Bench Mark: TBM #19 (ELEV. 638.00)- Square cut on top of barrier wall by light pole (FC13) mile marker 80.40 on North side WB I-90 just East of Canfield.

Existing Structure: Existing structure, constructed in 2000, is a soldier pile retaining wall (S.N. 016-W755). The soldier pile wall is approximately 429 feet long with a max. exposed height of 14'-2". A chain link fence is mounted on top of the wall. Top portion of wall will be removed and a Moment Slab and associated noise wall will be constructed in separate contracts. Existing wall to remain. Traffic will be maintained in westbound direction during construction. Eastbound Higgins Rd. traffic will be detoured according to Detour Plan.

Salvage - None

LOADING

Allow 35 psf wind load for Structure Mounted Noise Wall (see Special Provision)
Maximum Dead Load not to exceed 55 psf of wall face area.
Traffic Impact per AASHTO LRFD Bridge Specifications
Approx. Noise Wall Height = 17'-0"

HIGHWAY CLASSIFICATION

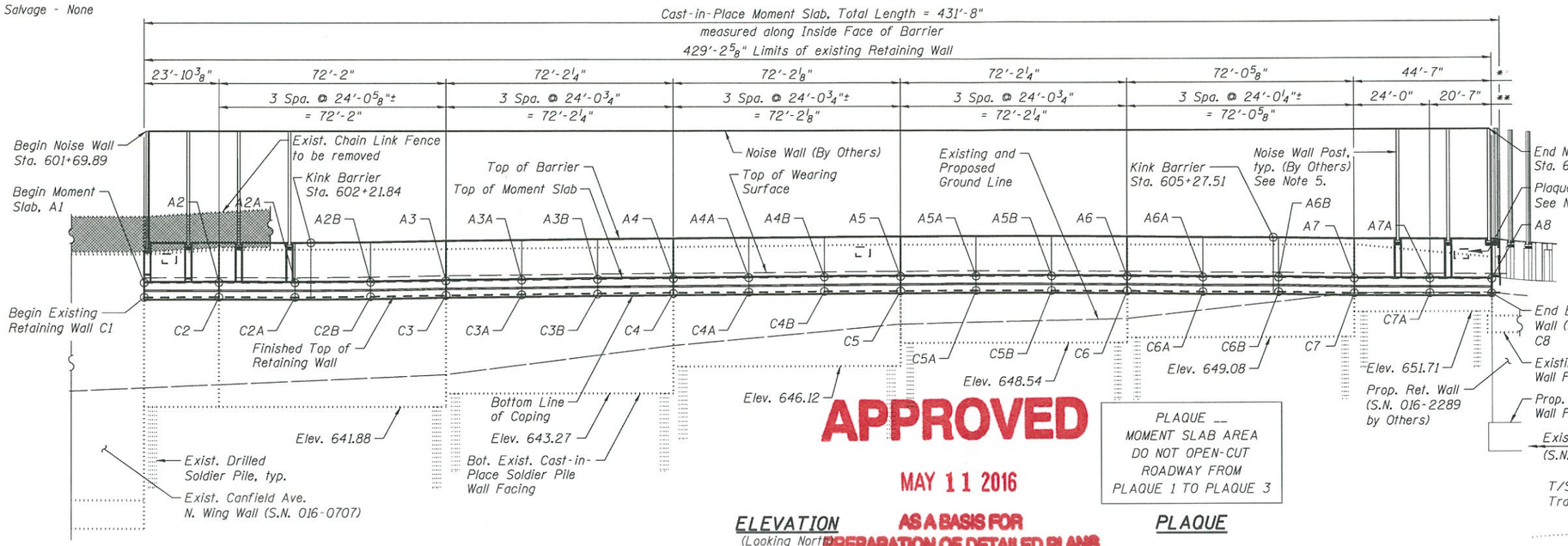
F.A.I Rte. - Higgins Road (S.R. 72)
Functional Class: Major Collector
ADT: 19,800 (2013)
ADTT: 1,200 (2013)
Speed: 30 m.p.h (posted)

DESIGN SPECIFICATIONS

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

DESIGN STRESSES

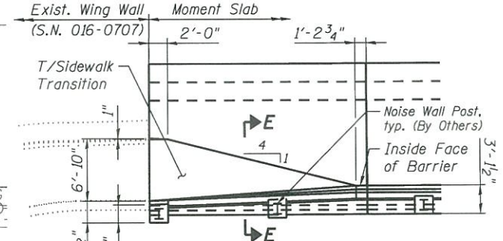
New Construction
f'c = 4,000 psi (Superstructure Concrete)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
Existing Construction
f'c = 3,480 psi
fy = 58,000 psi (Reinforcement)
fy = 50,000 psi (Soldier Piles)



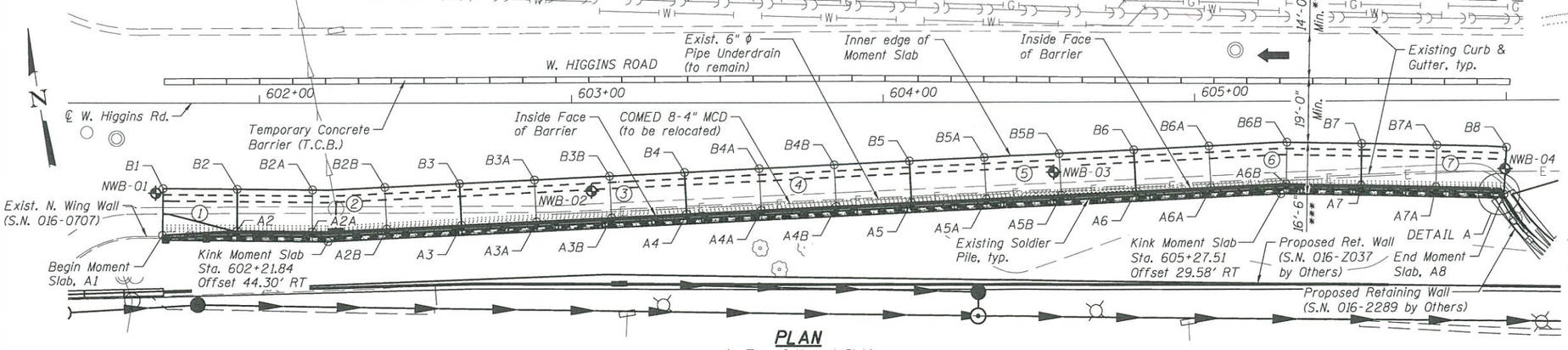
ELEVATION
(Looking North)

APPROVED
MAY 11 2016
AS A BASIS FOR PREPARATION OF DETAILED PLANS

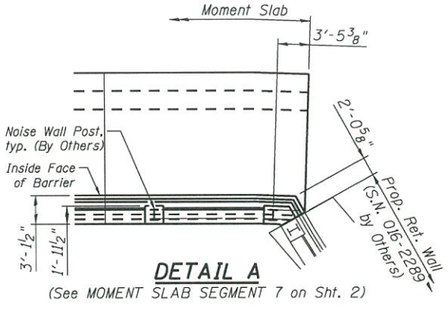
PLAQUE
MOMENT SLAB AREA
DO NOT OPEN-CUT
ROADWAY FROM
PLAQUE 1 TO PLAQUE 3



SIDEWALK TRANSITION
(See SECTION E-E on Sht. 2)
(See MOMENT SLAB SEGMENT 1 on Sht. 2)



PLAN
(@ Top of Moment Slab)



DETAIL A
(See MOMENT SLAB SEGMENT 7 on Sht. 2)

LEGEND:

- Exist. Electrical Line
- Exist. Fence
- Exist. Gas Line
- Exist. Storm Sewer
- Exist. Water Line
- Exist. Combined Sewer
- Prop. Storm Sewer
- Boring Location
- Proposed Catch Basin
- Proposed Inlet
- Exist. Catch Basin
- Moment Slab Segment Number
- Temporary Travel Lane
- Exist. Light Pole

NOTES:

1. Horizontal dimensions measured along front face (I-90 side) of Existing Retaining Wall U.N.O.
2. Stations & offsets are given to front face (I-90 side) of Existing Retaining Wall relative to ℄ W. Higgins Road.
3. Stations, offsets & elevations for control points are provided on Sheet 2.
4. Provide Plaque on inside face (W. Higgins Road side) of Barrier, at every 200' (or less).
5. Spacing of pilasters and layout of noise wall post anchors to be determined during final design.

*Expansion Joint Spacing in Barrier and Moment Slab (along front face (I-90 side) of Existing Retaining Wall)
**Construction Joint Spacing in Barrier
***Subject to refinement during final design

LOCATION SKETCH

GENERAL PLAN & ELEVATION
W. HIGGINS ROAD
F.A.P. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 601+68.90 TO STA. 605+98.65
STRUCTURE NO. 016-2293

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

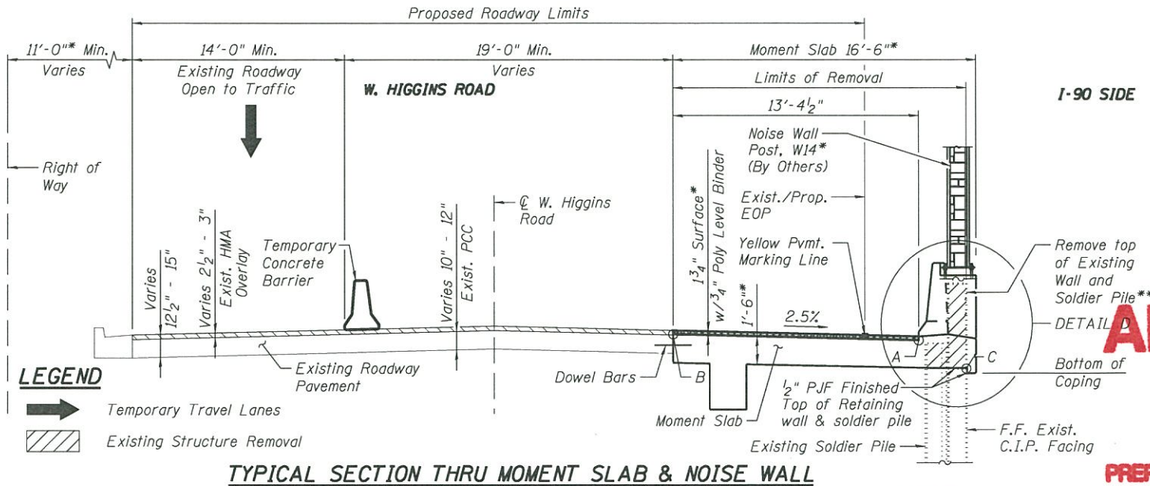
USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 3/28/2016	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
EX WB-B MOMENT SLAB
SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90		COOK	2	1
		ILLINOIS	FED. AID PROJECT	

MODEL: $MODELNAME$
D158015-sht-NW5.1_TSL01.GP&E.dgn



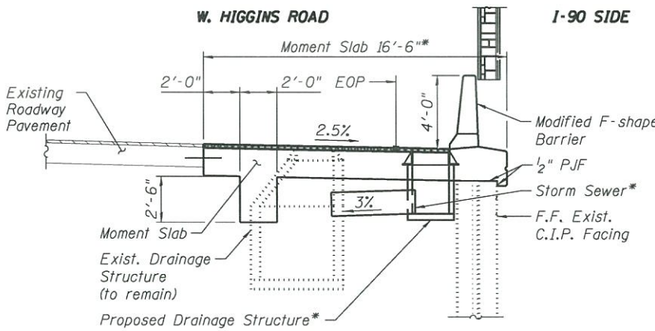
TYPICAL SECTION THRU MOMENT SLAB & NOISE WALL

(Looking East)

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

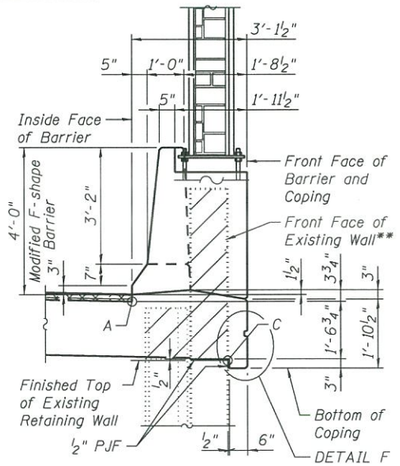
B Stations and offsets for inner edge of Moment Slab are provided w.r.t this point, see Plan view.

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

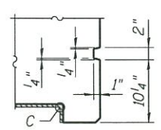


MOMENT SLAB SECTION

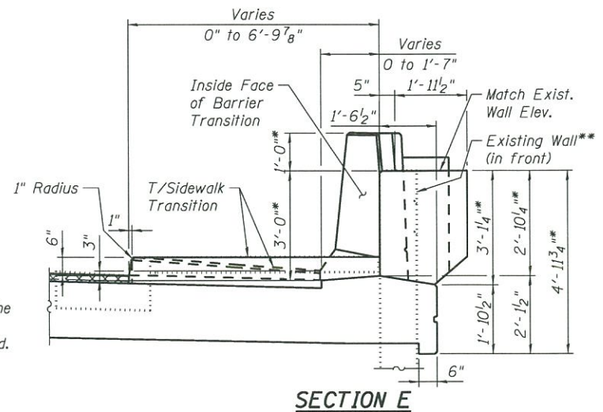
(Looking East @ Catch Basin Location)



DETAIL D



DETAIL F



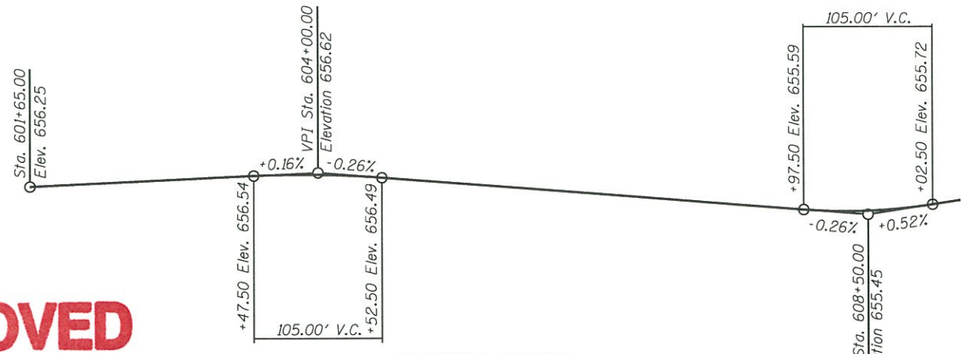
SECTION E

Notes:

* Subject to refinement during final design

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

1. Stations and offsets are provided with respect to ℄ W. Higgins Rd.
2. See TYPICAL SECTION THRU MOMENT SLAB & NOISE WALL for location of Geometric Control Points.
3. Spacing of pilasters and layout of noise wall post anchors to be determined during final design.



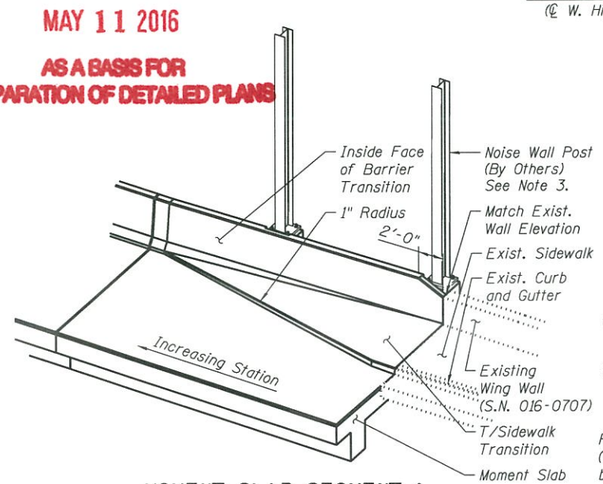
PROFILE GRADE

(℄ W. Higgins Rd.)

APPROVED

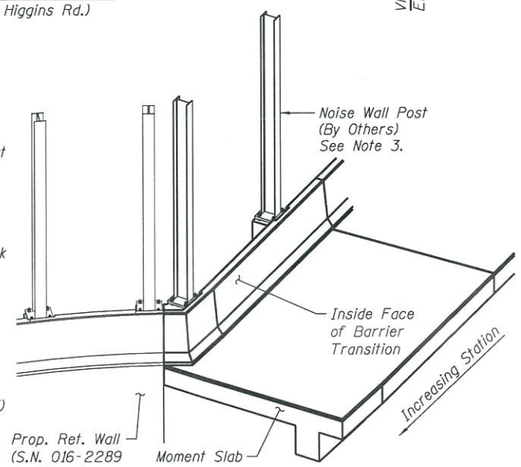
MAY 11 2016

AS A BASIS FOR PREPARATION OF DETAILED PLANS



MOMENT SLAB SEGMENT 1

(Looking South-East at Barrier Transistion)



MOMENT SLAB SEGMENT 7

(Looking South-West at Inside Face of Barrier)

GEOMETRIC CONTROL POINTS STATIONS, OFFSETS & ELEVATIONS

INSIDE FACE OF BARRIER (A)

Location	Station	Offset (' RT)	Elevation
A1	601+68.93	40.65	655.12
A2	601+92.77	41.13	655.19
A2A	602+16.78	41.13	655.28
A2B	602+40.75	40.21	655.34
A3	602+64.79	39.06	655.41
A3A	602+88.83	37.90	655.48
A3B	603+12.86	36.74	655.55
A4	603+36.89	35.59	655.62
A4A	603+60.92	34.43	655.69
A4B	603+84.96	33.27	655.76
A5	604+08.99	32.11	655.83
A5A	604+33.03	30.96	655.90
A5B	604+57.07	29.80	655.82
A6	604+81.10	28.64	655.74
A6A	605+05.12	27.49	655.66
A6B	605+27.47	26.41	655.58
A7	605+53.22	27.02	655.49
A7A	605+77.22	27.59	655.41
A8	605+98.72	28.10	655.34

INNER EDGE OF MOMENT SLAB (B)

Location	Station	Offset (' RT)	Elevation
B1	601+69.05	27.28	655.45
B2	601+92.89	27.49	655.53
B2A	602+21.51	27.75	655.61
B2B	602+40.11	26.85	655.67
B3	602+64.15	25.70	655.74
B3A	602+88.19	24.54	655.81
B3B	603+12.22	23.38	655.88
B4	603+36.25	22.23	655.95
B4A	603+60.28	21.07	656.03
B4B	603+84.32	19.91	656.10
C5	604+08.35	18.75	656.17
B5A	604+32.39	17.60	656.24
B5B	604+56.43	16.44	656.15
B6	604+80.46	15.28	656.07
B6A	605+04.48	14.13	655.99
B6B	605+27.30	13.03	655.92
B7	605+53.54	13.65	655.83
B7A	605+77.54	14.22	655.75
B8	605+99.03	14.73	655.67

FINISHED TOP OF RETAINING WALL (C)

Location	Station	Offset (' RT)	Elevation
C1	601+68.90	43.28	653.35
C2	601+92.75	43.49	653.42
C2A	602+21.83	43.75	653.51
C2B	602+40.88	42.84	653.56
C3	602+64.92	41.68	653.64
C3A	602+88.96	40.52	653.71
C3B	603+12.99	39.36	653.78
C4	603+37.02	38.21	653.85
C4A	603+61.05	37.05	653.92
C4B	603+85.09	35.89	653.99
C5	604+09.12	34.74	654.06
C5A	604+33.16	33.58	654.13
C5B	604+57.20	32.42	654.05
C6	604+81.23	31.26	653.97
C6A	605+05.25	30.11	653.89
C6B	605+27.50	29.04	653.81
C7	605+53.16	29.65	653.72
C7A	605+77.16	30.21	653.64
C8	605+98.65	30.72	653.57

MODEL: $MODELNAME$
D158015-sht-NW5.1_TSL02_Details.dgn

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 3/28/2016	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTIONS AND DETAILS
EX WB-B MOMENT SLAB
SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90		COOK	2	2
		ILLINOIS FED. AID PROJECT		