Bench Mark: Fire hydrant at Northwest corner of Montrose Ave and Kostner Ave. North hydrant flange, Elev. 608.37.

Existing Structure: S.N. 016-0852 Built in 1957 as F.A. Interstate Route 2 Section 263-0101.3-15D; the structure was repaired in 1997. Structure consists of a three sinple-span, post-tensioned cast-in-place Tee Beam. The substructure consists of full height closed abutments, wingwalls, and column piers all founded on spread footings. The deck is 81'-0" wide composed of 8'-6" wide sidewalks with pedestrian railing and fence, two travel ways separated by a 4'-0" wide median. 474'-8⅞" Bk. to Bk of abutments. The bridge is load posted at 10 ton/axle, 40 ton gross.

Traffic Control: Bridge to be closed to vehicular traffic with traffic detoured during construction. Construction staged to maintain pedestrian access to CTA. Construction of Pier 2 pier cap is adjacent to the NWB CTA Blue Line track. Construction activities require a modification to the normal operation of CTA service to facilitate access to perform work on or near the CTA Right-of-Way will be allowed with CTA Track Access Occurrences. See Special Provision for CTA Flagging and Coordination. SEB I-90/94, SEB Reversibles, and NWB I-90/94 will remain open during construction except for night time shoulder and/or lane closures when the existing Pier 1 and 2 are being removed and Pier 1 and 2 pier caps are being constructed.

No Salvage.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.060g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.107g
Soil Site Class = C

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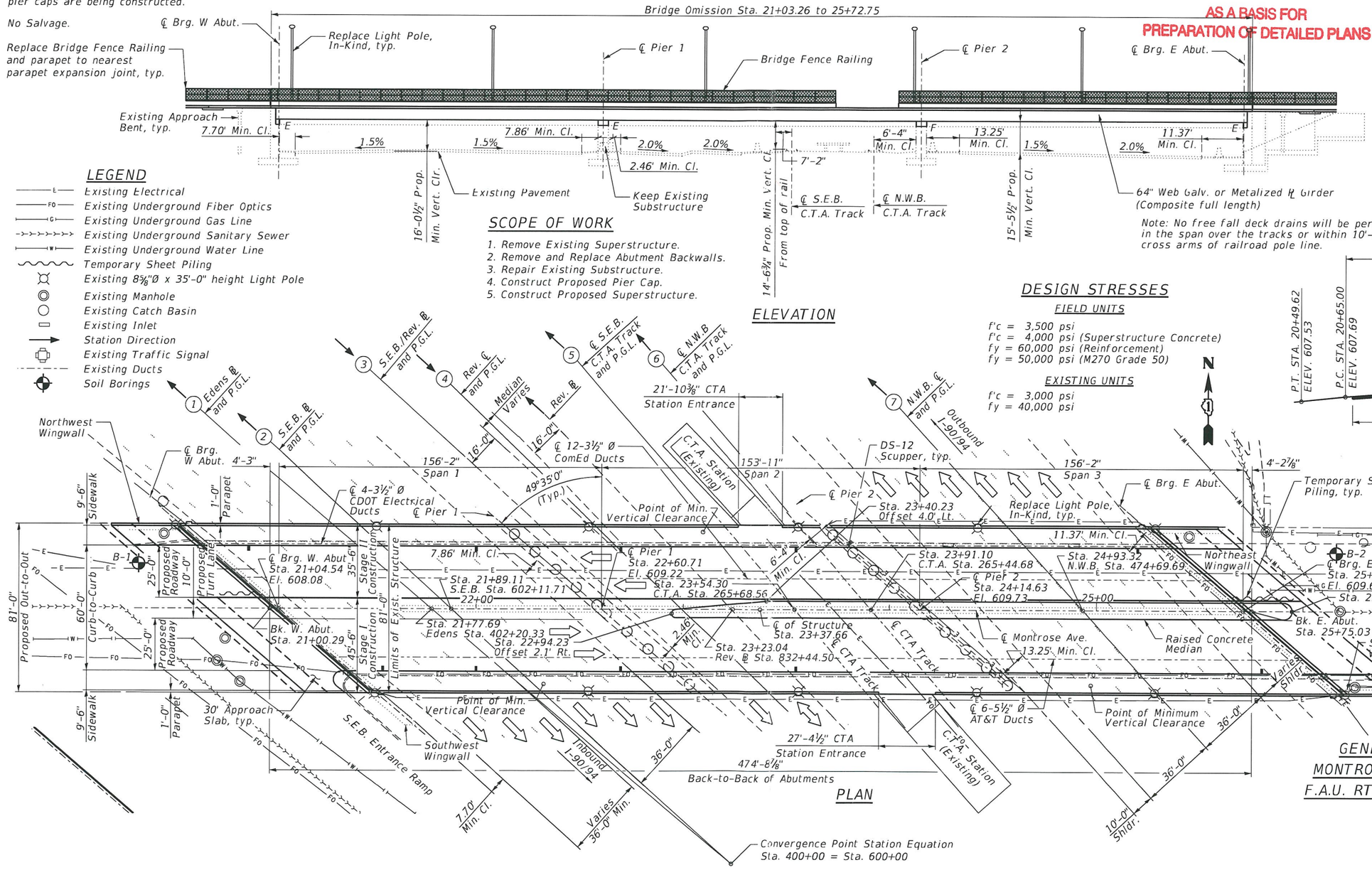
HIGHWAY CLASSIFICATION

F.A.I. Rte. 94 - I-94
Functional Class: Interstate
ADT: 141,200 (2017); 336,192 (2032)
ADTT: 9,884 (2017); 23,534 (2032)
DHV: 14,120 (2017); 33,619 (2032)
Design Speed: 60 M.P.H.
Posted Speed: 55 M.P.H.

F.A.U. Rte. 1366 (Montrose Ave)
Functional Class: Major Collector
ADT: 17,200 (2014); 18,643 (2032)
ADTT: 1,032 (2014); 1,119 (2032)
DHV: 1,720 (2014); 1,864 (2032)
Design Speed: 30 M.P.H.
Posted Speed: 30 M.P.H.



LEGEND

- Existing Electrical
- Existing Underground Fiber Optics
- Existing Underground Gas Line
- Existing Underground Sanitary Sewer
- Existing Underground Water Line
- Temporary Sheet Piling
- Existing 8⅝"Ø x 35'-0" height Light Pole
- Existing Manhole
- Existing Catch Basin
- Existing Inlet
- Station Direction
- Existing Traffic Signal
- Existing Ducts
- Soil Borings

SCOPE OF WORK

1. Remove Existing Superstructure.
2. Remove and Replace Abutment Backwalls.
3. Repair Existing Substructure.
4. Construct Proposed Pier Cap.
5. Construct Proposed Superstructure.

DESIGN STRESSES

FIELD UNITS

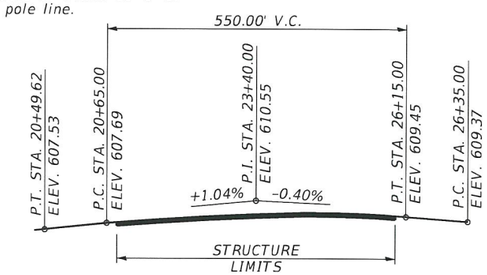
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

EXISTING UNITS

f'c = 3,000 psi
fy = 40,000 psi

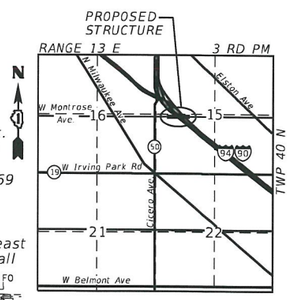
SCUPPER LOCATION

Station	Offset
20+90	30.00' LT.
21+55	30.00' RT.
22+00	30.00' LT.
22+00	30.00' RT.
22+70	30.00' LT.
22+70	30.00' RT.
23+55	30.00' LT.
23+55	30.00' RT.
25+20	30.00' LT.
25+80	30.00' RT.



PROFILE GRADE

(℄ Montrose Ave)



LOCATION MAP

GENERAL PLAN AND ELEVATION
MONTROSE AVENUE OVER FAI I-90/94
F.A.U. RTE. 1366 - SEC. 267-0101.3-B-R
COOK COUNTY
STATION 23+37.66
S.N. 016-0852

ENGINEERING CONSULTANT	USER NAME = kcisneros	DESIGNED - MLK	REVISED -
CIORBA GROUP Consulting Engineers 6725 Higgins Road, Suite 600 Chicago, IL 60631 773 775 4006 | www.ciorba.com		CHECKED - BS	REVISED -
	PLOT SCALE = 0:2.0000 ':" / in.	DRAWN - SBA	REVISED -
	PLOT DATE = 4/12/2019	CHECKED - BS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	267-0101.3-B-R	COOK	3	1
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

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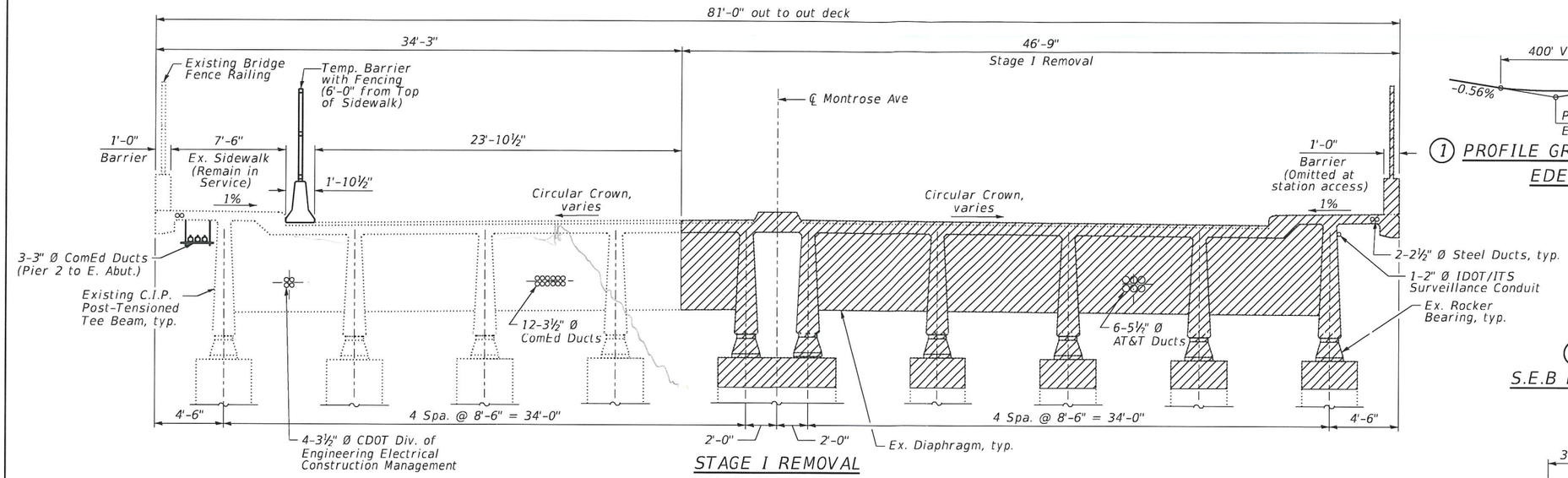
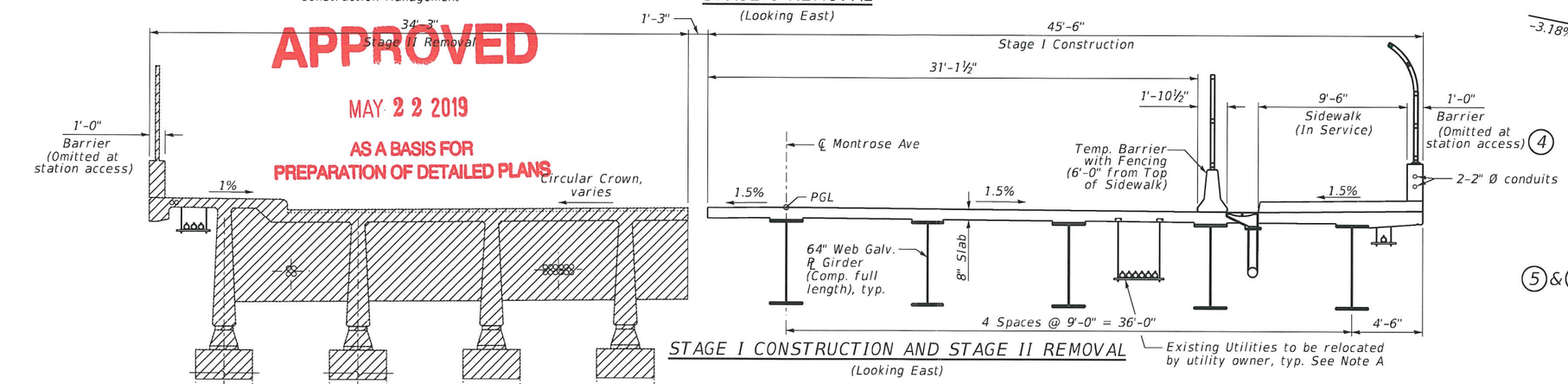


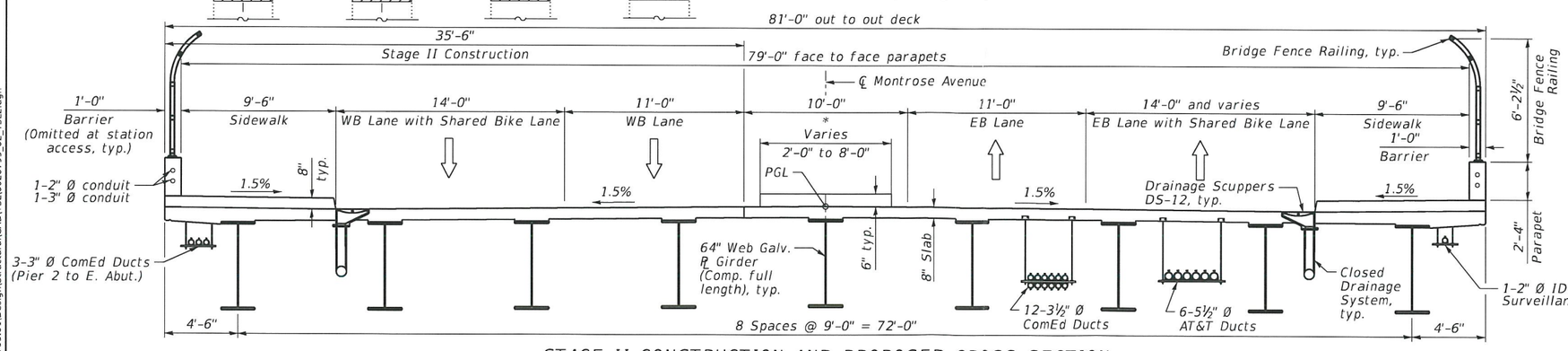
STAGE I REMOVAL

(Looking East)



STAGE I CONSTRUCTION AND STAGE II REMOVAL

(Looking East)



STAGE II CONSTRUCTION AND PROPOSED CROSS-SECTION

(Looking East)

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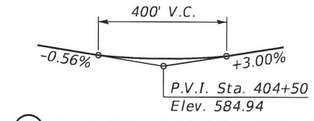
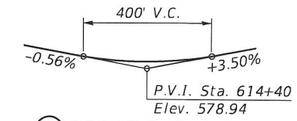
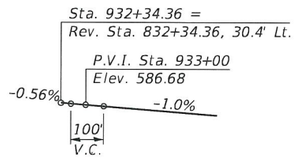


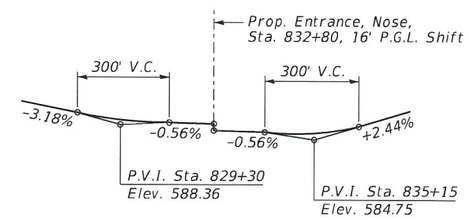
1 PROFILE GRADE LINE EDENS ℄



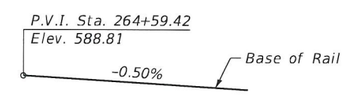
2 PROFILE GRADE S.E.B ℄



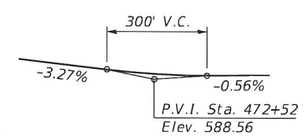
3 PROFILE GRADE S.E.B KENNEDY TO REVERSIBLES



4 PROFILE GRADE REVERSIBLES ℄



5 & 6 EXISTING PROFILE GRADE C.T.A. TRACKS (per 1967 plans)



7 PROFILE GRADE - N.W.B. ℄

* Sta. 20+70.73 to 21+37.23: Bridge Deck, Full Width
Sta. 21+37.23 to 22+94.23: WB Left Turn Lane, Full Width
Sta. 22+94.23 to 23+40.23: Raised Concrete Median, Width Varies
Sta. 23+40.23 to 25+94.69: Raised Concrete Median, 8'-0" Width
Sta. 25+94.69 to 26+03.79: Bridge Deck, Full Width

Note A: Existing utilities between girders will be relocated by the utility owner to provide uninterrupted service during construction unless otherwise coordinated with utility owner. Provisions will be made to accommodate existing utilities into the proposed structure.

LEGEND

Existing Structure Removal

ENGINEERING CONSULTANT	USER NAME = kcisneros	DESIGNED - MLK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CIORBA GROUP Consulting Engineers 6725 Higgins Road, Suite 600, Chicago, IL 60631 773.775.4009 | www.ciorba.com		CHECKED - BS	REVISED -		94	267-0101.3-B-R	COOK	3	2
	PLOT SCALE = 0:2.0000 ':" / in.	DRAWN - SBA	REVISED -				CONTRACT NO.		
	PLOT DATE = 4/12/2019	CHECKED - BS	REVISED -				ILLINOIS	FED. AID PROJECT	

SHEET NO. 2 OF 3 SHEETS

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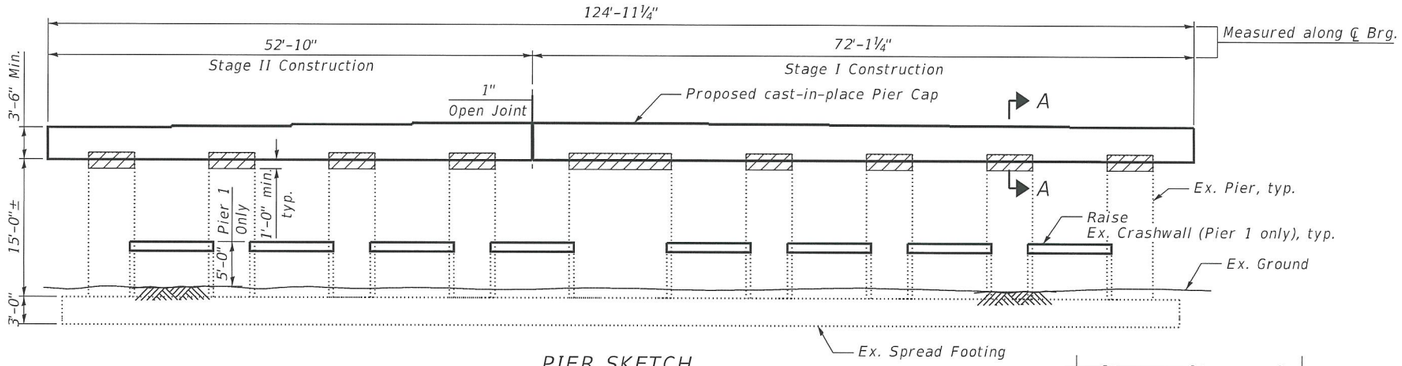
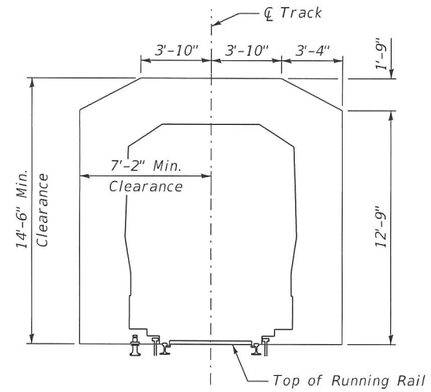
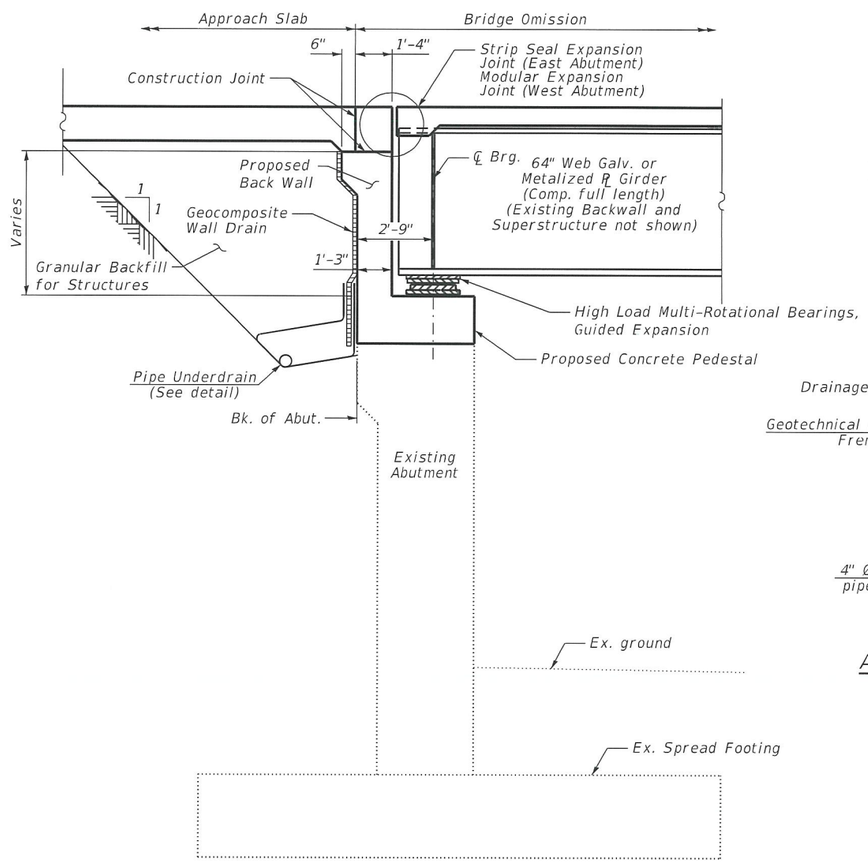


PIER SKETCH

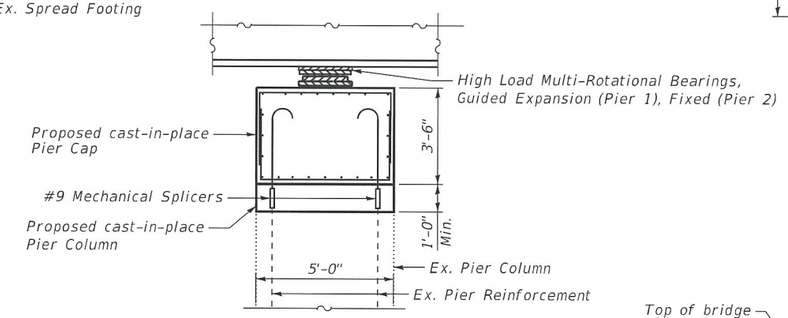


CTA TRAIN CLEARANCE DIAGRAM



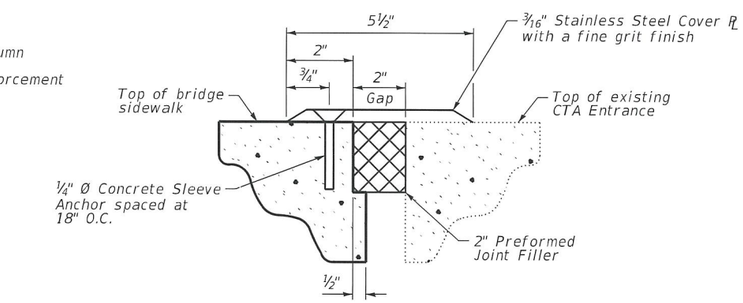
SECTION THROUGH WEST AND EAST ABUTMENTS

(Horiz. dim. at Rt. L's)
(West Abutment Shown
East Abutment Similar)



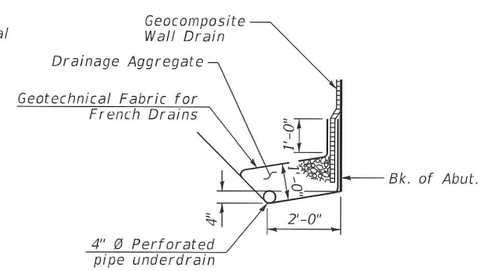
SECTION A-A

(Ex. Pier Column to be removed not shown for clarity)



CTA STATION EXPANSION JOINT DETAIL

(To be confirmed by the CTA. Cost to be included with Concrete Superstructure)



PIPE UNDERDRAIN DETAIL
AT WEST AND EAST ABUTMENT

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MAY 22 2019

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

CURVE DATA
(N.W.B. ℄)

Curve 727
P.I. Sta. = 470+51.15
Δ= 29°27'00" (LT)
D = 1°30'00"
R = 3819.72'
T = 315.72'
L = 630.00'
E = 13.02'
P.C. Sta. = 467+35.43
P.T. Sta. = 473+65.43

CURVE DATA
(S.E.B. ℙ)

Curve 855
P.I. Sta. = 605+36.90
Δ= 2°37'05.7" (LT)
D = 0°30'00"
R = 11459.16'
T = 261.87'
L = 523.65'
E = 2.99
P.C. Sta. = 602+75.03
P.T. Sta. = 607+98.68

CURVE DATA
(Rev ℙ)

Curve 930
P.I. Sta. = 828+90.00
Δ= 8°25'57.4" (LT)
D = 1°13'17"
R = 4691.03'
T = 345.83'
L = 690.41'
E = 12.73
P.C. Sta. = 825+44.17
P.T. Sta. = 832+34.58

CURVE DATA
(Rev ℙ)

Curve 931
P.I. Sta. = 835+35.08
Δ= 3°48'11.6" (RT)
D = 0°37'59"
R = 9050.77'
T = 300.50'
L = 600.78'
E = 4.99
P.C. Sta. = 832+34.58
P.T. Sta. = 838+35.36

LEGEND

Existing Structure Removal

FILE NAME: N:\PROJ\0020795.01\Design\Structural\CAD\TSL\0020795_03_TSL3.dgn

ENGINEERING CONSULTANT	USER NAME = sallgood	DESIGNED - MLK	REVISED -
CiorbaGroup		CHECKED - BS	REVISED -
	PLOT SCALE = 0:2.0000 ':" / in.	DRAWN - SBA	REVISED -
	PLOT DATE = 5/23/2019	CHECKED - BS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 3 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	267-0101.3-B-R	COOK	3	3
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

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