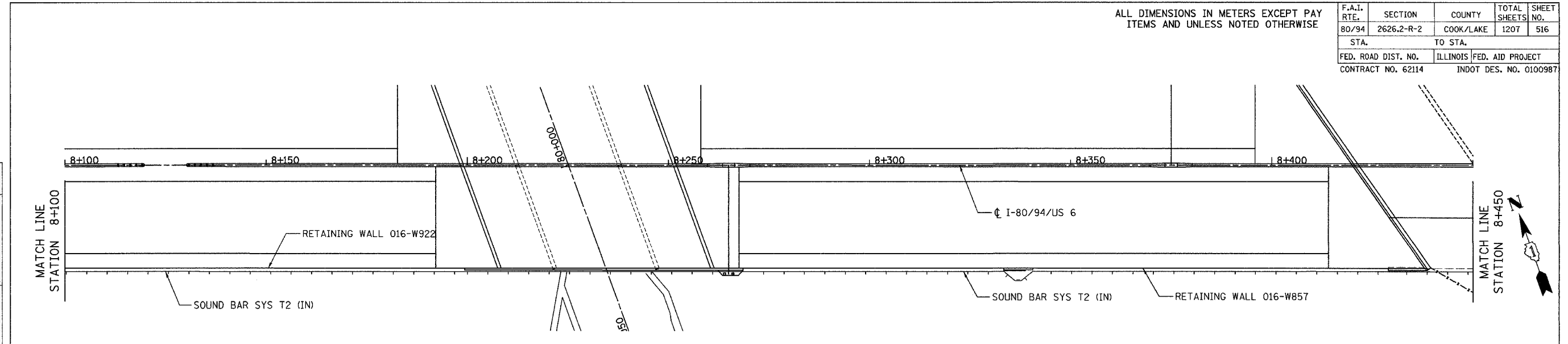
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SURVEYED		
PLOTTED		
NOTE BOOK TEMPLATE		
AREAS CHECKED		
NO.		



8+025	8+050	8+075	8+100										
NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.													
ILLINOIS DEPARTMENT OF TRANSPORTATION I-80/94/US 6 KINGERY-BORMAN EXPRESSWAY BURNHAM ROAD TO US 41 NOISE ABATEMENT WALL EASTBOUND PLAN AND PROFILE													
SCALE 1:500		DRAWN BY ACE/CAD											
DATE 07/05		CHECKED BY TAE											
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REVISIONS													
NAME	DATE												

ALL DIMENSIONS IN METERS EXCEPT PAVEMENT ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	516
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



DATE	BY
SURVEYED	
PLOTTED	
NOTE BOOK	
TEMPLATE	
AREAS	
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NO.	

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

8+375 8+400 8+425 8+450

NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
NOISE ABATEMENT WALL
EASTBOUND
PLAN AND PROFILE

SCALE 1:500 DRAWN BY ACE/CAD
DATE 07/05 CHECKED BY TAE

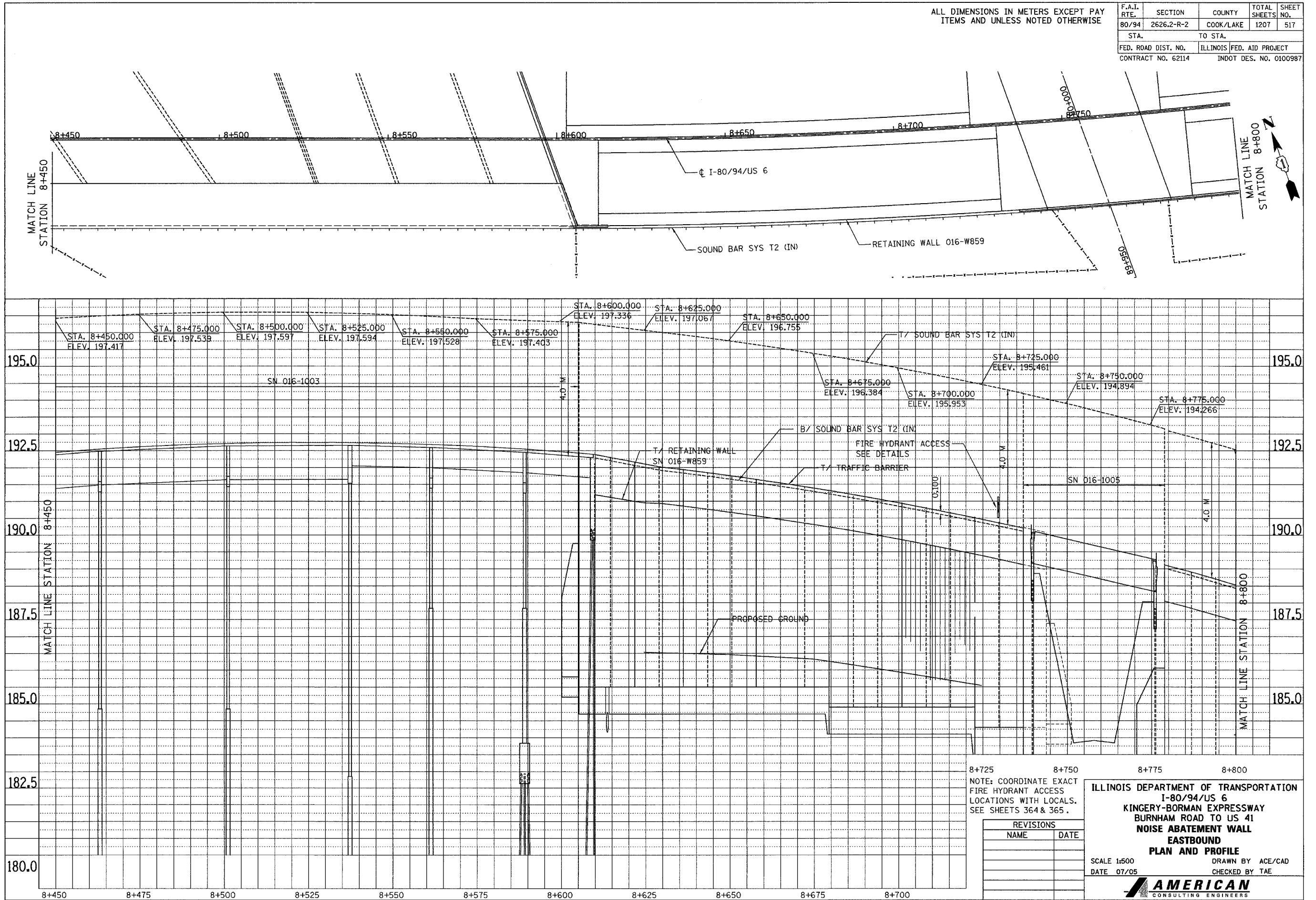
AMERICAN
CONSULTING ENGINEERS

ALL DIMENSIONS IN METERS EXCEPT PAVEMENT ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	517
STA. TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.		INDOT DES. NO. 0100987		
CONTRACT NO. 62114				

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

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



8+725 8+750 8+775 8+800

NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

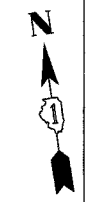
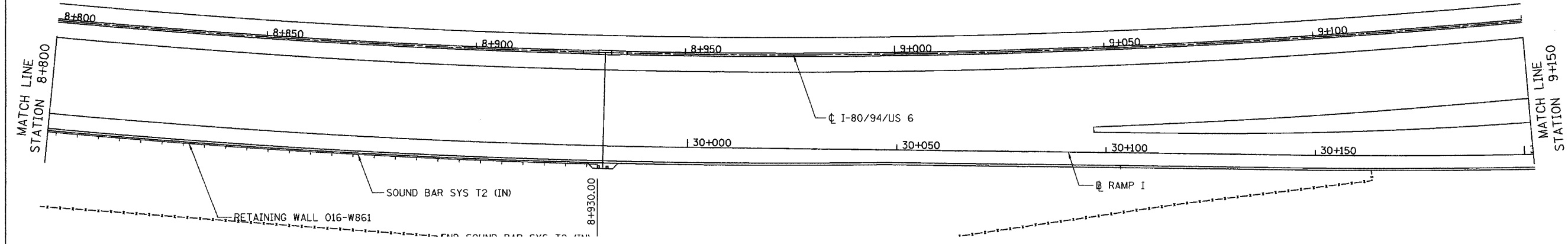
ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
 EASTBOUND
 PLAN AND PROFILE**

SCALE 1:500 DRAWN BY ACE/CAD
 DATE 07/05 CHECKED BY TAE

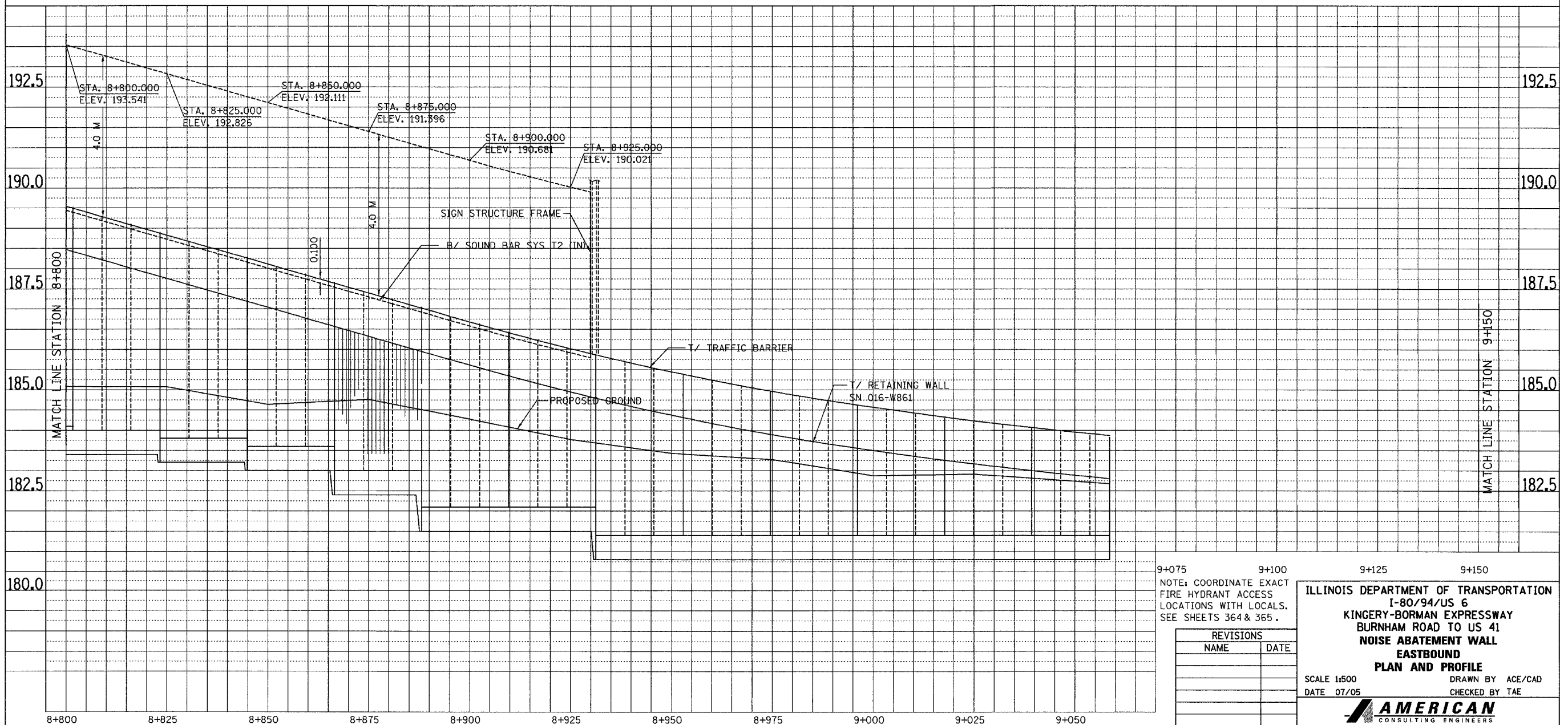
AMERICAN
 CONSULTING ENGINEERS

ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62114		INDOT DES. NO. 0100987		



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



ORIGINAL SURVEY PLOTTED	BY	DATE
NOTE BOOK TEMPLATE		
AREAS CHECKED		
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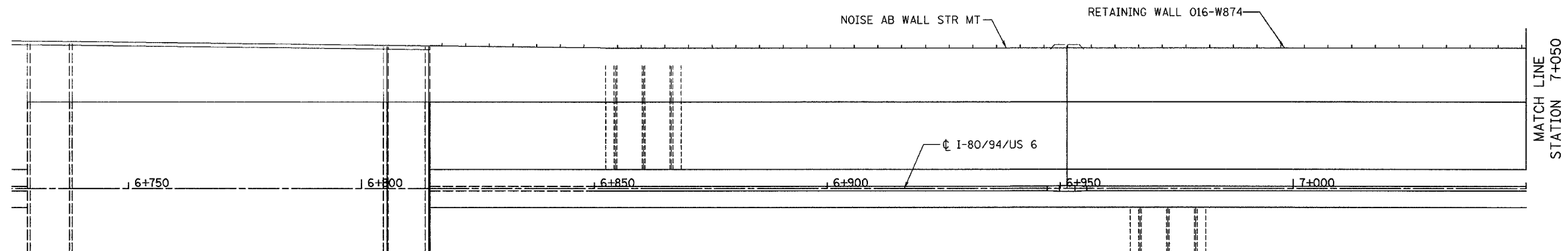
9+075 9+100
 NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
NOISE ABATEMENT WALL EASTBOUND
PLAN AND PROFILE
 SCALE 1:500 DRAWN BY ACE/CAD
 DATE 07/05 CHECKED BY TAE

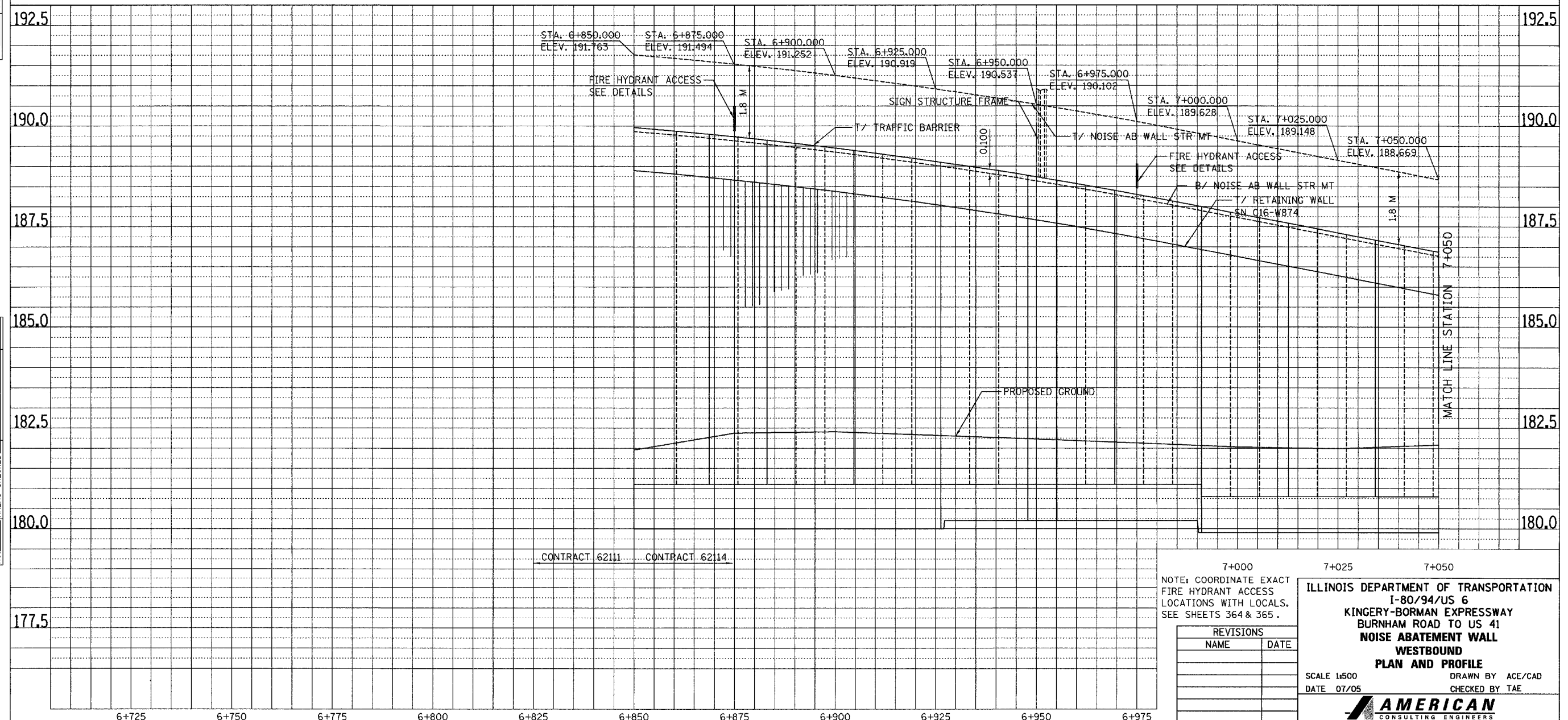
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



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



7+000 7+025 7+050

NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

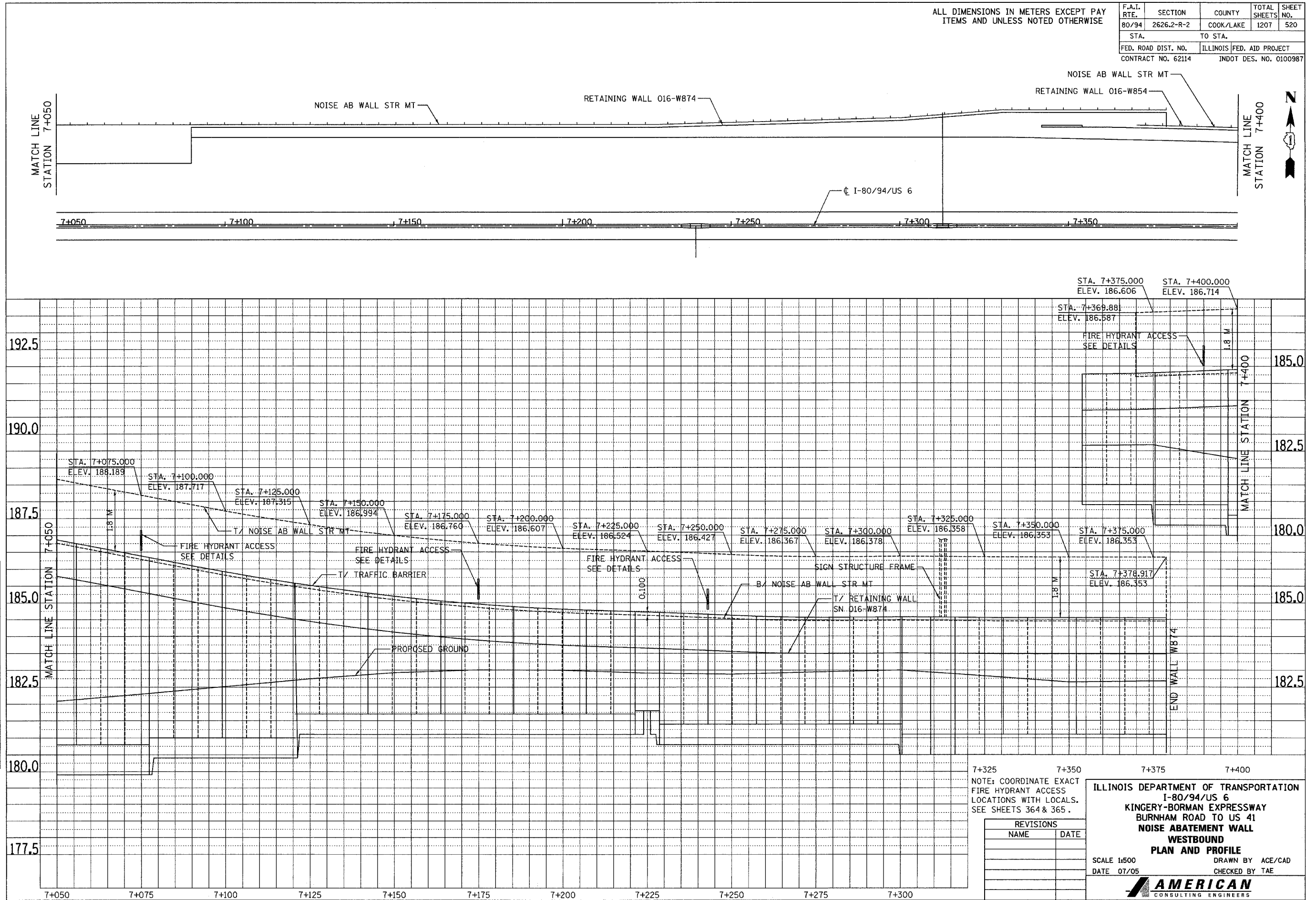
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
WESTBOUND
PLAN AND PROFILE**

SCALE 1:500 DRAWN BY ACE/CAD
DATE 07/05 CHECKED BY TAE

AMERICAN
CONSULTING ENGINEERS

ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	520
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62114		INDOT DES. NO. 0100987		



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

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

7+325 7+350 7+375 7+400

NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
NOISE ABATEMENT WALL
WESTBOUND
PLAN AND PROFILE

SCALE 1:500 DRAWN BY ACE/CAD
 DATE 07/05 CHECKED BY TAE



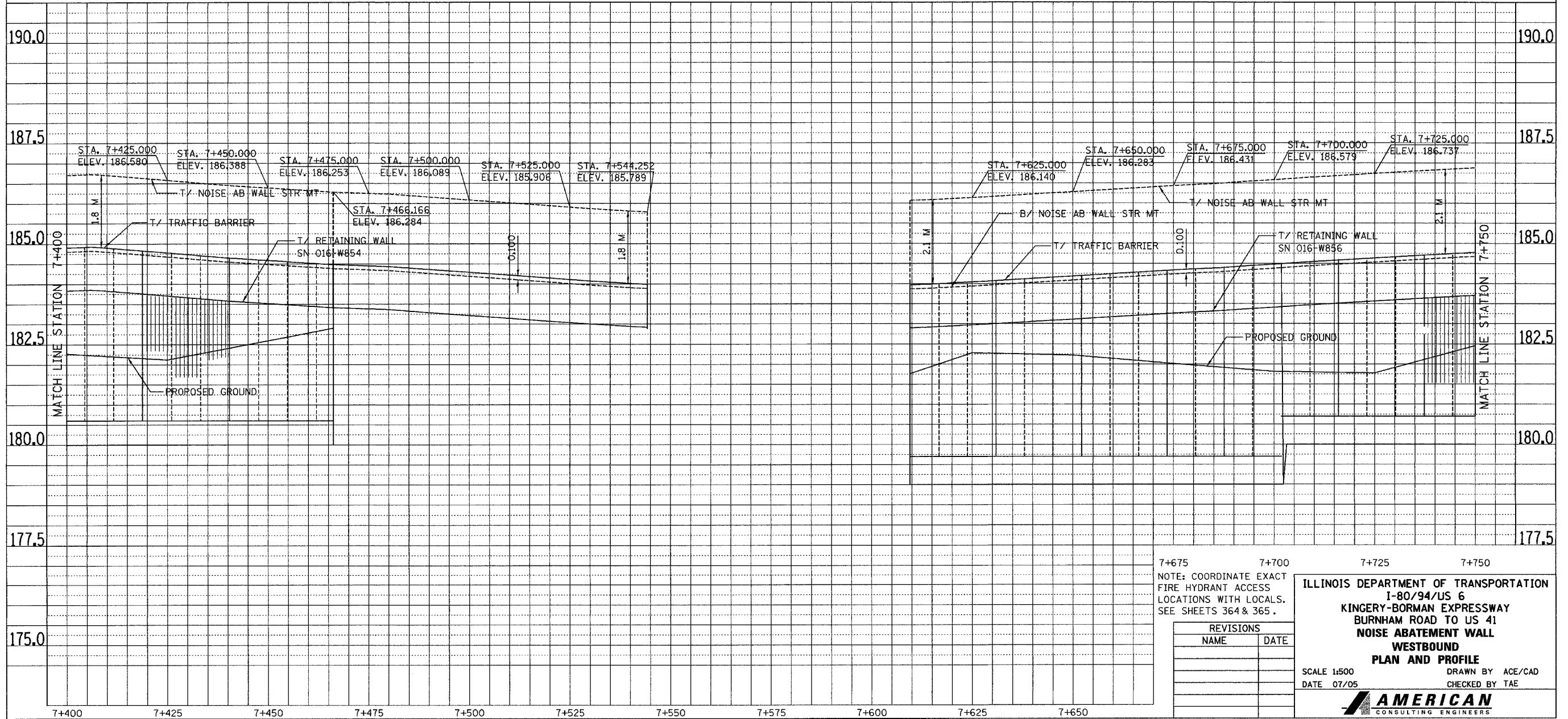
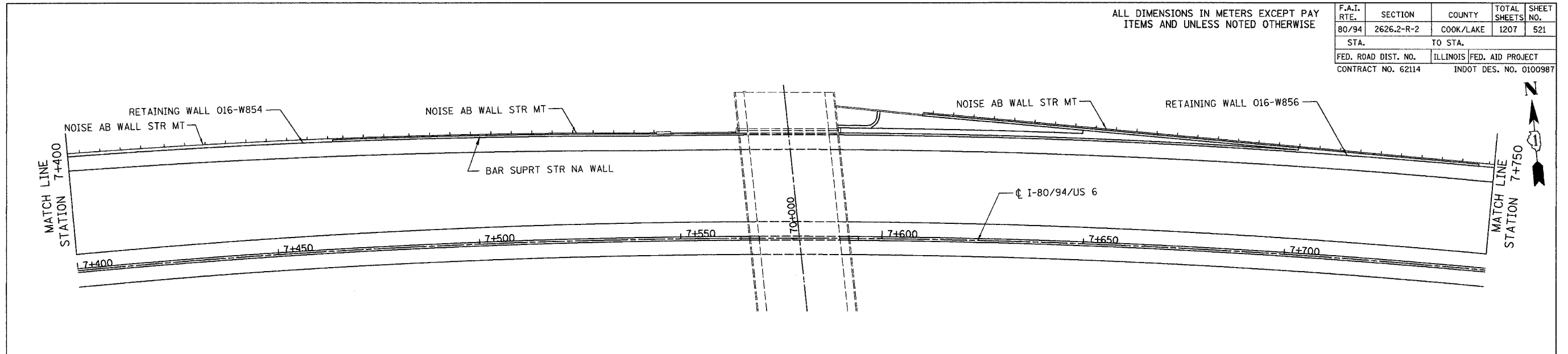
REVISIONS	
NAME	DATE

ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	521
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62114		INDOT DES. NO. 0100987		

FINAL SURVEY PLOTTED	BY	DATE
NOTE BOOK AREAS CHECKED		
NO.		

ORIGINAL SURVEY PLOTTED	BY	DATE
NOTE BOOK AREAS CHECKED		
NO.		



7+675 7+700 7+725 7+750
 NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

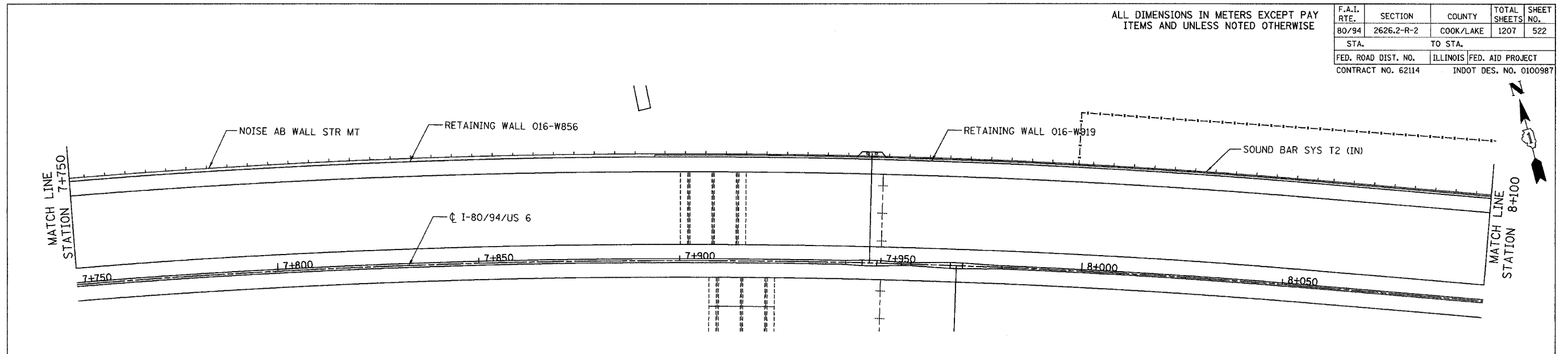
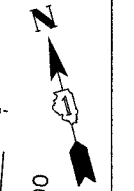
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
NOISE ABATEMENT WALL WESTBOUND
PLAN AND PROFILE
 SCALE 1:500 DRAWN BY ACE/CAD
 DATE 07/05 CHECKED BY TAE

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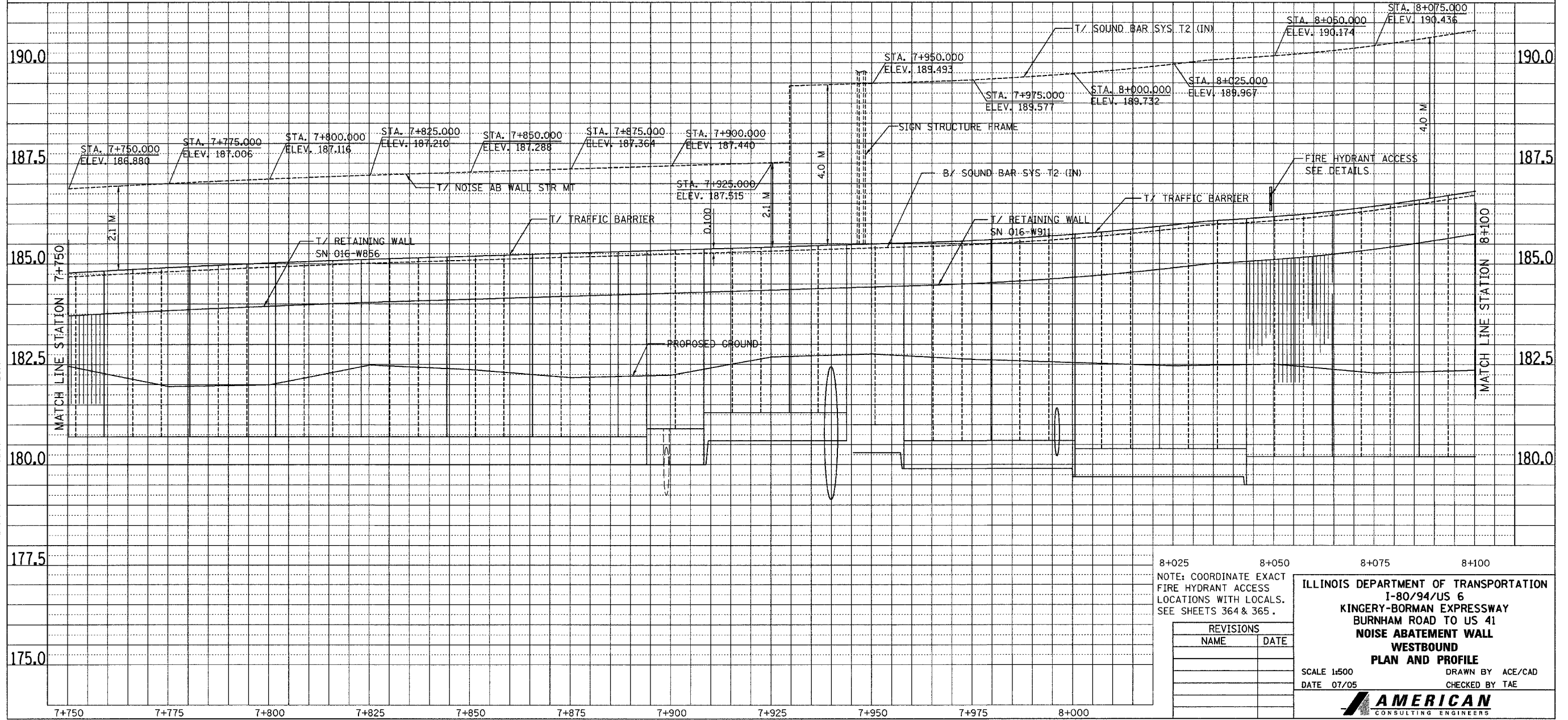
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



FINAL SURVEY PLOTTED	BY	DATE
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ORIGINAL SURVEY PLOTTED	BY	DATE
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SURVEYED		
PLOTTED		
NOTE BOOK		
TEMPLATE		
AREAS		
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8+025 8+050 8+075 8+100

NOTE: COORDINATE EXACT FIRE HYDRANT ACCESS LOCATIONS WITH LOCALS. SEE SHEETS 364 & 365.

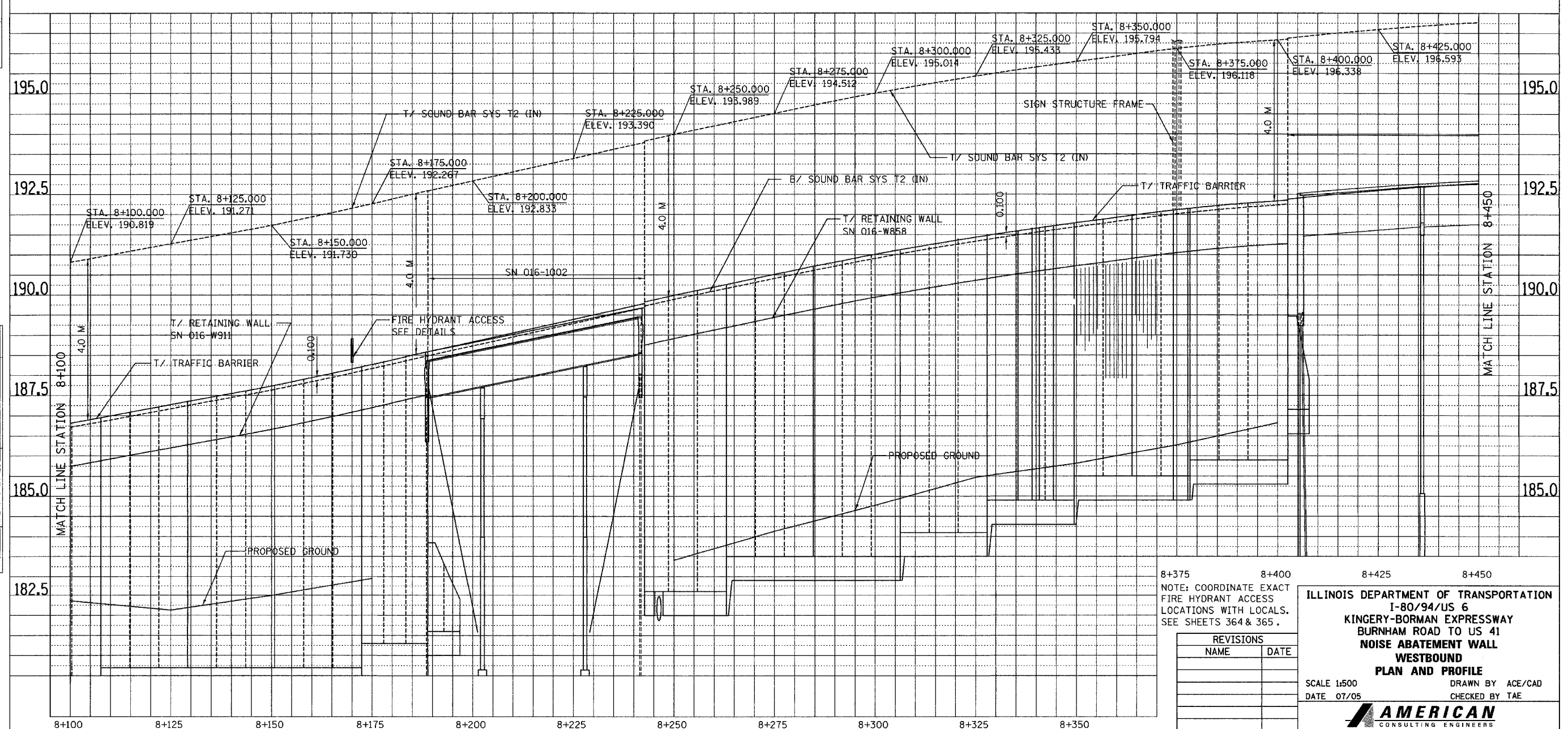
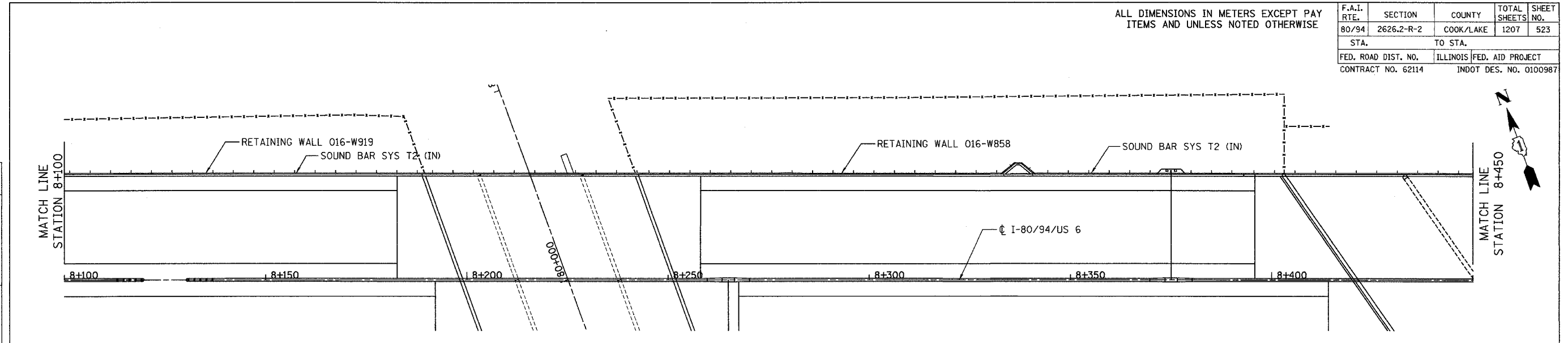
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
1-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
WESTBOUND
PLAN AND PROFILE**

SCALE 1:500 DRAWN BY ACE/CAD
DATE 07/05 CHECKED BY TAE

ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	523
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



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

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

8+375 8+400 8+425 8+450
 NOTE: COORDINATE EXACT
 FIRE HYDRANT ACCESS
 LOCATIONS WITH LOCALS.
 SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
 NOISE ABATEMENT WALL
 WESTBOUND
 PLAN AND PROFILE

SCALE 1:500 DRAWN BY ACE/CAJ
 DATE 07/05 CHECKED BY TAE

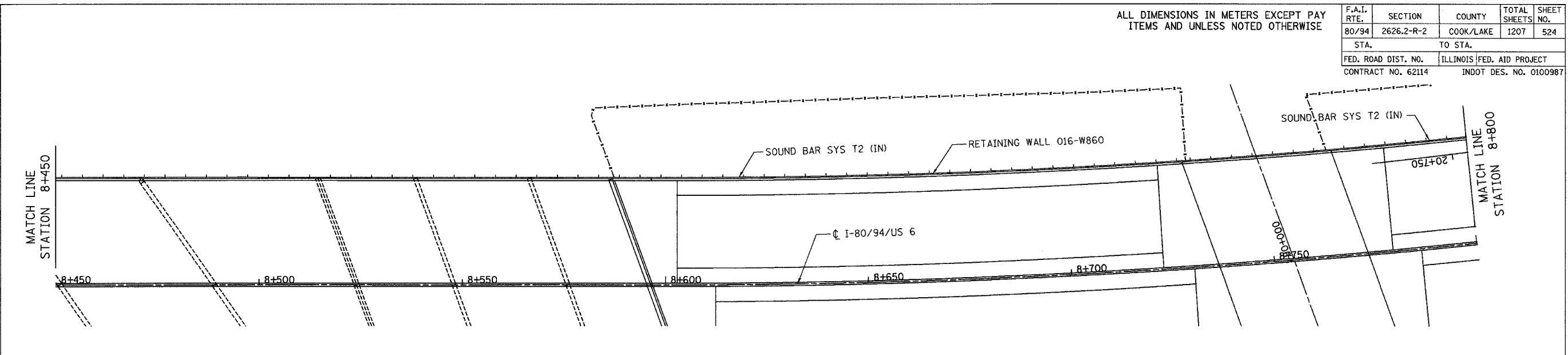
AMERICAN
 CONSULTING ENGINEERS

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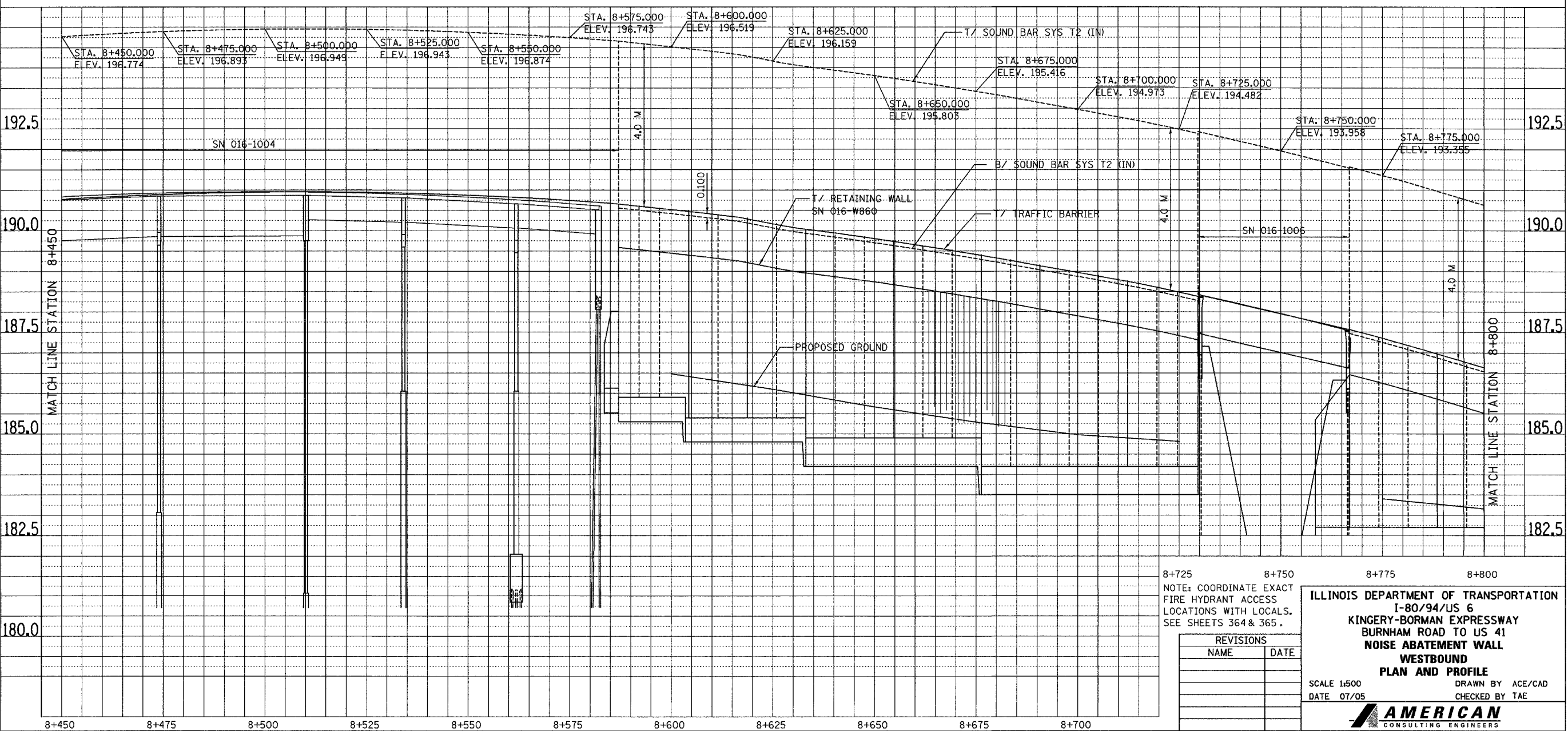
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			

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



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



8+725 8+750 8+775 8+800
 NOTE: COORDINATE EXACT
 FIRE HYDRANT ACCESS
 LOCATIONS WITH LOCALS.
 SEE SHEETS 364 & 365.

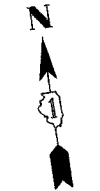
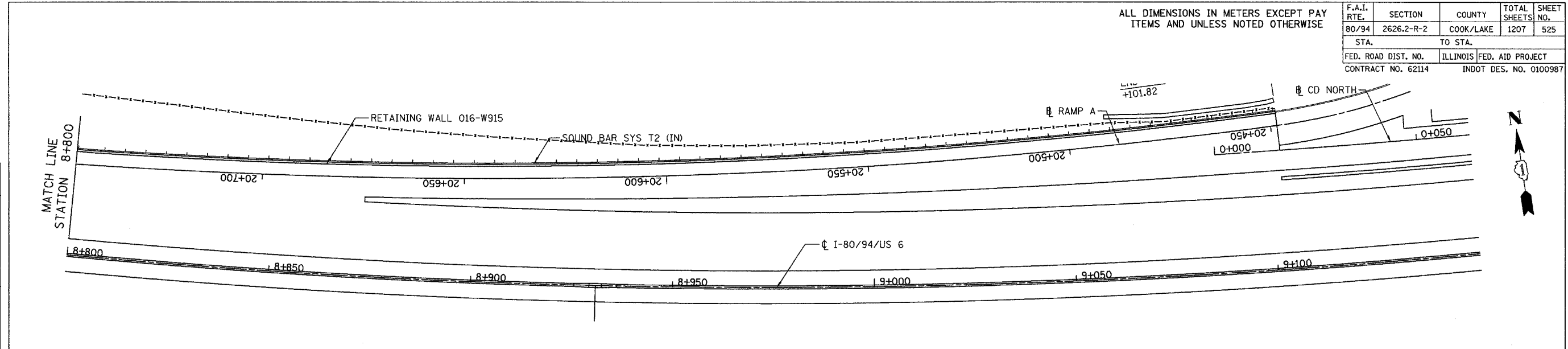
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
NOISE ABATEMENT WALL
 WESTBOUND
PLAN AND PROFILE
 SCALE 1:500 DRAWN BY ACE/CAD
 DATE 07/05 CHECKED BY TAE

AMERICAN
 CONSULTING ENGINEERS

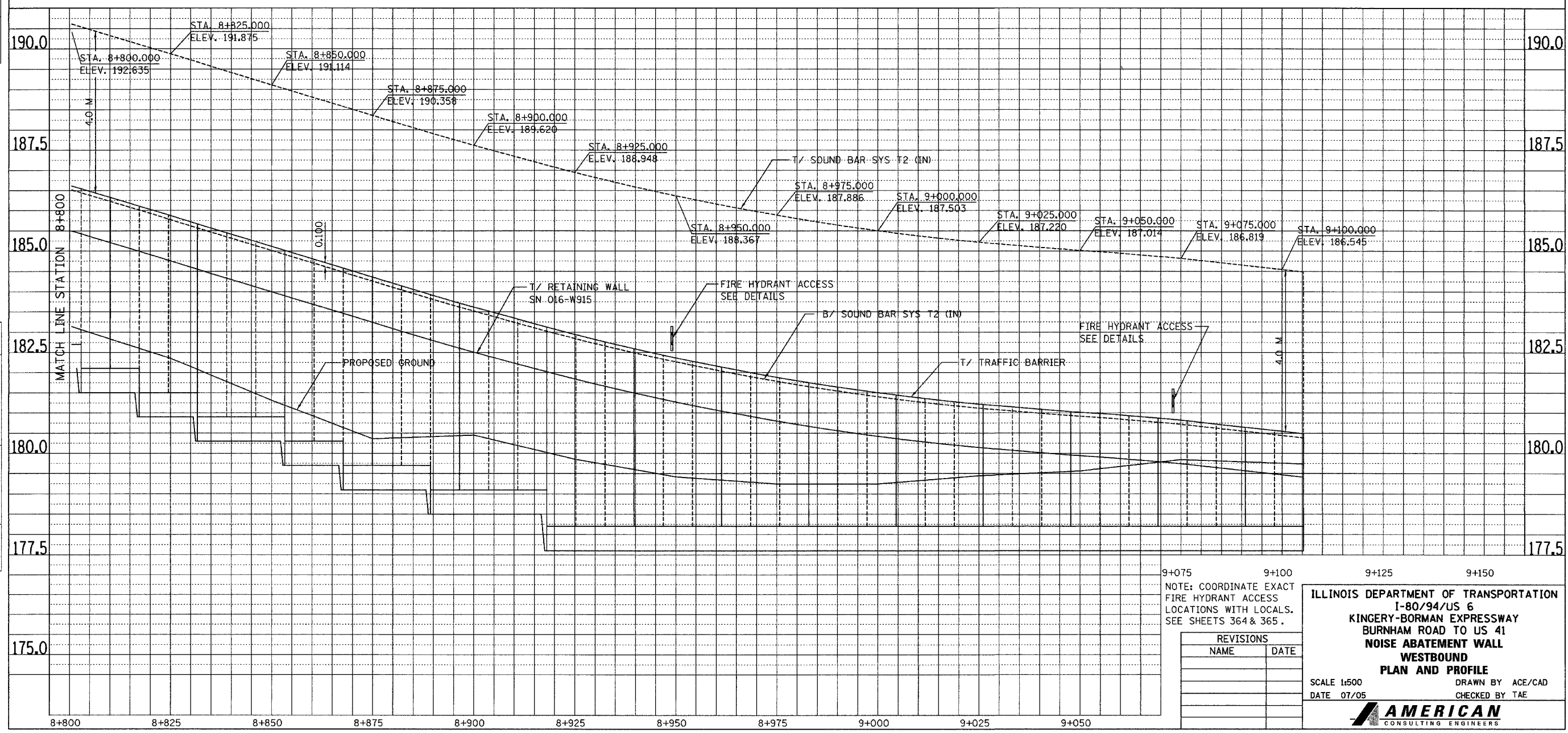
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80/94	2626.2-R-2	COOK/LAKE	1207	525
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



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



9+075 9+100
NOTE: COORDINATE EXACT
FIRE HYDRANT ACCESS
LOCATIONS WITH LOCALS.
SEE SHEETS 364 & 365.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
NOISE ABATEMENT WALL
WESTBOUND
PLAN AND PROFILE

SCALE 1:500 DRAWN BY ACE/CAD
DATE 07/05 CHECKED BY TAE

AMERICAN
CONSULTING ENGINEERS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	526
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114				

BENCHMARK:

BM "M" Chiseled square cut in southwest wingwall of existing IL Rte 83 (Torrence Avenue) bridge over I-80. El. 188.209

DESIGN SPECIFICATIONS:

1996 AASHTO Standard Specifications for Highway Bridges, with 1997 thru 2000 & 2002 Interims.
1989 AASHTO Guide Specifications for Structural Design of Sound Barriers with 1992 Interims.

DESIGN STRESSES:

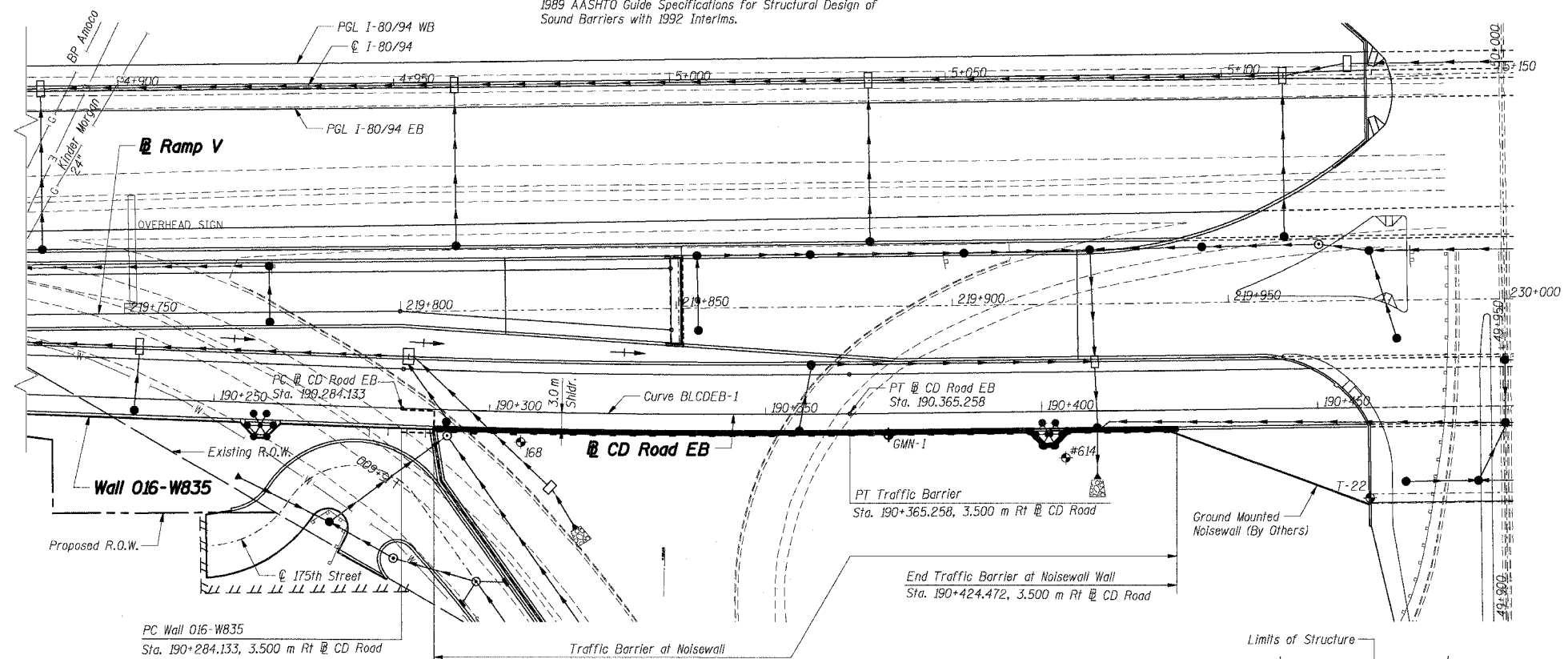
Concrete, $f'_c = 24 \text{ MPa}$
Reinforcement, $f_y = 400 \text{ MPa}$

DESIGN LOADINGS:

Wind Load on Noise Abatement Wall: 1.7 kPa
Design height of Noise Abatement Wall: 4.71 m

EXISTING STRUCTURE:

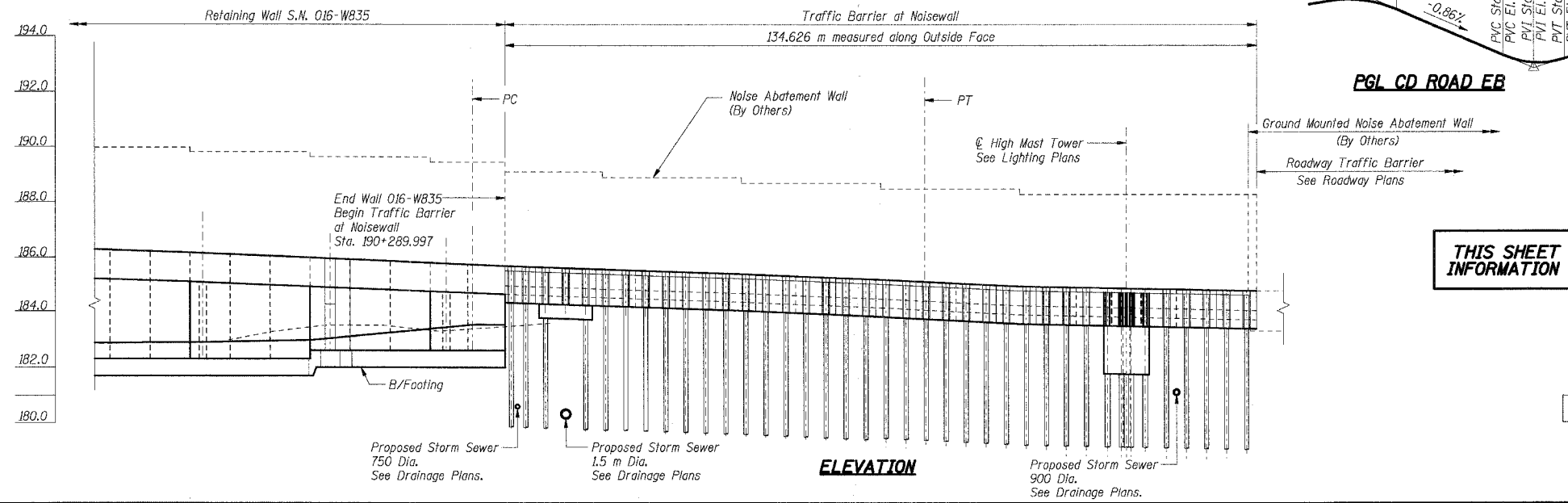
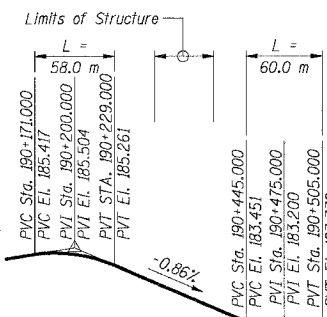
None



PLAN

PROP. CURVE BLCDEB-1

PI STA = 190+324.703
 $\Delta = 2^\circ 39' 22''$ (LT)
R = 1,750.000 m
T = 40.570 m
L = 81.125 m
E = 0.470 m
e = 3.1 %
P.C. STA = 190+284.133
P.T. STA = 190+365.258



ELEVATION

LEGEND:

- #5 Soil Boring
- High Mast Light Tower (See Lighting Plans)
- Existing Storm Sewer
- Proposed Storm Sewer
- Proposed Catch Basin
- Drainage Structure
- Rip Rap
- Proposed Retaining Wall
- Proposed Pavement
- G- Exist. Gas Main (to remain)
- W- Water Main (to be relocated)
- E- Electric (to be relocated)
- T- Telephone (to be relocated)
- CTV- Cable Television

TOTAL BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	129.0
Reinforcement Bars	kg	9,430
Reinforcement Bars, Epoxy Coated	kg	15,420
Protective Coat *	Sq m	213
Furnishing and Erecting Structural Steel	kg	1,225
Drilled Shaft in Soil 915 mm	m	23.0
Drilled Shaft in Soil 760 mm	m	116.0

* To be applied to top and inside face of traffic barrier.

GENERAL NOTES

1. Traffic Barrier alignment offsets are referenced to Outside Face (O.F.) of Traffic Barrier.
2. Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M, Grade 400.
3. All dimensions are in millimeters (mm) except as noted.
4. Conduits and Junction Boxes are shown in traffic barrier plans for locations and installation purposes only. Refer to Electrical Raceway plans for details, pay items and quantities.

INDEX OF SHEETS

1. GENERAL PLAN & ELEVATION
2. BARRIER PLAN & ELEVATION - 1
3. BARRIER PLAN & ELEVATION - 2
4. BARRIER DETAILS SEGMENTS A, B, C, D AND F
5. BARRIER DETAILS SEGMENT E
6. SECTIONS & DETAILS - 1
7. SECTIONS & DETAILS - 2
8. DRILLED SHAFT FOUNDATION DETAILS
9. BORING LOGS

Notes:

1. All dimensions are measured along outside face of traffic barrier.
2. Traffic Barrier alignment offsets are referenced to outside face of traffic barrier.
3. Noise abatement wall will be furnished and installed by others as part of future mainline construction contract.

THIS SHEET FOR INFORMATION ONLY

SHT. 1 OF 9

REVISIONS	
NAME	DATE
NK	06/09/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
IL ROUTE 83 RECONSTRUCTION
COOK COUNTY

**TRAFFIC BARRIER AT NOISEWALL
GENERAL PLAN & ELEVATION**

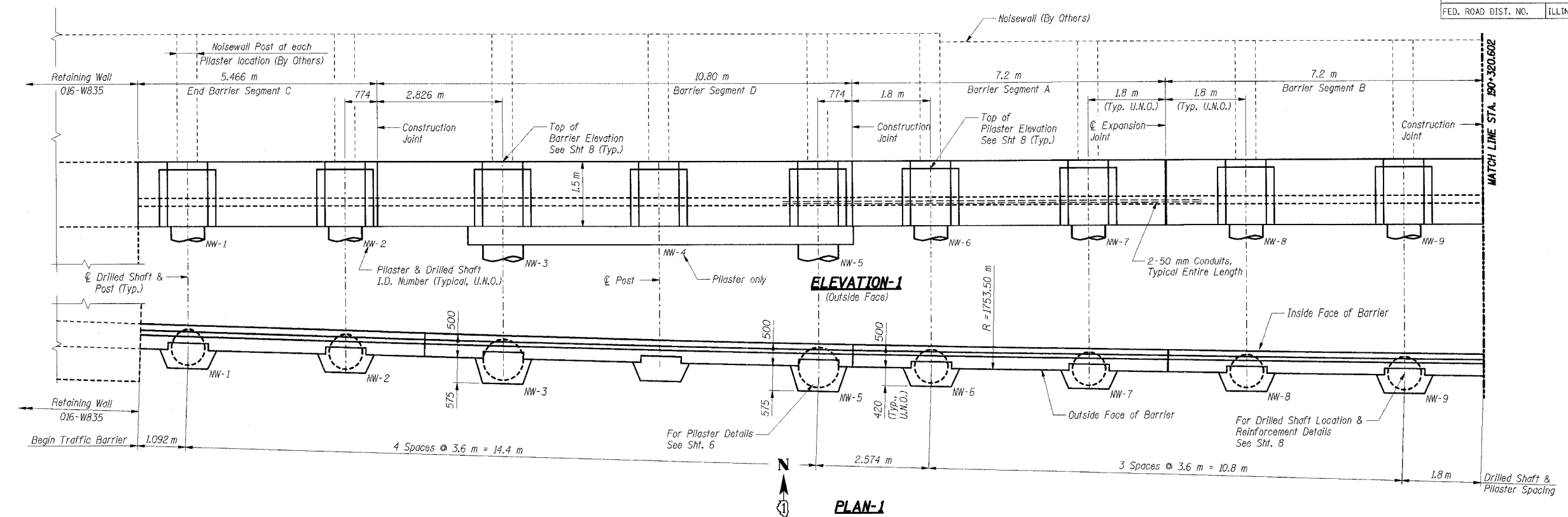
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CHECKED BY: VCP

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TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

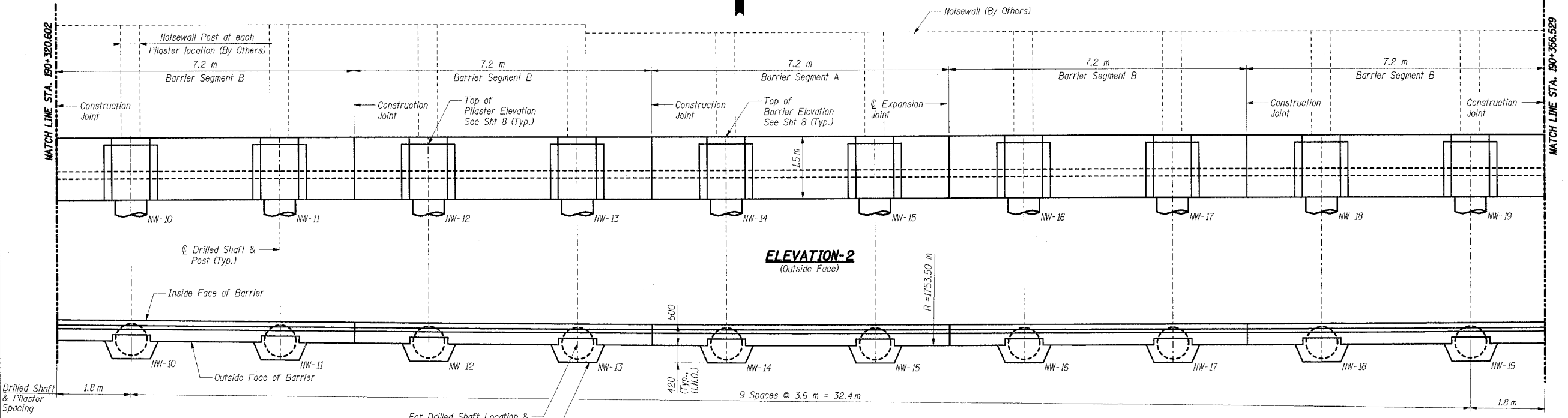
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	527
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62114



PLAN-1



PLAN-2

THIS SHEET FOR INFORMATION ONLY

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - All dimensions are measured along outside face of Traffic Barrier.
 - Traffic Barrier alignment offsets are referenced to outside face of Traffic Barrier.
 - For Traffic Barrier Segment Reinforcement Details, see Sht. 4.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 IL ROUTE 83 RECONSTRUCTION
 COOK COUNTY

**TRAFFIC BARRIER AT NOISEWALL
 BARRIER PLAN & ELEVATION - 1**

SCALE: DATE: 02/20/2004

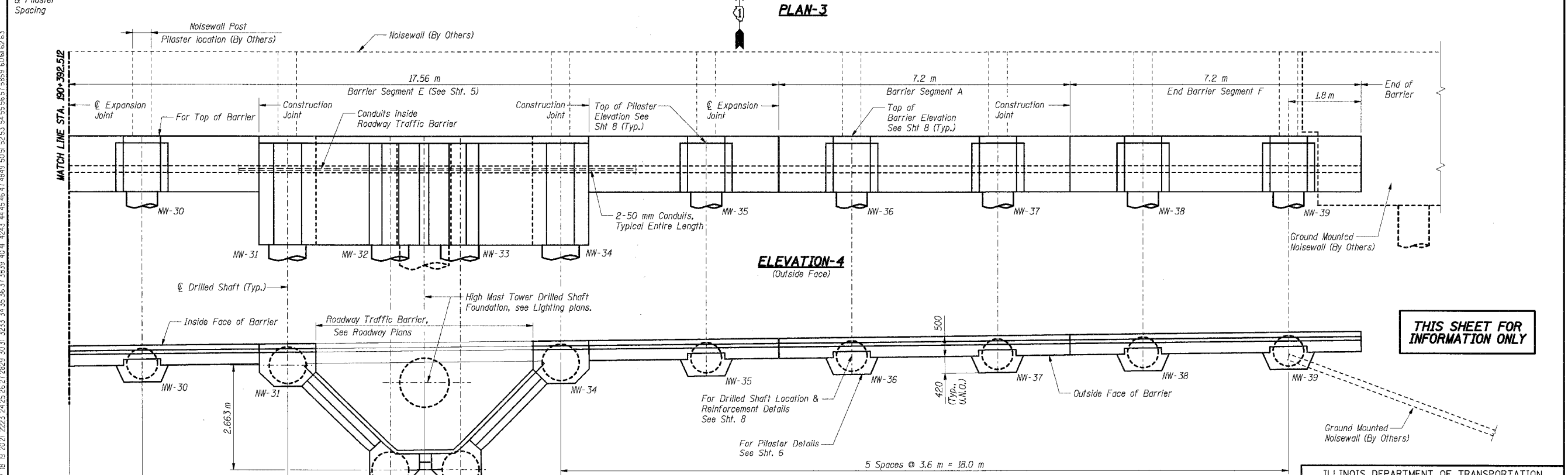
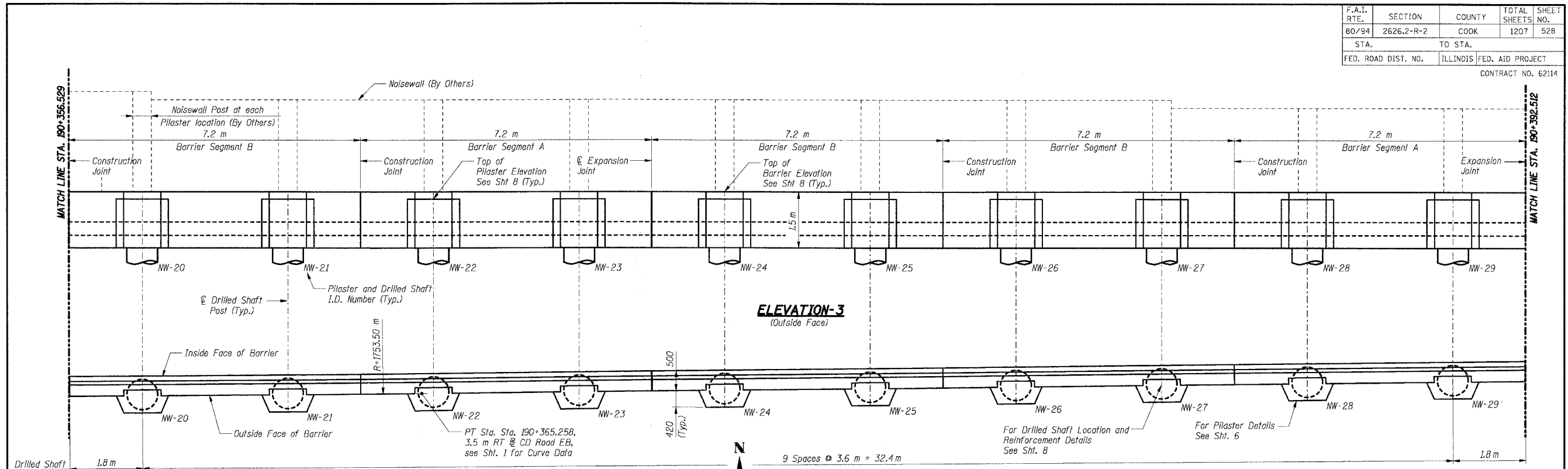
DRAWN BY: NK
 CHECKED BY: VCP

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

9-08-2005, 9:55:12
 T:\DOCUMENTS\STRUCT\DRN\N83762A.DGN
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 KIENSTADT

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	528
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62114



THIS SHEET FOR INFORMATION ONLY

- Notes:**
1. All dimensions are in millimeters (mm) except as noted.
 2. All dimensions are measured along outside face of Traffic Barrier.
 3. Traffic Barrier alignment offsets are referenced to outside face of Traffic Barrier.
 4. For Traffic Barrier Segment Reinforcement Details, see Shts. 4 and 5.

SHT. 3 OF 9

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 IL ROUTE 83 RECONSTRUCTION
 COOK COUNTY

**TRAFFIC BARRIER AT NOISEWALL
 BARRIER PLAN & ELEVATION - 2**

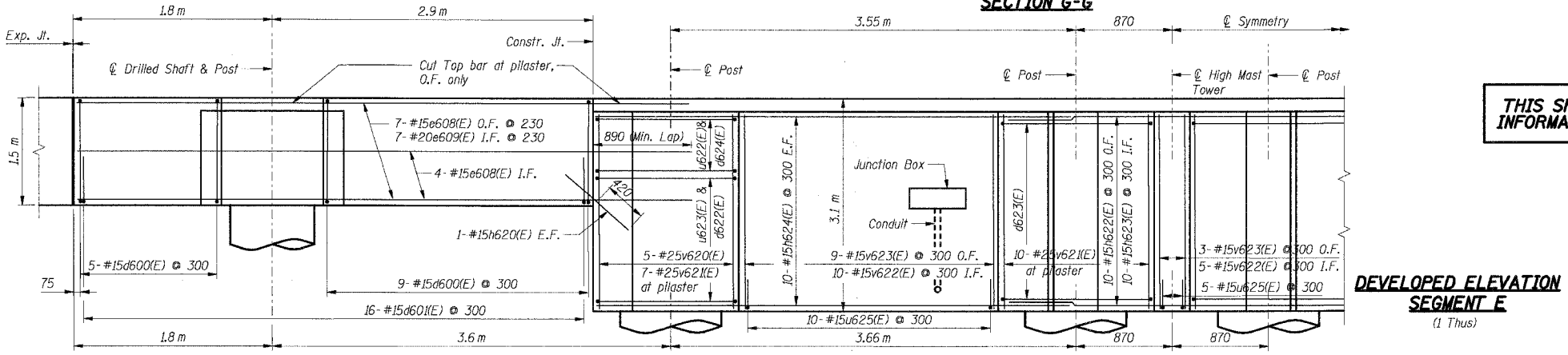
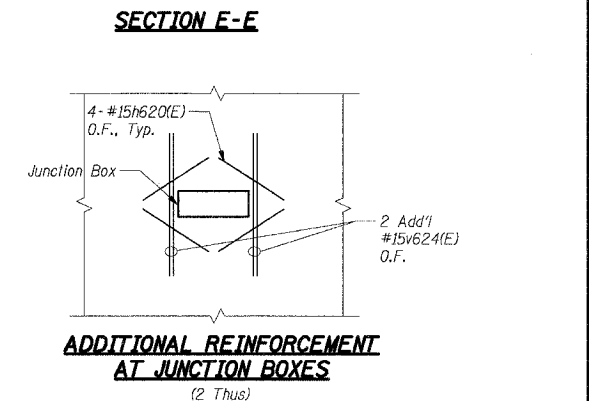
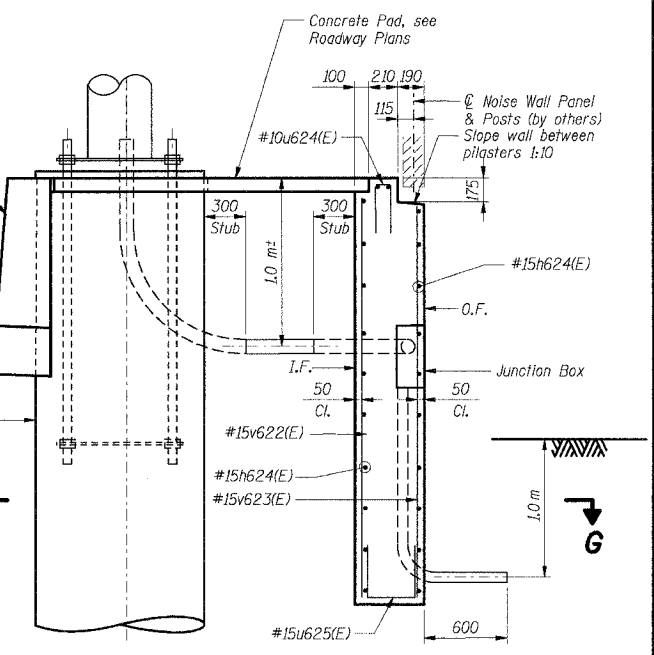
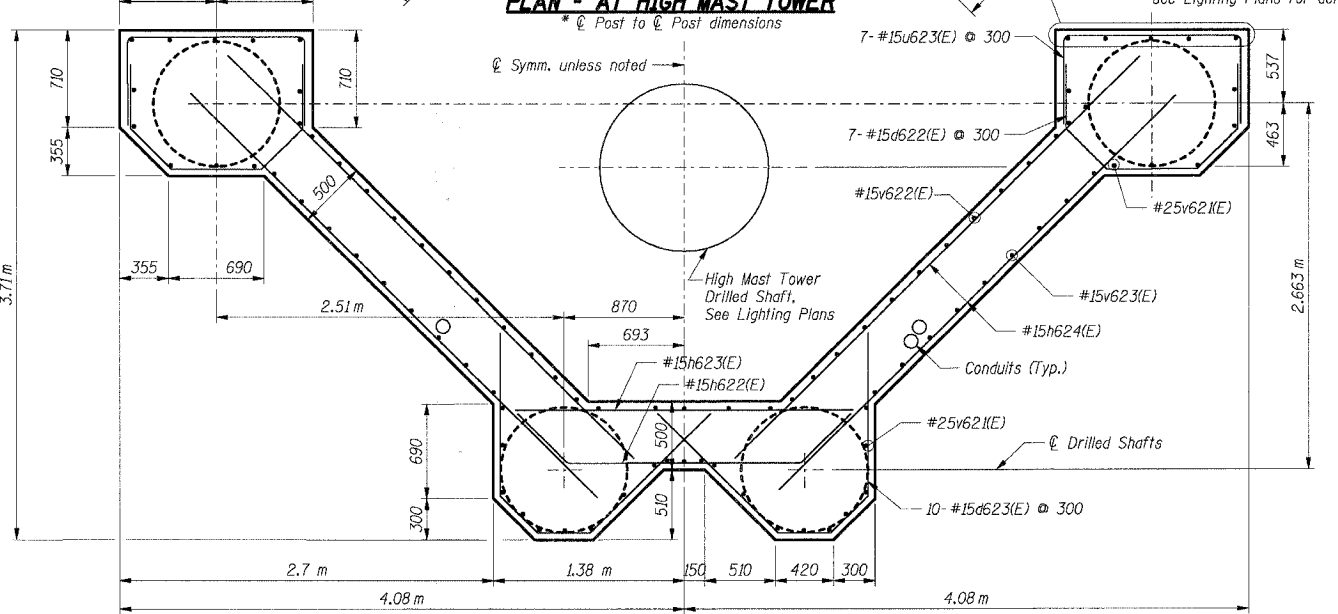
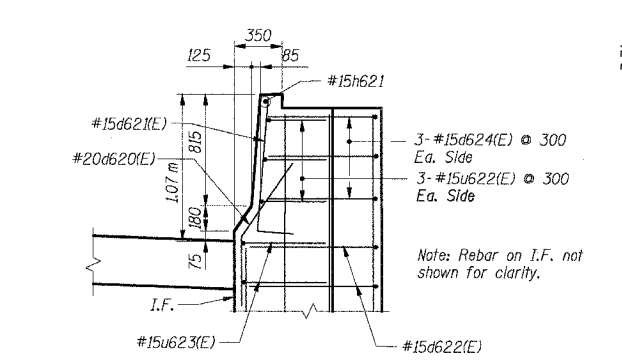
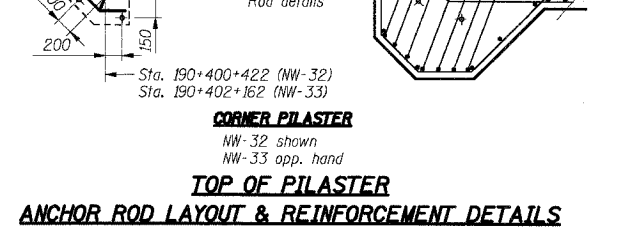
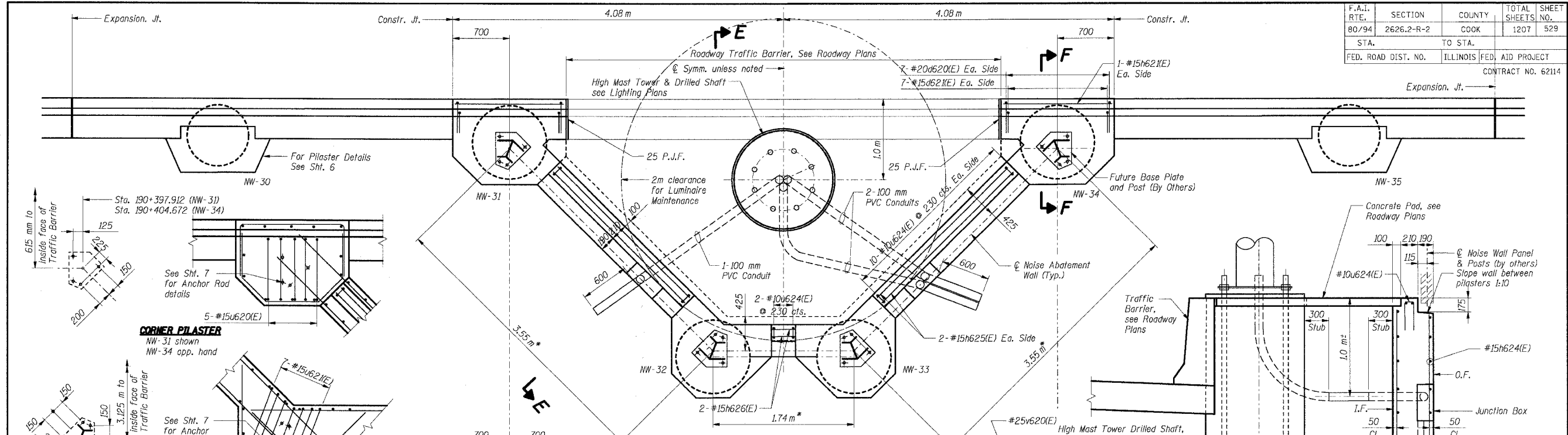
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DRAWN BY: NK
 CHECKED BY: VCP

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	529
STA.	TO STA.		ILLINOIS FED. AID PROJECT	
FED. ROAD DIST. NO.	CONTRACT NO. 62114			



THIS SHEET FOR INFORMATION ONLY

SHT. 5 OF 9

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 IL ROUTE 83 RECONSTRUCTION
 COOK COUNTY

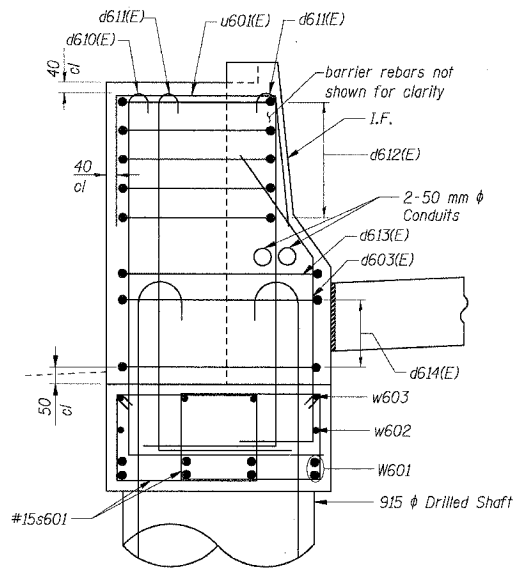
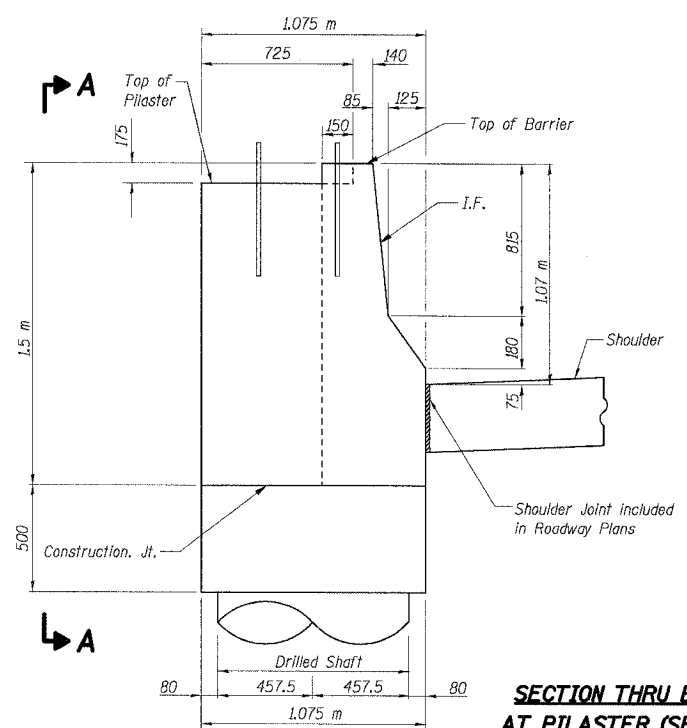
TRAFFIC BARRIER AT NOISEWALL BARRIER DETAILS SEGMENT E

SCALE: DATE: 02/20/2004
 DRAWN BY: NK
 CHECKED BY: VCP

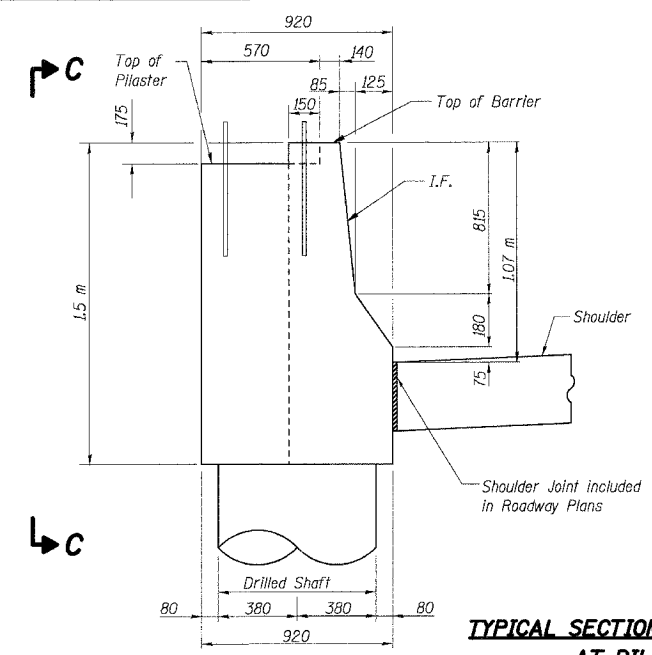
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 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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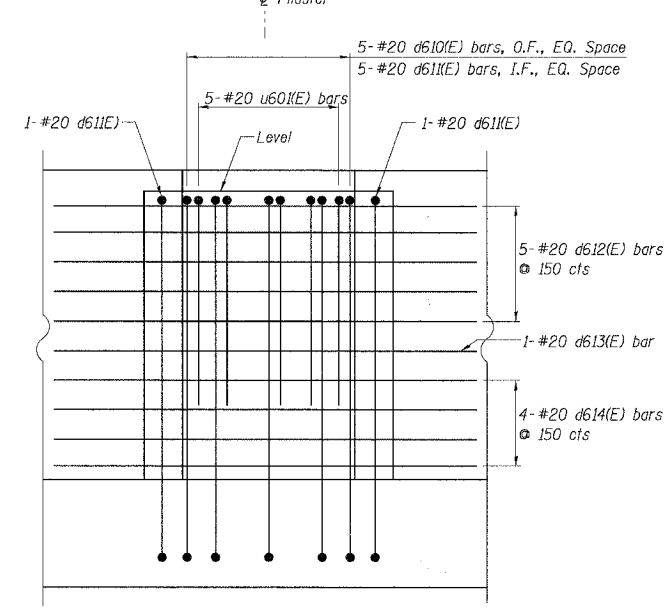
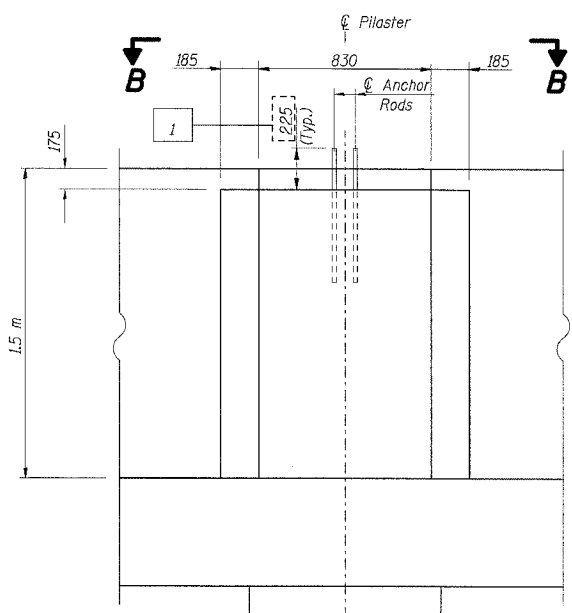
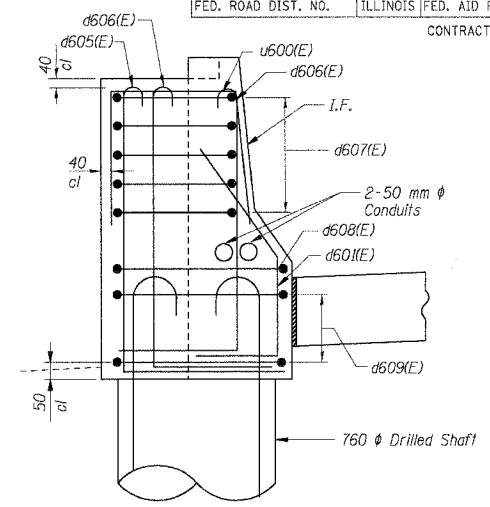
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	530
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114				



SECTION THRU BARRIER AT PILASTER (SEGMENT D)

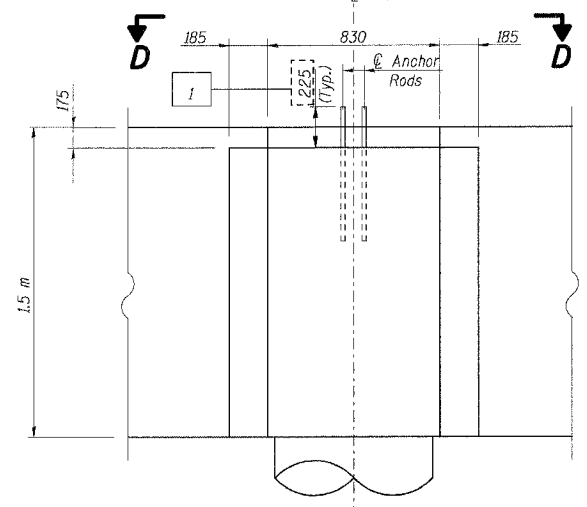


TYPICAL SECTION THRU BARRIER AT PILASTER

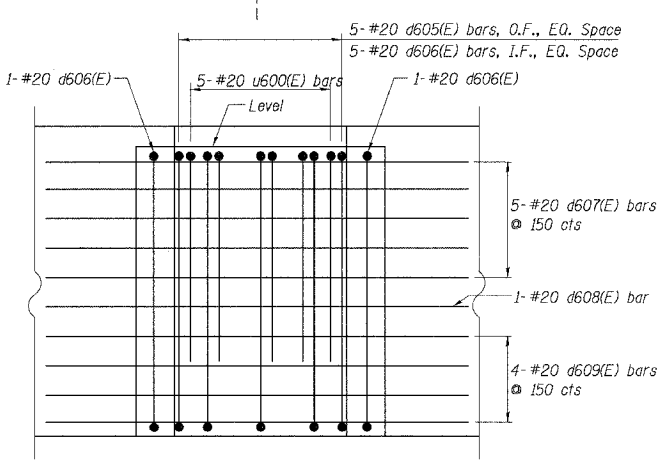


VIEW A-A

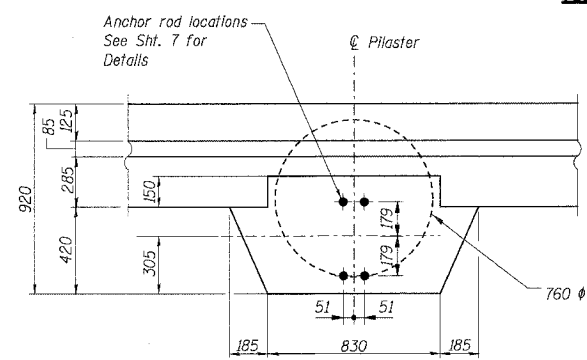
VIEW B-B



VIEW C-C



VIEW D-D



THIS SHEET FOR INFORMATION ONLY

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Note:
1. For notes and rebar details, see Sht. 7.

SHT. 6 OF 9

REVISIONS	
NAME	DATE
NK	06/09/04

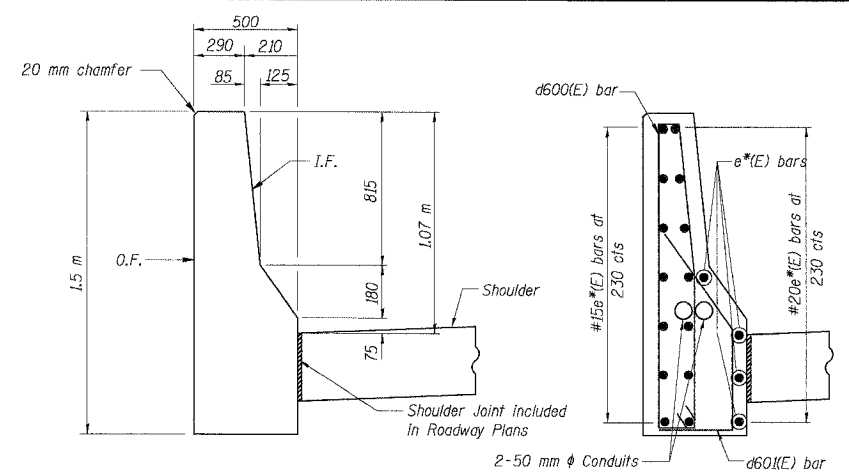
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 IL ROUTE 83 RECONSTRUCTION
 COOK COUNTY

TRAFFIC BARRIER AT NOISEWALL SECTIONS & DETAILS - 1

SCALE: DATE: 02/20/2004

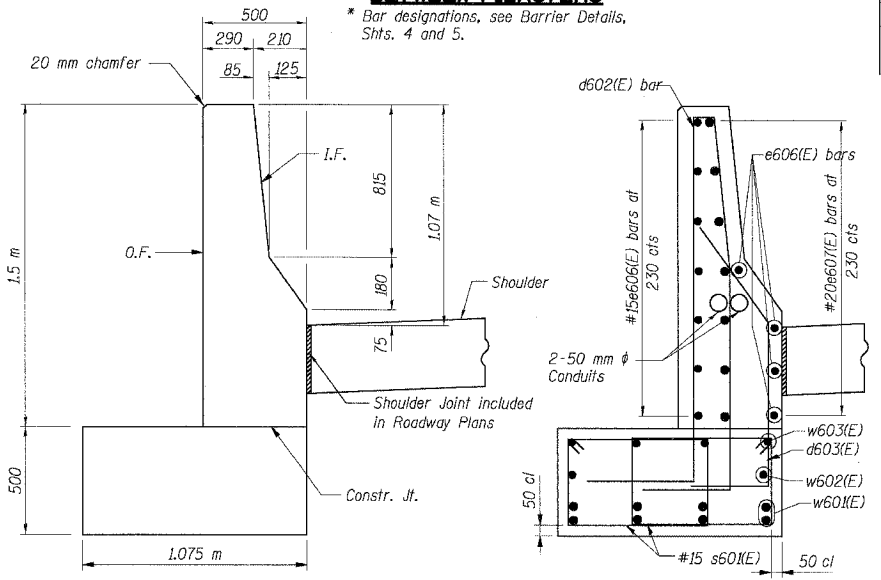
DRAWN BY: NK
 CHECKED BY: VCP

TENG
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

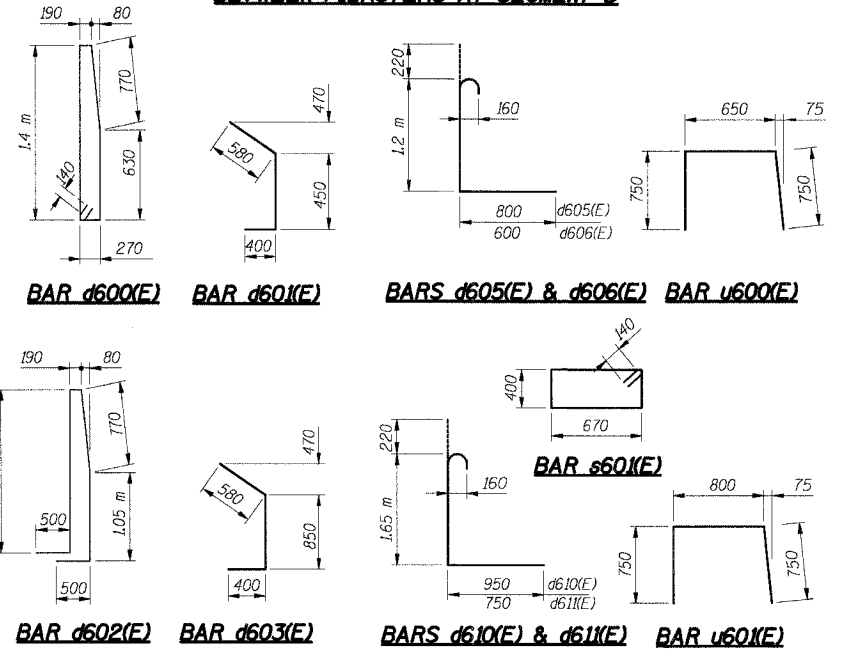


TYPICAL SECTION THRU TRAFFIC BARRIER BETWEEN PILASTERS

* Bar designations, see Barrier Details, Shts. 4 and 5.



SECTION THRU TRAFFIC BARRIER BETWEEN PILASTERS AT SEGMENT D



TYPICAL PILASTER REINFORCING TABLE**

Bar	No.	Size	Length	Shape
d605(E)	5	#20	2.22	[Shape]
d606(E)	7	#20	2.02	[Shape]
d607(E)	5	#20	2.86	[Shape]
d608(E)	1	#20	3.06	[Shape]
d609(E)	4	#20	3.32	[Shape]
u600(E)	5	#20	2.15	[Shape]

** Bars shown are for one pilaster

SEGMENT D PILASTER REINFORCING TABLE**

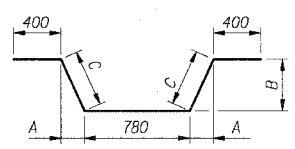
Bar	No.	Size	Length	Shape
d610(E)	5	#20	2.82	[Shape]
d611(E)	7	#20	2.62	[Shape]
d612(E)	5	#20	3.16	[Shape]
d613(E)	1	#20	3.32	[Shape]
d614(E)	4	#20	3.58	[Shape]
u601(E)	5	#20	2.3	[Shape]

** Bars shown are for one pilaster (Segment D)

Bar u602(E), u620(E) thru u625(E) and w603(E)

BAR	A (mm)	B (mm)
u602(E)	380	940
u620(E)	260	730
u621(E)	260	950
u622(E)	550	1300
u623(E)	630	1300
u624(E)	350	100
u625(E)	260	380
w603(E)	320	8700

Bar h622(E)

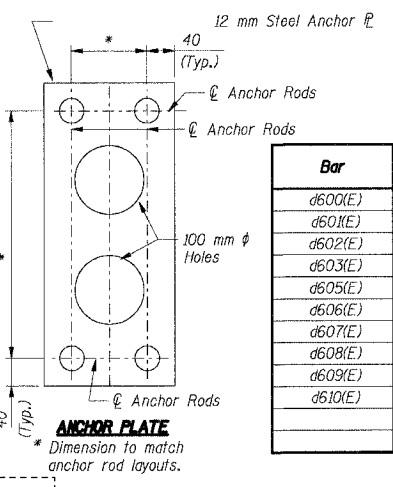


BARS d607(E) thru d609(E)

BAR	A	B	C
d607(E)	260	590	640
d608(E)	300	675	740
d609(E)	350	800	870

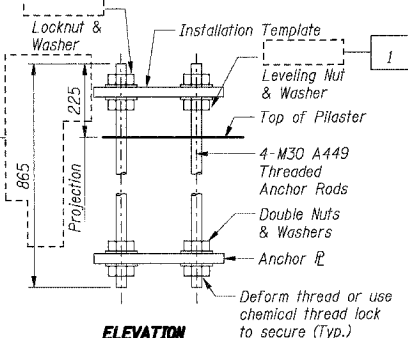
BARS d612(E) thru d614(E)

BAR	A	B	C
d612(E)	240	750	790
d613(E)	260	830	870
d614(E)	300	950	1000



ANCHOR PLATE

* Dimension to match anchor rod layouts.

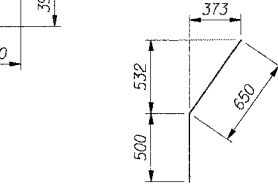


ELEVATION

Note: Entire anchor rod assembly, including anchor plate shall be hot dip galvanized.

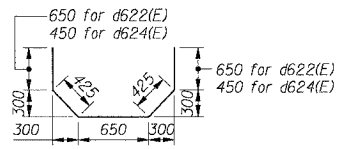
ANCHOR ROD ASSEMBLY FOR NOISE WALL

(156 Required) (see Note 6)

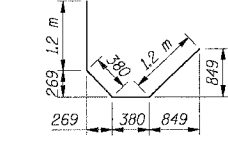


Bar d620(E)

Bar d621(E)



Bar d622(E) and d624(E)



Bar d623(E)

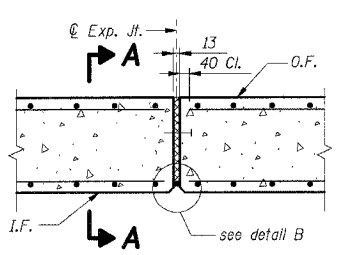
BAR LIST

Bar	No.	Size	Length (m)	Shape
d600(E)	338	#15	3.54	[Shape]
d601(E)	402	#15	1.43	[Shape]
d602(E)	22	#15	4.76	[Shape]
d603(E)	28	#15	1.83	[Shape]
d605(E)	165	#20	2.22	[Shape]
d606(E)	231	#20	2.02	[Shape]
d607(E)	165	#20	2.86	[Shape]
d608(E)	33	#20	3.06	[Shape]
d609(E)	132	#20	3.32	[Shape]
d610(E)	10	#20	2.82	[Shape]

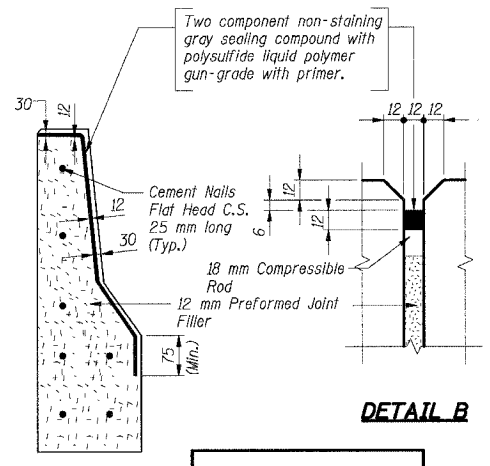
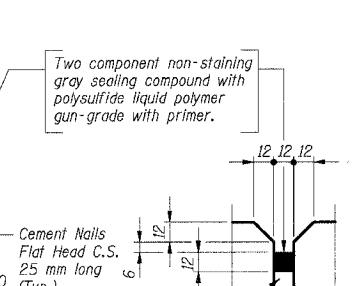
BAR LIST

Bar	No.	Size	Length (m)	Shape
d611(E)	14	#20	2.62	[Shape]
d612(E)	10	#20	3.16	[Shape]
d613(E)	2	#20	3.32	[Shape]
d614(E)	8	#20	3.58	[Shape]
d620(E)	14	#20	1.15	[Shape]
d621(E)	14	#15	1.26	[Shape]
d622(E)	14	#15	2.80	[Shape]
d623(E)	20	#15	3.16	[Shape]
d624(E)	6	#15	2.40	[Shape]
e600(E)	55	#15	7.10	[Shape]
e601(E)	35	#20	7.10	[Shape]
e602(E)	11	#15	6.35	[Shape]
e603(E)	7	#20	6.57	[Shape]
e604(E)	99	#15	8.10	[Shape]
e605(E)	63	#20	8.31	[Shape]
e606(E)	11	#15	11.70	[Shape]
e607(E)	7	#20	11.91	[Shape]
e608(E)	22	#15	5.60	[Shape]
e609(E)	14	#20	5.81	[Shape]
e610(E)	4	#20	2.45	[Shape]
h620(E)	16	#15	0.84	[Shape]
h621(E)	2	#15	1.30	[Shape]
h622(E)	10	#15	2.85	[Shape]
h623(E)	10	#15	2.45	[Shape]
h624(E)	40	#15	4.20	[Shape]
h625(E)	4	#15	2.25	[Shape]
h626(E)	2	#15	0.20	[Shape]
s601(E)	60	#15	2.42	[Shape]
u600(E)	165	#20	2.15	[Shape]
u601(E)	10	#20	2.30	[Shape]
u602(E)	6	#15	1.70	[Shape]
u620(E)	10	#15	1.25	[Shape]
u621(E)	14	#15	1.47	[Shape]
u622(E)	6	#15	2.40	[Shape]
u623(E)	14	#15	2.56	[Shape]
u624(E)	22	#10	0.80	[Shape]
u625(E)	25	#15	0.90	[Shape]
v620(E)	10	#25	1.93	[Shape]
v621(E)	34	#25	2.82	[Shape]
v622(E)	25	#15	2.87	[Shape]
v623(E)	21	#15	2.82	[Shape]
v624(E)	8	#15	1.10	[Shape]
w601(E)	8	#25	8.70	[Shape]
w602(E)	2	#20	8.70	[Shape]
w603(E)	4	#20	9.34	[Shape]

CONSTRUCTION JOINT DETAIL



EXPANSION JOINT DETAIL



SECTION A-A

THIS SHEET FOR INFORMATION ONLY

Notes:

- O.F. indicates Outside Face
- I.F. indicates Inside Face
- E.F. indicates Each Face
- All dimensions are in millimeters (mm) except as noted.
- Bonded Construction Joint in accordance with Article 503.09 (b) of the Standard Specifications.
- Bars designated (E) shall be epoxy coated.
- Anchor Rod assembly shall be paid for as Furnishing and Erecting Structural Steel. Installation templates will not be measured for payment.

SHT. 7 OF 9

REVISIONS	
NAME	DATE
NK	06/09/04

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	129.0
Reinforcement Bars, Epoxy Coated	kg	15,420
Furnishing and Erecting Structural Steel	kg	1,225
Protective Coat***	Sq m	213

*** To be applied to top and inside face of traffic barrier.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
IL ROUTE 83 RECONSTRUCTION
COOK COUNTY

TRAFFIC BARRIER AT NOISEWALL SECTIONS & DETAILS - 2

SCALE: DATE: 02/20/2004

DRAWN BY: NK
CHECKED BY: VCP

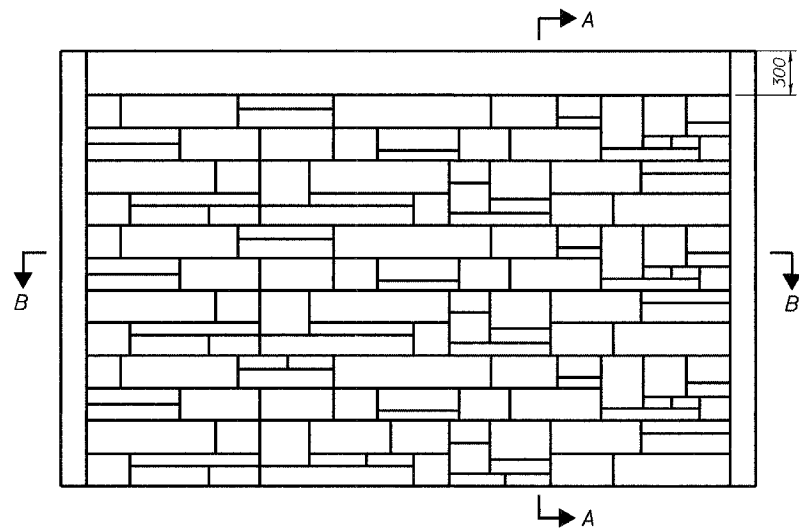
TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

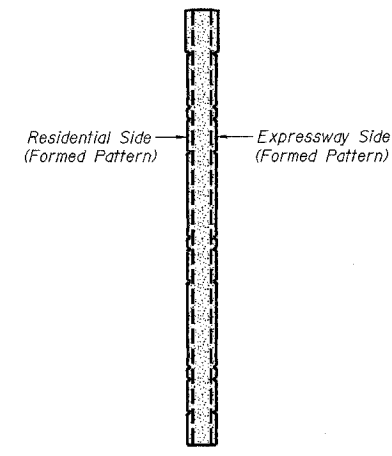
7-2005-35164
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ALL DIMENSIONS IN METERS EXCEPT PAVEMENT ITEMS AND UNLESS NOTED OTHERWISE

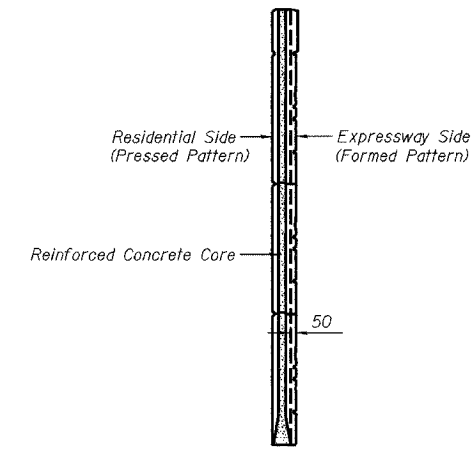
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	533
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



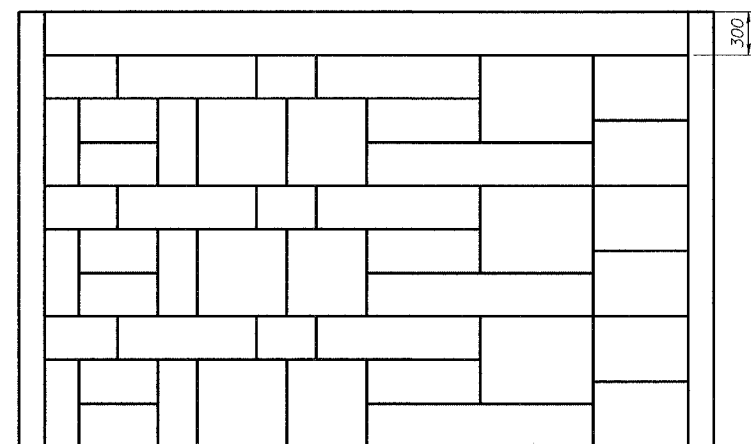
FORMED ASHLAR STONE PATTERN
 (Absorptive Panel - Expressway Side only)
 (Precast Panel - Expressway & Residential Sides)



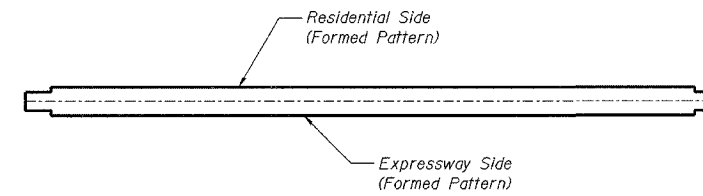
SECTION A-A THRU PRECAST PANEL



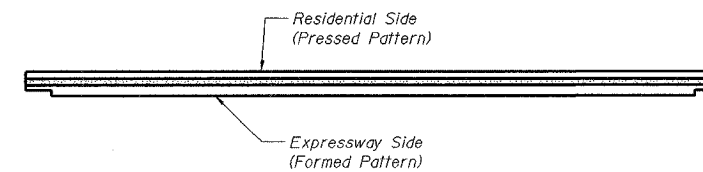
SECTION A-A THRU ABSORPTIVE PANEL



PRESSED ASHLAR STONE PATTERN
 (Absorptive Panel - Residential Side only)



SECTION B-B THRU PRECAST PANEL



SECTION B-B THRU ABSORPTIVE PANEL

Notes:

Reinforcement and Lifting Bars to be determined by manufacturer.
 All dimensions in mm (millimeters) unless noted otherwise.
 The panel texturing shown shall be used for all panels.
 The manufacturer shall prepare four differing panel patterns to be used in random order along the noise abatement wall.
 Panels and concrete columns shall be colored as specified in the Special Provisions. Alternate steel posts, if used, shall be painted matching color. Samples of panel texturing and coloring shall be submitted to the Department for approval in accordance with the Special Provision for Noise Abatement Wall.

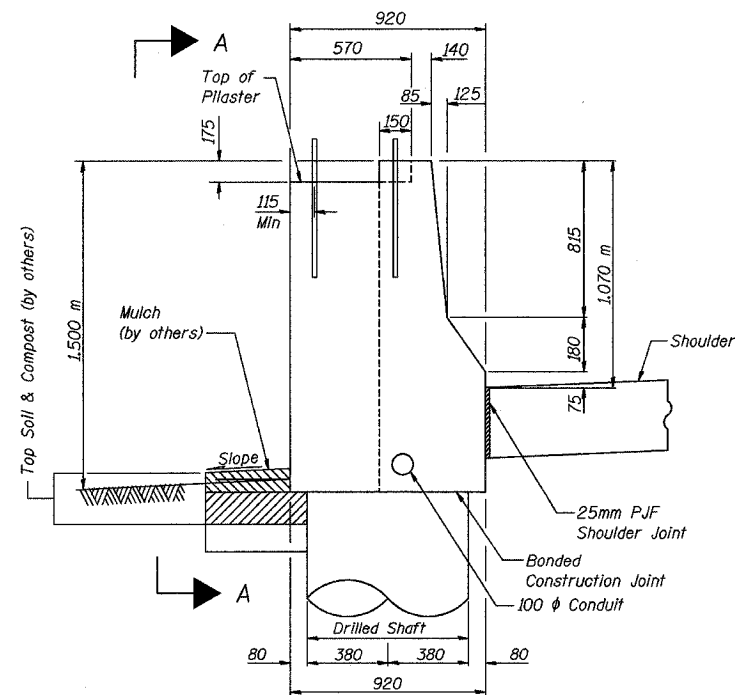
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
 PANEL DETAILS**

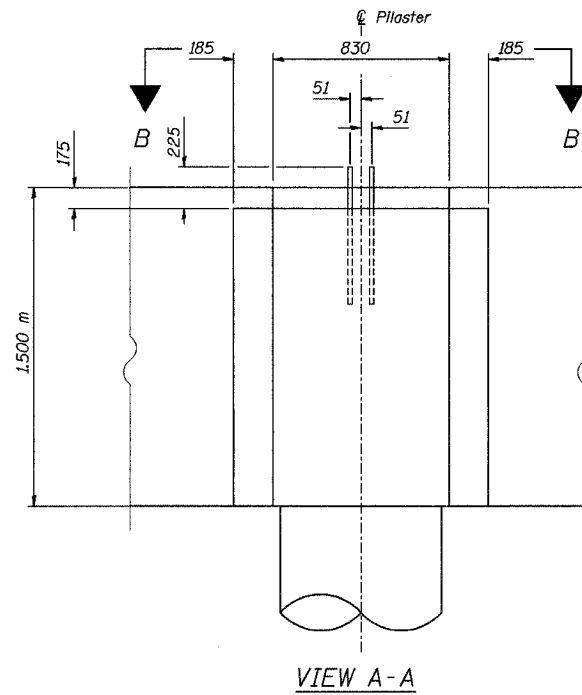
SCALE: DATE 07/05
 DRAWN BY ACE/CAD
 CHECKED BY TAE

AMERICAN
 CONSULTING ENGINEERS

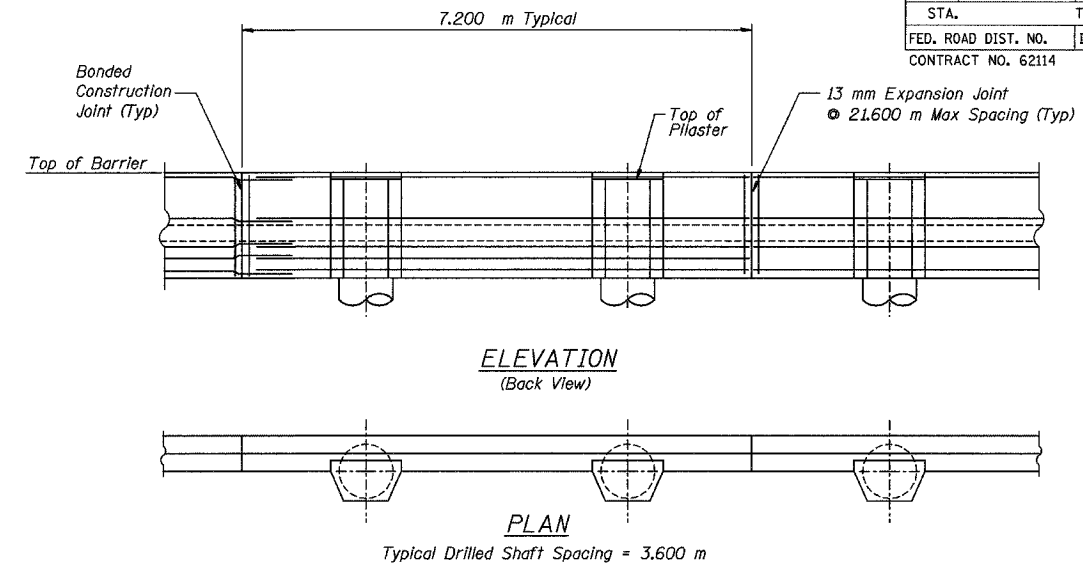
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	534
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



SECTION THRU BARRIER AT PILASTER



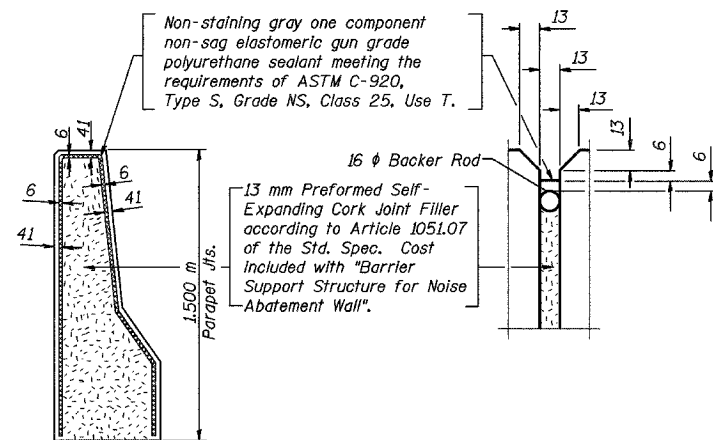
VIEW A-A



ELEVATION
(Back View)

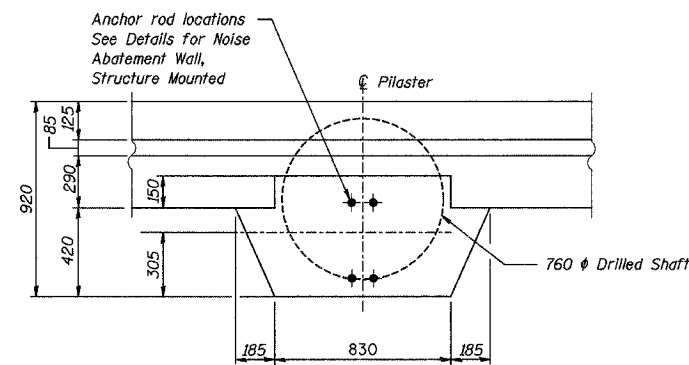
PLAN

Typical Drilled Shaft Spacing = 3.600 m

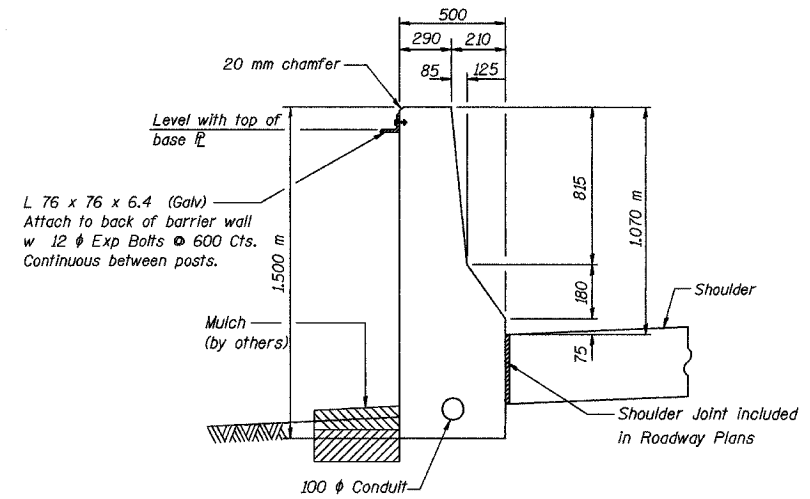


BARRIER EXPANSION JOINT DETAIL

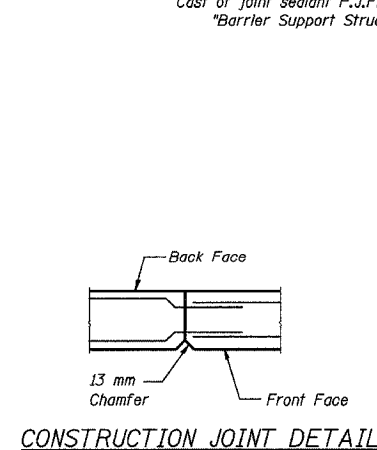
Cast of joint sealant P.J.F. and cement nails are included with "Barrier Support Structure for Noise Abatement Wall"



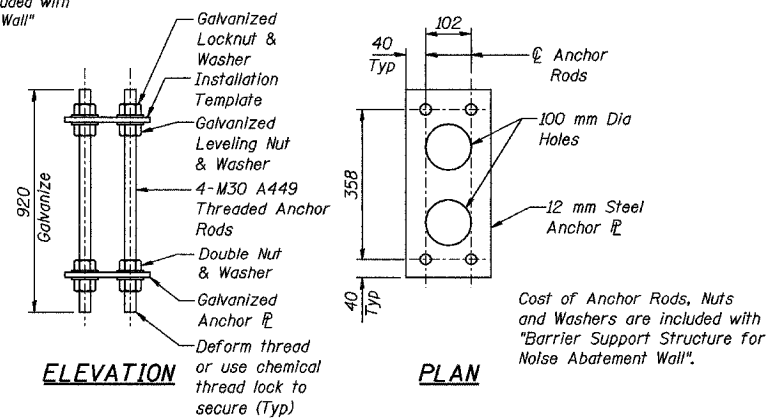
VIEW B-B



SECTION THRU BARRIER BETWEEN PILASTERS



CONSTRUCTION JOINT DETAIL



NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY

NOTES:

B.F. indicates Back Face

E.F. indicates Each Face

Reinforcement bars shall conform to the requirements of AASHTO M31M, M42M, or M53M Grade 400

All dimensions are in millimeters (mm) except as noted.

Bonded Construction Joint in accordance with Article 503.09 (b) of the Standard Specifications.

All bars shall be epoxy coated.

For Locations of Barrier Support Structure for Noise Abatement Wall see Noise Abatement Wall or Roadway Plans.

Contractor shall design and submit for approval by the Engineer Drilled Shaft lengths and reinforcement details to conform with the loading requirements of the Noise Abatement Wall Manufacturer. See Special Provisions.

Cost of Concrete, Reinforcing Steel, Drilled Shafts and Threaded Anchor Rods included with "Barrier Support Structure for Noise Abatement Wall".

REVISIONS	
NAME	DATE

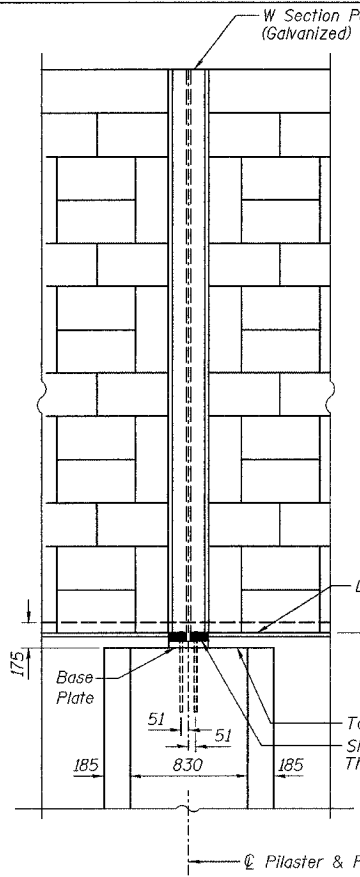
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
**BARRIER SUPPORT STRUCTURE
FOR NOISE ABATEMENT WALL**

SCALE: DATE 07/05

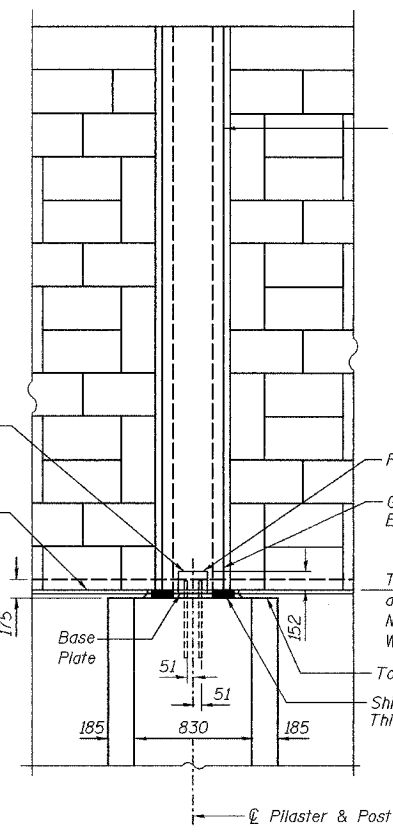
DRAWN BY ACE/CAD
CHECKED BY TAE

AMERICAN
CONSULTING ENGINEERS

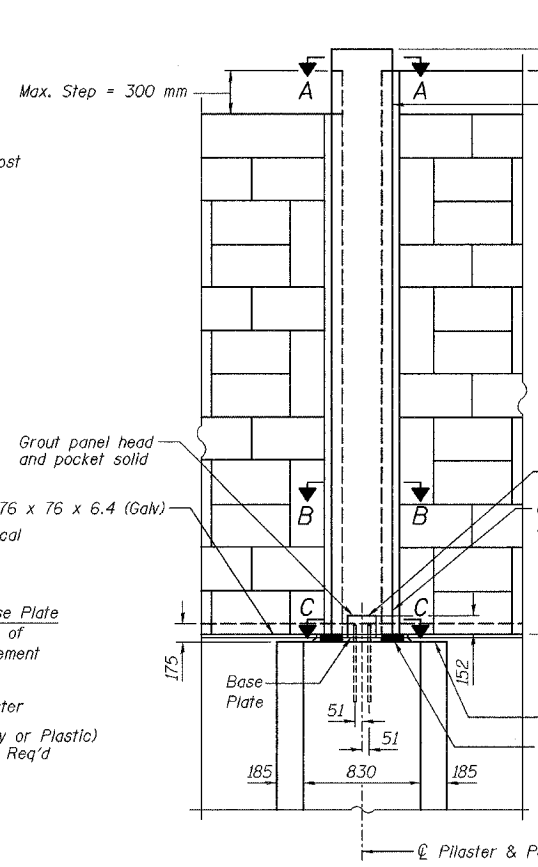
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80/94	2626.2-R-2	COOK/LAKE	1207	534A
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			



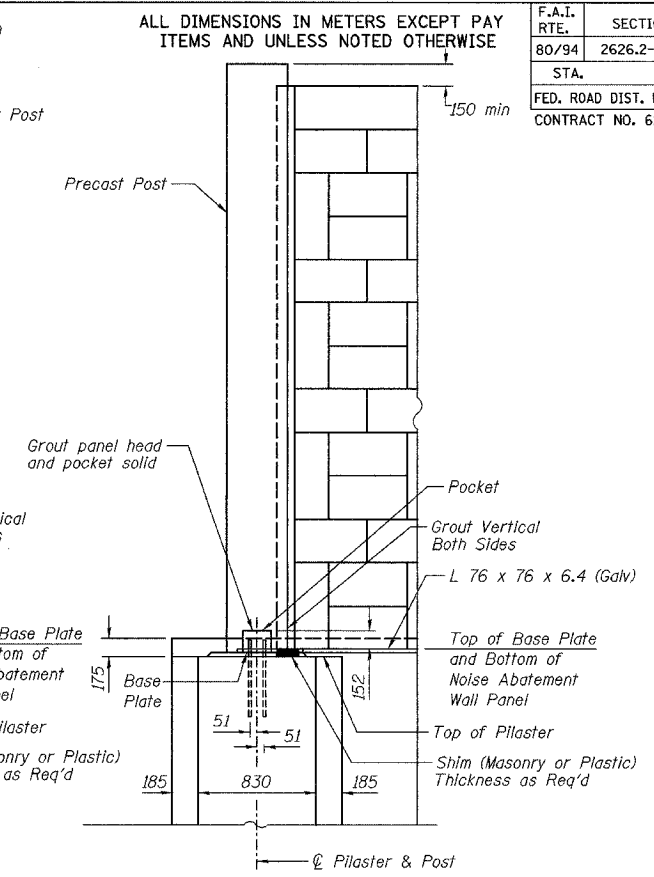
ALTERNATE STEEL POST (NO STEP)
(Looking @ Residential Side)



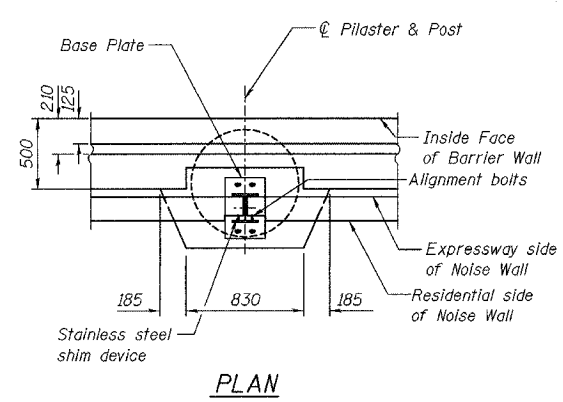
PRECAST POST (NO STEP)
(Looking @ Residential Side)



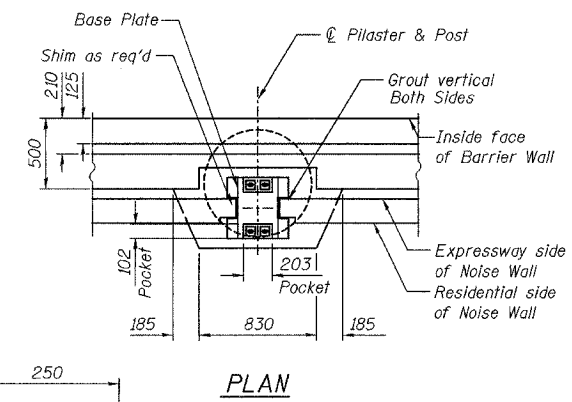
PRECAST POST AT NOISEWALL STEP
(Looking @ Residential side)



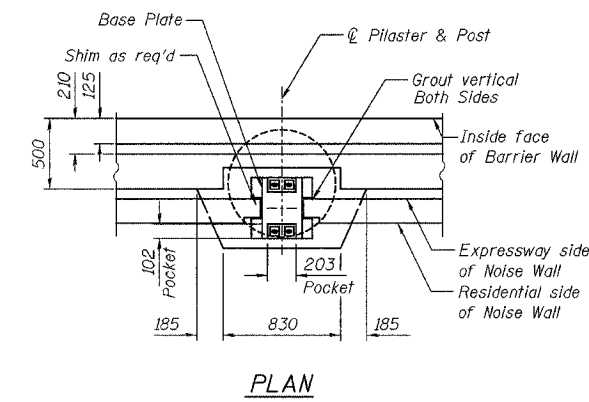
PRECAST POST AT NOISEWALL END
(Looking @ Residential side)



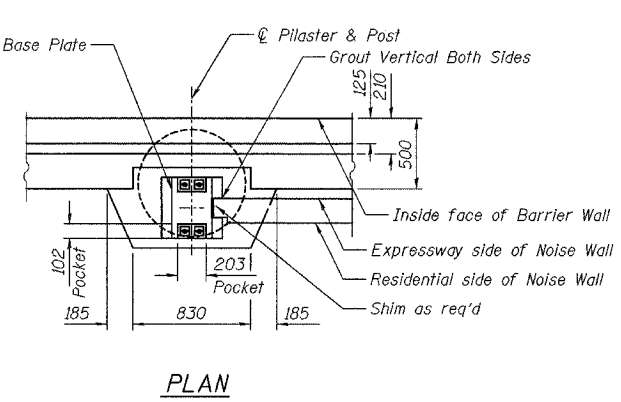
PLAN



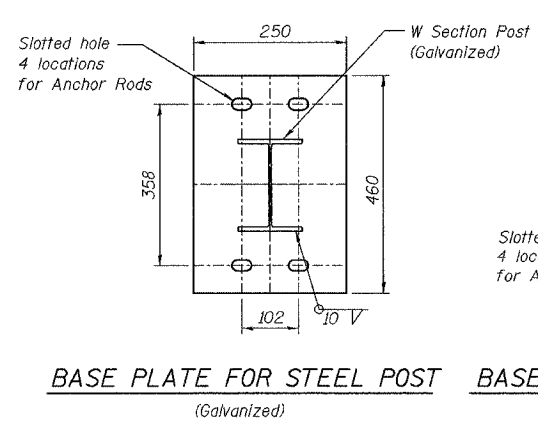
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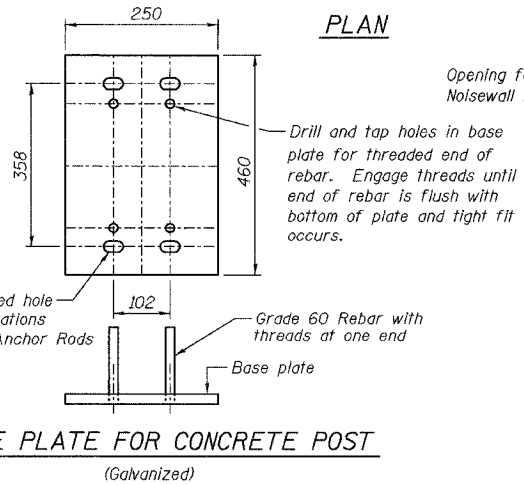
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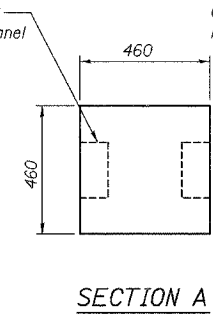
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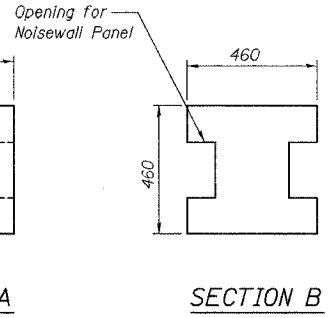
BASE PLATE FOR STEEL POST
(Galvanized)



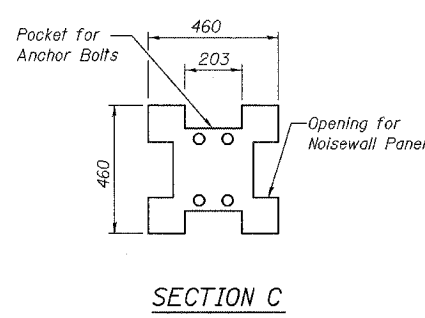
BASE PLATE FOR CONCRETE POST
(Galvanized)



SECTION A



SECTION B



SECTION C

Notes:
Size of slotted holes, base plate thickness and threaded rebar dimensions to be determined by manufacturer.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
STRUCTURE MOUNTED**

SCALE: DATE 07/05

DRAWN BY ACE/CAD
CHECKED BY TAE

AMERICAN
CONSULTING ENGINEERS

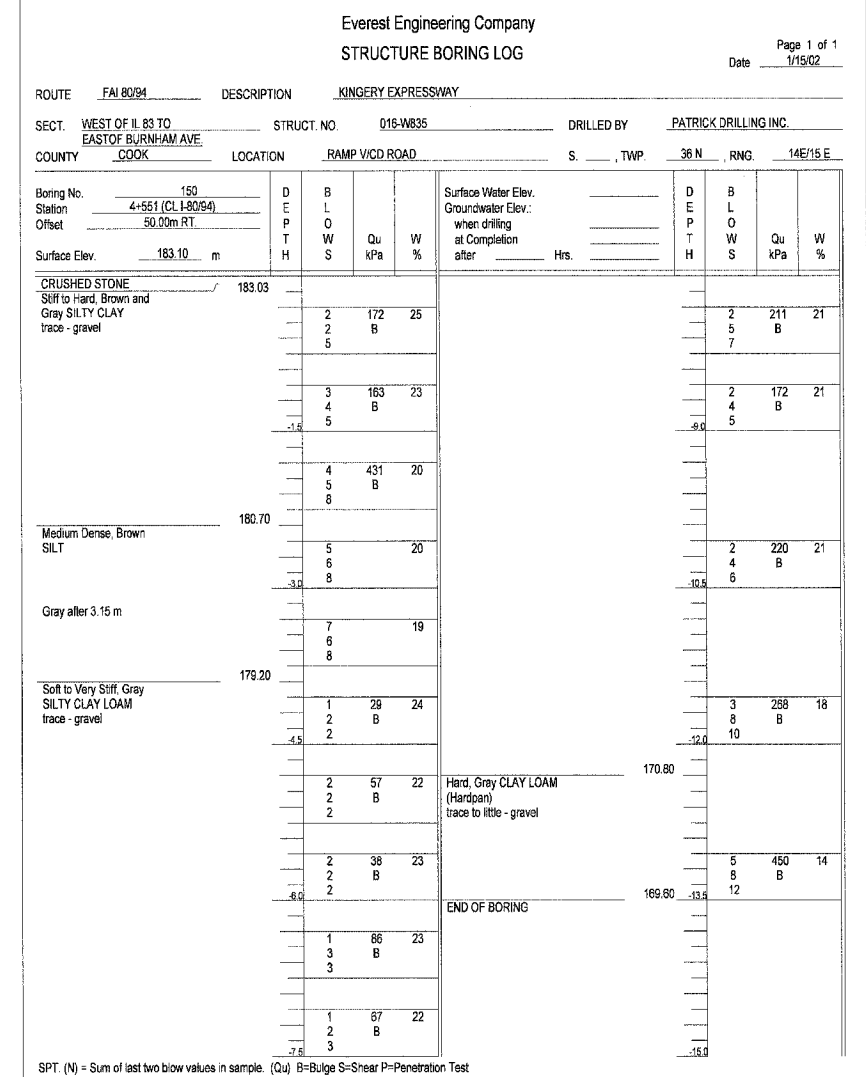
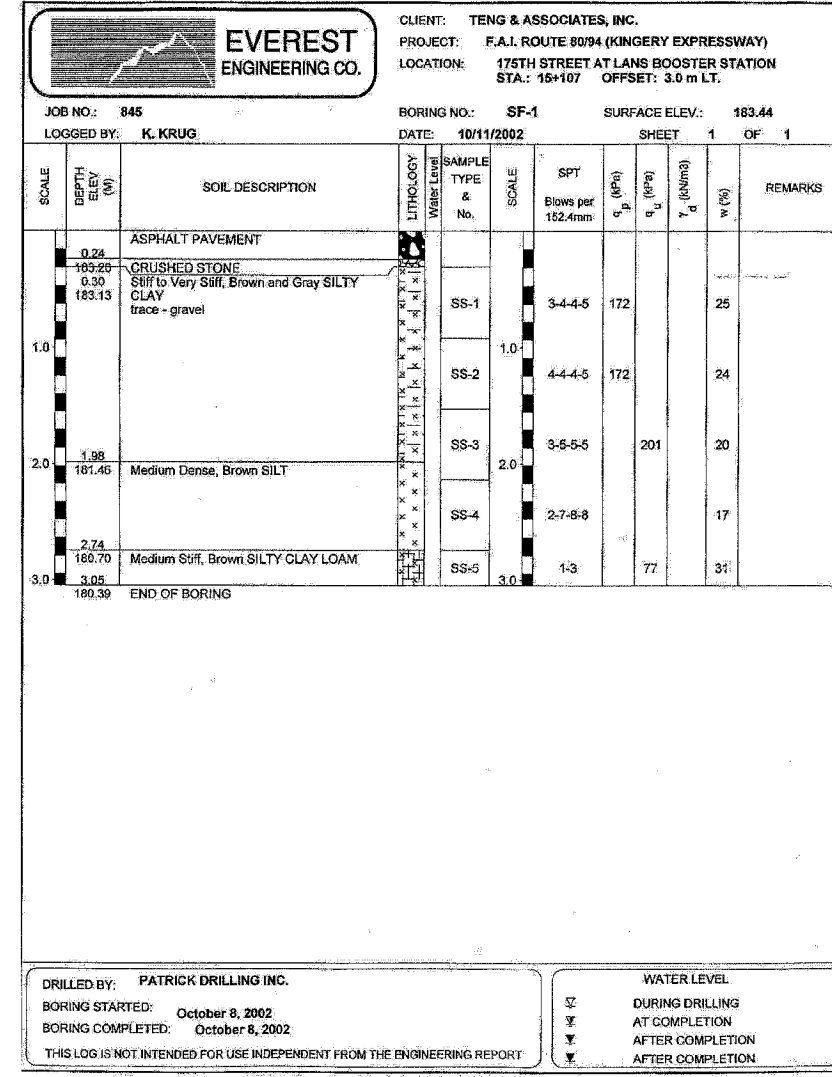
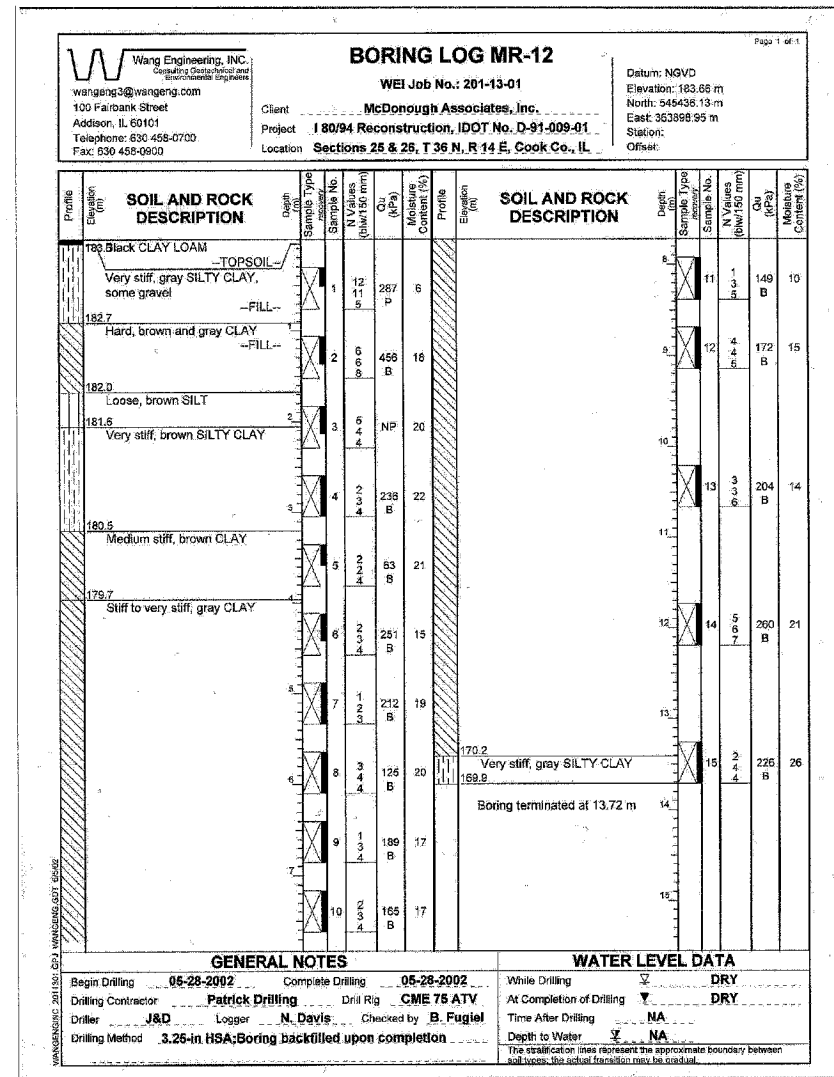
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	535
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62114

BORING LOG MR-12, PAGE 1 OF 1

BORING LOG SF-1, PAGE 1 OF 1

BORING LOG 150, PAGE 1 OF 1



KLEINSTMJ
 \A8990024.DCH - B04MR12A.DGN
 P:\2005\160338 T:\DOCUMENT\93750N\STRUCT\DRAN\B04MR12A.DGN
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

BORING LOGS - I

SCALE: 7/18/2005 DRAWN BY: PA
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

Project information table including F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., STA., TO STA., FED. ROAD DIST. NO., ILLINOIS, FED. AID PROJECT, and CONTRACT NO. 62114.

BORING LOG # 614, PAGE 1 OF 1

BORING LOG SF-6, PAGE 1 OF 1

BORING LOG 173, PAGE 1 OF 1

Everest Engineering Company STRUCTURE BORING LOG. Includes client and project info for KINGERY EXPRESSWAY. Contains a detailed data table with columns for depth (m), SPT (N), and soil description. Includes a legend for SPT, (N), (Cu), B, S, P and a note that stations, depths, offsets, and elevations are in meters.

EVEREST ENGINEERING CO. STRUCTURE BORING LOG. Includes client and project info for KINGERY EXPRESSWAY. Contains a detailed data table with columns for depth (m), SOIL DESCRIPTION, LITHOLOGY, SAMPLE TYPE & No., SCALE, SPT, and REMARKS. Includes a legend for WATER LEVEL and a note that this log is not intended for use independent from the engineering report.

Everest Engineering Company STRUCTURE BORING LOG. Includes client and project info for KINGERY EXPRESSWAY. Contains a detailed data table with columns for depth (m), SPT (N), and soil description. Includes a legend for SPT, (N), (Cu), B, S, P and a note that stations, depths, offsets, and elevations are in meters.

Table with 2 columns: NAME, DATE. Title: REVISIONS.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

BORING LOGS - II

SCALE: DATE: 7/18/2005 DRAWN BY: PA CHECKED BY: MJK

TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

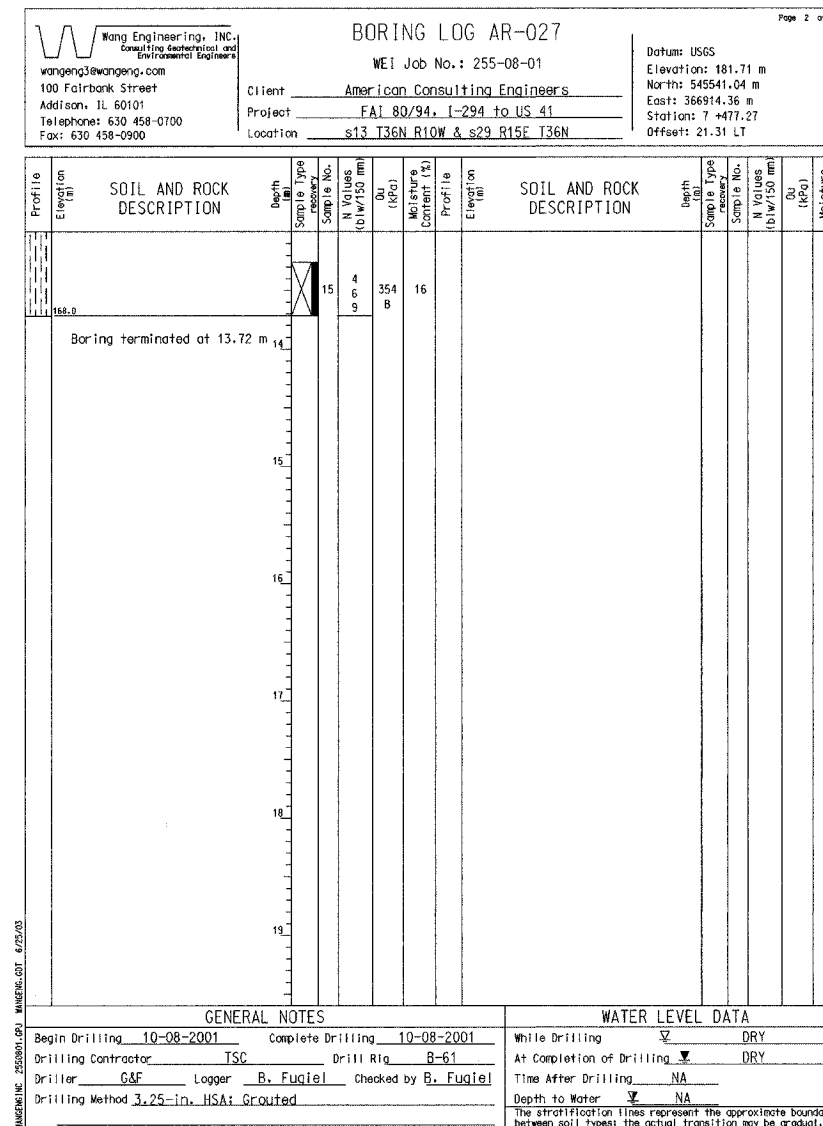
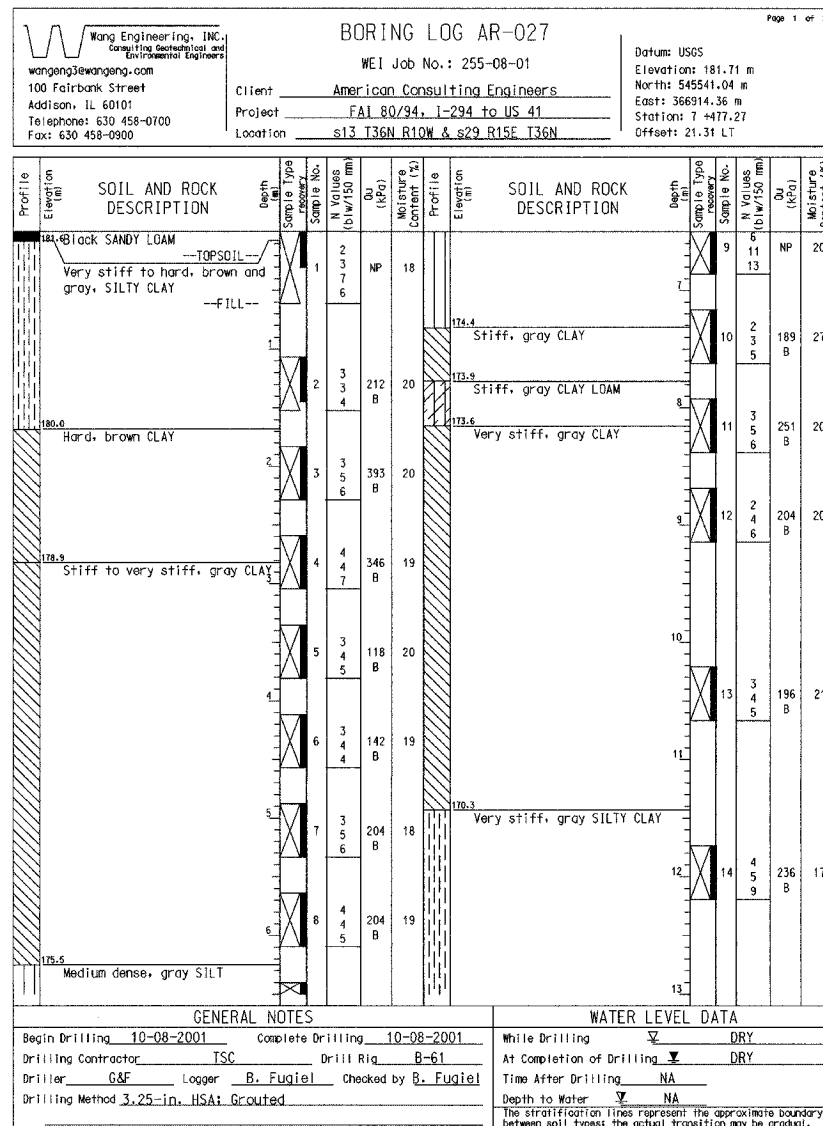
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ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	538
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62114		INDOT DES. NO. 0100987		

BORING NO. AR-027 (1 OF 2)

BORING NO. AR-027 (2 OF 2)



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41

**NOISE ABATEMENT WALL
SOIL BORINGS**

SCALE NTS
DATE 07/05

DRAWN BY ACE/CAD
CHECKED BY TAE

AMERICAN
CONSULTING ENGINEERS

WANGENG INC 255001.DPJ WANGENG.GDT 4/7/03

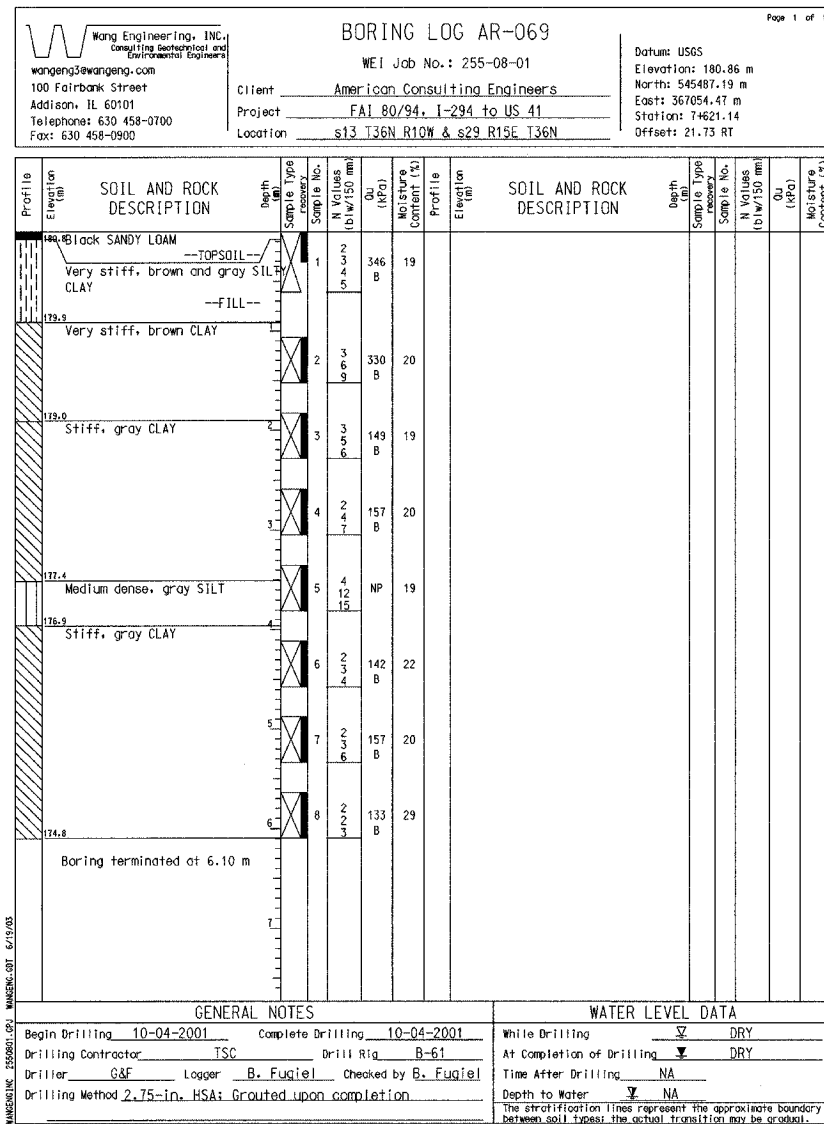
WANGENG INC 255001.DPJ WANGENG.GDT 4/7/03

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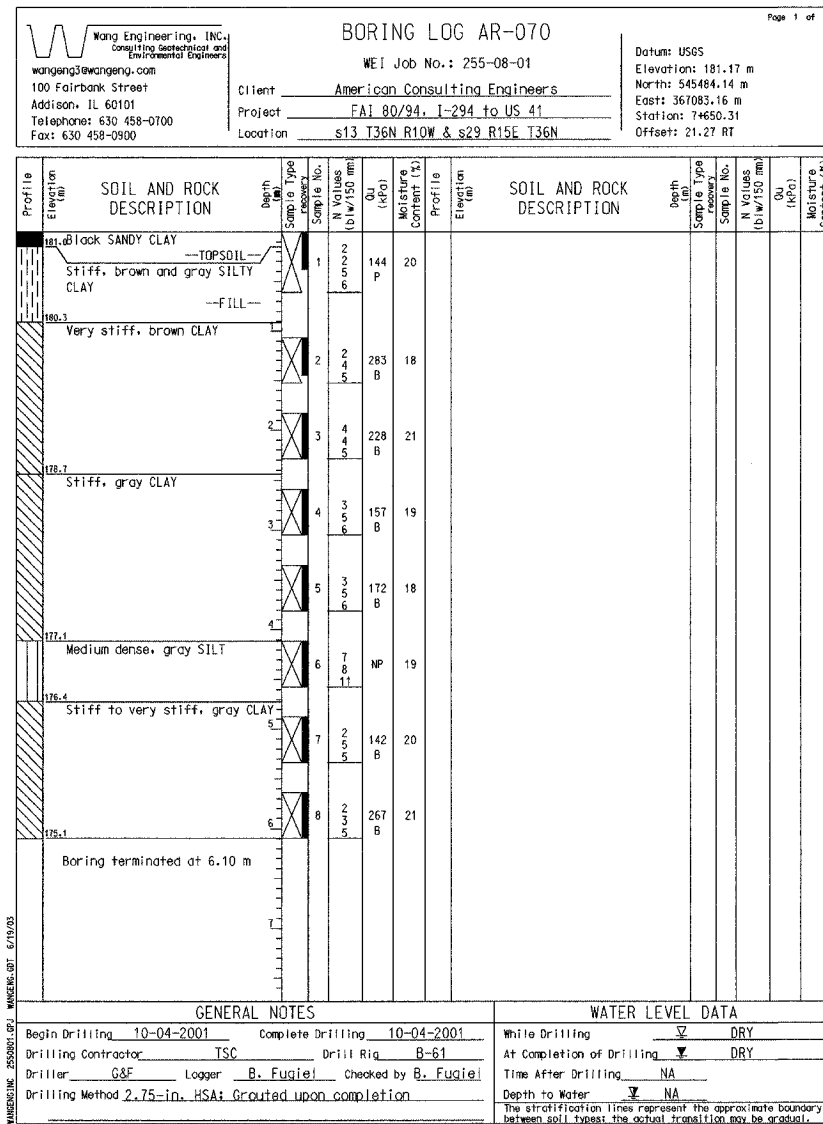
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	539
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62114	INDOT DES. NO. 0100987			

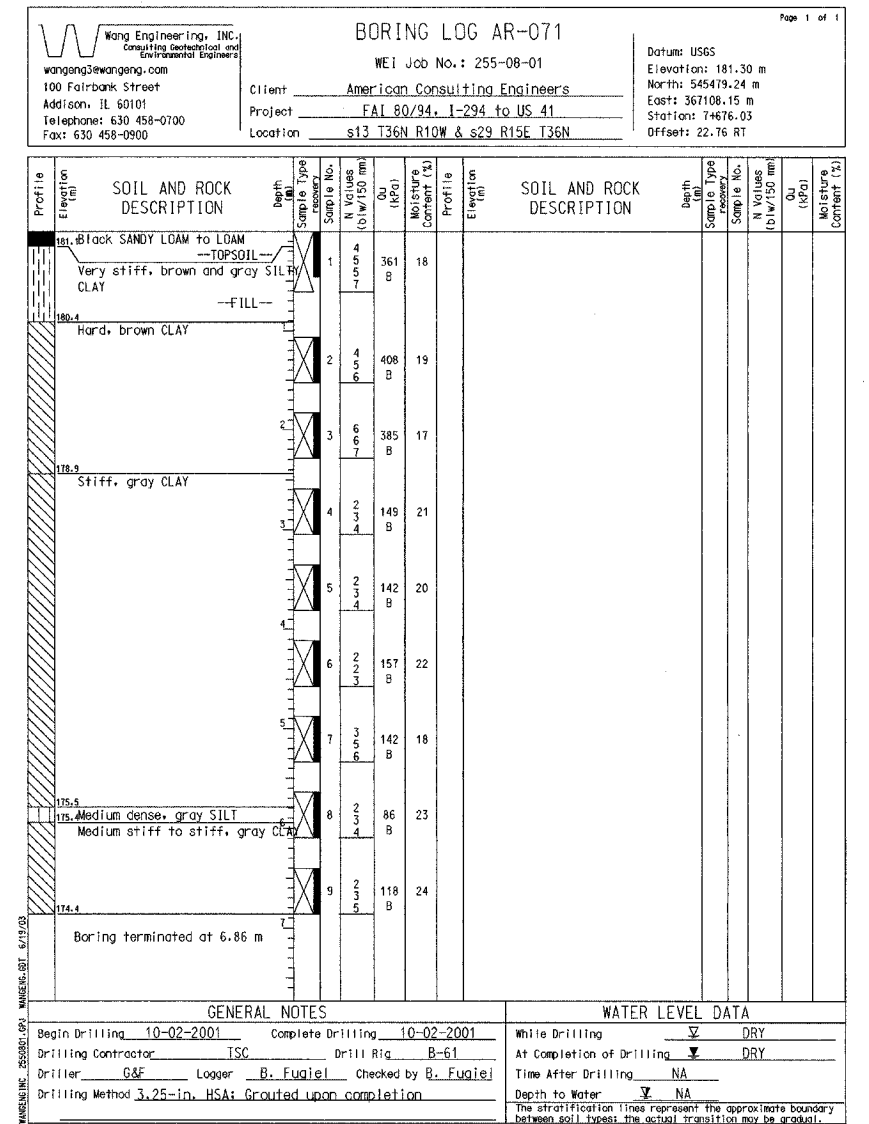
BORING NO. AR-069 (1 OF 1)



BORING NO. AR-070 (1 OF 1)



BORING NO. AR-071 (1 OF 1)



ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
 SOIL BORINGS**
 SCALE NTS
 DATE 07/05
 DRAWN BY ACE/CAD
 CHECKED BY TAE
**AMERICAN
 CONSULTING ENGINEERS**

REVISIONS	
NAME	DATE

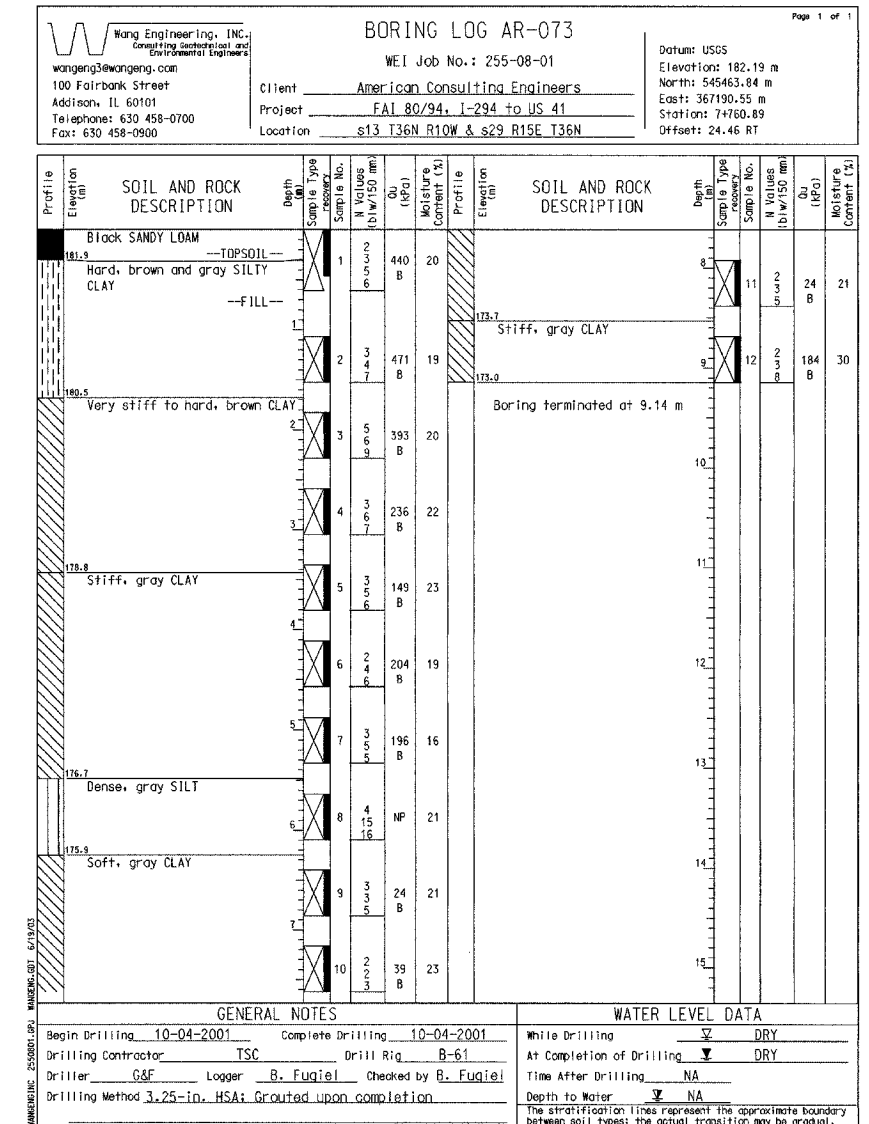
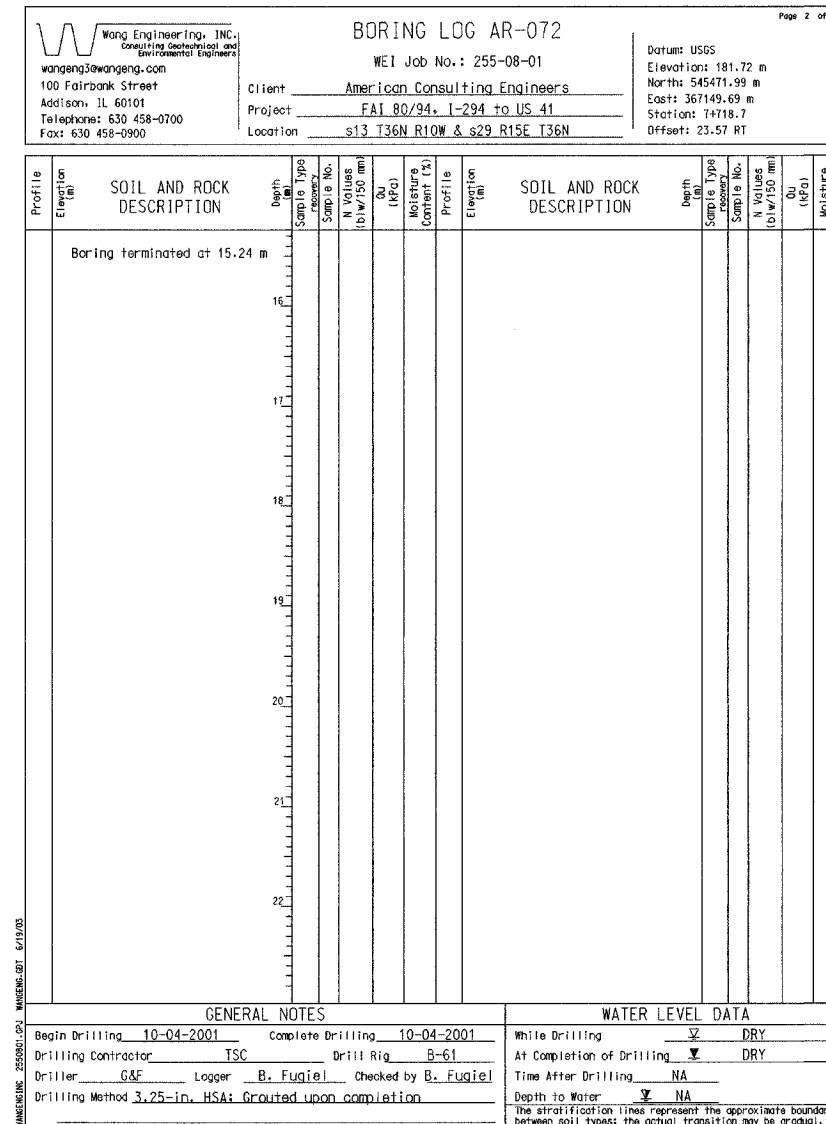
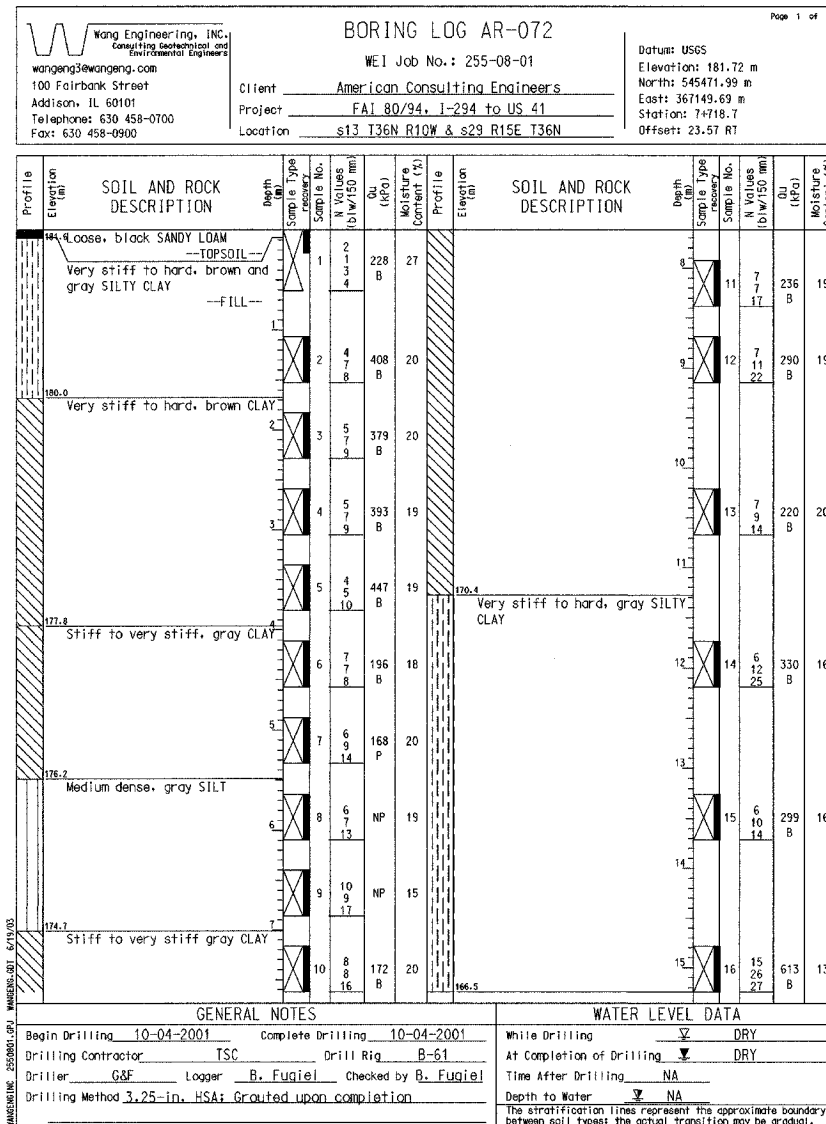
ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	540
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114	INDOT DES. NO. 0100987			

BORING NO. AR-072 (1 OF 2)

BORING NO. AR-072 (2 OF 2)

BORING NO. AR-073 (1 OF 1)



ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
SOIL BORINGS**

REVISIONS	
NAME	DATE

SCALE NTS
DATE 07/05
DRAWN BY ACE/CAD
CHECKED BY TAE



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ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	540A
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62114		INDOT DES. NO. 0100987		

BORING NO. AR-074 (1 OF 1)

BORING NO. AR-075 (1 OF 1)

BORING NO. AR-076 (1 OF 1)

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
 wangeng3ewangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG AR-074
 WEI Job No.: 255-08-01
 Client: American Consulting Engineers
 Project: FAI 80/94, I-294 to US 41
 Location: s29 T36N R15E & s13 T36N R10W

Datum: USGS
 Elevation: 181.99 m
 North: 545455.06 m
 East: 367232.99 m
 Station: 74804.78
 Offset: 24.72 RT

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
 wangeng3ewangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG AR-075
 WEI Job No.: 255-08-01
 Client: American Consulting Engineers
 Project: FAI 80/94, I-294 to US 41
 Location: s29 T36N R15E & s13 T36N R10W

Datum: USGS
 Elevation: 181.53 m
 North: 545445.40 m
 East: 367270.78 m
 Station: 74844.3
 Offset: 25.92 RT

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
 wangeng3ewangeng.com
 100 Fairbank Street
 Addison, IL 60101
 Telephone: 630 458-0700
 Fax: 630 458-0900

BORING LOG AR-076
 WEI Job No.: 255-08-01
 Client: American Consulting Engineers
 Project: FAI 80/94, I-294 to US 41
 Location: s13 T36N R10W & s29 R15E T36N

Datum: USGS
 Elevation: 182.20 m
 North: 545438.02 m
 East: 367313.02 m
 Station: 74857.63
 Offset: 23.00 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT VALUE (blows/150 mm)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT VALUE (blows/150 mm)	Moisture Content (%)
181.8	Brown SILTY CLAY LOAM	0	TOPSOIL				181.8	Medium stiff gray CLAY	0				
181.8	Very stiff, brown, black and gray SILTY CLAY	1		359 P			181.8	Soft, gray SILTY CLAY	1		11	23	55 B
180.9	Very stiff to hard, brown CLAY	2		287 P			180.9	Stiff to very stiff, gray CLAY	2		12	19	32 B
180.9		3		393 B			180.9		3		13	30	189 B
180.9		4		369 B			180.9		4		14	21	236 B
180.9		5		385 B			180.9		5		15	13	330 B
178.0	Stiff, gray CLAY	6		157 B			178.0		6		16		
178.0		7		125 B			178.0		7		17		
178.0		8		133 B			178.0		8		18		
175.4	Medium dense, gray SILT	9		NP			175.4		9		19		
175.4		10		NP			175.4		10		20		

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT VALUE (blows/150 mm)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT VALUE (blows/150 mm)	Moisture Content (%)
181.8	Brown SILTY CLAY LOAM	0	TOPSOIL				181.8	Very stiff, brown and gray SANDY CLAY	0				
181.8	Hard, brown, black, and gray SILTY CLAY	1		743 P			181.8	Very stiff, gray SILTY CLAY	1		11	23	157 B
180.2	Very stiff, brown CLAY	2		236 B			180.2		2		12	31	172 B
180.2		3		338 S			180.2		3		13	21	220 B
180.2		4		335 P			180.2		4		14	24	251 B
178.0	Stiff to very stiff, gray CLAY	5		243 B			178.0		5		15	14	236 B
177.0	Very stiff, brown and gray SANDY CLAY	6		125 B			177.0		6		16		
176.8	Soft to very stiff, gray CLAY	7		118 B			176.8		7		17		
176.8		8		165 B			176.8		8		18		
176.8		9		39 B			176.8		9		19		
176.8		10		181 B			176.8		10		20		

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT VALUE (blows/150 mm)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT VALUE (blows/150 mm)	Moisture Content (%)
181.8	Black SANDY LOAM	0	TOPSOIL				181.8	Very stiff, gray CLAY	0				
181.8	Very stiff to hard, brown and gray SILTY CLAY	1		314 S			181.8		1		11	18	169 B
180.5	Hard, brown CLAY	2		424 B			180.5		2		12	18	236 B
180.5		3		526 B			180.5		3		13	20	730 B
179.0	Medium stiff to very stiff, gray CLAY	4		487 B			179.0		4		14	17	236 B
179.0		5		236 B			179.0		5		15		
179.0		6		165 B			179.0		6		16		
179.0		7		149 B			179.0		7		17		
179.0		8		79 B			179.0		8		18		
179.0		9		79 B			179.0		9		19		
179.0		10		125 B			179.0		10		20		

GENERAL NOTES
 Begin Drilling: 07-10-2003 Complete Drilling: 07-10-2003
 Drilling Contractor: TSC Drill Rig: CME 75
 Driller: C&A Logger: J. Kasnick Checked by: B. Fugiel
 Drilling Method: 3.25-in. HSA; Grouted upon completion

WATER LEVEL DATA
 While Drilling: 6.63 m
 At Completion of Drilling: DRY
 Time After Drilling: NA
 Depth to Water: NA

GENERAL NOTES
 Begin Drilling: 07-10-2003 Complete Drilling: 07-10-2003
 Drilling Contractor: TSC Drill Rig: CME 75
 Driller: C&A Logger: J. Kasnick Checked by: B. Fugiel
 Drilling Method: 3.25-in. HSA; Grouted upon completion

WATER LEVEL DATA
 While Drilling: 4.42 m
 At Completion of Drilling: 4.57 m
 Time After Drilling: NA
 Depth to Water: NA

GENERAL NOTES
 Begin Drilling: 10-17-2001 Complete Drilling: 10-17-2001
 Drilling Contractor: TSC Drill Rig: B-61
 Driller: G&F Logger: B. Fugiel Checked by: B. Fugiel
 Drilling Method: 3.25-in. HSA; Grouted upon completion

WATER LEVEL DATA
 While Drilling: DRY
 At Completion of Drilling: DRY
 Time After Drilling: NA
 Depth to Water: NA

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
**NOISE ABATEMENT WALL
 SOIL BORINGS**

SCALE: NTS
 DATE: 07/05

DRAWN BY: ACE/CAD
 CHECKED BY: TAE

**AMERICAN
 CONSULTING ENGINEERS**

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 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

BENCHMARKS:
 BM "6E" Square cut in northwest corner of southwest handrail (J-Wall) of the southwest abutment of existing I-80 bridge over Burnham Ave. El. 187.309

EXISTING STRUCTURE:
 Structure No. 016-0082 Three span, 54.839 m back to back of abutment, continuous non-composite steel multi-beam bridge on multi-column concrete piers and open abutments. 16.98 m between barriers (Each Direction).

SALVAGE: None

STAGING: See sections on Sht. BS-4 for staging.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	541
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62114

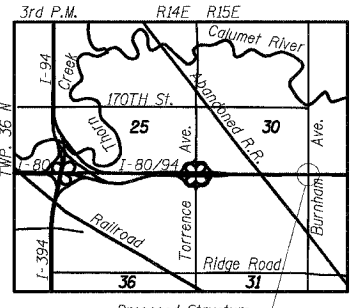
DESIGN SPECIFICATIONS:
 2002 AASHTO Standard Specifications for Highway Bridges.

1989 AASHTO Guide Specifications for Structural Design of Sound Barriers with 1992 Interims.

DESIGN LOADING:
 Roadway Live Load: MS-18 & Alt.
 Future Wearing Surface: 2.4 kN/sq. m.
 Noise Abatement Wall:
 Wind Load: 1.7 kPa
 Design Height: 3.16 m measured from top of parapet

DESIGN STRESSES:
 Concrete, f'c: 24 MPa
 Reinforcement, fy: 400 MPa
 Structural Steel, fy: 345 MPa (M270M Grade 345)
 fy: 250 MPa (M270M Grade 250)

SEISMIC DATA:
 Seismic Performance Category (SPC): A
 Bedrock Acceleration Coefficient (A): 0.04g
 Site Coefficient (S): 1.0



- LEGEND**
- #240 Soil Boring
 - Exist. Combined Sewer
 - Existing Gas Main (to be relocated)
 - Existing Water Main
 - Existing Telephone
 - Existing Cable Television (to be relocated by others)
 - Proposed Storm Sewer (See Drainage Plans)
 - Existing Storm Sewer (See Drainage Plans)
 - Existing Manhole (See Drainage Plans)
 - Existing Catch Basin (See Drainage Plans)
 - Proposed Manhole (See Drainage Plans)

THIS SHEET FOR INFORMATION ONLY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER BURNHAM AVENUE
 STRUCTURE NO. 016-2791 STA. 6+772.591
 SECTION 1977-121-R
 COOK COUNTY

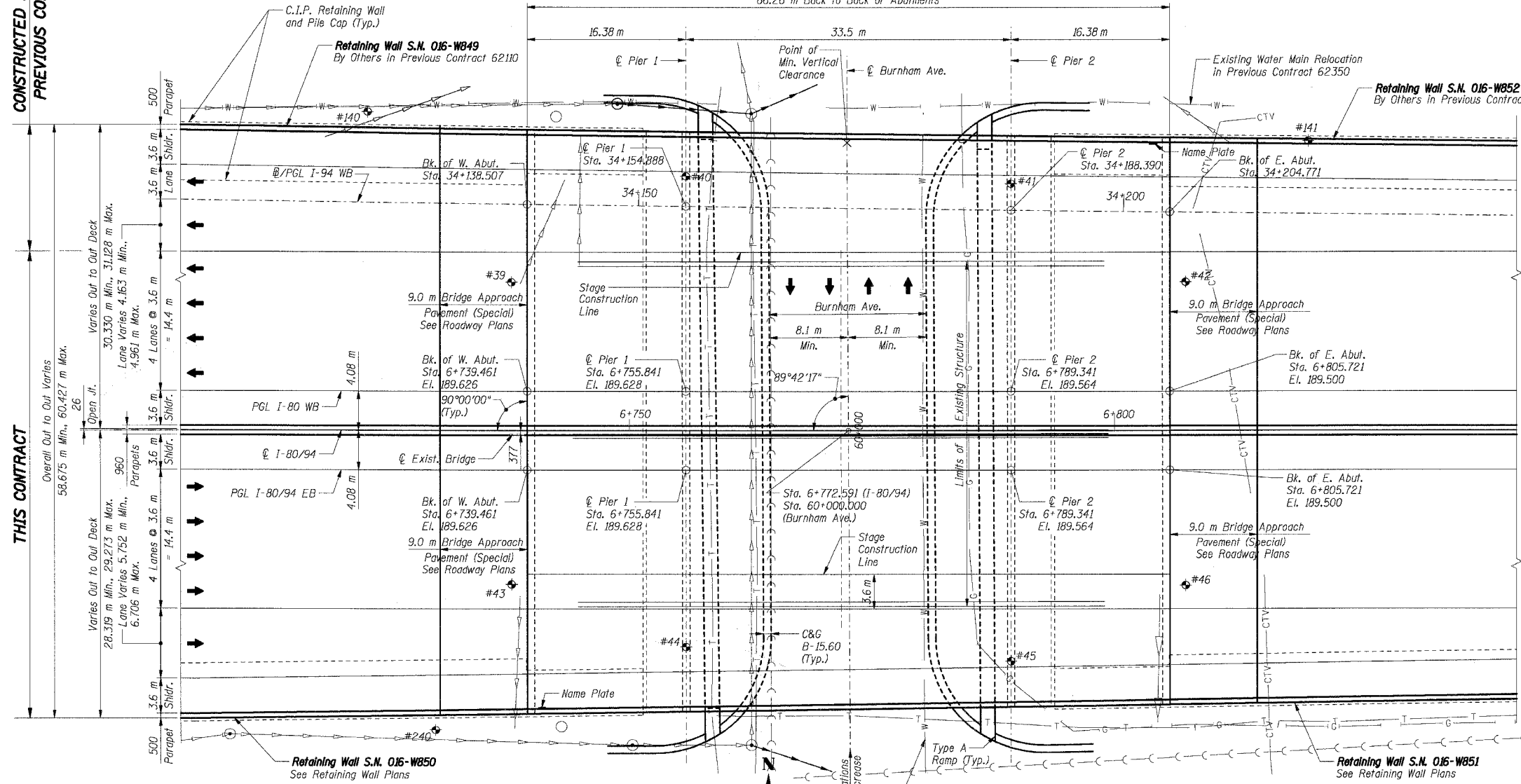
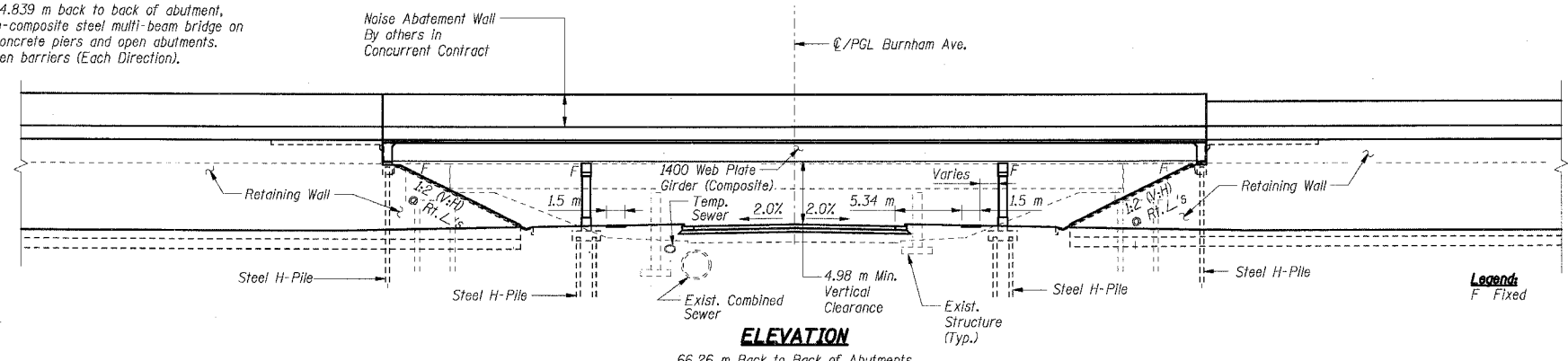
SHT. BS-1 OF 60

REVISIONS	
NAME	DATE

DATE: 7/18/2005
 DRAWN BY: LG
 CHECKED BY: MJK
TENG
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

CONSTRUCTED BY OTHERS IN PREVIOUS CONTRACT 62110

THIS CONTRACT



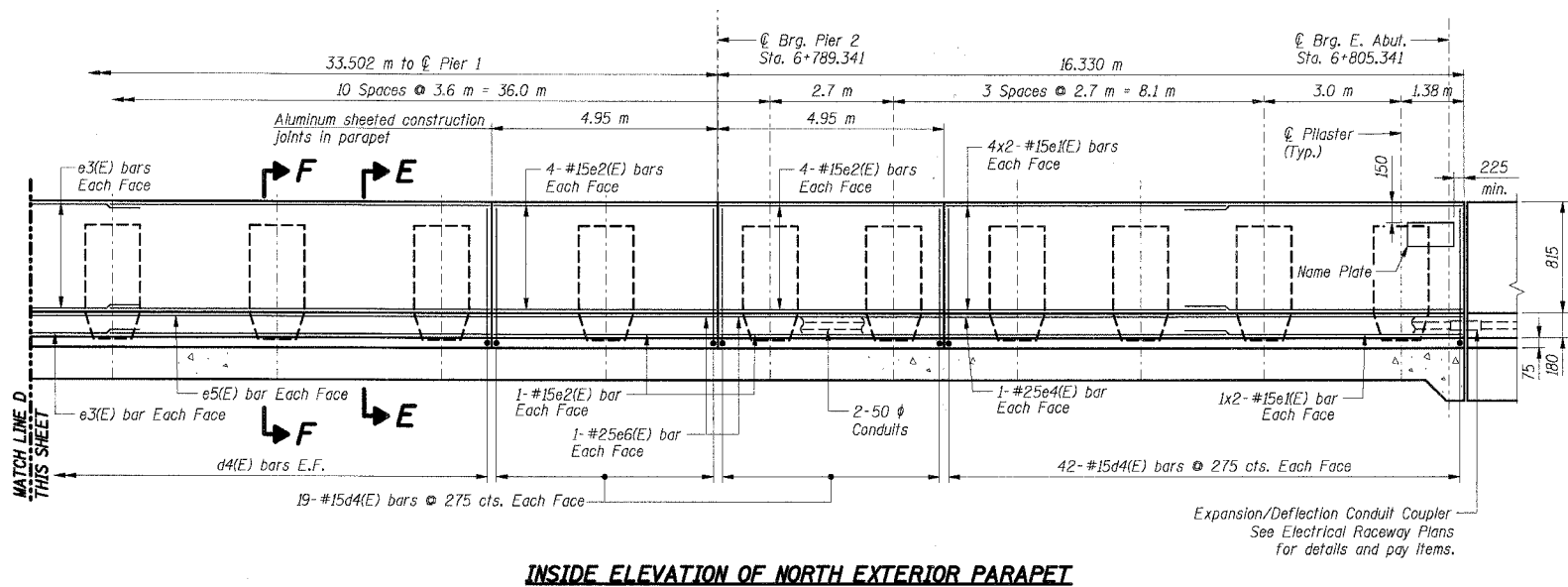
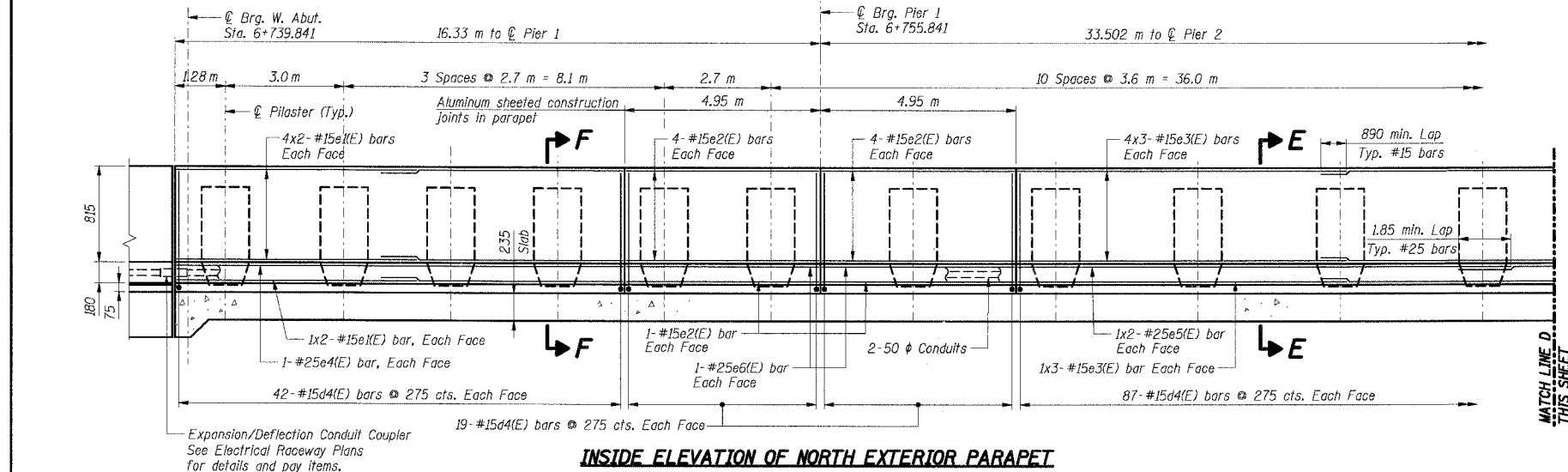
- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Minimum and maximum dimensions are measured along the back of abutments perpendicular to C-I-80/94.
 - For PGL of Burnham Ave. & I-80 see Sht. BS-2

PLAN



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	542
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

CONTRACT NO. 62114



BAR LIST

Bar	No.	Size	Length (m)	Shape
d4(E)	494	#15	1.10	┌───┐
d5(E)	147	#15	1.37	┌───┐
e1(E)	40	#15	6.15	┌───┐
e2(E)	40	#15	4.85	┌───┐
e3(E)	30	#15	8.45	┌───┐
e4(E)	4	#25	11.35	┌───┐
e5(E)	4	#25	12.75	┌───┐
e6(E)	8	#25	4.85	┌───┐
e7(E)	6.3	#15	2.56	┌───┐
e8(E)	21	#15	2.20	┌───┐
u1(E)	147	#20	2.05	┌───┐

BILL OF MATERIAL

Item	Unit	Total
Concrete Superstructure	Cu m	
Reinforcement Bars, Epoxy Coated	kg	3,820
Noise Abatement Wall	Each	
Anchor Rod Assembly		
Name Plates	Each	1

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line.
 - For Reinforcement Bar bending diagrams, see Sht. BS-26.
 - For Sections E-E and F-F, see Sht. BS-26.
 - I.F. Denotes Inside Face
O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - For name plate detail see Sht. BS-3.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-24 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB OUTSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER BURNHAM AVENUE
 STRUCTURE NO. 016-2791 STA. 6+772.591
 SECTION 1977-121-R
 COOK COUNTY

NORTH PARAPET ELEVATION

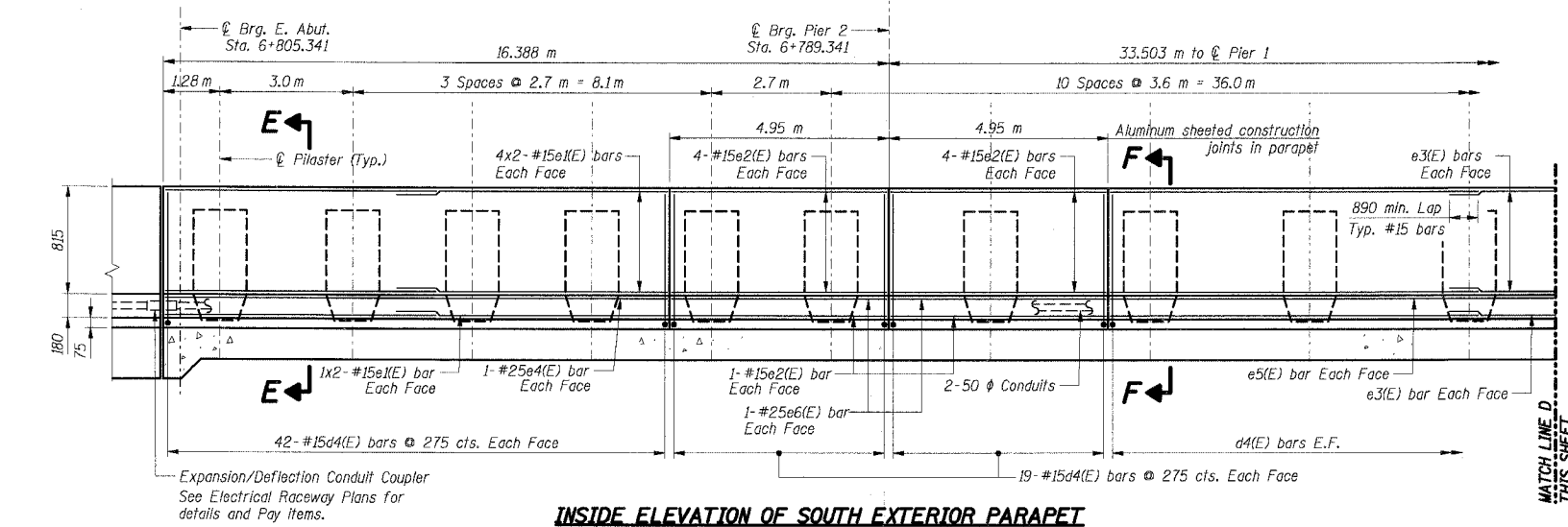
DATE: 8/18/2004

DRAWN BY: LAR
 CHECKED BY: MJK

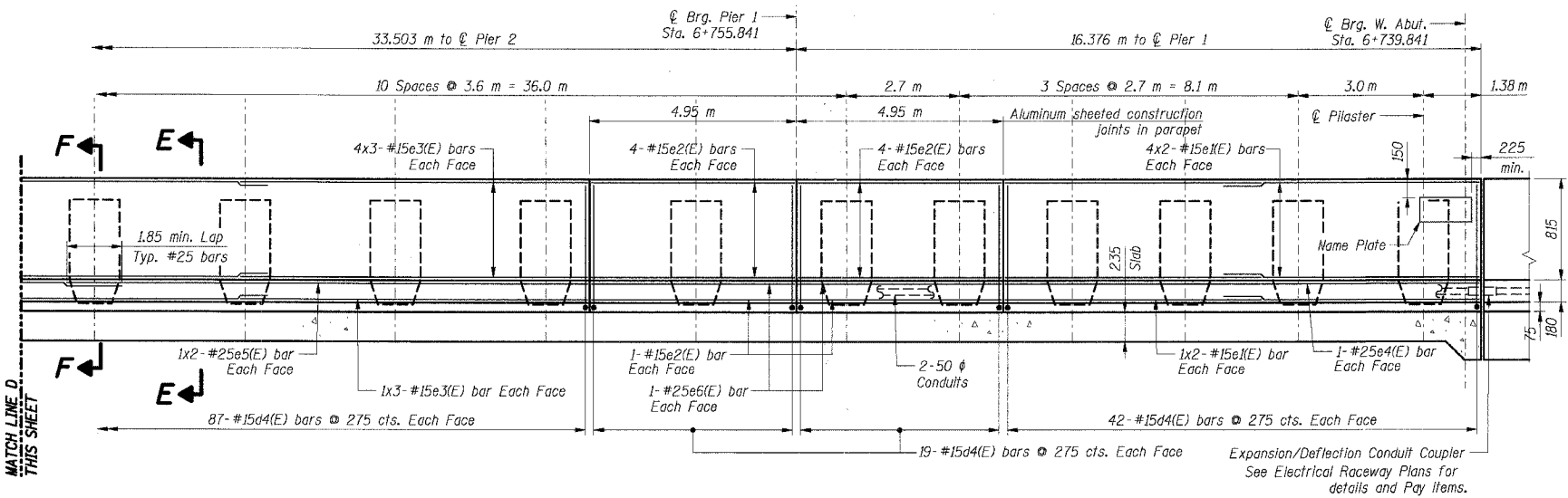
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	543
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62114				



INSIDE ELEVATION OF SOUTH EXTERIOR PARAPET



INSIDE ELEVATION OF SOUTH EXTERIOR PARAPET

BAR LIST

Bar	No.	Size	Length (m)	Shape
d4(E)	494	#15	1.10	┌───┐
d5(E)	147	#15	1.37	┌───┐
e1(E)	40	#15	6.15	───
e2(E)	40	#15	4.85	───
e3(E)	30	#15	8.45	───
e4(E)	4	#25	11.35	───
e5(E)	4	#25	12.75	───
e6(E)	8	#25	4.85	───
e7(E)	63	#15	2.56	┌───┐
e8(E)	21	#15	2.20	┌───┐
u1(E)	147	#20	2.05	┌───┐

BILL OF MATERIAL

Item	Unit	Total
Concrete Superstructure	Cu m	
Reinforcement Bars, Epoxy Coated	kg	3,820
Noise Abatement Wall	Each	
Anchor Rod Assembly		
Name Plates	Each	1

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line.
 - For Sections E-E and F-F, see Sht. BS-26.
 - I.F. Denotes Inside Face, O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - For Name Plate Detail, see Sht. BS-3.
 - For Reinforcement bar bending diagrams, see Sht. BS-26.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-25 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER BURNHAM AVENUE
 STRUCTURE NO. 016-2791 STA. 6+772.591
 SECTION 1977-121-R
 COOK COUNTY

SOUTH PARAPET ELEVATION

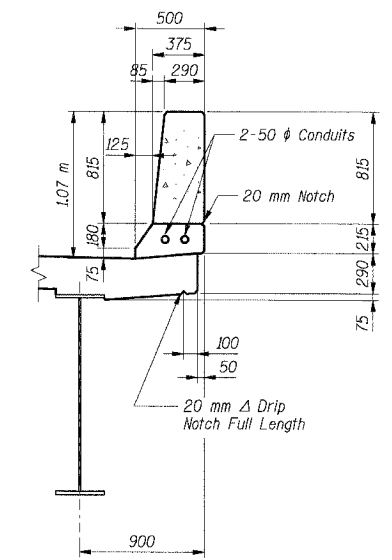
DATE: 7/18/2005
 DRAWN BY: LAR
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

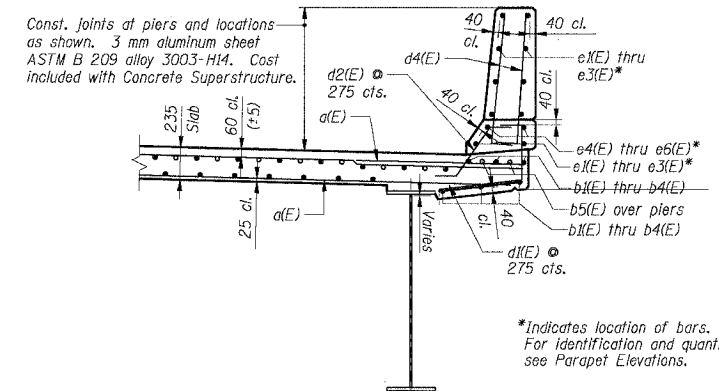
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK	1207	544
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62114

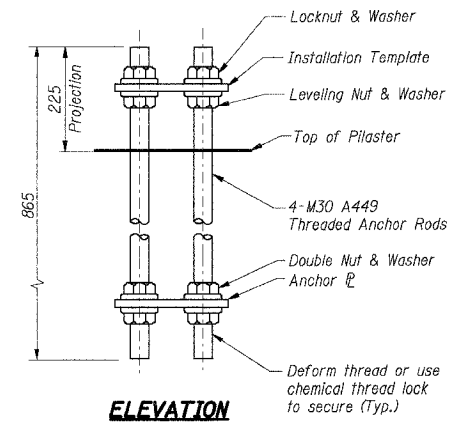


SECTION E-E
(Showing Geometry)

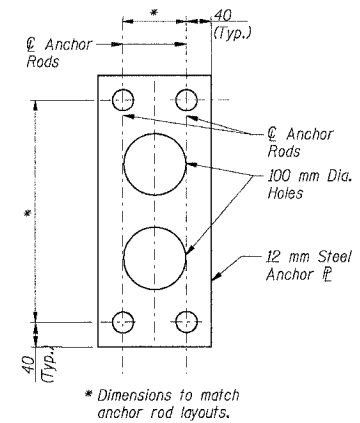


SECTION E-E
(Showing Reinforcement)

*Indicates location of bars. For identification and quantity, see Parapet Elevations.

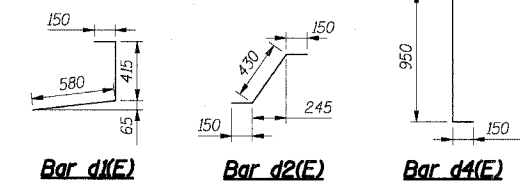


ELEVATION



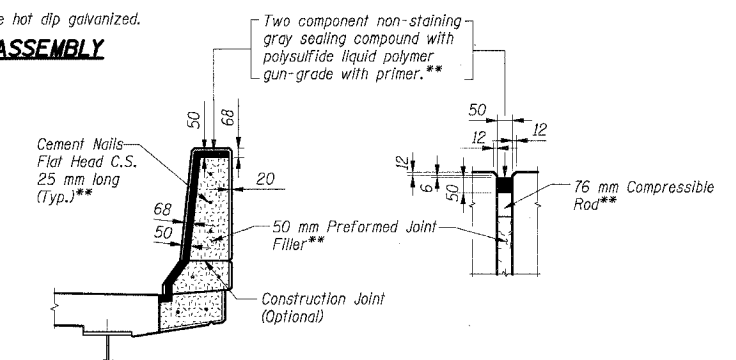
PLAN

Note: Entire anchor rod assembly including anchor plate shall be hot dip galvanized.
NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY



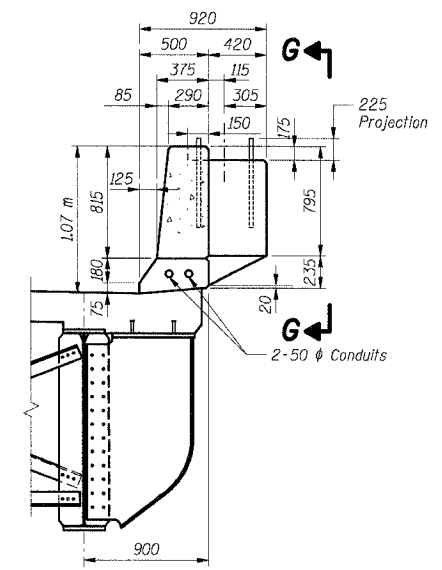
Bar d1(E) **Bar d2(E)** **Bar d4(E)**

21 THIS CONTRACT
21 BY OTHERS IN FUTURE CONTRACT

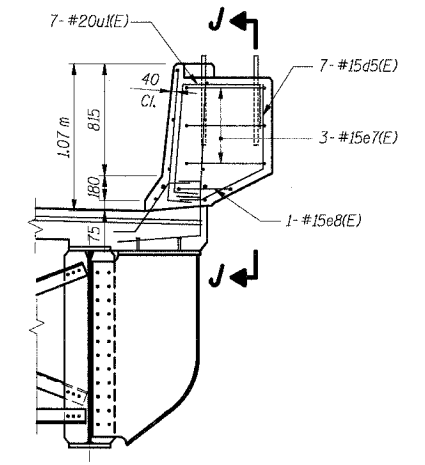


PARAPET EXPANSION JOINT DETAIL AT RETAINING WALL**

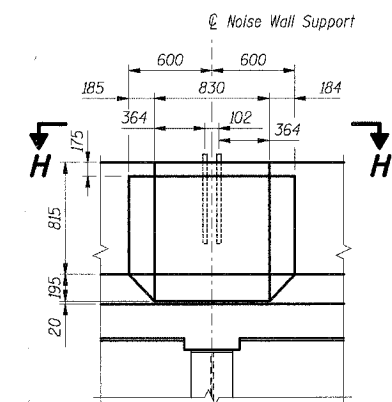
** Cost included with Concrete Superstructure



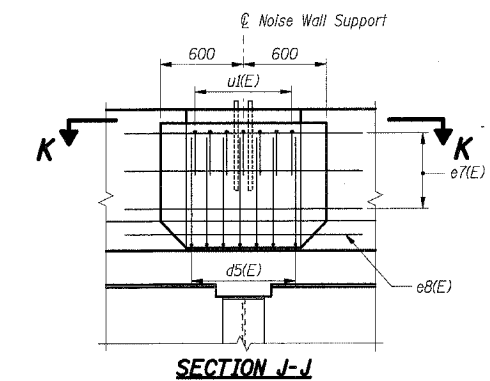
SECTION F-F
(Showing Geometry)



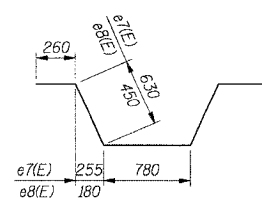
SECTION F-F
(Showing Reinforcement)



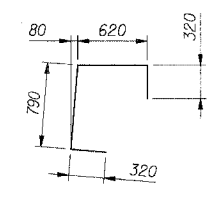
SECTION G-G



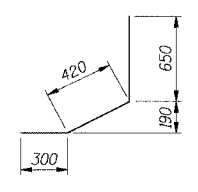
SECTION J-J



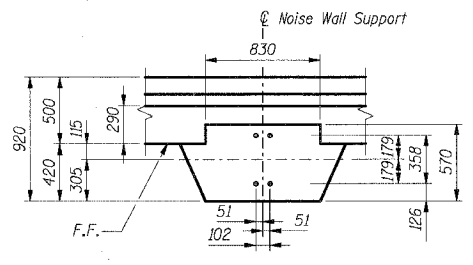
Bars e7(E) & e8(E)



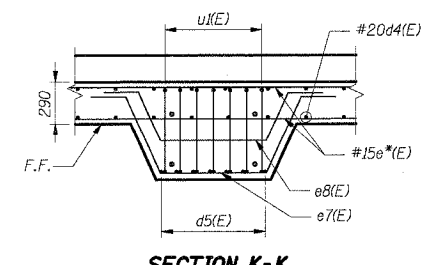
Bar u1(E)



Bar d5(E)



SECTION H-H



SECTION K-K

*Indicates location of bars. For identification and quantity, see Parapet Elevations

THIS SHEET FOR INFORMATION ONLY

ONLY NORTH EXTERIOR PARAPET CONSTRUCTED IN THIS CONTRACT

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line.
 - For Parapet Elevation, see Sht. BS-24.
 - For Reinforcement Bar List & Bill of Material, see Sht. BS-24.
 - Work this Sheet with Shts. BS-15 thru BS-23.
 - I.F. Denotes Inside Face
O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.

SHT. BS-26 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB OUTSIDE LANES (MAINLINE) CONSTRUCTION
1-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

NORTH & SOUTH PARAPET DETAILS

DATE: 8/18/2004

DRAWN BY: LAR
CHECKED BY: MJK

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

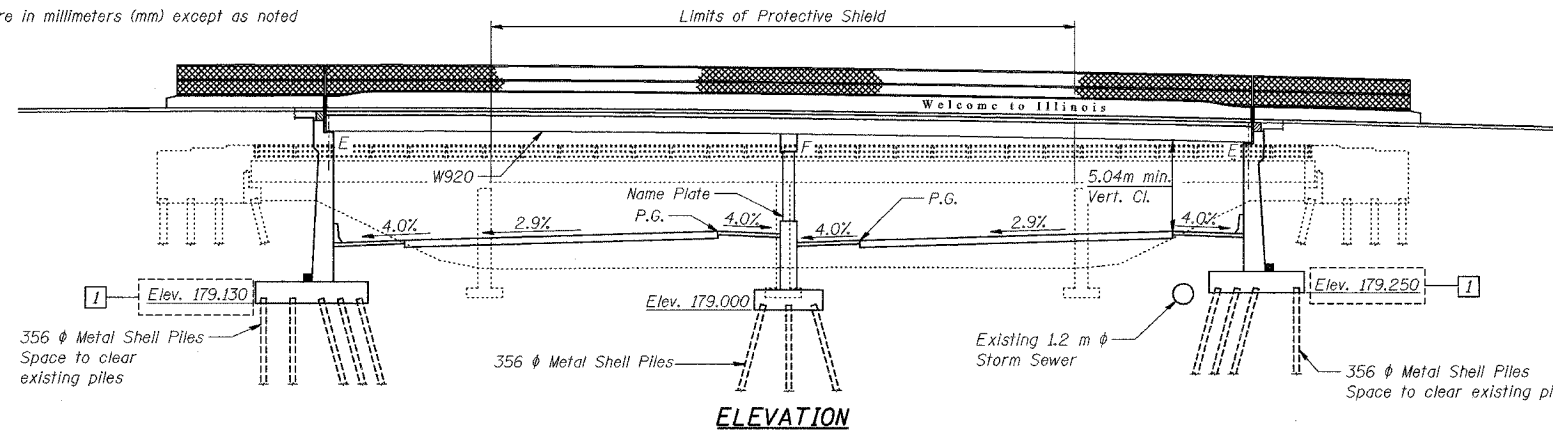
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Benchmarks: chiseled into the top of the Northwest wingwall of Wentworth Avenue over I-80/94; Elev. = 187.427

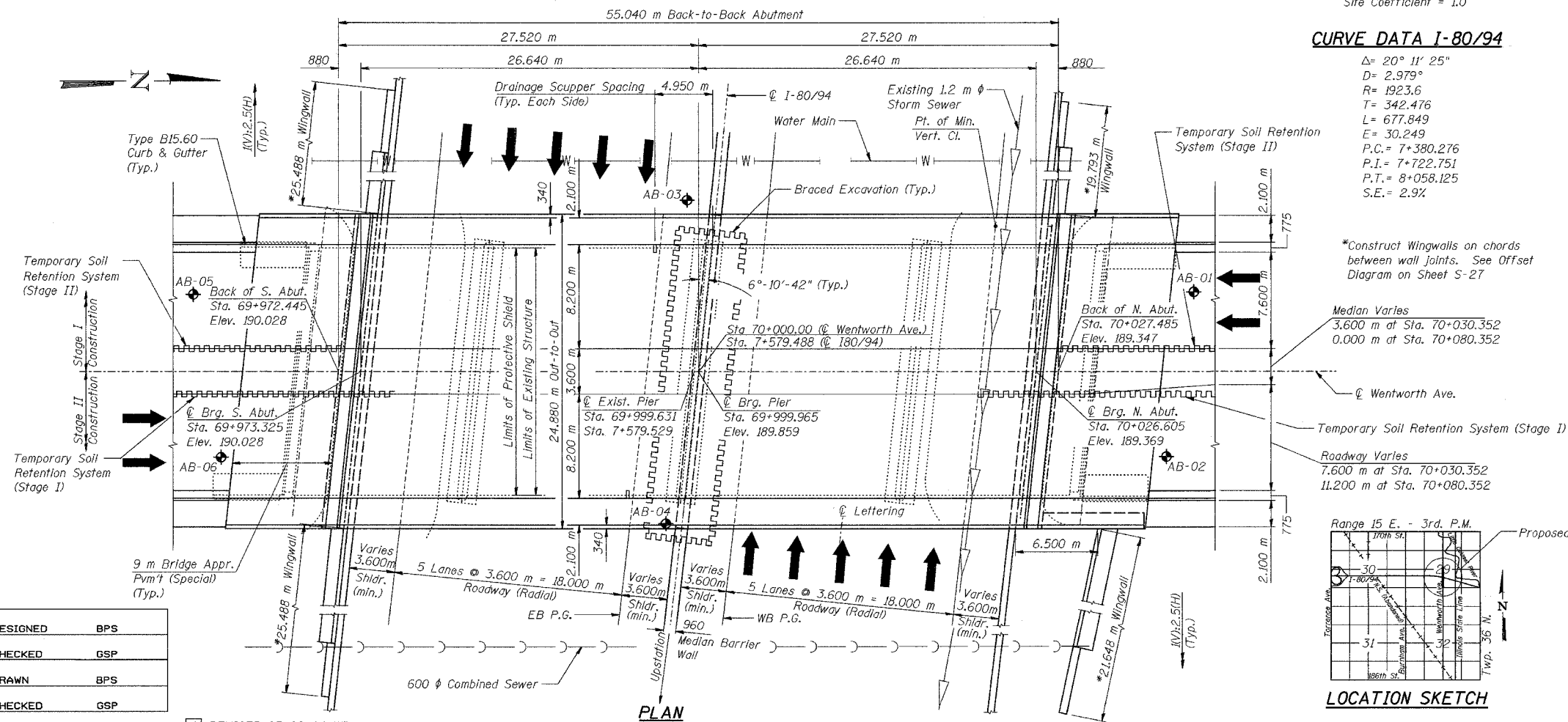
Existing Structure: S.N. 016-0809 built as Wentworth Avenue Grade Separation over Tri-State Superhighway, F.A. Route 122, Sec. 2626.1-HB, by the State of Illinois Division of Highways in 1948. The four span structure, 63.2 m Back to Back of Abutments, consists of a 19.5 m wide R.C. deck supported by continuous I Beams supported by concrete piers and abutments. The contractor shall remove the existing structure as required and replace it with a two span wide flange superstructure on reinforced concrete abutments and pier. Stage construction shall be used to maintain a single northbound traffic lane in Stage I, and two traffic lanes (one each direction) in Stage II.

No Salvage

NOTE: All dimensions are in millimeters (mm) except as noted



ELEVATION



PLAN

DESIGNED	BPS
CHECKED	GSP
DRAWN	BPS
CHECKED	GSP

REVISD 03-29-04 KFA

STATION 7+579.488
BUILT 20__ BY
STATE OF ILLINOIS
FAI 80/94 SEC 2626.1B
LOADING MS18
STR. NO. 016-2790

NAME PLATE
See Std. 515001
See Sheet S-29 for Location

LOADING MS18
Allow 2.4 kN/m² for future wearing surface

DESIGN STRESSES
FIELD UNITS
f_c = 24 MPa
f_y = 400 MPa (Reinf.)
f_y = 345 MPa (Struct. M270M Grade 345)
f_y = 250 MPa (Struct. M270M Grade 250)

DESIGN SPECIFICATIONS
1996 AASHTO with 1997 thru 2000 and 2002 Interims

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient = 1.0

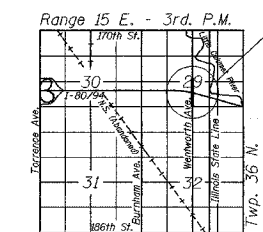
CURVE DATA I-80/94

Δ = 20° 11' 25"
D = 2.979°
R = 1923.6
T = 342.476
L = 677.849
E = 30.249
P.C. = 7+380.276
P.T. = 7+722.751
P.T. = 8+058.125
S.E. = 2.9%

*Construct Wingwalls on chords between wall joints. See Offset Diagram on Sheet S-27

Median Varies
3.600 m at Sta. 70+030.352
0.000 m at Sta. 70+080.352

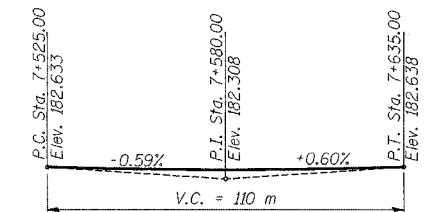
Temporary Soil Retention System (Stage I)
Roadway Varies
7.600 m at Sta. 70+030.352
11.200 m at Sta. 70+080.352



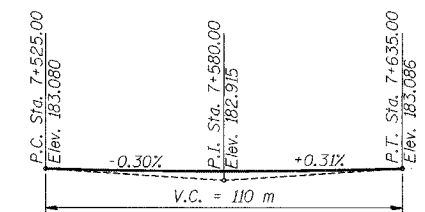
LOCATION SKETCH

ROUTE NO.	SECTION	COUNTY	SHEET	DATE	SHEET NO. S-1
FAI 80/94	0882.18	COOK	1207	545	35 SHEETS

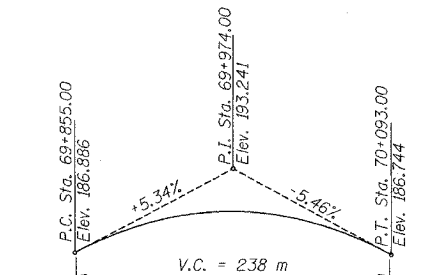
CONTRACT No. 62114



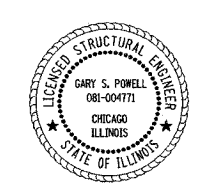
PROFILE GRADE I-80/94 WB



PROFILE GRADE I-80/94 EB



PROFILE GRADE WENTWORTH AVE.



GARY S. POWELL, S.E.
IL. LIC. NO. 081-004771
EXP _____
DATE _____

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
GENERAL PLAN
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05



FOR INFORMATION ONLY

GENERAL NOTES

- Fasteners shall be high strength bolts. Bolts M22, open holes 24 mm ϕ , unless otherwise noted.
- Calculated mass of Structural Steel (M270M, Grade 345) = 228,150 kg
Calculated mass of Structural Steel (M270M, Grade 250) = 15,790 kg
- Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.
- Field welding of construction accessories will not be permitted to beams or girders.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.
- Reinforcement bars shall conform to the requirements of AASHTO M 31M, M 42M or M 53M Grade 400.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 3 mm. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 3 mm adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, two 3 mm adjusting shims shall be provided for each bearing and placed as detailed.
- The contractor shall drive 7-356 ϕ Metal Shell test piles in a permanent location. One each at the North and South Abutments, one each at the four Wingwalls, and one each at the Pier, as directed by the Engineer before ordering the remainder of piles.
- Bridge Seat Sealer shall be applied to the seat area of the North and South Abutments.
- All dimensions are in millimeters (mm) except as noted.
- The organic zinc rich primer / epoxy / urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces or damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures."
- The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project. No additional compensation will be made to properly dispose of the existing structure containing lead.
- All construction joints shall be bonded.
- The structural steel bearing plates of the Elastometric Bearing Assembly shall conform to the requirements of AASHTO M270M Grade 345.

INDEX OF SHEETS


- S-1 General Plan
- S-2 General Notes, Index of Sheets and Total Bill of Material
- S-3 Stage Construction Details-Substructure
- S-4 Stage Construction Details-Superstructure
- S-5 Temporary Concrete Barrier for Stage Construction
- S-6 Top of Slab Elevations (1 of 3)
- S-7 Top of Slab Elevations (2 of 3)
- S-8 Top of Slab Elevations (3 of 3)
- S-9 Deck Plan and Cross Section
- S-10 Superstructure Details
- S-11 Pedestrian Railing
- S-12 Bridge Joint System-Expansion (Preformed Joint Seal)
- S-13 Bridge Joint System-Expansion (Alternate Strip Seal)
- S-14 Drainage Scupper DS-12
- S-15 Drainage System Details
- S-16 Framing Plan
- S-17 Framing Details
- S-18 Bearing Details
- S-19 Anchor Bolt Details
- S-20 South Abutment Plan
- S-21 South Wingwalls
- S-22 North Abutment Plan
- S-23 North Wingwalls
- S-24 North Abutment Footing Plan
- S-25 Abutment Details
- S-26 Wingwall Details (1 of 2)
- S-27 Wingwall Details (2 of 2)
- S-28 Rustication Finish Details
- S-29 Pier Plan, Elevation and Details
- S-30 Bar Splicer (Coupler) Details
- S-31 Concrete Pile Details
- S-32 Boring Logs (1 of 4)
- S-33 Boring Logs (2 of 4)
- S-34 Boring Logs (3 of 4)
- S-35 Boring Logs (4 of 4)

TOTAL BILL OF MATERIAL

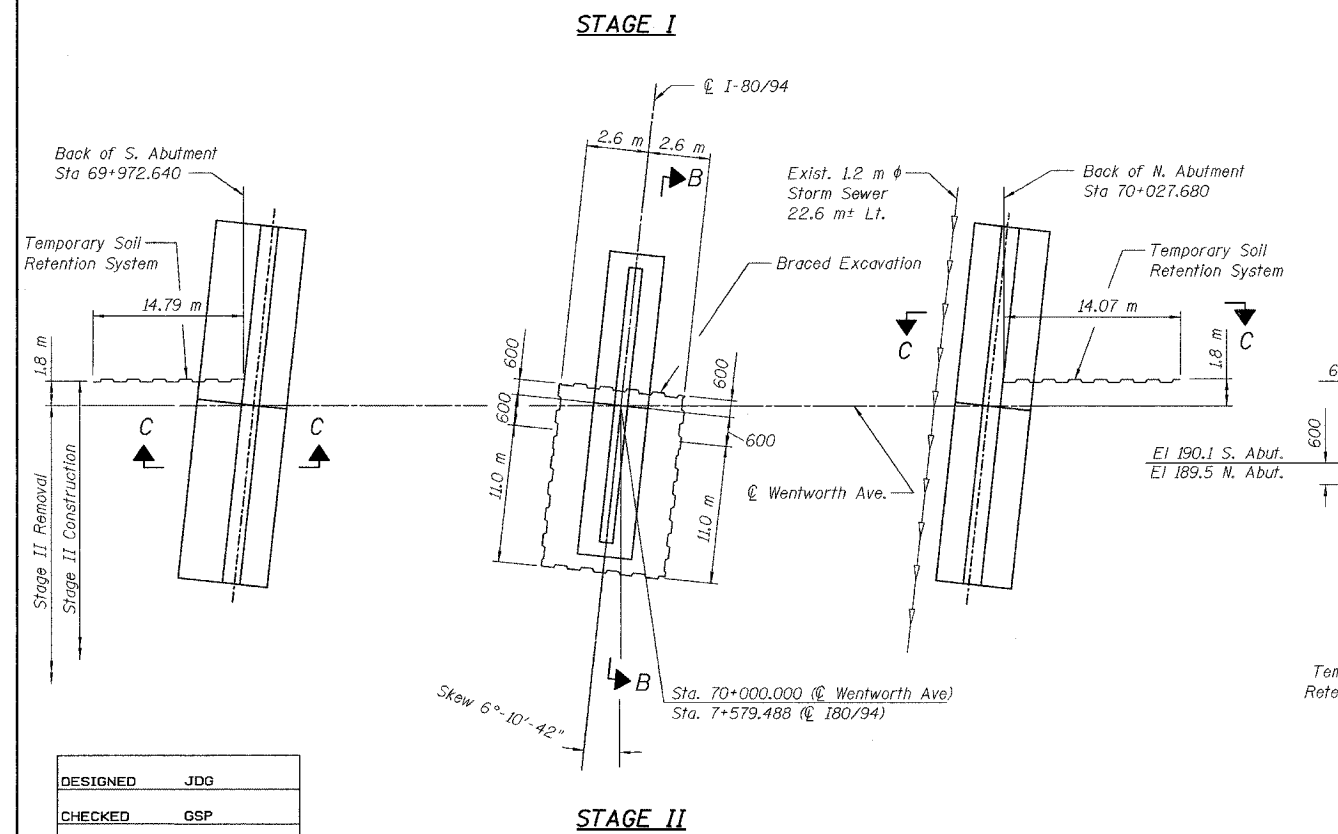
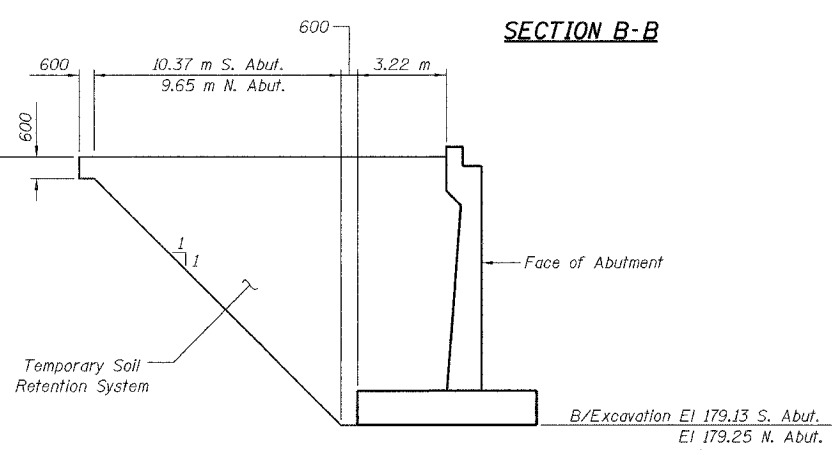
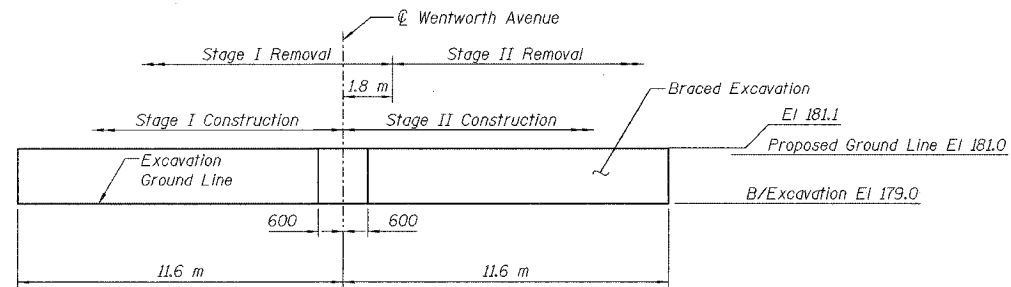
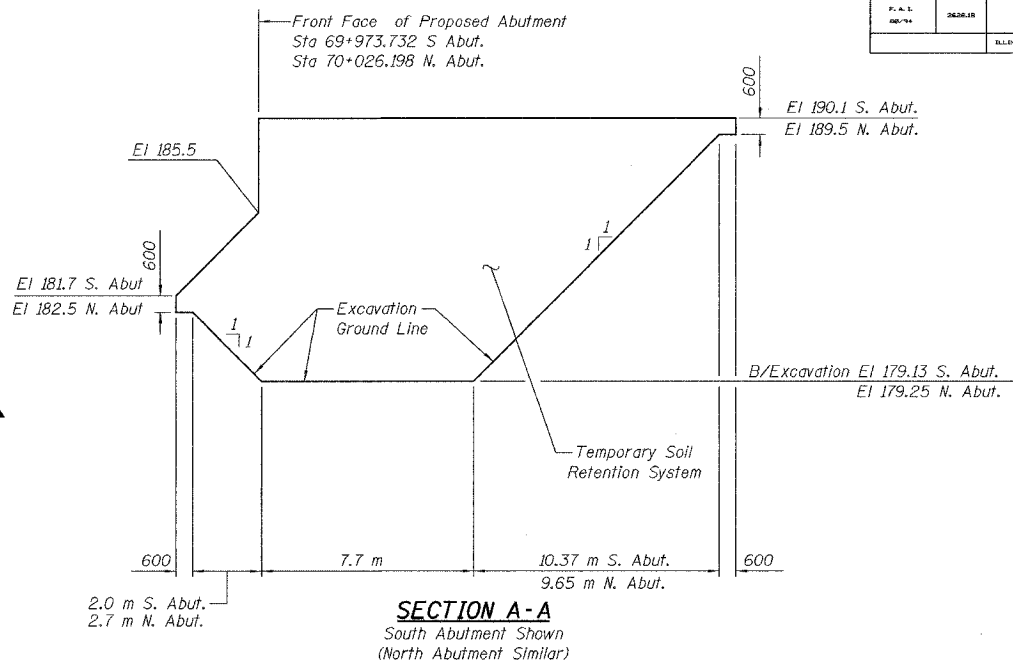
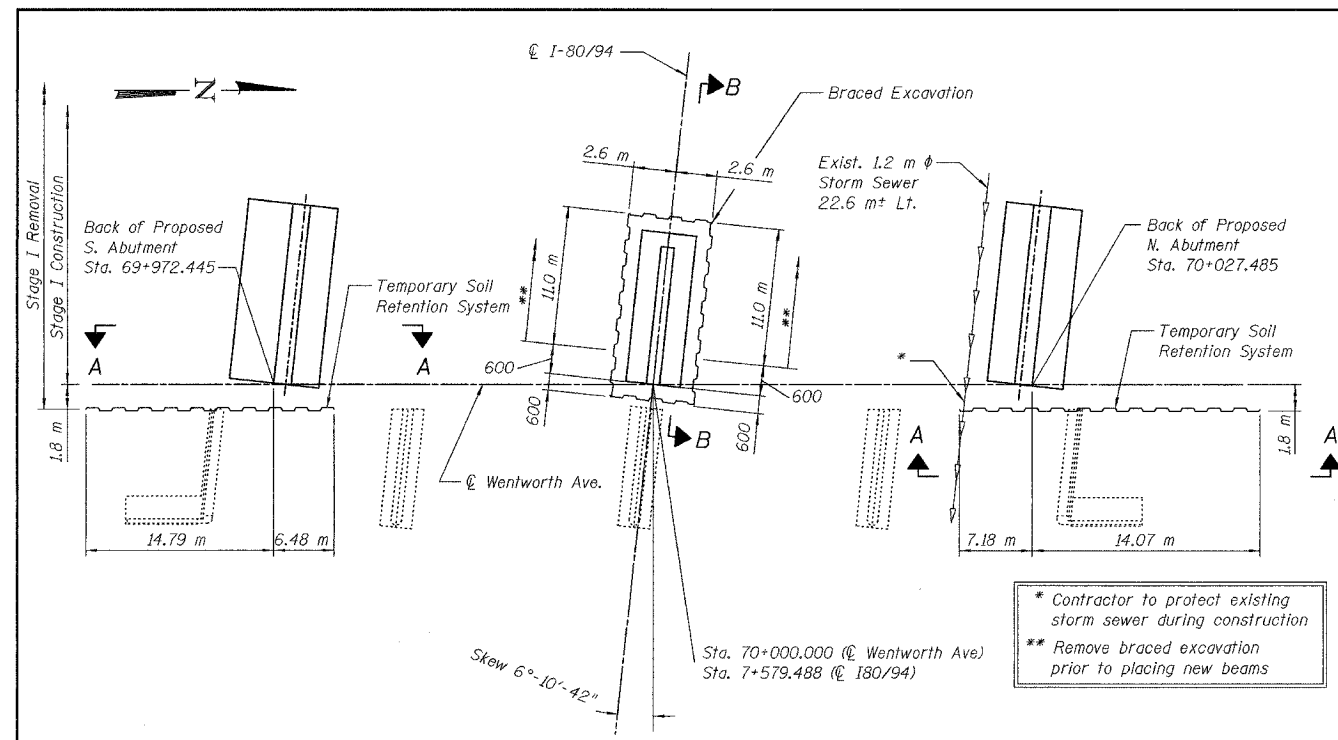
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each	1		1
Elastomeric Bearing Assembly, Type I	Each		24	24
Stud Shear Connectors	Each	4,752		4,752
Test Pile Metal Shells	Each		3	3
Name Plates	Each		1	1
Porous Granular Embankment	m ³		4,863	4,863
Structure Excavation	m ³		5,558	5,558
Concrete Structures	m ³		2,089.6	2,089.6
Concrete Superstructure	m ³	389.0		389.0
Rustication Finish	m ²		683	683
Bridge Deck Grooving	m ²	1,040		1,040
Protective Coat	m ²		1,516	1,516
Furnishing And Erecting Structural Steel	L. Sum	1		1
Reinforcement Bars, Epoxy Coated	kg	48,680	137,190	185,870
Pedestrian Railing (Special)	m	145.0		145.0
Furnishing Metal Pile Shells 356 mm	m		7,071.5	7,071.5
Driving and Filling Shells	m		7,071.5	7,071.5
Bridge Seat Sealer	m ²		34	34
Geocomposite Wall Drain	m ²		1,079	1,079
Braced Excavation	m ³		266	266
Bridge Joint System (Expansion) 40 mm	m	50.4		50.4
Protective Shield	m ²		673	673
Drainage Scuppers, DS-12	Each	2		2
Bar Splicers	Each	585	435	1,020
Drainage System	L. Sum	1		1
Temporary Soil Retention System	m ²		435	435

DESIGNED	JDG
CHECKED	GSP
DRAWN	MJB
CHECKED	GSP

1 REVISED 03-29-04 KFA

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
 GENERAL NOTES, INDEX OF SHEETS AND
 TOTAL BILL OF MATERIAL
 SECTION 2626.1B
 COOK COUNTY
 STATION 7 + 579.488
 STRUCTURE NO. 016-2790
 DATE 07/05


FOR INFORMATION ONLY



* Contractor to protect existing storm sewer during construction
** Remove braced excavation prior to placing new beams

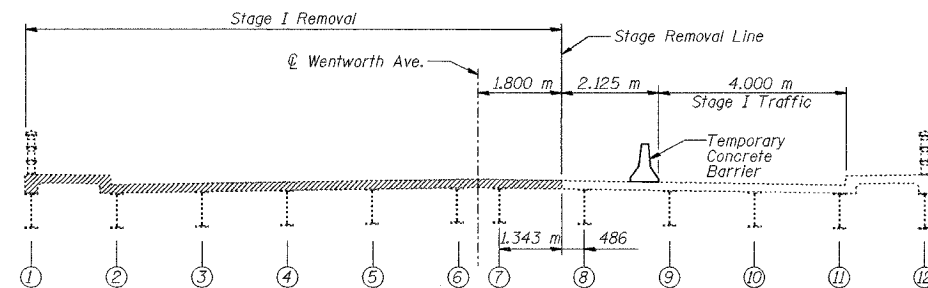
BILL OF MATERIAL

Item	Unit	Quantity
Braced Excavation	m ³	266
Temporary Soil Retention System	m ²	435

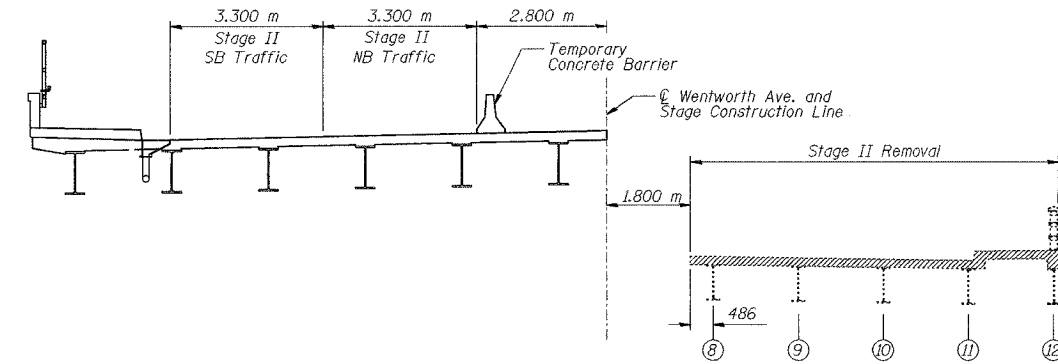
DESIGNED	JDG
CHECKED	GSP
DRAWN	JDG
CHECKED	GSP

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
STAGE CONSTRUCTION DETAILS
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

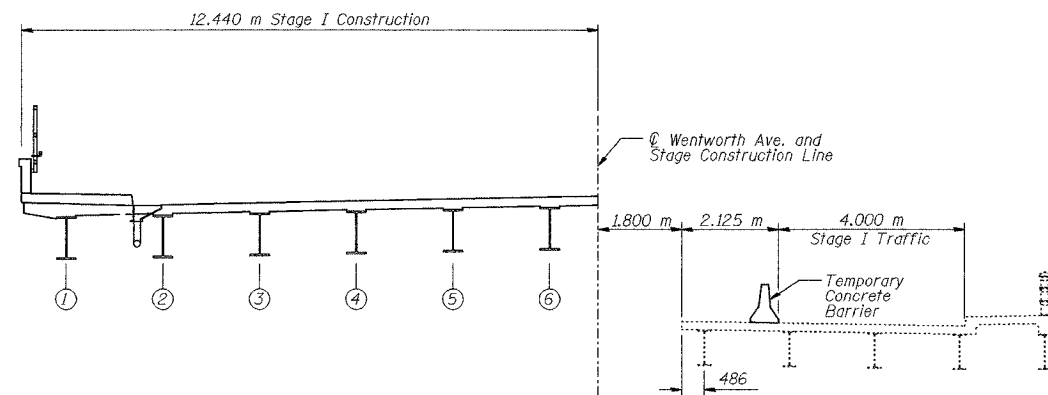
FOR INFORMATION ONLY



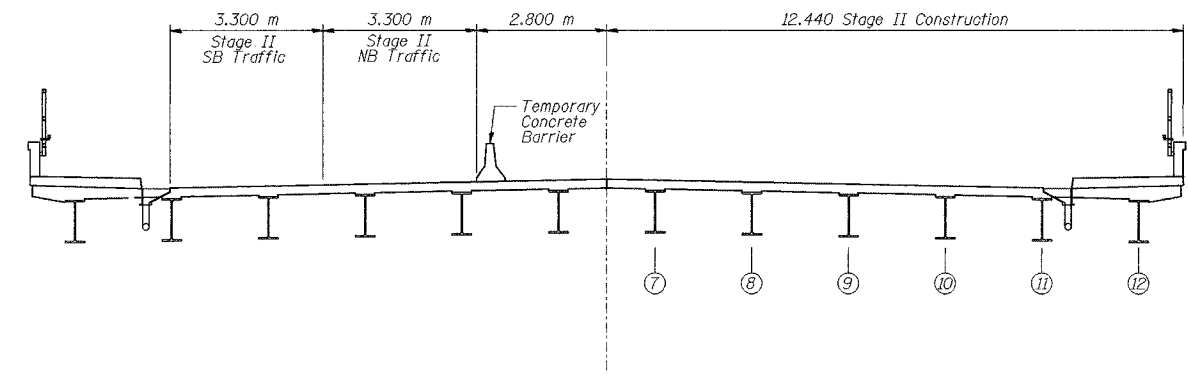
STAGE I REMOVAL
(Looking North)



STAGE II REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

STAGE I REMOVAL

1. Install temporary concrete barrier as shown.
2. Provide one 4.0 m lane in the northbound direction.
3. Remove the existing deck to the limits shown.
4. Remove existing beams 1 through 7.
5. Install Temporary Soil Retention System and Braced Excavation and remove existing piers, north abutment and south abutment to the limits shown on Sheet S-3.

STAGE I CONSTRUCTION

1. Construct new center pier, north abutment and south abutment.
2. Install new bearings and erect new steel beams 1 through 6.
3. Construct new concrete deck, sidewalks, parapets, handrail and closed drainage system.
4. Install new deck expansion joints at the abutments.

STAGE II REMOVAL

1. Install Temporary Soil Retention System and Braced Excavation to support Stage II traffic to the limits shown on Sheet S-3.
2. Relocate temporary concrete barrier as shown.
3. Provide one 3.3 m lane in each direction.
4. Remove remaining existing concrete deck.
5. Remove existing beams 8 through 12.
6. Remove remaining existing piers, north abutment and south abutment.

STAGE II CONSTRUCTION

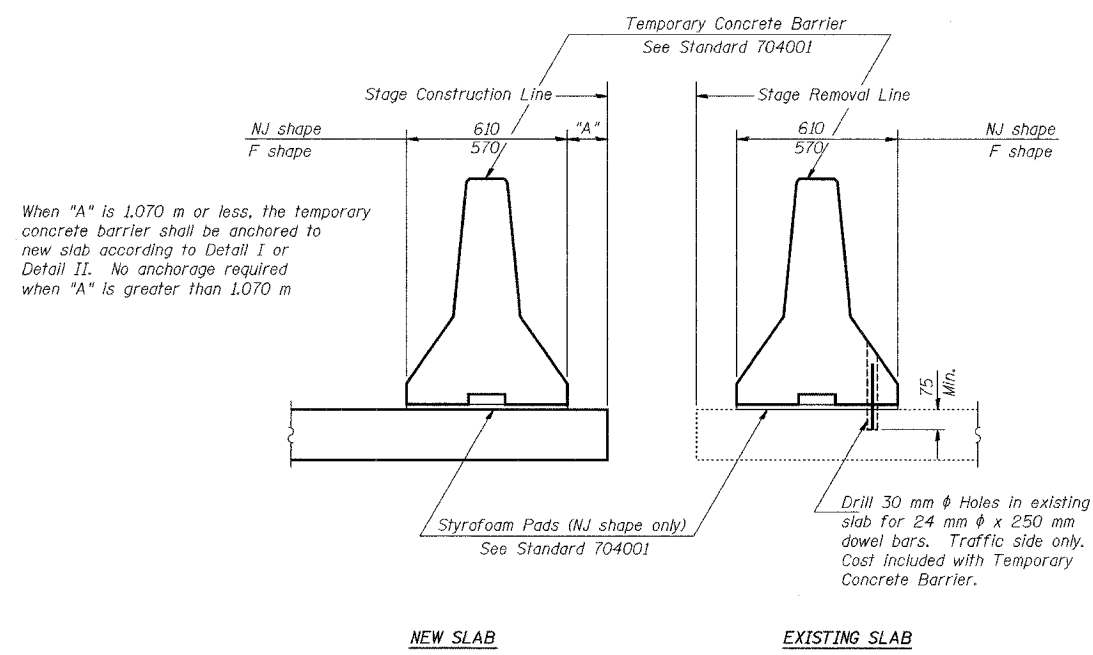
1. Construct remaining new center pier, north abutment and south abutment.
2. Install new bearings and erect new steel beams 7 through 12.
3. Construct remaining new concrete deck, sidewalks, parapets, handrail and closed drainage system.
4. Install remaining new deck expansion joints at the abutments.

DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

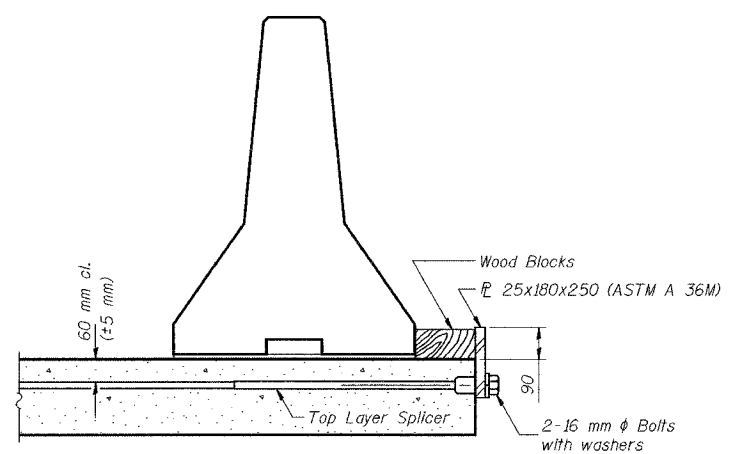
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
STAGE CONSTRUCTION DETAILS
SUPERSTRUCTURE
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

FOR INFORMATION ONLY

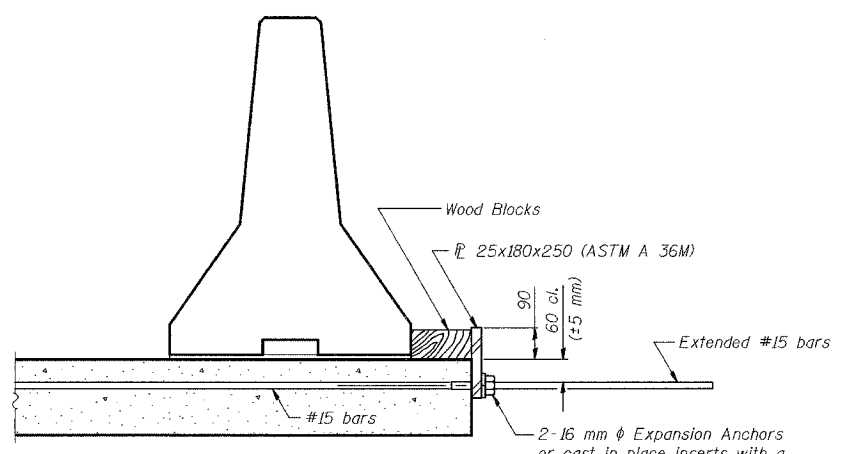
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. S-5 35 SHEETS
F.A.I. 80/94	2626.1B	COOK	1207	549	
ILLINOIS FEDERAL PROJECT: C-10-88-88					CONTRACT No. 62114



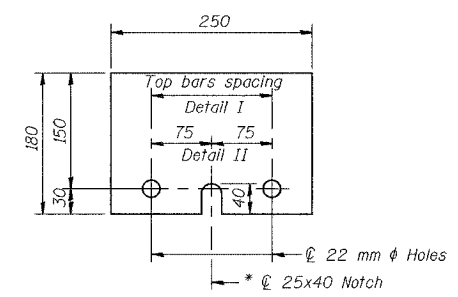
SECTIONS THRU SLAB



DETAIL I
The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II
The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



25x180x250
* Required only with Detail II

DESIGNED	JDG
CHECKED	JDG
DRAWN	CAK
CHECKED	JDG

R-27 (M)

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY

BEAM 1

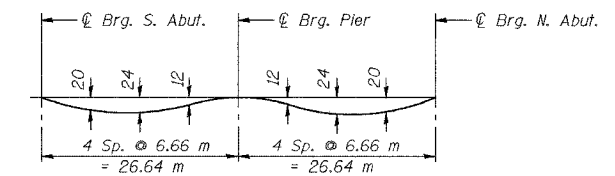
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. S. Abutment	69973.683	-11.440	189.867	189.867
CL Brg. S. Abut.	69974.563	-11.440	189.867	189.867
A	69977.563	-11.440	189.862	189.875
B	69980.563	-11.440	189.853	189.876
C	69983.563	-11.440	189.841	189.870
D	69986.563	-11.440	189.824	189.855
E	69989.563	-11.440	189.803	189.830
F	69992.563	-11.440	189.778	189.798
G	69995.563	-11.440	189.749	189.759
H	69998.563	-11.440	189.715	189.718
CL Brg. Pier	70001.203	-11.440	189.683	189.683
I	70004.203	-11.440	189.642	189.646
J	70007.203	-11.440	189.597	189.609
K	70010.203	-11.440	189.548	189.569
L	70013.203	-11.440	189.495	189.523
M	70016.203	-11.440	189.438	189.469
N	70019.203	-11.440	189.376	189.405
O	70022.203	-11.440	189.311	189.333
P	70025.203	-11.440	189.241	189.253
CL Brg. N. Abut.	70027.843	-11.440	189.177	189.177
Bk. N. Abutment	70028.723	-11.440	189.155	189.155

BEAM 2

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. S. Abutment	69973.458	-9.360	189.868	189.868
CL Brg. S. Abut.	69974.338	-9.360	189.868	189.868
A	69977.338	-9.360	189.863	189.876
B	69980.338	-9.360	189.855	189.878
C	69983.338	-9.360	189.842	189.872
D	69986.338	-9.360	189.826	189.857
E	69989.338	-9.360	189.805	189.833
F	69992.338	-9.360	189.780	189.801
G	69995.338	-9.360	189.752	189.763
H	69998.338	-9.360	189.719	189.722
CL Brg. Pier	70000.978	-9.360	189.686	189.686
I	70003.978	-9.360	189.646	189.650
J	70006.978	-9.360	189.601	189.613
K	70009.978	-9.360	189.553	189.574
L	70012.978	-9.360	189.500	189.528
M	70015.978	-9.360	189.443	189.474
N	70018.978	-9.360	189.382	189.411
O	70021.978	-9.360	189.317	189.339
P	70024.978	-9.360	189.248	189.259
CL Brg. N. Abut.	70027.618	-9.360	189.183	189.183
Bk. N. Abutment	70028.498	-9.360	189.161	189.161

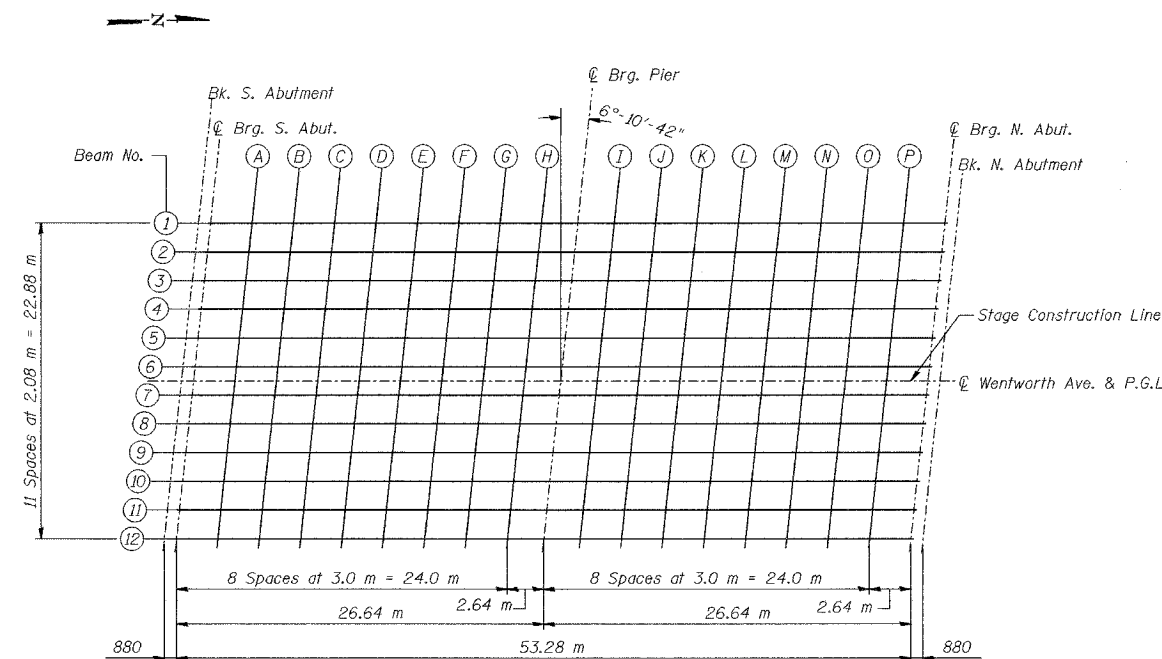
BEAM 3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. S. Abutment	69973.233	-7.280	189.910	189.910
CL Brg. S. Abut.	69974.113	-7.280	189.909	189.909
A	69977.113	-7.280	189.905	189.918
B	69980.113	-7.280	189.897	189.920
C	69983.113	-7.280	189.885	189.915
D	69986.113	-7.280	189.869	189.900
E	69989.113	-7.280	189.849	189.876
F	69992.113	-7.280	189.824	189.844
G	69995.113	-7.280	189.796	189.806
H	69998.113	-7.280	189.763	189.766
CL Brg. Pier	70000.753	-7.280	189.731	189.731
I	70003.753	-7.280	189.691	189.694
J	70006.753	-7.280	189.646	189.658
K	70009.753	-7.280	189.598	189.619
L	70012.753	-7.280	189.545	189.574
M	70015.753	-7.280	189.489	189.520
N	70018.753	-7.280	189.428	189.457
O	70021.753	-7.280	189.363	189.385
P	70024.753	-7.280	189.295	189.306
CL Brg. N. Abut.	70027.393	-7.280	189.231	189.231
Bk. N. Abutment	70028.273	-7.280	189.209	189.209

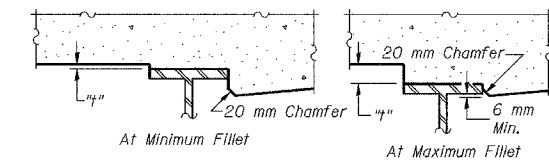


DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)

NOTE: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.
All dimensions are in millimeters (mm) except as noted.
All offsets are in meters.



PLAN



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

FILLET HEIGHTS

DESIGNED	BPS
CHECKED	JDG
DRAWN	CAK
CHECKED	JDG

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
TOP OF SLAB ELEVATIONS (1 OF 3)
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

FOR INFORMATION ONLY

BEAM 10

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. S. Abutment	69971.657	7.280	189.910	189.910
CL Brg. S. Abut.	69972.537	7.280	189.910	189.910
A	69975.537	7.280	189.908	189.921
B	69978.537	7.280	189.902	189.925
C	69981.537	7.280	189.892	189.922
D	69984.537	7.280	189.878	189.909
E	69987.537	7.280	189.860	189.887
F	69990.537	7.280	189.837	189.857
G	69993.537	7.280	189.811	189.822
H	69996.537	7.280	189.781	189.783
CL Brg. Pier	69999.177	7.280	189.750	189.750
I	70002.177	7.280	189.712	189.716
J	70005.177	7.280	189.670	189.682
K	70008.177	7.280	189.624	189.645
L	70011.177	7.280	189.574	189.602
M	70014.177	7.280	189.519	189.550
N	70017.177	7.280	189.461	189.490
O	70020.177	7.280	189.398	189.420
P	70023.177	7.280	189.331	189.342
CL Brg. N. Abut.	70025.817	7.280	189.269	189.269
Bk. N. Abutment	70026.697	7.280	189.248	189.248

BEAM 11


LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. S. Abutment	69971.432	9.360	189.868	189.868
CL Brg. S. Abut.	69972.312	9.360	189.868	189.868
A	69975.312	9.360	189.867	189.879
B	69978.312	9.360	189.861	189.884
C	69981.312	9.360	189.851	189.881
D	69984.312	9.360	189.837	189.868
E	69987.312	9.360	189.820	189.847
F	69990.312	9.360	189.798	189.818
G	69993.312	9.360	189.772	189.782
H	69996.312	9.360	189.741	189.744
CL Brg. Pier	69998.952	9.360	189.712	189.712
I	70001.952	9.360	189.674	189.677
J	70004.952	9.360	189.632	189.644
K	70007.952	9.360	189.586	189.607
L	70010.952	9.360	189.536	189.564
M	70013.952	9.360	189.482	189.513
N	70016.952	9.360	189.423	189.453
O	70019.952	9.360	189.361	189.383
P	70022.952	9.360	189.295	189.306
CL Brg. N. Abut.	70025.592	9.360	189.233	189.233
Bk. N. Abutment	70026.472	9.360	189.212	189.212

BEAM 12

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. S. Abutment	69971.207	11.440	189.867	189.867
CL Brg. S. Abut.	69972.087	11.440	189.867	189.867
A	69975.087	11.440	189.866	189.879
B	69978.087	11.440	189.861	189.884
C	69981.087	11.440	189.851	189.881
D	69984.087	11.440	189.838	189.869
E	69987.087	11.440	189.820	189.848
F	69990.087	11.440	189.799	189.819
G	69993.087	11.440	189.773	189.784
H	69996.087	11.440	189.743	189.746
CL Brg. Pier	69998.727	11.440	189.713	189.713
I	70001.727	11.440	189.676	189.680
J	70004.727	11.440	189.634	189.646
K	70007.727	11.440	189.589	189.610
L	70010.727	11.440	189.539	189.567
M	70013.727	11.440	189.485	189.516
N	70016.727	11.440	189.427	189.456
O	70019.727	11.440	189.365	189.387
P	70022.727	11.440	189.299	189.310
CL Brg. N. Abut.	70025.367	11.440	189.238	189.238
Bk. N. Abutment	70026.247	11.440	189.216	189.216

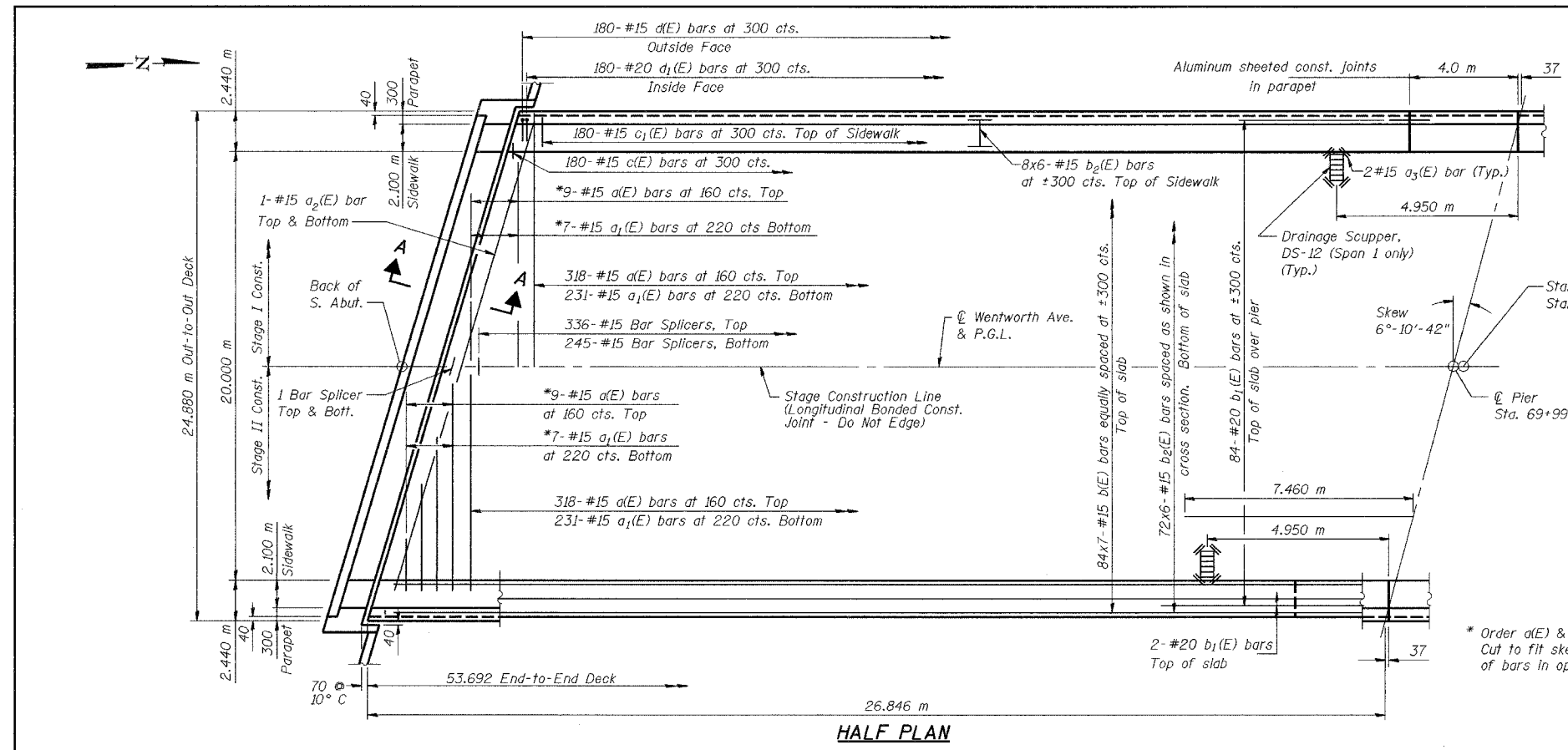
DESIGNED	BPS
CHECKED	JDG
DRAWN	CAK
CHECKED	JDG

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
TOP OF SLAB ELEVATIONS (3 OF 3)
 SECTION 2626.1B
 COOK COUNTY
 STATION 7 + 579.488
 STRUCTURE NO. 016-2790
 DATE 07/05

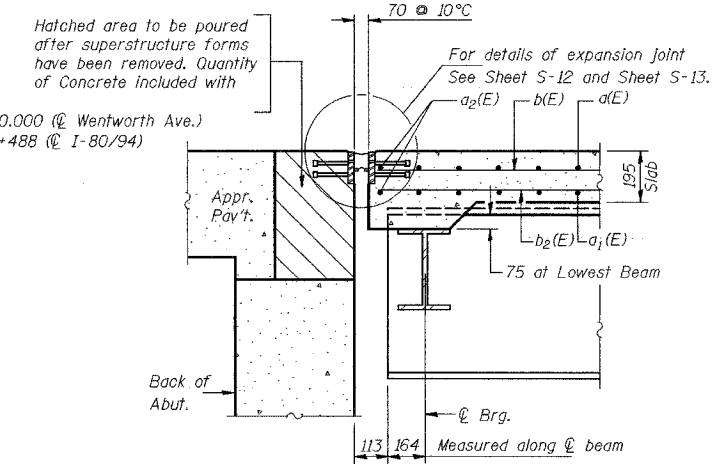


FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	DATE	SHEET
80/94	2626.1B	COOK	1207	553
SHEET NO. S-9				
35 SHEETS				
CONTRACT No. 62114				

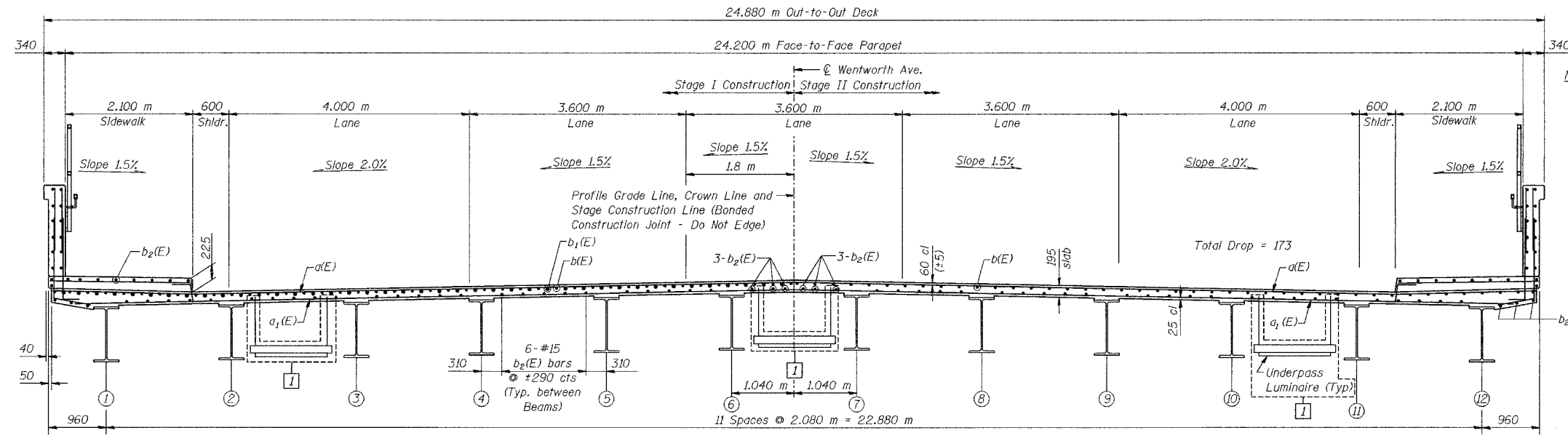


HALF PLAN



SECTION A-A

* Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



CROSS SECTION
(Looking North)

NOTES: See Sheet S-10 for superstructure details and Bill of Material. Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line. See Sheet S-10 for parapet reinforcement. All dimensions are in millimeters (mm) except as noted. Cut Longitudinal Reinforcement in order to clear Drainage Scuppers.

See Electrical Drawings for location of luminaires, junction boxes and conduit, hanger assembly details, and quantities.

MINIMUM BAR LAPS

#15 bars = 640
#20 bars = 790

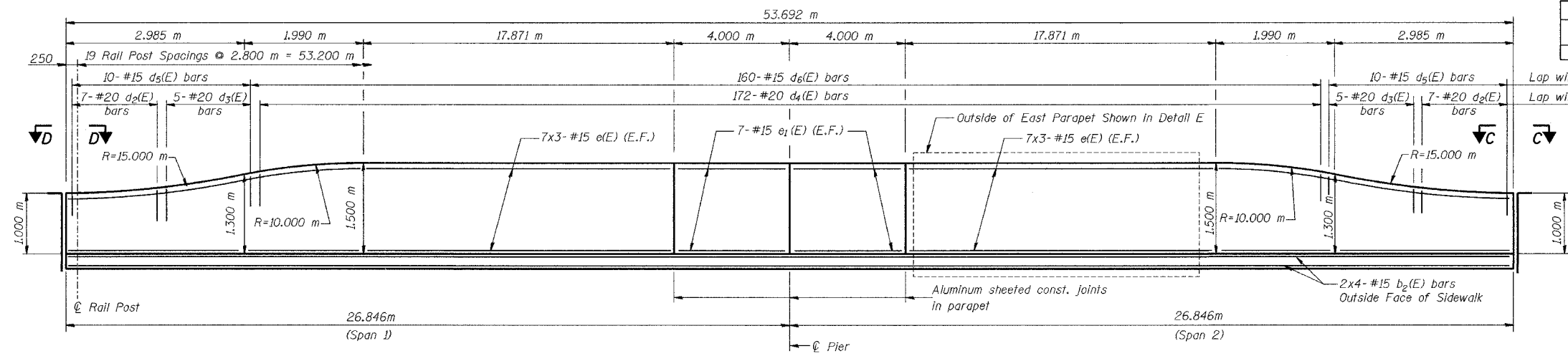
DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

1 REVISED 03-29-04 KFA

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
DECK PLAN AND CROSS SECTION
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY

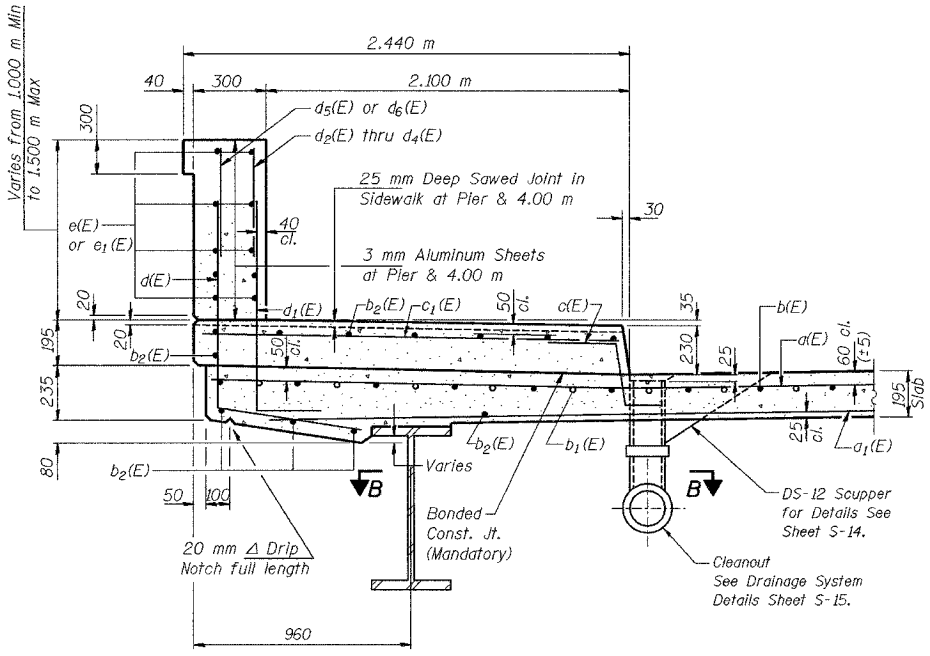
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. S-10 35 SHEETS
F.A.I. 80/94	DETAILED	COOK	1207	554	
CONTRACT No. 62114					



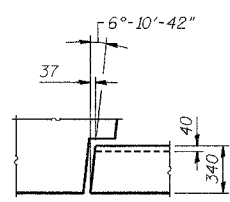
**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length (m)	Shape
d(E)	654	#15	12.28	—
d1(E)	476	#15	12.00	—
d2(E)	8	#15	12.07	—
d3(E)	16	#15	0.60	—
d4(E)	588	#15	8.21	—
d1(E)	84	#20	14.92	—
d2(E)	552	#15	9.47	—
c(E)	360	#15	0.73	—
c1(E)	360	#15	2.27	—
d(E)	360	#15	1.93	L
d1(E)	360	#20	1.67	L
d2(E)	28	#20	0.91	—
d3(E)	20	#20	1.13	—
d4(E)	344	#20	1.29	—
d5(E)	40	#15	0.91	—
d6(E)	320	#15	1.14	—
e(E)	168	#15	8.04	—
e1(E)	56	#15	3.90	—
Reinforcement Bars, Epoxy Coated		kg	48,680	
Concrete Superstructure		m ³	389.0	
Bar Splicers		Each	585	

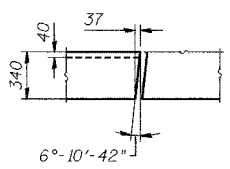
INSIDE ELEVATION OF PARAPET



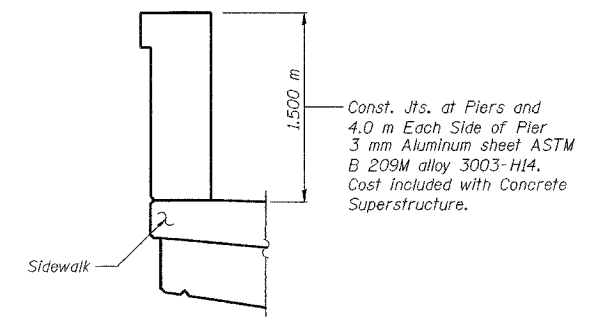
SECTION THRU SIDEWALK



SECTION D-D



SECTION C-C



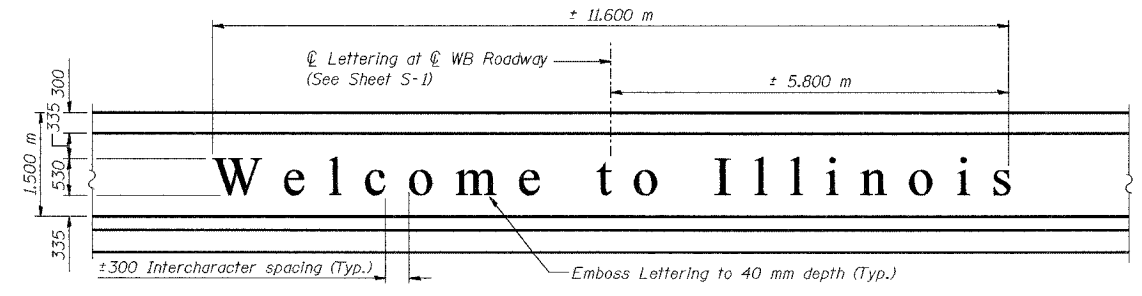
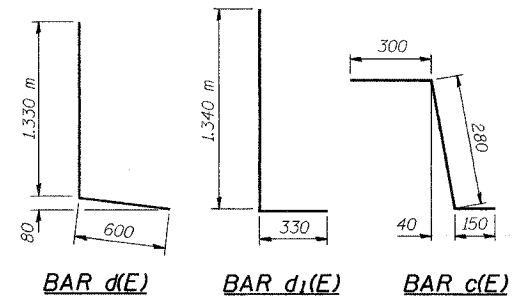
PARAPET JOINT DETAILS

Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 200 MPa minimum.

NOTES:
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 6-#15 etc. indicates 1 line of bars with 6 lengths per line.
All edges shall have standard 20 mm chamfers except as noted.
See Sheet S-15 for Section B-B
All dimensions are in millimeters (mm) except as noted.

LEGEND

E.F. = Each Face
MINIMUM BAR LAPS
#15 bars = 640



DETAIL E - OUTSIDE OF EAST PARAPET OVER WB I-80/94

The words "Welcome to Illinois" shall be embossed in the concrete parapets in the location and letter style shown in this detail. Cost included in "Concrete Superstructure". See Special Provision for "Parapet Lettering".

DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

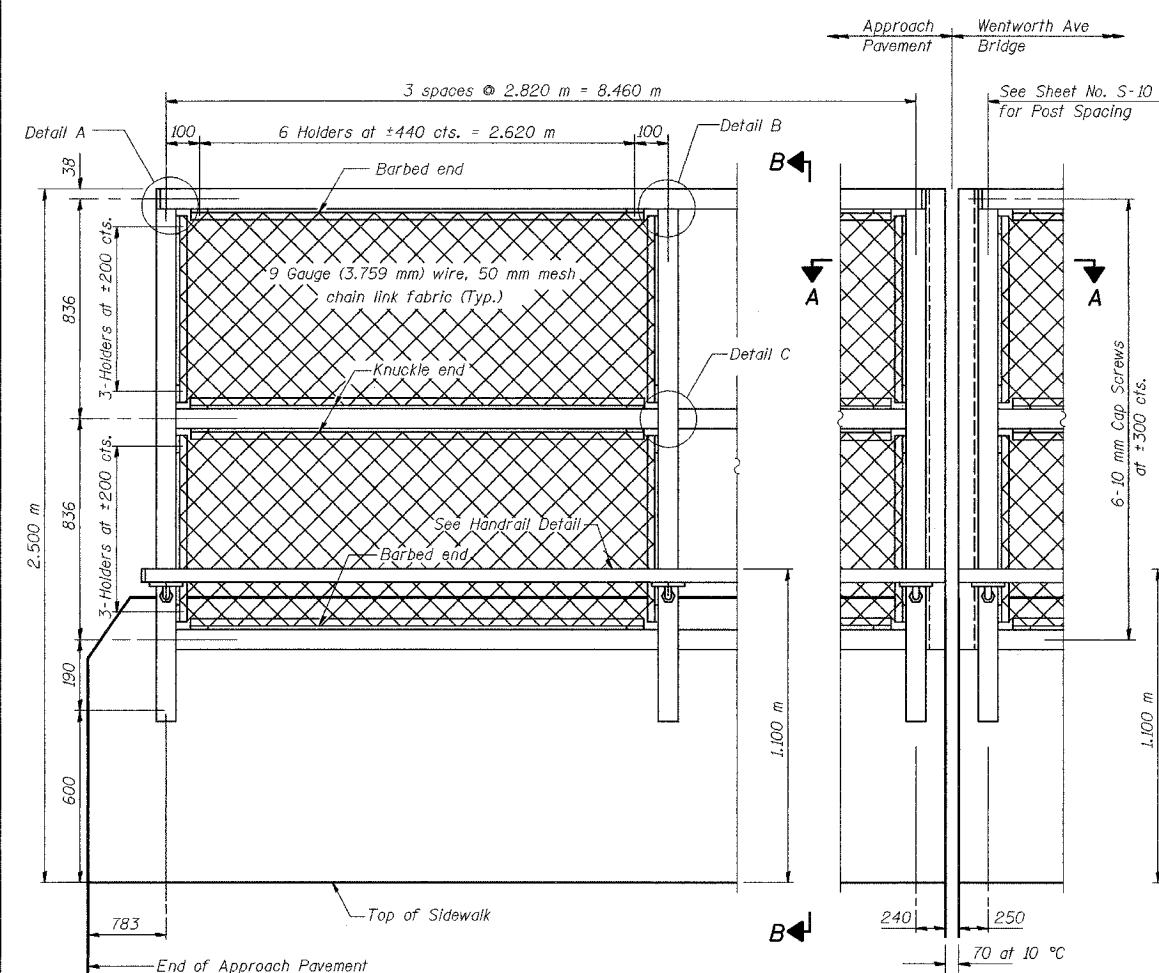
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
SUPERSTRUCTURE DETAILS
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. S-11
F.A.I.	2626.1B	COOK	1207 555	35 SHEETS
CONTRACT No. 62114				

NOTES

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per meter for Pedestrian Railing (Special).
 The 9 gauge (3.759 mm) fabric ties shall be according to Article 1006.27(d) of the Standard Specifications.
 Installation of the chain link fabric shall be according to Section 664 of the Standard Specifications.
 Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 250.
 The chain link fabric shall be placed along Pedestrian Side as shown on Section A-A.
 Stretcher bars shall be used at all four sides of each panel. If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.
 Space reinforcement to miss anchor rods.
 All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.
 Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.
 The chain link fabric shall conform to the requirements of Article 1006.27(a)(1)a, b or c of the Standard Specifications.
 All dimensions are in millimeters (mm) except as noted.

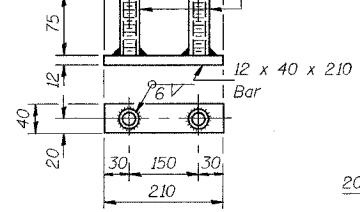


ELEVATION
(Inside Face)

ELEVATION
(At Expansion Joint)

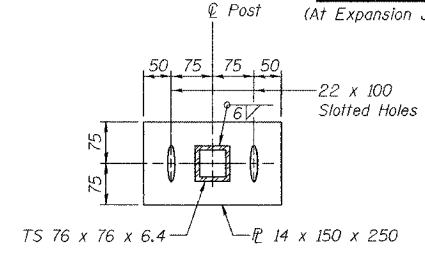
* Threaded areas shall be plugged or blocked off during casting of beam.

* 19 mm φ XX Pipe or Hex Nuts (Conforming to ASTM: A 563M, Grade A) 75 mm long. Tap pipe for 16 mm φ Cap Screw

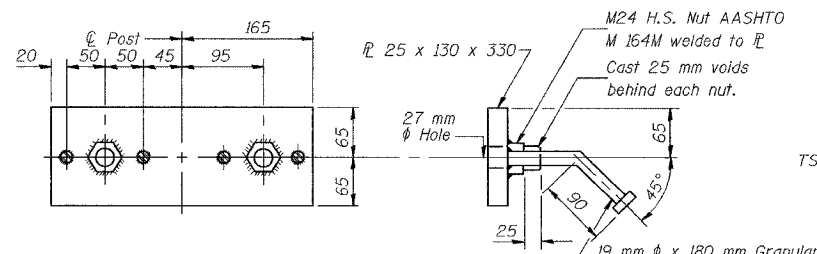


BOTTOM ANCHOR DEVICE

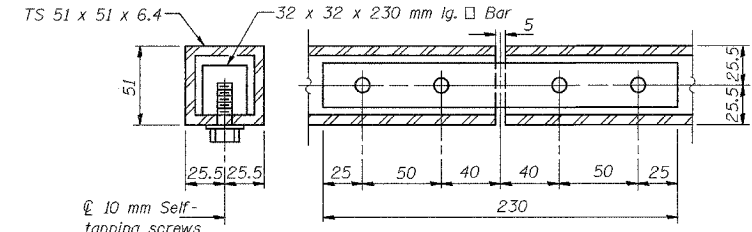
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CHECKED	JDG
DRAWN	MJB
CHECKED	JDG



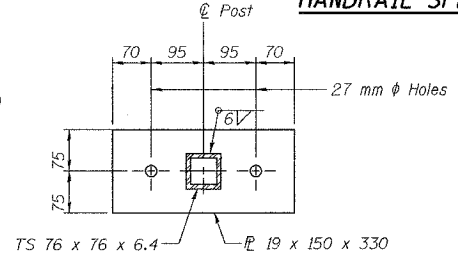
BOTTOM ANCHOR PLATE



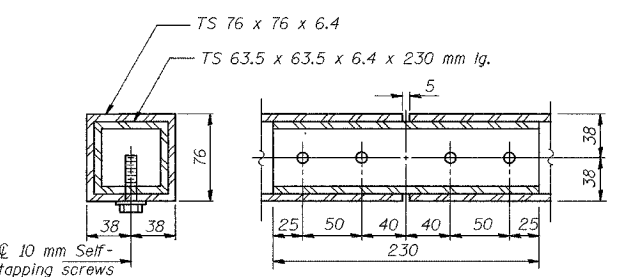
TOP ANCHOR DEVICE



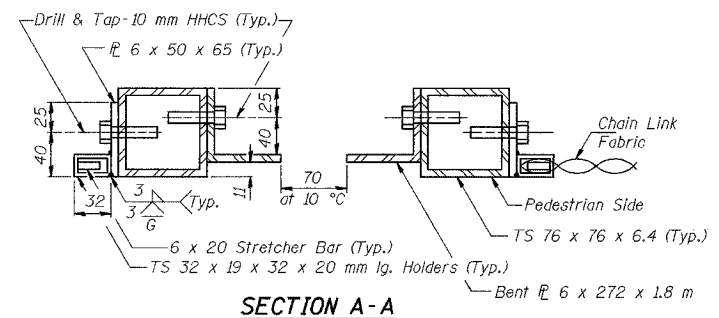
HANDRAIL SPLICE



TOP ANCHOR PLATE



RAIL SPLICE



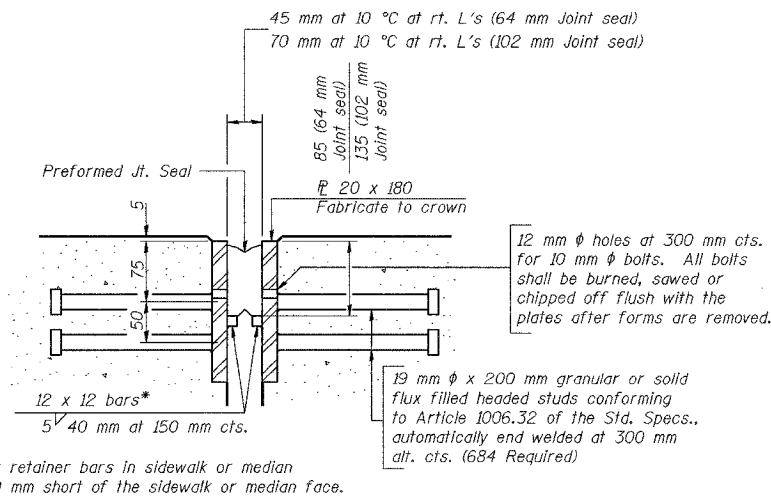
SECTION A-A

BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Railing (Special)	m	145.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
PEDESTRIAN RAILING
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

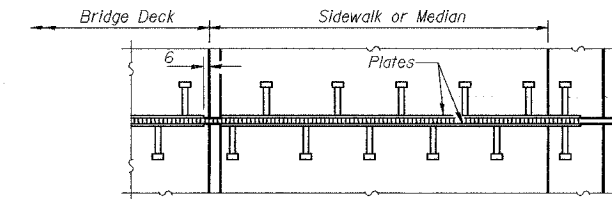
FOR INFORMATION ONLY



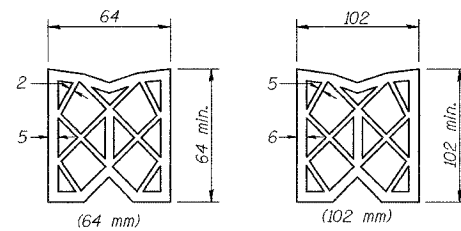
SECTION THRU EXPANSION JOINT
(64 mm and 102 mm joint seals)

Bridge Joint System (Expansion)	Required Preformed Joint Seal Size	Required Strip Seal rated movement
25 mm	64 mm	25 mm
40 mm	102 mm	50 mm

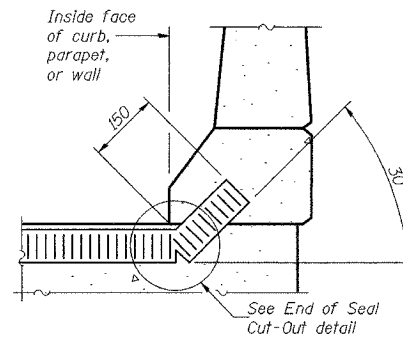
GENERAL NOTES
Furnish steel plates in segments of 6 m maximum length. Maximum space between installed segments shall be 5 mm. Seal space with silicone sealant suitable for structural steel.
All dimensions are in millimeters (mm) except as noted.



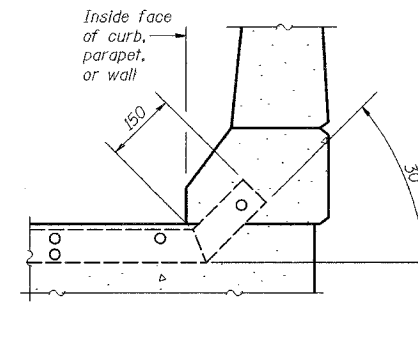
PLAN AT SIDEWALK OR MEDIAN



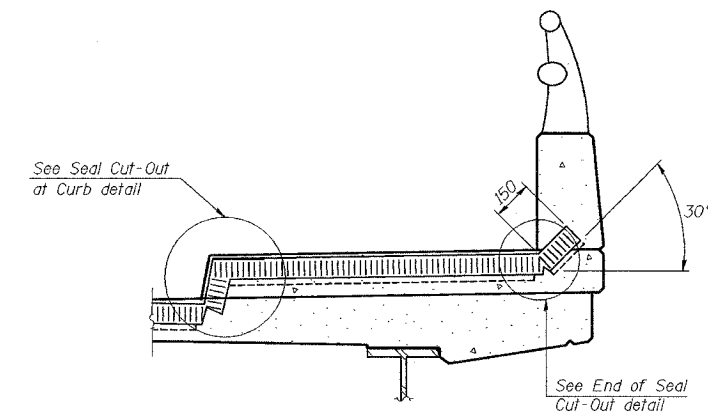
PREFORMED JOINT SEAL



AT CURB, PARAPET, OR WALL
(Showing seal)

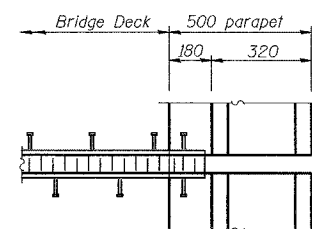


AT CURB, PARAPET, OR WALL
(Showing plate)

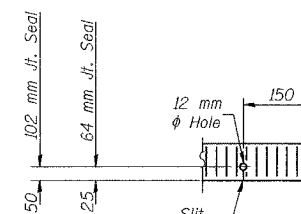


AT SIDEWALK OR MEDIAN
(Showing plate and seal)

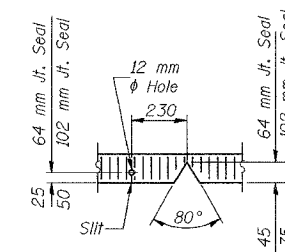
TYPICAL END TREATMENTS



PLAN AT PARAPET



END OF SEAL CUT-OUT



SEAL CUT-OUT AT CURB

DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

EJ-BJS (M)

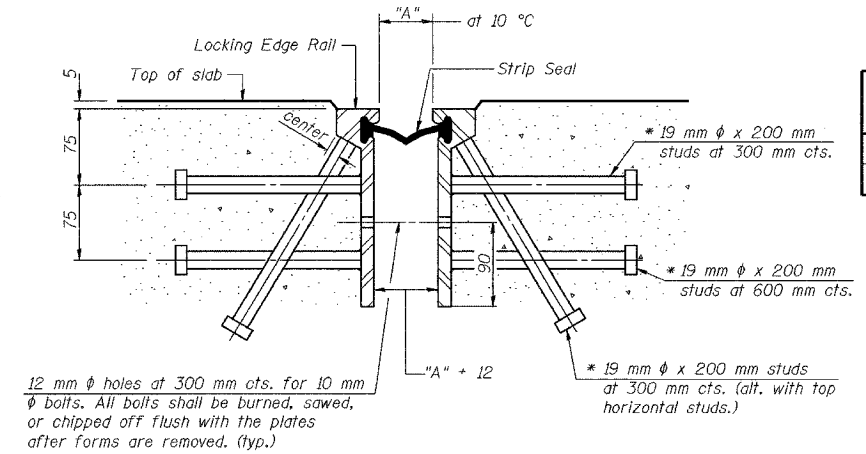
BILL OF MATERIAL

Item	Unit	Total
Bridge Joint System (Expansion) 40 mm	meter	50.4

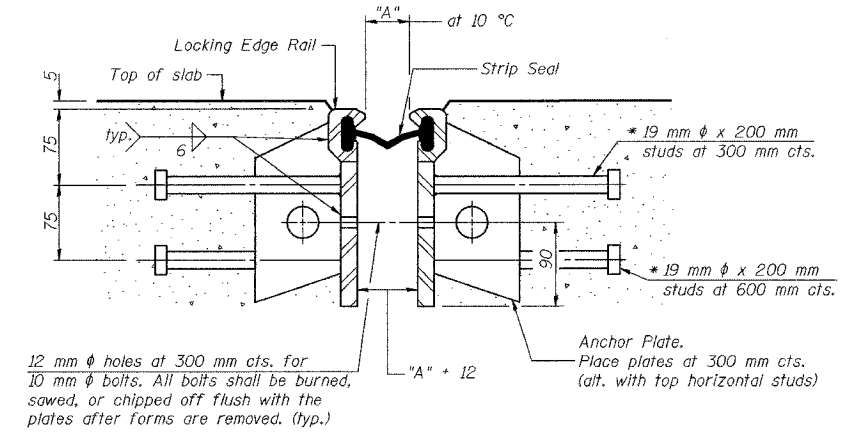
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
BRIDGE JOINT SYSTEM - EXPANSION
(PREFORMED JOINT SEAL)
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
(Sheet 1 of 2)
DATE 07/05
AMERICAN
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ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. S-13 35 SHEETS
F.A.I. 88/74	ENGLIS	COOK	1207	557	
DRAWN BY: [blank] PROJ. NO. PROJECT: C-10-88-01					CONTRACT No. 62114



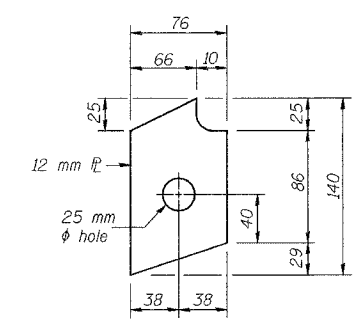
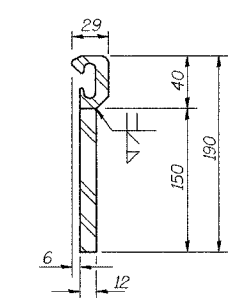
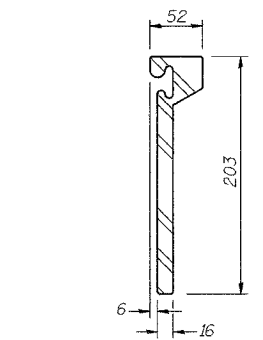
Required Strip Seal rated movement	"A"
25 mm	28
50 mm	42



SECTION THRU ROLLED RAIL EXP. JOINT
(852 Studs Required)

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

SECTION THRU WELDED RAIL EXP. JOINT
(516 Studs Required)
(332 Anchor Plates Required)



ROLLED (EXTRUDED) RAIL

WELDED RAIL

ANCHOR PLATE
(for welded rail)

LOCKING EDGE RAILS

DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

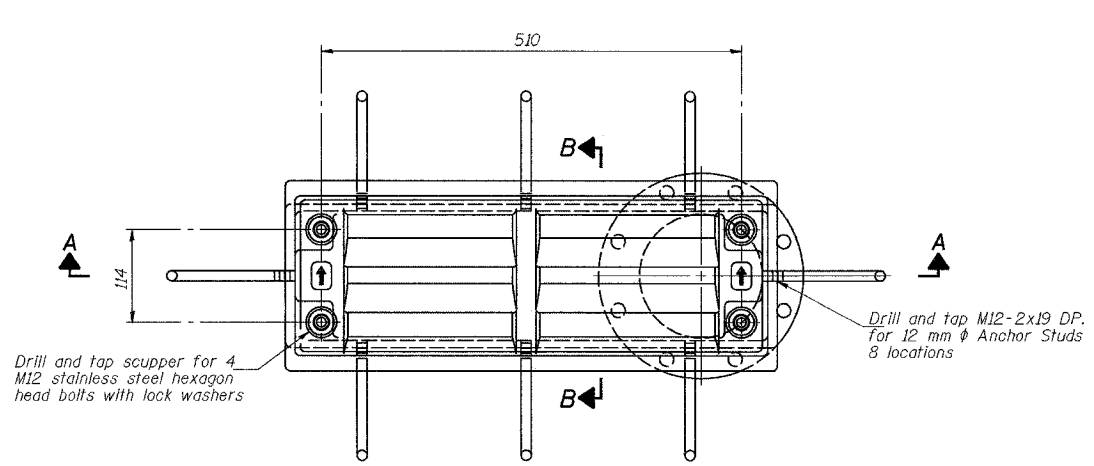
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
BRIDGE JOINT SYSTEM - EXPANSION
 (ALTERNATE STRIP SEAL)
 SECTION 2626.1B
 COOK COUNTY
 STATION 7 + 579.488
 STRUCTURE NO. 016-2790
 DATE 07/05 (Sheet 2 of 2)

AMERICAN
CONSULTING ENGINEERS

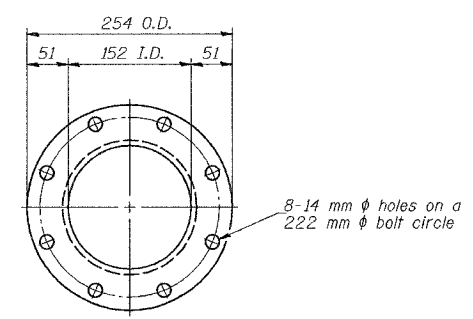
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

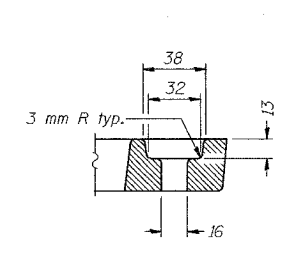
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. S-14
F.A.I. NO./94	PROJECT	COOK	1207 558	35 SHEETS
BLINDS		FED. AID PROJECT - C-10-88-01		
CONTRACT No. 62114				



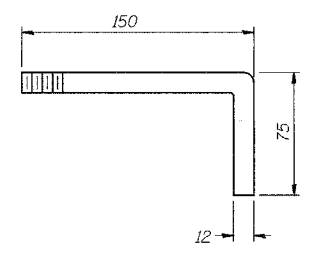
PLAN



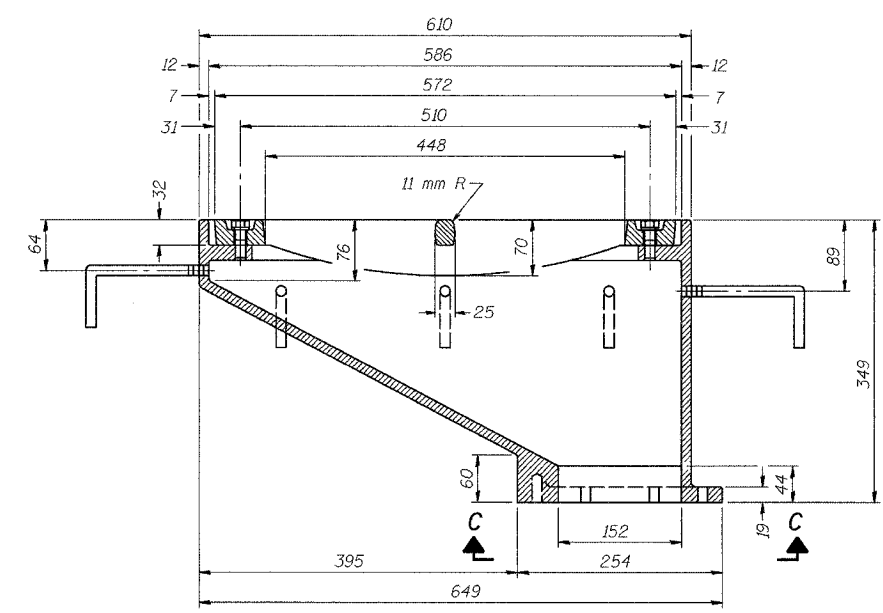
DOWNSPOUT



BOLT HOLE DETAIL

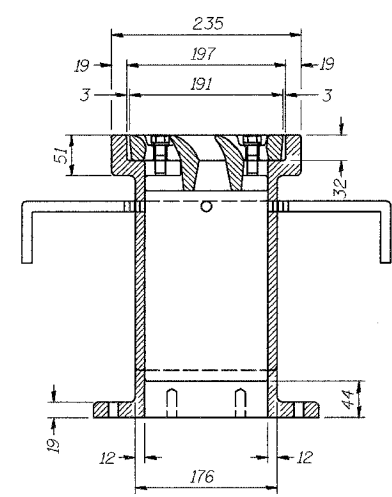


ANCHOR STUD DETAIL

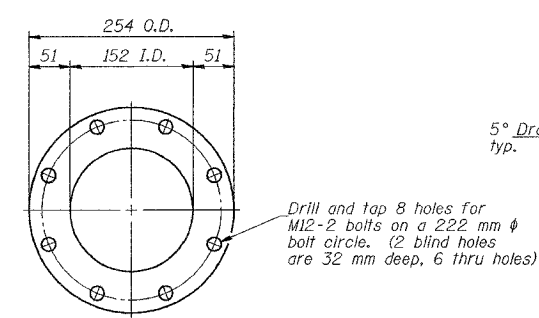


SECTION A-A

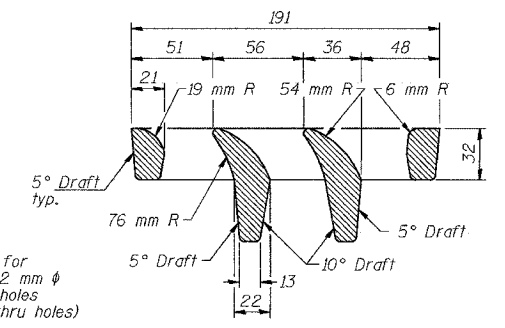
See Sheet 10 of 32 for scupper location relative to parapet.



SECTION B-B



VIEW C-C



VANE GRATE DETAIL

Notes: All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232M.
The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.
All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	2

DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

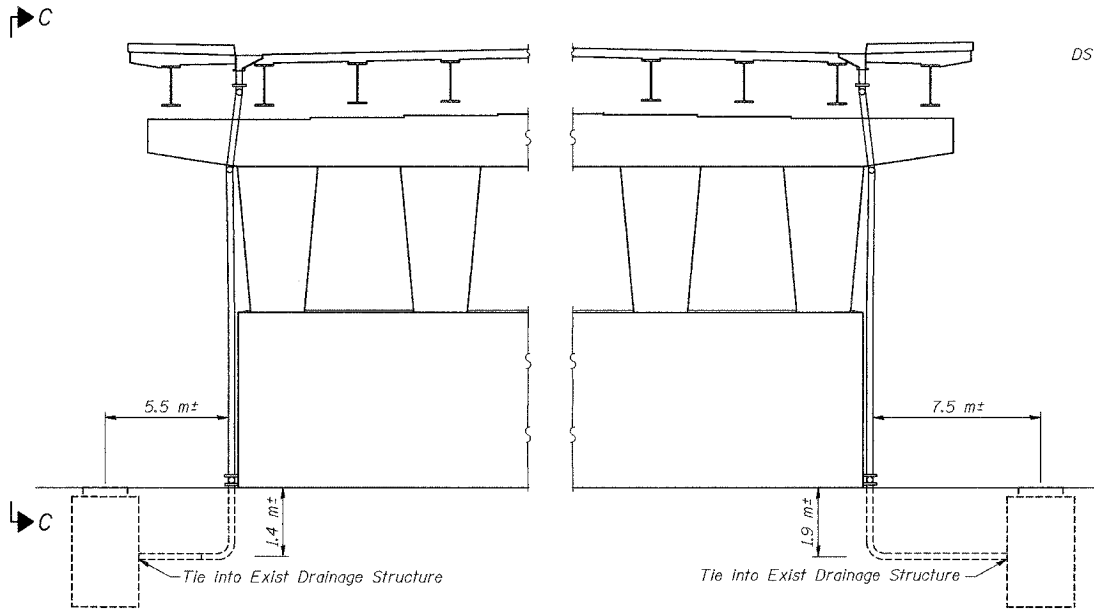
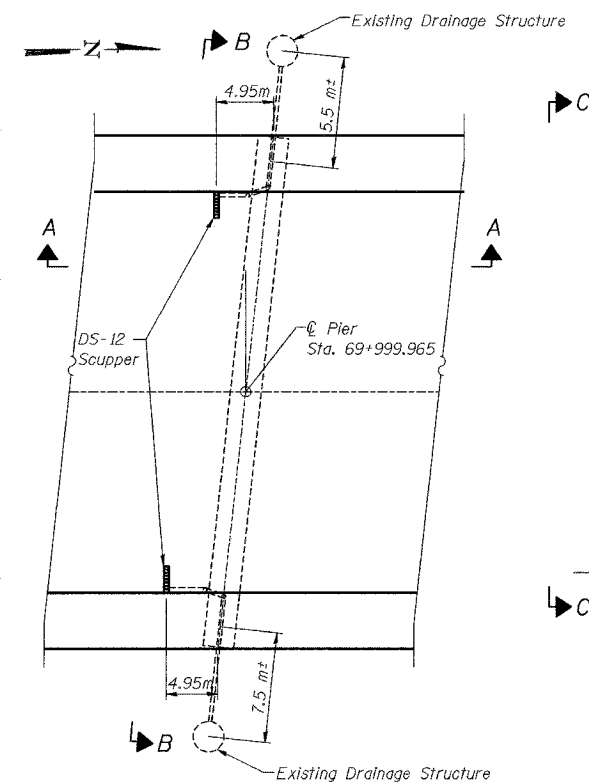
8/1/2000

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
DRAINAGE SCUPPER DS-12
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05

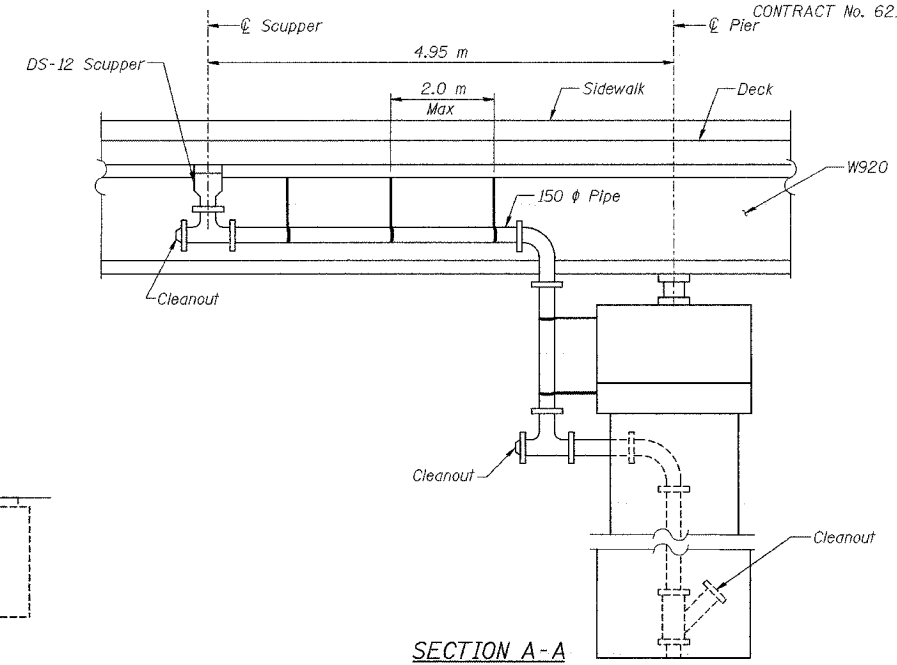
AMERICAN
CONSULTING ENGINEERS

FOR INFORMATION ONLY

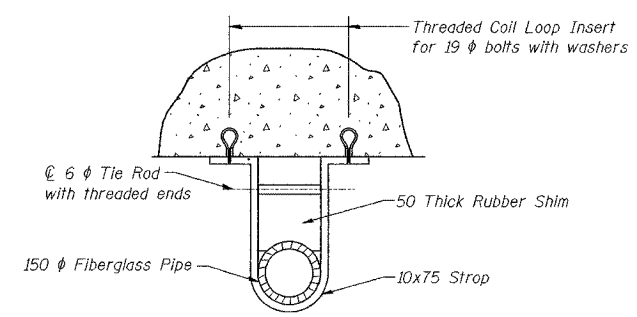
CONTRACT No. 62114



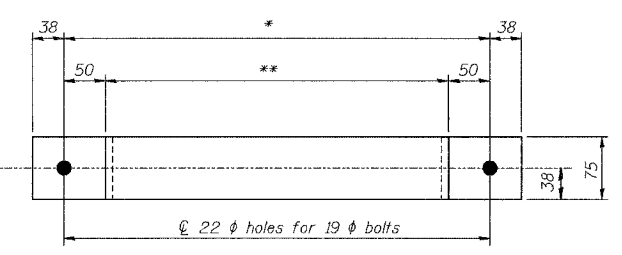
SECTION B-B



SECTION A-A



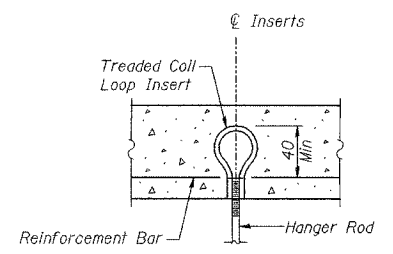
SECTION



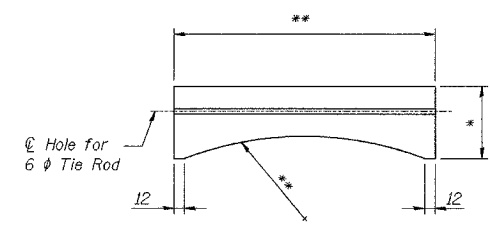
STRAP

DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

* Dimensions as required by the pipe strap.
 ** Dimensions as required by the pipe.

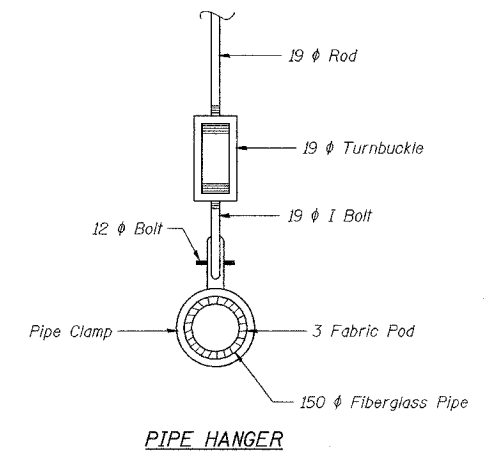


SLAB INSERT



RUBBER SHIM

DRAINAGE SYSTEM DETAILS

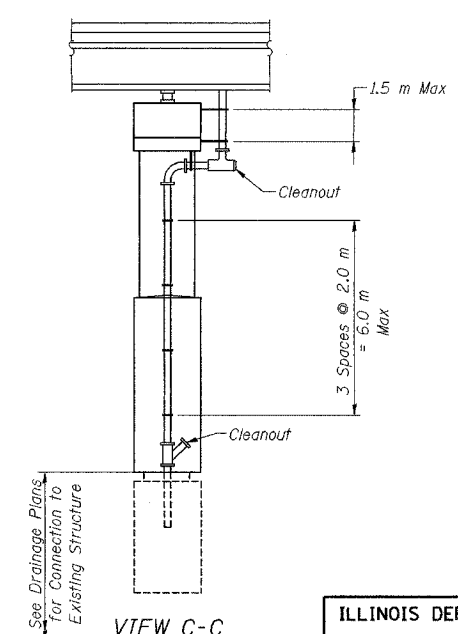


PIPE HANGER

NOTES:
 Bolts, studs, washers and nuts shall conform to the requirements of ASTM A307.
 All bolts, washers and nuts shall be galvanized in accordance with AASTH0 M232.

All dimensions are in millimeters (mm) except as noted

Cost of piping, fittings, support brackets, inserts, bolts and cleanouts included in Drainage System.



VIEW C-C

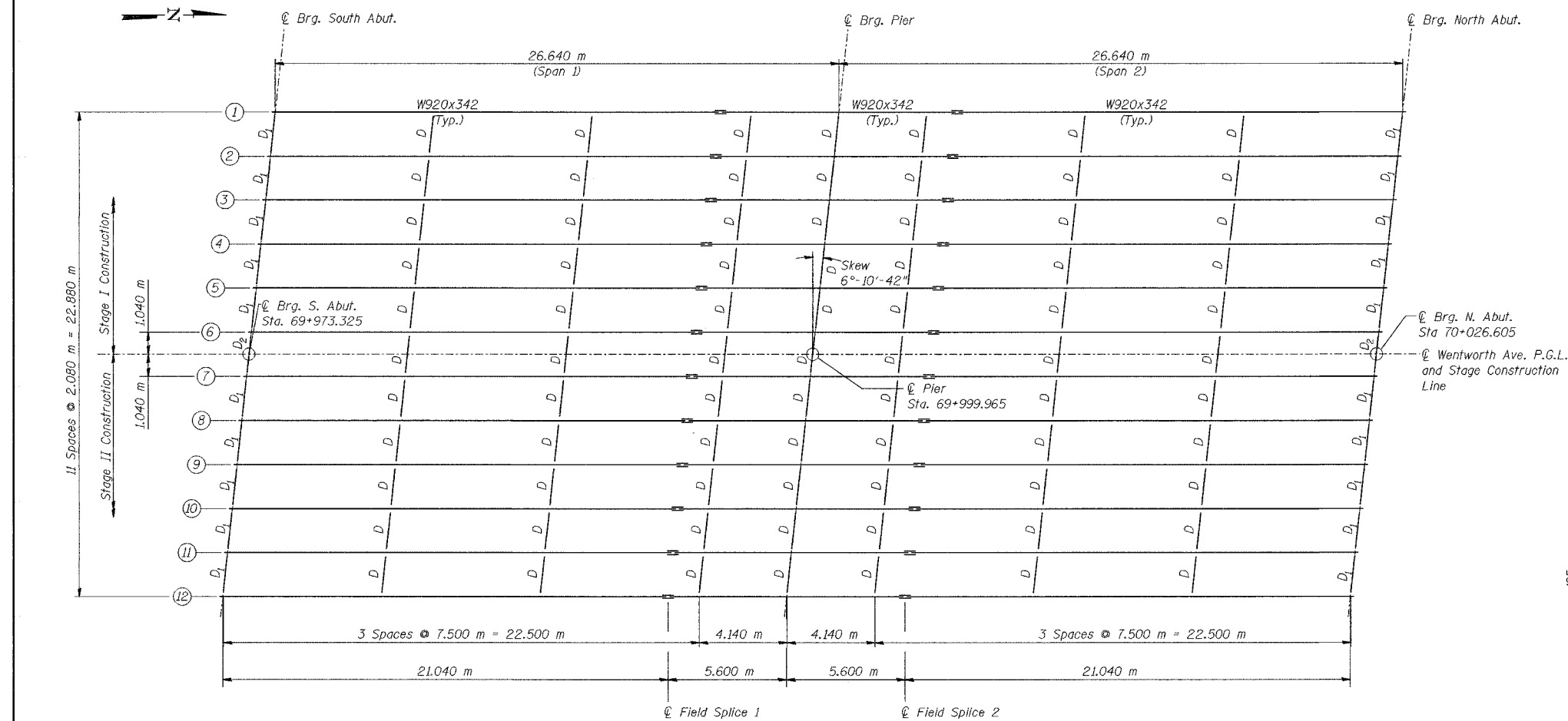
See Drainage Plans for Connection to Existing Structure

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
DRAINAGE SYSTEM DETAILS
 SECTION 2626.1B
 COOK COUNTY
 STATION 7 + 579.488
 STRUCTURE NO. 016-2790
 DATE 07/05

AMERICAN
 CONSULTING ENGINEERS

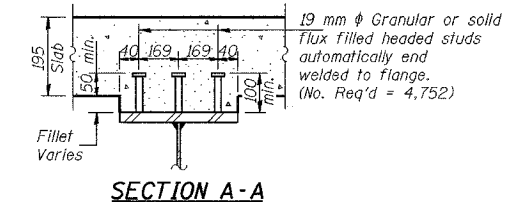
FOR INFORMATION ONLY

CONTRACT NO. 62114 (1) 07/05

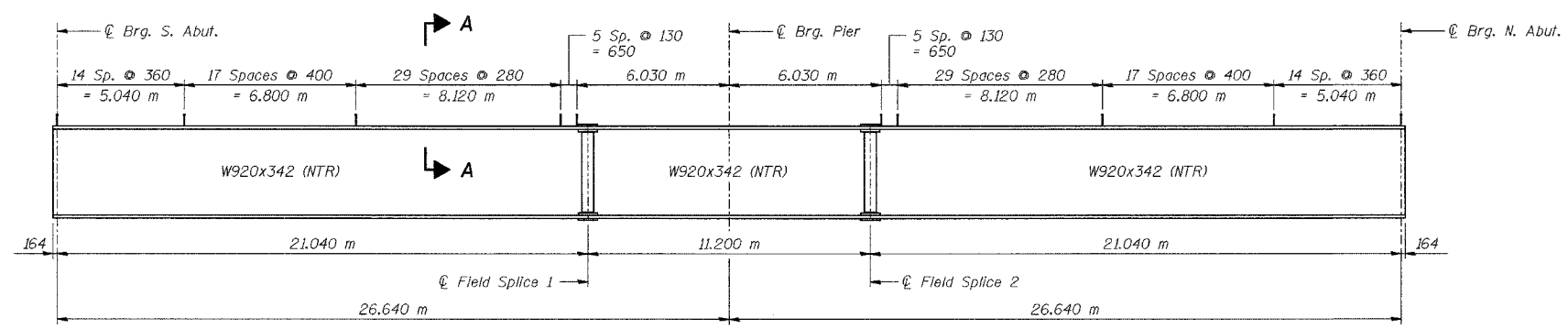


BEAM ELEVATION TABLE
(For Fabrication Use Only)

Beam	℄ Brg. S. Abut.	℄ Field Splice 1	℄ Brg. Pier	℄ Field Splice 2	℄ Brg. N. Abut.
1	189.658	189.531	189.458	189.386	188.968
2	189.658	189.533	189.461	189.389	188.974
3	189.699	189.577	189.506	189.434	189.021
4	189.740	189.620	189.549	189.478	189.067
5	189.771	189.653	189.583	189.513	189.105
6	189.803	189.687	189.617	189.547	189.140
7	189.803	189.689	189.620	189.551	189.146
8	189.772	189.660	189.591	189.523	189.120
9	189.740	189.631	189.563	189.495	189.094
10	189.700	189.592	189.525	189.458	189.059
11	189.658	189.553	189.486	189.420	189.023
12	189.658	189.555	189.489	189.423	189.029



FRAMING PLAN



BEAM ELEVATION

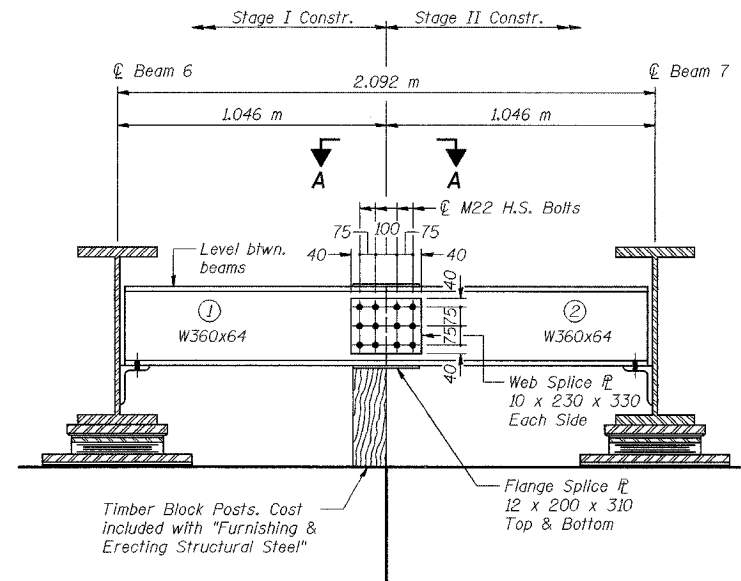
DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

NOTES: All dimensions are in millimeters (mm) except as noted.
For diaphragms & field splice details, and table of moments & shears, See Sheet S-17.
NTR denotes notch toughness requirements.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
FRAMING PLAN
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

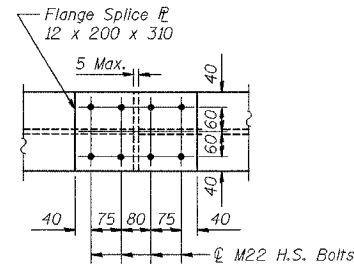
FOR INFORMATION ONLY

CONTRACT 2626.1B UNDER WENTWORTH AVE



DIAPHRAGM D₂

(Looking North)
2 Required
For details of connections to Beams see Diaphragm D₁.
(All dimensions are along skew.)



SECTION A-A

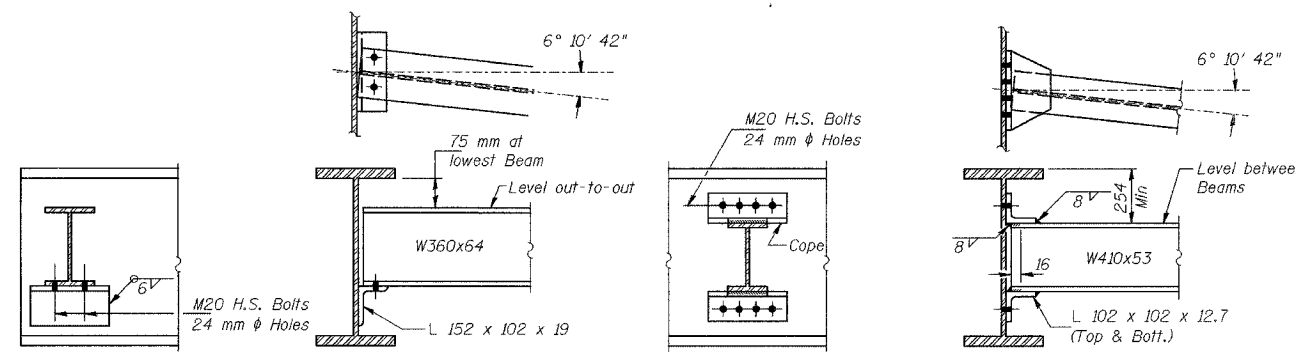
DIAPHRAGM D₂ CONSTRUCTION SEQUENCE

1. Order Diaphragm D₂ in two sections, each with a length of 1.027 m.
2. Attach Section ① of Diaphragm to Beam 6 and Top Flange Splice \bar{L} during Stage I Construction.
3. Place Timber Block Posts between Section ① of Diaphragm and Abutment Bearing Seat.
4. Attach Section ② of Diaphragm to both Beam 7 and Section ① of Diaphragm during Stage II Construction.
5. Attach Web Splice Plates to Sections ① and ② of Diaphragms.
6. Remove Timber Block Posts.
7. Attach Bottom Flange Splice Plate to Sections ① and ② of Diaphragms.

INTERIOR BEAM MOMENT TABLE			
		0.4 Sp. I	Pier
I_s	(10^6 mm^4)	6250	6250
$I_c (n)$	(10^6 mm^4)	13695	---
$I_c (3n)$	(10^6 mm^4)	9947	---
S_s	(10^3 mm^3)	13700	13700
$S_c (n)$	(10^3 mm^3)	18219	---
$S_c (3n)$	(10^3 mm^3)	16429	---
Z	(10^3 mm^3)	---	15400
\bar{D}	(kN/m)	14.185	22.211
$M\bar{D}$	(kN·m)	711	1796
$s\bar{D}$	(kN/m)	8.026	---
$M_s\bar{D}$	(kN·m)	466	---
$M\bar{L}$	(kN·m)	942	597
$M (Imp)$	(kN·m)	226	143
$1.3[M\bar{L} + M (Imp)]$	(kN·m)	1948	1233
M_a	(kN·m)	4063	3937
M_u	(kN·m)	6841	5257
$f_s\bar{D}$ non-comp	(MPa)	52	131
$f_s\bar{D}$ (comp)	(MPa)	28	---
$f_s\bar{D}_3 (\frac{1}{2} + Imp)$	(MPa)	107	90
f_s (Overload)	(MPa)	187	221
f_s (Total)	(MPa)	---	---
VR	(kN)	236	---

INTERIOR BEAM REACTION TABLE			
	Abut.	Pier	Abut.
$R\bar{D}$	(kN)	229	229
$R\bar{L}$	(kN)	177	177
$Imp.$	(kN)	42	42
R (Total)	(kN)	448	448

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_{c(n)}$ and $S_{c(n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 $I_{c(3n)}$ and $S_{c(3n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)
 VR is the maximum Live Load + Impact shear range in span.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 M_a (Applied Moment) = $1.3[M\bar{L} + M_s\bar{D} + \frac{1}{2}(M\bar{L} + M_{imp})]$.
The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 f_s (Overload) is the sum of the stresses due to $M\bar{L} + M_s\bar{D} + \frac{1}{2}(M\bar{L} + M_{imp})$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\bar{L} + M_s\bar{D} + \frac{1}{2}(M\bar{L} + M_{imp})]$.



DIAPHRAGM D₁

20 Required

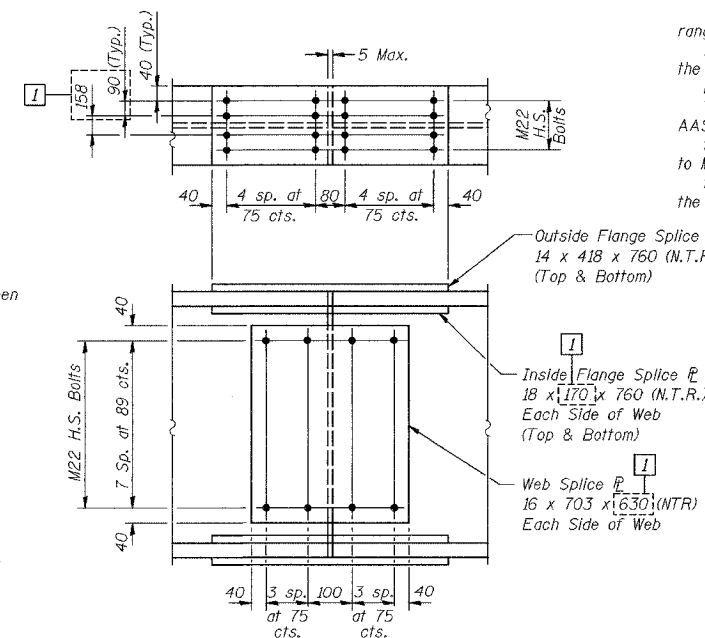
DIAPHRAGM D

77 Required

Note: Two hardened washers shall be required over all oversize holes for diaphragms.
All dimensions are in millimeters (mm) except as noted.

DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

1 REVISED 01-20-04 KFA

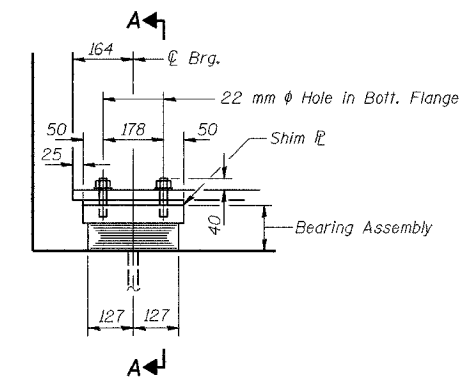


FIELD SPICE DETAIL

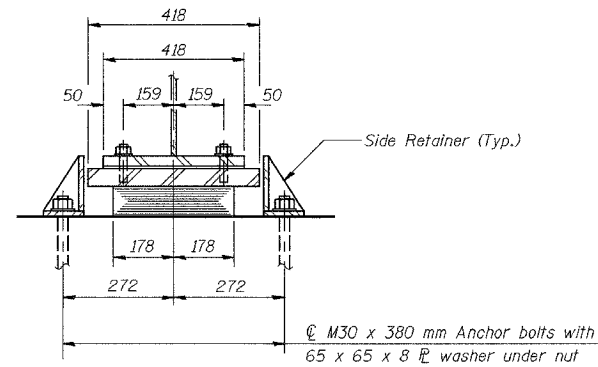
All splice plate material shall be AASHTO M 270M, Grade 345 and shall meet notch toughness requirements.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
FRAMING DETAILS
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

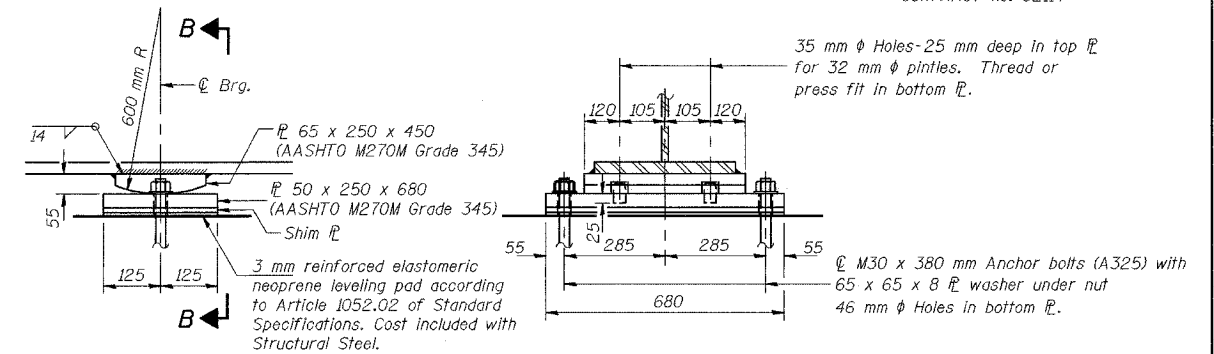
FOR INFORMATION ONLY



ELEVATION AT ABUT.



SECTION A-A



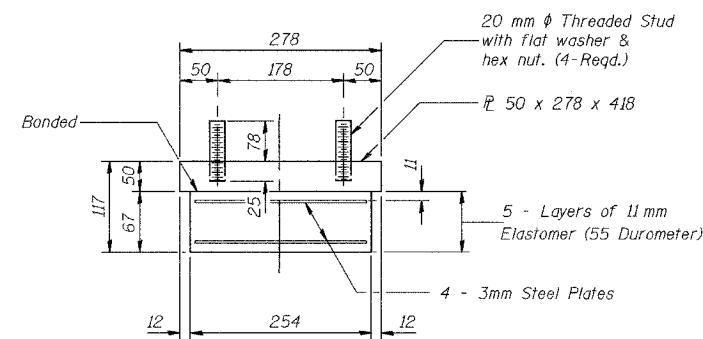
ELEVATION AT PIER

FIXED BEARING

SECTION B-B

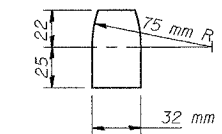
TYPE I ELASTOMERIC EXP. BRG.

Notes: Anchor bolts at fixed bearings may be built into the masonry.
See Sheet S-19 for Anchor Bolt installation.
All dimensions are in millimeters (mm) except as noted.



BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

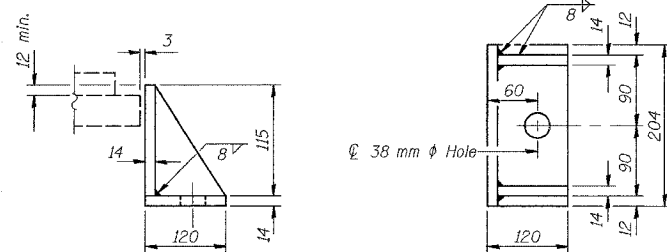


PINTLE

REQUIRED SHIM PLATE TABLE

Beam	Location	Size (mm)	Thickness (mm)
2	Pier	250 x 680	3
7	Pier	250 x 680	3
12	Pier	250 x 680	3
2	N. Abutment	254 x 356	6
7	N. Abutment	254 x 356	6
12	N. Abutment	254 x 356	6

Shim plates indicated in the table are required independent of the shim plate set supplied with the bearing assembly per the Standard Specifications. Cost of the bearing shim plates indicated included with "Furnishing and Erecting Structural Steel."



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
Weight included with Structural Steel.

DESIGNED	BPS
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	24

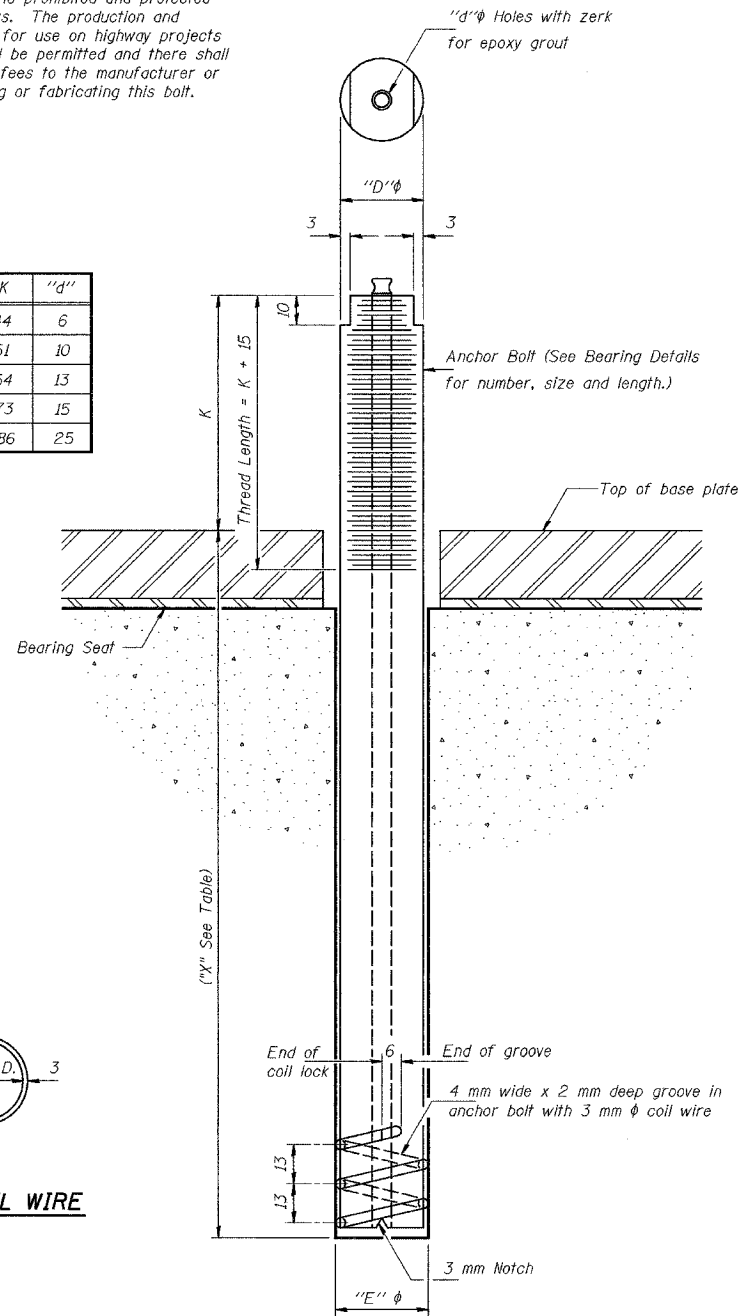
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
BEARING DETAILS
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
DATE 07/05



FOR INFORMATION ONLY

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25



ILLINOIS COIL-LOCK ANCHOR BOLT

DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

ABB-1 (M) 4-30-99

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers. The coil wire shall be made of any suitable soft steel wire. The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed. The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type	D	X
S. Abut.	A307	30	329
Pier	A325	30	329
N. Abut.	A307	30	329

ASTM F 1554 (Fy = 724 MPa), ASTM A 449 and AASHTO M 314 (Fy = 724 MPa) anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

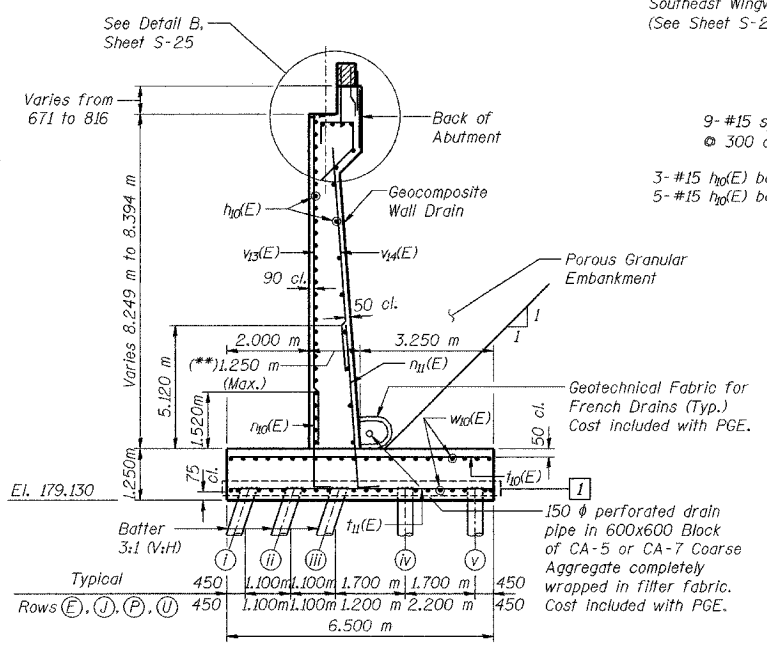
Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted. Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming. The anchor bolts, furnished and installed including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel". All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
ANCHOR BOLT DETAILS
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY

ELEVATIONS AT BACK OF BACKWALL

Beam	T/Hatch Block Elev.	Bearing Seat Elev.
1	189.868	188.629
2	189.868	188.629
3	189.910	188.670
4	189.950	188.711
5	189.982	188.742
6	190.013	188.774
7	190.013	188.774
8	189.982	188.743
9	189.950	188.711
10	189.910	188.671
11	189.868	188.629
12	189.868	188.629



SECTION THRU SOUTH ABUTMENT
 (**NOTE: Wall thickness includes 40 mm Rustication.)

PILE DATA

Type - 356 ϕ Metal Shell
 Capacity - 400 kN
 Est. Length - 12.0 m
 No. Req'd. - 254
 Test Piles - 1

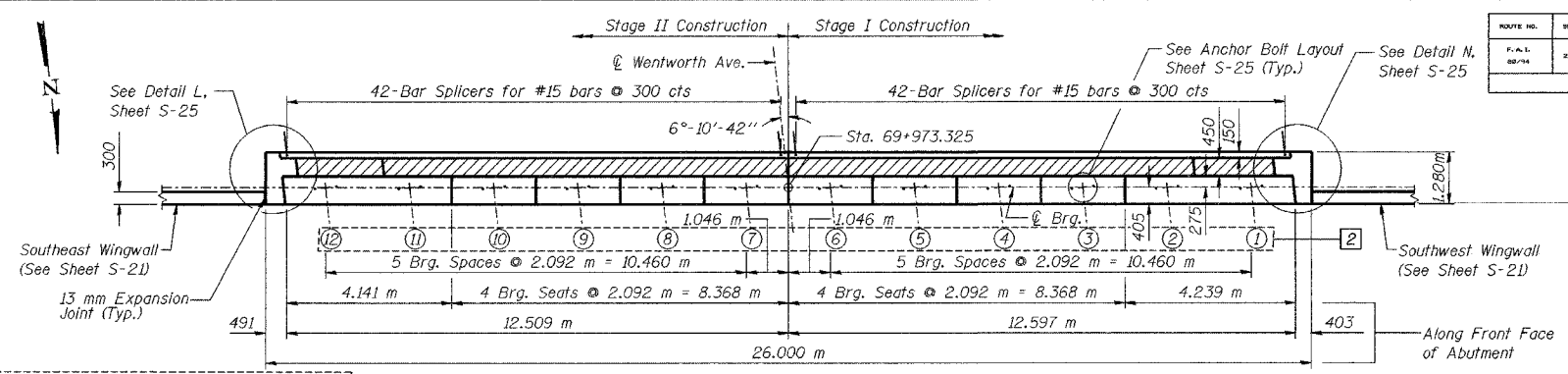
LEGEND

B.F. = Back Face
 F.F. = Front Face
 E.F. = Each Face

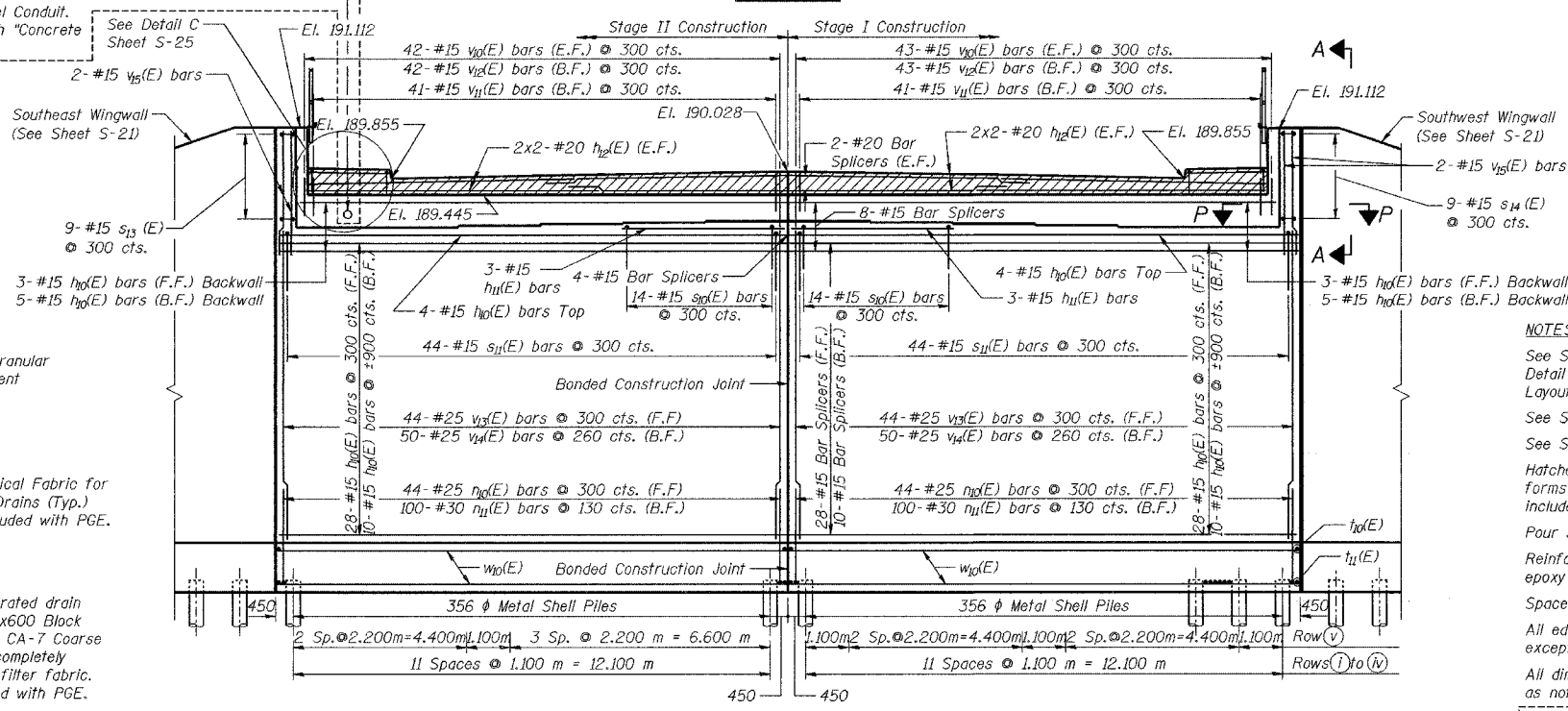
MINIMUM BAR LAPS
 #15 bars = 640
 #20 bars = 790
 #25 bars = 1320
 #30 bars = 1850

DESIGNED	BHS
CHECKED	GSP
DRAWN	BHS
CHECKED	GSP

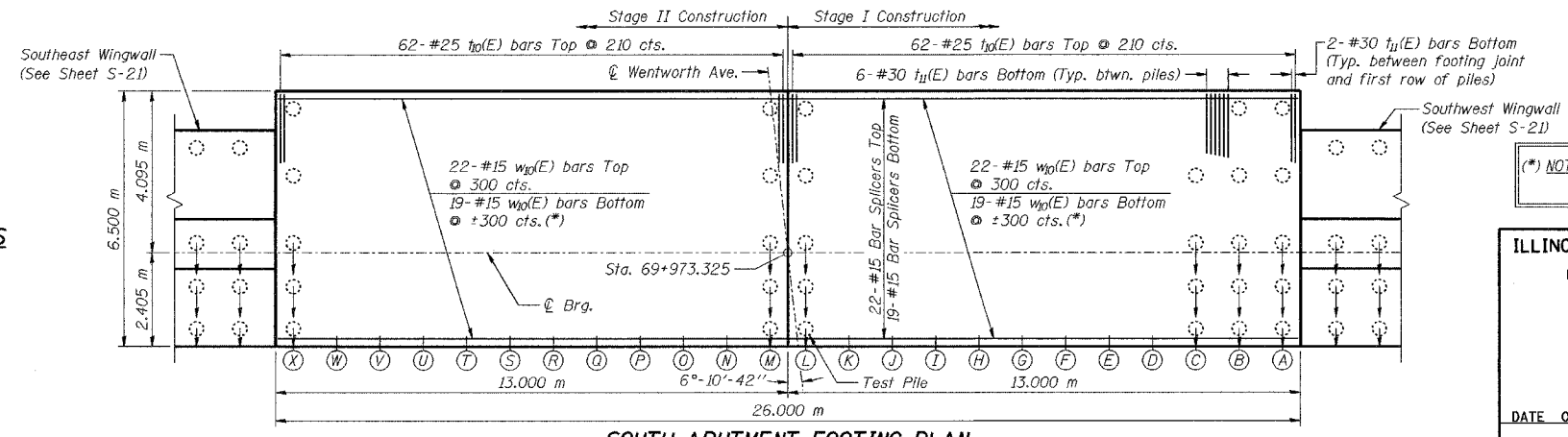
2 REVISED 03-29-04 BHS
 1 REVISED 09-10-03 KFA



TOP VIEW



ELEVATION
(Looking South)



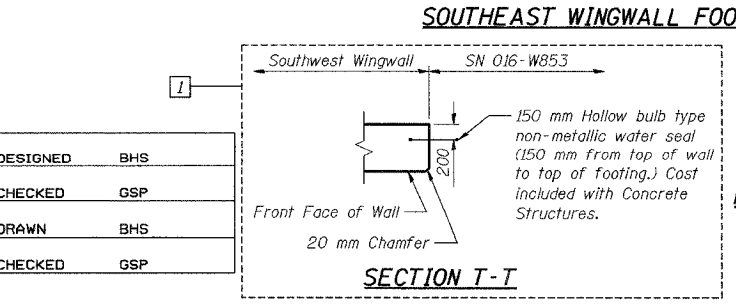
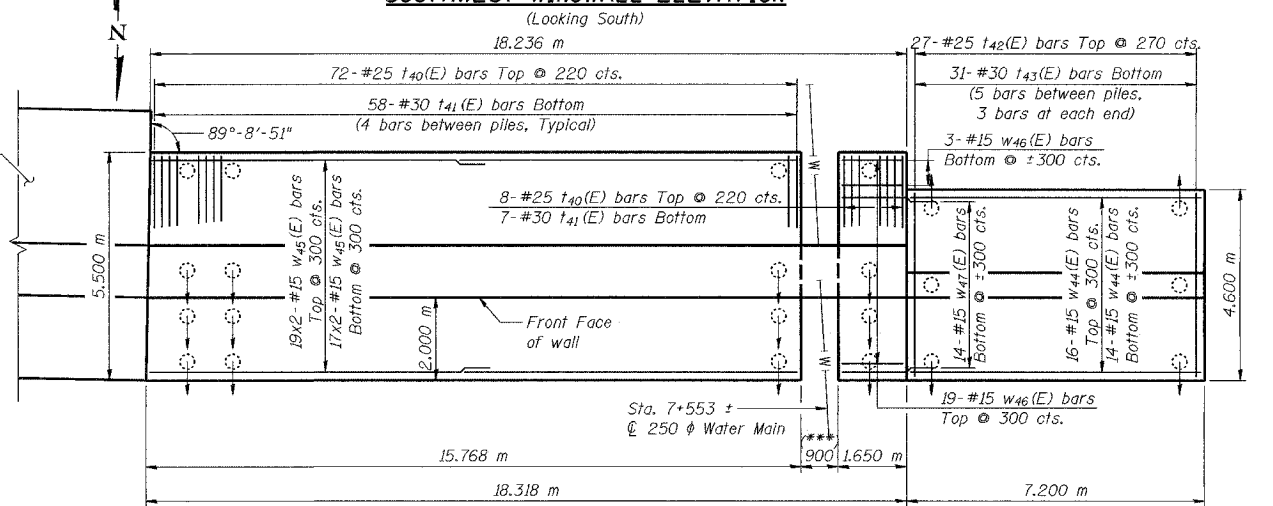
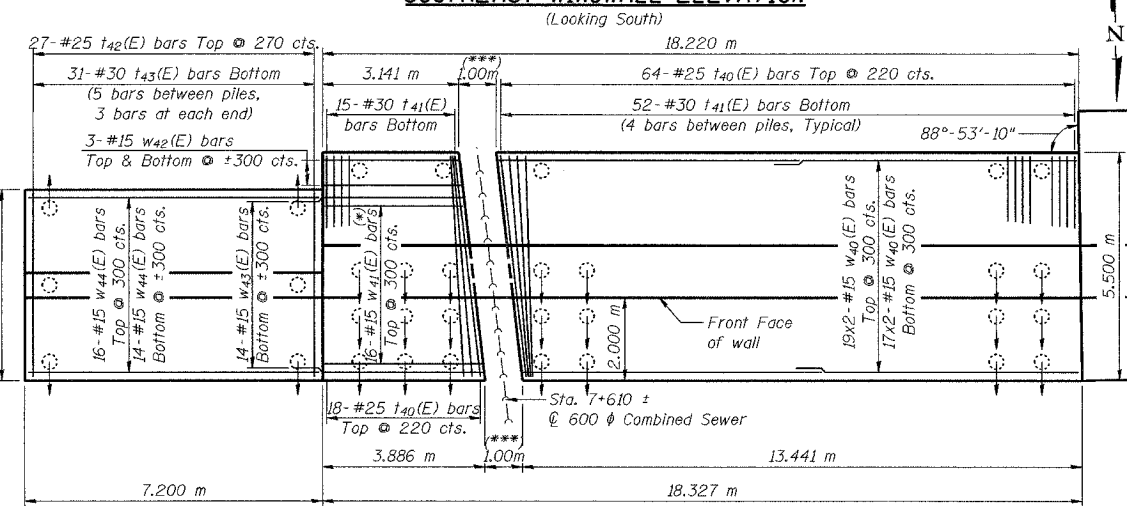
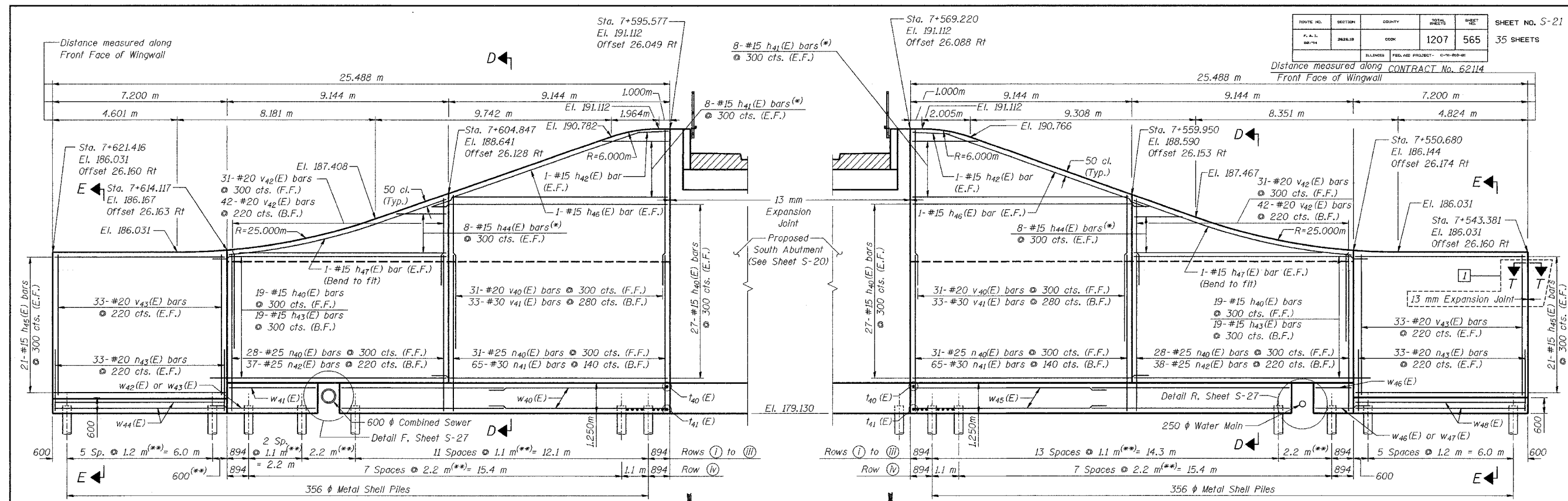
SOUTH ABUTMENT FOOTING PLAN

NOTES:
 See Sheet S-25 for View A-A, Detail B, Detail C, Detail L, Detail N, Section P-P, and Anchor Bolt Layout.
 See Sheet S-26 for Expansion Joint Detail.
 See Sheet S-28 for Rustication details.
 Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Concrete Superstructure."
 Four steps monolithically with cap.
 Reinforcement bars designated (E) shall be epoxy coated.
 Space reinforcement in cap to miss anchor bolts.
 All edges shall have standard 20 mm chamfers except as noted.
 All dimensions are in millimeters (mm) except as noted.
 See Electrical Drawings for location of 65 mm PVC Coated Rigid Steel Conduit.

(*) NOTE: Bars must be cut in the field to avoid the offset piles (E), (J), (P), and (U) in Row (iv).

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
SOUTH ABUTMENT PLAN
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY



LEGEND
 B.F. = Back Face
 F.F. = Front Face
 E.F. = Each Face

MINIMUM BAR LAPS
 #15 bars = 640
 #20 bars = 790
 #25 bars = 1320
 #30 bars = 1850

(*) NOTE: Cut from full length bars. See Sheet S-26 for Field Cutting Diagram.

(**) NOTE: Adjust Pile locations to provide 300 clear (Min.) between Piles and Existing Sewer or Water Main. Provide 230 clear (Min.) between Piles and edge of Footing.

(***) NOTE: Provide 150 (Min.) clear spacing between Footing and Existing Sewer or Water Main.

NOTES:
 See Sheet S-20 for Pile Data.
 See Sheet S-26 for Expansion Joint Detail, Section D-D, Section E-E, and Field Cutting Diagram.
 See Sheet S-27 for Detail F and Detail R.
 Stations are referenced to C I-80/94. See Sheet S-27 for offset diagram.
 The wingwalls are to be constructed on chords between the stations shown.
 Reinforcement bars designated (E) shall be epoxy coated.
 All edges shall have standard 20 mm chamfers except as noted.
 All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
SOUTH WINGWALLS
 SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05

AMERICAN
 CONSULTING ENGINEERS

REVISED 03-29-04 BHS

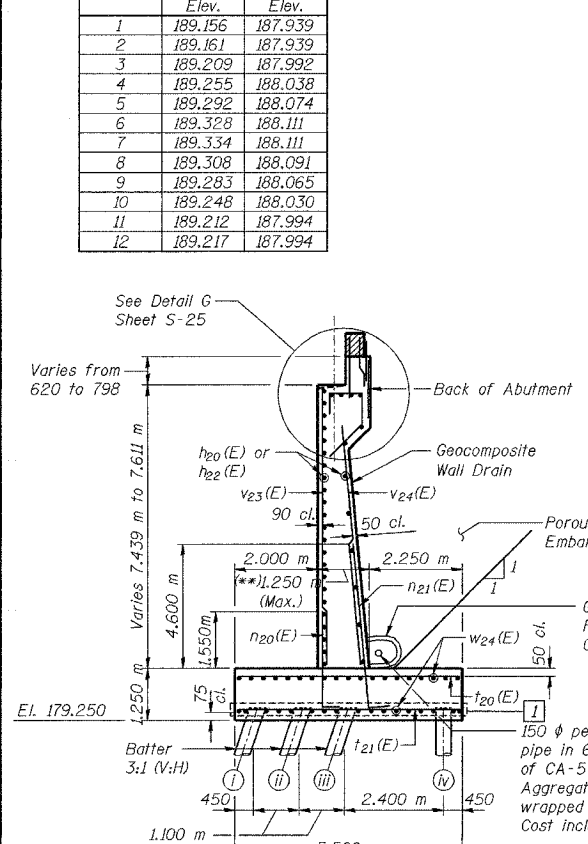
FOR INFORMATION ONLY

ELEVATIONS AT BACK OF BACKWALL

Beam	T/Hatch Block Elev.	Bearing Seat Elev.
1	189.156	187.939
2	189.161	187.939
3	189.209	187.992
4	189.255	188.038
5	189.292	188.074
6	189.328	188.111
7	189.334	188.111
8	189.308	188.091
9	189.283	188.065
10	189.248	188.030
11	189.212	187.994
12	189.217	187.994

FIGURE NO.	SECTION	COUNTY	SHEET	SHEET NO.
66-74	DETAILS	COOK	1207	566

CONTRACT No. 62114



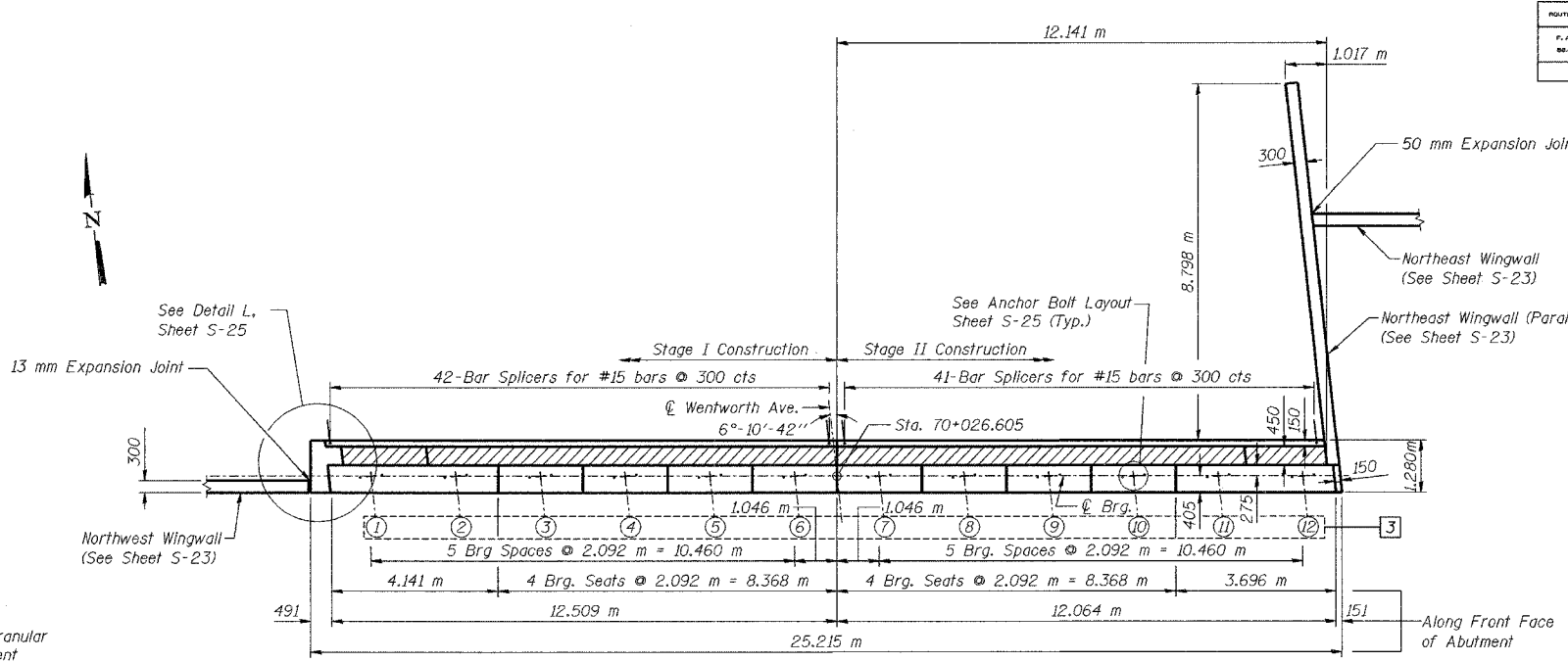
SECTION THRU NORTH ABUTMENT
 (**NOTE: Wall thickness includes 40 mm Rustication.)

PILE DATA

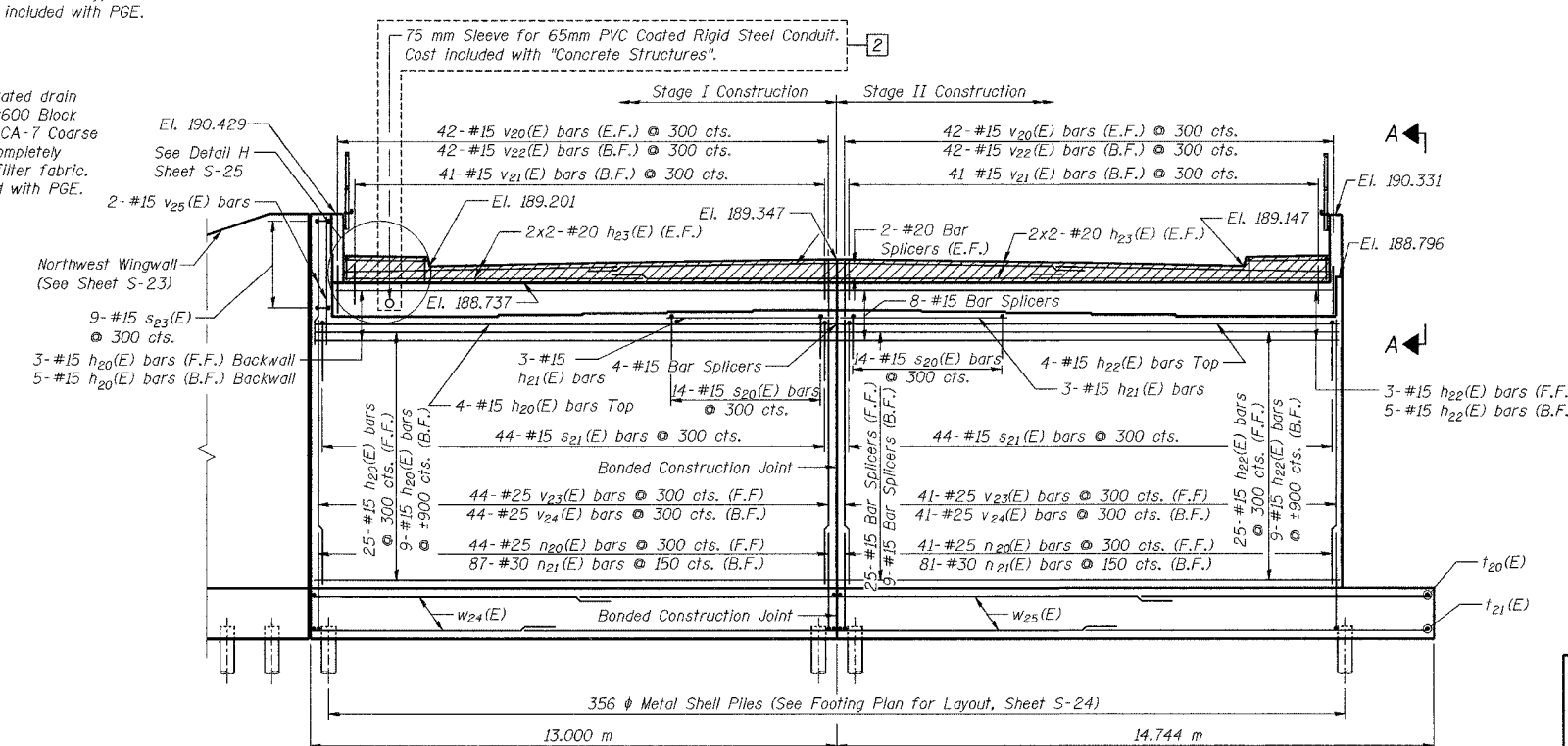
Type - 356 ϕ Metal Shell
 Capacity - 400 kN
 Est. Length - 14.4 m
 No. Req'd - 217
 Test Piles - 1

DESIGNED	BHS
CHECKED	GSP
DRAWN	BHS
CHECKED	GSP

- 3 REVISED 04-12-04 BHS
- 2 REVISED 03-29-04 BHS
- 1 REVISED 09-10-03 KFA



TOP VIEW



ELEVATION
 (Looking North)

NOTES:

- See Sheets S-24 for Footing Plan.
- See Sheet S-25 for View A-A, Detail G, Detail H, Detail L, and Anchor Bolt Layout.
- See Sheet S-26 for Expansion Joint Detail.
- See Sheet S-28 for Rustication details.
- Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Concrete Superstructure."
- Four steps monolithically with cap.
- Reinforcement bars designated (E) shall be epoxy coated.
- Space reinforcement in cap to miss anchor bolts.
- All edges shall have standard 20 mm chamfers except as noted.
- All dimensions are in millimeters (mm) except as noted.

See Electrical Drawings for location of 65 mm PVC Coated Rigid Steel Conduit.

LEGEND

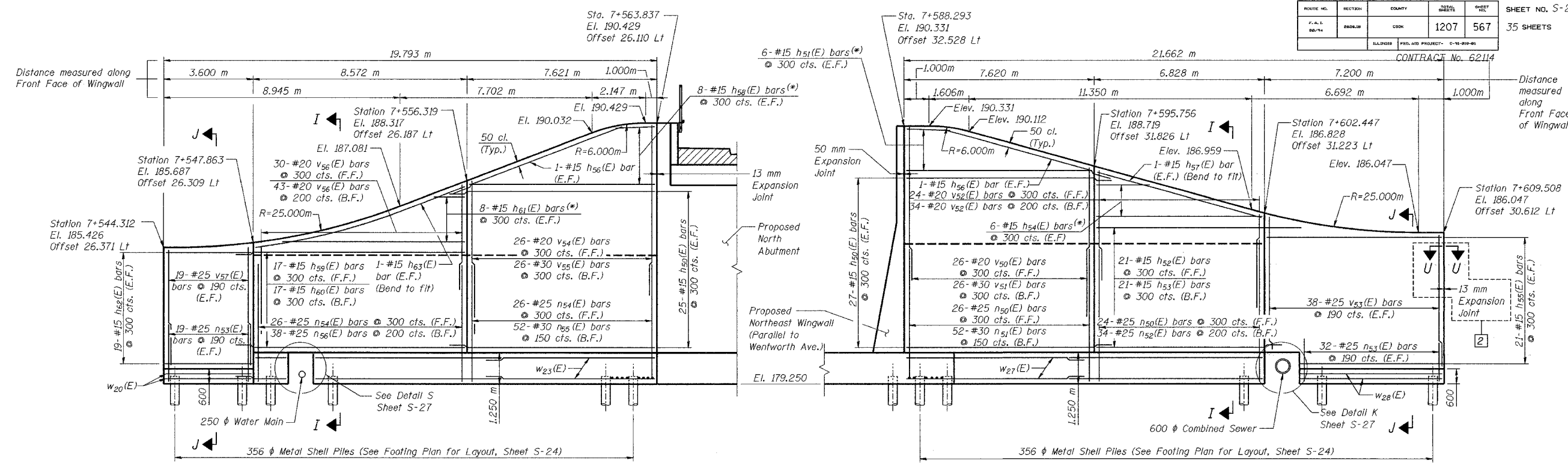
B.F. = Back Face
 F.F. = Front Face
 E.F. = Each Face

MINIMUM BAR LAPS

#15 bars = 640
 #20 bars = 790
 #25 bars = 1320
 #30 bars = 1850

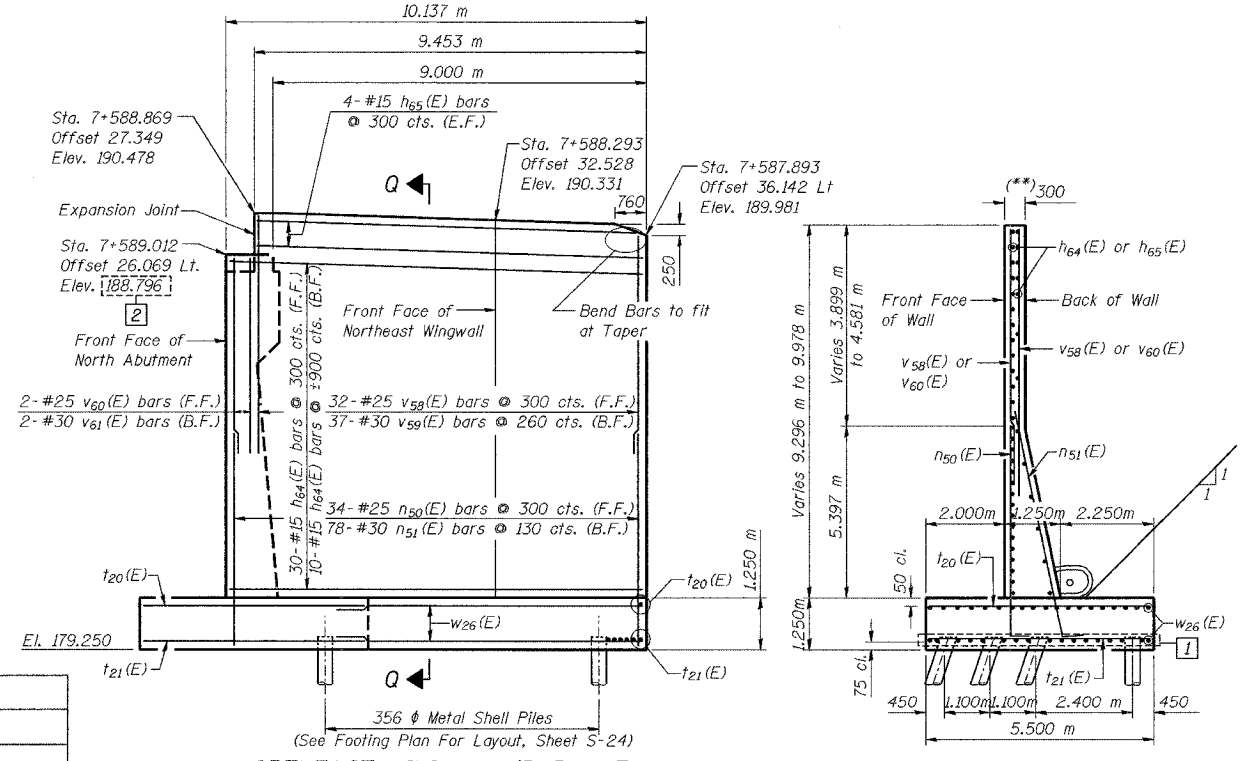
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
NORTH ABUTMENT PLAN
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY



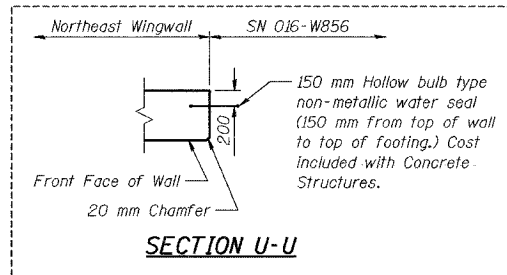
NORTHWEST WINGWALL ELEVATION
(Looking North)

NORTHEAST WINGWALL ELEVATION
(Looking North)



NORTHEAST WINGWALL (PARALLEL TO WENTWORTH AVE.) ELEVATION
(Looking West)

SECTION Q-Q



SECTION U-U

DESIGNED	BHS
CHECKED	GSP
DRAWN	BHS
CHECKED	GSP

2 REVISED 03-29-04 BHS
1 REVISED 09-10-03 KFA

NOTES:
See Sheet S-22 for Pile Data.
See Sheet S-24 for Footing Plan.
See Sheet S-26 for Expansion Joint Detail, Section I-I and Section J-J.
See Sheet S-27 for Detail K and Detail S.
Stations are referenced to ϕ I-80/94. See Sheet S-26 for offset diagram.
The wingwalls are to be constructed on chords between the stations shown.
Reinforcement bars designated (E) shall be epoxy coated.
All edges shall have standard 20 mm chamfers except as noted.
All dimensions are in millimeters (mm) except as noted.
(*) Cut from full length bars. See Sheet S-26 for Field Cutting Diagrams.
(**) Wall thickness includes 40 mm Rustication.

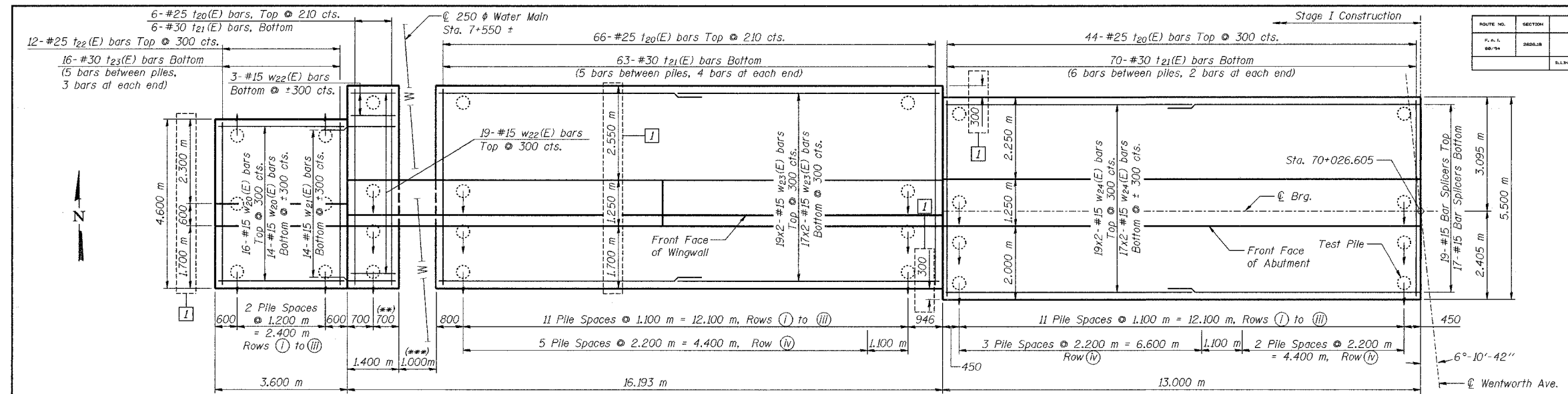
LEGEND
B.F. = Back Face
F.F. = Front Face
E.F. = Each Face

MINIMUM BAR LAPS
#15 bars = 640
#20 bars = 790
#25 bars = 1320
#30 bars = 1850

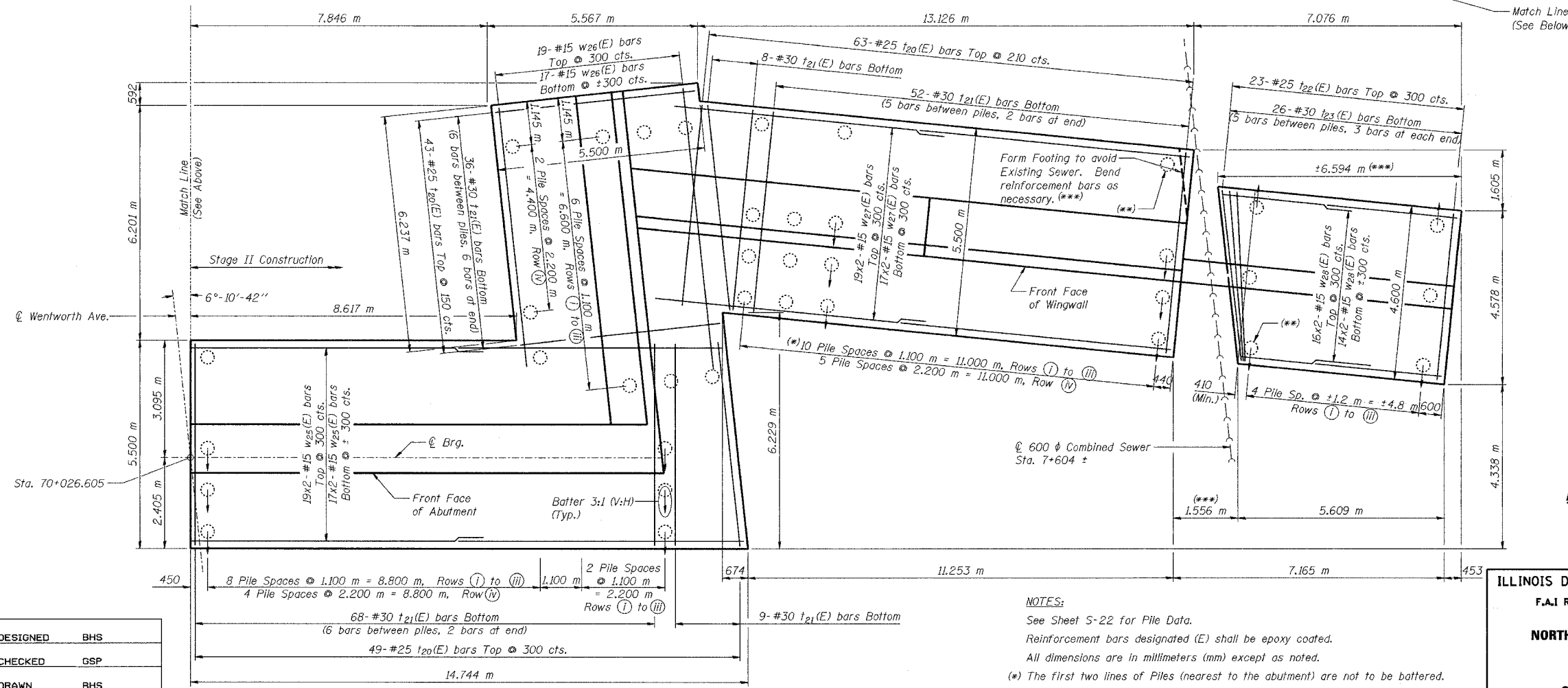
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
NORTH WINGWALLS
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. S-24
60/94		COOK	1207	35 SHEETS
CONTRACT No. 62114				



NORTH ABUTMENT/NORTHWEST WINGWALL FOOTING



NORTH ABUTMENT/NORTHEAST WINGWALL FOOTING

DESIGNED	BHS
CHECKED	GSP
DRAWN	BHS
CHECKED	GSP

REVISED 03-29-04 BHS

NOTES:
See Sheet S-22 for Pile Data.
Reinforcement bars designated (E) shall be epoxy coated.
All dimensions are in millimeters (mm) except as noted.
(*) The first two lines of Piles (nearest to the abutment) are not to be battered.
(**) Adjust Pile location to provide 300 clear (Min.) between Piles and Existing Sewer or Water Main. Provide 230 clear (Min.) between Piles and edge of Footing.
(***) Provide 150 (Min.) clear spacing between Footing and Existing Sewer or Water Main.

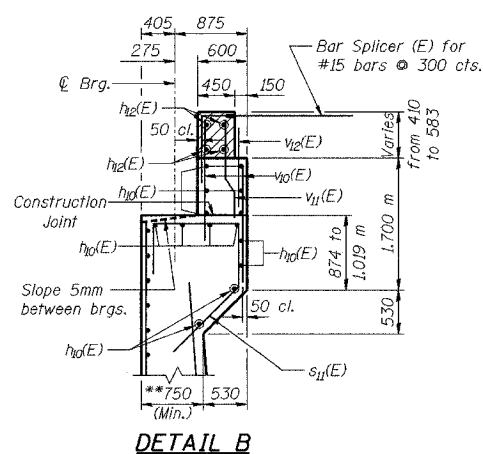
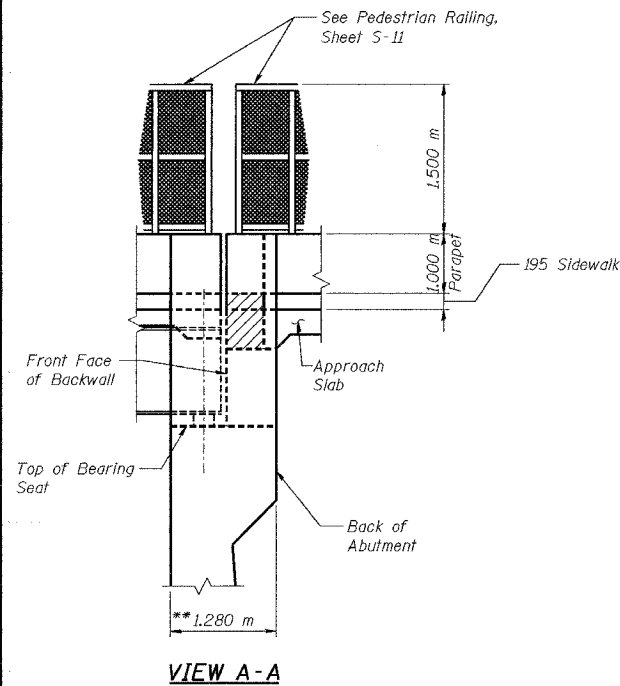
MINIMUM BAR LAPS

#15 bars	= 640
#20 bars	= 790
#25 bars	= 1320
#30 bars	= 1850

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
NORTH ABUTMENT FOOTING PLAN
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05

AMERICAN
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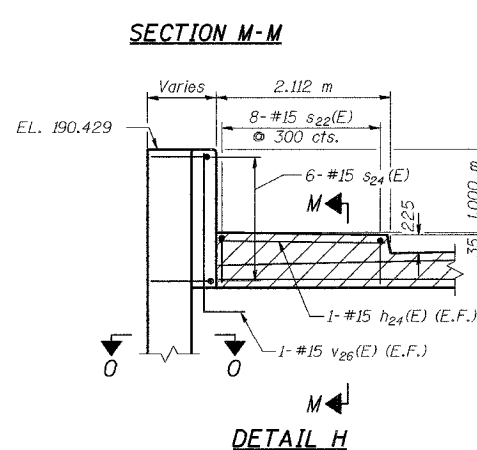
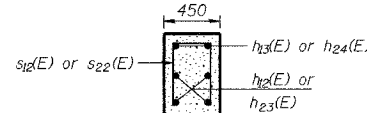
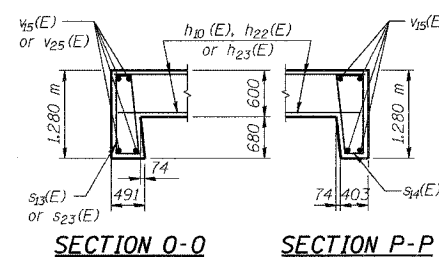
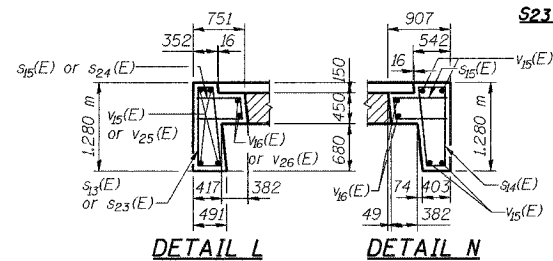
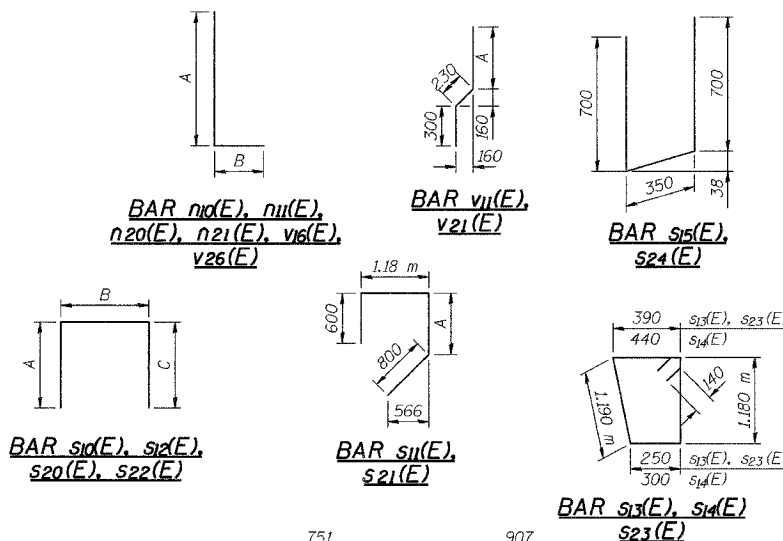
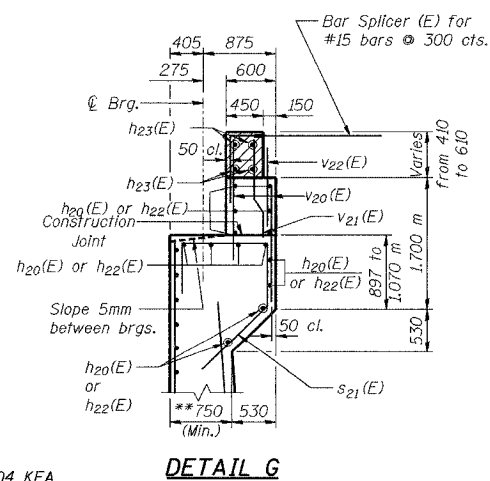
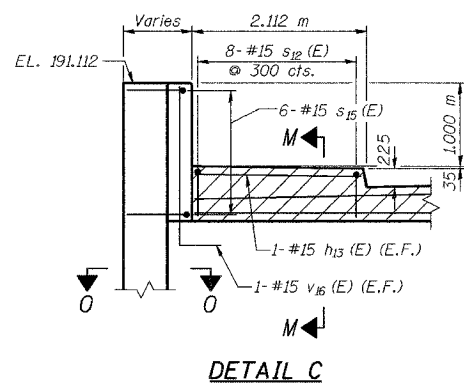
FOR INFORMATION ONLY



**NOTE: Wall thickness includes 40 mm Rustication.

DESIGNED	BHS
CHECKED	GSP
DRAWN	BHS
CHECKED	GSP

REVISD 03-29-04 KFA



BAR DIMENSIONS

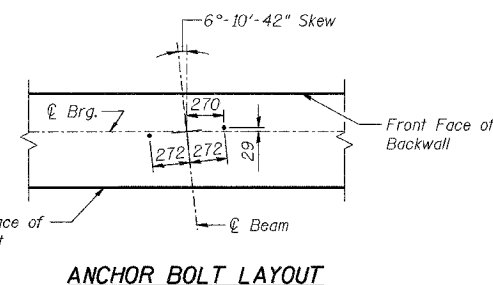
Bar	A	B	C
n10(E)	2.65m	400	
n11(E)	6.25m	500	
n20(E)	2.68m	400	
n21(E)	5.73m	500	
v11(E)	720		
v16(E)	1.67m	260	
v21(E)	740		
v26(E)	1.70m	260	
s10(E)	640	580	640
s11(E)	770		
s12(E)	500	350	500
s20(E)	640	580	640
s21(E)	790		
s22(E)	500	350	500

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h10(E)	100	#15	12.95	
h11(E)	6	#15	4.08	
h12(E)	16	#20	6.48	
h15(E)	4	#15	1.98	
h16(E)	88	#25	3.05	
h17(E)	200	#30	6.75	
s10(E)	28	#15	1.86	
s11(E)	88	#15	3.35	
s12(E)	16	#15	1.35	
s13(E)	9	#15	3.29	
s14(E)	9	#15	3.39	
s15(E)	12	#15	1.75	
t10(E)	124	#25	6.40	
t11(E)	140	#30	6.40	
v10(E)	170	#15	1.60	
v11(E)	82	#15	1.25	
v12(E)	85	#15	1.23	
v13(E)	88	#25	8.14	
v14(E)	100	#25	3.57	
v15(E)	8	#15	3.09	
v16(E)	4	#15	1.93	
w10(E)	82	#15	12.95	
Porous Granular Embankment		m ³	1,357	
Structure Excavation		m ³	1,416	
Concrete Structures		m ³	449.8	
Reinforcement Bars, Epoxy Coated		kg	26,230	
Furnishing Metal Pile Shells, 356 φ		m	1,320.0	
Driving and Filling Shells		m	1,320.0	
Test Pile Metal Shells		Each	1	
Geocomposite Wall Drain		m ²	242	
Bar Splicers		Each	179	

NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h20(E)	46	#15	12.95	
h21(E)	6	#15	4.08	
h22(E)	46	#15	12.16	
h23(E)	16	#20	6.45	
h24(E)	4	#15	1.98	
h20(E)	85	#25	3.08	
h21(E)	168	#30	6.23	
s20(E)	28	#15	1.86	
s21(E)	88	#15	3.37	
s22(E)	16	#15	1.35	
s23(E)	9	#15	3.29	
s24(E)	6	#15	1.75	
t20(E)	93	#25	5.40	
t21(E)	147	#30	5.40	
v20(E)	168	#15	1.60	
v21(E)	82	#15	1.27	
v22(E)	84	#15	1.25	
v23(E)	85	#25	7.33	
v24(E)	85	#25	3.26	
v25(E)	4	#15	3.03	
v26(E)	2	#15	1.96	
w24(E)	72	#15	6.77	
w25(E)	72	#15	7.65	
Porous Granular Embankment		m ³	1,091	
Structure Excavation		m ³	1,613	
Concrete Structures		m ³	400.1	
Reinforcement Bars, Epoxy Coated		kg	21,800	
Furnishing Metal Pile Shells, 356 φ		m	1,195.0	
Driving and Filling Shells		m	1,195.0	
Test Pile Metal Shells		Each	1	
Geocomposite Wall Drain		m ²	149	
Bar Splicers		Each	169	



MINIMUM BAR LAPS

- #15 bars = 640
- #20 bars = 790
- #25 bars = 1320
- #30 bars = 1850

LEGEND

E.F. = Each Face

NOTES:

- Reinforcement bars designated (E) shall be epoxy coated.
- Space reinforcement in cap to miss anchor bolts.
- All edges shall have standard 20 mm chamfers except as noted.
- All dimensions are in millimeters (mm) except as noted.
- Pour steps monolithically with cap.
- See Sheet S-28 for Rustication details.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
ABUTMENT DETAILS
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN CONSULTING ENGINEERS

FOR INFORMATION ONLY

CONTRACT No. 62114
NORTH ABUTMENT WINGWALLS
BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h ₅₀ (E)	104	#15	8.26	—
h ₅₁ (E)	6	#15	9.62	—
h ₅₂ (E)	21	#15	7.47	—
h ₅₃ (E)	21	#15	6.72	—
h ₅₄ (E)	6	#15	7.58	—
h ₅₅ (E)	42	#15	7.10	—
h ₅₆ (E)	4	#15	7.53	—
h ₅₇ (E)	2	#15	6.98	—
h ₅₈ (E)	8	#15	10.10	—
h ₅₉ (E)	17	#15	9.22	—
h ₆₀ (E)	17	#15	8.47	—
h ₆₁ (E)	8	#15	8.10	—
h ₆₂ (E)	38	#15	3.50	—
h ₆₃ (E)	2	#15	8.85	—
h ₆₄ (E)	40	#15	10.03	—
h ₆₅ (E)	8	#15	9.35	—
n ₅₀ (E)	84	#25	7.02	—
n ₅₁ (E)	130	#30	7.22	—
n ₅₂ (E)	34	#25	7.12	—
n ₅₃ (E)	102	#25	3.05	—
n ₅₄ (E)	52	#25	6.40	—
n ₅₅ (E)	52	#30	6.62	—
n ₅₆ (E)	38	#25	6.52	—
t ₂₀ (E)	178	#25	5.40	—
t ₂₁ (E)	165	#30	5.40	—
t ₂₂ (E)	35	#25	4.50	—
t ₂₃ (E)	42	#30	4.50	—
v ₅₀ (E)	26	#20	5.66	—
v ₅₁ (E)	26	#30	6.19	—
v ₅₂ (E)	58	#20	4.05	—
v ₅₃ (E)	76	#25	6.09	—
v ₅₄ (E)	26	#20	6.38	—
v ₅₅ (E)	26	#30	6.91	—
v ₅₆ (E)	73	#20	4.27	—
v ₅₇ (E)	38	#25	5.47	—
v ₅₈ (E)	32	#25	5.81	—
v ₅₉ (E)	37	#30	6.34	—
v ₆₀ (E)	2	#25	5.12	—
v ₆₁ (E)	2	#30	5.65	—
w ₂₀ (E)	30	#15	3.50	—
w ₂₁ (E)	14	#15	2.09	—
w ₂₂ (E)	22	#15	1.30	—
w ₂₃ (E)	72	#15	7.17	—
w ₂₄ (E)	36	#15	7.48	—
w ₂₅ (E)	72	#15	7.18	—
w ₂₆ (E)	60	#15	3.59	—
Porous Granular Embankment		m ³	1,133	—
Structure Excavation		m ³	1,082	—
Concrete Structures		m ³	502.8	—
Reinforcement Bars, Epoxy Coated		kg	39,630	—
Furnishing Metal Pile Shells, 356 φ		m	1,929.5	—
Driving and Filling Shells		m	1,929.5	—
Geocomposite Wall Drain		m ²	343	—

SOUTH ABUTMENT WINGWALLS
BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h ₄₀ (E)	146	#15	9.78	—
h ₄₁ (E)	16	#15	12.09	—
h ₄₂ (E)	4	#15	2.19	—
h ₄₃ (E)	38	#15	9.04	—
h ₄₄ (E)	16	#15	7.58	—
h ₄₅ (E)	84	#15	7.10	—
h ₄₆ (E)	4	#15	8.30	—
h ₄₇ (E)	4	#15	9.40	—
n ₄₀ (E)	118	#25	7.13	—
n ₄₁ (E)	130	#30	7.31	—
n ₄₂ (E)	75	#25	7.21	—
n ₄₃ (E)	132	#20	2.29	—
t ₄₀ (E)	162	#25	5.40	—
t ₄₁ (E)	132	#30	5.40	—
t ₄₂ (E)	54	#25	4.50	—
t ₄₃ (E)	62	#30	4.50	—
v ₄₀ (E)	62	#20	6.51	—
v ₄₁ (E)	66	#30	7.04	—
v ₄₂ (E)	146	#20	4.03	—
v ₄₃ (E)	132	#20	6.20	—
w ₄₀ (E)	72	#15	7.31	—
w ₄₁ (E)	8	#15	6.94	—
w ₄₂ (E)	6	#15	3.04	—
w ₄₃ (E)	14	#15	4.53	—
w ₄₄ (E)	60	#15	7.10	—
w ₄₅ (E)	72	#15	8.16	—
w ₄₆ (E)	22	#15	1.55	—
w ₄₇ (E)	14	#15	2.29	—
Porous Granular Embankment		m ³	1,282	—
Structure Excavation		m ³	1,187	—
Concrete Structures		m ³	519.3	—
Reinforcement Bars, Epoxy Coated		kg	35,090	—
Furnishing Metal Pile Shells, 356 φ		m	1,728.0	—
Driving and Filling Shells		m	1,728.0	—
Geocomposite Wall Drain		m ²	284	—

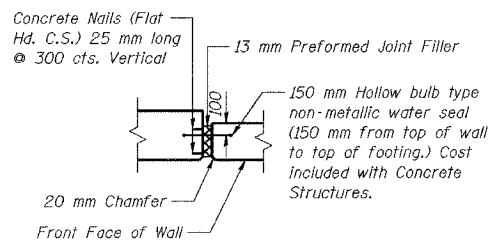
NORTH ABUTMENT WINGWALLS
BILL OF MATERIAL

SOUTH ABUTMENT WINGWALLS
BILL OF MATERIAL

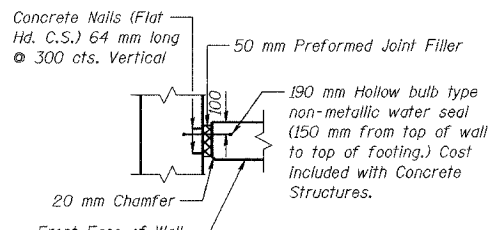
BARS n₄₀(E) thru n₄₃(E)
and n₅₀(E) thru n₅₆(E)

BAR DIMENSIONS

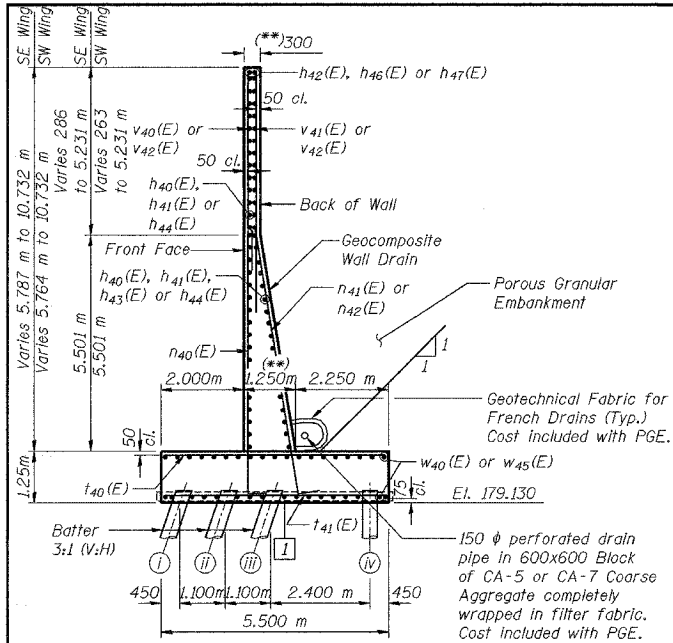
Bar	A	B
n ₄₀ (E)	6.73m	400
n ₄₁ (E)	6.81m	500
n ₄₂ (E)	6.81m	400
n ₄₃ (E)	1.99m	320
n ₅₀ (E)	6.62m	400
n ₅₁ (E)	6.72m	500
n ₅₂ (E)	6.72m	400
n ₅₃ (E)	2.65m	400
n ₅₄ (E)	6.00m	400
n ₅₅ (E)	6.12m	500
n ₅₆ (E)	6.12m	400



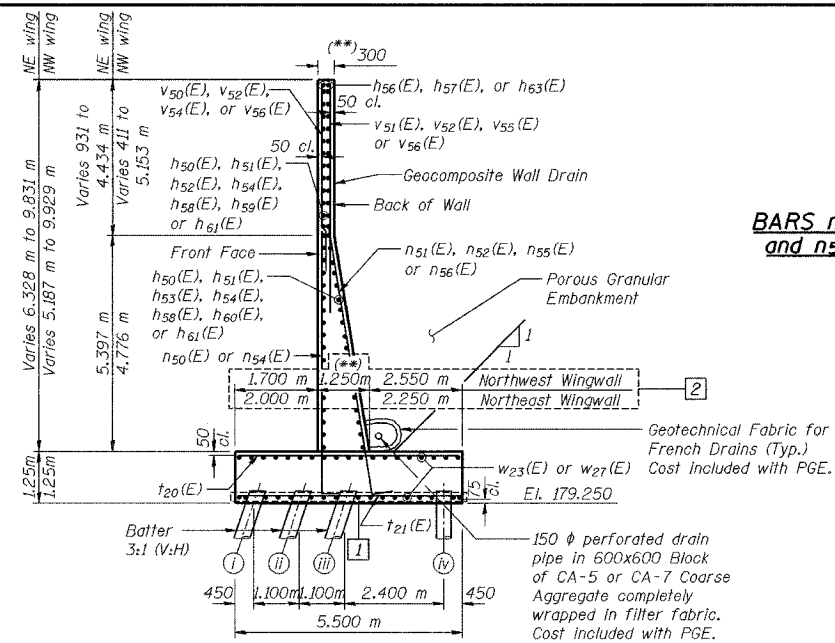
13 MM EXPANSION JOINT DETAIL



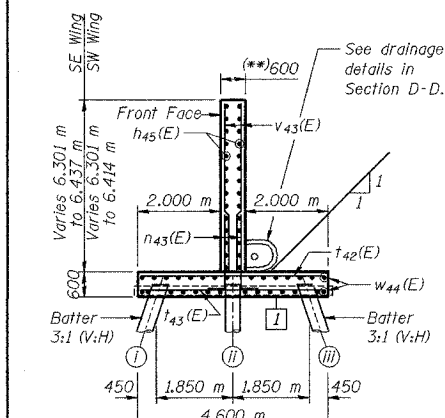
50 MM EXPANSION JOINT DETAIL



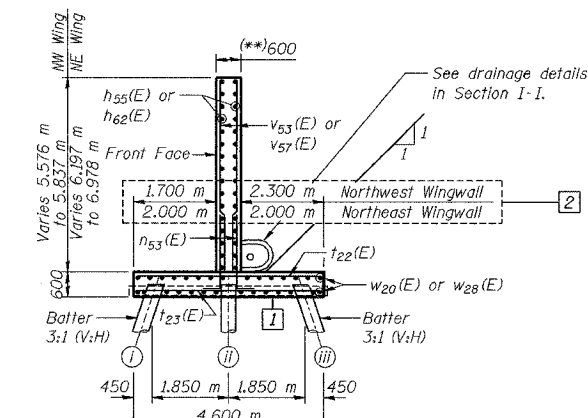
SECTION D-D



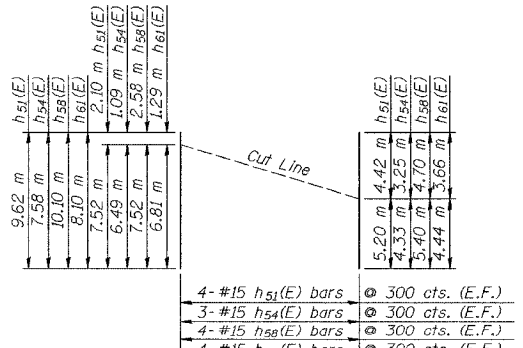
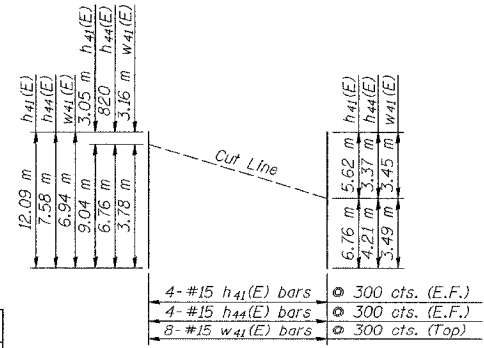
SECTION I-I



SECTION E-E



SECTION J-J



DESIGNED	BHS
CHECKED	GSP
DRAWN	BHS
CHECKED	GSP

MINIMUM BAR LAPS

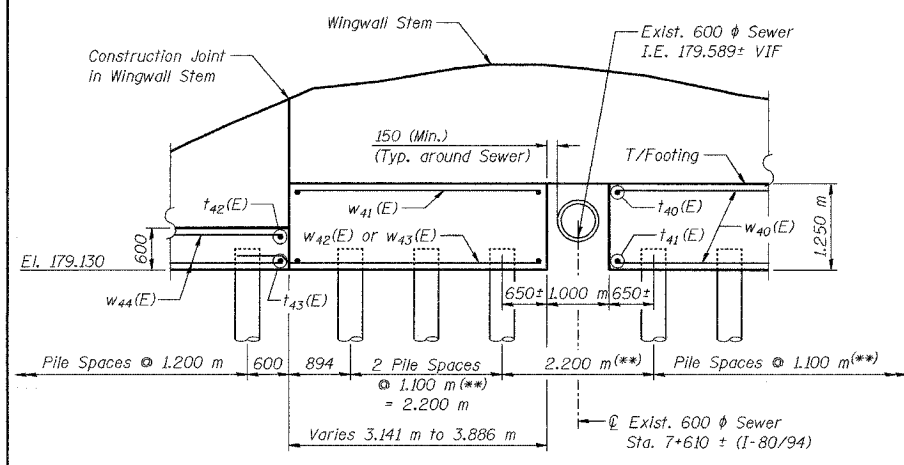
- #15 bars = 640
- #20 bars = 790
- #25 bars = 1320
- #30 bars = 1850

LEGEND

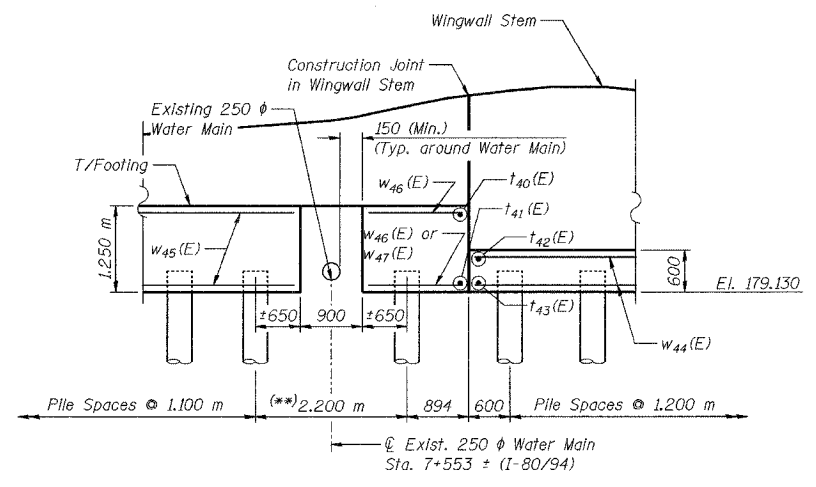
- B.F. = Back Face
- F.F. = Front Face
- E.F. = Each Face

NOTES:
 Reinforcement bars designated (E) shall be epoxy coated.
 All edges shall have standard 20 mm chamfers except as noted.
 All dimensions are in millimeters (mm) except as noted.
 See Sheet S-28 for Rustication details.
 (**) Wall thickness includes 40 mm Rustication.

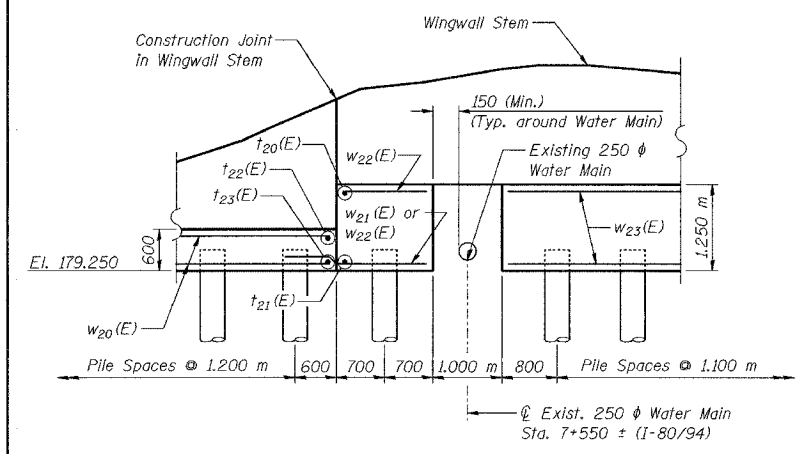
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.1 ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
WINGWALL DETAILS (1 OF 2)
 SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS



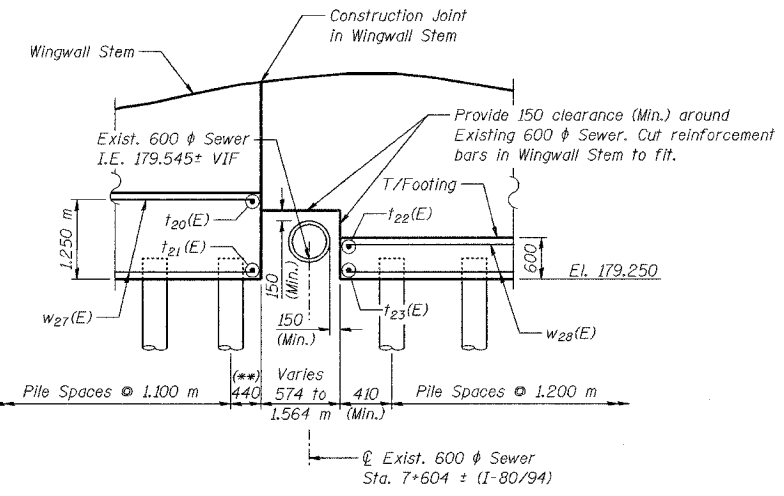
DETAIL F
(Southeast Wingwall)



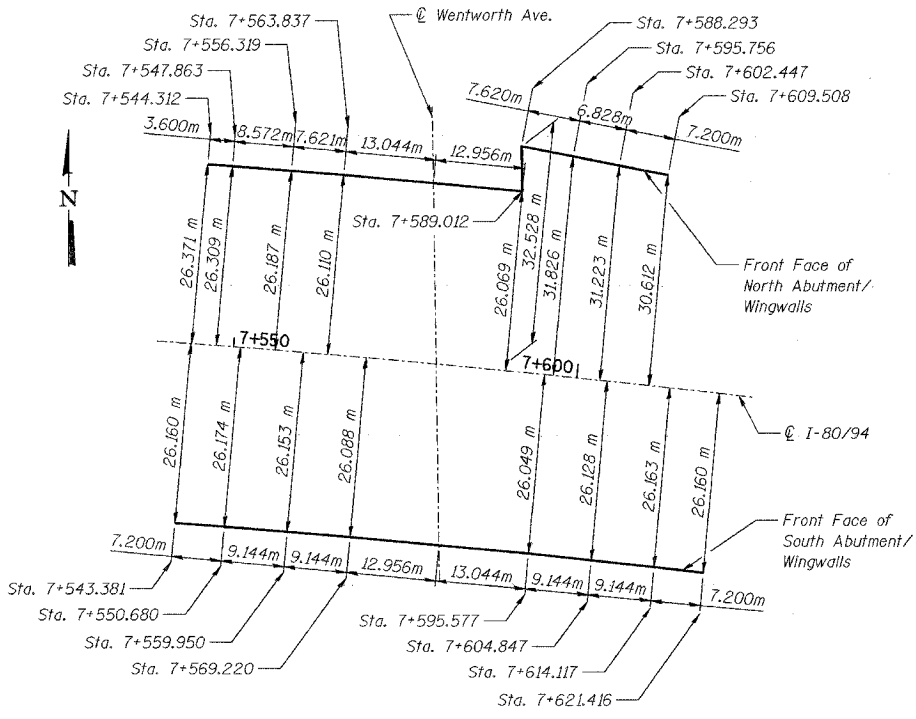
DETAIL R
(Southwest Wingwall)



DETAIL S
(Northwest Wingwall)



DETAIL K
(Northeast Wingwall)



OFFSET DIAGRAM

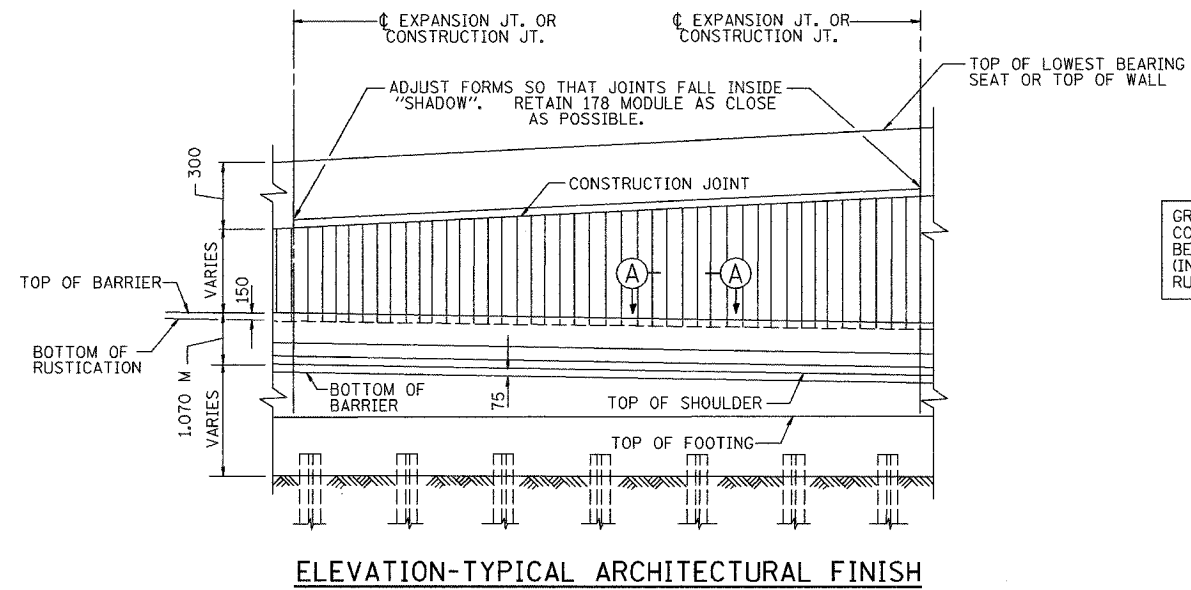
DESIGNED	JDG
CHECKED	JDG
DRAWN	CAK
CHECKED	JDG

(**)NOTE: Adjust Pile locations to provide 300 clear (Min.) between Piles and Existing Sewer or Water Main. Provide 230 clear (Min.) between Piles and edge of Footing.

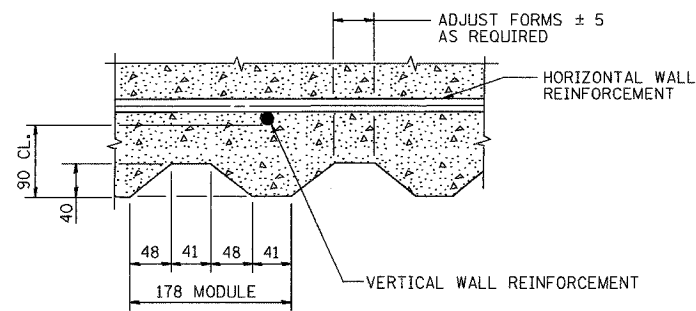
NOTES:
Stations are referenced to @ I-80/94.
The wingwalls are to be constructed on chords between the stations shown.
Reinforcement bars designated (E) shall be epoxy coated.
All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
WINGWALL DETAILS (2 OF 2)
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

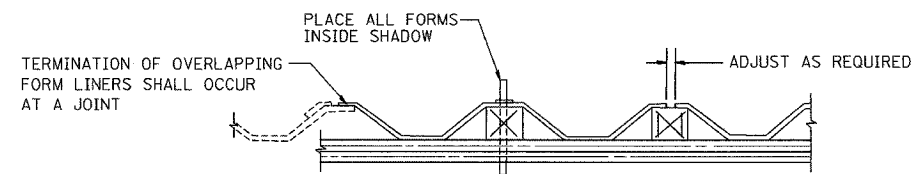
FOR INFORMATION ONLY



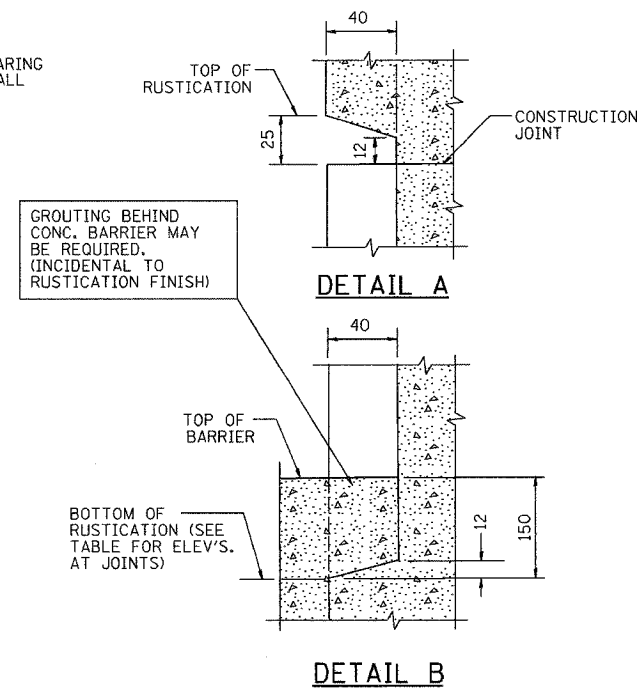
ELEVATION-TYPICAL ARCHITECTURAL FINISH



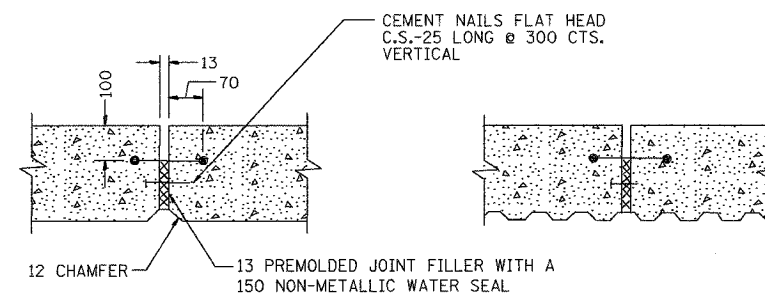
SECTION A-A



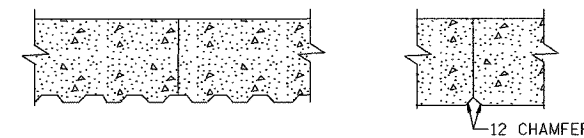
SUGGESTED FORMWORK DETAIL



DETAIL B



EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL

RUSTICATION ELEVATIONS

S. ABUTMENT/ S. WINGWALLS				
STATION	OFFSET	TOP ELEVATION	BOTTOM ELEVATION	
7+543.381	26.160 Rt	185.731	183.286	
7+550.680	26.174 Rt	185.844	183.269	
7+559.950	26.153 Rt	188.290	183.254	
7+569.220	26.088 Rt	190.812	183.245	
7+569.220	26.088 Rt	188.329	183.245	
7+595.577	26.049 Rt	188.329	183.251	
7+595.577	26.049 Rt	190.812	183.251	
7+604.847	26.128 Rt	188.341	183.264	
7+614.117	26.163 Rt	185.867	183.284	
7+621.416	26.160 Rt	185.731	183.303	

N. ABUTMENT/ N. WINGWALL				
STATION	OFFSET	TOP ELEVATION	BOTTOM ELEVATION	
7+544.312	26.371 Lt	185.126	183.809	
7+547.863	26.309 Lt	185.387	183.799	
7+556.319	26.187 Lt	188.017	183.778	
7+563.837	26.110 Lt	190.129	183.766	
7+563.837	26.110 Lt	187.639	183.766	
7+589.012	26.069 Lt	187.639	183.755	
7+589.012	26.069 Lt	189.496	182.535	
7+588.869	27.349 Lt	189.496	182.535	
7+588.869	27.349 Lt	190.178	182.535	
7+588.293	32.528 Lt	190.031	182.539	
7+595.756	31.826 Lt	188.419	182.548	
7+602.447	31.223 Lt	186.528	182.562	
7+609.508	30.612 Lt	185.747	182.583	

RUSTICATION BILL OF MATERIAL

Location	Rustication (m ²)
South Abutment	134
Southeast Wingwall	112
Southwest Wingwall	112
North Abutment	98
Northwest Wingwall	70
Northeast Wingwall	157

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

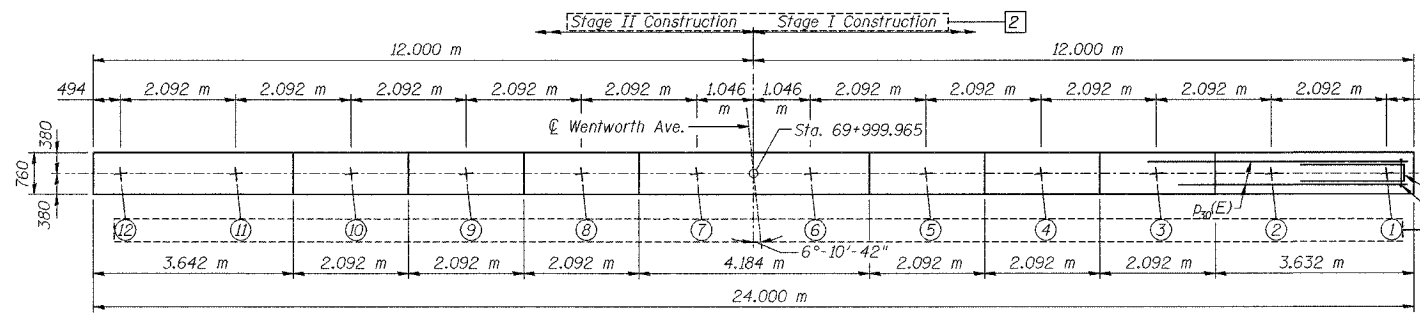
DESIGNED	BHS
CHECKED	GSP
DRAWN	BHS
CHECKED	GSP

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
RUSTICATION FINISH DETAILS
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

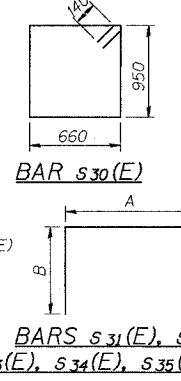
FOR INFORMATION ONLY

BEARING SEAT ELEVATIONS

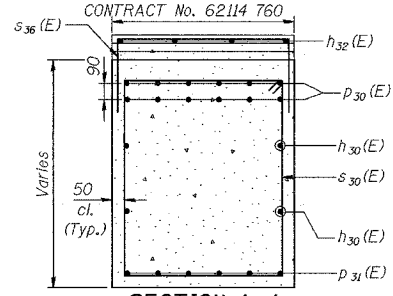
Beam	Elevation
1	188.428
2	188.428
3	188.476
4	188.519
5	188.553
6	188.587
7	188.587
8	188.561
9	188.533
10	188.495
11	188.456
12	188.456



TOP PLAN



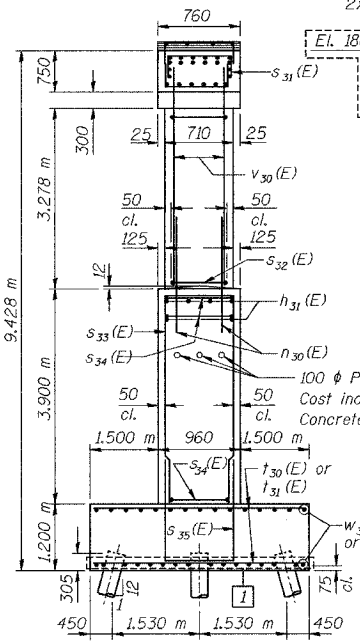
BAR $s_{30}(E)$
 BARS $s_{31}(E), s_{32}(E), s_{33}(E), s_{34}(E), s_{35}(E), s_{36}(E)$



SECTION A-A

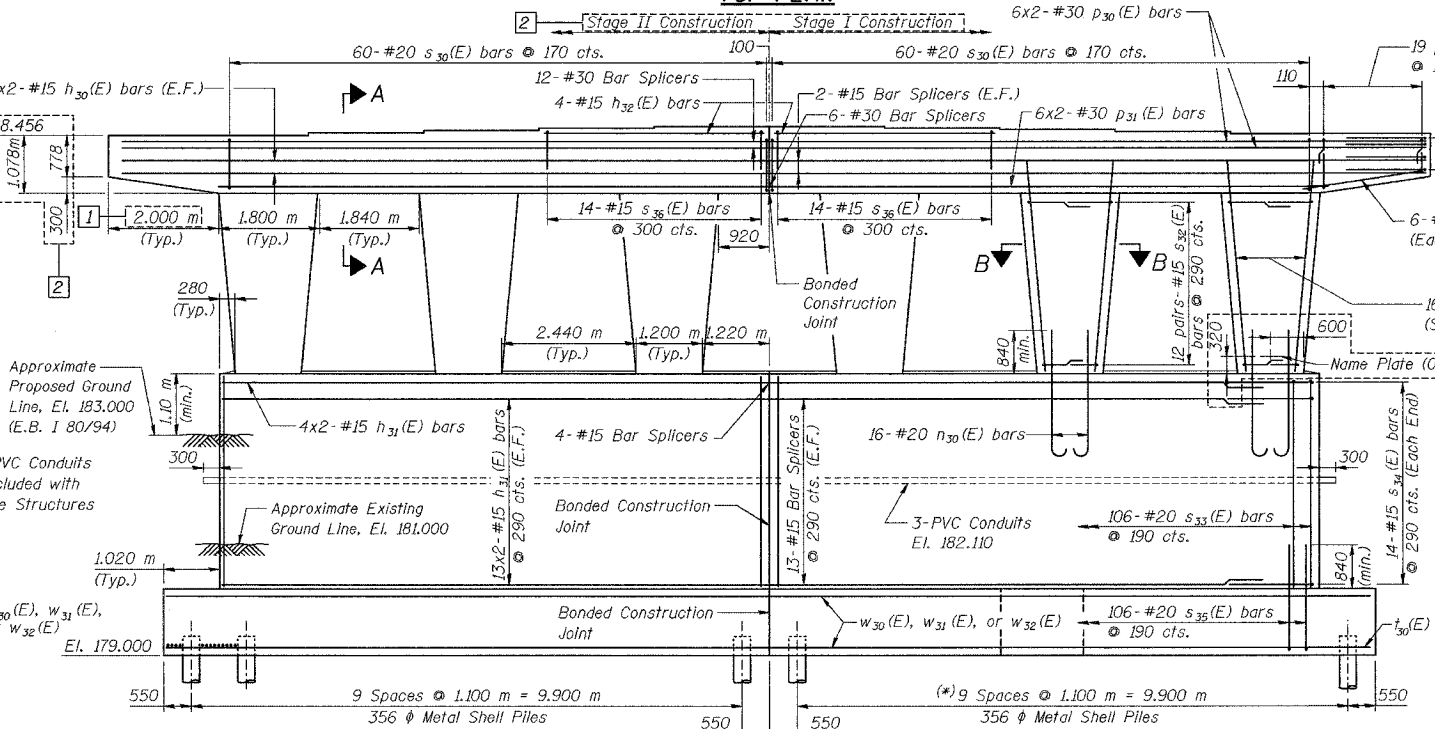
BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
$h_{30}(E)$	8	15	11.95	
$h_{31}(E)$	60	15	9.93	
$h_{32}(E)$	8	15	4.08	
$n_{30}(E)$	96	20	1.85	
$p_{30}(E)$	24	30	11.95	
$p_{31}(E)$	12	30	9.97	
$p_{32}(E)$	12	30	1.98	
$s_{30}(E)$	120	20	3.50	
$s_{31}(E)$	76	20	1.96	
$s_{32}(E)$	144	15	2.81	
$s_{33}(E)$	106	20	8.46	
$s_{34}(E)$	28	15	2.14	
$s_{35}(E)$	106	20	4.80	
$s_{36}(E)$	28	15	1.94	
$t_{30}(E)$	246	20	3.86	
$t_{31}(E)$	17	20	2.36	
$u_{30}(E)$	8	20	2.24	
$v_{30}(E)$	96	20	4.10	
$w_{30}(E)$	57	20	10.95	
$w_{31}(E)$	13	20	4.15	
$w_{32}(E)$	13	20	5.20	
Structure Excavation		m^3	260	
Concrete Structures		m^3	217.6	
Reinforcement Bars Epoxy Coated		kg	14,440	
Furnishing Metal Pile Shells, 356 ϕ		m	899.0	
Driving and Filling Shells		m	899.0	
Test Pile Metal Shells		Each	1	
Bar Splicers		Each	87	



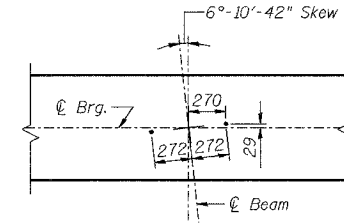
END VIEW (Looking East)

PILE DATA
 Type - 356 ϕ Metal Shell
 Capacity - 1400 kN
 Est. Length - 15.5 m
 No. Req'd. - 58
 Test Piles - 1

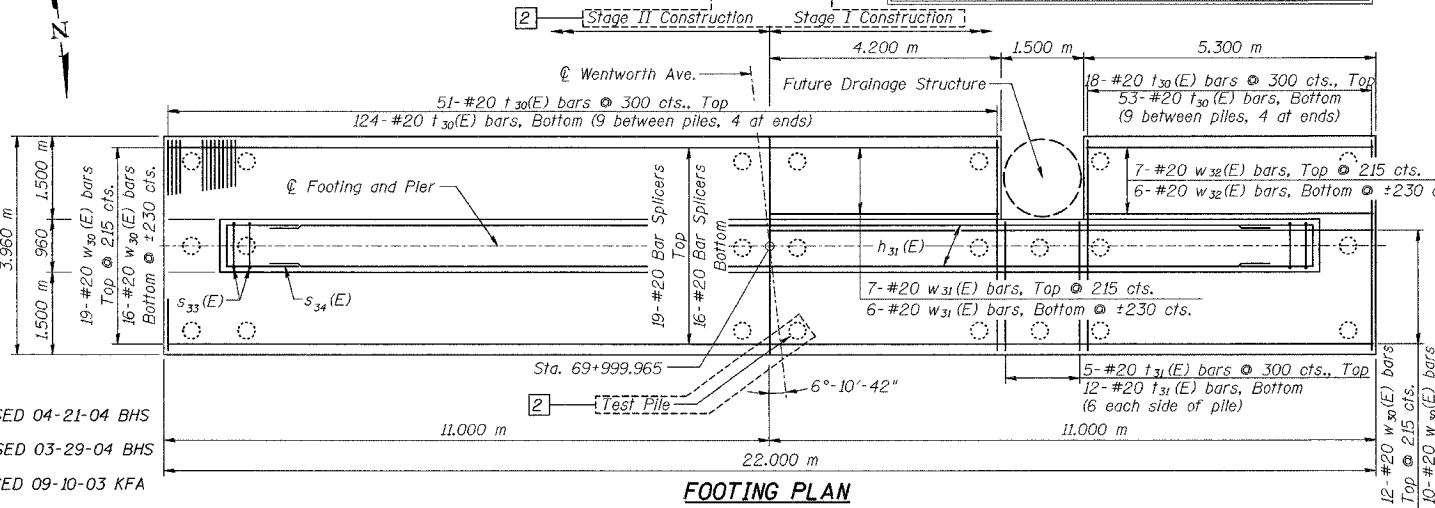


ELEVATION (Looking South)

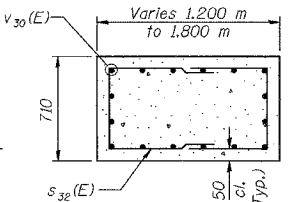
(*NOTE: Omit pile at cut-out in footing. Adjust adjacent piles to provide 230 clear (Min.) between piles and edge of concrete.



ANCHOR BOLT LAYOUT



FOOTING PLAN



SECTION B-B

LEGEND
 E.F. = Each Face

MINIMUM BAR LAPS

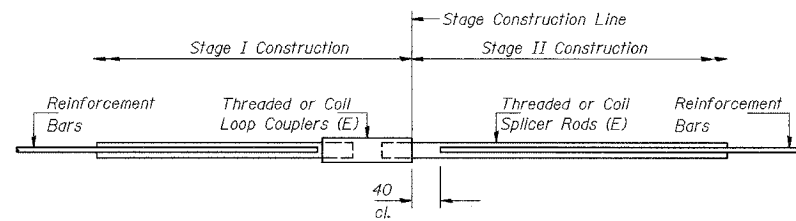
- #15 bars = 640
- #20 bars = 790
- #25 bars = 1320
- #30 bars = 1850

DESIGNED	DJG
CHECKED	GSP
DRAWN	MJB
CHECKED	GSP

- 3 REVISED 04-21-04 BHS
- 2 REVISED 03-29-04 BHS
- 1 REVISED 09-10-03 KFA

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
PIER PLAN, ELEVATION AND DETAILS
 SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY



BAR SPLICER ASSEMBLY DETAIL

Bar Size	No. Assemblies Required	Location
15	585	Deck
15	91	S. Abut
20	4	S. Abut
15	82	N. Abut
20	4	N. Abut
15	34	Pier
20	35	Pier
30	18	Pier

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

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

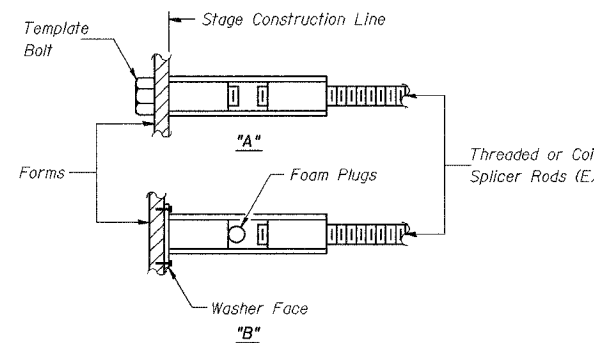
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

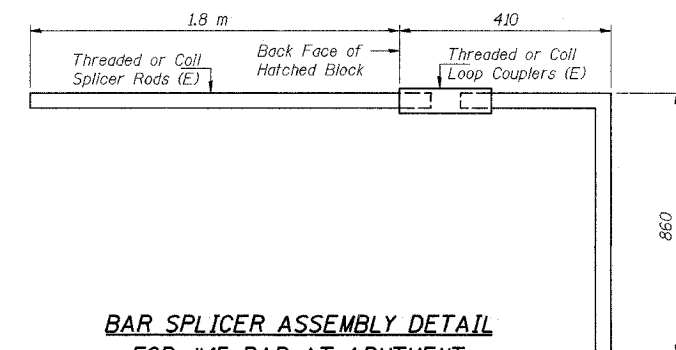
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 400 MPa yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the 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 = $1.25 \times 10^{-3} \times f_y \times A_t$
(Tension in kN)
- Minimum *Pull-out Strength = $1.25 \times 10^{-3} \times f_{s_{allow}} \times A_t$
(Tension in kN)

Where f_y = Yield strength of lapped reinforcement bars in MPa.
 $f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars (mm²).
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#15	640 mm	100	40
#20	790 mm	150	60
#25	1,320 m	250	100
#30	1,850 m	350	140

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."
 All dimensions are in millimeters (mm) except as noted.



BAR SPLICER ASSEMBLY DETAIL FOR #15 BAR AT ABUTMENT

Min. Capacity = 100kN - tension
Min. Pull-out strength = 40kN tension
No. Required = 167

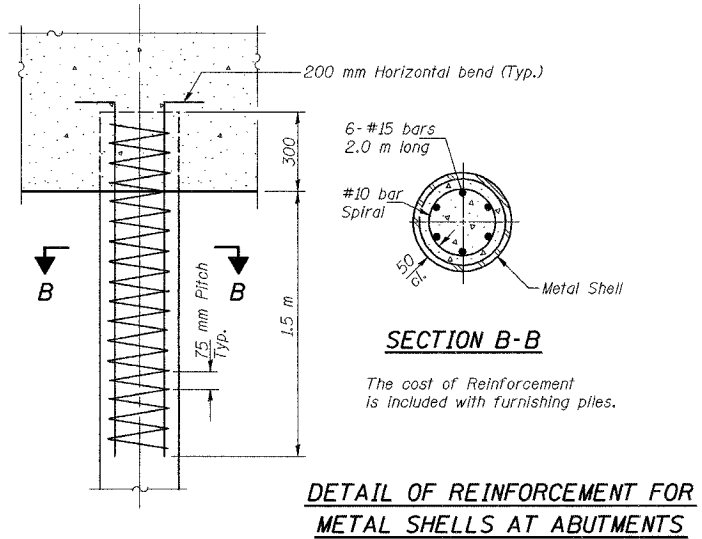
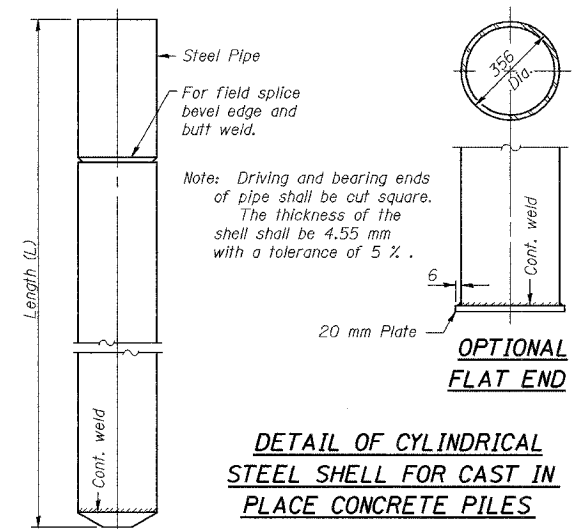
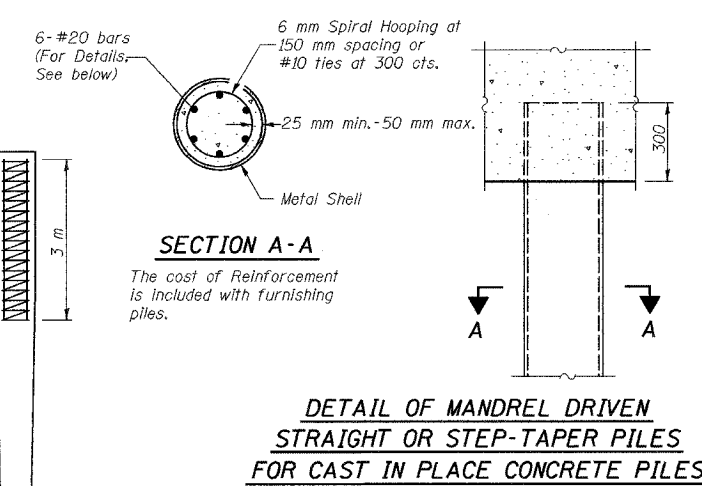
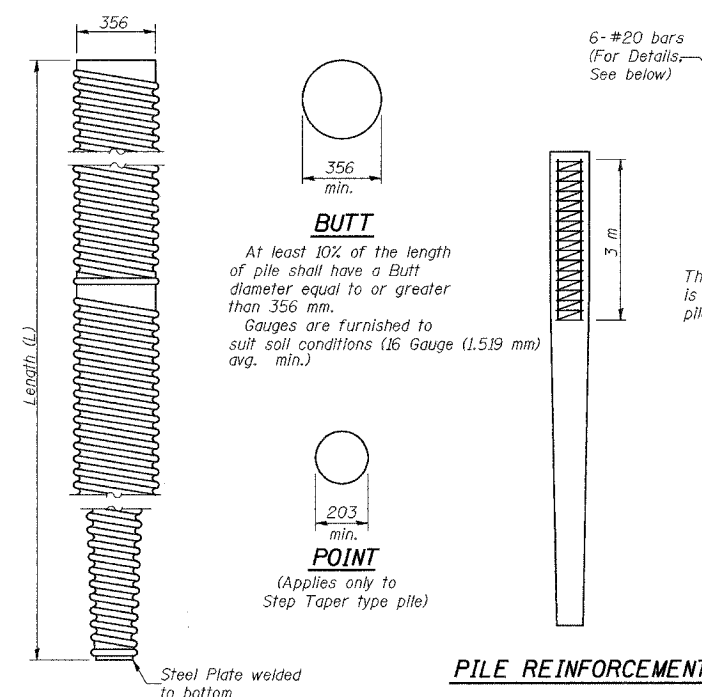
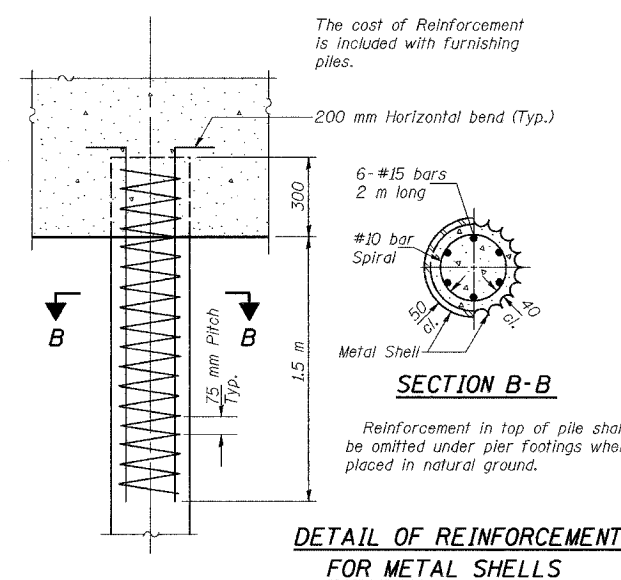
DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

BSD-1 (M) 4-30-97

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
BAR SPLICER (COUPLER) DETAILS
 SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. S-31 35 SHEETS
F.A.I.	DEVELOP	COOK	1207	575	
ILLINOIS FEDERAL PROJECT: C-11-223-01					CONTRACT No. 62114



DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

X-3 (M) 4-30-97 (All dimensions are in millimeters (mm) except as noted.)

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
CONCRETE PILE DETAILS
 SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05

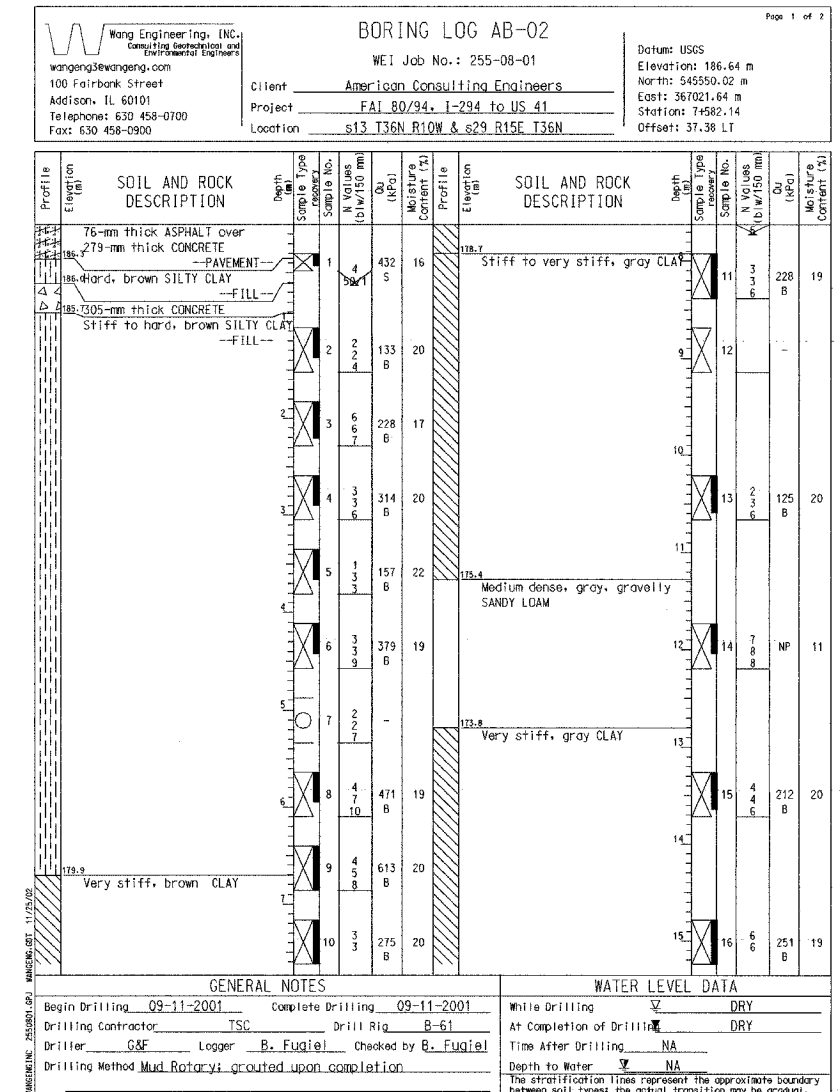
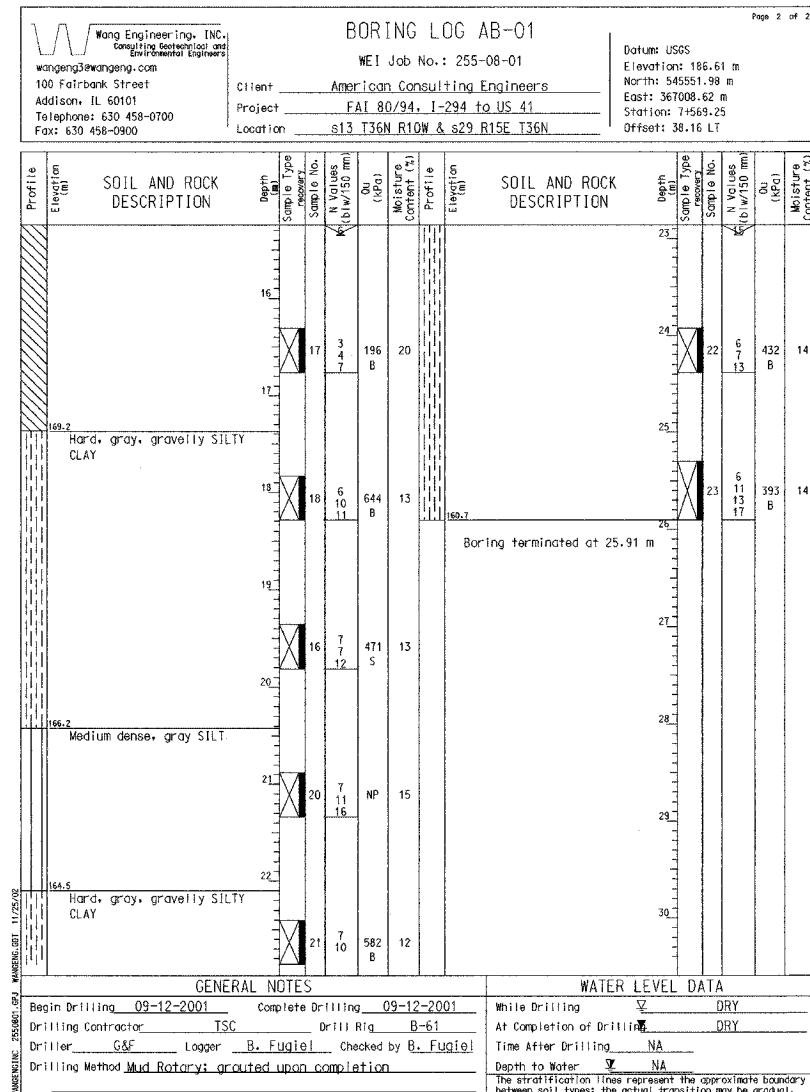
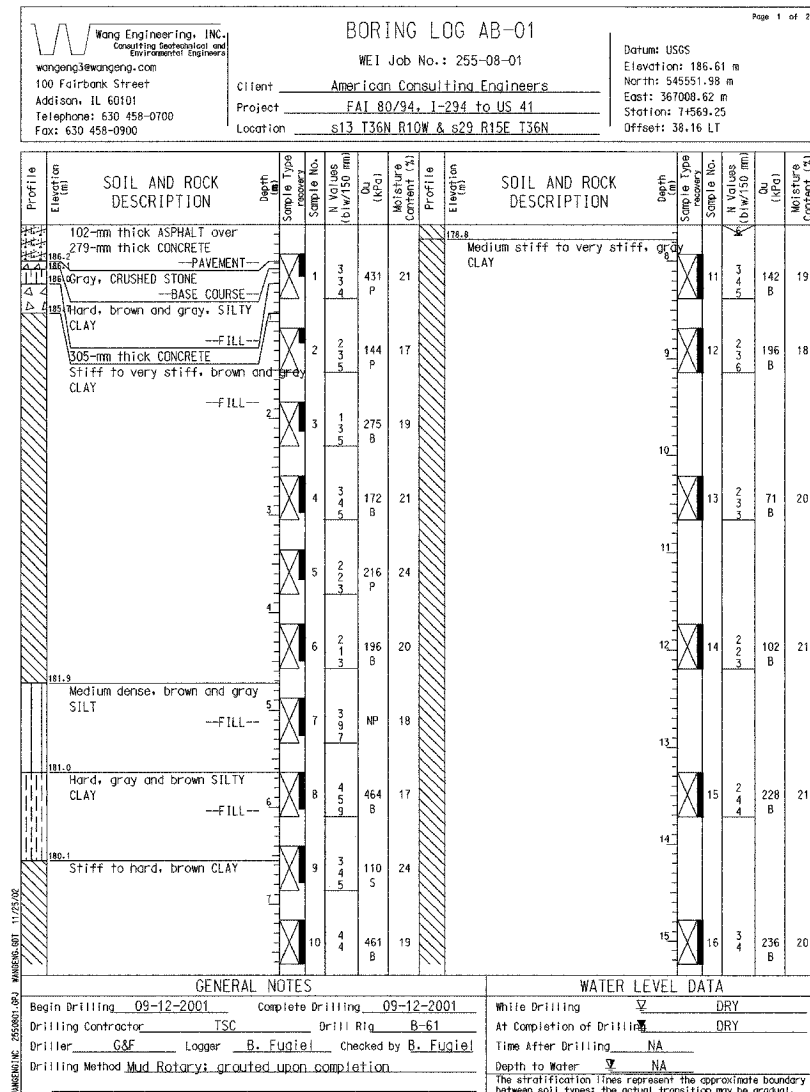
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY

BORING NO. AB-01 (1 OF 2)

BORING NO. AB-01 (2 OF 2)

BORING NO. AB-02 (1 OF 2)



DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
BORING LOGS (1 OF 4)
 SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05

AMERICAN CONSULTING ENGINEERS

FOR INFORMATION ONLY

BORING NO. AB-02 (2 OF 2)

BORING NO. AB-03 (1 OF 2)

BORING NO. AB-03 (2 OF 2)

BORING LOG AB-02 Page 2 of 2

Wang Engineering, INC. Datum: USGS
 Consulting Geotechnical and Environmental Engineers
 wangeng3@wangeng.com Elevation: 186.64 m
 100 Fairbank Street North: 545550.02 m
 Addison, IL 60101 East: 367021.64 m
 Telephone: 630 458-0700 Station: 74562.14
 Fax: 630 458-0900 Offset: 37.38 LT

Client: American Consulting Engineers
 Project: FAI 80/94, I-294 to US 41
 Location: s13 T36N R10W & s29 R15E T36N

BORING LOG AB-03 Page 1 of 2

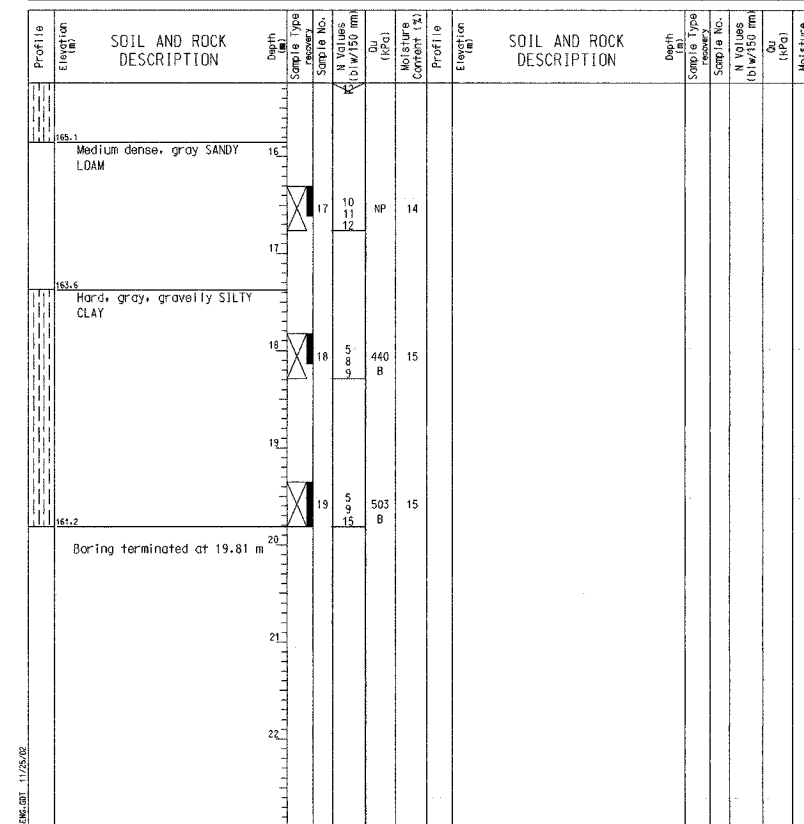
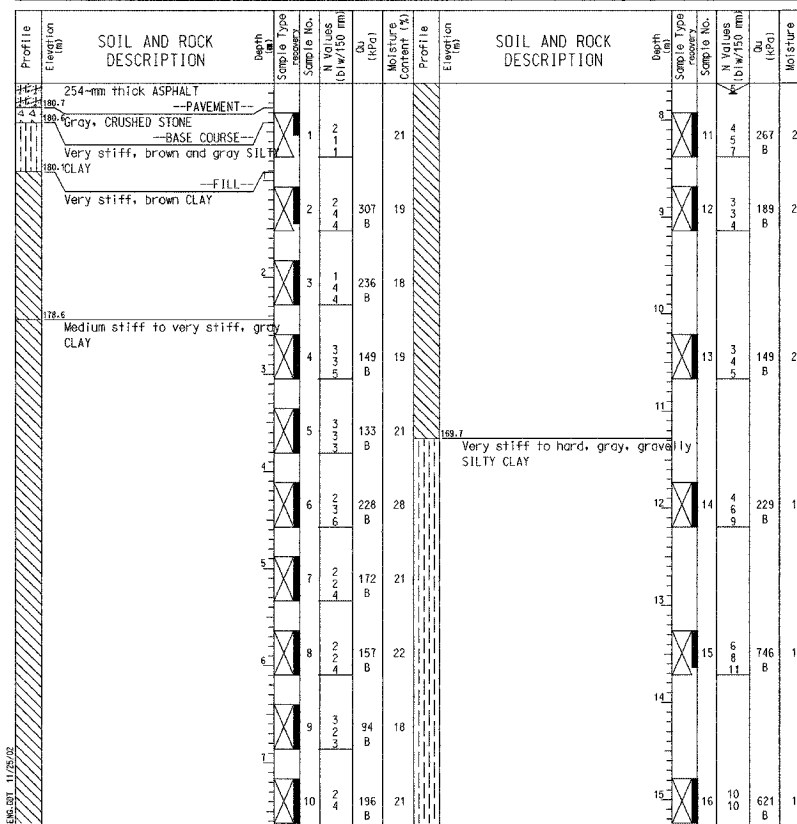
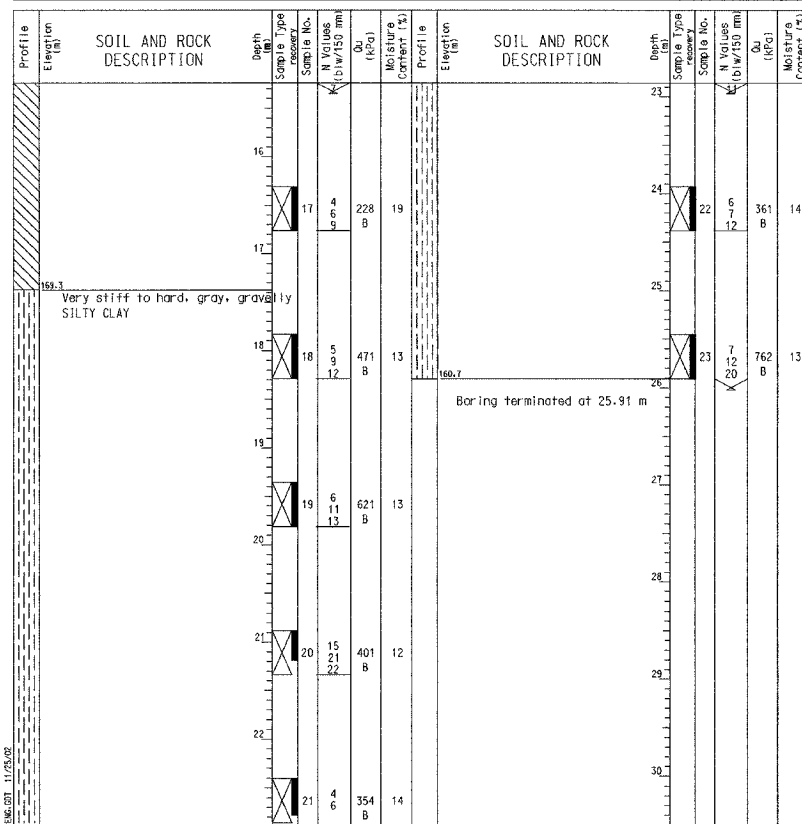
Wang Engineering, INC. Datum: USGS
 Consulting Geotechnical and Environmental Engineers
 wangeng3@wangeng.com Elevation: 180.99 m
 100 Fairbank Street North: 545511.91 m
 Addison, IL 60101 East: 367002.02 m
 Telephone: 630 458-0700 Station: 74566.15
 Fax: 630 458-0900 Offset: 2.34

Client: American Consulting Engineers
 Project: FAI 80/94, I-294 to US 41
 Location: s13 T36N R10W & s29 R15E T36N

BORING LOG AB-03 Page 2 of 2

Wang Engineering, INC. Datum: USGS
 Consulting Geotechnical and Environmental Engineers
 wangeng3@wangeng.com Elevation: 180.99 m
 100 Fairbank Street North: 545511.91 m
 Addison, IL 60101 East: 367002.02 m
 Telephone: 630 458-0700 Station: 74566.15
 Fax: 630 458-0900 Offset: 2.34

Client: American Consulting Engineers
 Project: FAI 80/94, I-294 to US 41
 Location: s13 T36N R10W & s29 R15E T36N



GENERAL NOTES WATER LEVEL DATA

Begin Drilling 09-11-2001 Complete Drilling 09-11-2001
 Drilling Contractor TSC Drill Rig B-61
 Driller GAF Logger B. Fugiel Checked by B. Fugiel
 Drilling Method Mud Rotary, grouted upon completion

While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

GENERAL NOTES WATER LEVEL DATA

Begin Drilling 09-13-2001 Complete Drilling 09-13-2001
 Drilling Contractor TSC Drill Rig B-61
 Driller GAF Logger B. Fugiel Checked by B. Fugiel
 Drilling Method Mud Rotary, grouted upon completion

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 Driller GAF Logger B. Fugiel Checked by B. Fugiel
 Drilling Method Mud Rotary, grouted upon completion

While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I ROUTE 80/94 (KINGERY EXPRESSWAY)
 UNDER WENTWORTH AVE
BORING LOGS (2 OF 4)
 SECTION 2626.1B
 COOK COUNTY
 STATION 7+579.488
 STRUCTURE NO. 016-2790
 DATE 07/05
AMERICAN
 CONSULTING ENGINEERS

FOR INFORMATION ONLY

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BORING NO. AB-04 (1 OF 2)

BORING NO. AB-04 (2 OF 2)

BORING NO. AB-05 (1 OF 2)

BORING LOG AB-04 Page 1 of 2

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
100 Fairbank Street
Addison, IL 60101
Telephone: 630 458-0700
Fax: 630 458-0900

WEI Job No.: 255-08-01
Client: American Consulting Engineers
Project: FAI 80/94, I-294 to US 41
Location: s13 T36N R10W & s29 R15E T36N

Datum: USGS
Elevation: 181.00 m
North: 545510.63 m
East: 367027.53 m
Station: T4531.63
Offset: 1.27

BORING LOG AB-04 Page 2 of 2

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
100 Fairbank Street
Addison, IL 60101
Telephone: 630 458-0700
Fax: 630 458-0900

WEI Job No.: 255-08-01
Client: American Consulting Engineers
Project: FAI 80/94, I-294 to US 41
Location: s13 T36N R10W & s29 R15E T36N

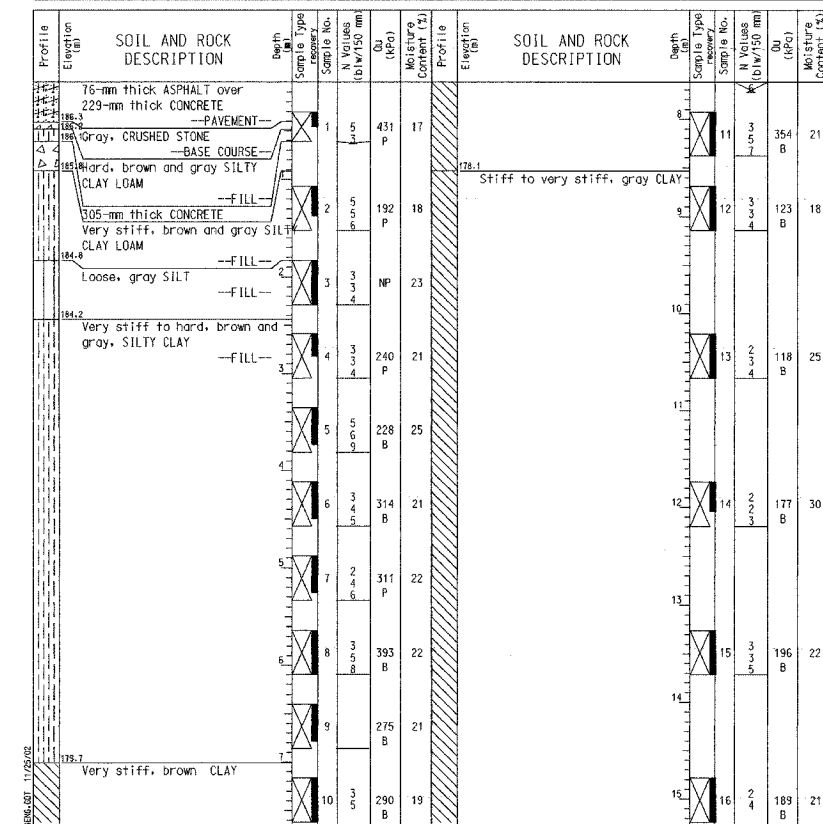
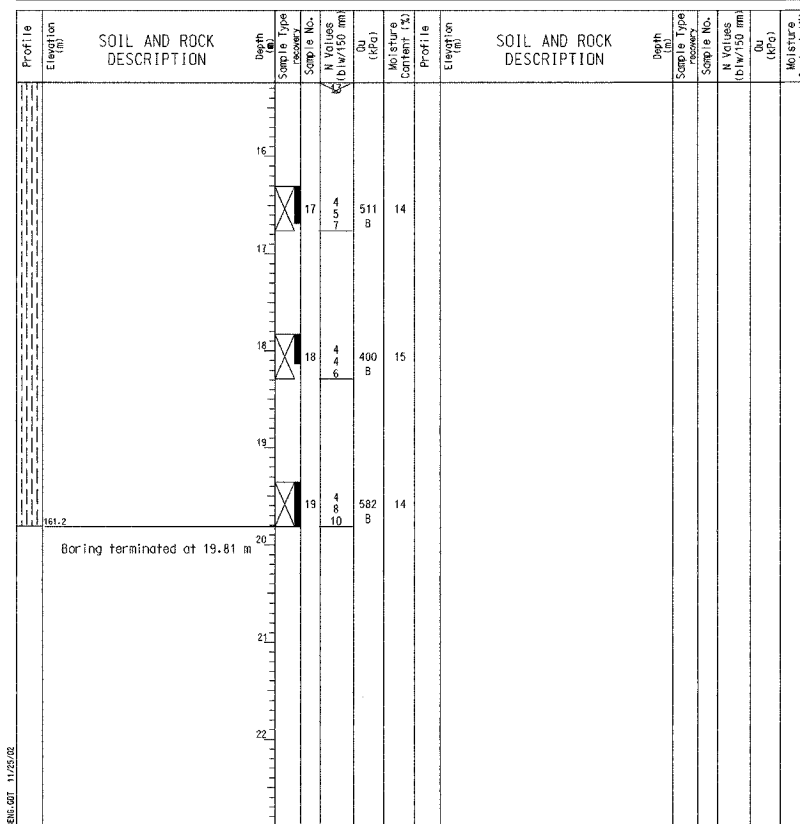
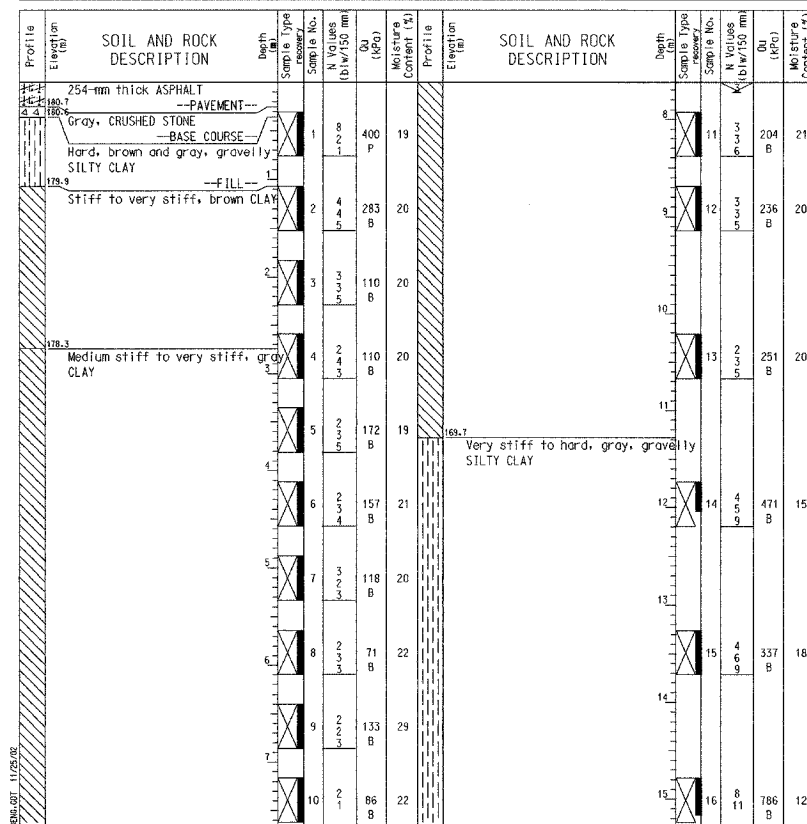
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East: 367027.53 m
Station: T4531.63
Offset: 1.27

BORING LOG AB-05 Page 1 of 2

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
100 Fairbank Street
Addison, IL 60101
Telephone: 630 458-0700
Fax: 630 458-0900

WEI Job No.: 255-08-01
Client: American Consulting Engineers
Project: FAI 80/94, I-294 to US 41
Location: s13 T36N R10W & s29 R15E T36N

Datum: USGS
Elevation: 186.67 m
North: 545473.08 m
East: 367010.04 m
Station: T4577.69
Offset: 40.31



GENERAL NOTES

Begin Drilling 09-14-2001 Complete Drilling 09-14-2001
Drilling Contractor TSC Drill Rig B-61
Driller GAF Logger B. Fugiel Checked by B. Fugiel
Drilling Method Mud Rotary, grouted upon completion

WATER LEVEL DATA

While Drilling DRY
At Completion of Drilling DRY
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

GENERAL NOTES

Begin Drilling 09-14-2001 Complete Drilling 09-14-2001
Drilling Contractor TSC Drill Rig B-61
Driller GAF Logger B. Fugiel Checked by B. Fugiel
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Drilling Contractor TSC Drill Rig B-61
Driller GAF Logger B. Fugiel Checked by B. Fugiel
Drilling Method Mud Rotary, grouted upon completion

WATER LEVEL DATA

While Drilling DRY
At Completion of Drilling DRY
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I ROUTE 80/94 (KINGERY EXPRESSWAY)
UNDER WENTWORTH AVE
BORING LOGS (3 OF 4)
SECTION 2626.1B
COOK COUNTY
STATION 7 + 579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

FOR INFORMATION ONLY

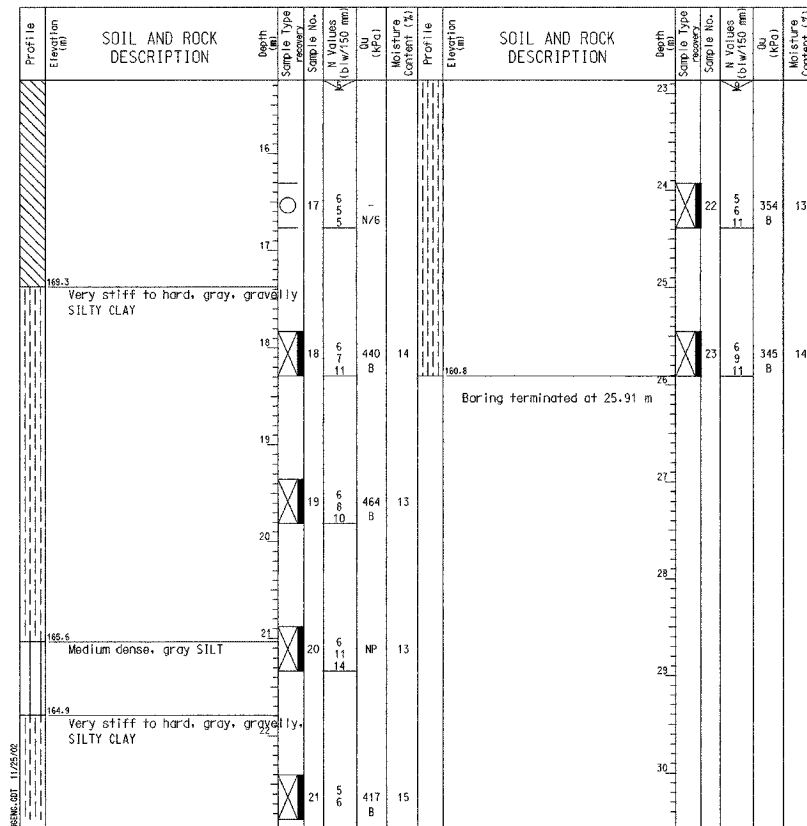
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BORING NO. AB-06 (1 OF 2)

BORING NO. AB-06 (2 OF 2)

BORING LOG AB-05 Page 2 of 2

<p>Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers wangeng3ewangeng.com 100 Fairbank Street Addison, IL 60101 Telephone: 630 458-0700 Fax: 630 458-0900</p>	<p>WEI Job No.: 255-08-01 Client: American Consulting Engineers Project: FAI 80/94, I-294 to US 41 Location: s13 T36N R10W & s29 R15E T36N</p>	<p>Datum: USGS Elevation: 186.67 m North: 545473.08 m East: 367010.04 m Station: 74577.69 Offset: 40.31</p>
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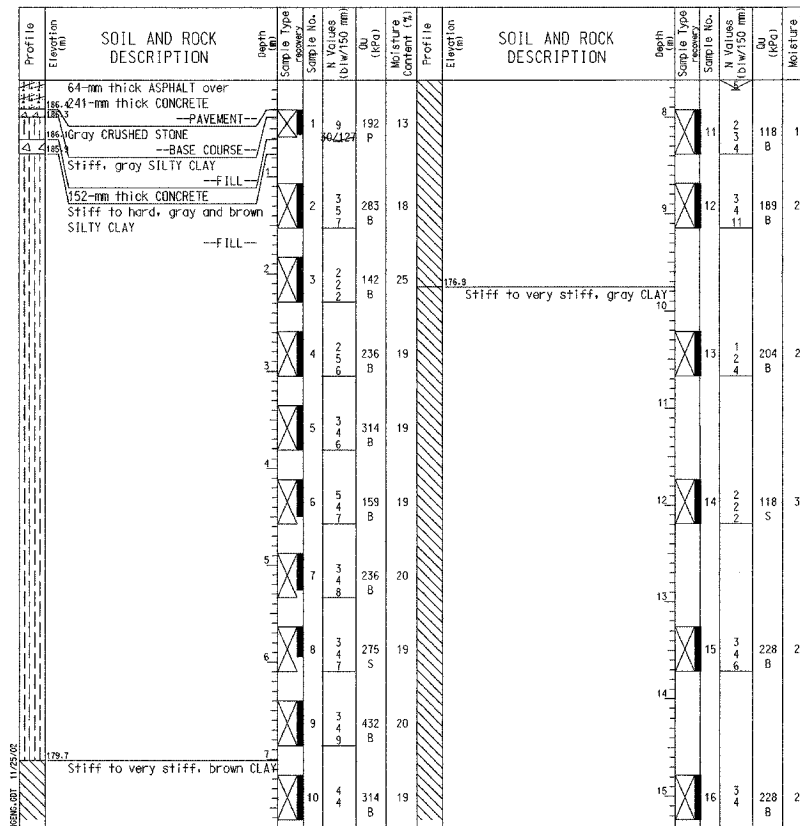


<p>GENERAL NOTES</p> <p>Begin Drilling 09-13-2001 Complete Drilling 09-13-2001</p> <p>Drilling Contractor TSC Drill Rig B-61</p> <p>Driller GAF Logger B. Fugiel Checked by B. Fugiel</p> <p>Drilling Method Mud Rotary, grouted upon completion</p>	<p>WATER LEVEL DATA</p> <p>While Drilling <input checked="" type="checkbox"/> DRY</p> <p>At Completion of Drilling <input checked="" type="checkbox"/> DRY</p> <p>Time After Drilling NA</p> <p>Depth to Water <input checked="" type="checkbox"/> NA</p> <p>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</p>
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DESIGNED	JDG
CHECKED	JDG
DRAWN	MJB
CHECKED	JDG

BORING LOG AB-06 Page 1 of 2

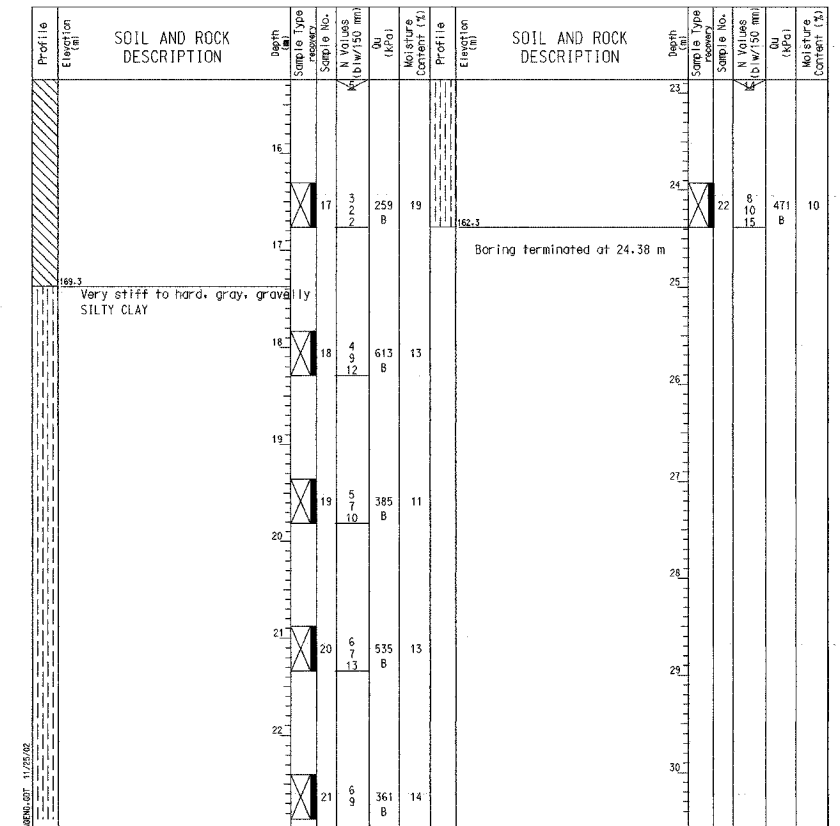
<p>Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers wangeng3ewangeng.com 100 Fairbank Street Addison, IL 60101 Telephone: 630 458-0700 Fax: 630 458-0900</p>	<p>WEI Job No.: 255-08-01 Client: American Consulting Engineers Project: FAI 80/94, I-294 to US 41 Location: s13 T36N R10W & s29 R15E T36N</p>	<p>Datum: USGS Elevation: 186.69 m North: 545475.46 m East: 367022.87 m Station: 74580.49 Offset: 36.72</p>
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<p>GENERAL NOTES</p> <p>Begin Drilling 09-10-2001 Complete Drilling 09-10-2001</p> <p>Drilling Contractor TSC Drill Rig B-61</p> <p>Driller GAF Logger B. Fugiel Checked by B. Fugiel</p> <p>Drilling Method Mud Rotary, grouted upon completion</p>	<p>WATER LEVEL DATA</p> <p>While Drilling <input checked="" type="checkbox"/> DRY</p> <p>At Completion of Drilling <input checked="" type="checkbox"/> DRY</p> <p>Time After Drilling NA</p> <p>Depth to Water <input checked="" type="checkbox"/> NA</p> <p>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</p>
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BORING LOG AB-06 Page 2 of 2

<p>Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers wangeng3ewangeng.com 100 Fairbank Street Addison, IL 60101 Telephone: 630 458-0700 Fax: 630 458-0900</p>	<p>WEI Job No.: 255-08-01 Client: American Consulting Engineers Project: FAI 80/94, I-294 to US 41 Location: s13 T36N R10W & s29 R15E T36N</p>	<p>Datum: USGS Elevation: 186.69 m North: 545475.46 m East: 367022.87 m Station: 74580.49 Offset: 36.72</p>
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<p>GENERAL NOTES</p> <p>Begin Drilling 09-10-2001 Complete Drilling 09-10-2001</p> <p>Drilling Contractor TSC Drill Rig B-61</p> <p>Driller GAF Logger B. Fugiel Checked by B. Fugiel</p> <p>Drilling Method Mud Rotary, grouted upon completion</p>	<p>WATER LEVEL DATA</p> <p>While Drilling <input checked="" type="checkbox"/> DRY</p> <p>At Completion of Drilling <input checked="" type="checkbox"/> DRY</p> <p>Time After Drilling NA</p> <p>Depth to Water <input checked="" type="checkbox"/> NA</p> <p>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</p>
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ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINCERY EXPRESSWAY)
UNDER WENTWORTH AVE
BORING LOGS (4 OF 4)
SECTION 2626.1B
COOK COUNTY
STATION 7+579.488
STRUCTURE NO. 016-2790
DATE 07/05
AMERICAN
CONSULTING ENGINEERS

FOR INFORMATION ONLY

BENCHMARK:

TBM 212: Chiseled box on Northeast corner of the Southeast Wingwall on Eastbound I-80/94 Bridge over Hohman Avenue. Station 8+258.6, Offset 17.8 Rt. Elevation = 189.171.

EXISTING STRUCTURE:

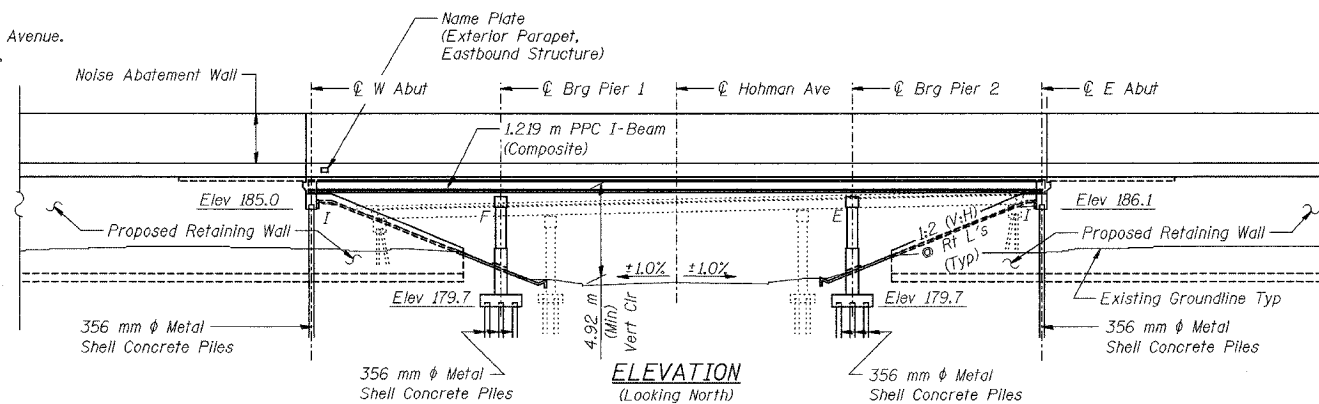
SN I-80-0-3237D (EBL & WBL) originally built in 1948 as FAI Route 80/94 over Hohman Avenue by the State Highway Commission of Indiana. The structure was renovated in 1966, 1982 and 1996. The existing structure is a three span, dual-structure bridge, 46.856 m back to back of abutments, with a reinforced concrete deck superstructure with a 37.034 m total width. The deck is supported by continuous wide flange steel beams on multi-column concrete piers and open abutments with a 20°-03'-00" left skew angle.

SALVAGE:

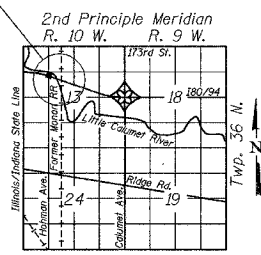
None.

NOTE:

All dimensions millimeters (mm) except as noted.



Proposed Structure



LOCATION SKETCH

LEGEND

- EB - Eastbound Traffic
- WB - Westbound Traffic
- F - Fixed Bearing
- E - Expansion Bearing
- I - Integral Bearing
- Proposed Sewer
- Soil Borings
- Temporary Sheet Piling
- Drainage Structure
- Existing Sewer
- CTV - Cable TV
- Gas
- Water Main

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.I.	2626.2-R-2	LAKE COUNTY, INDIANA	1207	580
CONTRACT NO. 62114 INDOT DES. NO. 0100987				

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges.
1989 AASHTO Guide Specifications for Structural Design of Sound Barriers and 1992 Interims.

DESIGN LOADING

Roadway Live Load: MS-18, Alt Military, and Indiana Toll Road Truck Loads
Future Wearing Surface = 2.4 kN/sq m
Wind Load on Noise Wall = 1.7 kPa

DESIGN STRESSES

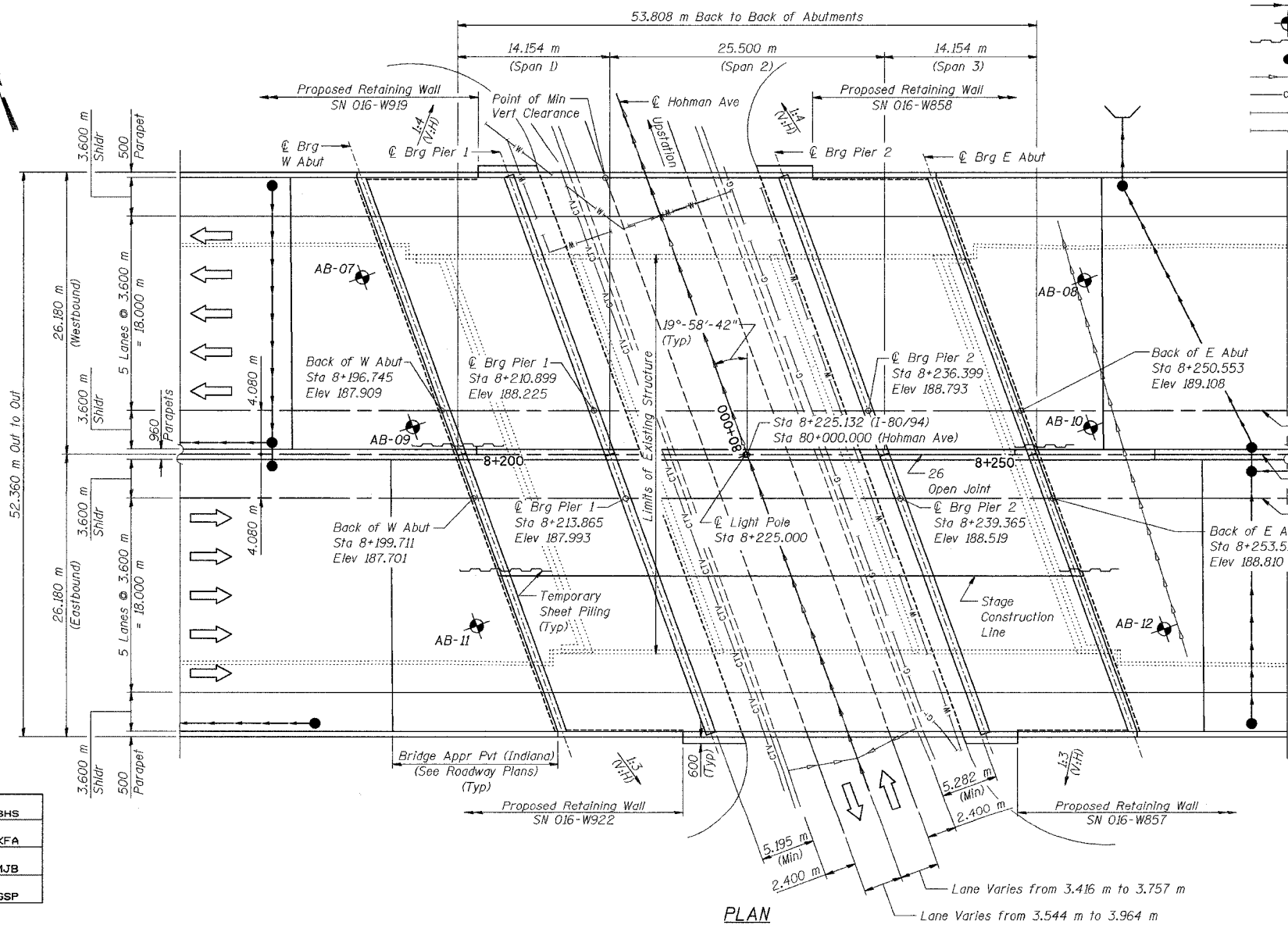
FIELD UNITS
Concrete, A, Substructure (Indiana): $f'c = 24$ MPa
Concrete, C, Superstructure (Indiana): $f'c = 28$ MPa
Reinforcement, $f_y = 400$ MPa

PRECAST PRESTRESSED UNITS

Final Concrete, $f'c = 42$ MPa
Initial Concrete, $f'ci = 35$ MPa
Final Strands, $f's = 1860$ MPa (12.7 mm φ low relax strands)
Initial Strands, $f'si = 1395$ MPa (12.7 mm φ low relax strands)

SEISMIC DATA

Seismic Performance Category (SPC): A
Bedrock Acceleration Coefficient (A): 0.04g
Site Coefficient (S): 1.0

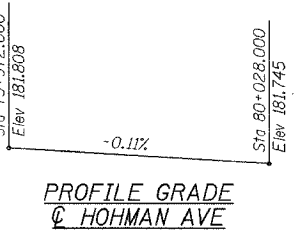
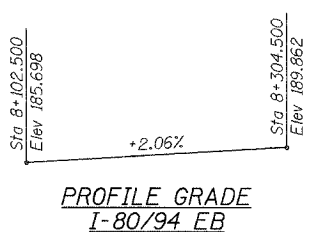
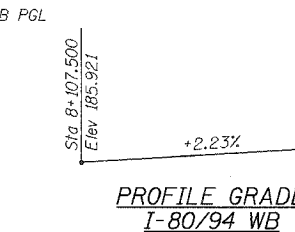


APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



Gary S. Powell
GARY S. POWELL, S.E.
IL. LIC. NO. 081-004771
EXP 11-30-2006
DATE 10-6-2005

Gary S. Powell
GARY S. POWELL, P. E.
IN. LIC. NO. 10403944
EXP 07-31-2006
DATE 10-6-2005



DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOHMAN AVENUE

GENERAL PLAN
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)



GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M Grade 400.
2. The contractor shall drive 4-356 ϕ Metal Shell test piles in a permanent location. One each at the East and West Abutments and Piers 1 and 2 as directed by the Engineer before ordering the remainder of piles.
 1. At least 72 hours shall have elapsed from the end of the previous pour.
 2. The concrete strength shall have attained a minimum modulus of rupture of 4.5 MPa or a minimum compressive strength of 24 MPa.
4. The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project. No additional compensation will be made to properly dispose of the existing structure containing lead.
5. All construction joints shall be bonded.
6. All dimensions are in millimeters (mm) except as noted.
7. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.

INDEX OF SHEETS

- S-1 General Plan
- S-2 General Notes, Index of Sheets and Total Bill of Material
- S-3 Stage Construction Details - Substructure
- S-4 Stage Construction Details - Superstructure
- S-5 Temporary Concrete Barrier for Stage Construction
- S-6 Substructure Layout
- S-7 Top of Deck Elevations - Layout
- S-8 Top of Deck Elevations (1 of 7)
- S-9 Top of Deck Elevations (2 of 7)
- S-10 Top of Deck Elevations (3 of 7)
- S-11 Top of Deck Elevations (4 of 7)
- S-12 Top of Deck Elevations (5 of 7)
- S-13 Top of Deck Elevations (6 of 7)
- S-14 Top of Deck Elevations (7 of 7)
- S-15 Deck Plan - Eastbound
- S-16 Deck Plan - Westbound
- S-17 Diaphragm at Abutments
- S-18 Diaphragm at Piers
- S-19 Interior Diaphragms & Details
- S-20 Parapet Elevations
- S-21 Superstructure Details
- S-22 Framing Plan
- S-23 1.219 m PPC I-Beam - Spans 1 & 3
- S-24 1.219 m PPC I-Beam - Span 2
- S-25 Bearing Details
- S-26 Anchor Bolt Details
- S-27 West Abutment - Eastbound
- S-28 West Abutment - Westbound
- S-29 East Abutment - Eastbound
- S-30 East Abutment - Westbound
- S-31 Abutment Details
- S-32 Piers 1 and 2 - Eastbound
- S-33 Piers 1 and 2 - Westbound
- S-34 Pier Details
- S-35 Bar Splicer (Coupler) Details
- S-36 Concrete Pile Details
- S-37 Boring Logs (1 of 4)
- S-38 Boring Logs (2 of 4)
- S-39 Boring Logs (3 of 4)
- S-40 Boring Logs (4 of 4)

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS	SHEET NO. S-2
F.A.L. 80/94	2626.2-R-2	LAKE COUNTY, INDIANA	1207	581	40 SHEETS
SALINIS		FED. AID PROJECT		CONTRACT NO. 62114 INDOT DES. NO. 0100987	


TOTAL BILL OF MATERIAL

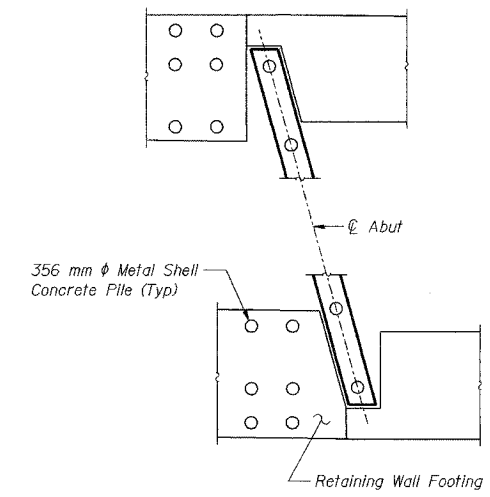
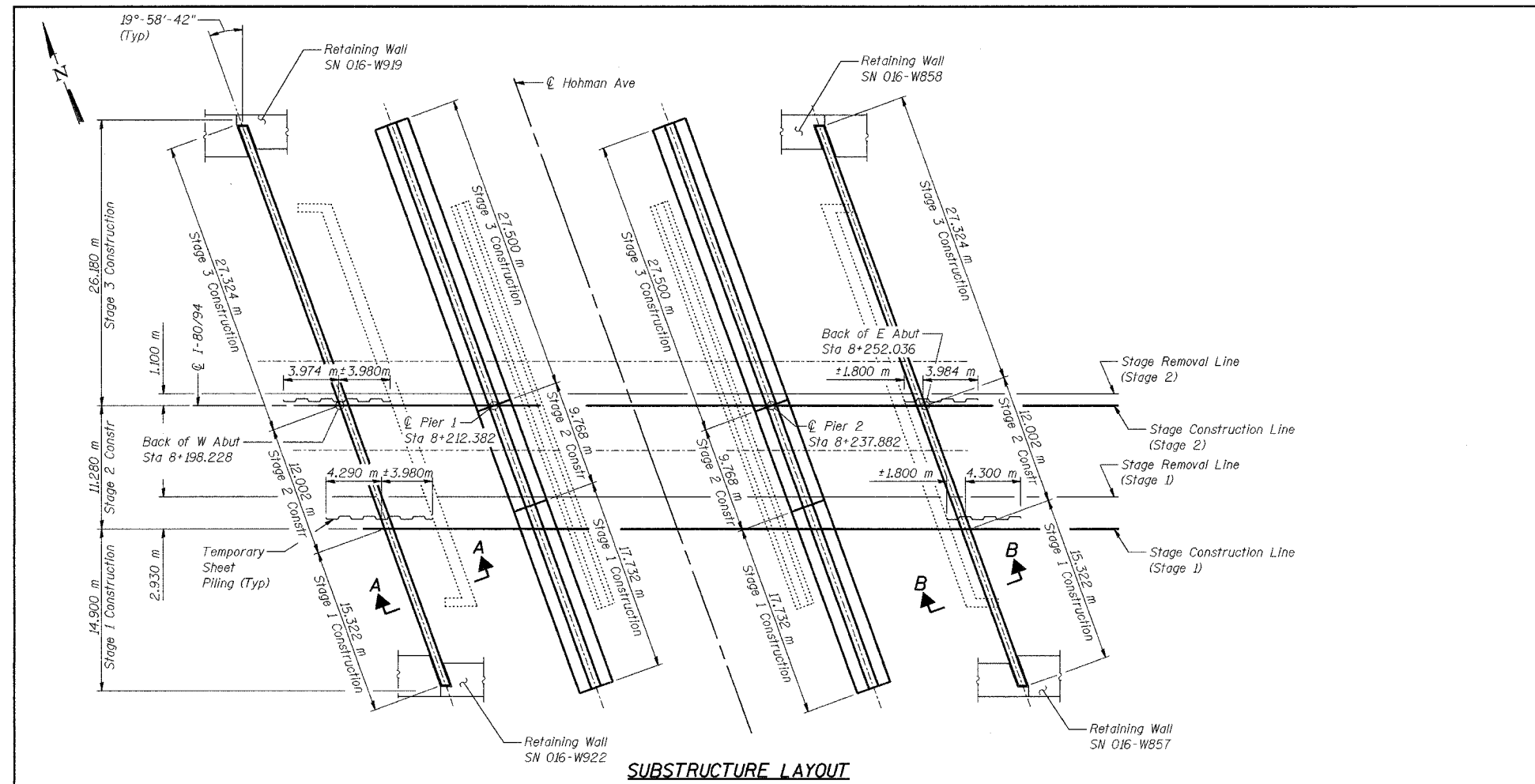
ITEM	UNIT	SUPER	SUB	TOTAL
(IN) Present Structure, Str. No. I-80-1-8459, Remove Portions	L. Sum	1		
(IN) Slopewall, Concrete, 100 mm	m ²		1,856	1,856
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219 mm	m	1272.0		1272.0
(IN) Surface Seal	L. Sum	0.18		0.18
Bearing Assembly, Elastomeric Type I	Each	48		48
(IN) Excavation, Foundation, Unclassified	m ³		1,876	1,876
(IN) Structure Backfill	m ³		623	623
(IN) Test Pile, 356 mm	Each		4	4
(IN) Pile, Concrete, Steel Shell Encased, 6.35 mm, 356 mm	m		3,324.0	3,324.0
(IN) Concrete, A, Substructure	m ³		940.0	940.0
(IN) Concrete, C, Superstructure	m ³	938.1		938.1
(IN) Reinforcing Bars, Epoxy Coated	kg	117,310	56,690	174,000
Noise Abatement Wall Anchor Rod Assembly	Each	36		36
(IN) Threaded Tie Bar Assembly, Epoxy Coated	Each	844	112	956
(IN) Anchor Bolt	Each	104		104
(IN) Masonry Coating	L. Sum	0.10		0.10

(IN) Indiana Pay Items, denoted by "(Indiana)" in Special Provisions and Summary of Quantities.

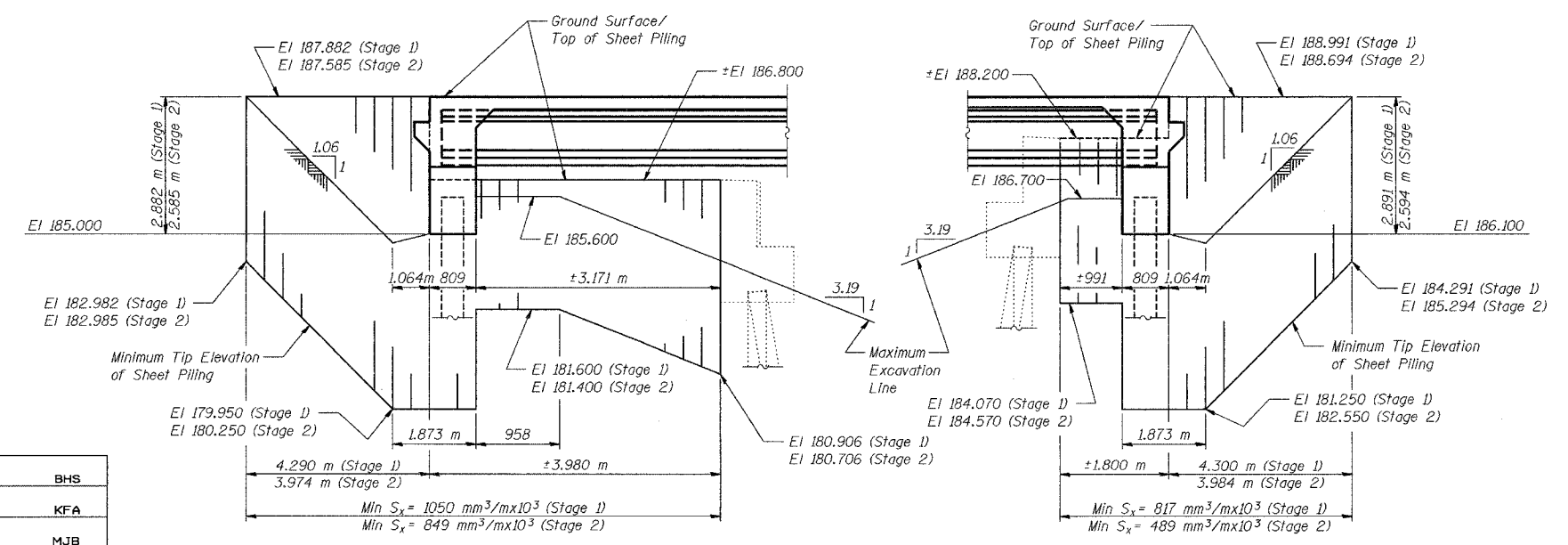
DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOFFMAN AVENUE
**GENERAL NOTES, INDEX OF SHEETS AND
 TOTAL BILL OF MATERIAL**
 SECTION 2626.2-R-2
 LAKE COUNTY, INDIANA
 STATION 8+225.132
 STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)





ABUTMENT FOOTING AT RETAINING WALLS
 Abutment piles shall be driven before construction of the retaining walls. The driven depth shall be equal to or 300 mm below the proposed retaining wall footing.



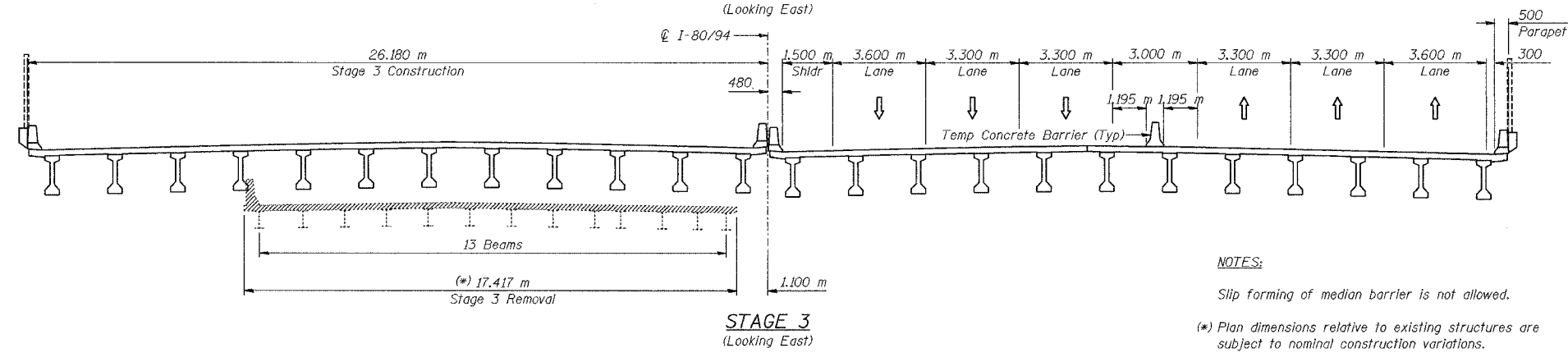
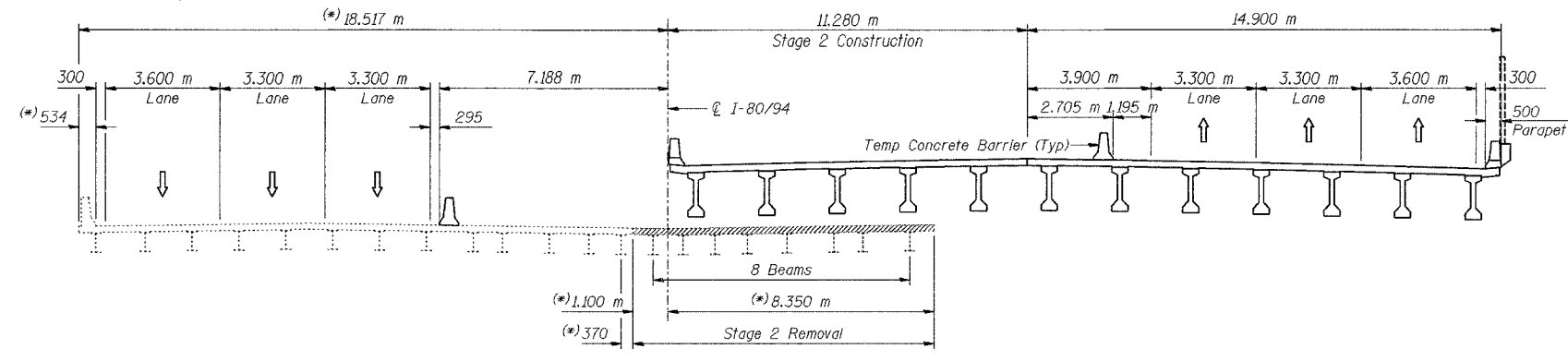
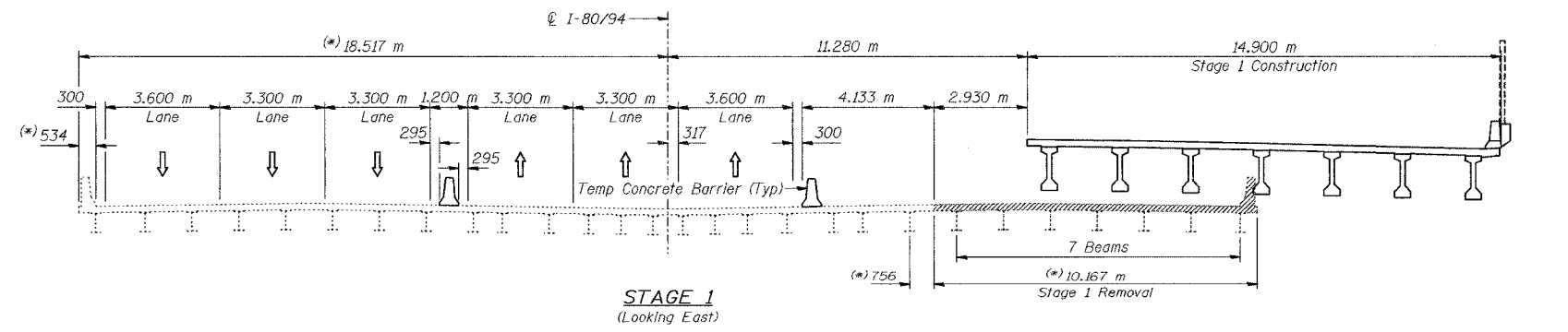
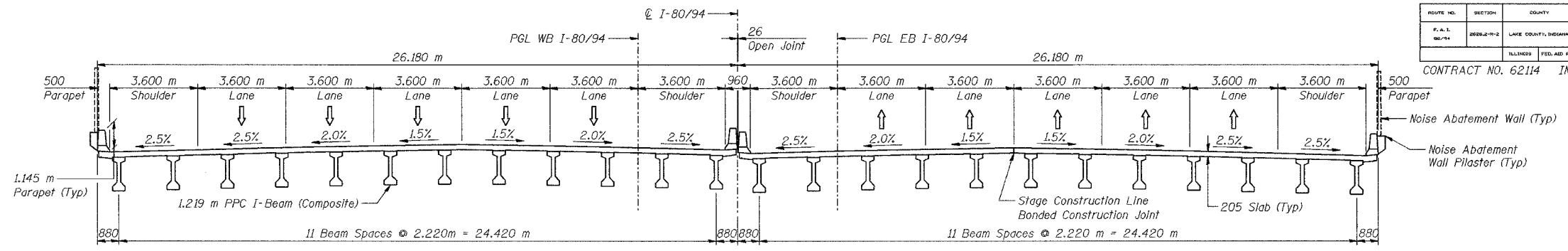
DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

NOTES:
 Estimated Area of Temporary Sheet Piling = 167 m²
 If the contractor chooses to alter the temporary cantilevered sheet piling design requirements as shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
 All dimensions are in millimeters (mm) except as noted.
 Cost of Temporary Sheet Piling included with Excavation, Foundation, Unclassified.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOHMAN AVENUE
STAGE CONSTRUCTION DETAILS -
SUBSTRUCTURE
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. 1-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. S-4
F.A.I.	2626.2-R-2	LAKE COUNTY, INDIANA	1207	583	40 SHEETS
ILLINOIS		FED. AID PROJECT			

CONTRACT NO. 62114 INDOT DES. NO. 0100987

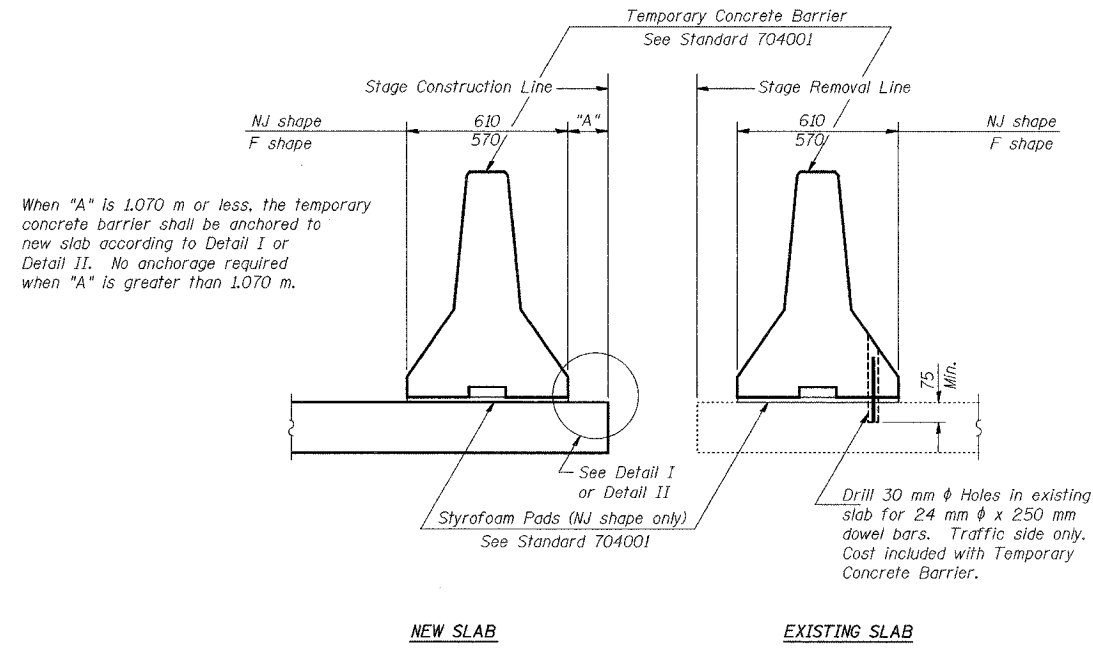


DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

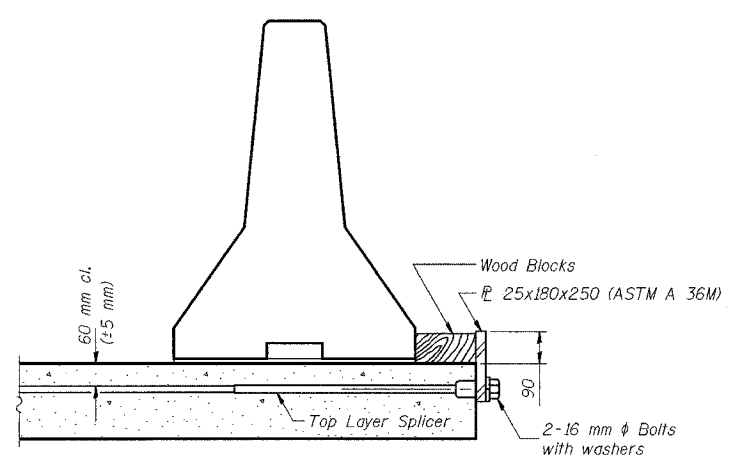
NOTES:
Slip forming of median barrier is not allowed.
(* Plan dimensions relative to existing structures are subject to nominal construction variations.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOHMAN AVENUE
STAGE CONSTRUCTION DETAILS - SUPERSTRUCTURE
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

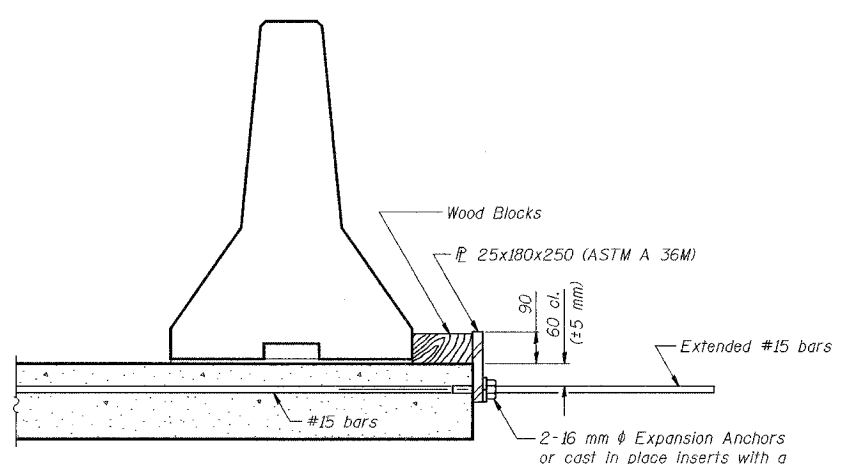
AMERICAN
CONSULTING ENGINEERS



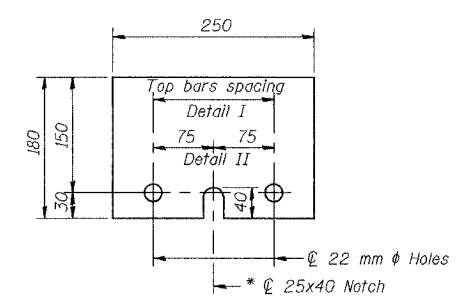
SECTIONS THRU SLAB



DETAIL I
The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II
The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



\square 25x180x250
* Required only with Detail II

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 25x180x250 steel \square to the top layer of couplers with 2-16 mm ϕ bolts screwed to coupler at approximate ϕ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 25x180x250 steel \square to the concrete slab with 2-16 mm ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ϕ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.
All dimensions are in millimeters (mm) except as noted.

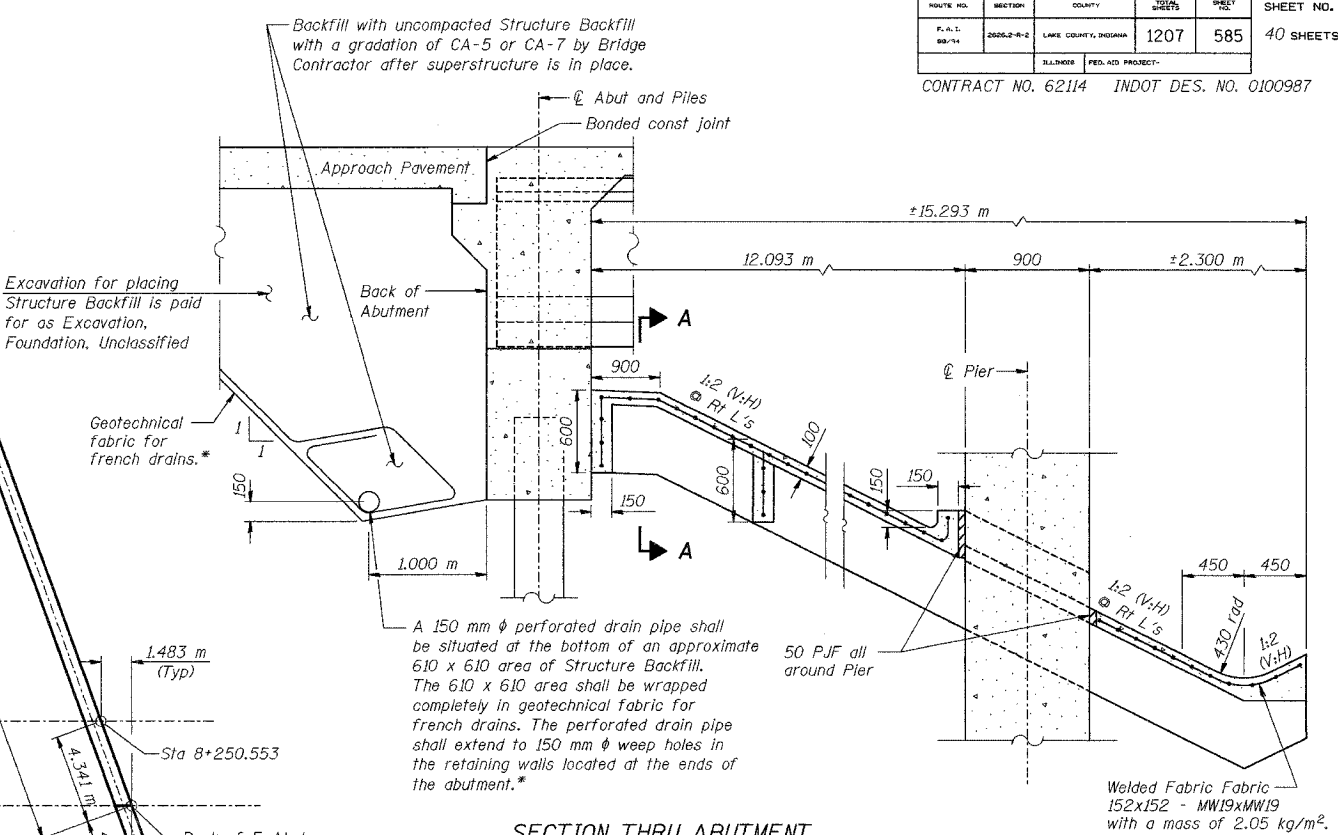
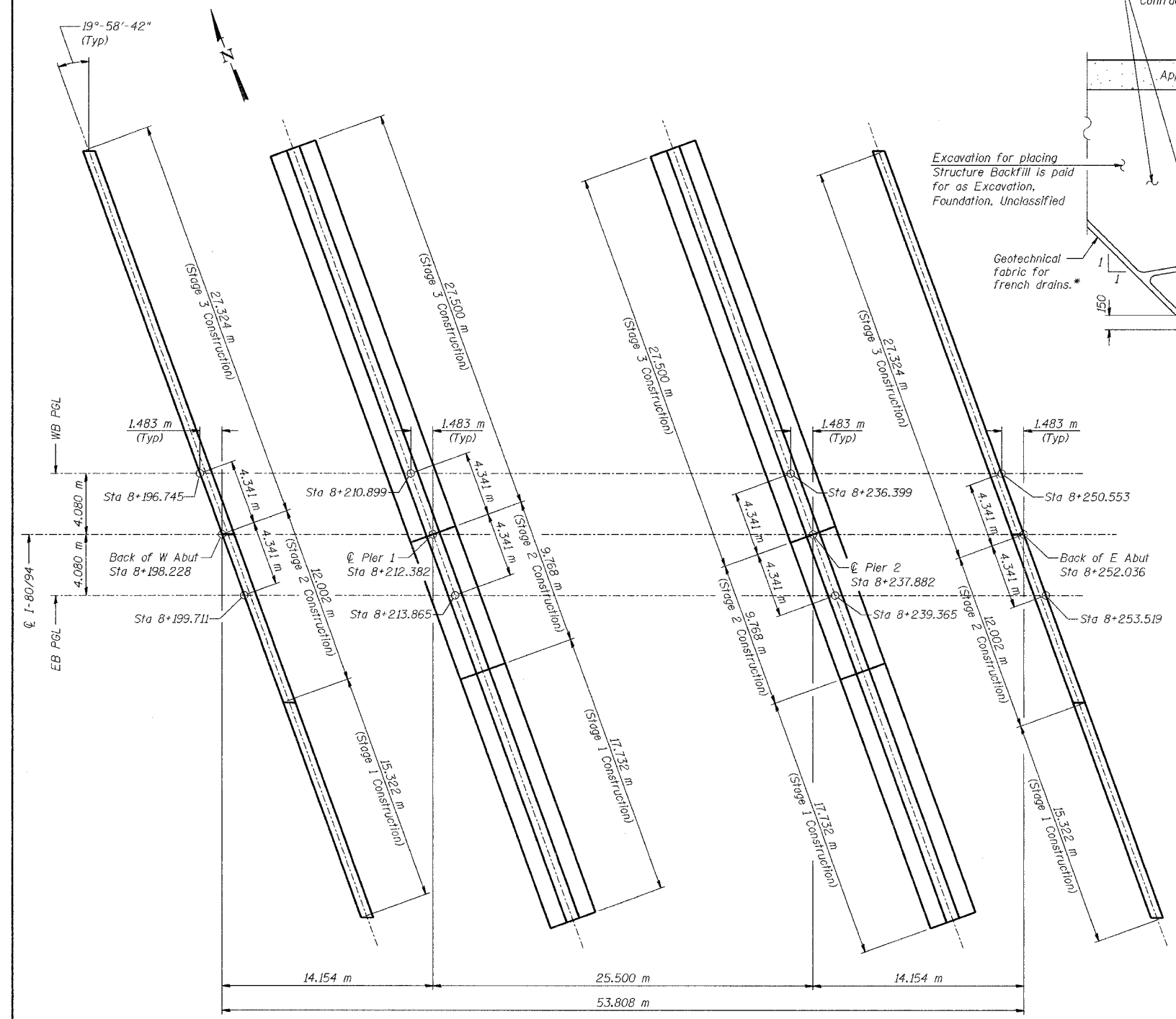
DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

R-27 (M)

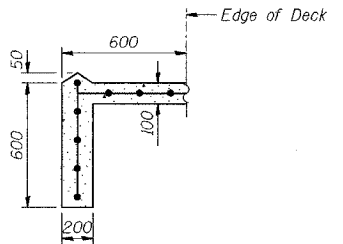
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOHMAN AVENUE
**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION**
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

AMERICAN
CONSULTING ENGINEERS

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
80/94	2626.2-R-2	LAKE COUNTY, INDIANA	1207	585
SHEET		40 SHEETS		
CONTRACT NO. 62114		INDOT DES. NO. 0100987		



SECTION THRU ABUTMENT
(Dimensions at Right Angles)
* Included in the cost of Structure Backfill



SECTION A-A
(Extend past limits of deck at locations where retaining wall is not present.)

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

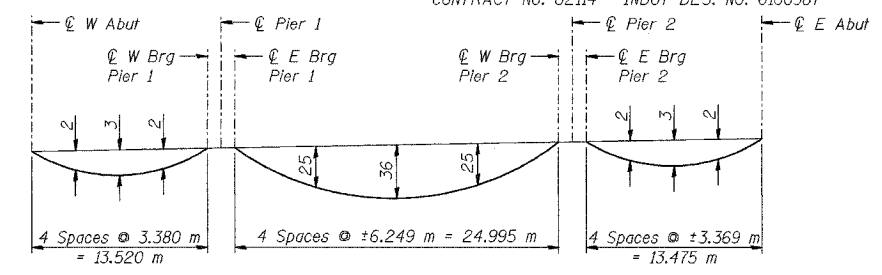
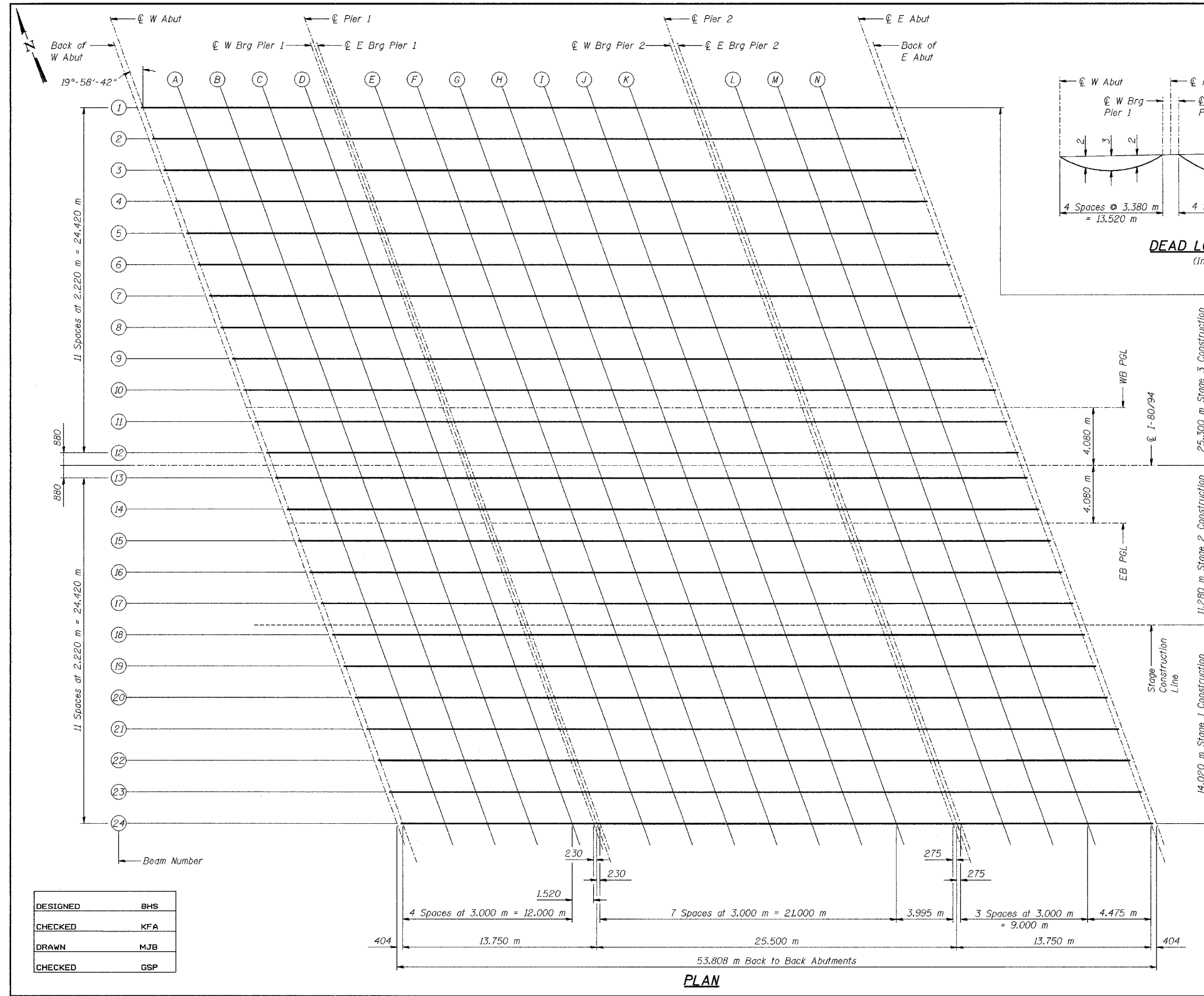
FOOTING LAYOUT

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOBMAN AVENUE

SUBSTRUCTURE LAYOUT
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

AMERICAN
CONSULTING ENGINEERS

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. S-7
F.A.L. 80/94	2626.2-R-2	LAKE COUNTY, INDIANA	1207	586	40 SHEETS
ILLINOIS		FED. AID PROJECT		CONTRACT NO. 62114 INDOT DES. NO. 0100987	



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)

NOTE: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections.

NOTES:
All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOHMAN AVENUE

TOP OF DECK ELEVATIONS - LAYOUT
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

AMERICAN
CONSULTING ENGINEERS

BEAM 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+189.030	-25.300 m	187.567	187.567
CL W Abut	8+189.435	-25.300 m	187.576	187.576
A	8+192.435	-25.300 m	187.643	187.645
B	8+195.435	-25.300 m	187.710	187.713
C	8+198.435	-25.300 m	187.776	187.778
D	8+201.435	-25.300 m	187.843	187.844
CL W Brg Pier 1	8+202.955	-25.300 m	187.877	187.877
CL Pier 1	8+203.185	-25.300 m	187.882	187.882
CL E Brg Pier 1	8+203.415	-25.300 m	187.887	187.887
E	8+206.415	-25.300 m	187.954	187.967
F	8+209.415	-25.300 m	188.021	188.045
G	8+212.415	-25.300 m	188.088	188.120
H	8+215.415	-25.300 m	188.155	188.190
I	8+218.415	-25.300 m	188.222	188.256
J	8+221.415	-25.300 m	188.288	188.315
K	8+224.415	-25.300 m	188.355	188.372
CL W Brg Pier 2	8+228.410	-25.300 m	188.444	188.444
CL Pier 2	8+228.685	-25.300 m	188.450	188.450
CL E Brg Pier 2	8+228.960	-25.300 m	188.456	188.456
L	8+231.960	-25.300 m	188.523	188.525
M	8+234.960	-25.300 m	188.590	188.593
N	8+237.960	-25.300 m	188.657	188.659
CL E Abut	8+242.435	-25.300 m	188.757	188.757
Back of E Abut	8+242.839	-25.300 m	188.766	188.766

BEAM 2

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+189.837	-23.080 m	187.640	187.640
CL W Abut	8+190.242	-23.080 m	187.649	187.649
A	8+193.242	-23.080 m	187.716	187.718
B	8+196.242	-23.080 m	187.783	187.786
C	8+199.242	-23.080 m	187.850	187.852
D	8+202.242	-23.080 m	187.917	187.918
CL W Brg Pier 1	8+203.762	-23.080 m	187.951	187.951
CL Pier 1	8+203.992	-23.080 m	187.956	187.956
CL E Brg Pier 1	8+204.222	-23.080 m	187.961	187.961
E	8+207.222	-23.080 m	188.028	188.041
F	8+210.222	-23.080 m	188.094	188.118
G	8+213.222	-23.080 m	188.161	188.193
H	8+216.222	-23.080 m	188.228	188.263
I	8+219.222	-23.080 m	188.295	188.329
J	8+222.222	-23.080 m	188.362	188.389
K	8+225.222	-23.080 m	188.429	188.446
CL W Brg Pier 2	8+229.217	-23.080 m	188.518	188.518
CL Pier 2	8+229.492	-23.080 m	188.524	188.524
CL E Brg Pier 2	8+229.767	-23.080 m	188.530	188.530
L	8+232.767	-23.080 m	188.597	188.599
M	8+235.767	-23.080 m	188.664	188.667
N	8+238.767	-23.080 m	188.730	188.732
CL E Abut	8+243.242	-23.080 m	188.830	188.830
Back of E Abut	8+243.646	-23.080 m	188.839	188.839

BEAM 3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+190.645	-20.860 m	187.714	187.714
CL W Abut	8+191.049	-20.860 m	187.723	187.723
A	8+194.049	-20.860 m	187.790	187.792
B	8+197.049	-20.860 m	187.857	187.860
C	8+200.049	-20.860 m	187.923	187.925
D	8+203.049	-20.860 m	187.990	187.991
CL W Brg Pier 1	8+204.569	-20.860 m	188.024	188.024
CL Pier 1	8+204.799	-20.860 m	188.029	188.029
CL E Brg Pier 1	8+205.029	-20.860 m	188.034	188.034
E	8+208.029	-20.860 m	188.101	188.114
F	8+211.029	-20.860 m	188.168	188.192
G	8+214.029	-20.860 m	188.235	188.267
H	8+217.029	-20.860 m	188.302	188.337
I	8+220.029	-20.860 m	188.368	188.402
J	8+223.029	-20.860 m	188.435	188.462
K	8+226.029	-20.860 m	188.502	188.519
CL W Brg Pier 2	8+230.024	-20.860 m	188.591	188.591
CL Pier 2	8+230.299	-20.860 m	188.597	188.597
CL E Brg Pier 2	8+230.574	-20.860 m	188.603	188.603
L	8+233.574	-20.860 m	188.670	188.672
M	8+236.574	-20.860 m	188.737	188.740
N	8+239.574	-20.860 m	188.804	188.806
CL E Abut	8+244.049	-20.860 m	188.904	188.904
Back of E Abut	8+244.453	-20.860 m	188.913	188.913

BEAM 4

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+191.452	-18.640 m	187.787	187.787
CL W Abut	8+191.856	-18.640 m	187.796	187.796
A	8+194.856	-18.640 m	187.863	187.865
B	8+197.856	-18.640 m	187.930	187.933
C	8+200.856	-18.640 m	187.997	187.999
D	8+203.856	-18.640 m	188.064	188.065
CL W Brg Pier 1	8+205.376	-18.640 m	188.098	188.098
CL Pier 1	8+205.606	-18.640 m	188.103	188.103
CL E Brg Pier 1	8+205.836	-18.640 m	188.108	188.108
E	8+208.836	-18.640 m	188.175	188.188
F	8+211.836	-18.640 m	188.241	188.265
G	8+214.836	-18.640 m	188.308	188.340
H	8+217.836	-18.640 m	188.375	188.410
I	8+220.836	-18.640 m	188.442	188.476
J	8+223.836	-18.640 m	188.509	188.536
K	8+226.836	-18.640 m	188.576	188.593
CL W Brg Pier 2	8+230.831	-18.640 m	188.665	188.665
CL Pier 2	8+231.106	-18.640 m	188.671	188.671
CL E Brg Pier 2	8+231.381	-18.640 m	188.677	188.677
L	8+234.381	-18.640 m	188.744	188.746
M	8+237.381	-18.640 m	188.811	188.814
N	8+240.381	-18.640 m	188.877	188.879
CL E Abut	8+244.856	-18.640 m	188.977	188.977
Back of E Abut	8+245.260	-18.640 m	188.986	188.986

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

NOTES:

See Sheet No S-7 for Plan.

All stations, offsets, and elevations are in meters.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOFFMAN AVENUE

TOP OF DECK ELEVATIONS (1 OF 7)
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. 1-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
 CONSULTING ENGINEERS

ROUTE NO.	SECTION	COUNTY	SHEET	POST	SHEET NO. 5-9
F.A.L. 86/14	2626.2-R-2	LAKE COUNTY, INDIANA	1207	588	
ILLINOIS PROJECT					40 SHEETS

CONTRACT NO. 62114 INDOT DES. NO. 0100987

BEAM 5

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+192.259	-16.420 m	187.850	187.850
CL W Abut	8+192.663	-16.420 m	187.860	187.860
A	8+195.663	-16.420 m	187.926	187.928
B	8+198.663	-16.420 m	187.993	187.996
C	8+201.663	-16.420 m	188.060	188.062
D	8+204.663	-16.420 m	188.127	188.128
CL W Brg Pier 1	8+206.183	-16.420 m	188.161	188.161
CL Pier 1	8+206.413	-16.420 m	188.166	188.166
CL E Brg Pier 1	8+206.643	-16.420 m	188.171	188.171
E	8+209.643	-16.420 m	188.238	188.251
F	8+212.643	-16.420 m	188.305	188.329
G	8+215.643	-16.420 m	188.371	188.403
H	8+218.643	-16.420 m	188.438	188.473
I	8+221.643	-16.420 m	188.505	188.539
J	8+224.643	-16.420 m	188.572	188.599
K	8+227.643	-16.420 m	188.639	188.656
CL W Brg Pier 2	8+231.638	-16.420 m	188.728	188.728
CL Pier 2	8+231.913	-16.420 m	188.734	188.734
CL E Brg Pier 2	8+232.188	-16.420 m	188.740	188.740
L	8+235.188	-16.420 m	188.807	188.809
M	8+238.188	-16.420 m	188.874	188.877
N	8+241.188	-16.420 m	188.941	188.943
CL E Abut	8+245.663	-16.420 m	189.040	189.040
Back of E Abut	8+246.067	-16.420 m	189.049	189.049

BEAM 6

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+193.066	-14.200 m	187.909	187.909
CL W Abut	8+193.470	-14.200 m	187.918	187.918
A	8+196.470	-14.200 m	187.985	187.987
B	8+199.470	-14.200 m	188.052	188.055
C	8+202.470	-14.200 m	188.119	188.121
D	8+205.470	-14.200 m	188.186	188.187
CL W Brg Pier 1	8+206.990	-14.200 m	188.220	188.220
CL Pier 1	8+207.220	-14.200 m	188.225	188.225
CL E Brg Pier 1	8+207.450	-14.200 m	188.230	188.230
E	8+210.450	-14.200 m	188.297	188.310
F	8+213.450	-14.200 m	188.364	188.388
G	8+216.450	-14.200 m	188.430	188.462
H	8+219.450	-14.200 m	188.497	188.532
I	8+222.450	-14.200 m	188.564	188.598
J	8+225.450	-14.200 m	188.631	188.658
K	8+228.450	-14.200 m	188.698	188.715
CL W Brg Pier 2	8+232.445	-14.200 m	188.787	188.787
CL Pier 2	8+232.720	-14.200 m	188.793	188.793
CL E Brg Pier 2	8+232.995	-14.200 m	188.799	188.799
L	8+235.995	-14.200 m	188.866	188.868
M	8+238.995	-14.200 m	188.933	188.936
N	8+241.995	-14.200 m	189.000	189.002
CL E Abut	8+246.470	-14.200 m	189.099	189.099
Back of E Abut	8+246.874	-14.200 m	189.108	189.108

BEAM 7

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+193.873	-11.980 m	187.961	187.961
CL W Abut	8+194.277	-11.980 m	187.970	187.970
A	8+197.277	-11.980 m	188.037	188.039
B	8+200.277	-11.980 m	188.103	188.106
C	8+203.277	-11.980 m	188.170	188.172
D	8+206.277	-11.980 m	188.237	188.238
CL W Brg Pier 1	8+207.797	-11.980 m	188.271	188.271
CL Pier 1	8+208.027	-11.980 m	188.276	188.276
CL E Brg Pier 1	8+208.257	-11.980 m	188.281	188.281
E	8+211.257	-11.980 m	188.348	188.361
F	8+214.257	-11.980 m	188.415	188.439
G	8+217.257	-11.980 m	188.482	188.514
H	8+220.257	-11.980 m	188.549	188.584
I	8+223.257	-11.980 m	188.615	188.649
J	8+226.257	-11.980 m	188.682	188.709
K	8+229.257	-11.980 m	188.749	188.766
CL W Brg Pier 2	8+233.252	-11.980 m	188.838	188.838
CL Pier 2	8+233.527	-11.980 m	188.844	188.844
CL E Brg Pier 2	8+233.802	-11.980 m	188.850	188.850
L	8+236.802	-11.980 m	188.917	188.919
M	8+239.802	-11.980 m	188.984	188.987
N	8+242.802	-11.980 m	189.051	189.053
CL E Abut	8+247.277	-11.980 m	189.151	189.151
Back of E Abut	8+247.681	-11.980 m	189.160	189.160

BEAM 8

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+194.680	-9.760 m	187.966	187.966
CL W Abut	8+195.084	-9.760 m	187.975	187.975
A	8+198.084	-9.760 m	188.042	188.044
B	8+201.084	-9.760 m	188.109	188.112
C	8+204.084	-9.760 m	188.176	188.178
D	8+207.084	-9.760 m	188.243	188.244
CL W Brg Pier 1	8+208.604	-9.760 m	188.277	188.277
CL Pier 1	8+208.834	-9.760 m	188.282	188.282
CL E Brg Pier 1	8+209.064	-9.760 m	188.287	188.287
E	8+212.064	-9.760 m	188.354	188.367
F	8+215.064	-9.760 m	188.421	188.445
G	8+218.064	-9.760 m	188.487	188.519
H	8+221.064	-9.760 m	188.554	188.589
I	8+224.064	-9.760 m	188.621	188.655
J	8+227.064	-9.760 m	188.688	188.715
K	8+230.064	-9.760 m	188.755	188.772
CL W Brg Pier 2	8+234.059	-9.760 m	188.844	188.844
CL Pier 2	8+234.334	-9.760 m	188.850	188.850
CL E Brg Pier 2	8+234.609	-9.760 m	188.856	188.856
L	8+237.609	-9.760 m	188.923	188.925
M	8+240.609	-9.760 m	188.990	188.993
N	8+243.609	-9.760 m	189.057	189.059
CL E Abut	8+248.084	-9.760 m	189.156	189.156
Back of E Abut	8+248.488	-9.760 m	189.165	189.165

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

NOTES:

See Sheet No S-7 for Plan.

All stations, offsets, and elevations are in meters.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOHMAN AVENUE

TOP OF DECK ELEVATIONS (2 OF 7)
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
 CONSULTING ENGINEERS

BEAM 9

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+195.487	-7.540 m	187.950	187.950
CL W Abut	8+195.891	-7.540 m	187.959	187.959
A	8+198.891	-7.540 m	188.026	188.028
B	8+201.891	-7.540 m	188.093	188.096
C	8+204.891	-7.540 m	188.160	188.162
D	8+207.891	-7.540 m	188.227	188.228
CL W Brg Pier 1	8+209.411	-7.540 m	188.261	188.261
CL Pier 1	8+209.641	-7.540 m	188.266	188.266
CL E Brg Pier 1	8+209.871	-7.540 m	188.271	188.271
E	8+212.871	-7.540 m	188.338	188.351
F	8+215.871	-7.540 m	188.405	188.429
G	8+218.871	-7.540 m	188.471	188.503
H	8+221.871	-7.540 m	188.538	188.573
I	8+224.871	-7.540 m	188.605	188.639
J	8+227.871	-7.540 m	188.672	188.699
K	8+230.871	-7.540 m	188.739	188.756
CL W Brg Pier 2	8+234.866	-7.540 m	188.828	188.828
CL Pier 2	8+235.141	-7.540 m	188.834	188.834
CL E Brg Pier 2	8+235.416	-7.540 m	188.840	188.840
L	8+238.416	-7.540 m	188.907	188.909
M	8+241.416	-7.540 m	188.974	188.977
N	8+244.416	-7.540 m	189.040	189.042
CL E Abut	8+248.891	-7.540 m	189.140	189.140
Back of E Abut	8+249.296	-7.540 m	189.149	189.149

BEAM 10

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+196.294	-5.320 m	187.924	187.924
CL W Abut	8+196.698	-5.320 m	187.933	187.933
A	8+199.698	-5.320 m	188.000	188.002
B	8+202.698	-5.320 m	188.067	188.070
C	8+205.698	-5.320 m	188.134	188.136
D	8+208.698	-5.320 m	188.200	188.201
CL W Brg Pier 1	8+210.218	-5.320 m	188.234	188.234
CL Pier 1	8+210.448	-5.320 m	188.239	188.239
CL E Brg Pier 1	8+210.678	-5.320 m	188.244	188.244
E	8+213.678	-5.320 m	188.311	188.324
F	8+216.678	-5.320 m	188.378	188.402
G	8+219.678	-5.320 m	188.445	188.477
H	8+222.678	-5.320 m	188.512	188.547
I	8+225.678	-5.320 m	188.579	188.613
J	8+228.678	-5.320 m	188.645	188.672
K	8+231.678	-5.320 m	188.712	188.729
CL W Brg Pier 2	8+235.673	-5.320 m	188.801	188.801
CL Pier 2	8+235.948	-5.320 m	188.807	188.807
CL E Brg Pier 2	8+236.223	-5.320 m	188.814	188.814
L	8+239.223	-5.320 m	188.880	188.882
M	8+242.223	-5.320 m	188.947	188.950
N	8+245.223	-5.320 m	189.014	189.016
CL E Abut	8+249.698	-5.320 m	189.114	189.114
Back of E Abut	8+250.103	-5.320 m	189.123	189.123

WB PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+196.745	-4.080 m	187.909	187.909
CL W Abut	8+197.149	-4.080 m	187.918	187.918
A	8+200.149	-4.080 m	187.985	187.987
B	8+203.149	-4.080 m	188.052	188.055
C	8+206.149	-4.080 m	188.119	188.121
D	8+209.149	-4.080 m	188.186	188.187
CL W Brg Pier 1	8+210.669	-4.080 m	188.219	188.219
CL Pier 1	8+210.899	-4.080 m	188.225	188.225
CL E Brg Pier 1	8+211.129	-4.080 m	188.230	188.230
E	8+214.129	-4.080 m	188.297	188.310
F	8+217.129	-4.080 m	188.363	188.387
G	8+220.129	-4.080 m	188.430	188.462
H	8+223.129	-4.080 m	188.497	188.532
I	8+226.129	-4.080 m	188.564	188.598
J	8+229.129	-4.080 m	188.631	188.658
K	8+232.129	-4.080 m	188.698	188.715
CL W Brg Pier 2	8+236.124	-4.080 m	188.787	188.787
CL Pier 2	8+236.399	-4.080 m	188.793	188.793
CL E Brg Pier 2	8+236.674	-4.080 m	188.799	188.799
L	8+239.674	-4.080 m	188.866	188.868
M	8+242.674	-4.080 m	188.932	188.935
N	8+245.674	-4.080 m	188.999	189.001
CL E Abut	8+250.149	-4.080 m	189.099	189.099
Back of E Abut	8+250.553	-4.080 m	189.108	189.108

BEAM 11

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+197.101	-3.100 m	187.893	187.893
CL W Abut	8+197.505	-3.100 m	187.902	187.902
A	8+200.505	-3.100 m	187.969	187.971
B	8+203.505	-3.100 m	188.035	188.038
C	8+206.505	-3.100 m	188.102	188.104
D	8+209.505	-3.100 m	188.169	188.170
CL W Brg Pier 1	8+211.025	-3.100 m	188.203	188.203
CL Pier 1	8+211.255	-3.100 m	188.208	188.208
CL E Brg Pier 1	8+211.485	-3.100 m	188.213	188.213
E	8+214.485	-3.100 m	188.280	188.293
F	8+217.485	-3.100 m	188.347	188.371
G	8+220.485	-3.100 m	188.414	188.446
H	8+223.485	-3.100 m	188.480	188.515
I	8+226.485	-3.100 m	188.547	188.581
J	8+229.485	-3.100 m	188.614	188.641
K	8+232.485	-3.100 m	188.681	188.698
CL W Brg Pier 2	8+236.480	-3.100 m	188.770	188.770
CL Pier 2	8+236.755	-3.100 m	188.776	188.776
CL E Brg Pier 2	8+237.030	-3.100 m	188.782	188.782
L	8+240.030	-3.100 m	188.849	188.851
M	8+243.030	-3.100 m	188.916	188.919
N	8+246.030	-3.100 m	188.983	188.985
CL E Abut	8+250.505	-3.100 m	189.082	189.082
Back of E Abut	8+250.910	-3.100 m	189.091	189.091

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

NOTES:

See Sheet No S-7 for Plan.

All stations, offsets, and elevations are in meters.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOBMAN AVENUE

TOP OF DECK ELEVATIONS (3 OF 7)
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
 CONSULTING ENGINEERS

BEAM 12

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+197.908	-0.880 m	187.855	187.855
CL W Abut	8+198.312	-0.880 m	187.864	187.864
A	8+201.312	-0.880 m	187.931	187.933
B	8+204.312	-0.880 m	187.998	188.001
C	8+207.312	-0.880 m	188.065	188.067
D	8+210.312	-0.880 m	188.132	188.133
CL W Brg Pier 1	8+211.832	-0.880 m	188.165	188.165
CL Pier 1	8+212.062	-0.880 m	188.170	188.170
CL E Brg Pier 1	8+212.292	-0.880 m	188.176	188.176
E	8+215.292	-0.880 m	188.242	188.255
F	8+218.292	-0.880 m	188.309	188.333
G	8+221.292	-0.880 m	188.376	188.408
H	8+224.292	-0.880 m	188.443	188.478
I	8+227.292	-0.880 m	188.510	188.544
J	8+230.292	-0.880 m	188.577	188.604
K	8+233.292	-0.880 m	188.643	188.660
CL W Brg Pier 2	8+237.287	-0.880 m	188.732	188.732
CL Pier 2	8+237.562	-0.880 m	188.739	188.739
CL E Brg Pier 2	8+237.837	-0.880 m	188.745	188.745
L	8+240.837	-0.880 m	188.812	188.814
M	8+243.837	-0.880 m	188.878	188.881
N	8+246.837	-0.880 m	188.945	188.947
CL E Abut	8+251.312	-0.880 m	189.045	189.045
Back of E Abut	8+251.717	-0.880 m	189.054	189.054

BEAM 13

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+198.548	0.880 m	187.598	187.598
CL W Abut	8+198.952	0.880 m	187.606	187.606
A	8+201.952	0.880 m	187.668	187.670
B	8+204.952	0.880 m	187.730	187.733
C	8+207.952	0.880 m	187.792	187.794
D	8+210.952	0.880 m	187.854	187.855
CL W Brg Pier 1	8+212.472	0.880 m	187.885	187.885
CL Pier 1	8+212.702	0.880 m	187.890	187.890
CL E Brg Pier 1	8+212.932	0.880 m	187.894	187.894
E	8+215.932	0.880 m	187.956	187.969
F	8+218.932	0.880 m	188.018	188.042
G	8+221.932	0.880 m	188.080	188.112
H	8+224.932	0.880 m	188.142	188.177
I	8+227.932	0.880 m	188.204	188.238
J	8+230.932	0.880 m	188.265	188.292
K	8+233.932	0.880 m	188.327	188.344
CL W Brg Pier 2	8+237.927	0.880 m	188.410	188.410
CL Pier 2	8+238.202	0.880 m	188.415	188.415
CL E Brg Pier 2	8+238.477	0.880 m	188.421	188.421
L	8+241.477	0.880 m	188.483	188.485
M	8+244.477	0.880 m	188.545	188.548
N	8+247.477	0.880 m	188.607	188.609
CL E Abut	8+251.952	0.880 m	188.699	188.699
Back of E Abut	8+252.357	0.880 m	188.707	188.707

BEAM 14

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+199.355	3.100 m	187.670	187.670
CL W Abut	8+199.759	3.100 m	187.678	187.678
A	8+202.759	3.100 m	187.740	187.742
B	8+205.759	3.100 m	187.802	187.805
C	8+208.759	3.100 m	187.864	187.866
D	8+211.759	3.100 m	187.926	187.927
CL W Brg Pier 1	8+213.279	3.100 m	187.957	187.957
CL Pier 1	8+213.509	3.100 m	187.962	187.962
CL E Brg Pier 1	8+213.739	3.100 m	187.967	187.967
E	8+216.739	3.100 m	188.028	188.041
F	8+219.739	3.100 m	188.090	188.114
G	8+222.739	3.100 m	188.152	188.184
H	8+225.739	3.100 m	188.214	188.249
I	8+228.739	3.100 m	188.276	188.310
J	8+231.739	3.100 m	188.338	188.365
K	8+234.739	3.100 m	188.399	188.416
CL W Brg Pier 2	8+238.734	3.100 m	188.482	188.482
CL Pier 2	8+239.009	3.100 m	188.487	188.487
CL E Brg Pier 2	8+239.284	3.100 m	188.493	188.493
L	8+242.284	3.100 m	188.555	188.557
M	8+245.284	3.100 m	188.617	188.620
N	8+248.284	3.100 m	188.679	188.681
CL E Abut	8+252.759	3.100 m	188.771	188.771
Back of E Abut	8+253.164	3.100 m	188.779	188.779

EB PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+199.711	4.080 m	187.702	187.702
CL W Abut	8+200.116	4.080 m	187.710	187.710
A	8+203.116	4.080 m	187.772	187.774
B	8+206.116	4.080 m	187.834	187.837
C	8+209.116	4.080 m	187.896	187.898
D	8+212.116	4.080 m	187.958	187.959
CL W Brg Pier 1	8+213.636	4.080 m	187.989	187.989
CL Pier 1	8+213.866	4.080 m	187.994	187.994
CL E Brg Pier 1	8+214.096	4.080 m	187.998	187.998
E	8+217.096	4.080 m	188.060	188.073
F	8+220.096	4.080 m	188.122	188.146
G	8+223.096	4.080 m	188.184	188.216
H	8+226.096	4.080 m	188.246	188.281
I	8+229.096	4.080 m	188.308	188.342
J	8+232.096	4.080 m	188.369	188.396
K	8+235.096	4.080 m	188.431	188.448
CL W Brg Pier 2	8+239.091	4.080 m	188.514	188.514
CL Pier 2	8+239.366	4.080 m	188.519	188.519
CL E Brg Pier 2	8+239.641	4.080 m	188.525	188.525
L	8+242.641	4.080 m	188.587	188.589
M	8+245.641	4.080 m	188.649	188.652
N	8+248.641	4.080 m	188.711	188.713
CL E Abut	8+253.116	4.080 m	188.803	188.803
Back of E Abut	8+253.520	4.080 m	188.811	188.811

NOTES:

See Sheet No S-7 for Plan.

All stations, offsets, and elevations are in meters.

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOFFMAN AVENUE

TOP OF DECK ELEVATIONS (4 OF 7)
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
 CONSULTING ENGINEERS

BEAM 15

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+200.162	5.320 m	187.736	187.736
CL W Abut	8+200.566	5.320 m	187.744	187.744
A	8+203.566	5.320 m	187.806	187.808
B	8+206.566	5.320 m	187.868	187.871
C	8+209.566	5.320 m	187.930	187.932
D	8+212.566	5.320 m	187.992	187.993
CL W Brg Pier 1	8+214.086	5.320 m	188.023	188.023
CL Pier 1	8+214.316	5.320 m	188.028	188.028
CL E Brg Pier 1	8+214.546	5.320 m	188.033	188.033
E	8+217.546	5.320 m	188.094	188.107
F	8+220.546	5.320 m	188.156	188.180
G	8+223.546	5.320 m	188.218	188.250
H	8+226.546	5.320 m	188.280	188.315
I	8+229.546	5.320 m	188.342	188.376
J	8+232.546	5.320 m	188.404	188.431
K	8+235.546	5.320 m	188.465	188.482
CL W Brg Pier 2	8+239.541	5.320 m	188.548	188.548
CL Pier 2	8+239.816	5.320 m	188.553	188.553
CL E Brg Pier 2	8+240.091	5.320 m	188.559	188.559
L	8+243.091	5.320 m	188.621	188.623
M	8+246.091	5.320 m	188.683	188.686
N	8+249.091	5.320 m	188.745	188.747
CL E Abut	8+253.566	5.320 m	188.837	188.837
Back of E Abut	8+253.971	5.320 m	188.845	188.845

BEAM 16

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+200.969	7.540 m	187.797	187.797
CL W Abut	8+201.373	7.540 m	187.805	187.805
A	8+204.373	7.540 m	187.867	187.869
B	8+207.373	7.540 m	187.929	187.932
C	8+210.373	7.540 m	187.991	187.993
D	8+213.373	7.540 m	188.053	188.054
CL W Brg Pier 1	8+214.893	7.540 m	188.084	188.084
CL Pier 1	8+215.123	7.540 m	188.089	188.089
CL E Brg Pier 1	8+215.353	7.540 m	188.094	188.094
E	8+218.353	7.540 m	188.155	188.168
F	8+221.353	7.540 m	188.217	188.241
G	8+224.353	7.540 m	188.279	188.311
H	8+227.353	7.540 m	188.341	188.376
I	8+230.353	7.540 m	188.403	188.437
J	8+233.353	7.540 m	188.465	188.492
K	8+236.353	7.540 m	188.526	188.543
CL W Brg Pier 2	8+240.348	7.540 m	188.609	188.609
CL Pier 2	8+240.623	7.540 m	188.614	188.614
CL E Brg Pier 2	8+240.898	7.540 m	188.620	188.620
L	8+243.898	7.540 m	188.682	188.684
M	8+246.898	7.540 m	188.744	188.747
N	8+249.898	7.540 m	188.806	188.808
CL E Abut	8+254.373	7.540 m	188.898	188.898
Back of E Abut	8+254.778	7.540 m	188.906	188.906

BEAM 17

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+201.776	9.760 m	187.848	187.848
CL W Abut	8+202.181	9.760 m	187.856	187.856
A	8+205.181	9.760 m	187.918	187.920
B	8+208.181	9.760 m	187.980	187.983
C	8+211.181	9.760 m	188.042	188.044
D	8+214.181	9.760 m	188.103	188.104
CL W Brg Pier 1	8+215.701	9.760 m	188.135	188.135
CL Pier 1	8+215.931	9.760 m	188.139	188.139
CL E Brg Pier 1	8+216.161	9.760 m	188.144	188.144
E	8+219.161	9.760 m	188.206	188.219
F	8+222.161	9.760 m	188.268	188.292
G	8+225.161	9.760 m	188.330	188.362
H	8+228.161	9.760 m	188.392	188.427
I	8+231.161	9.760 m	188.453	188.487
J	8+234.161	9.760 m	188.515	188.542
K	8+237.161	9.760 m	188.577	188.594
CL W Brg Pier 2	8+241.156	9.760 m	188.659	188.659
CL Pier 2	8+241.431	9.760 m	188.665	188.665
CL E Brg Pier 2	8+241.706	9.760 m	188.671	188.671
L	8+244.706	9.760 m	188.733	188.735
M	8+247.706	9.760 m	188.794	188.797
N	8+250.706	9.760 m	188.856	188.858
CL E Abut	8+255.181	9.760 m	188.949	188.949
Back of E Abut	8+255.585	9.760 m	188.957	188.957

STAGE CONSTRUCTION LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+202.329	11.280 m	187.882	187.882
CL W Abut	8+202.733	11.280 m	187.890	187.890
A	8+205.733	11.280 m	187.952	187.954
B	8+208.733	11.280 m	188.014	188.017
C	8+211.733	11.280 m	188.076	188.078
D	8+214.733	11.280 m	188.138	188.139
CL W Brg Pier 1	8+216.253	11.280 m	188.169	188.169
CL Pier 1	8+216.483	11.280 m	188.174	188.174
CL E Brg Pier 1	8+216.713	11.280 m	188.178	188.178
E	8+219.713	11.280 m	188.240	188.253
F	8+222.713	11.280 m	188.302	188.326
G	8+225.713	11.280 m	188.364	188.396
H	8+228.713	11.280 m	188.426	188.461
I	8+231.713	11.280 m	188.488	188.522
J	8+234.713	11.280 m	188.549	188.576
K	8+237.713	11.280 m	188.611	188.628
CL W Brg Pier 2	8+241.708	11.280 m	188.694	188.694
CL Pier 2	8+241.983	11.280 m	188.699	188.699
CL E Brg Pier 2	8+242.258	11.280 m	188.705	188.705
L	8+245.258	11.280 m	188.767	188.769
M	8+248.258	11.280 m	188.829	188.832
N	8+251.258	11.280 m	188.890	188.892
CL E Abut	8+255.733	11.280 m	188.983	188.983
Back of E Abut	8+256.137	11.280 m	188.991	188.991

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

NOTES:
See Sheet No S-7 for Plan.
All stations, offsets, and elevations are in meters.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HORMAN AVENUE

TOP OF DECK ELEVATIONS (5 OF 7)
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

AMERICAN
CONSULTING ENGINEERS

BEAM 18

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+202.583	11.980 m	187.877	187.877
CL W Abut	8+202.988	11.980 m	187.885	187.885
A	8+205.988	11.980 m	187.947	187.949
B	8+208.988	11.980 m	188.009	188.012
C	8+211.988	11.980 m	188.070	188.072
D	8+214.988	11.980 m	188.132	188.133
CL W Brg Pier 1	8+216.508	11.980 m	188.164	188.164
CL Pier 1	8+216.738	11.980 m	188.168	188.168
CL E Brg Pier 1	8+216.968	11.980 m	188.173	188.173
E	8+219.968	11.980 m	188.235	188.248
F	8+222.968	11.980 m	188.297	188.321
G	8+225.968	11.980 m	188.359	188.391
H	8+228.968	11.980 m	188.420	188.455
I	8+231.968	11.980 m	188.482	188.516
J	8+234.968	11.980 m	188.544	188.571
K	8+237.968	11.980 m	188.606	188.623
CL W Brg Pier 2	8+241.963	11.980 m	188.688	188.688
CL Pier 2	8+242.238	11.980 m	188.694	188.694
CL E Brg Pier 2	8+242.513	11.980 m	188.700	188.700
L	8+245.513	11.980 m	188.762	188.764
M	8+248.513	11.980 m	188.823	188.826
N	8+251.513	11.980 m	188.885	188.887
CL E Abut	8+255.988	11.980 m	188.977	188.977
Back of E Abut	8+256.392	11.980 m	188.986	188.986

BEAM 19

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+203.390	14.200 m	187.860	187.860
CL W Abut	8+203.795	14.200 m	187.868	187.868
A	8+206.795	14.200 m	187.930	187.932
B	8+209.795	14.200 m	187.992	187.995
C	8+212.795	14.200 m	188.054	188.056
D	8+215.795	14.200 m	188.116	188.117
CL W Brg Pier 1	8+217.315	14.200 m	188.147	188.147
CL Pier 1	8+217.545	14.200 m	188.152	188.152
CL E Brg Pier 1	8+217.775	14.200 m	188.156	188.156
E	8+220.775	14.200 m	188.218	188.231
F	8+223.775	14.200 m	188.280	188.304
G	8+226.775	14.200 m	188.342	188.374
H	8+229.775	14.200 m	188.404	188.439
I	8+232.775	14.200 m	188.466	188.500
J	8+235.775	14.200 m	188.528	188.555
K	8+238.775	14.200 m	188.589	188.606
CL W Brg Pier 2	8+242.770	14.200 m	188.672	188.672
CL Pier 2	8+243.045	14.200 m	188.677	188.677
CL E Brg Pier 2	8+243.320	14.200 m	188.683	188.683
L	8+246.320	14.200 m	188.745	188.747
M	8+249.320	14.200 m	188.807	188.810
N	8+252.320	14.200 m	188.869	188.871
CL E Abut	8+256.795	14.200 m	188.961	188.961
Back of E Abut	8+257.199	14.200 m	188.969	188.969

BEAM 20

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+204.197	16.420 m	187.836	187.836
CL W Abut	8+204.602	16.420 m	187.844	187.844
A	8+207.602	16.420 m	187.906	187.908
B	8+210.602	16.420 m	187.968	187.971
C	8+213.602	16.420 m	188.029	188.031
D	8+216.602	16.420 m	188.091	188.092
CL W Brg Pier 1	8+218.122	16.420 m	188.123	188.123
CL Pier 1	8+218.352	16.420 m	188.127	188.127
CL E Brg Pier 1	8+218.582	16.420 m	188.132	188.132
E	8+221.582	16.420 m	188.194	188.207
F	8+224.582	16.420 m	188.256	188.280
G	8+227.582	16.420 m	188.318	188.350
H	8+230.582	16.420 m	188.379	188.414
I	8+233.582	16.420 m	188.441	188.475
J	8+236.582	16.420 m	188.503	188.530
K	8+239.582	16.420 m	188.565	188.582
CL W Brg Pier 2	8+243.577	16.420 m	188.647	188.647
CL Pier 2	8+243.852	16.420 m	188.653	188.653
CL E Brg Pier 2	8+244.127	16.420 m	188.659	188.659
L	8+247.127	16.420 m	188.721	188.723
M	8+250.127	16.420 m	188.782	188.785
N	8+253.127	16.420 m	188.844	188.846
CL E Abut	8+257.602	16.420 m	188.936	188.936
Back of E Abut	8+258.006	16.420 m	188.945	188.945

BEAM 21

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+205.004	18.640 m	187.807	187.807
CL W Abut	8+205.409	18.640 m	187.815	187.815
A	8+208.409	18.640 m	187.877	187.879
B	8+211.409	18.640 m	187.939	187.942
C	8+214.409	18.640 m	188.001	188.003
D	8+217.409	18.640 m	188.063	188.064
CL W Brg Pier 1	8+218.929	18.640 m	188.094	188.094
CL Pier 1	8+219.159	18.640 m	188.099	188.099
CL E Brg Pier 1	8+219.389	18.640 m	188.104	188.104
E	8+222.389	18.640 m	188.165	188.178
F	8+225.389	18.640 m	188.227	188.251
G	8+228.389	18.640 m	188.289	188.321
H	8+231.389	18.640 m	188.351	188.386
I	8+234.389	18.640 m	188.413	188.447
J	8+237.389	18.640 m	188.475	188.502
K	8+240.389	18.640 m	188.536	188.553
CL W Brg Pier 2	8+244.384	18.640 m	188.619	188.619
CL Pier 2	8+244.659	18.640 m	188.624	188.624
CL E Brg Pier 2	8+244.934	18.640 m	188.630	188.630
L	8+247.934	18.640 m	188.692	188.694
M	8+250.934	18.640 m	188.754	188.757
N	8+253.934	18.640 m	188.816	188.818
CL E Abut	8+258.409	18.640 m	188.908	188.908
Back of E Abut	8+258.813	18.640 m	188.916	188.916

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

NOTES:

See Sheet No S-7 for Plan.

All stations, offsets, and elevations are in meters.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOHMAN AVENUE

TOP OF DECK ELEVATIONS (6 OF 7)
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
 CONSULTING ENGINEERS

BEAM 22

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+205.811	20.860 m	187.768	187.768
CL W Abut	8+206.216	20.860 m	187.776	187.776
A	8+209.216	20.860 m	187.838	187.840
B	8+212.216	20.860 m	187.900	187.903
C	8+215.216	20.860 m	187.962	187.964
D	8+218.216	20.860 m	188.024	188.025
CL W Brg Pier 1	8+219.736	20.860 m	188.055	188.055
CL Pier 1	8+219.966	20.860 m	188.060	188.060
CL E Brg Pier 1	8+220.196	20.860 m	188.065	188.065
E	8+223.196	20.860 m	188.127	188.140
F	8+226.196	20.860 m	188.188	188.212
G	8+229.196	20.860 m	188.250	188.282
H	8+232.196	20.860 m	188.312	188.347
I	8+235.196	20.860 m	188.374	188.408
J	8+238.196	20.860 m	188.436	188.463
K	8+241.196	20.860 m	188.498	188.515
CL W Brg Pier 2	8+245.191	20.860 m	188.580	188.580
CL Pier 2	8+245.466	20.860 m	188.586	188.586
CL E Brg Pier 2	8+245.741	20.860 m	188.591	188.591
L	8+248.741	20.860 m	188.653	188.655
M	8+251.741	20.860 m	188.715	188.718
N	8+254.741	20.860 m	188.777	188.779
CL E Abut	8+259.216	20.860 m	188.869	188.869
Back of E Abut	8+259.620	20.860 m	188.877	188.877

BEAM 23

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+206.619	23.080 m	187.729	187.729
CL W Abut	8+207.023	23.080 m	187.738	187.738
A	8+210.023	23.080 m	187.799	187.801
B	8+213.023	23.080 m	187.861	187.864
C	8+216.023	23.080 m	187.923	187.925
D	8+219.023	23.080 m	187.985	187.986
CL W Brg Pier 1	8+220.543	23.080 m	188.016	188.016
CL Pier 1	8+220.773	23.080 m	188.021	188.021
CL E Brg Pier 1	8+221.003	23.080 m	188.026	188.026
E	8+224.003	23.080 m	188.088	188.101
F	8+227.003	23.080 m	188.149	188.173
G	8+230.003	23.080 m	188.211	188.243
H	8+233.003	23.080 m	188.273	188.308
I	8+236.003	23.080 m	188.335	188.369
J	8+239.003	23.080 m	188.397	188.424
K	8+242.003	23.080 m	188.459	188.476
CL W Brg Pier 2	8+245.998	23.080 m	188.541	188.541
CL Pier 2	8+246.273	23.080 m	188.547	188.547
CL E Brg Pier 2	8+246.548	23.080 m	188.552	188.552
L	8+249.548	23.080 m	188.614	188.616
M	8+252.548	23.080 m	188.676	188.679
N	8+255.548	23.080 m	188.738	188.740
CL E Abut	8+260.023	23.080 m	188.830	188.830
Back of E Abut	8+260.427	23.080 m	188.838	188.838

BEAM 24

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Back of W Abut	8+207.426	25.300 m	187.690	187.690
CL W Abut	8+207.830	25.300 m	187.699	187.699
A	8+210.830	25.300 m	187.761	187.763
B	8+213.830	25.300 m	187.822	187.825
C	8+216.830	25.300 m	187.884	187.886
D	8+219.830	25.300 m	187.946	187.947
CL W Brg Pier 1	8+221.350	25.300 m	187.977	187.977
CL Pier 1	8+221.580	25.300 m	187.982	187.982
CL E Brg Pier 1	8+221.810	25.300 m	187.987	187.987
E	8+224.810	25.300 m	188.049	188.062
F	8+227.810	25.300 m	188.111	188.135
G	8+230.810	25.300 m	188.172	188.204
H	8+233.810	25.300 m	188.234	188.269
I	8+236.810	25.300 m	188.296	188.330
J	8+239.810	25.300 m	188.358	188.385
K	8+242.810	25.300 m	188.420	188.437
CL W Brg Pier 2	8+246.805	25.300 m	188.502	188.502
CL Pier 2	8+247.080	25.300 m	188.508	188.508
CL E Brg Pier 2	8+247.355	25.300 m	188.514	188.514
L	8+250.355	25.300 m	188.575	188.577
M	8+253.355	25.300 m	188.637	188.640
N	8+256.355	25.300 m	188.699	188.701
CL E Abut	8+260.830	25.300 m	188.791	188.791
Back of E Abut	8+261.234	25.300 m	188.800	188.800

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

NOTES:

See Sheet No S-7 for Plan.

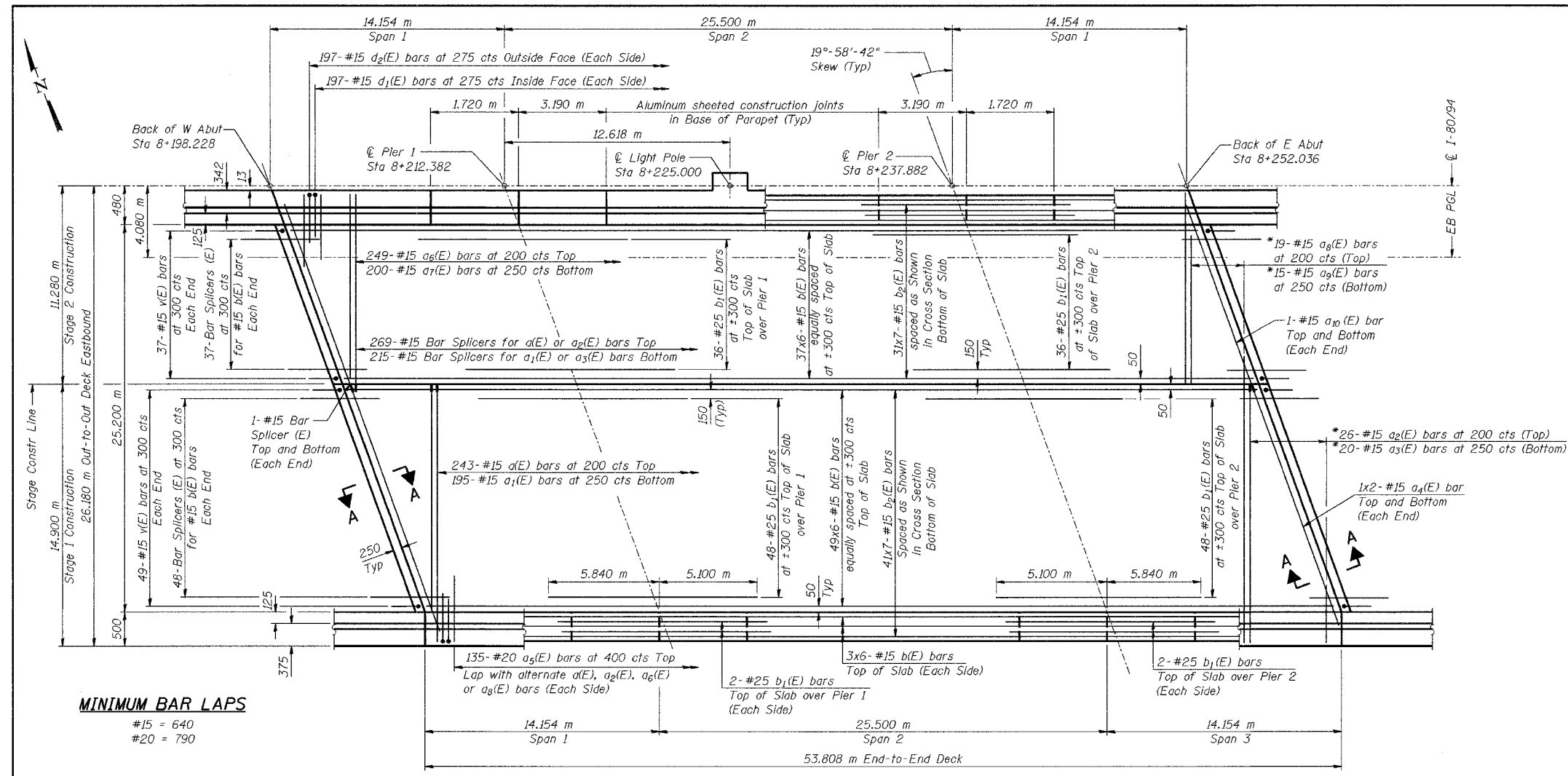
All stations, offsets, and elevations are in meters.

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOBMAN AVENUE

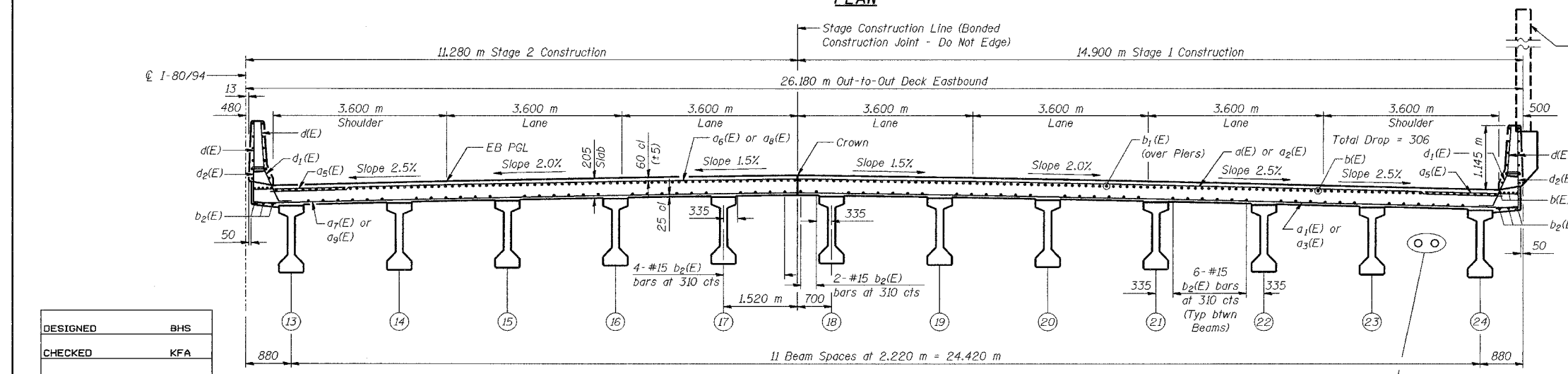
TOP OF DECK ELEVATIONS (7 OF 7)
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

AMERICAN
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ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. S-15
F.A.L.	2626.2-R-2	LAKE COUNTY, INDIANA	1207	594	
CONTRACT NO. 62114 INDOT DES. NO. 0100987					40 SHEETS



NOTES:
 See Sheet No S-17 for diaphragm at abutments and Section A-A.
 See Sheet No S-18 for diaphragm at piers.
 See Sheet No S-19 for interior diaphragms.
 See Sheet No S-20 for parapet reinforcement.
 See Sheet No S-21 for superstructure details and Bill of Material.
 Reinforcement bars designated (E) shall be epoxy coated.
 Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line.
 Apply Surface Seal to entire top surface of the bridge deck and parapets and the inside vertical faces of the parapets.
 Bar Splicers paid for as "Threaded Tie Bar Assembly, Epoxy Coated."
 All dimensions are in millimeters (mm) except as noted.



DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

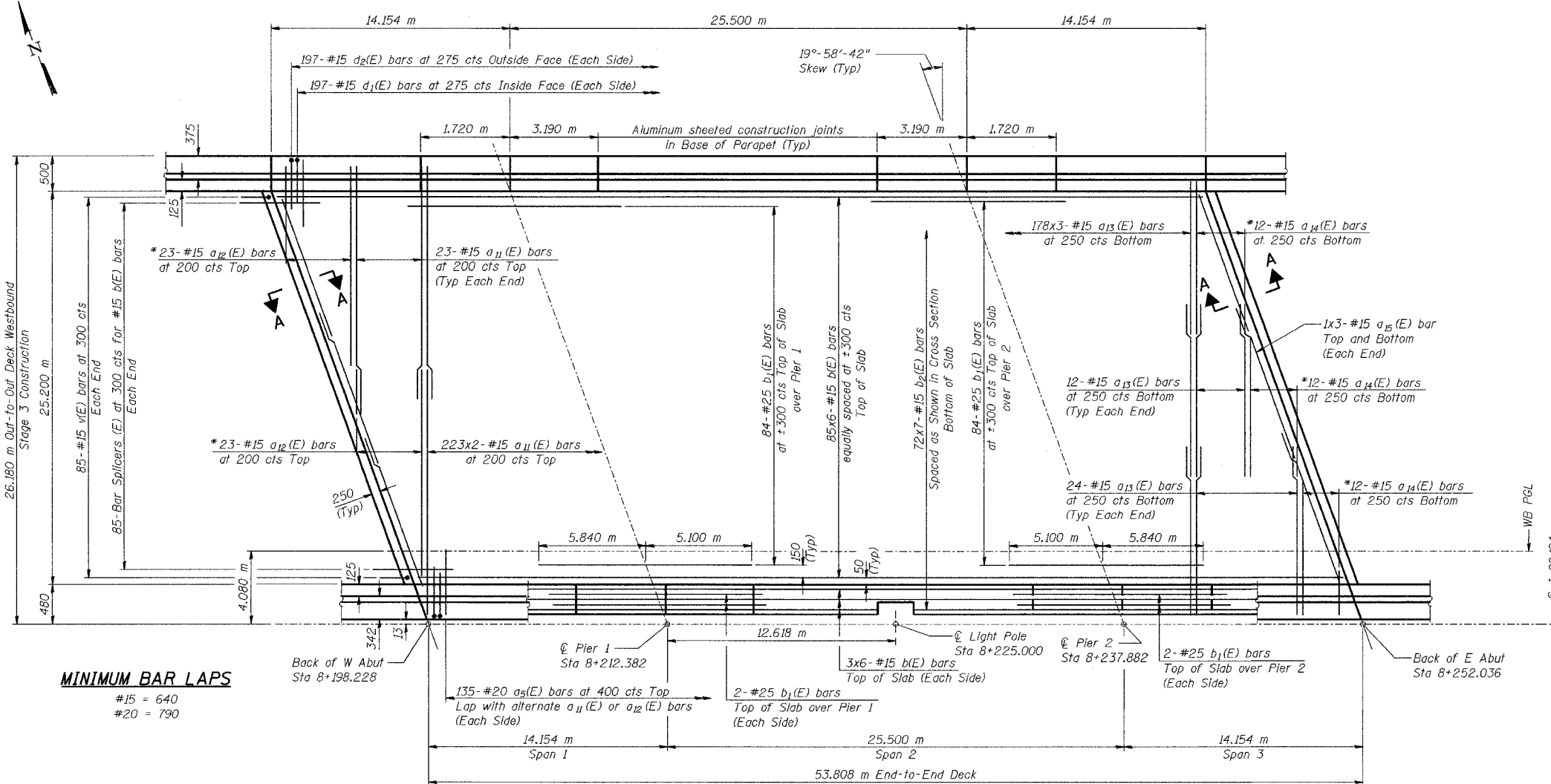
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOHMAN AVENUE

DECK PLAN - EASTBOUND
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
 CONSULTING ENGINEERS

See Conduit Details
 Sheet No S-21

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. S-16
F.A.L.	2626.2-R-2	LAKE COUNTY, INDIANA	1207	595
DATE	08/14			40 SHEETS
DESIGNED		PROJECT		
CONTRACT NO. 62114		INDOT DES. NO. 0100987		



MINIMUM BAR LAPS

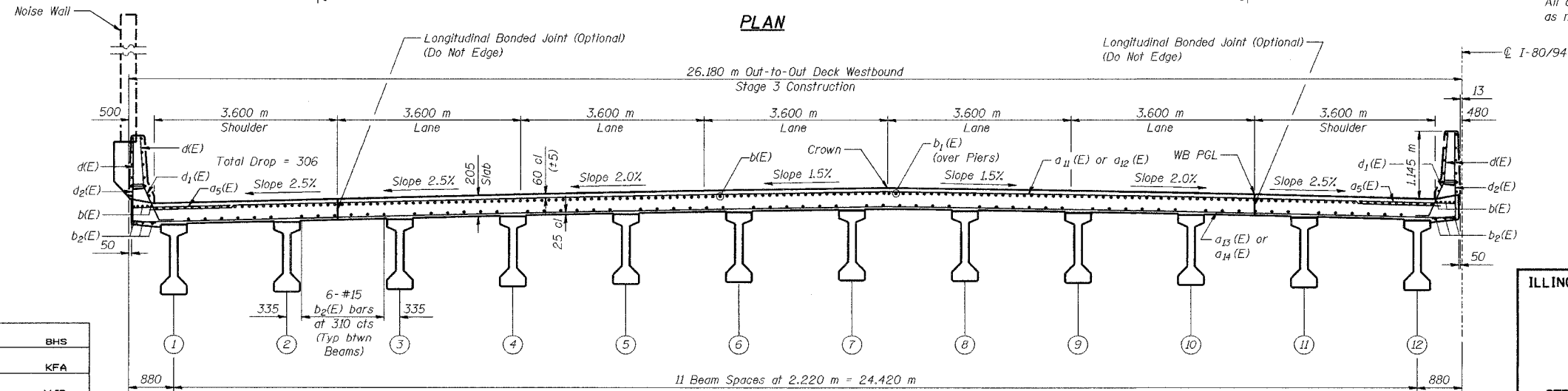
#15 = 640
#20 = 790

* Order a₁₂(E) and a₁₄(E) bars full length. Cut bars to fit skew and use remainder of bars in opposite end.

NOTES:

- See Sheet No S-17 for diaphragm at abutments and Section A-A.
- See Sheet No S-18 for diaphragm at piers.
- See Sheet No S-19 for interior diaphragms.
- See Sheet No S-20 for parapet reinforcement.
- See Sheet No S-21 for superstructure details and Bill of Material.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line.
- Apply Surface Seal to entire top surface of the bridge deck and parapets and the inside vertical faces of the parapets.
- Bar Splicers paid for as "Threaded Tie Bar Assembly, Epoxy Coated."
- All dimensions are in millimeters (mm) except as noted.

PLAN



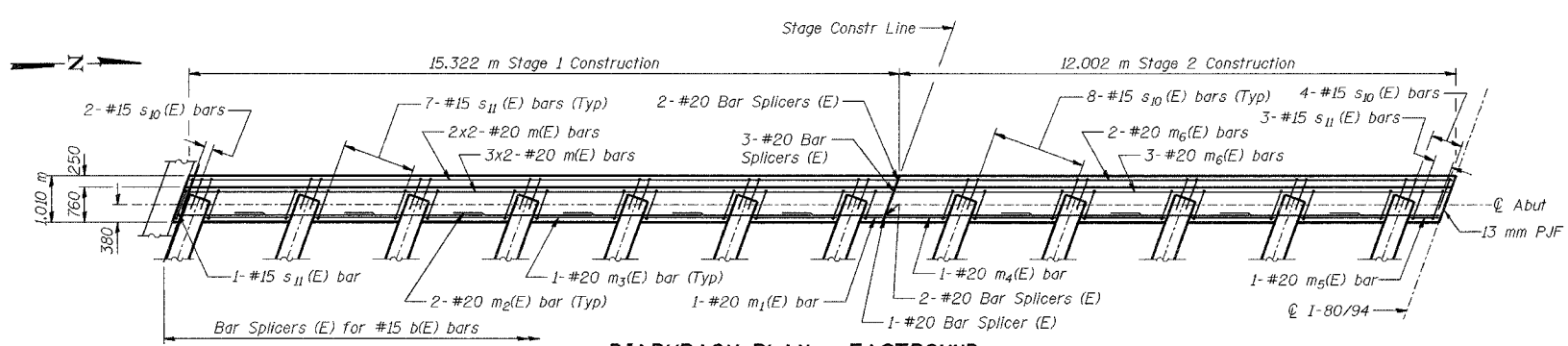
CROSS SECTION
(Looking East)

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

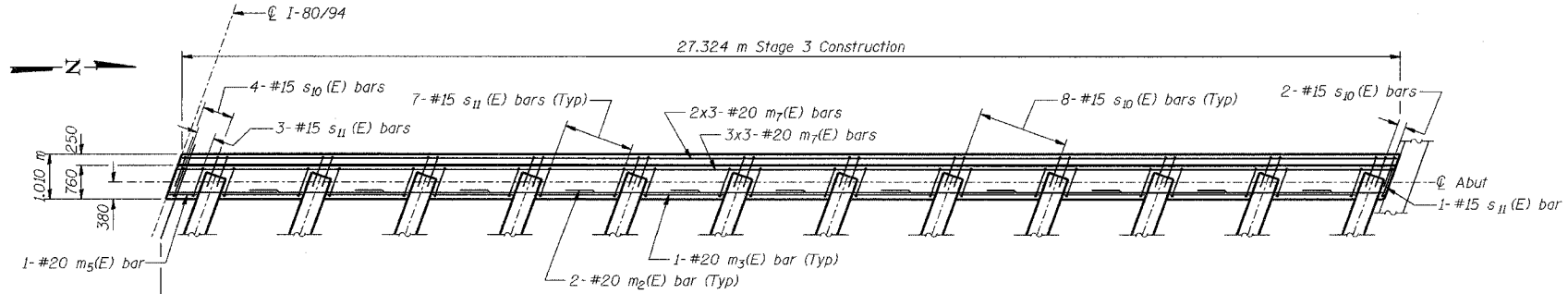
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOHMAN AVENUE

DECK PLAN - WESTBOUND
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

AMERICAN
CONSULTING ENGINEERS

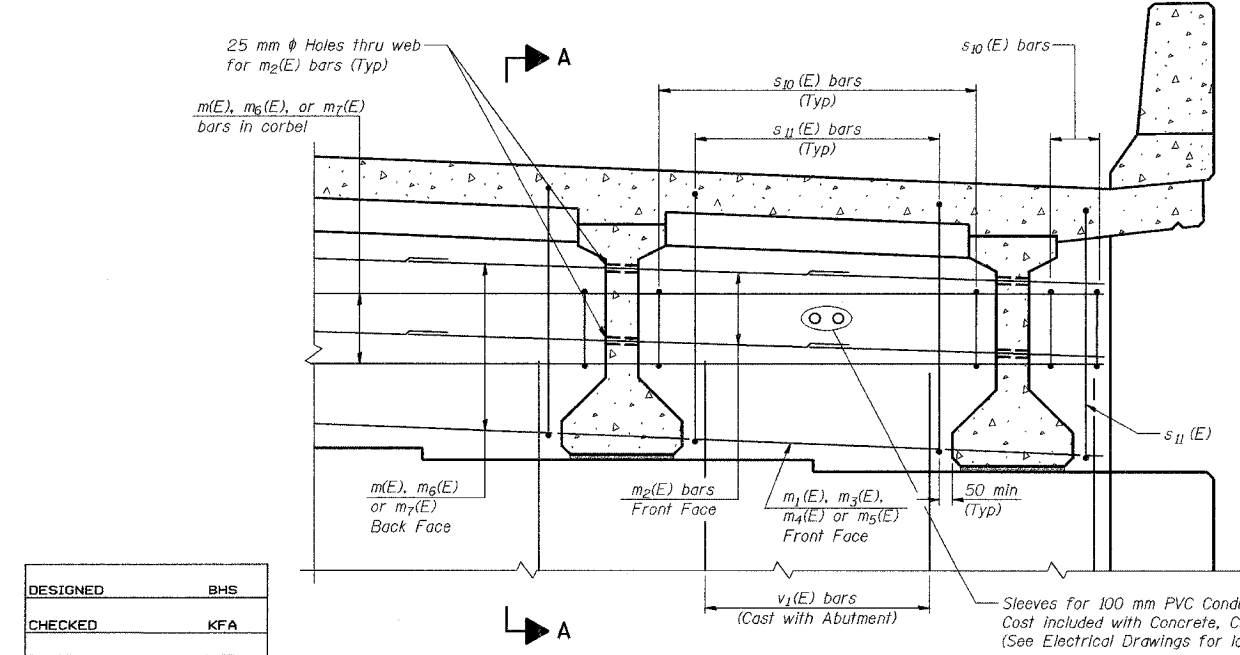


DIAPHRAGM PLAN - EASTBOUND
(West Abutment Shown, East Abutment Similar)

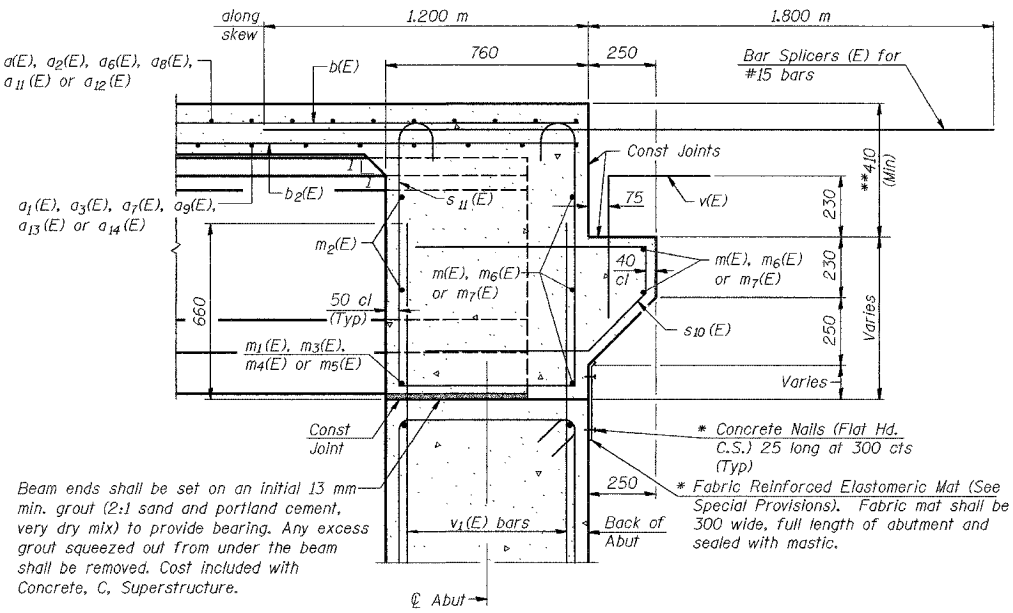


DIAPHRAGM PLAN - WESTBOUND
(West Abutment Shown, East Abutment Similar)

NOTES:
See Sheet No S-21 for reinforcement diagrams and Bill of Material.
Concrete in diaphragm is included with Concrete, C, Superstructure.
Cost of 13 mm P/JF is included with Concrete, C, Superstructure.
Reinforcement bars designated (E) shall be epoxy coated.
All concrete edges shall have a 20 mm chamfer.
All dimensions are in millimeters (mm) except as noted.



DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A

Beam ends shall be set on an initial 13 mm min. grout (2:1 sand and portland cement, very dry mix) to provide bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete, C, Superstructure.

Dimensions at right angles to abutment, except as shown.
* Cost included with "Concrete, C, Superstructure".
** Depth to approach slab seat is 410 mm at the crown of the deck and at the ends of the diaphragm. The seat shall follow a straight slope between the crown and ends of the diaphragm.

MINIMUM BAR LAP
#20 bar = 790

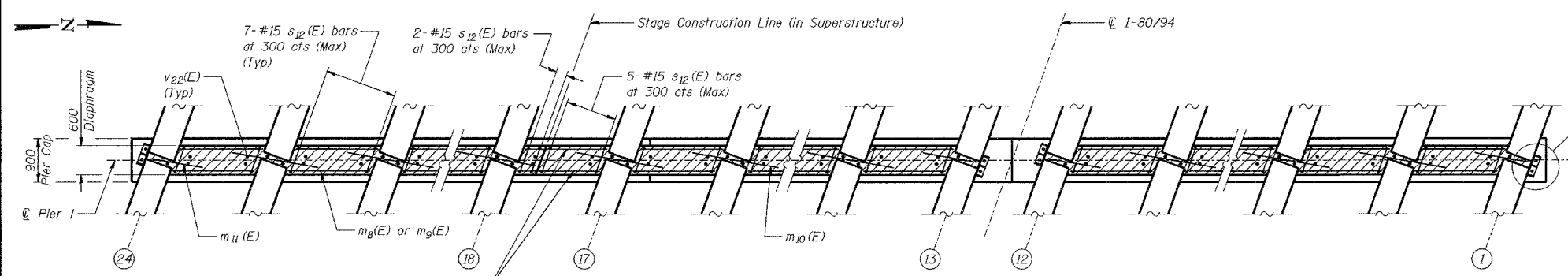
DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOBMAN AVENUE

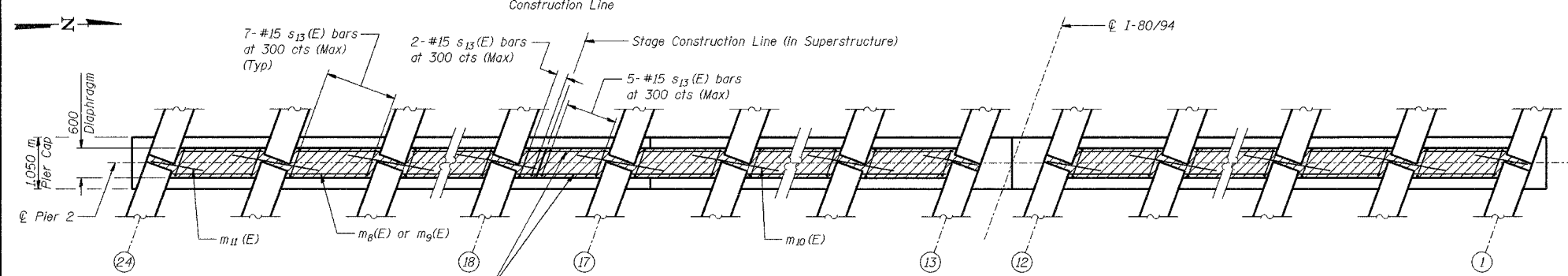
DIAPHRAGM AT ABUTMENTS
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

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ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. S-18
F.A.L. 80/94	2626.2-R-2	LAKE COUNTY, INDIANA	1207	597	40 SHEETS
ILLINOIS		INDOT DES. NO. 0100987			

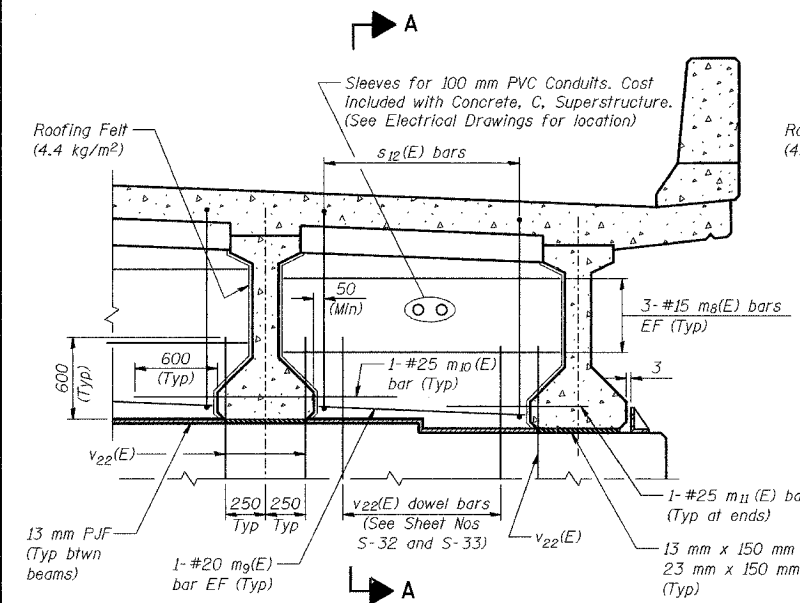


PIER 1 DIAPHRAGM PLAN - FIXED

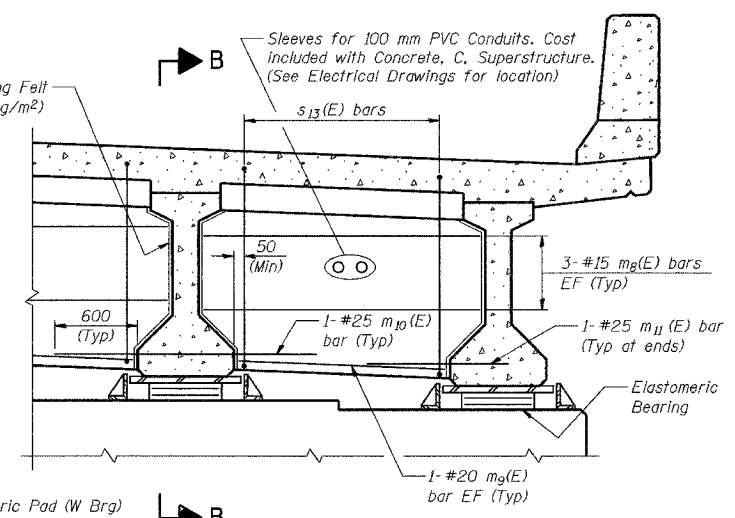


PIER 2 DIAPHRAGM PLAN - EXPANSION

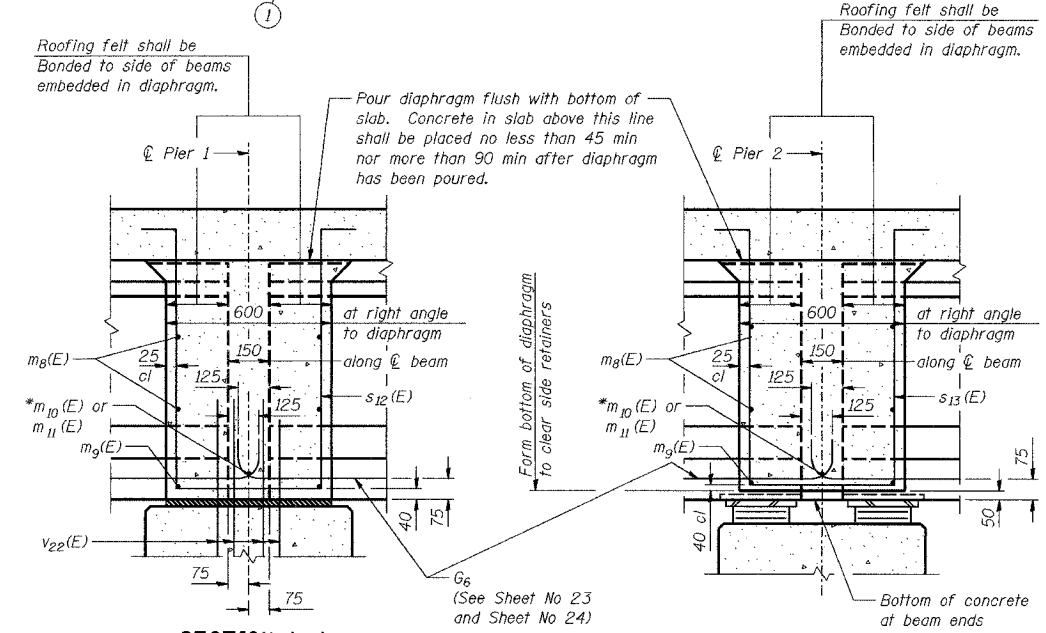
NOTES:
 See Sheet No S-21 for reinforcement diagrams and Bill of Material.
 See Sheet No S-25 for bearing details.
 Concrete in diaphragm is included with Concrete, C, Superstructure.
 Reinforcement bars designated (E) shall be epoxy coated.
 All concrete edges shall have a 20 mm chamfer.
 All dimensions are in millimeters (mm) except as noted.



DIAPHRAGM ELEVATION AT PIER 1



DIAPHRAGM ELEVATION AT PIER 2



SECTION A-A

SECTION B-B

* Tightly fasten the #25 bars together with 3.8 mm wire ties.

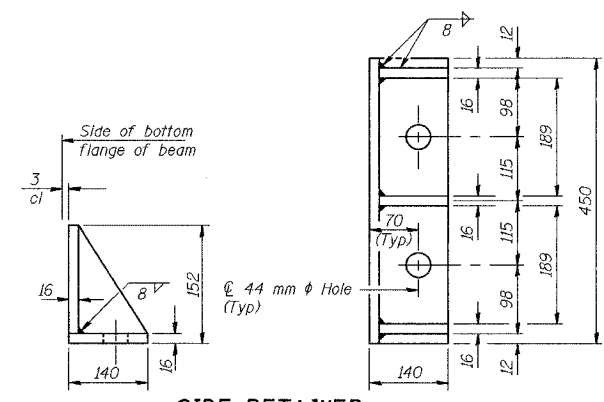
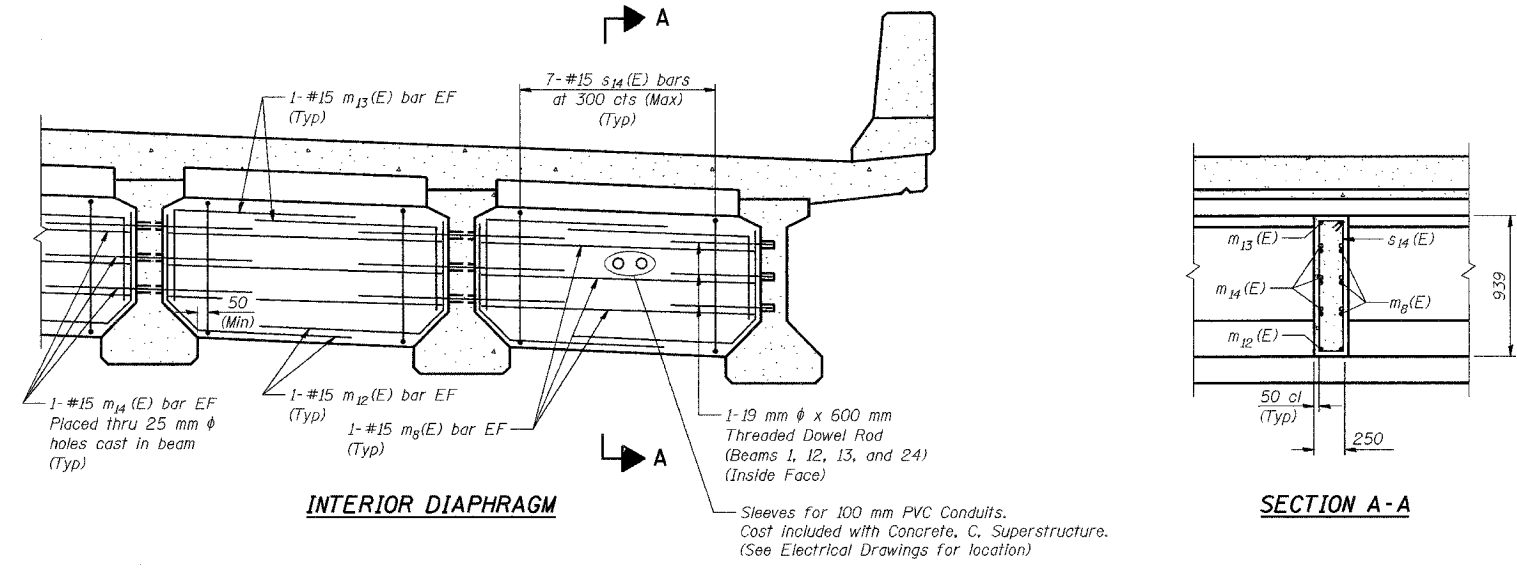
DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

LEGEND
 EF - Each Face

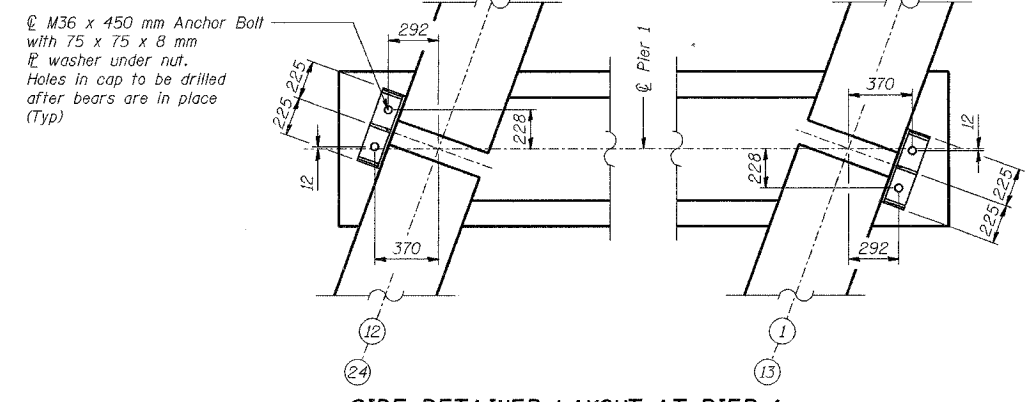
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOWMAN AVENUE

DIAPHRAGM AT PIERS
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8 + 225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

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Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
(4 Required at Fixed Pier 1)
(Cost included with Concrete, C. Superstructure)



Ø M36 x 450 mm Anchor Bolt with 75 x 75 x 8 mm 1/2" washer under nut.
Holes in cap to be drilled after bears are in place (Typ)

(Cost included with Concrete, C. Superstructure)

- NOTES:**
- See Sheet No S-18 for diaphragm at Pier 1.
 - See Sheet No S-21 for reinforcement diagrams and Bill of Material.
 - See Sheet No S-22 for location of interior diaphragms.
 - Concrete in diaphragm is included with Concrete, C. Superstructure.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All concrete edges shall have a 20 mm chamfer.
 - All dimensions are in millimeters (mm) except as noted.

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

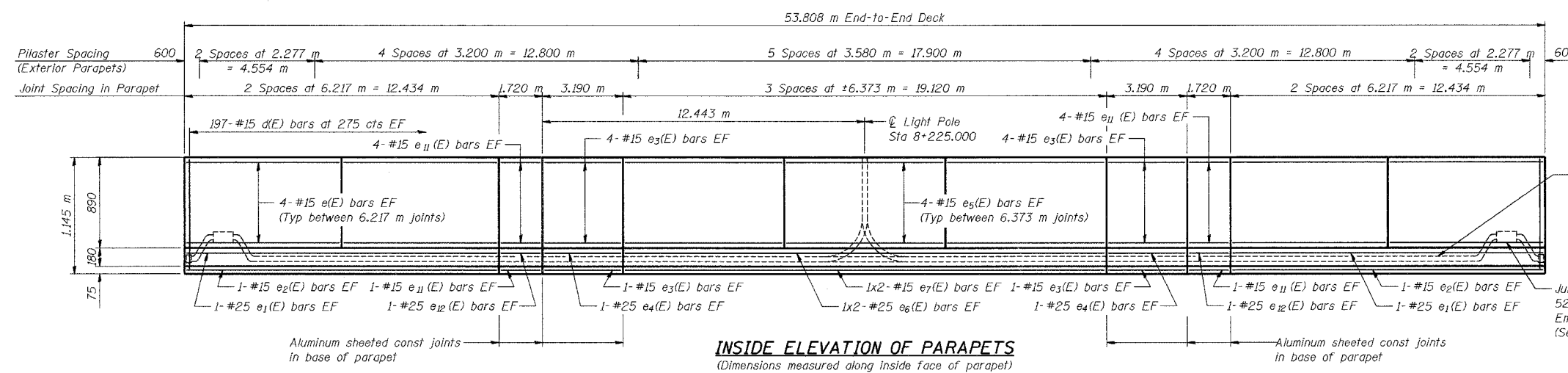
LEGEND
EF - Each Face

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOHMAN AVENUE

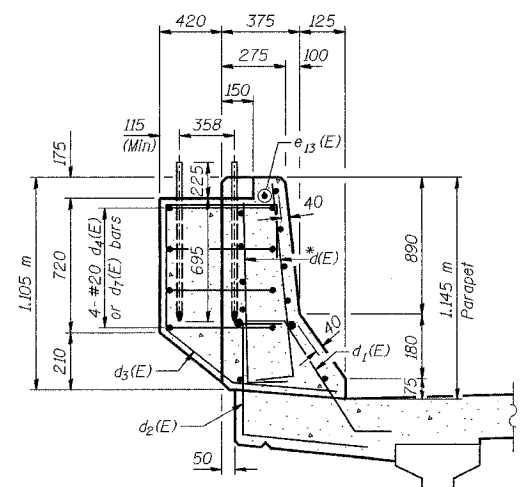
INTERIOR DIAPHRAGMS & DETAILS
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

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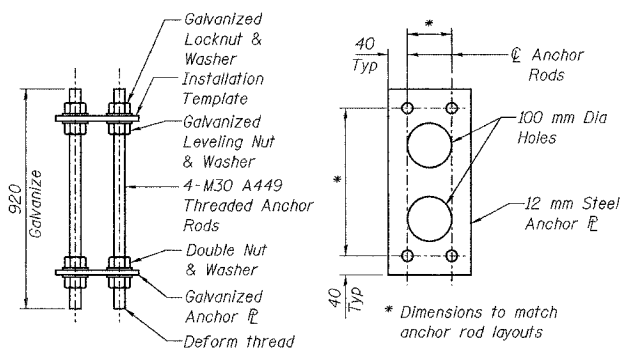
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. S-20
F.A.L. 80/94	2626.2-R-2	LAKE COUNTY, INDIANA	1207	599
CONTRACT NO. 62114				INDOT DES. NO. 0100987
40 SHEETS				



INSIDE ELEVATION OF PARAPETS
(Dimensions measured along inside face of parapet)

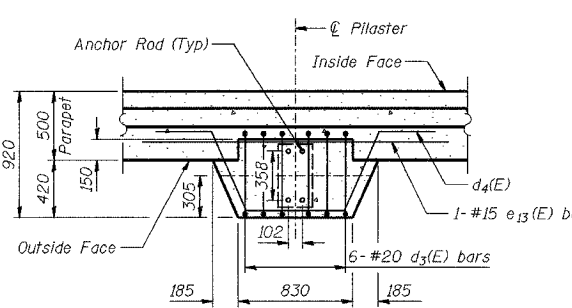


NOISEWALL PILASTER DETAIL
*Cut d(E) bar on Back Face to fit.

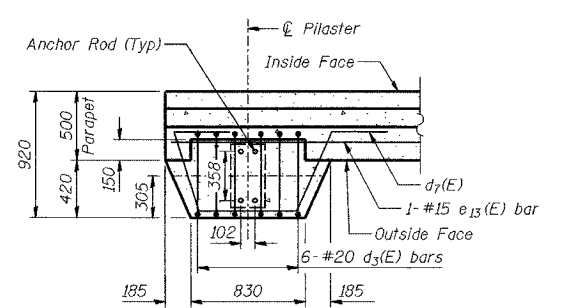


ELEVATION PLAN

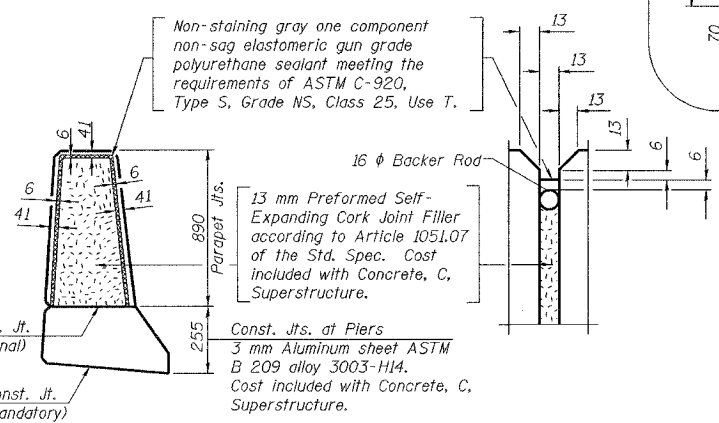
NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY
(36 Req'd)



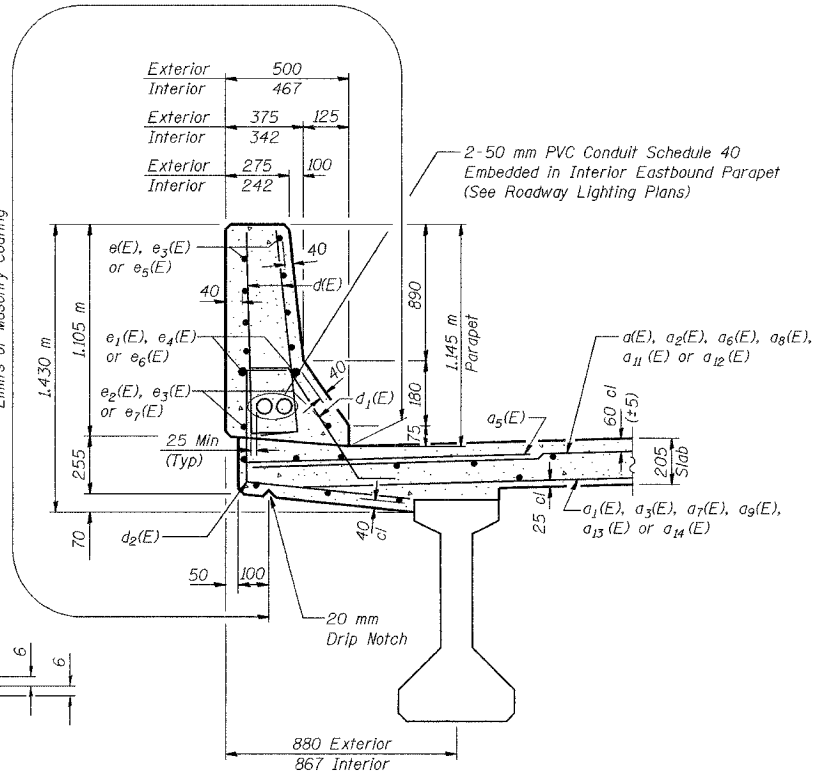
TYPICAL PILASTER SUPPORT - PLAN VIEW



PILASTER SUPPORT AT END OF PARAPET - PLAN VIEW



PARAPET JOINT DETAILS



SECTION THRU PARAPETS

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

LEGEND
EF - Each Face

MINIMUM BAR LAPS
#15 = 640
#25 = 1,320 m

NOTES:
See Sheet No S-21 for bar diagrams and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line.
All dimensions are in millimeters (mm) except as noted.

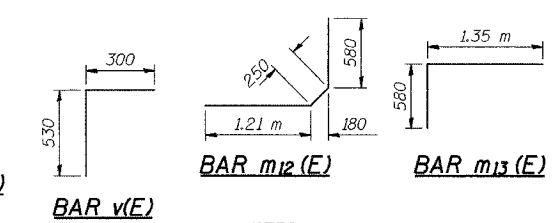
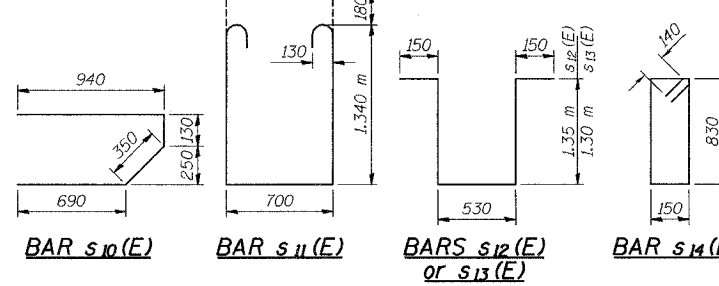
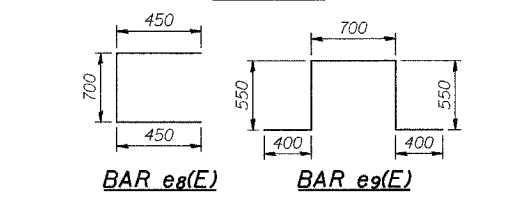
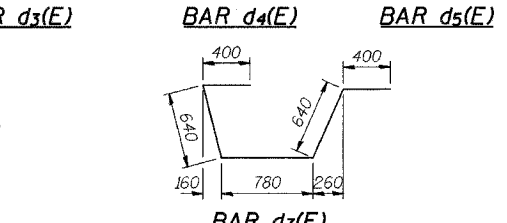
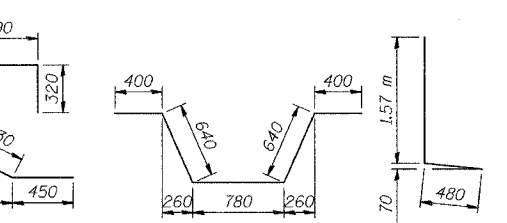
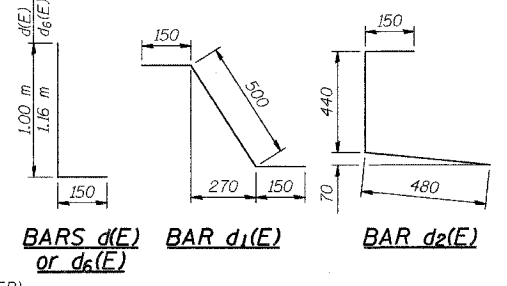
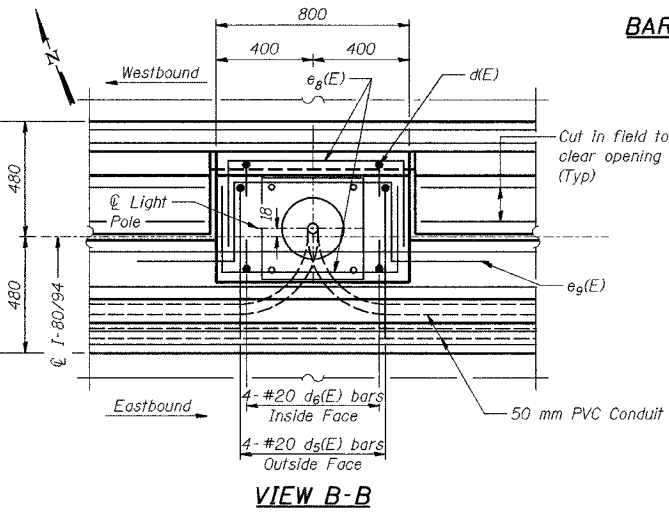
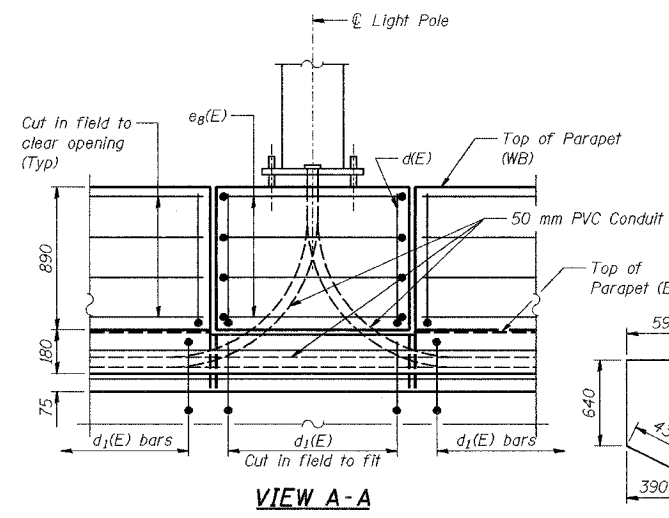
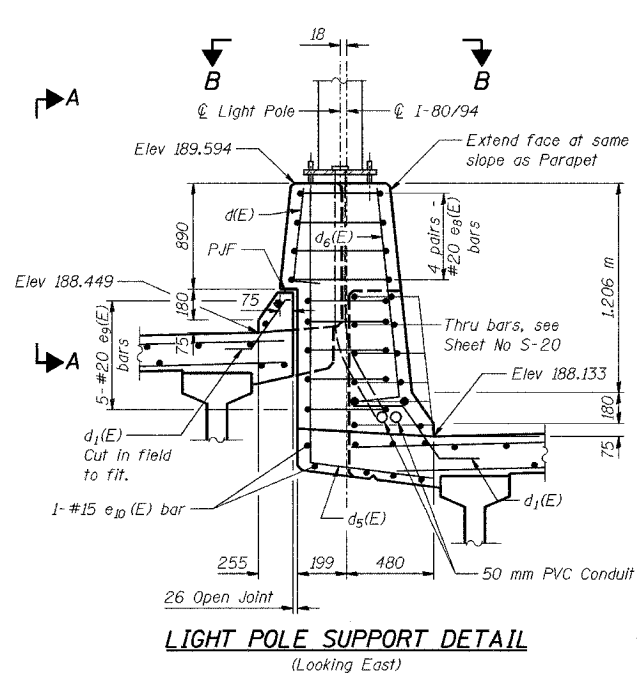
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HOHMAN AVENUE

PARAPET ELEVATIONS
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8 + 225.132
STRUCTURE NO. I-80-1-8459 (EB & WB)
DATE 09/05 (016-1001 & 016-1002)

AMERICAN
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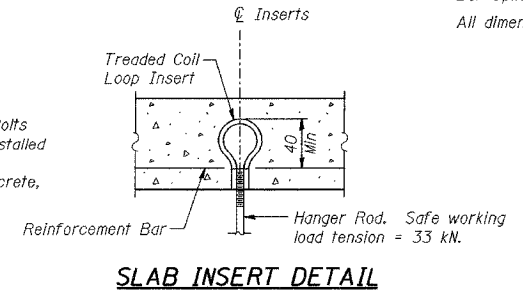
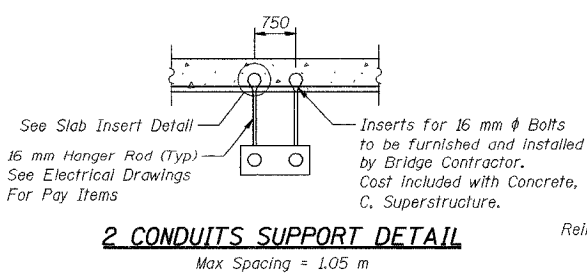
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d(E)	243	#15	14.75	—
a ₁ (E)	195	#15	14.65	—
a ₂ (E)	26	#15	14.82	—
a ₃ (E)	20	#15	14.95	—
a ₄ (E)	8	#15	8.12	—
a ₅ (E)	540	#20	1.37	—
a ₆ (E)	249	#15	11.13	—
a ₇ (E)	200	#15	11.03	—
a ₈ (E)	19	#15	11.32	—
a ₉ (E)	15	#15	11.41	—
a ₁₀ (E)	4	#15	11.73	—
a ₁₁ (E)	492	#15	13.31	—
a ₁₂ (E)	46	#15	13.62	—
a ₁₃ (E)	606	#15	9.02	—
a ₁₄ (E)	36	#15	9.96	—
a ₁₅ (E)	12	#15	9.57	—
b(E)	1098	#15	9.49	—
b ₁ (E)	352	#25	10.94	—
b ₂ (E)	1008	#15	8.23	—
d(E)	1576	#15	1.15	—
d ₁ (E)	788	#15	0.80	—
d ₂ (E)	788	#15	1.07	—
d ₃ (E)	216	#20	2.43	—
d ₄ (E)	128	#20	2.86	—
d ₅ (E)	4	#20	2.05	—
d ₆ (E)	4	#20	1.31	—
d ₇ (E)	16	#20	2.86	—
e(E)	128	#15	6.11	—
e ₁ (E)	16	#25	12.33	—
e ₂ (E)	16	#15	12.33	—
e ₃ (E)	80	#15	3.09	—
e ₄ (E)	16	#25	3.09	—
e ₅ (E)	96	#15	6.27	—
e ₆ (E)	16	#25	10.17	—
e ₇ (E)	16	#15	9.83	—
e ₈ (E)	8	#20	1.60	—
e ₉ (E)	5	#20	2.60	—
e ₁₀ (E)	2	#15	0.70	—
e ₁₁ (E)	80	#15	1.62	—
e ₁₂ (E)	16	#25	1.62	—
e ₁₃ (E)	36	#15	2.11	—
m(E)	20	#20	8.01	—
m ₁ (E)	2	#20	0.34	—
m ₂ (E)	96	#20	3.21	—
m ₃ (E)	42	#20	1.66	—
m ₄ (E)	2	#20	1.22	—
m ₅ (E)	4	#20	0.53	—
m ₆ (E)	10	#20	11.90	—
m ₇ (E)	30	#20	9.61	—
m ₈ (E)	924	#15	2.05	—
m ₉ (E)	88	#20	1.66	—
m ₁₀ (E)	40	#25	1.80	—
m ₁₁ (E)	8	#25	0.90	—
m ₁₂ (E)	440	#15	2.04	—
m ₁₃ (E)	440	#15	1.93	—
m ₁₄ (E)	600	#15	1.59	—
s ₁₀ (E)	376	#15	2.11	—
s ₁₁ (E)	324	#15	3.74	—
s ₁₂ (E)	154	#15	3.53	—
s ₁₃ (E)	154	#15	3.43	—
s ₁₄ (E)	770	#15	2.24	—
v(E)	342	#15	0.83	—
Concrete, C. Superstructure		m ³	938.1	—
Surface Seal (Estimated)		m ²	3,040	—
Reinforcing Bars, Epoxy Coated		kg	117,310	—
Threaded Tie Bar Assembly, Epoxy Coated		Each	844	—
Noise Abatement Wall Anchor Rod Assembly		Each	36	—



NOTES:
 Reinforcement bars designated (E) shall be epoxy coated.
 All concrete edges shall have a 20 mm chamfer.
 Bar Splicers paid for as "Threaded Tie Bar Assembly, Epoxy Coated."
 All dimensions are in millimeters (mm) except as noted.

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP



ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOHMAN AVENUE

SUPERSTRUCTURE DETAILS
 SECTION 266.2-R-2
 LAKE COUNTY, INDIANA
 STATION 8+225.132
 STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
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