Bench Mark: "X" Cut on SW bolt of LP "FH8" on north side of WB I-90, 3rd pole west of CTA bridge west of Harlem Ave.

Existing Structure: Existing structure consists of two T-type cast-in-place retaining walls on combination of spread footing and cast-in-place concrete piles (constructed in 1958), and HP 10x42 piles (N.W. Retaining Wall of Higgins Flyover, Structure No. 016-2519; constructed in 1981). Older Wall is approximately 566 feet long with a max. exposed height of 11'-0" and a chain link fence mounted on top of the wall. Newer wall is approximately 213 feet long with a max. exposed height of 15'-0" and Type L Aluminum railing mounted on top of the wall. Top portion of both walls will be removed and a Moment Slab and associated noise wall will be constructed in separate contracts. Traffic will be maintained in both direction during construction.
Salvage - None

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, 7th Edition (2014) with 2015 Interim Revisions

DESIGN STRESSES

(Field Units)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
Existing Units

	(SN 016-2296) (Allowable)	(SN 016-2519)
f'c=	800 psi	3,500 psi
fy=	20,000 psi	60,000 psi (Reinf.)

LOADING

Allow 35 psf wind load for Structure Mounted Noise Wall
Maximum Dead Load not to exceed 55 psf of wall face area.
Traffic Impact per AASHTO LRFD Bridge Specifications

HIGHWAY CLASSIFICATION

F.A.P. RTE. I-90
W Higgins Avenue/Higgins Flyover
Functional Class: Major Collector
ADT: 20800 (2013)
ADTT: 660 (2013)
Speed: 30 m.p.h (posted)

213'-2½" Limits of existing N.W. Retaining Wall of Higgins Flyover (Part of SN 016-2519)

566'-8½" Limits of existing older Retaining Wall (SN 016-2296)

Cast-in-Place Moment Slab, Total Length = 750'-5"

* 21'-11½" | 60'-0" | 60'-0" | 41'-9" | 36'-8" | 60'-0" | 60'-0" | 60'-0" | 60'-0" | 60'-0" | 60'-0" | 60'-0" | 60'-0" | 50'-0½"

Barrier Joint Spacing **, Typ.

End Noise Wall Sta. 2002+95.07
Replace light pole
End Moment Slab, A'14
Top of Moment Slab
Top of Barrier
Noise Wall (By Others)
Top of Wearing Surface
Begin Noise Wall Sta. 1000+79.05
Begin Moment Slab, A1
Name Plate (Special), typ. See Note 1

A'14 A14 A13M A13 A12M A12 A11M A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1

C'14 C14 C13M C13 C12M C12 C11M C11 C10 C9 C8 C7 C6 C5 C4 C3 C2 C1

End Existing Retaining Wall
Finished top of Retaining wall, typ.
Begin Existing Retaining Wall

El. 637.75 El. 640.75 El. 643.75 El. 645.75 El. 644.10 El. 642.10 Existing and Proposed Ground Line Bottom of Coping Line El. 641.10 Stabilize Panel 3 using Permanent Ground Anchors (See Note 4) El. 642.35 El. 644.10 El. 646.10 El. 647.60

APPROVED
JAN 13 2016
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

ELEVATION

(Dimensions measured along front face of wall, Looking South)

℄ W. Higgins Avenue Sta. 1005+38.78 = ℄ Higgins Flyover Sta. 2000+00.00, Offset 6.56' RT

℄ Higgins Flyover
Temporary Concrete Barrier****
W. HIGGINS AVE
℄ W. Higgins Avenue
Inner edge of Moment Slab
Existing Curb & Gutter, typ.
R.O.W.
25'-4½" Min. & varies***
4'-0"
16'-6"***

B'14 B14 B13M B13 B12M B12 B11M B11 B10 B9 B8 B7 B6 B5 B4 B3 B2 B1

2003' 2002' 2001' 1005' 1004' 1003' 1002' 1001'

NWB-29 NWB-28 NWB-27 NWB-26

Expansion Joint, typ.
Inside Face of Barrier
See SAFETY WALK TRANSITION
End Moment Slab, A'14
Begin Moment Slab, A1

I-90 SIDE

PLAN

(℄ Top of Moment Slab)

LEGEND

- Existing Underground Telephone Line
- Existing Aerial Line
- Existing Underground Electric Line
- Existing Underground Water Line
- Existing Underground Cable
- Existing Underground Combined Sewer
- Proposed Catch Basin (Existing to be remain)
- Proposed Storm Sewer
- Existing Storm Sewer
- Moment Slab Segment Number
- Temporary Travel Lane
- Proposed Light Pole
- Soil Boring Location

Notes:

1. Provide Name Plate (Special) on inside face (W. Higgins Ave. side) of Barrier, at every 200'.
2. Stations, Offsets & Elevations for Control Points are provided on Sht. 2
3. Pilaster spacings to be determined during final design.
4. Plans and design details for stabilization of Panel 3 using Permanent Ground Anchors provided as separate Existing Retaining Wall (EB-A) Repair Plans.

* Expansion Joint Spacing in Barrier and Moment Slab (along front face (I-90 side) of Existing Retaining Wall)
** Barrier Joint Spacing, TBD during final design
*** Subject to refinement during final design
**** Exact TCB offset pending District review of Maintenance of Traffic concept for Frontage Road - Moment slab construction

CURVE DATA

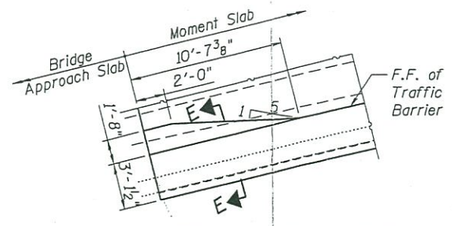
(℄ Higgins Flyover)

PI STA. = 2002+53.82
Δ = 19° 33' 39" (LT)
D = 7° 09' 43"
R = 800.00'
T = 137.90'
L = 273.12'
E = 11.80'
P.C. STA. = 2001+15.92
P.T. STA. = 2003+89.04

MOMENT SLAB AREA
DO NOT OPEN CUT ROADWAY
STA. 1000+79.05 TO 1005+38.78 & 2000+00.00 TO 2002+95.07
STRUCTURE NO. 016-2296

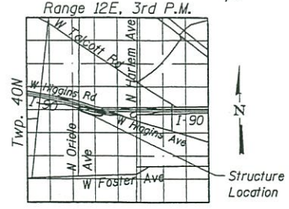
NAME PLATE (SPECIAL)

See Std. 515001



SAFETY WALK TRANSITION

(See SECTION E-E on Sheet 2)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
W HIGGINS AVENUE
F.A.P. RTE. I-90 - SEC. (1517 & 1415) R-3
COOK COUNTY
STATION 1000+79.05 to 1005+38.78
& STATION 2000+00.00 to 2002+95.07
STRUCTURE NO. 016-2296

exp U.S. Services Inc. Chicago, IL. BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

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PLOT DATE = 12/1/2015	DATE 12/01/2015	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
EX EB-A MOMENT SLAB (S.N. 016-2296)
SHEET NO. 1 OF 2 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-3	COOK	402	332
		CONTRACT NO. 60Y38		
		ILLINOIS FED. AID PROJECT		

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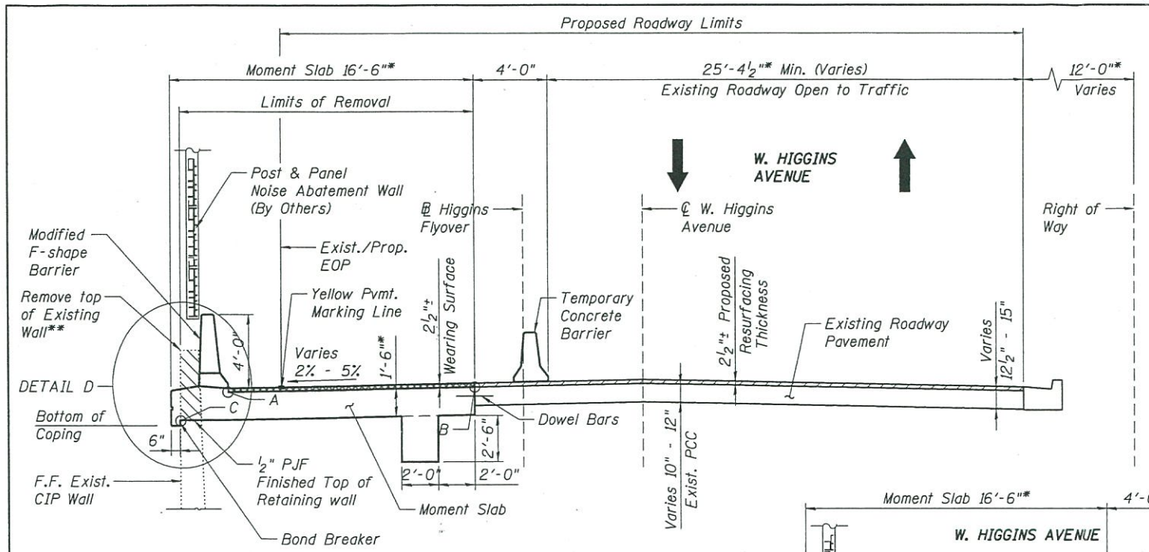
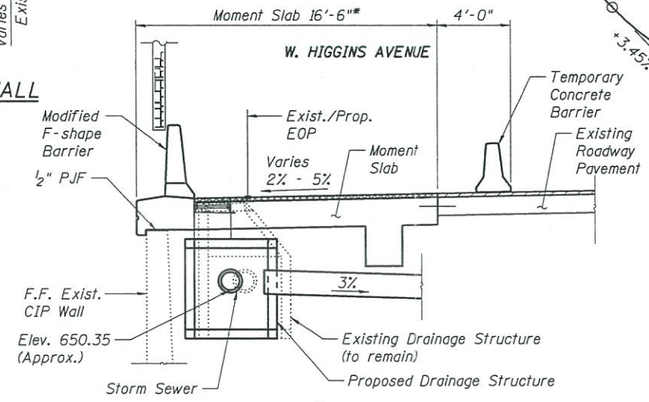


TYPICAL SECTION THRU MOMENT SLAB & NOISE WALL

(Looking East)



MOMENT SLAB SECTION

(Looking East @ Catch Basin Location)

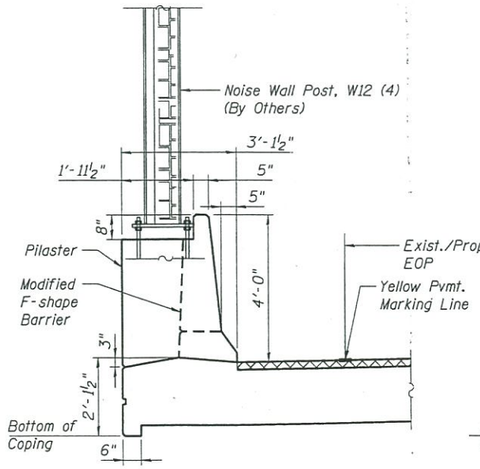
A Stations, offsets and elevations for Inside Face of Barrier are provided w.r.t. this point, see Plan & Elevation views.

B Stations and offsets for inner edge of Moment Slab are provided w.r.t this point, see Plan view.

C Stations and elevations for finished top of Retaining Wall are provided w.r.t. this point, see Elevation view.

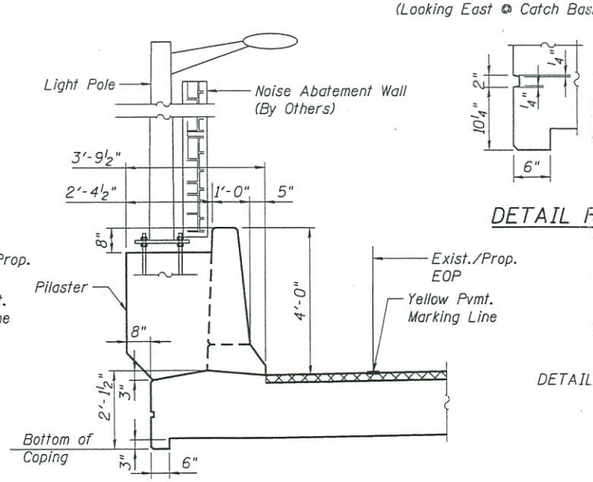
LEGEND

- Temporary Travel Lanes
- Existing Concrete Removal



SECTION THRU MOMENT SLAB & NOISE WALL

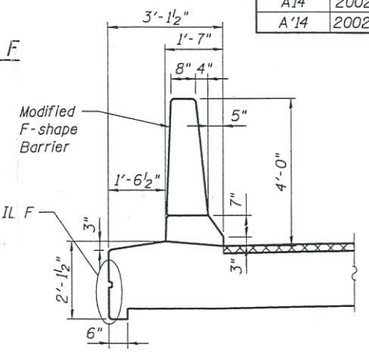
(@ Noise Wall Post)



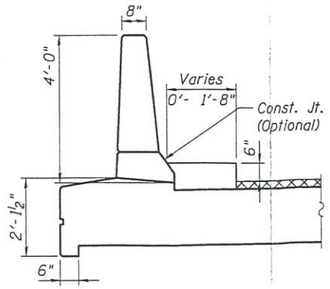
SECTION THRU MOMENT SLAB & NOISE WALL

(@ Light Pole Location)

DETAIL F

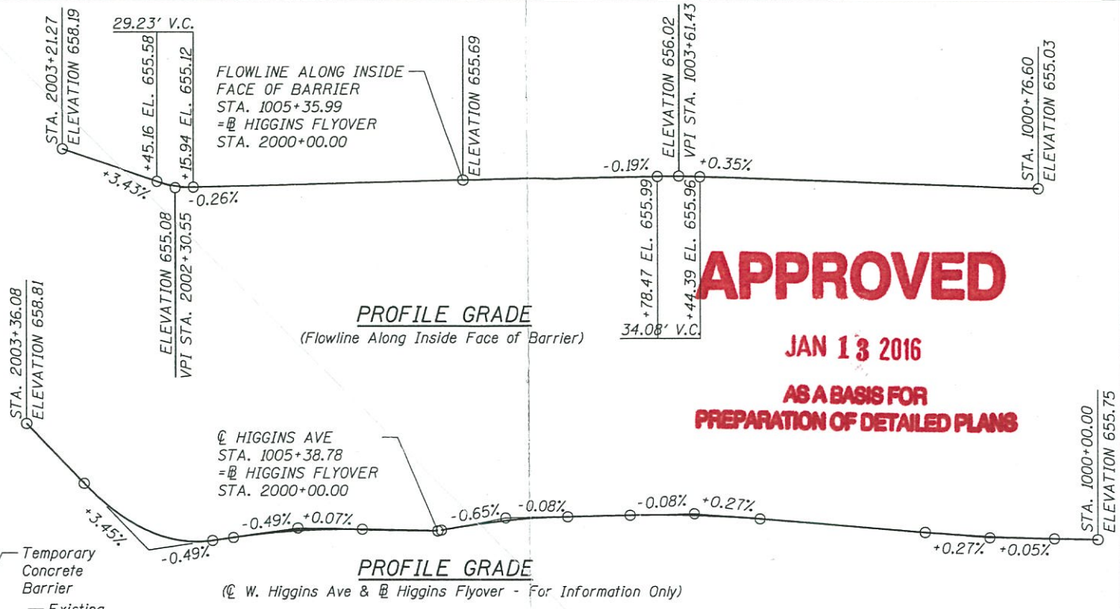


DETAIL D



SECTION E-E

(Safety Walk Transition)



GEOMETRIC CONTROL POINTS STATIONS, OFFSETS & ELEVATIONS

INSIDE FACE OF BARRIER (A)

Location	Station	Offset ('LT)	Elevation
A1	1000+79.05	21.18	654.82
A2	1001+29.10	21.21	655.00
A3	1001+89.10	21.24	655.20
A4	1002+49.10	21.34	655.41
A5	1003+09.10	21.53	655.62
A6	1003+69.10	21.73	655.79
A7	1004+29.10	22.03	655.69
A8	1004+89.10	22.32	655.58
A9	2000+10.70	15.91	655.45
A10	2000+70.70	15.33	655.29
A11	2001+07.38	14.97	655.20
A11M	2001+28.41	15.03	655.14
A12	2001+49.88	15.12	655.09
A12M	2001+80.56	15.22	655.01
A13	2002+11.24	15.29	654.93
A13M	2002+41.92	15.33	655.20
A14	2002+72.61	15.33	656.21
A'14	2002+95.07	15.30	656.97

INNER EDGE OF MOMENT SLAB (B)

Location	Station	Offset ('LT)	Elevation
B1	1000+79.05	7.80	655.38
B2	1001+29.10	7.83	655.45
B3	1001+89.10	7.87	655.58
B4	1002+49.10	7.96	655.82
B5	1003+09.10	8.16	656.02
B6	1003+69.10	8.36	656.18
B7	1004+29.10	8.65	655.99
B8	1004+89.10	8.95	655.78
B9	2000+10.70	2.54	655.77
B10	2000+70.70	1.95	655.76
B11	2001+07.38	1.59	655.71
B11M	2001+28.41	1.66	655.66
B12	2001+49.88	1.75	655.60
B12M	2001+80.56	1.85	655.47
B13	2002+11.24	1.92	655.38
B13M	2002+41.92	1.95	655.57
B14	2002+72.61	1.95	656.28
B'14	2002+95.07	1.93	656.98

FINISHED TOP OF RETAINING WALL (C)

Location	Station	Elevation
C1	1000+79.05	653.28
C2	1001+29.10	653.45
C3	1001+89.10	653.66
C4	1002+49.10	653.87
C5	1003+09.10	654.08
C6	1003+69.10	654.25
C7	1004+29.10	654.15
C8	1004+89.10	654.04
C9	2000+10.70	653.91
C10	2000+70.70	653.75
C11	2001+07.38	653.66
C11M	2001+28.41	653.60
C12	2001+49.88	653.55
C12M	2001+80.56	653.47
C13	2002+11.24	653.39
C13M	2002+41.92	653.66
C14	2002+72.61	654.67
C'14	2002+95.07	655.43

Notes:

* Subject to refinement during final design

** Remove top portion of existing Retaining Wall to the elevations shown on this sheet.

1. Stations and offsets related to 1000+XX.XX are provided w.r.t. ℄ W Higgins Ave.
2. Stations and offsets related to 2000+XX.XX are provided w.r.t. ℄ Higgins Flyover.
3. See TYPICAL SECTION THRU MOMENT SLAB & NOISE WALL for location of Geometric Control Points.
4. Noise wall post type & size to be determined by wall supplier as part of a future noise wall contract.

exp U.S. Services Inc. Chicago, IL
BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

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PLOT DATE = 12/1/2015	DATE 12/01/2015	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION AND DETAILS
EX EB-A MOMENT SLAB (S.N. 016-2296)

SHEET NO. 2 OF 2 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 60Y38		
	ILLINOIS FED. AID PROJECT			

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