

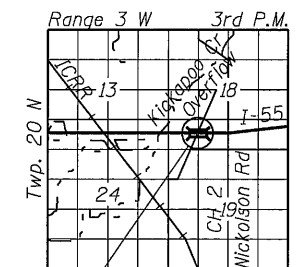
Benchmark: # TEA 28 Chisled Square on NE corner of NW approach wall SN 054-0057, 37' Rt. Sta. 576+11, Elev. 609.61
 Benchmark: # TEA 27 Chisled Square on NE approach wall SN 054-0058, 79' Lt. Sta. 577+59, Elev. 610.49

Existing Structure: SN 054-0057 & 054-0058, originally built in 1973 as F.A.I. 55, Section 54-4VB-1 at Sta 576+83.14.
 The superstructure consists of a reinforced concrete deck supported by steel wide flange beams continuous over three spans.
 The substructure consists of open stub abutments supported by concrete piles and multi-column piers supported by concrete piles.
 The structure is 149'-6" back to back abutments and is 42'-0" out to out deck. The structure is not skewed. The deck received a microsilica overlay in 1999. The existing deck is to be removed and replaced. Traffic to be maintained under staged construction.

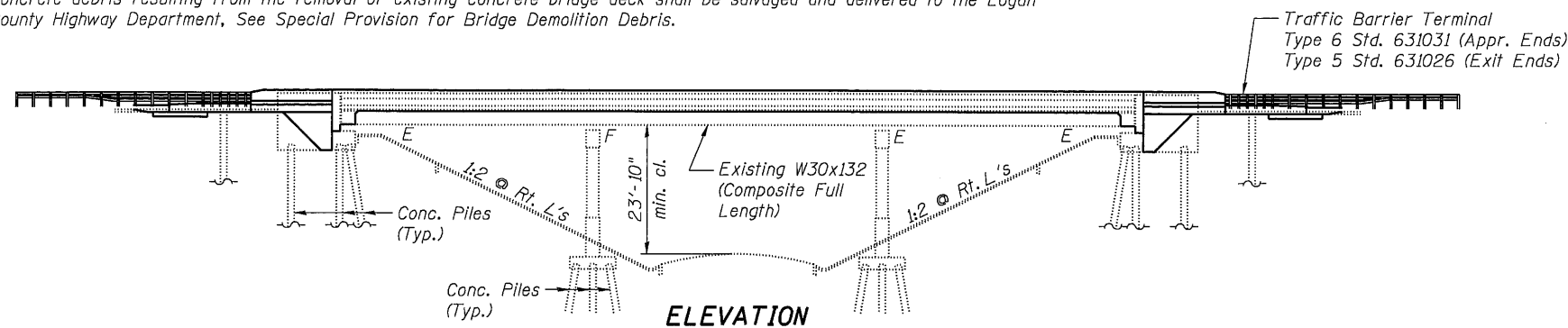
Concrete debris resulting from the removal of existing concrete bridge deck shall be salvaged and delivered to the Logan County Highway Department. See Special Provision for Bridge Demolition Debris.

SCOPE OF WORK

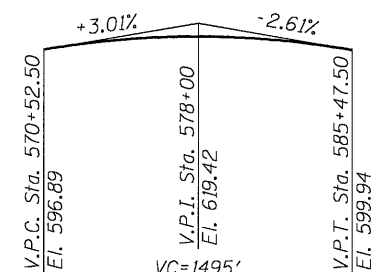
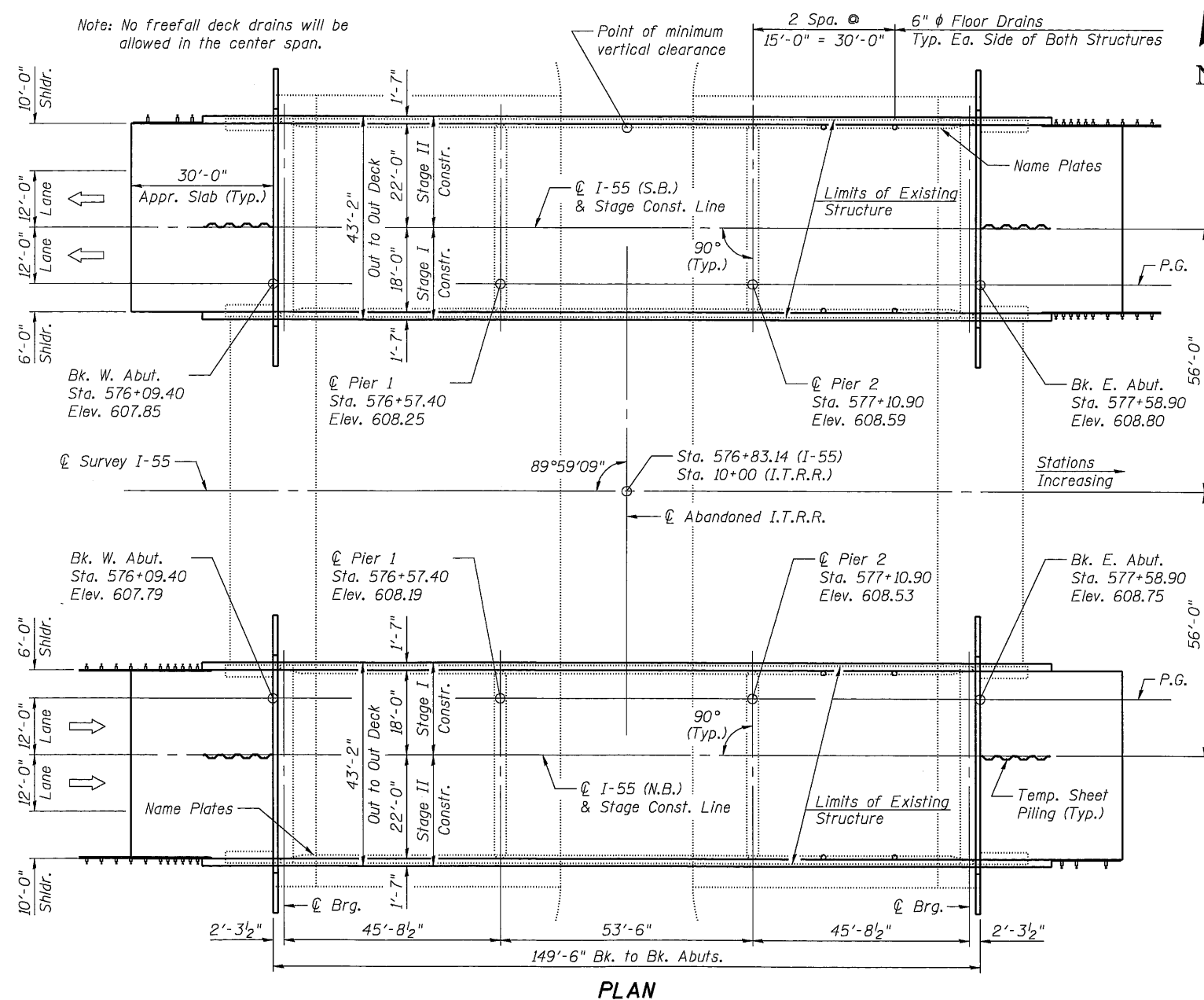
1. Remove and replace bridge deck.
2. Remove and replace bearings at abutments.
3. Remove and replace approach pavements.
4. Remove and replace abutment backwalls and wingwalls and make abutments semi-integral.
5. Diamond grind bridge deck and approach slabs.



Proposed Rehabilitation
LOCATION SKETCH



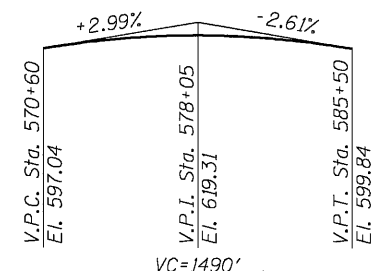
Note: No freefall deck drains will be allowed in the center span.



PROFILE GRADE

I-55 S.B. S.N. 054-0058
 Along median edge of pavement

The profile grade depicts the final elevations after grinding. Up to 1/4" will be ground off the bridge deck and approach slab.



PROFILE GRADE

I-55 N.B. S.N. 054-0057
 Along median edge of pavement

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.046g
 Site Coefficient (S) = 2.0

DESIGN STRESSES

FIELD UNITS (New Construction)

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)
 fy = 36,000 psi (Steel)

FIELD UNITS (Existing Construction)

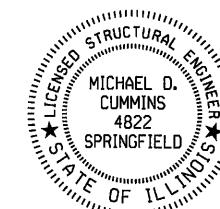
fc = 1,200 psi (Deck Slab)
 fc = 1,400 psi (Curb, Parapet, Substructure)
 fs = 20,000 psi (Reinforcement & Structural Steel)

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridge (New Construction)
 2012 AASHTO LRFD Bridge Construction Specifications (New Deck)
 1995 FHWA Seismic Retrofit Manual
 1969 AASHTO (Existing Construction)

LOADING HS20-44 & ALT

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



Michael D. Cummins
 3/14/13
 (Expires 11/30/2014)

GENERAL PLAN
I-55 OVER ABANDONED I.T.R.R.
F.A.I. RTE 55
SECTION D6 LOGAN CO BR 2011-1
LOGAN COUNTY
STATION 576+83.14
STRUCTURE NO. 054-0057 (NB)
STRUCTURE NO. 054-0058 (SB)



JOB = 2276.3
 FILE = 0540057_0058-TSL.dgn
 DATE = 2/11/2013

DESIGNED - AAN
 CHECKED - ENV
 DRAWN - SJS
 CHECKED - AAN

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
 STRUCTURE NO. 054-0057 (NB) & 054-0058 (SB)

SHEET NO. 1 OF 31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 LOGAN CO BR 2011-1	LOGAN	429	200
				CONTRACT NO. 72E11
ILLINOIS FED. AID PROJECT				