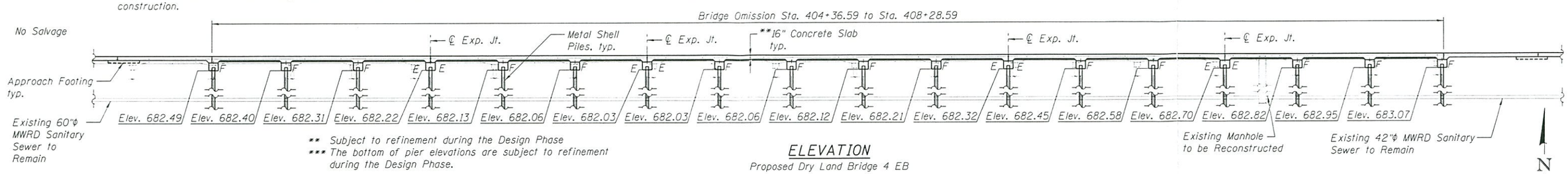
Bench Mark: BM #50 Set at a notch cut in center of west 16' headwall to private entrance, Elev. 686.54, 52' north of ℄ US 6 and ±2400' east of 104th Street.

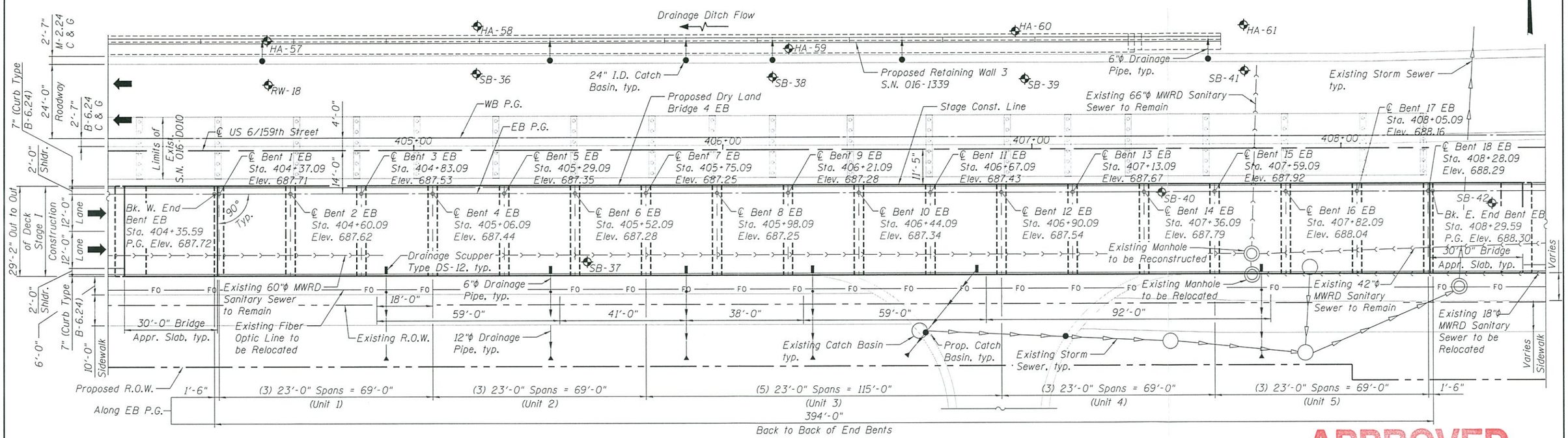
Existing Structure: S.N. 016-D013. Built in 1937 as S.B.I. Route 53, Section 537-R at Station 405+96. Structure consists of 20-spans - four 5-span continuous reinforced concrete slab units supported on timber piles. Each unit has a width of 20'-0" and a length of 115'-0". The overall length of the structure is 460'-0". Structure to be removed and replaced using stage construction.



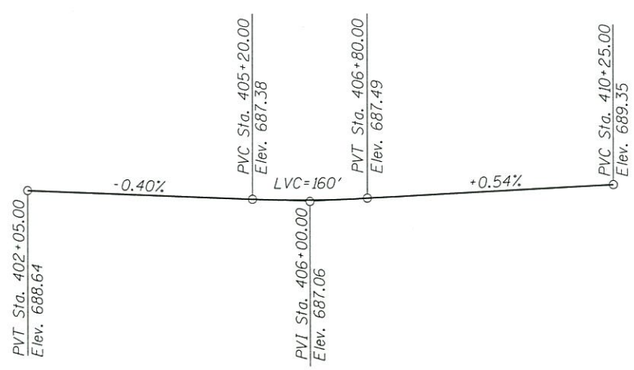
** Subject to refinement during the Design Phase
*** The bottom of pier elevations are subject to refinement during the Design Phase.

ELEVATION

Proposed Dry Land Bridge 4 EB



PLAN



US 6/159TH ST. (WB & EB) PROFILE GRADE

HIGHWAY CLASSIFICATION

F.A.P. Rte. 351 - US 6/159th Street
Functional Class: Other Principal Arterial
ADT: 22,100 (2010); 33,000 (2030)
DHV: 3,065 (2030)
ADTT: 5.21%
Design Speed: 45 m.p.h.
Posted Speed: 45 m.p.h.
2-Way Traffic
Directional Distribution: (55:45) (EB:WB)

LOADING HL-93

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

LEGEND

Soil Boring Location

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition, with 2012 Interims

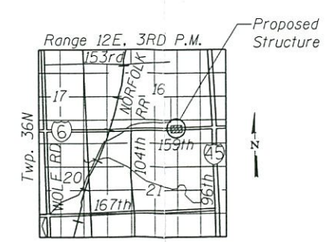
DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.130g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.238g
Soil Site Class = E



LOCATION SKETCH

APPROVED

JUL 30 2013

AS A BASIS FOR PREPARATION OF DETAILED PLANS

GENERAL PLAN & ELEVATION
DRY LAND BRIDGE 4
US ROUTE 6 / 159TH STREET
F.A.P. RTE 351 - SEC. 2010-081-R
COOK COUNTY
STATION 406+32.59
STRUCTURE NO. 016-D013

T:\5106-USG\Struct\dgn\5106_TSL Dry Land Bridge 4.dgn

LOCHNER H.W. LOCHNER, INC. 20 N. WACKER DRIVE, SUITE 1200 CHICAGO, ILLINOIS 60606	USER NAME =	DESIGNED - LJB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 1 OF 3 SHEETS
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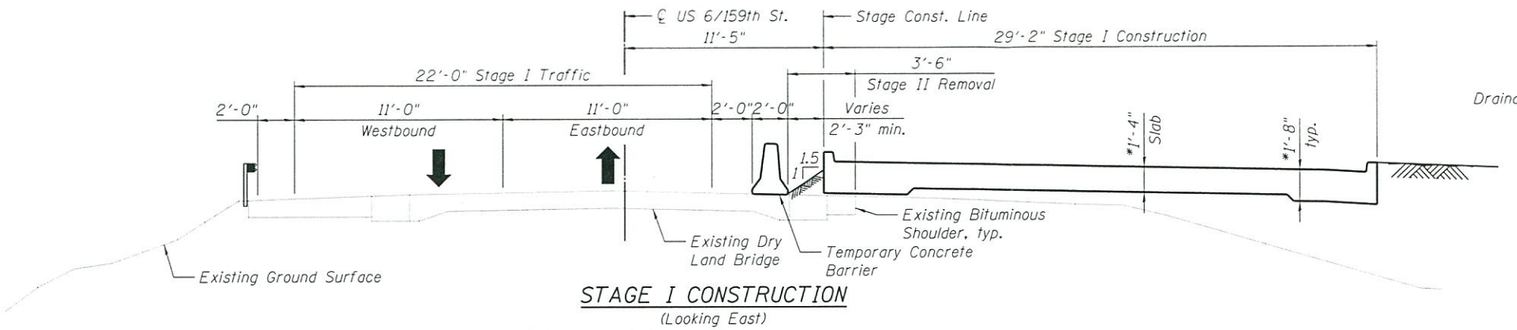
	PLOT SCALE =	DRAWN - LJB	REVISED		
	PLOT DATE =	CHECKED - MAF	REVISED		

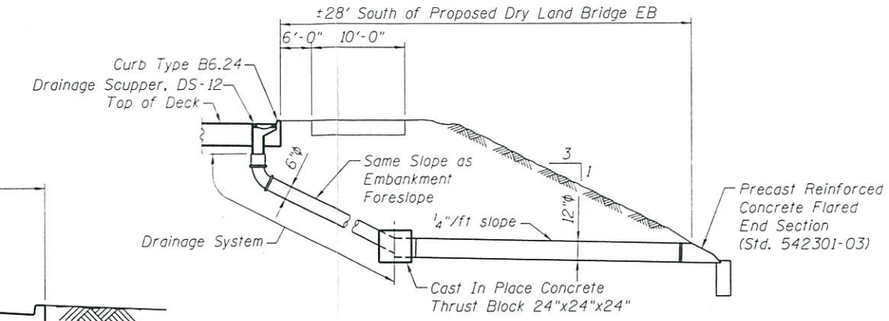
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2010-081-R	COOK		
		CONTRACT NO. 60L72		
		ILLINOIS FED. AID PROJECT		



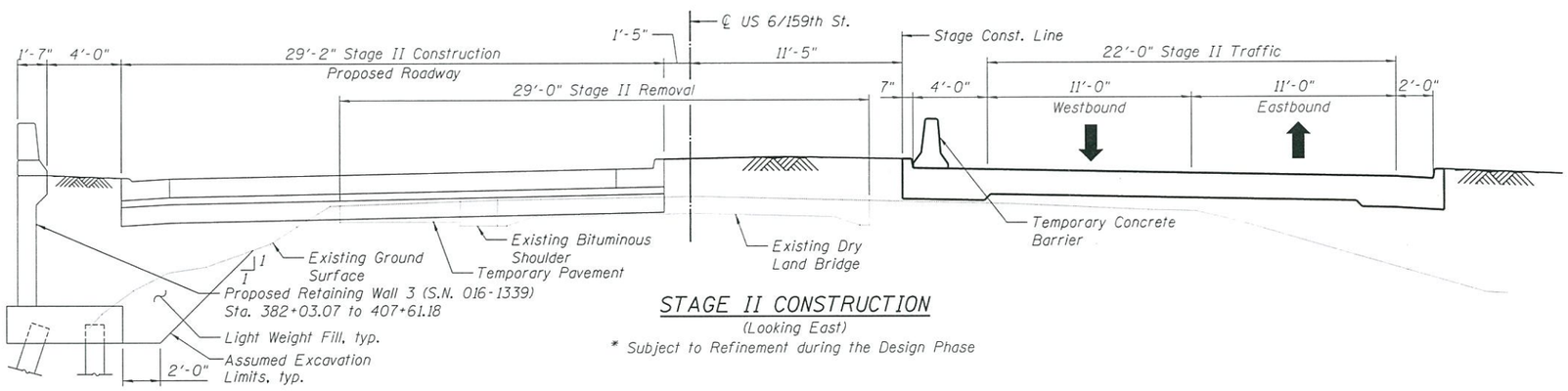
STAGE I CONSTRUCTION

(Looking East)

* Subject to Refinement during the Design Phase



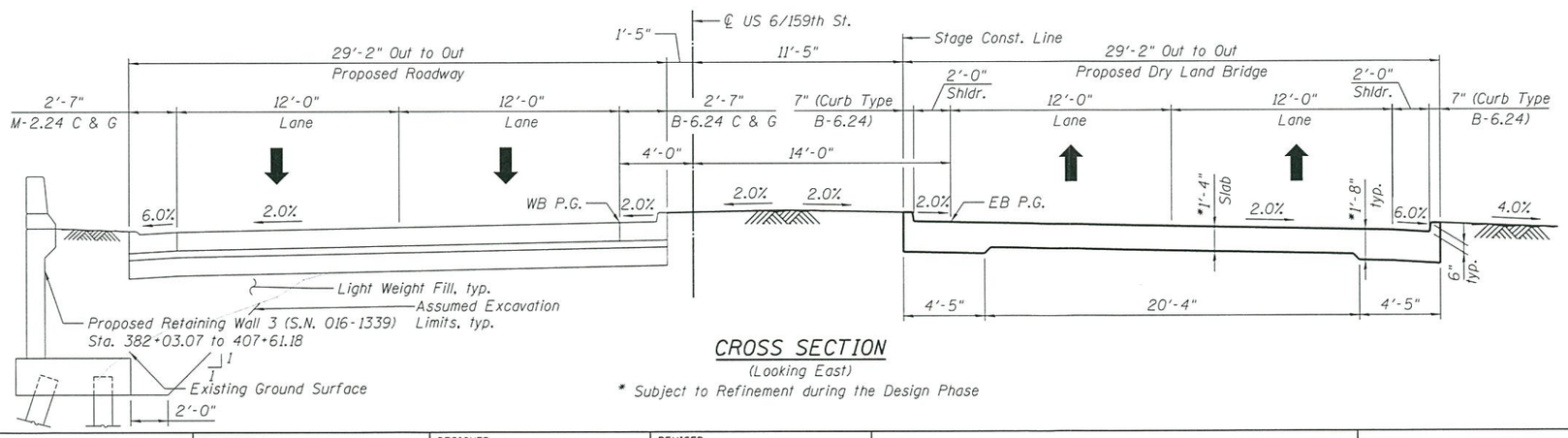
SCUPPER AND DRAINAGE SYSTEM DETAILS



STAGE II CONSTRUCTION

(Looking East)

* Subject to Refinement during the Design Phase



CROSS SECTION

(Looking East)

* Subject to Refinement during the Design Phase

APPROVED

JUL 30 2013

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

SECTIONS AND DETAILS
DRY LAND BRIDGE 4
US ROUTE 6 / 159TH STREET
F.A.P. RTE 351 - SEC. 2010-081-R
COOK COUNTY
STATION 406+32.59
STRUCTURE NO. 016-D013

T:\5106-US6\Structsdgn\5106_TSL Dry Land Bridge 4.2dgn

LOCHNER H.W. LOCHNER, INC. 20 N. WACKER DRIVE, SUITE 1200 CHICAGO, ILLINOIS 60606	USER NAME =	DESIGNED -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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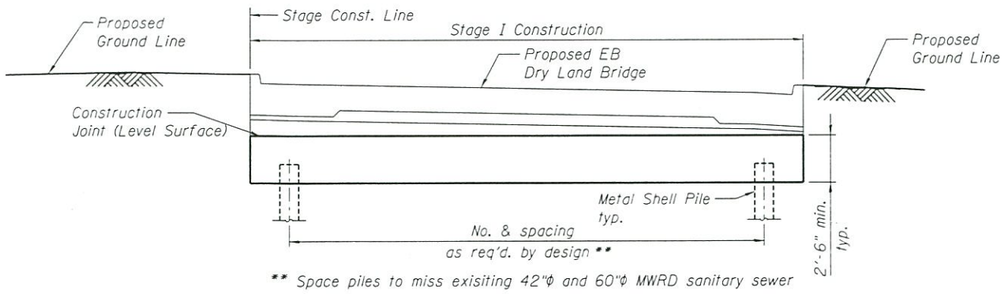
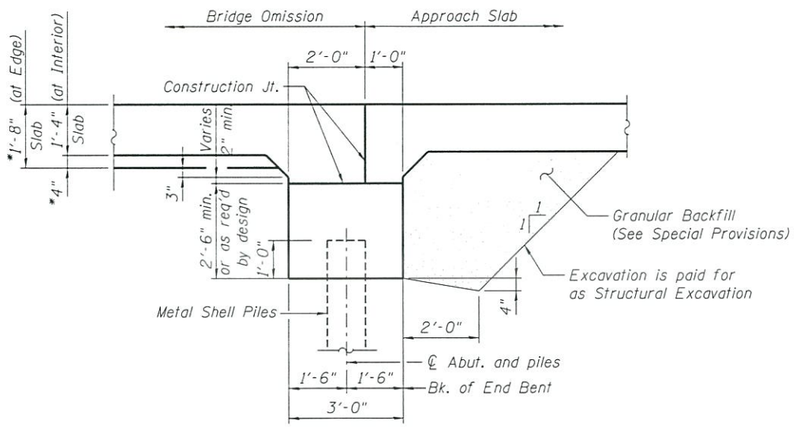
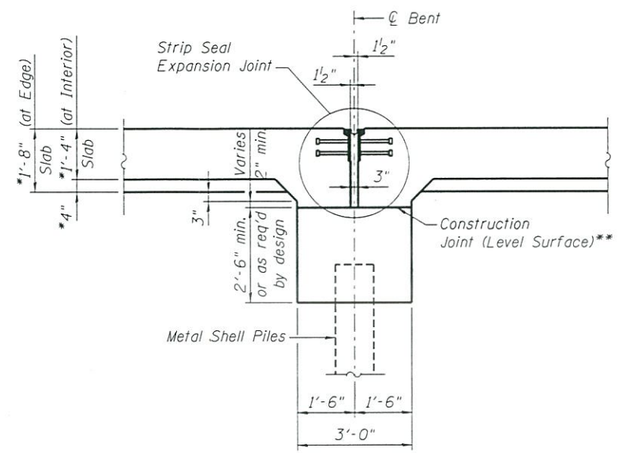
	PLOT SCALE =	DRAWN - LJB	REVISED					CONTRACT NO. 60L72		
	PLOT DATE =	CHECKED - MAF	REVISED		SHEET NO. 2 OF 3 SHEETS		ILLINOIS	FED. AID PROJECT		



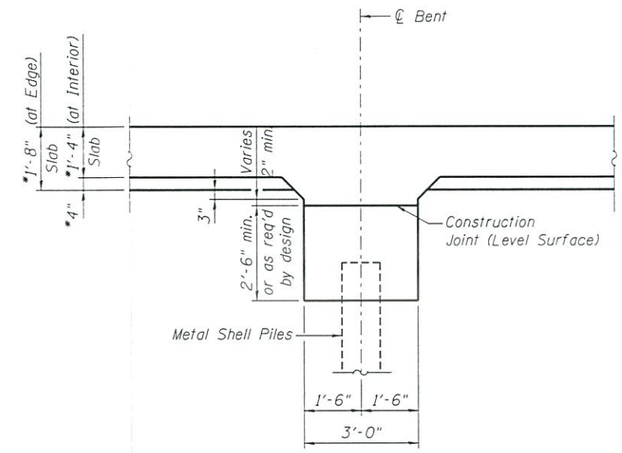
PIER SKETCH
(Looking East)



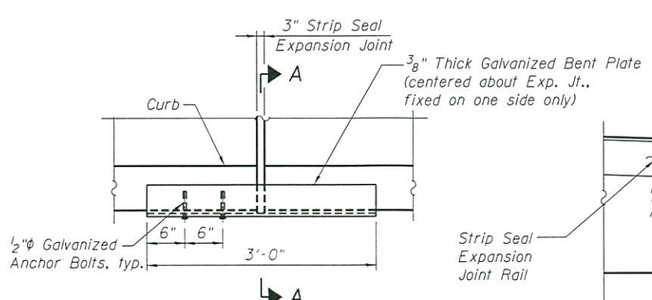
END PILE BENT CAP SECTION
* Subject to Refinement during the Design Phase



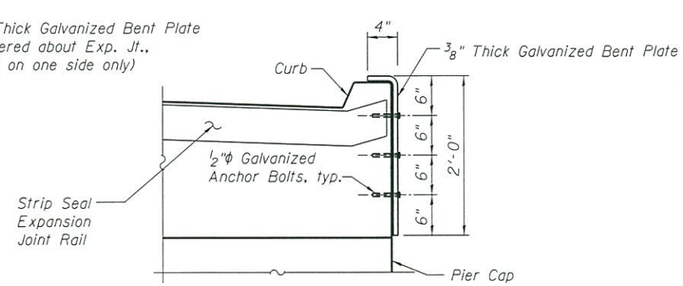
INTERIOR EXPANSION PILE BENT CAP SECTION
* Subject to Refinement during the Design Phase
** Top concrete surface of the expansion pier caps shall be finished to a very smooth finish. ⅛" neoprene sheet shall be placed on the entire top surface of the expansion pier caps prior to pouring the superstructure slab.



INTERIOR FIXED PILE BENT CAP SECTION
* Subject to Refinement during the Design Phase



PLAN
Typical at each end of Expansion Joints



SECTION A-A

APPROVED

JUL 30 2013

AS A BASIS FOR PREPARATION OF DETAILED PLANS

SECTIONS AND DETAILS
DRY LAND BRIDGE 4
US ROUTE 6 / 159TH STREET
F.A.P. RTE 351 - SEC. 2010-081-R
COOK COUNTY
STATION 406+32.59
STRUCTURE NO. 016-D013

$FILE$

LOCHNER H. W. LOCHNER, INC. 225 WEST WASHINGTON STREET 12 TH FLOOR CHICAGO, ILLINOIS 60606	USER NAME =	DESIGNED - LJB	REVISED
	FILE NAME = $FILES$	CHECKED - RH	REVISED
	PLOT SCALE =	DRAWN - LJB	REVISED
	PLOT DATE =	CHECKED - MAF	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 3 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2010-081-R	COOK		
		CONTRACT NO. 60L72		
		ILLINOIS FED. AID PROJECT		