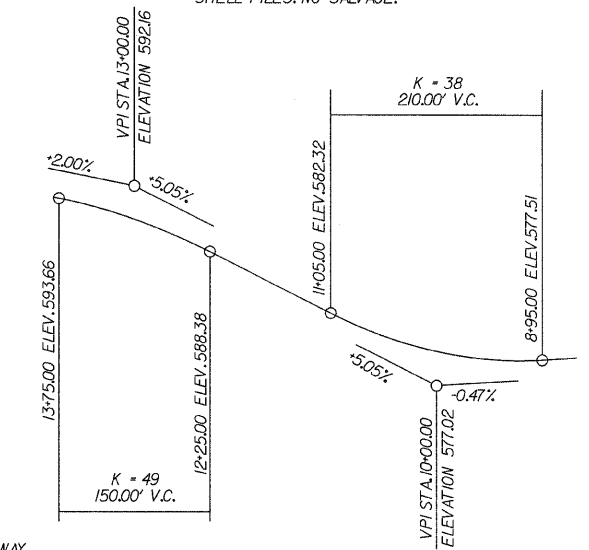


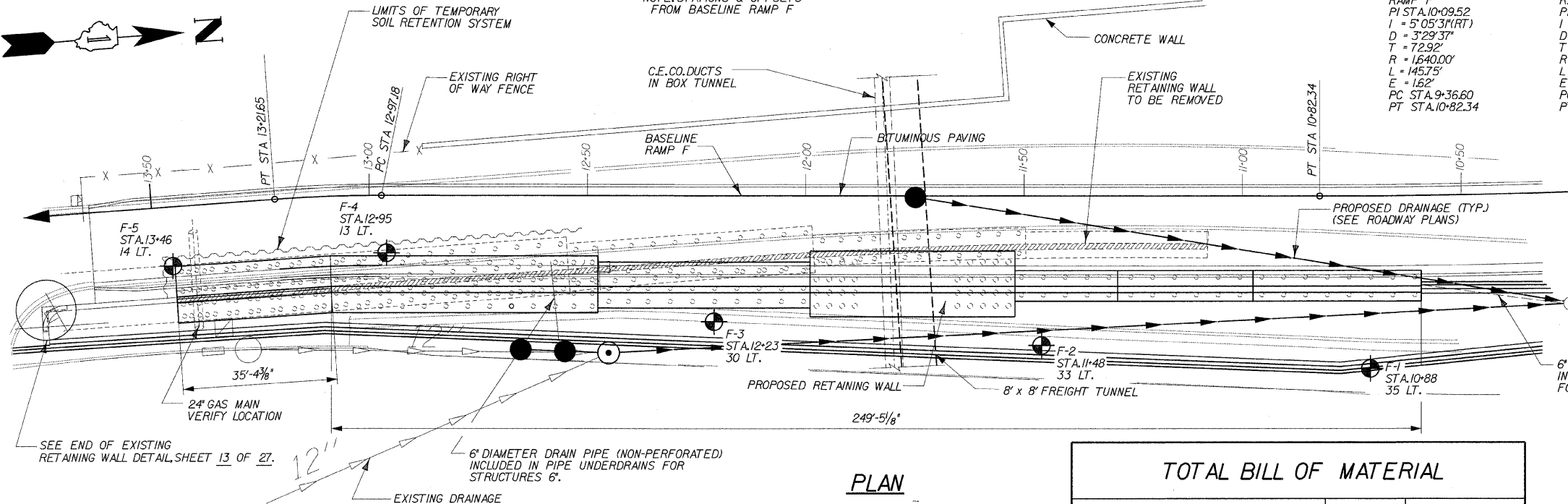
HORIZONTAL CURVE DATA

RAMP F
PI STA. 10+09.52
I = 5° 05' 31" (RT)
D = 3' 29' 37"
T = 72.92'
R = 1640.00'
L = 145.75'
E = 162'
PC STA. 9+36.60
PT STA. 10+82.34

RAMP F
PI STA. 13+09.42
I = 4° 14' 53" (LT)
D = 17' 21' 44"
T = 12.24'
R = 330.00'
L = 24.47'
E = 0.23'
PC STA. 12+97.18
PT STA. 13+21.65



PROFILE GRADE RAMP F
(@ BASELINE SURVEY RAMP F)



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
CONCRETE STRUCTURES	CU YD	527.0
TEMPORARY SOIL RETENTION SYSTEM	SQ FT	2,300
CONCRETE REMOVAL	CU YD	360
REINFORCEMENT BARS	POUND	40,780
REINFORCEMENT BARS, EPOXY COATED	POUND	10,100
STRUCTURE EXCAVATION	CU YD	480
FURNISHING METAL SHELL PILES 14" x 0.250"	FOOT	14,325
DRIVING PILES	FOOT	14,325
TEST PILE METAL SHELLS	EACH	2
GEOCOMPOSITE WALL DRAIN	SQ YD	344
PIPE UNDERDRAINS FOR STRUCTURES 6"	FOOT	285
RUSTICATION FINISH	SQ FT	2,685
INSTALL DECORATIVE STEEL GUARDRAIL	FOOT	284
INSTALL DECORATIVE STEEL FASCIA	FOOT	258
EMBEDDED PLATE, GUARDRAIL UPRIGHT, EXPANSION JOINT	EACH	10
EMBEDDED PLATE, GUARDRAIL UPRIGHT	EACH	40
REPAIR OF FASCIA PANELS, EXIT RAMP F	LS	1

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DESIGN SPECIFICATIONS

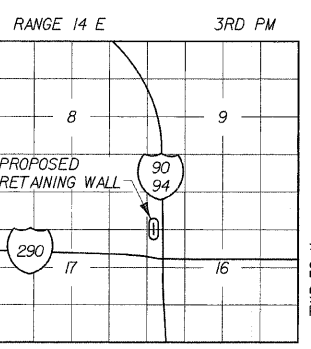
2002 AASHTO SPECIFICATIONS FOR HIGHWAY BRIDGES

DESIGN STRESSES

LOADINGS
EQUIVALENT FLUID SOIL PRESSURE = 40 pcf
TRAFFIC SURCHARGE PRESSURE = 240 pcf
F^c = 3,500 PSI (CONCRETE)
F_y = 60,000 PSI (REINFORCEMENT)

DLZ ILLINOIS, L.L.C.
ARLINGTON HEIGHTS, ILLINOIS

Signed: *[Signature]*
Date: April 10th, 2009
Expiration Date: 11/30/10



LOCATION SKETCH

DESIGNED	DPW
CHECKED	JMM
DRAWN	PH
CHECKED	JMM

GENERAL NOTES

- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60. SEE SPECIAL PROVISIONS.
- REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM FIELD MEASUREMENTS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.
- REMOVAL OF THE EXISTING RAMP F RETAINING WALL, INCLUDING EXISTING PILE TOPS AND BACKFILLING WITH GRANULAR MATERIAL TO EL. 571.92, TO BE INCLUDED IN CONCRETE REMOVAL.
- THE CONTRACTOR SHALL DRIVE TWO METAL SHELL PILES 14" DIAMETER TEST PILES IN A PERMANENT LOCATION NEAR BORINGS F-5 AND F-3 AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
- A CANTILEVERED SHEET PILING DESIGN DOES NOT APPEAR FEASIBLE AND ADDITIONAL MEMBERS OR OTHER RETENTION SYSTEMS MAY BE NECESSARY. THE CONTRACTOR SHALL SUBMIT A TEMPORARY SOIL RETENTION SYSTEM DESIGN INCLUDING PLAN DETAILS AND CALCULATIONS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.
- PRIOR TO INSTALLING THE PILING, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DIMENSIONS SHOWN IN THE PLANS FOR THE GAS LINE AND BOX TUNNELS. FOR THE GAS LINE AND THE C.E. DUCT, PILING SHALL BE INSTALLED WITH A MINIMUM OF TWO (2) FEET CLEARANCE. FOR THE FREIGHT TUNNEL, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO DEPARTMENT OF ENGINEERING, J.J. MADIA AT 312-744-3920 FOR APPROVED INSTALLATION TECHNIQUES. AT A MINIMUM THE PILES WITHIN TEN (10) FEET OF THE FREIGHT TUNNEL SHALL BE PRE-DRILLED. COST OF PREDRILLING PILES AND ANY PERMITTING REQUIREMENTS FOR THE CITY OF CHICAGO SHALL BE INCLUDED IN THE UNIT PRICE BID FOR DRIVING PILES. ANY DAMAGE TO THE TUNNELS OR GAS LINE AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO "LIKE NEW" CONDITIONS, BY THE CONTRACTOR, AT NO COST TO THE DEPARTMENT. "LIKE NEW" CONDITIONS OF THE REPAIRS MUST BE ACCEPTED BY THE ENGINEER.
- ALL CONSTRUCTION JOINTS SHALL BE BONDED.

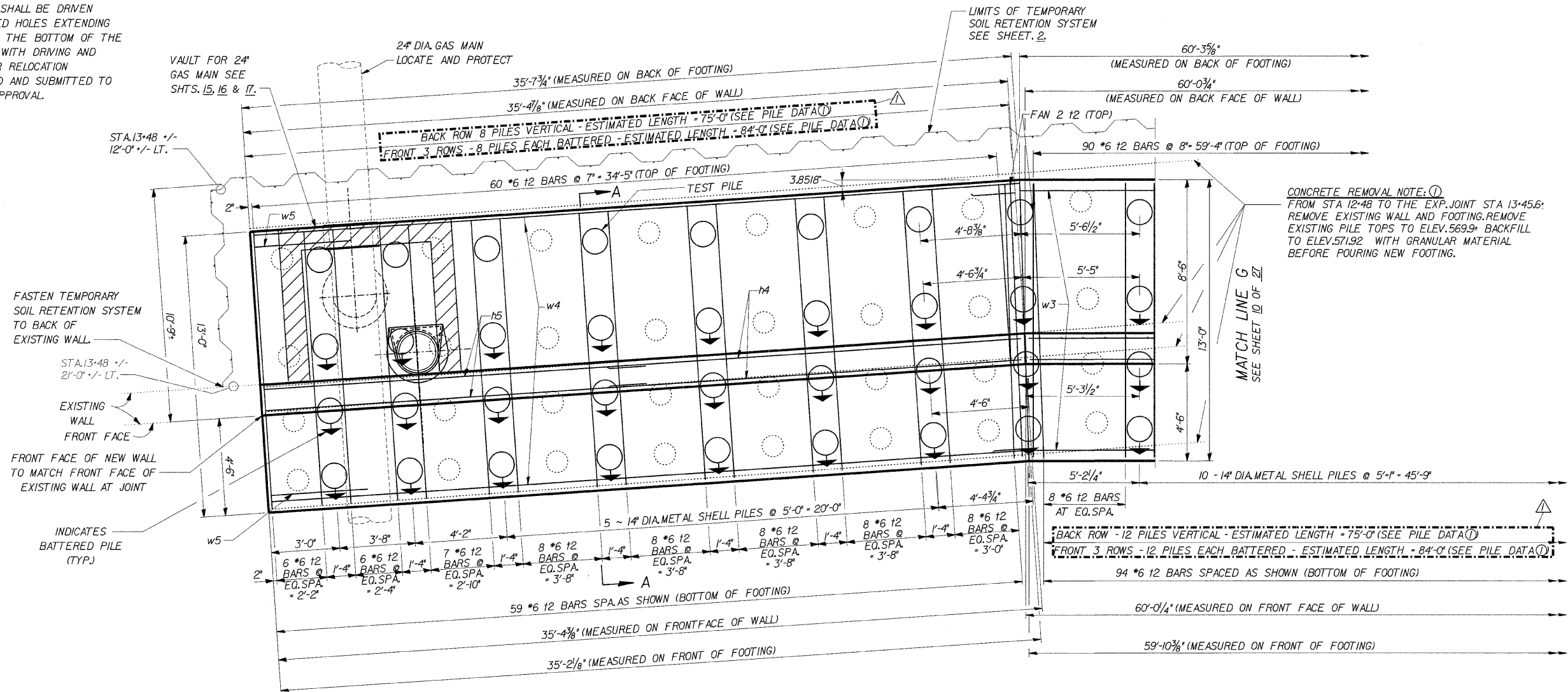
REVISIONS	
NAME	DATE
ADDENDUM Δ	4/10/09

**RETAINING WALL RAMP F
GENERAL PLAN & ELEVATION**

1-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

10-Apr-2009 13:38 s:\Dept\Structures\301099 190 94-retwall\ILL 190 94\RMPPF\DGNFILES\01-L-Layout\RampF.dgn

NOTE:
THE LOCATION OF THE 24" DIA. GAS MAIN IS APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ADJUSTING PILE LOCATIONS AND DRIVING TECHNIQUES TO PROVIDE PROTECTION NEEDED, TO THE SATISFACTION OF THE GAS COMPANY. THE PILES ADJACENT TO THE 24" DIA. GAS MAIN SHALL BE DRIVEN THROUGH 14" DIA. PRE-CORED HOLES EXTENDING TO A DEPTH OF 5' BELOW THE BOTTOM OF THE GAS MAIN. COST INCLUDED WITH DRIVING AND FILLING SHELLS. ANY MAJOR RELOCATION OF PILES TO BE PLANNED AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL.



PLAN

NOTE:
FOR SECTION A-A
SEE SHEET 13

PILE DATA	
①	14" DIA. x 0.250" WALLS
	NOMINAL REQUIRED BEARING = 240 KIPS
	ALLOWABLE RESISTANCE AVAILABLE = 80 KIPS

LEGEND	
	VAULT FOR 24" GAS MAIN SEE SHEETS 15, 16 & 17.

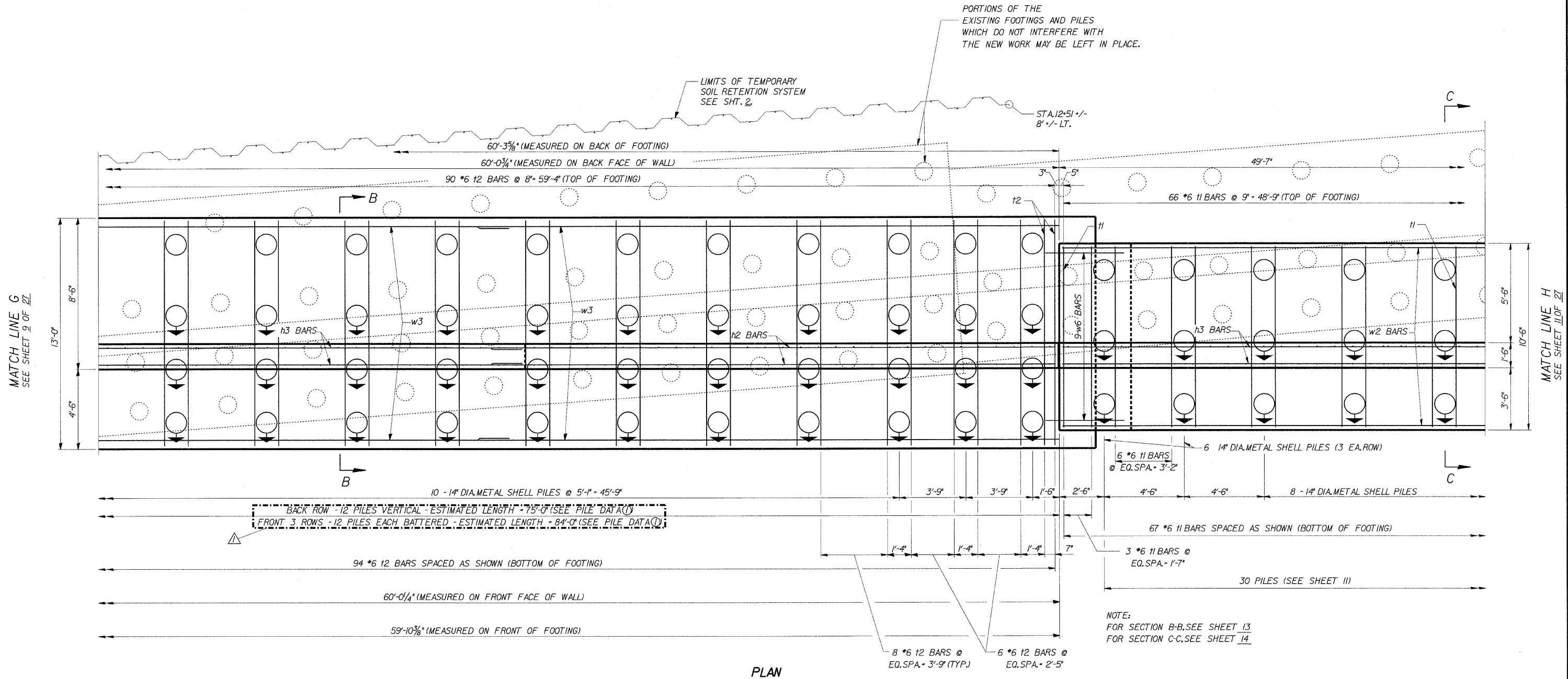
s:\Dept\Structures\301099 190 94-retwall\111 190 194 RAMPP\DGN\FILBS 09-12-RFOUND.dgn
10-Apr-2009 13:39

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

REVISIONS	
NAME	DATE
ADDENDUM A	4/10/09

DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807



PLAN

MINIMUM BAR LAPS
*4 BARS - 1'-8"

PILE DATA
① 14" DIA. x 0.250" WALLS
NOMINAL REQUIRED BEARING - 240 KIPS
ALLOWABLE RESISTANCE AVAILABLE - 80 KIPS

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

T.F. - TOP OF FOOTING
B.F. - BOTTOM OF FOOTING

REVISIONS	
NAME	DATE
ADDENDUM 1	4/10/09

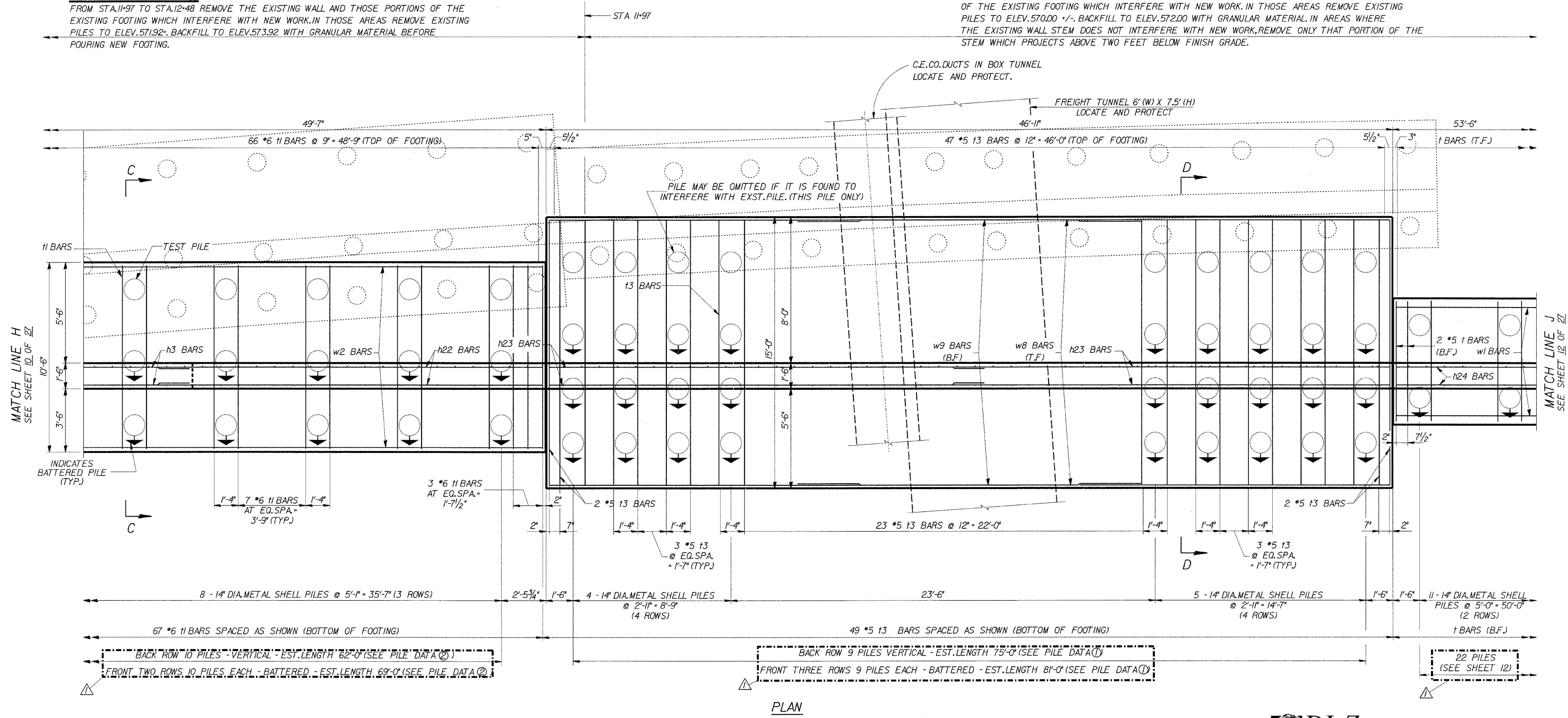
DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

10-Apr-2009 13:39 s:\Dept\Structures\301099 190 94-retwall\111 190 194-RAMPF\DCNFILES\09-12-RFOUND.A.dgn

CONCRETE REMOVAL NOTE: ②
FROM STA. 11+97 TO STA. 12+48 REMOVE THE EXISTING WALL AND THOSE PORTIONS OF THE EXISTING FOOTING WHICH INTERFERE WITH NEW WORK. IN THOSE AREAS REMOVE EXISTING PILES TO ELEV. 571.92. BACKFILL TO ELEV. 573.92 WITH GRANULAR MATERIAL BEFORE POURING NEW FOOTING.

CONCRETE REMOVAL NOTE: ③
FROM STA. 11+97 TO THE END OF THE EXISTING WALL REMOVE THE EXISTING WALL AND THOSE PORTIONS OF THE EXISTING FOOTING WHICH INTERFERE WITH NEW WORK. IN THOSE AREAS REMOVE EXISTING PILES TO ELEV. 570.00 +/- . BACKFILL TO ELEV. 572.00 WITH GRANULAR MATERIAL. IN AREAS WHERE THE EXISTING WALL STEM DOES NOT INTERFERE WITH NEW WORK, REMOVE ONLY THAT PORTION OF THE STEM WHICH PROJECTS ABOVE TWO FEET BELOW FINISH GRADE.



PILE DATA	
①	14" DIA. x 0.250" WALLS NOMINAL REQUIRED BEARING = 240 KIPS ALLOWABLE RESISTANCE AVAILABLE = 80 KIPS
②	14" DIA. x 0.250" WALLS NOMINAL REQUIRED BEARING = 180 KIPS ALLOWABLE RESISTANCE AVAILABLE = 60 KIPS

MINIMUM BAR LAPS	
*4 BARS	= 1'-8"
*7 BARS	= 3'-5"
*11 BARS	= 9'-0"

NOTE:
FOR SECTIONS C-C AND D-D,
SEE SHEET 14

T.F. = TOP OF FOOTING
B.F. = BOTTOM OF FOOTING

REVISIONS	
NAME	DATE
ADDENDUM Δ	4/10/09

DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

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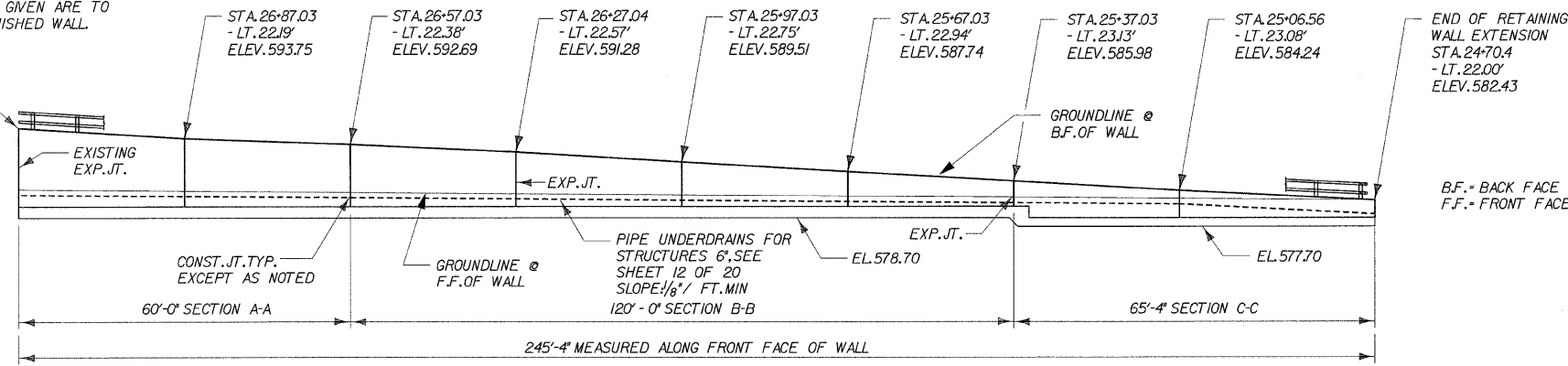
DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

BENCH MARK
BM 901 - NW ANCHOR BOLT OF HIGH MAST LIGHT POLE
STA. 32+81 - 96 FT. LEFT; ELEV. - 587.33

EXISTING STRUCTURE NO. 016-W808
190/194 RAMP H - ADAMS ST. EXIT RAMP
BUILT IN 1957, CONSISTS OF CAST-IN-PLACE CONCRETE
RETAINING WALL SUPPORTED ON CONCRETE PILING

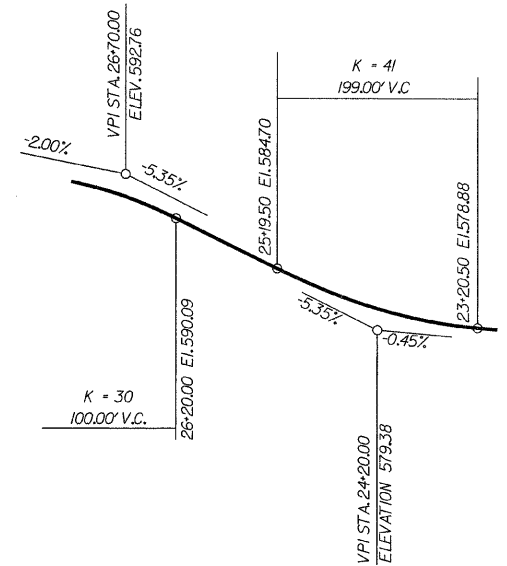
PROPOSED IMPROVEMENTS
EXISTING STRUCTURE TO BE REMOVED AND REPLACED
WITH A CAST-IN-PLACE CONCRETE T-TYPE RETAINING
WALL SUPPORTED ON CONCRETE FILLED METAL SHELL
PILES. NO SALVAGE.

BEGINNING OF RETAINING
WALL EXTENSION
STA. 27+17.03 - LT. 20.48'
ELEV. 595.60'
(MATCH EXISTING WALL)
ELEVATIONS GIVEN ARE TO
TOP OF FINISHED WALL.



ELEVATION

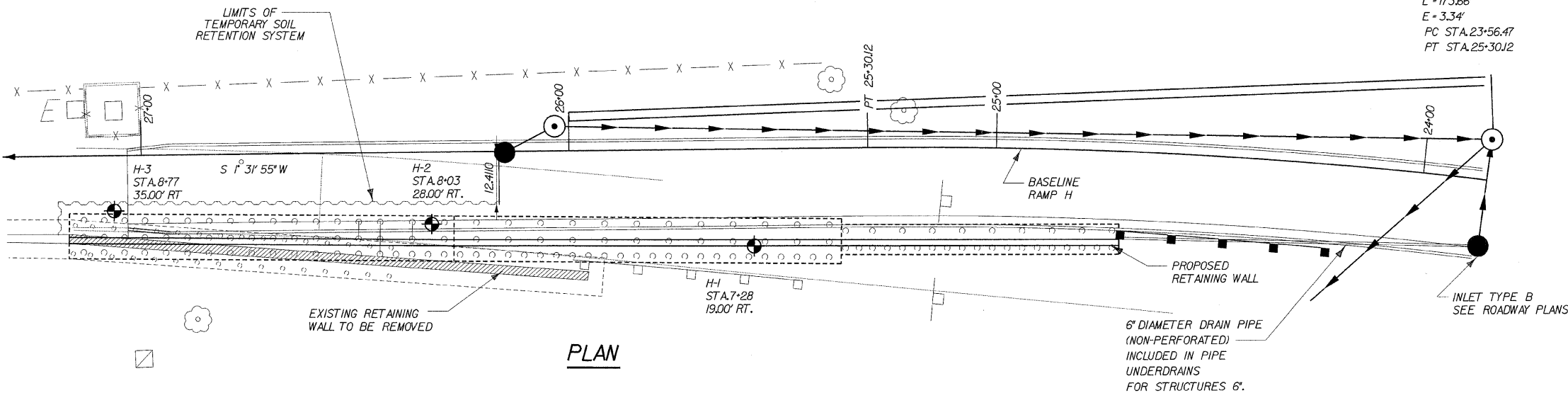
NOTE: STATIONS AND OFFSETS FROM BASELINE RAMP H



PROFILE GRADE RAMP H
(@ BASELINE SURVEY RAMP H)

HORIZONTAL CURVE DATA

RAMP H
 PI STA. 24+43.47
 I = 8'48" 18" (LT)
 D = 5'04" 14"
 T = 87.00'
 R = 1130.00'
 L = 173.66'
 E = 3.34'
 PC STA. 23+56.47
 PT STA. 25+30.12



PLAN

GENERAL NOTES

- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR60. SEE SPECIAL PROVISIONS.
- REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM FIELD MEASUREMENTS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.
- REMOVAL OF THE EXISTING RAMP H RETAINING WALL, INCLUDING EXISTING PILE TOPS AND BACKFILLING WITH GRANULAR MATERIAL TO EL. 578.7, TO BE INCLUDED IN CONCRETE REMOVAL.
- THE CONTRACTOR SHALL DRIVE ONE METAL SHELL PILE 14" DIAMETER TEST PILE IN A PERMANENT LOCATION NEAR BORING H-2 AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
- A CANTILEVERED SHEET PILING DESIGN DOES NOT APPEAR FEASIBLE AND ADDITIONAL MEMBERS OR OTHER RETENTION SYSTEMS MAY BE NECESSARY. THE CONTRACTOR SHALL SUBMIT A TEMPORARY SOIL RETENTION SYSTEM DESIGN INCLUDING PLAN DETAILS AND CALCULATIONS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.
- ALL CONSTRUCTION JOINTS SHALL BE BONDED.

DESIGN SPECIFICATIONS

2002 AASHTO SPECIFICATIONS FOR HIGHWAY BRIDGES

DESIGN STRESSES

LOADINGS
 EQUIVALENT FLUID SOIL PRESSURE = 40 pcf
 TRAFFIC SURCHARGE PRESSURE = 240 pcf

F'c = 3,500 PSI (CONCRETE)
 Fy = 60,000 PSI (REINFORCEMENT)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DLZ ILLINOIS, LLC
ARLINGTON HEIGHTS, ILLINOIS

Signed: *Peter R. Dombrowski*
Date: *April 10th, 2009*
Expiration Date: 11/30/10

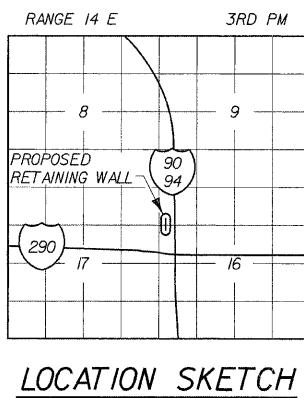
DLZ
DLZ Illinois, Inc.
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

TOTAL BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
CONCRETE STRUCTURES	CU YD	293.5
TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1,000
CONCRETE REMOVAL	CU YD	95
REINFORCEMENT BARS	POUND	19,000
REINFORCEMENT BARS, EPOXY COATED	POUND	4,920
STRUCTURE EXCAVATION	CU YD	1,090
FURNISHING METAL SHELL PILES 14" x 0.250"	FOOT	7,683
DRIVING PILES	FOOT	7,683
TEST PILE METAL SHELLS	EACH	1
GEOCOMPOSITE WALL DRAIN	SQ YD	197
PIPE UNDERDRAINS FOR STRUCTURES 6'	FOOT	246
RUSTICATION FINISH	SQ FT	1,420
INSTALL DECORATIVE STEEL GUARDRAIL	FOOT	245
INSTALL DECORATIVE STEEL FASCIA	FOOT	182
EMBEDDED PLATE, GUARDRAIL UPRIGHT, EXPANSION JOINT	EACH	4
EMBEDDED PLATE, GUARDRAIL UPRIGHT	EACH	33
REPAIR OF FASCIA PANELS, EXIT RAMP H	LS	1

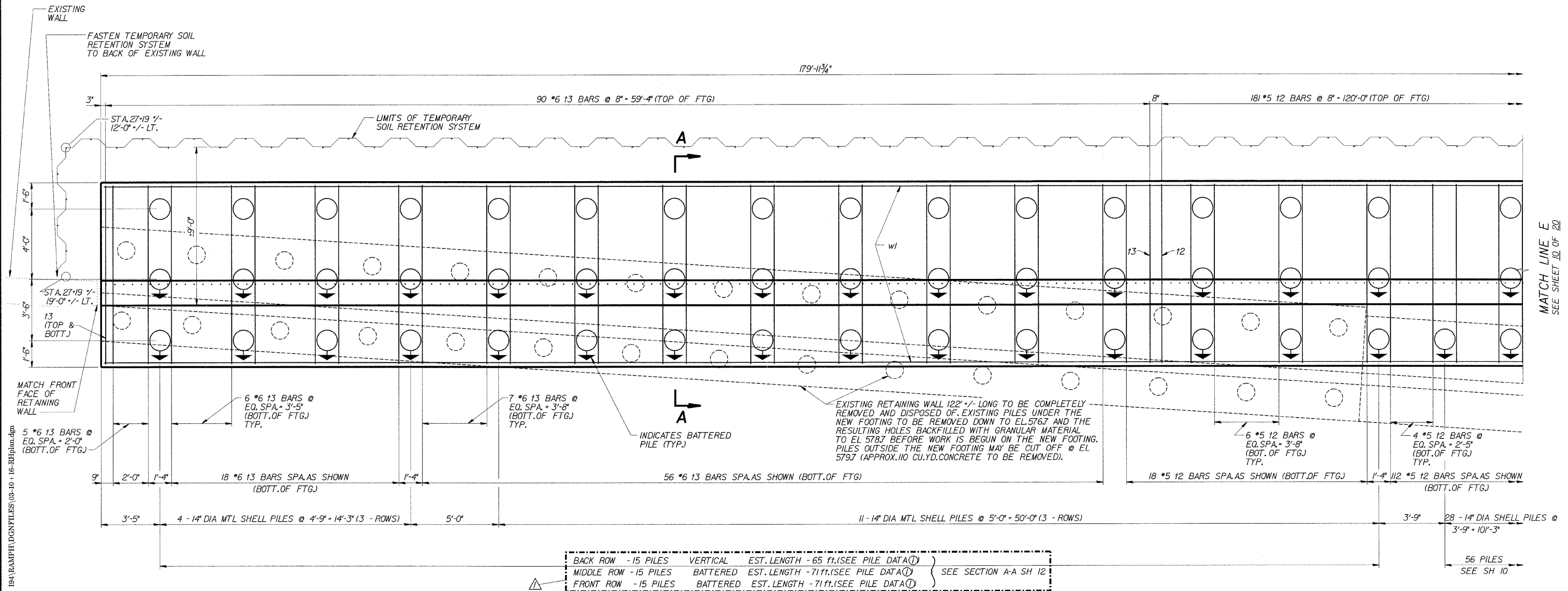
RETAINING WALL RAMP H
GENERAL PLAN & ELEVATION
 I-90/94 KENNEDY EXPRESSWAY
 (HUBBARDS CAVE TO I-290)
 SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
 STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
 (RAMP F BASELINE)
 COOK COUNTY
 STRUCTURE NUMBER 016-W808

REVISIONS	
NAME	DATE
ADDENDUM A	4/10/09

DESIGNED	ECF
CHECKED	JMM
DRAWN	ECF & DPW
CHECKED	JMM



LOCATION SKETCH



PLAN

PILE DATA	
① 14" DIA. x 0.250" WALLS	
NOMINAL REQUIRED BEARING = 180 KIPS	
ALLOWABLE RESISTANCE AVAILABLE = 60 KIPS	

MINIMUM BAR LAPS
*4 BARS = 1'-8"
*6 BARS = 6'-6"

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



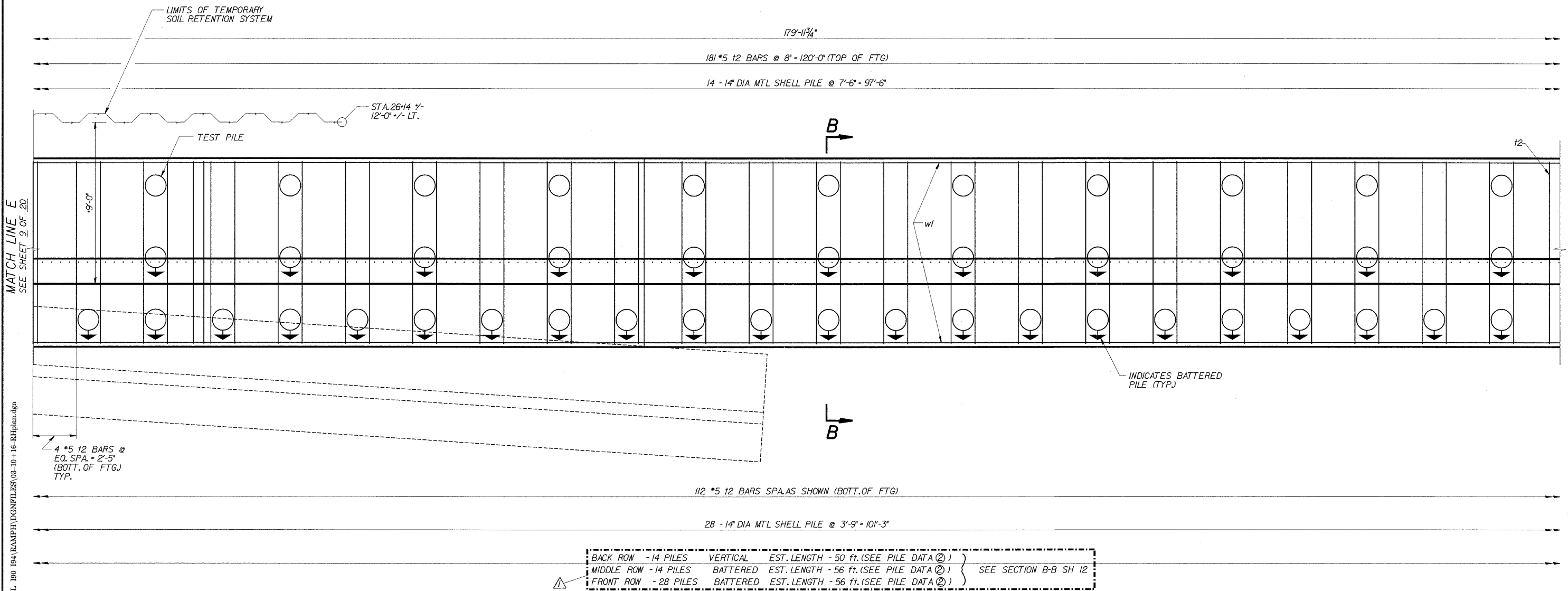
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE
ADDENDUM A	4/10/09

**RETAINING WALL RAMP H
DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

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10-Apr-2009 13:42

MATCH LINE E
SEE SHEET 10 OF 20



PLAN

PILE DATA	
②	14" DIA. x 0.250" WALLS NOMINAL REQUIRED BEARING = 120 KIPS ALLOWABLE RESISTANCE AVAILABLE = 40 KIPS

MINIMUM BAR LAPS
*4 BARS = 1'-8"
*6 BARS = 6'-6"

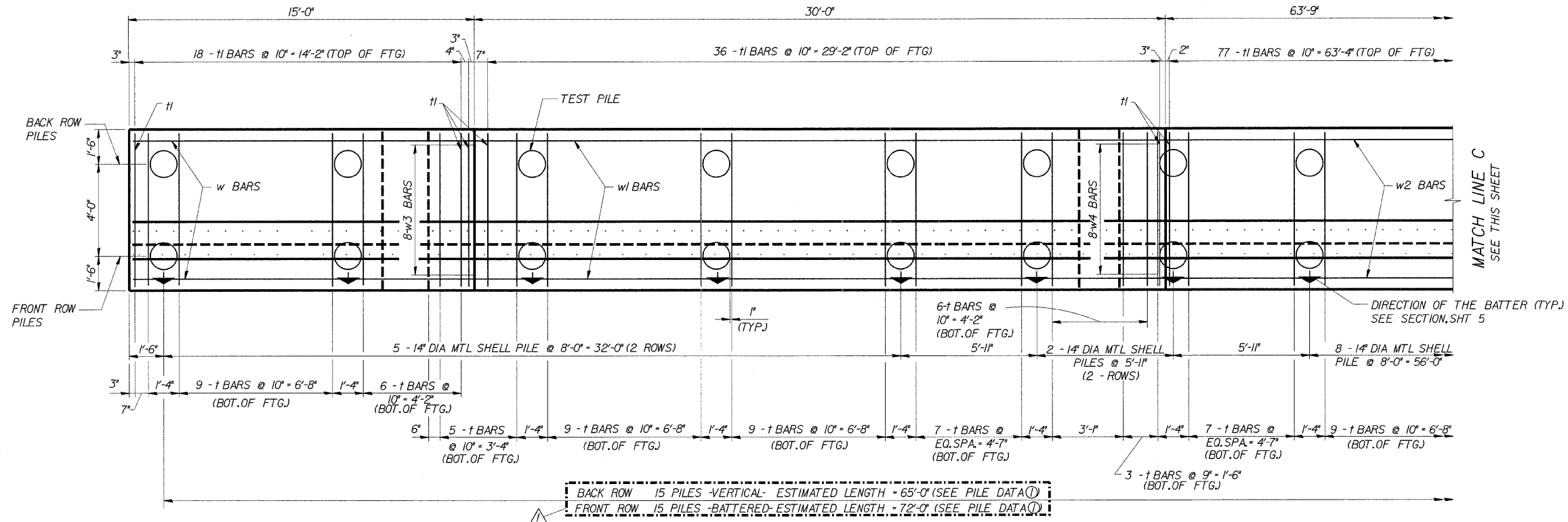
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DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

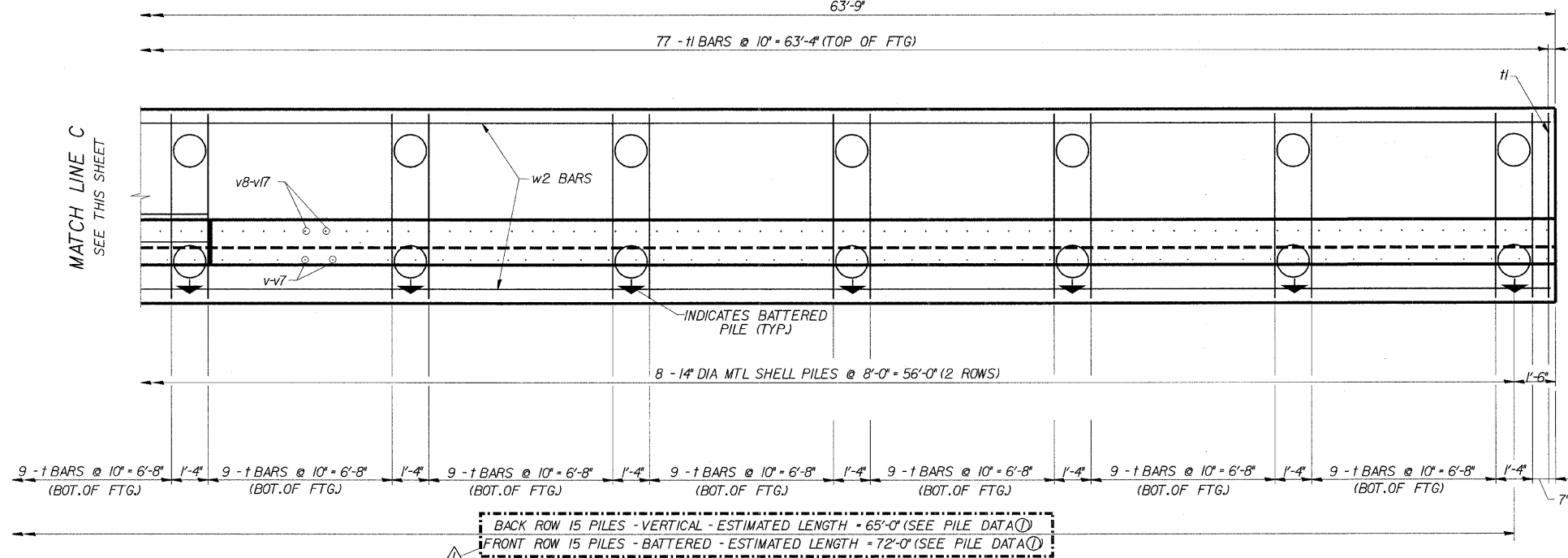
DLZ
DLZ Illinois, Inc.
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE
ADDENDUM Δ	4/10/09

**RETAINING WALL RAMP H
DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808



PLAN
63'-9"



PLAN

PILE DATA
 ① 14" DIA. x 0.250" WALLS
 NOMINAL REQUIRED BEARING = 150 KIPS
 ALLOWABLE RESISTANCE AVAILABLE = 50 KIPS

MINIMUM BAR LAPS
 *4 BARS - 1'-8"

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DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE
ADDENDUM A	4/10/09

**RETAINING WALL RAMP K
ELEVATION (REINF)**
 I-90/94 KENNEDY EXPRESSWAY
 (HUBBARD'S CAVE TO I-290)
 SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
 STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
 (RAMP F BASELINE)
 COOK COUNTY
 STRUCTURE NUMBER 016-W809