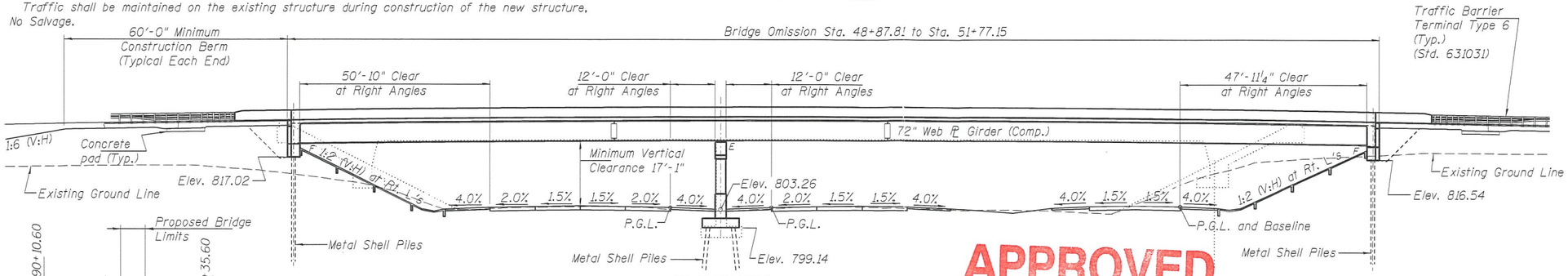
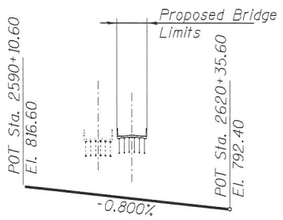
BM: # 316 2" Aluminum Disk on Approx. C/L of U.S. 20 - on pier base under Mulford Rd. - Elevation 805.75

Note: Up to 1/4 inch may be ground off the bridge deck and the approach slabs.

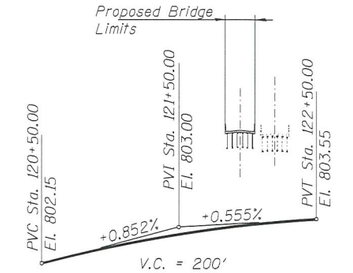
Existing Structure (No. 101-0131)
Originally constructed in 1963 under FA 194, Section 4-HB-2, the structure was a 4 span, concrete deck on steel beam superstructure with concrete piers and pile bent abutments.
The structure was reconstructed in 1976 under FA 194, Section 201-3HB-3 as a 2 span concrete deck on continuous steel girder superstructure with concrete piers and closed sand filled pile bent abutments. The structure has a Bk. to Bk. = 274'-0" with an out-out of deck of 42'-0". The structure was repainted in 1999.
Traffic shall be maintained on the existing structure during construction of the new structure.
No Salvage.



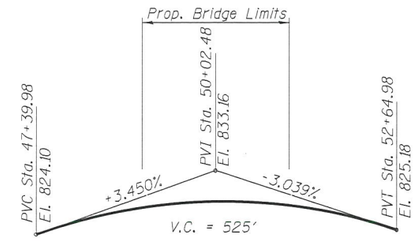
ELEVATION



PROPOSED PROFILE
Along I-39 NBL and US-20 Inside E.O.P.

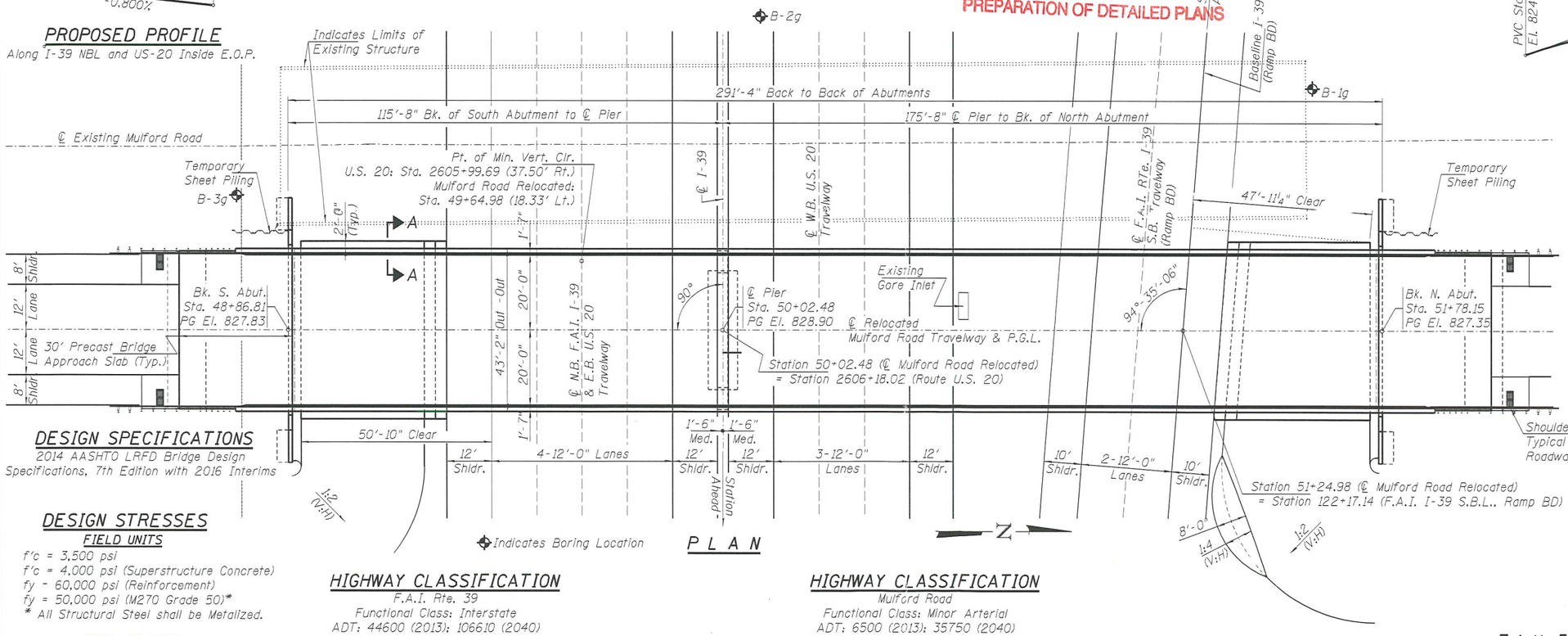


PROPOSED PROFILE
Along I-39 S.B.L. (Ramp BD) Outside E.O.P.

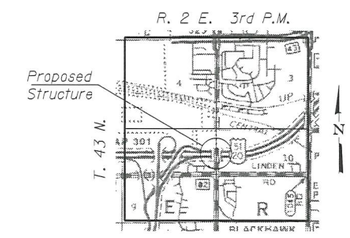


PROPOSED PROFILE
Along ℄ Mulford Road Relocated.
The profile grade shows the final elevations after grinding.

APPROVED
OCT 16 2019
AS A BASIS FOR PREPARATION OF DETAILED PLANS



PLAN



LOCATION SKETCH

DESIGN SPECIFICATIONS
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2016 Interims

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)*
* All Structural Steel shall be Metalized.

PRECAST UNITS
f'c = 6,000 psi (Precast Bridge Approach Slab)

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

HIGHWAY CLASSIFICATION
F.A.I. Rte. 39
Functional Class: Interstate
ADT: 44600 (2013); 106610 (2040)
ADTT: 12950 (2013); 32000 (2040)
DHV: 10600 (2040)
Design Speed: 70 m.p.h.
Posted Speed: 65 m.p.h.
2 -Way Traffic
Directional Distribution: 50/50

HIGHWAY CLASSIFICATION
Mulford Road
Functional Class: Minor Arterial
ADT: 6500 (2013); 35750 (2040)
ADTT: 520 (2013); 2860 (2040)
DHV: 3575 (2040)
Design Speed: 45 m.p.h.
Posted Speed: 45 m.p.h.
2 -Way Traffic
Directional Distribution: 50/50

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.080
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.135
Soil Site Class = D

GENERAL PLAN
MULFORD ROAD over I-39 & U.S.20
F.A.U. 5147 - SECTION (201-3)K & (4-1.5)R
WINNEBAGO COUNTY
STA. 50+02.48
STRUCTURE NUMBER -101-0207

DESIGNED	MNM	02/14/08
DRAWN	RAH	02/14/08
REVIEWED	MNM	12/05/15

I:\06jobs\0652055\CADD\Struct\Sheet\1010207-XXXXX-TSL-Mulford.dgn

© Copyright Hanson Professional Services Inc. 2017
HANSON
PROFESSIONAL DESIGN FIRM LICENSE # 184-001984

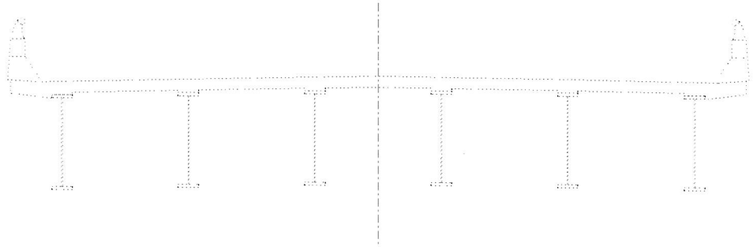
USER NAME = Johns00944	DESIGNED - MNM	REVISED	
	CHECKED - TEH	REVISED	
PLOT SCALE = 0.166667 ' / in.	DRAWN - RAH/RSJ	REVISED	
PLOT DATE = 3/7/2017	CHECKED - MNM	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

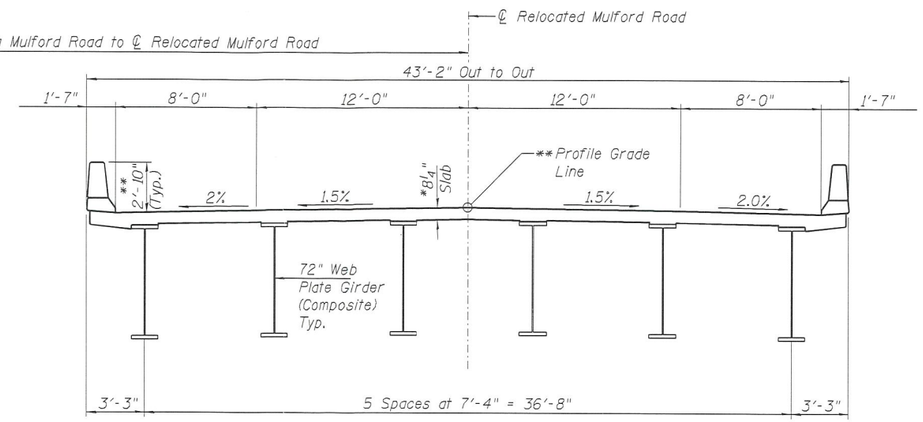
STRUCTURE NUMBER 101-0207

SHEET NO. 1 OF 2 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5147	(201-3)K & (4-1.5)R	WINNEBAGO	2	1
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

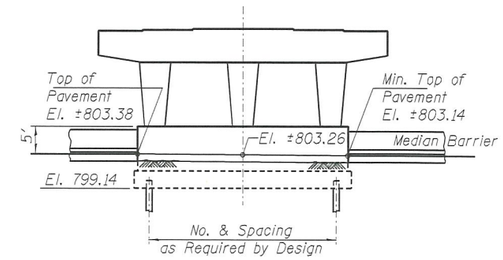


EXISTING CROSS SECTION

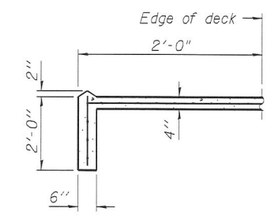


PROPOSED CROSS SECTION

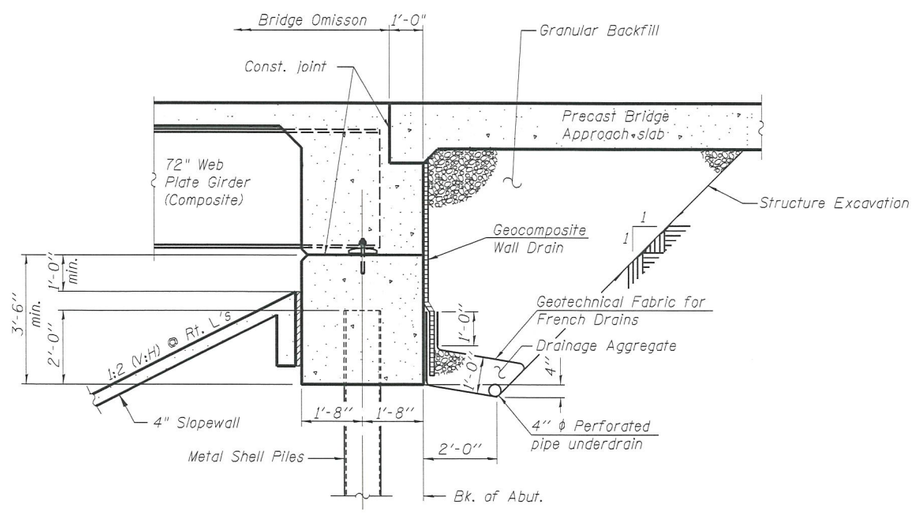
* Prior to Grinding
** After Grinding



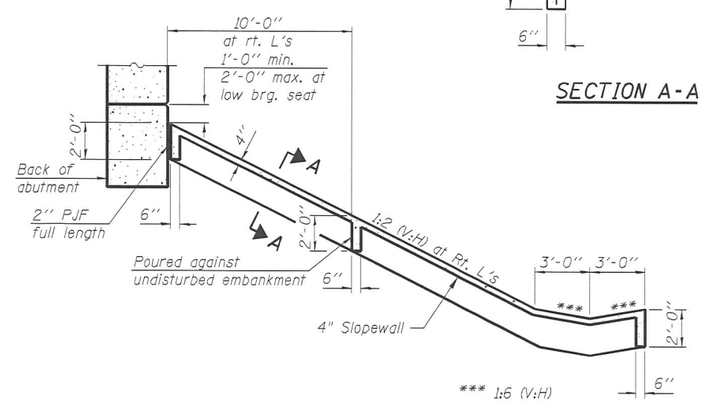
PIER SKETCH
(Looking North)



SECTION A-A



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)



SECTION THRU
CONCRETE SLOPEWALL

APPROVED

OCT 16 2019

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

DETAILS
MULFORD ROAD over
I-39 & U.S.20
F.A.U. 5147 SECTION (201-3)K & (4-1.5)R
WINNEBAGO COUNTY
STA. 50+02.48
STRUCTURE NUMBER -101-0207

DESIGNED	MNM	02/14/08
DRAWN	RAH	02/14/08
REVIEWED	MNM	12/05/15

I:\06jobs\0652055\CADD\Struct\Sheet\1010207-XXXXX-TSL-Mulford.dgn

© Copyright Hanson Professional Services Inc. 2017

HANSON
PROFESSIONAL DESIGN FIRM LICENSE # 184-001864

USER NAME = Johns00944	DESIGNED - MNM	REVISED	
	CHECKED - TEH	REVISED	
PLOT SCALE = 0.166667 ' / in.	DRAWN - RAH/RSJ	REVISED	
PLOT DATE = 3/7/2017	CHECKED - MNM	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NUMBER 101-0207

SHEET NO. 2 OF 2 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5147	(201-3)K & (4-1.5)R	WINNEBAGO	2	2
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		