06-14-2019 LETTING ITEM 216

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 74	14-20101 -00-BR	IROQUOIS	37	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 87691	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM – BRIDGE

PROJECT 3H7Z(853)
SECTION 14–20101–00–BR
ONARGA ROAD DISTRICT
IROQUOIS COUNTY
T.R. 74 / 1300 N. ROAD
PROPOSED STRUCTURE NO. 038–4939
C–93–006–19

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3-4.	TYPICAL CROSS SECTIONS
5-7.	PLAN AND PROFILE SHEETS
8.	GUARDRAIL & SHOULDER LAYOUT
9-19.	BRIDGE PLANS
20-21.	BORINGS
22-26.	EXISTING STRUCTURE PLANS
27-37.	STATION CROSS SECTIONS

HIGHWAY STANDARDS:

000001-07	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
515001-03	NAME PLATE FOR BRIDGES
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
701901-08	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 27-1	TRAFFIC BARRIER TERMINAL TYPE 5A

UTILITIES

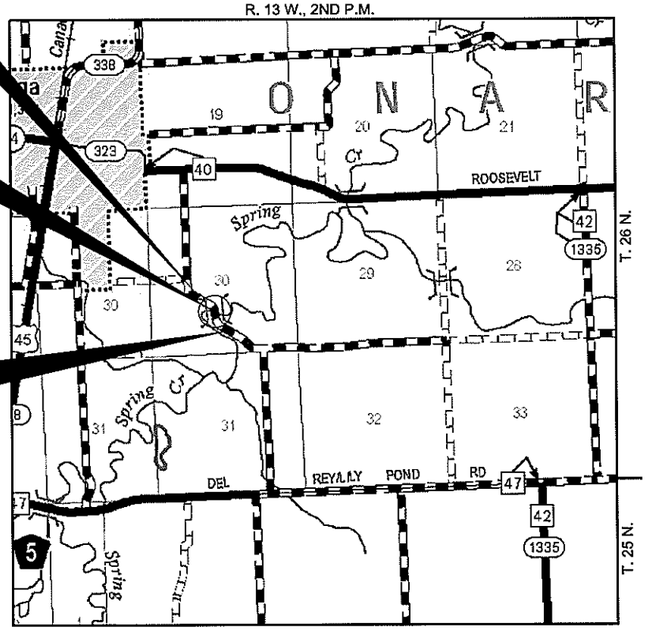
AT&T
1000 COMMERCE DRIVE
OAK BROOK, IL. 60523

EASTERN ILLINI ELECTRIC CO-OP
330 WEST OTTAWA STREET
PAXTON, IL. 60957

IMPROVEMENT ENDS STATION 79+00

STA. 76+80
PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE. THREE SPANS: 42'-0", 42'-0", 42'-0"
30'-0" RDWY.; SKEW = 0°
EXISTING STRUCTURE NO. 038-4934
PROPOSED STRUCTURE NO. 038-4939

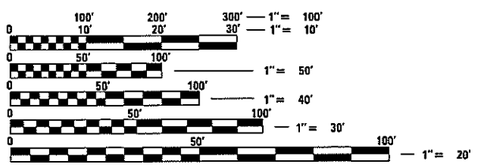
IMPROVEMENT BEGINS STATION 74+50



LOCATION MAP

APPROXIMATE SCALE: 0 ½ MILE

NET LENGTH OF SECTION = 450 FEET = 0.085 MILES



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

FUNCTIONAL CLASSIFICATION:	LOCAL ROAD
DESIGN SPEED:	30 MPH
DESIGN TRAFFIC:	175 ADT

LOCATION OF SECTION INDICATED THUS: –

WARNING
CALL J.U.L.I.E. TOLL FREE 1-800-892-0123
CALL 811 BEFORE YOU DIG
DIG NO: A1702059

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED March 28, 2019
COUNTY ENGINEER

APPROVED March 28, 2019
TOWNSHIP COMMISSIONER

PASSED 4/2 2019
DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review 4/2 2019
REGION TWO ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE: 03/11/2019
LICENSED PROFESSIONAL ENGINEER STEVEN J. MEGGINSON 062-50051 STATE OF ILLINOIS
EXPIRES: 11/30/2019

HAMPTON, LENZINI AND RENWICK, INC.
CIVIL ENGINEERS · STRUCTURAL ENGINEERS · LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com
184.000959
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

PROJECT NUMBER: 15.0177.130 DATE: 03/11/19

CONTRACT NO. 87691 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	CONSTRUCTION TYPE CODE 0011 UNIT	TOTAL
^	20100110	TREE REMOVAL (6-15 UNITS DIAMETER)	UNIT	75
^	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	150
^	20200100	EARTH EXCAVATION	CU YD	330
	20300100	CHANNEL EXCAVATION	CU YD	365
	28100209	STONE RIPRAP, CLASS A5	TON	820
	28200200	FILTER FABRIC	SQ YD	608
	35101400	AGGREGATE BASE COURSE, TYPE B	TON	688
	48101200	AGGREGATE SHOULDERS, TYPE B	TON	143
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50201101	COFFERDAM (TYPE 1)(LOCATION - 1)	EACH	1
	50201102	COFFERDAM (TYPE 1)(LOCATION - 2)	EACH	1
	50300225	CONCRETE STRUCTURES	CU YD	133.2
	50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	3,780
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	8,380
*	50900205	STEEL RAILING, TYPE S1	FOOT	260
	51201400	FURNISHING STEEL PILES HP10X42	FOOT	1,045
	51202305	DRIVING PILES	FOOT	1,045
	51203400	TEST PILE STEEL HP10x42	EACH	2
	51500100	NAME PLATES	EACH	1
*	63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
	67100100	MOBILIZATION	L SUM	1
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
^	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25

^ SEE SPECIAL PROVISIONS

* SPECIALTY ITEMS

GENERAL NOTES

1) ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED APRIL 1, 2016", (HERE IN AFTER REFERRED TO AS THE STANDARD SPECIFICATIONS; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2019; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE DETAILS IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE DOCUMENTS.

2) ALL CLEARING, GRUBBING, FENCE REMOVAL, PAVEMENT REMOVAL, AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. REMOVAL AND DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

3) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

4) ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF THE DEPARTMENT.

5) THE LOCATION ON THE PLANS OF EXISTING DRAINAGE STRUCTURES, TELEPHONE LINES, ELECTRIC LINES, WATER SERVICE LINES, GAS MAINS, AND OTHER UTILITY FACILITIES AS SHOWN ON THE PLANS ARE BASED ON FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.

6) THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT.

7) THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES
   AGGREGATE BASE COURSE 2.05 TON/CU YD
   STONE RIPRAP 1.75 TON/CU YD

8) THE FINAL SURFACE OF ALL EMBANKMENT AREAS SHALL BE SEEDED. THE TOP 4 INCHES OF THE SEEDED AREAS SHALL BE TOPSOIL SUBJECT TO THE APPROVAL OF THE ENGINEER. THE COST OF SHAPING THE SLOPES AND PROVIDING TOP SOIL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

9) THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER.
   SEEDING, CLASS 2 (SPECIAL) = 0.25 ACRES

10) ALL WASTE MATERIAL FROM EXCAVATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

11) COMMITMENTS:
   1) TREES GREATER THAN 3" DIAMETER WILL NOT BE REMOVED BETWEEN APRIL 1 THROUGH SEPTEMBER 30.
   2) A BAT ASSESSMENT SHALL BE CONDUCTED IF WORK OCCURS TO THE EXISTING STRUCTURE AFTER MAY 25, 2019.

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION CU.YD.	CHANNEL EXCAVATION CU.YD.	SHRINKAGE FACTOR	PERCENT USED	EXCAVATION ADJUSTED FOR SHRINKAGE CU.YD.	EMBANKMENT REQUIRED CU.YD.	EARTHWORK BALANCE CU.YD.
TR 74							
STA. 74+50 TO STA. 76+16.25	160		25.00%	100.00%	120	92	28
STA. 76+16.25 TO STA. 77+43.75		365	25.00%	70.00%	192		192
STA. 77+43.75 TO STA. 79+00	172		25.00%	100.00%	129	36	93
TOTAL	332	365			441	128	313
USE	330	365					315

WASTE 315 CU YDS

ROADWAY SCHEDULE

LOCATION	AGGREGATE BASE COURSE TYPE B TON	AGGREGATE BASE COURSE TYPE B (ABUT. BACKFILL) TON	AGGREGATE SHOULDERS, TYPE B (6") TON
TR 74	35101400	35101400	48101200
STA. 74+50 TO STA. 76+16.25	303	50	73
STA. 77+43.75 TO STA. 79+00	285	50	70
TOTAL	588	100	143

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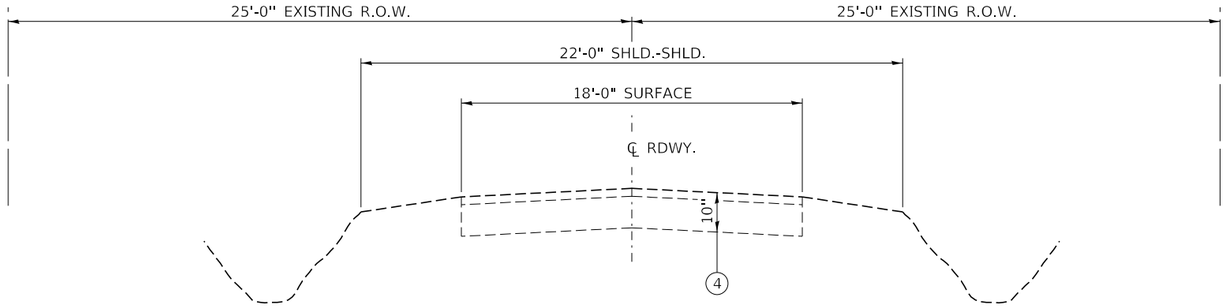
HAMPTON, LENZINI AND RENWICK, INC. 3965 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		DRAWN - M.M.P.	REVISED -	
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.009959	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -	
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -	

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

SUMMARY OF QUANTITIES AND GENERAL NOTES

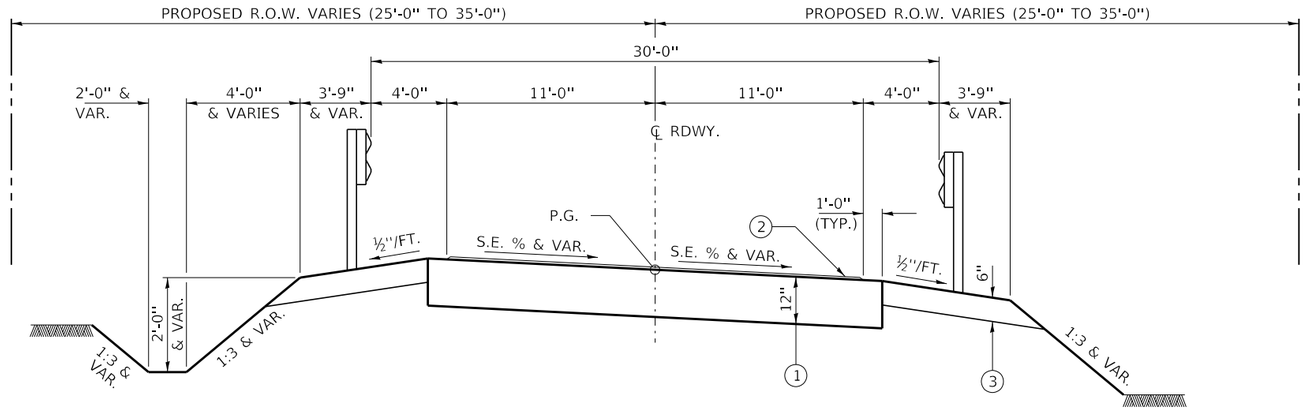
SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	2
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		



EXISTING TYPICAL CROSS SECTION

STA. 74+50 TO 79+00

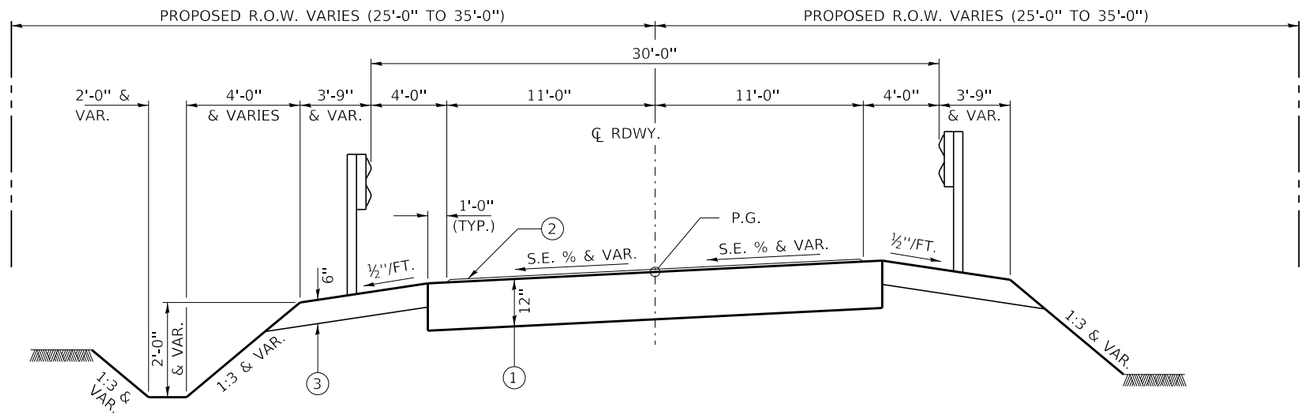


SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

PROPOSED TYPICAL CROSS SECTION

STA. 74+50 TO 76+16.25



SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

PROPOSED TYPICAL CROSS SECTION

STA. 77+43.75 TO 79+00

SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

LEGEND

1. AGGREGATE BASE COURSE, TYPE B (12")
2. FUTURE A-3 SURFACE (BY OTHERS)
3. AGGREGATE SHOULDERS, TYPE B 6"
4. EXISTING OIL & CHIP SURFACE (2"±) ON AGGREGATE BASE (8"±)

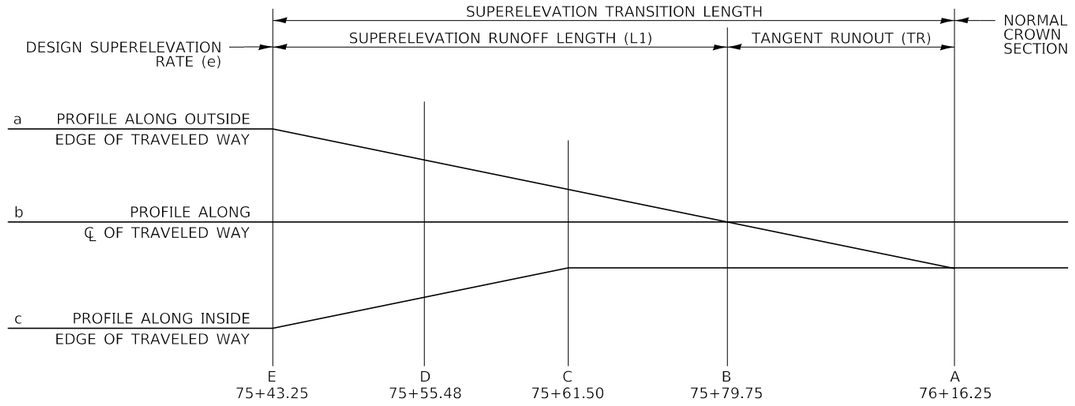
FILE NAME = 150177-sht-typsections.dgn	USER NAME = rhosick	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - M.M.P.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

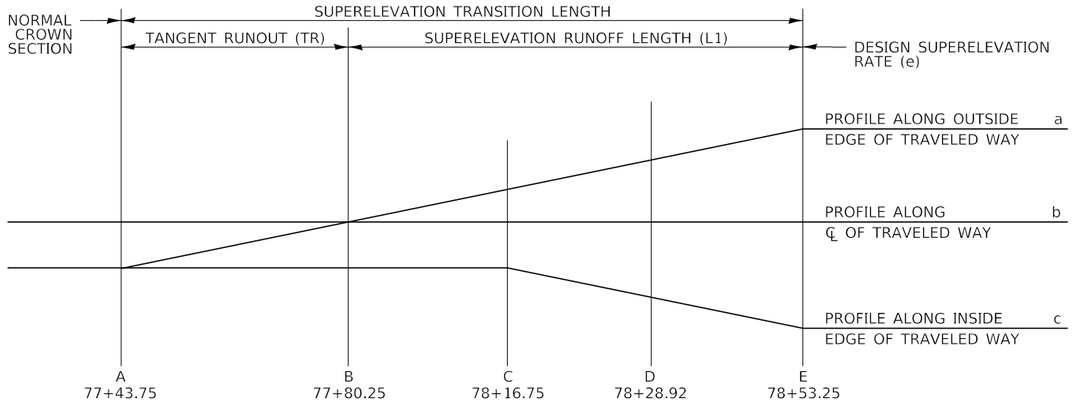
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

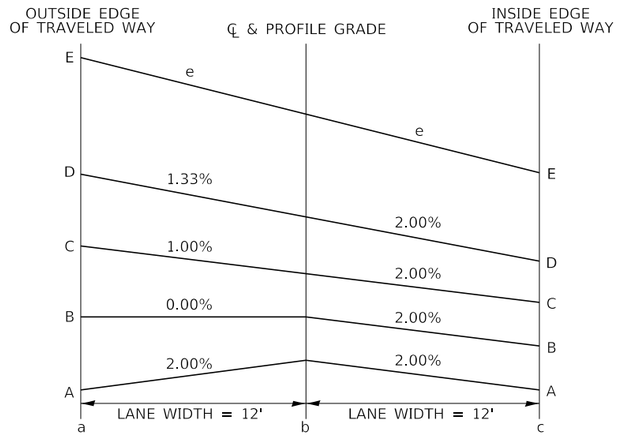
TYPICAL CROSS SECTIONS

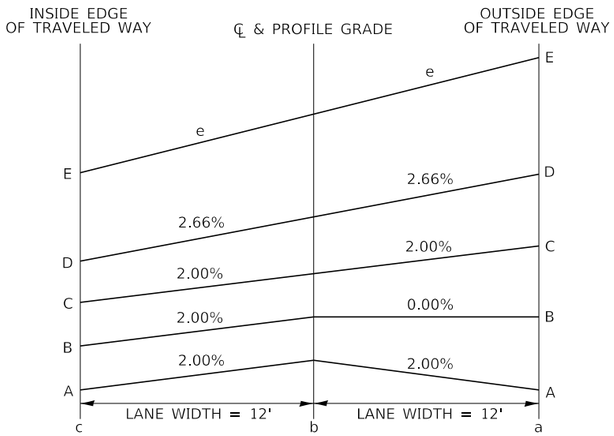
SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. TO STA.

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	3
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			









CURVE TR742, P.I. STATION 74+78.97 TRANSITION DETAILS

R=	950.00	FT

NC =	2.00	%

LANE WIDTH=	12	FT.

CURVE=	RIGHT

S.E.=	2.00	%

L 1	36.5
TR	36.5

	CURVE STATIONS
P.C.	73+17.27
P.T.	76+37.59

PC TRANSITION*			
	STATION	SUPERELEVATION	
		LEFT	RIGHT
	74+50.00	-3.34%	-4.26%
	74+73.40	-2.00%	-3.69%
	75+00.00	-0.48%	-3.05%
	75+08.32	0.00%	-2.85%
	75+43.25	2.00%	-2.00%

PT TRANSITION			
	STATION	SUPERELEVATION	
		LEFT	RIGHT
E	75+43.25	2.00%	-2.00%
D	75+55.48	1.33%	-2.00%
C	75+61.50	1.00%	-2.00%
B	75+79.75	0.00%	-2.00%
A	76+16.25	-2.00%	-2.00%

SUPERELEVATION TRANSITIONS

NOTE PC TRANSITION SPECIAL TO MATCH EXISTING PAVEMENT

CURVE TR743, P.I. STATION 78+66.75 TRANSITION DETAILS

R=	300.00	FT

NC =	2.00	%

LANE WIDTH=	12	FT.

CURVE=	LEFT

S.E.=	4.00	%

L 1	73.0
TR	36.5

	CURVE STATIONS
P.C.	77+21.84
P.T.	79+88.57

PC TRANSITION			
	STATION	SUPERELEVATION	
		LEFT	RIGHT
A	77+43.75	-2.00%	-2.00%
B	77+80.25	-2.00%	0.00%
C	78+16.75	-2.00%	2.00%
D	78+28.92	-2.67%	2.67%
E	78+53.25	-4.00%	4.00%

PT TRANSITION*			
	STATION	SUPERELEVATION	
		LEFT	RIGHT
	78+53.25	-4.00%	4.00%
	78+72.37	-5.21%	2.67%
	78+81.93	-5.82%	2.00%
	78+96.27	-6.72%	1.00%
	79+00.00	-6.96%	0.74%

SUPERELEVATION TRANSITIONS

NOTE PT TRANSITION SPECIAL TO MATCH EXISTING PAVEMENT

FILE NAME = 150177-sht-typsections.dgn	USER NAME = rhosick	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		DRAWN - M.M.P.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.009959	PLOT SCALE = $SCALES	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

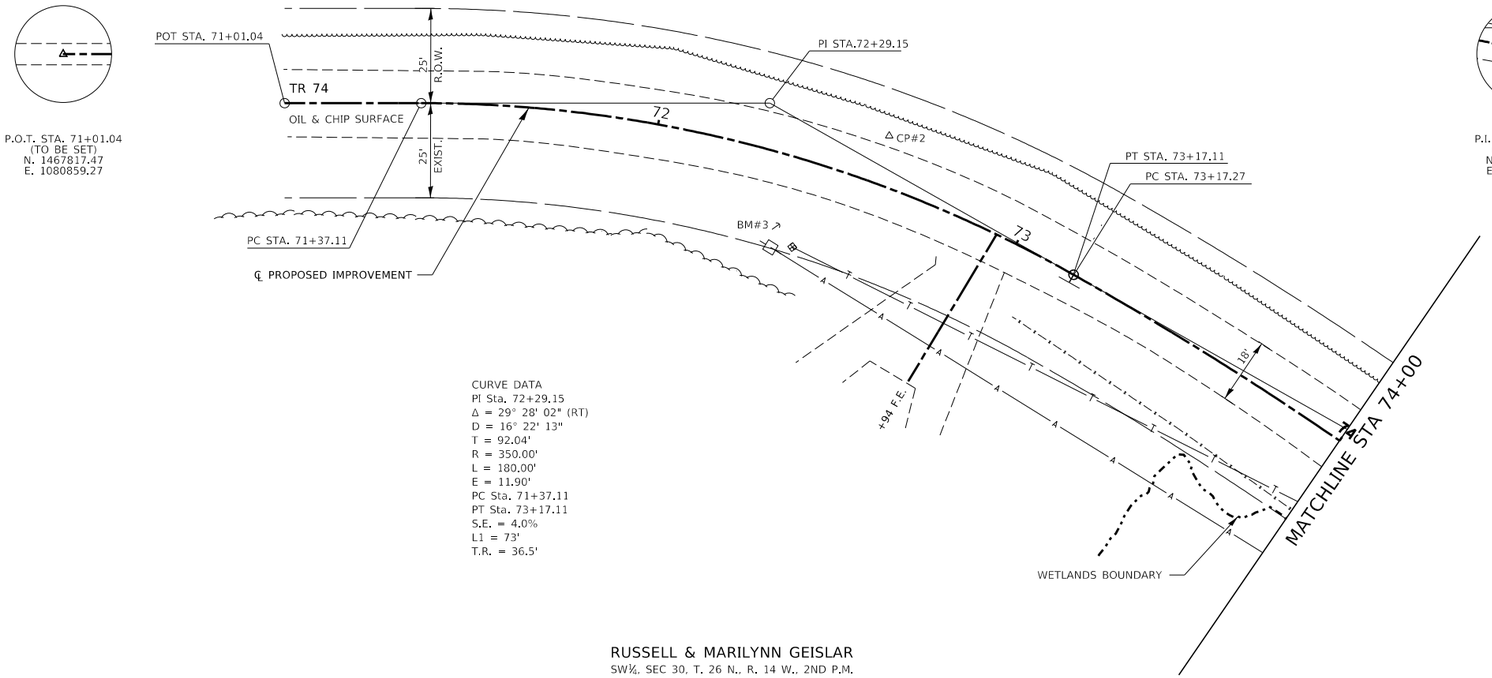
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

TYPICAL CROSS SECTIONS

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	4
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			

RUSSELL & MARILYNN GEISLAR
SW¼, SEC 30, T. 26 N., R. 14 W., 2ND P.M.



P.O.T. STA. 71+01.04
(TO BE SET)
N. 1467817.47
E. 1080859.27

P.I. STA. 72+29.15
(TO BE SET)
N. 1467894.14
E. 1080756.64

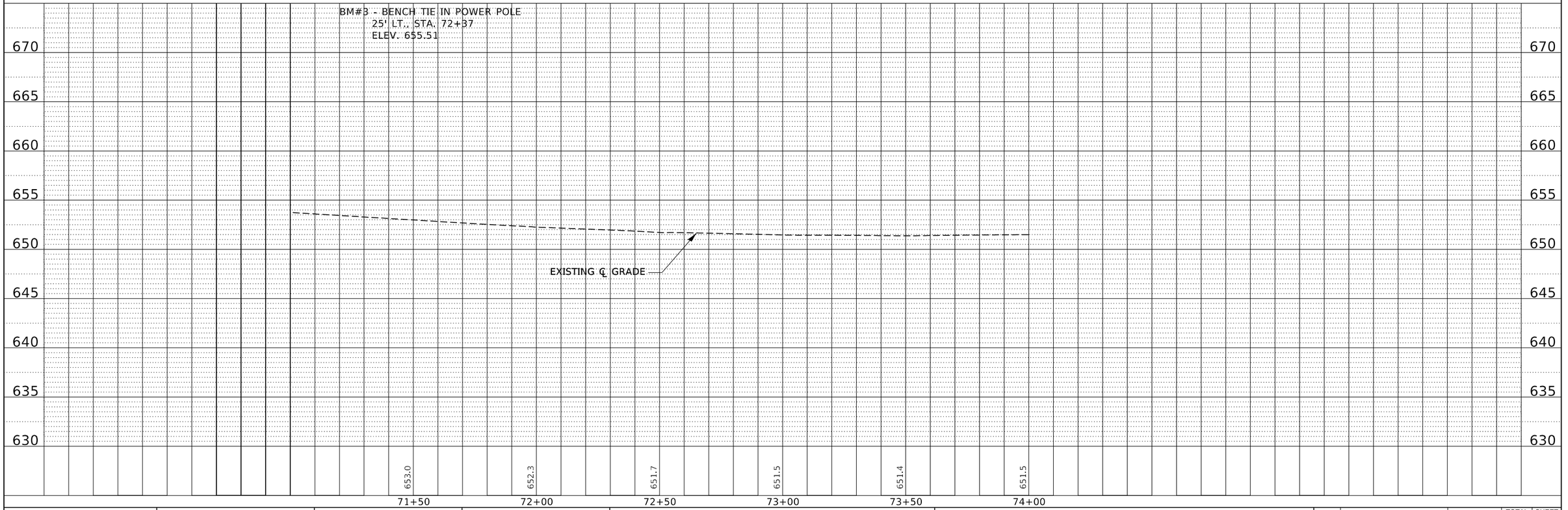
0 20' 40'
GRAPHIC SCALE

CURVE DATA
PI Sta. 72+29.15
Δ = 29° 28' 02" (RT)
D = 16° 22' 13"
T = 92.04'
R = 350.00'
L = 180.00'
E = 11.90'
PC Sta. 71+37.11
PT Sta. 73+17.11
S.E. = 4.0%
L1 = 73'
T.R. = 36.5'

RUSSELL & MARILYNN GEISLAR
SW¼, SEC 30, T. 26 N., R. 14 W., 2ND P.M.

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
BY
DATE
NOTE BOOK
NO.

PROFILE
SURVEYED
PLOTTED
PROFILE CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
BY
DATE
NOTE BOOK
NO.



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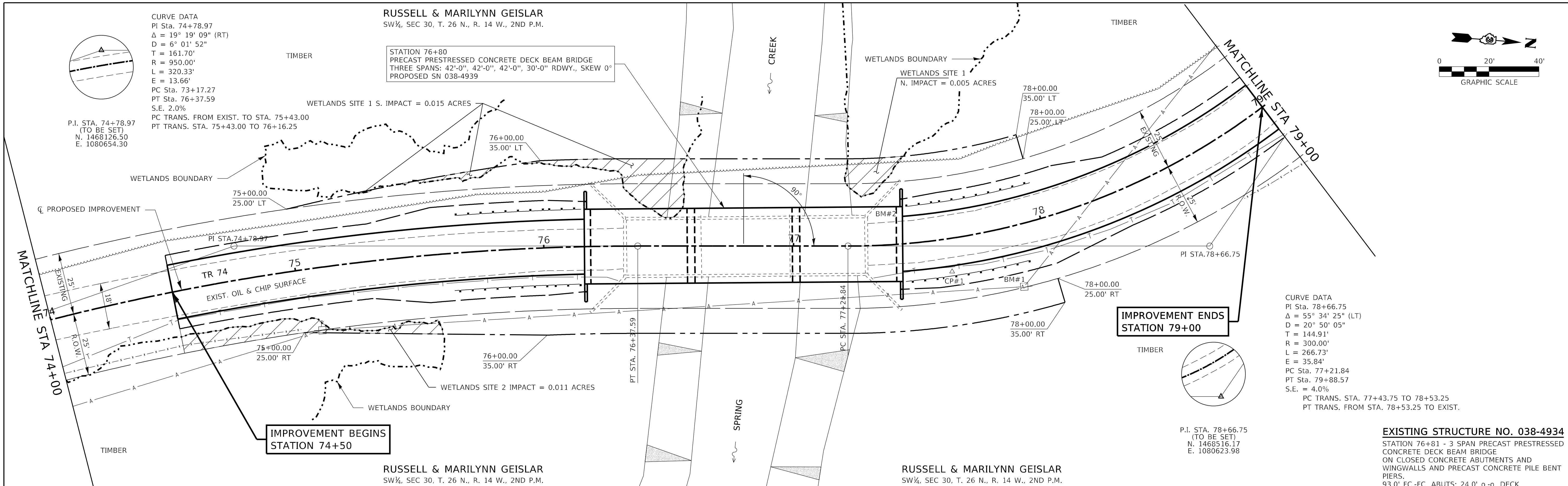
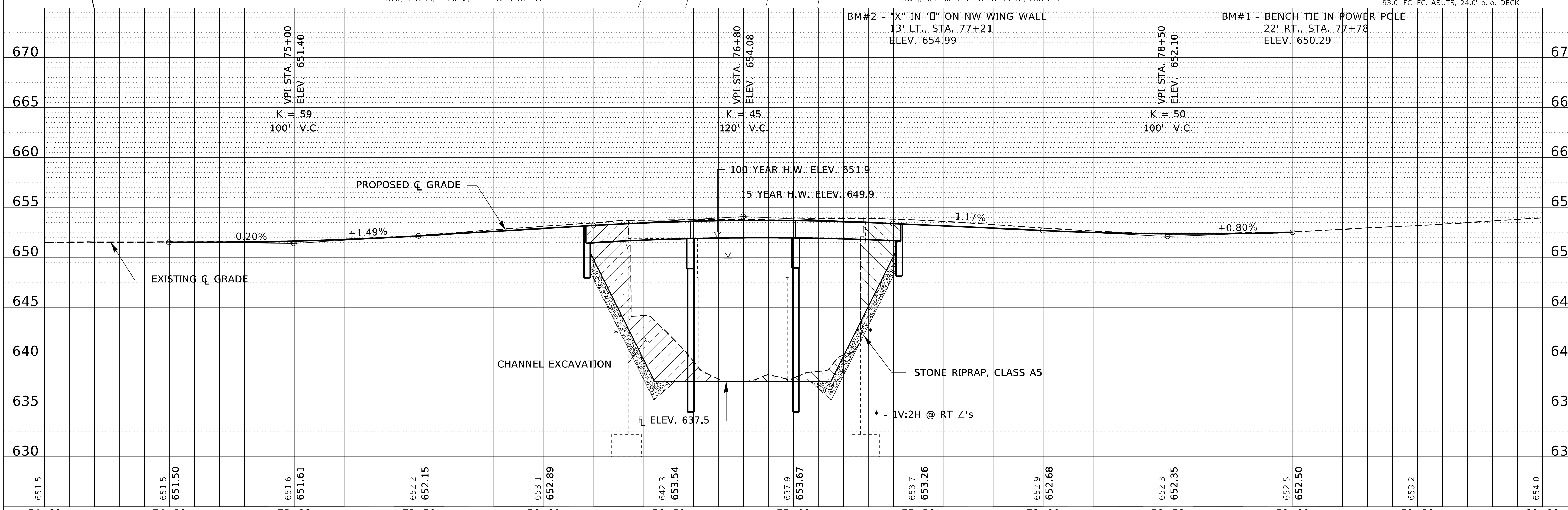
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000969		DRAWN - L.G.C.	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -		
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -		

SCALE: 20H:5V | SHEET NO. 1 OF 3 SHEETS | STA. 71+01.04 TO STA. 74+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	5
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS FED. AID PROJECT 3H7Z(853)			





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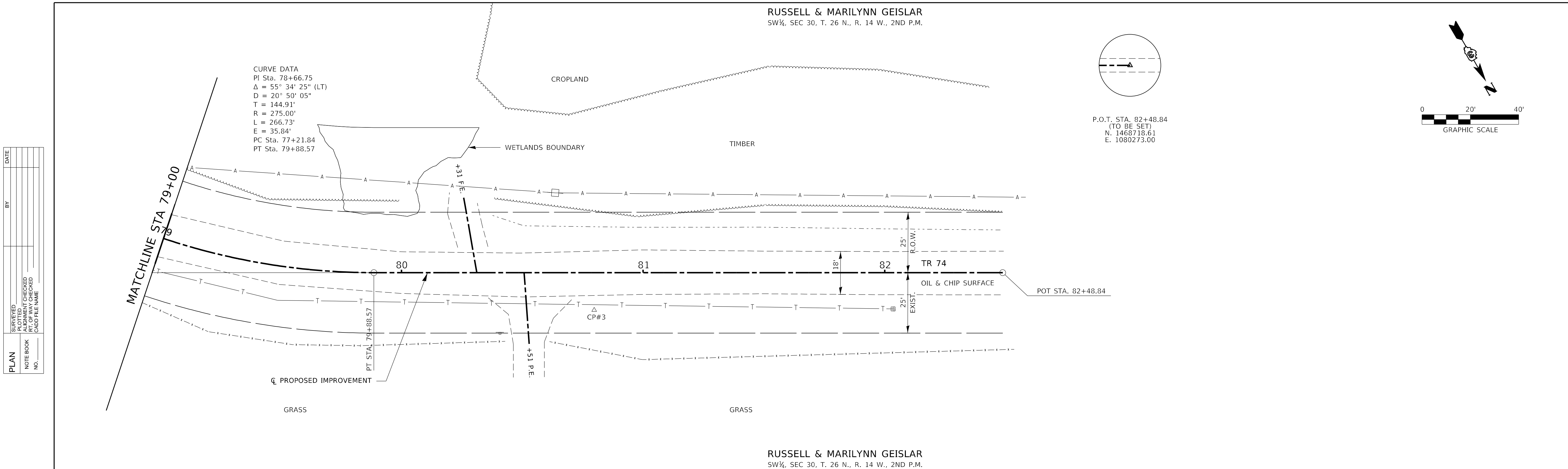
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - L.G.C.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

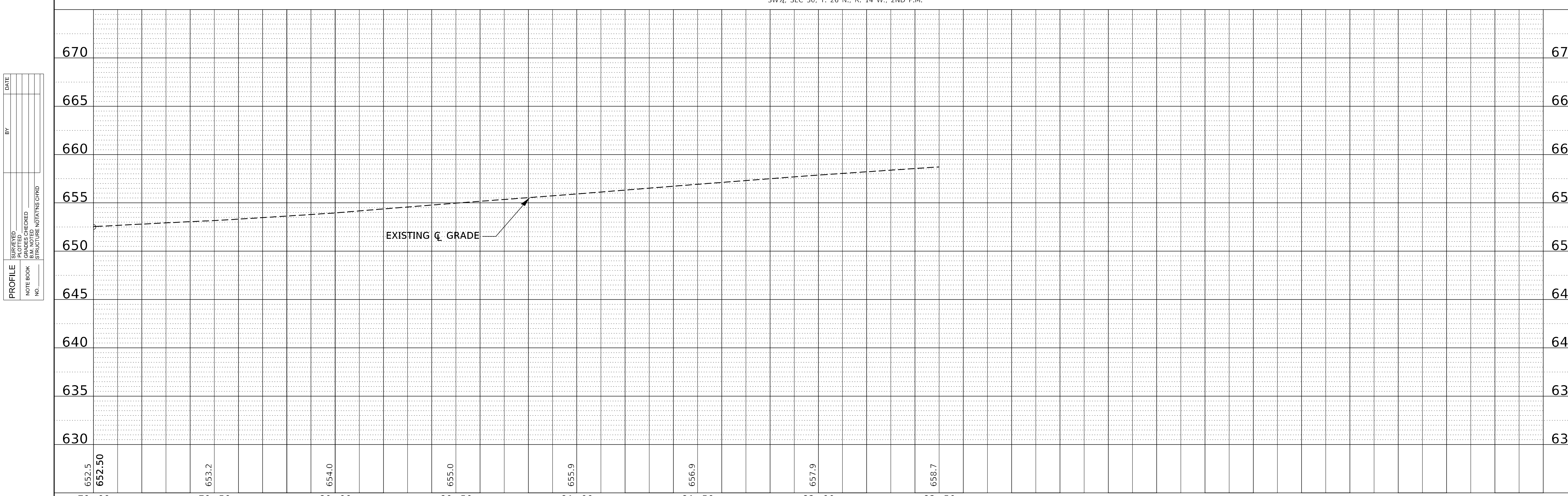
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

PLAN & PROFILE

SCALE: 20H:5V | SHEET NO. 2 OF 3 SHEETS | STA. 74+00.00 TO STA. 79+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	6
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		





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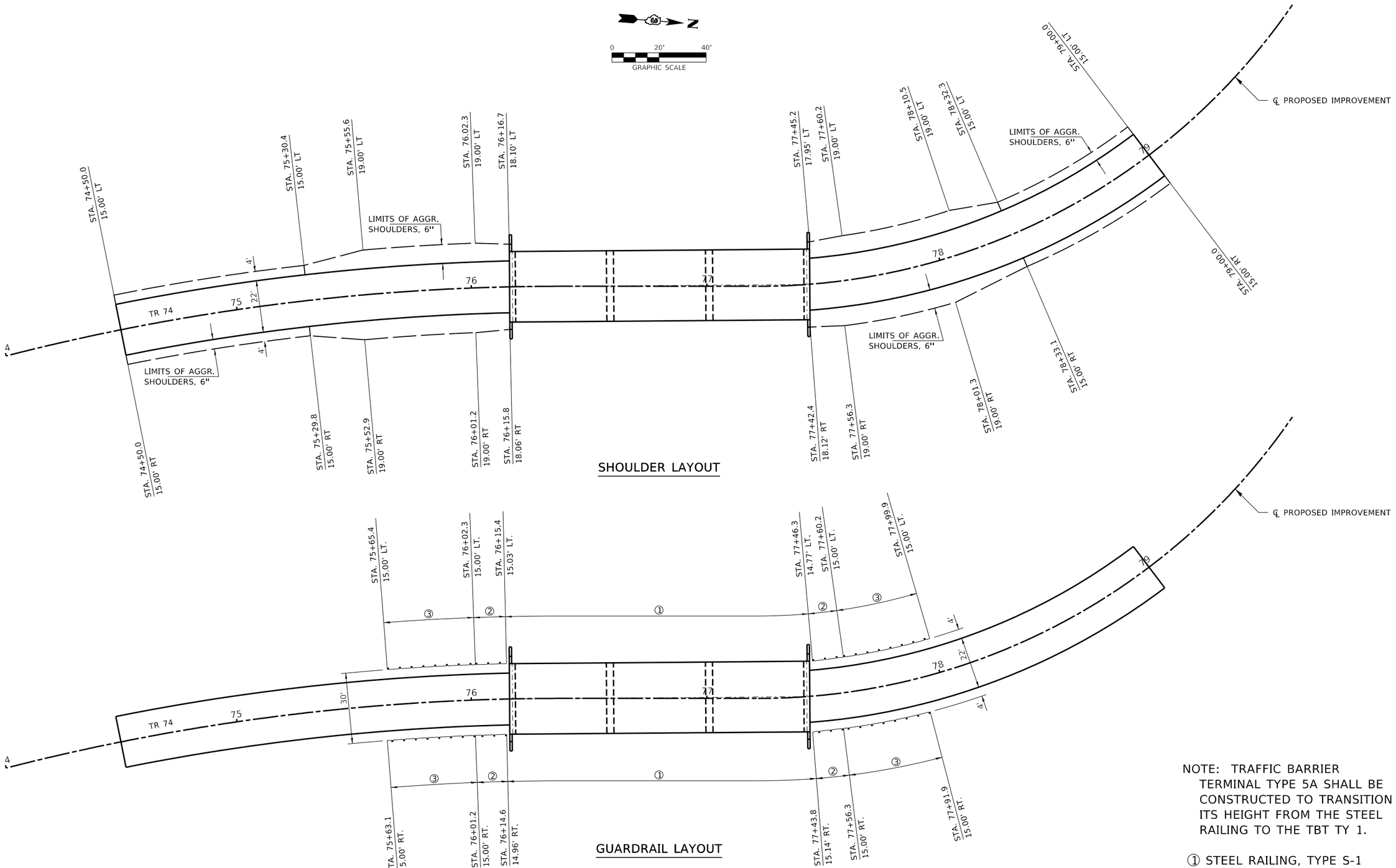
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - L.G.C.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

PLAN & PROFILE

SCALE: 20H:5V | SHEET NO. 3 OF 3 SHEETS | STA. 79+50.00 TO STA. 82+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	7
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		



NOTE: TRAFFIC BARRIER TERMINAL TYPE 5A SHALL BE CONSTRUCTED TO TRANSITION ITS HEIGHT FROM THE STEEL RAILING TO THE TBT TY 1.

① STEEL RAILING, TYPE S-1
② TBT TY 5A
③ TBT TY 1, SPECIAL TANGENT

FILE NAME = 150177-sht-guardrail.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3395 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - M.M.P.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

GUARDRAIL & SHOULDER LAYOUT

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

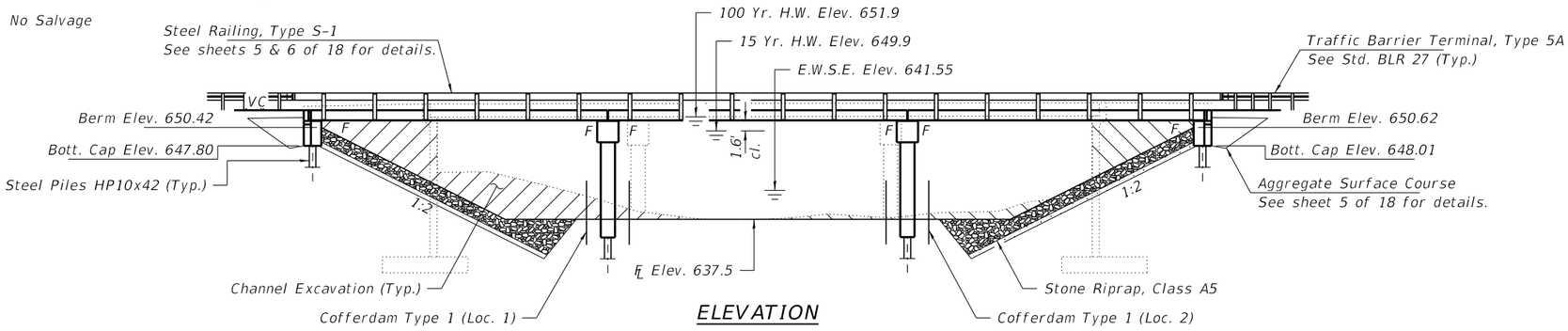
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	8
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			

BENCHMARK: Cross Notch on NW Wingwall 13' Lt., Sta. 77+21, Elev. 654.99

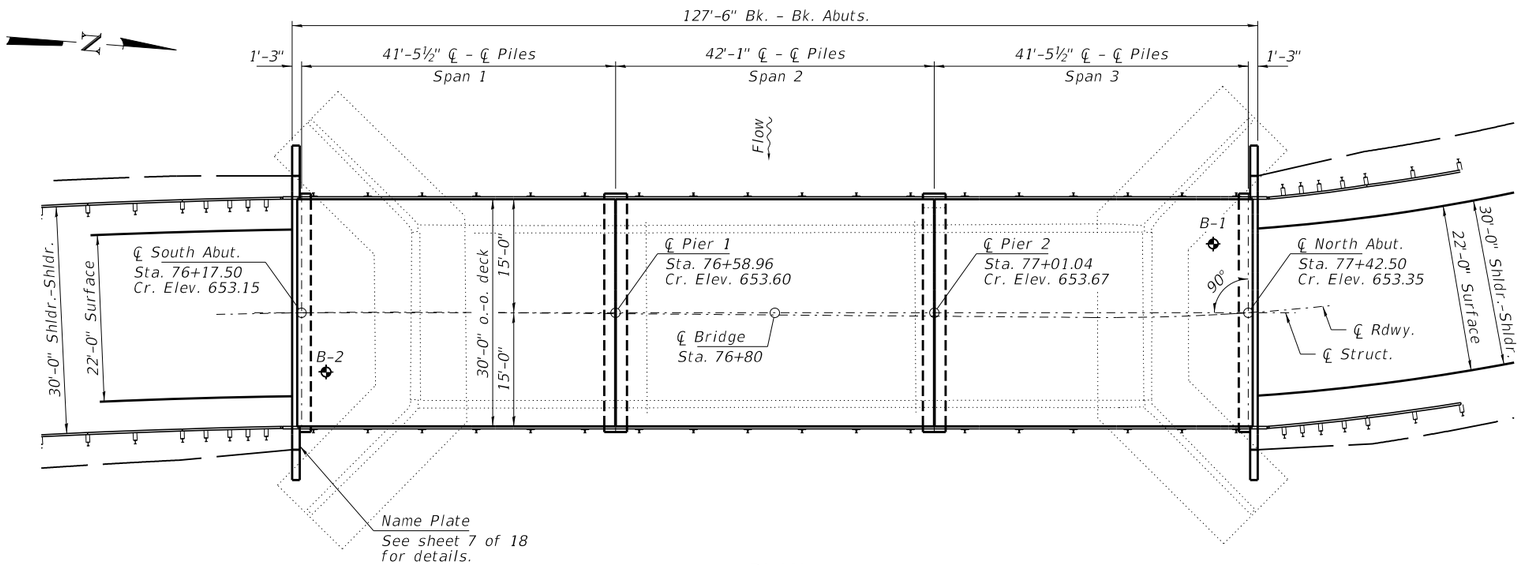
EXISTING STRUCTURE: Sta. 76+81 – Three span precase prestressed concrete deck beam bridge on closed concrete abutments and wingwalls and precase concrete pile bent piers. 93.0' fc.–fc.; 24.0' o.–o. deck.

Structure closed to traffic during construction.

No Salvage



ELEVATION



PLAN

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at South Abutment and Pier 2 or approved by the Engineer before ordering the remainder of piles.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. Cost included in Removal of Existing Structure

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

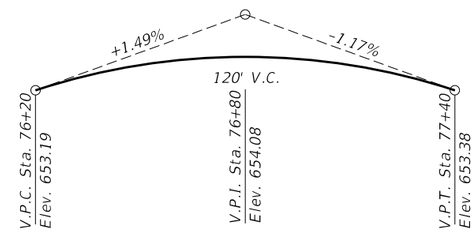
All bars to be epoxy coated.

Excavation required to construct the Abutments and Piers shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation or Cofferdam Excavation.

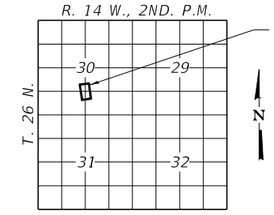
All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. General Details
3. 17"x36" PPC Deck Beam Spans 1–3
4. 17"x36" PPC Deck Beam Details Spans 1–3
5. Superstructure Details
6. Steel Railing, Type S–1
7. South Abutment
8. North Abutment
9. Pier 1
10. Pier 2
11. HP Pile Details
12–13. Borings
14–18. Existing Structure Plans



PROFILE GRADE



LOCATION SKETCH

SPRING CREEK
BUILT 201_ BY
IROQUOIS COUNTY
SEC. 14–20101–00–BR
ONARGA ROAD DISTRICT
STR. NO. 038–4939
LOADING HL–93

NAME PLATE

See Std. 515001

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition with all interims.

LOADING HL–93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.113g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.183g
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (½"Ø low lax. strands)
fpbt = 201,960 psi (½"Ø low lax. strands)
fy = 60,000 psi (Reinf.)

WATERWAY INFORMATION

Drainage Area = 147.0 Sq. Mi. Existing Low Grade Elev. 651.5 @ Sta. 74+00 Proposed Low Grade Elev. 651.5 @ Sta. 74+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head – Ft. Exist.	Head – Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	7060	840	950	649.35	0.82	0.73	650.17	650.08
Design	15	8010	890	1010	649.85	1.00	0.86	650.85	650.71
Base	100	12670	1070	1230	651.89	1.07	0.91	652.96	652.80
Scour Check	200	14350	1070	1230	652.56	1.00	0.82	653.56	653.38
Max. Calc.	500	16730	1070	1230	653.42	0.80	0.63	654.22	654.05

10 Year Velocity through Existing Bridge = 8.4 fps 10 Year Velocity through Proposed Bridge = 7.4 fps

DESIGN SCOUR ELEVATION TABLE

Event/Limit State	Design Scour Elevations (ft.) S. Abut.	Pier 1	Pier 2	N. Abut.	Item 113
Q100	648.3	623.1	623.1	648.3	5
Q200	648.3	623.1	623.1	648.3	
Design	648.3	623.1	623.1	648.3	
Check	648.3	623.1	623.1	648.3	

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Steven W. Megginson 03/11/19
ILLINOIS STRUCTURAL ENGR. NO. 081–6064

LICENSED STRUCTURAL ENGINEER
STEVEN W. MEGGINSON
081-6064
SPRINGFIELD, IL.
STATE OF ILLINOIS

Expires 11–30–2020

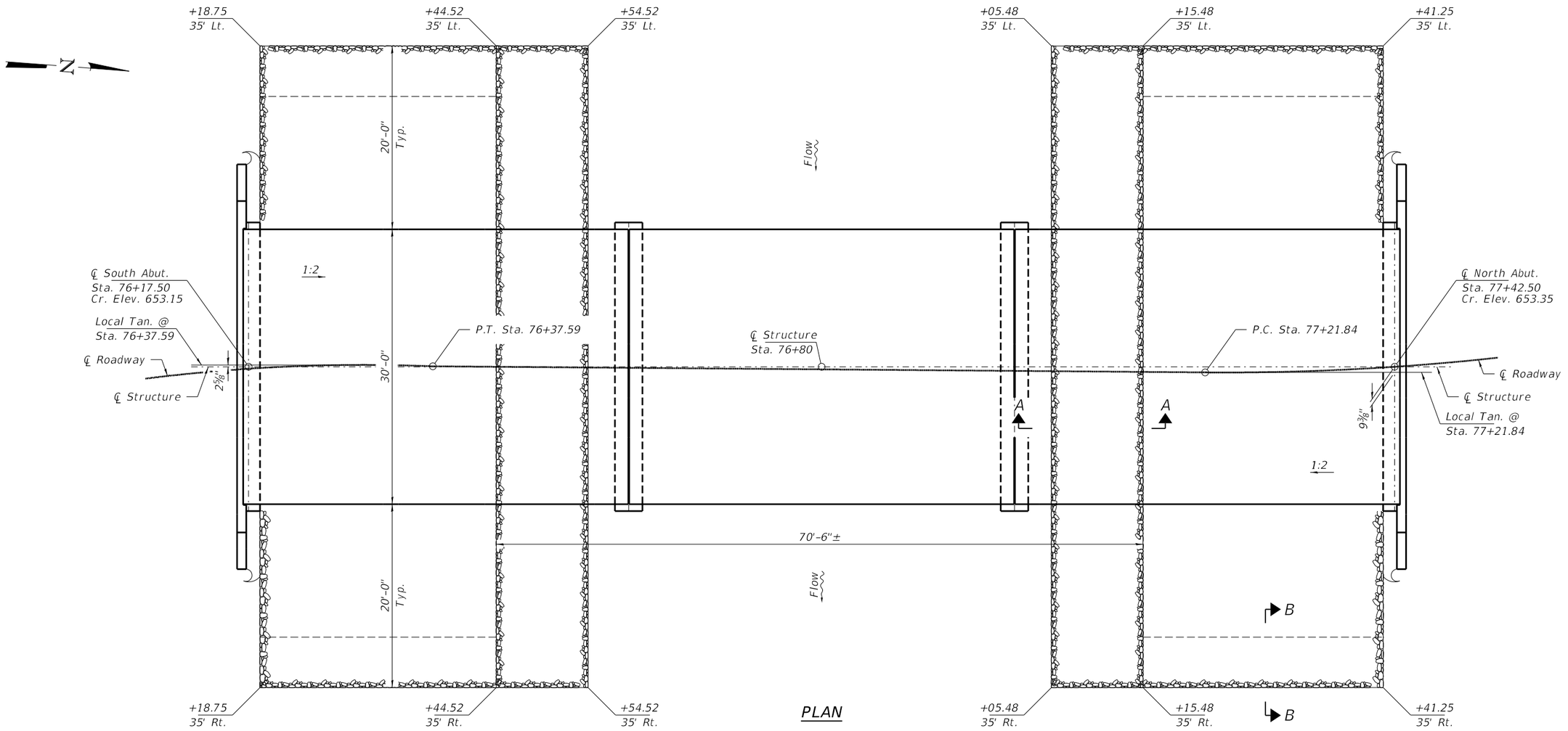
GENERAL PLAN & ELEVATION
T.R. 74
OVER SPING CREEK
SECTION 14-20101-00-BR
IROQUOIS COUNTY
STATION 76+80
STRUCTURE NO. 038-4939

FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhoslck	DESIGNED – J.R.B.	REVISED –
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED – S.W.M.	REVISED –
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN – M.M.P.	REVISED –
	PLOT DATE = 3/11/2019	CHECKED – S.W.M.	REVISED –

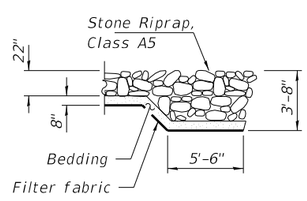
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 038-4939
SHEET NO. 1 OF 18 SHEETS

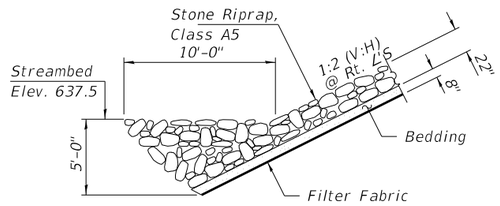
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	9
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



PLAN



SECTION B-B



SECTION A-A

TOTAL BILL OF MATERIAL

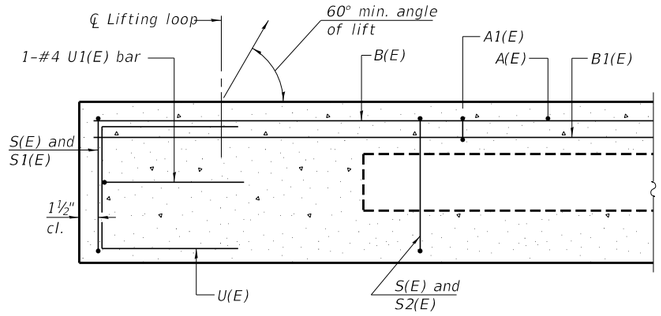
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			365
Stone Riprap, Class A5	Ton			820
Filter Fabric	Sq. Ft.			608
Aggr. Base Cse, Type B	Ton		100	100
Removal of Existing Structures	Each			1
Cofferdam (Type 1)(Location - 1)	Each			1
Cofferdam (Type 1)(Location - 2)	Each			1
Concrete Structures	Cu. Yd.		133.2	133.2
Precast Prestressed Conc. Deck Beams (17" Depth)	Sq. Ft.	3,780		3,780
Reinforcement Bars, Epoxy Coated	Pound		8,380	8,380
Steel Railing, Type S-1	Foot	260		260
Furnishing Steel Piles HP10x42	Foot		1,045	1,045
Driving Piles	Foot		1,045	1,045
Test Piles Steel HP10x42	Each		2	2
Name Plates	Each		1	1

FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

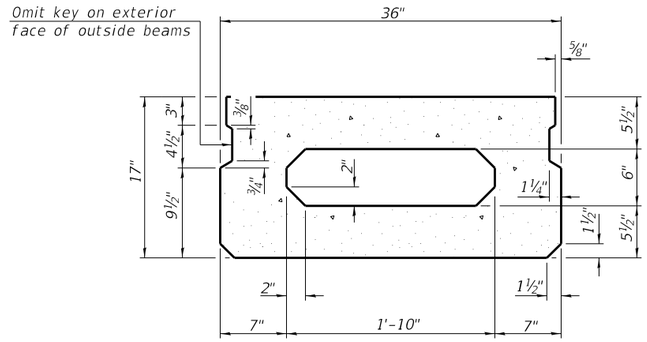
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

RIPRAP DETAILS
STRUCTURE NO. 038-4939
SHEET NO. 2 OF 18 SHEETS

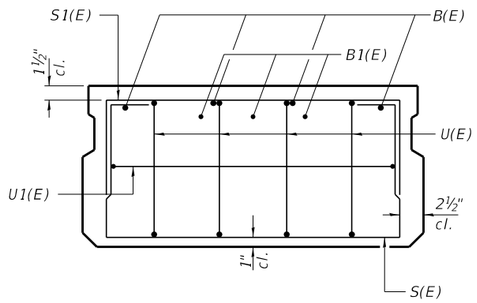
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	10
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



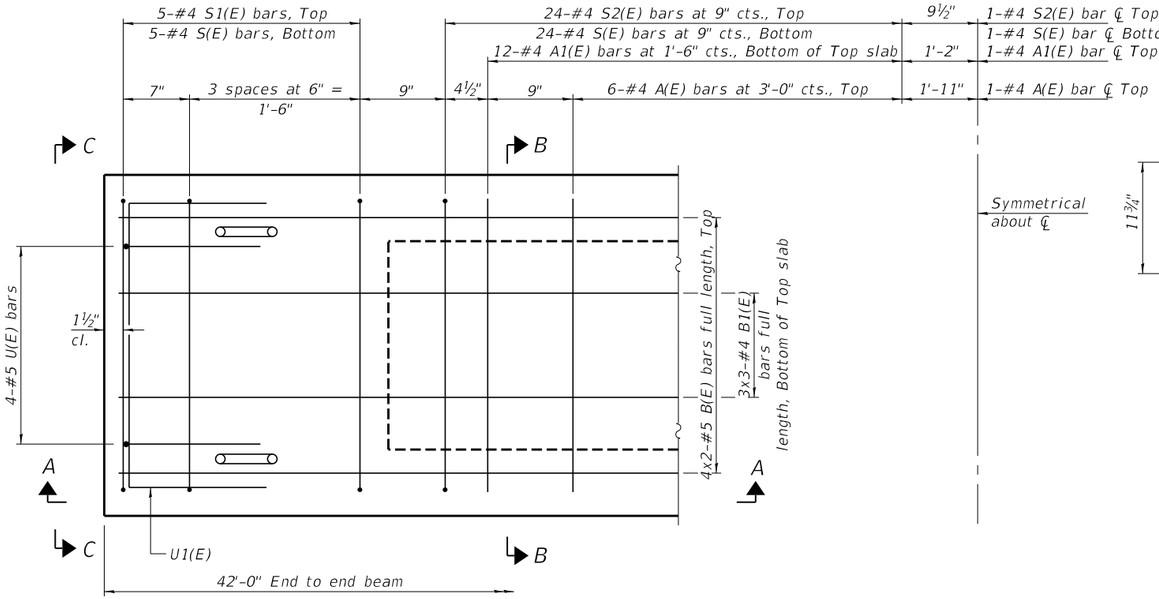
SECTION A-A



SECTION B-B
(Showing dimensions)

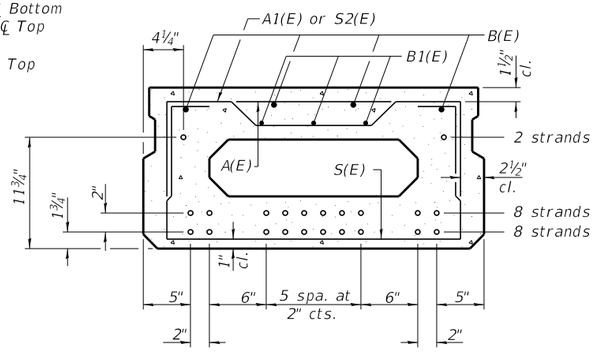


VIEW C-C



PLAN VIEW

Note:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#4 bar = 1'-11"
#5 bar = 2'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

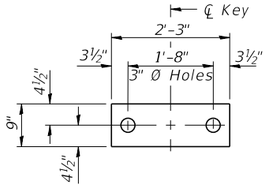
Bar	No.	Size	Length	Shape
A(E)	13	#4	2'-7"	—
A1(E)	25	#4	2'-10"	⌒
B(E)	8	#5	22'-2"	—
B1(E)	9	#4	15'-3"	—
S(E)	59	#4	5'-9"	⌴
S1(E)	10	#4	4'-3"	⌐¬
S2(E)	49	#4	4'-6"	⌐¬
U(E)	8	#5	3'-8"	⊏
U1(E)	2	#4	5'-0"	⌐¬

Note: See sheet 4 & 5 of 18 for additional details and Bill of Material.

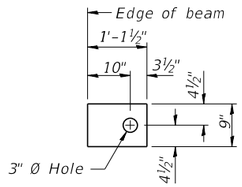
PD-1736-0 2-17-2017

FILE NAME = 150177-shl-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	17" x 36" PPC DECK BEAM - SPANS 1, 2, & 3 STRUCTURE NO. 038-4939
HAMPTON, LENZINI AND RENWICK, INC. 3045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP: 184.000959		CHECKED - S.W.M.	REVISED -		SHEET NO. 3 OF 18 SHEETS
	PLOT SCALE =	DRAWN - M.M.P.	REVISED -		
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -		

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	11
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



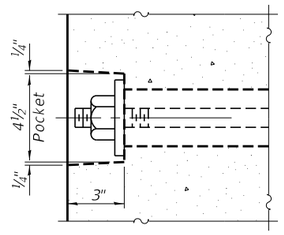
FABRIC BEARING PAD
(Interior - 27 Req'd.)



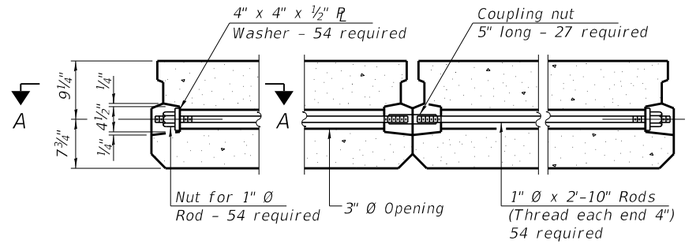
FABRIC BEARING PAD
(Exterior - 12 Req'd.)

FIXED

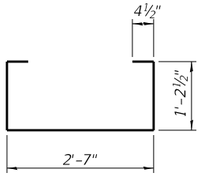
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



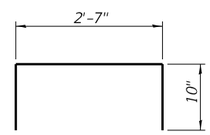
SECTION A-A



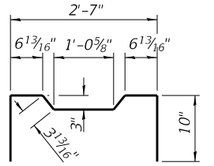
TYPICAL TRANSVERSE TIE ASSEMBLY



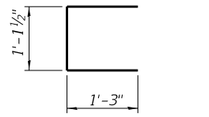
BAR S(E)



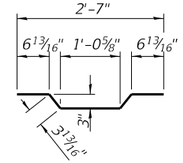
BAR S1(E)



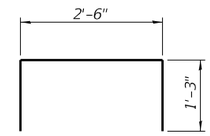
BAR S2(E)



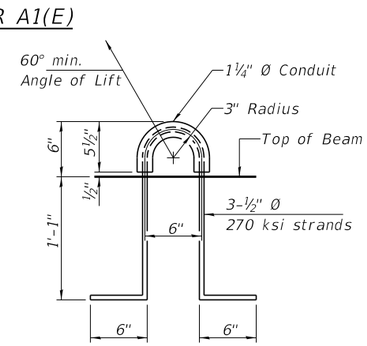
BAR U(E)



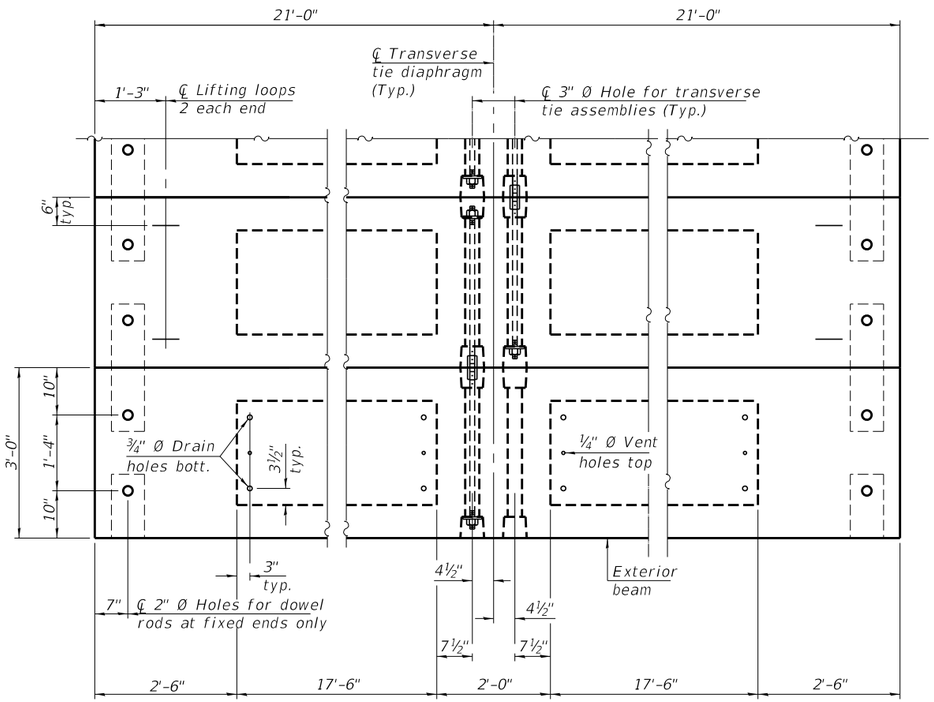
BAR A1(E)



BAR U1(E)



LIFTING LOOP DETAIL



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" Ø rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Reinforcment bars designated (E) shall be epoxy coated.

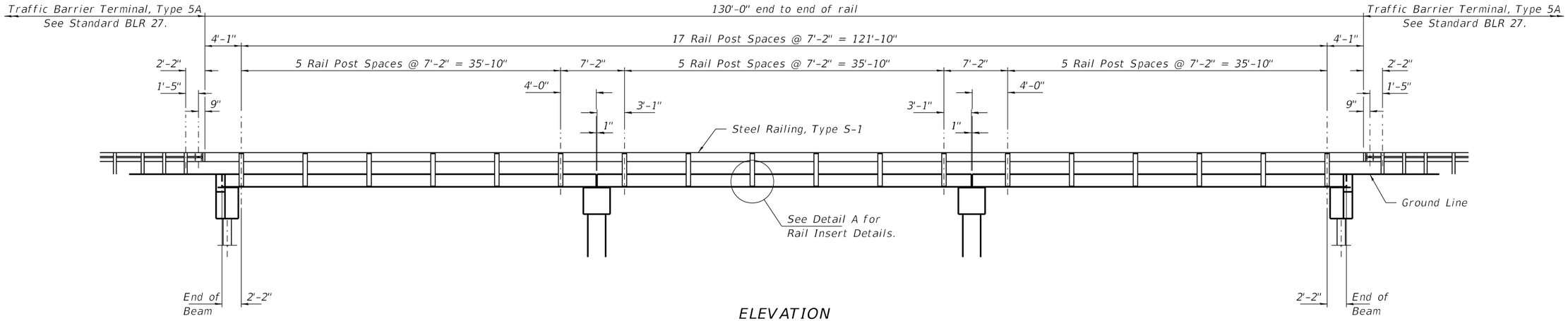
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	3,780

PD-1736-0D 2-17-2017

FILE NAME = 150177-shl-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	17" x 36" PPC DECK BEAM DETAILS - SPANS 1, 2, & 3 STRUCTURE NO. 038-4939
HAMPTON, LENZINI AND RENWICK, INC. 3045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -		SHEET NO. 4 OF 18 SHEETS
	PLOT SCALE =	DRAWN - M.M.P.	REVISED -		
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -		

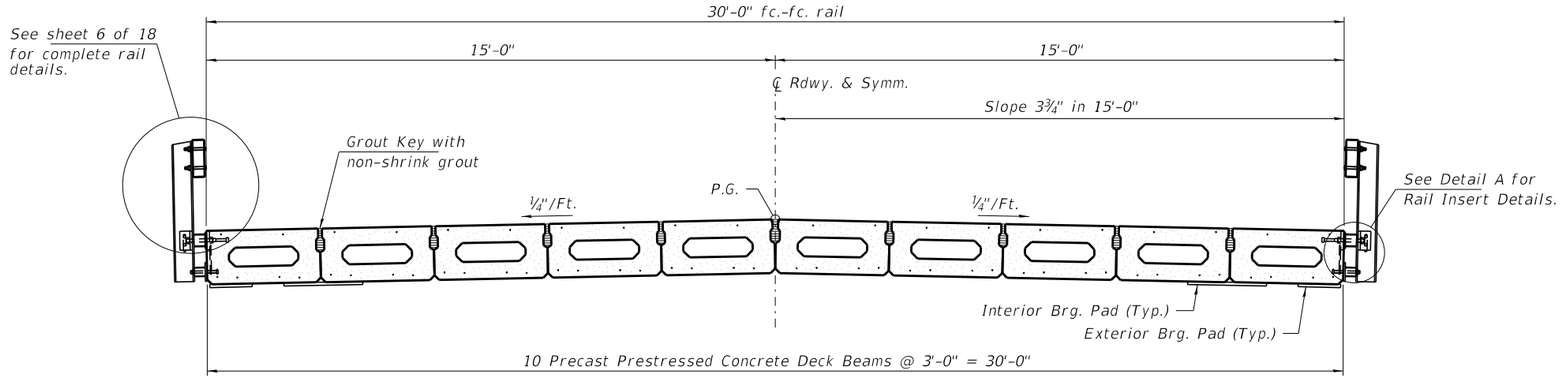
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	12
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS | FED. AID PROJECT 3H7Z(853)				



ELEVATION

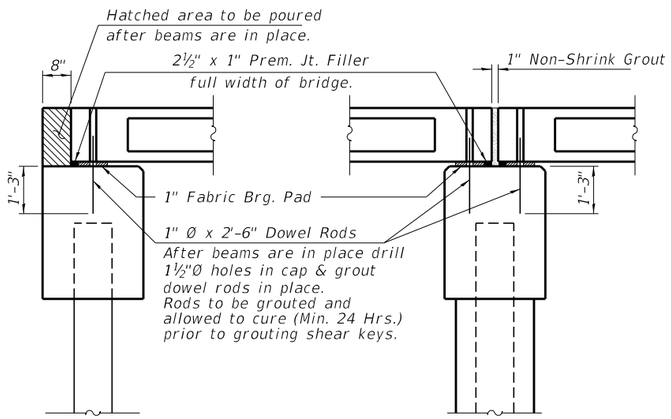
Showing Rail Post Spaces

See sheet 6 of 18 for Railing Details.



CROSS SECTION

See sheets 3 & 4 of 18 for Superstructure.

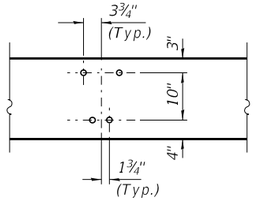


SECTION AT ABUTMENTS

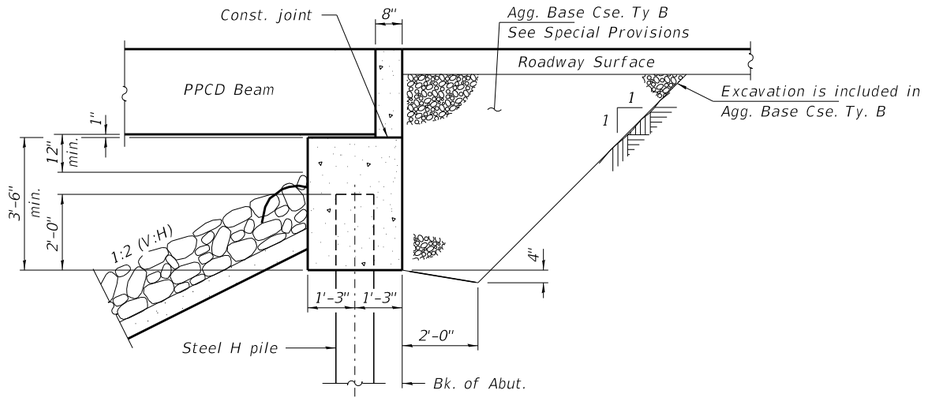
@ Rt. ℄'s

SECTION AT PIERS

@ Rt. ℄'s



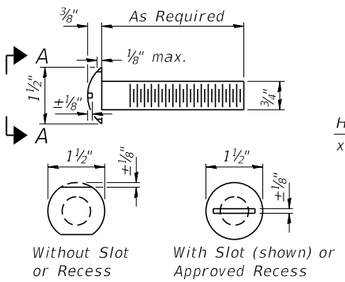
DETAIL A



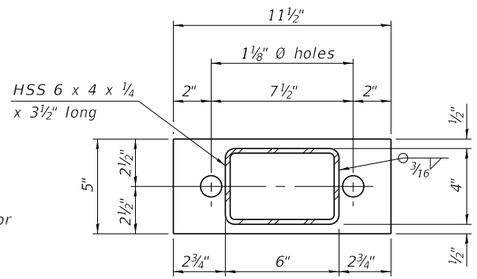
SECTION THRU ABUTMENT

(Horiz. dim. @ Rt. ℄'s)

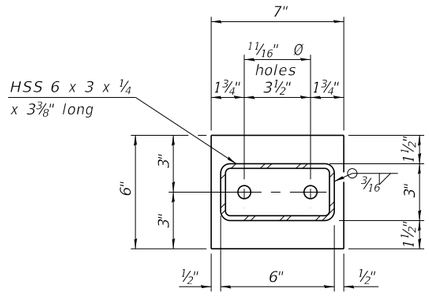
FILE NAME = 150177-sht-bridge.dgn	USER NAME = mosick	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	SUPERSTRUCTURE DETAILS STRUCTURE NO. 038-4939	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -			74	14-20101-00-BR	IROQUOIS	37	13
PLOT SCALE =		DRAWN - M.M.P.	REVISED -			ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
PLOT DATE = 3/11/2019		CHECKED - S.W.M.	REVISED -		SHEET NO. 5 OF 18 SHEETS			ILLINOIS	FED. AID PROJECT 3H7Z(853)	



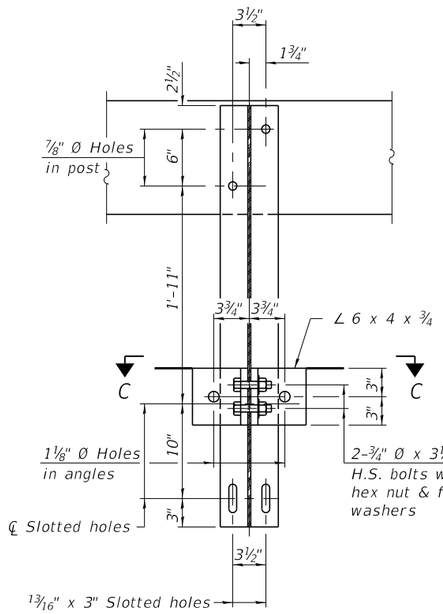
VIEW A-A
ROUND HEAD BOLT



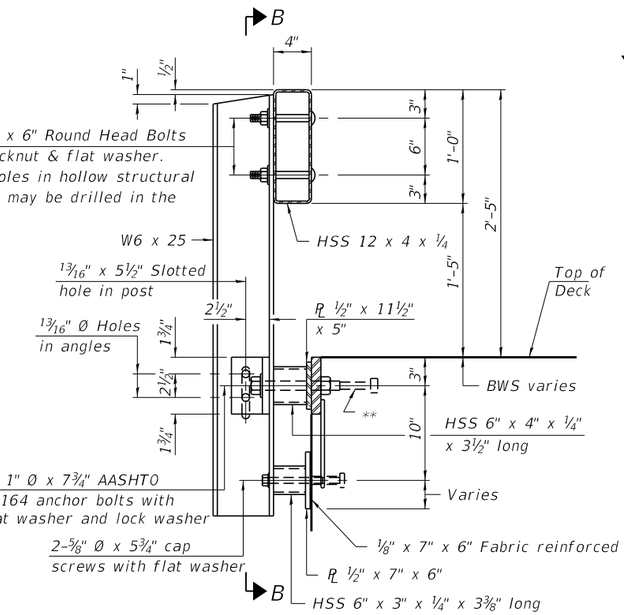
PL 1/2" x 11 1/2" x 5"



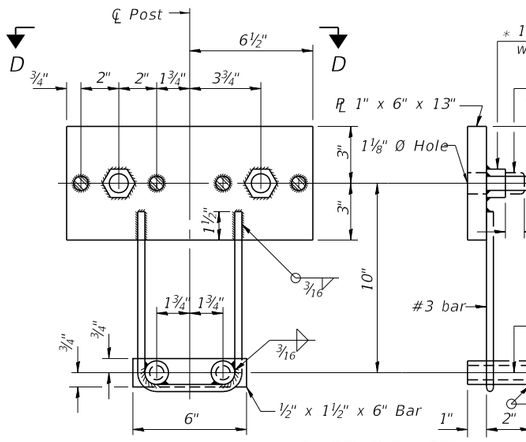
PL 1/2" x 7" x 6"



SECTION B-B



SECTION AT RAILING POST



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam.

SPLICE DIMENSIONS

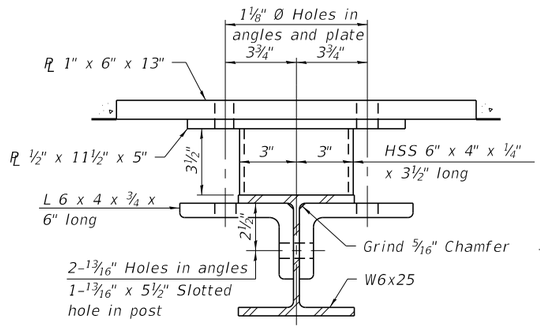
T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	——

T = Total movement at expansion joint as shown on the design plans.

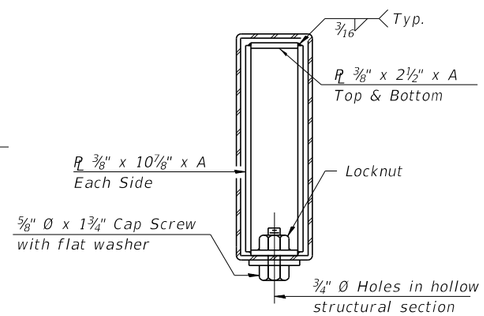
Notes:

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.

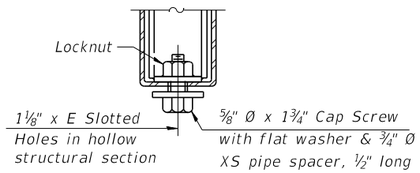
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



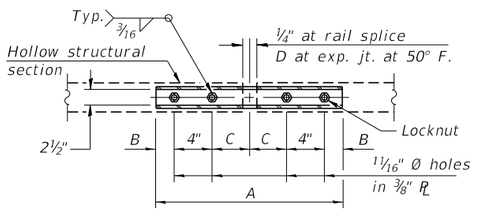
SECTION C-C



SECTIONS AT RAIL SPLICE

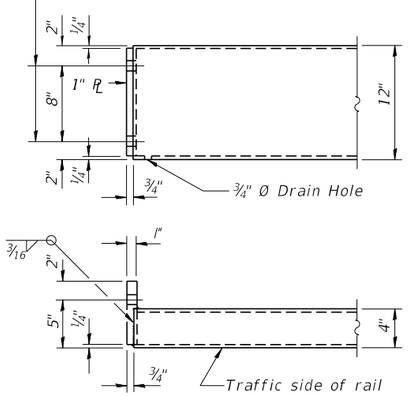


RAIL SPLICE CONNECTION
AT EXPANSION JT.

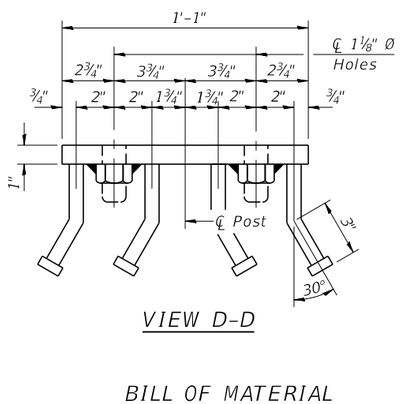


PLAN-BOTT. SPLICE PL
TYPICAL

1 1/8" Ø Holes for 1" Ø x 4" Round head bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Hwy Std. 631026 or BLR 27-1.



END OF RAIL DETAILS



VIEW D-D

BILL OF MATERIAL

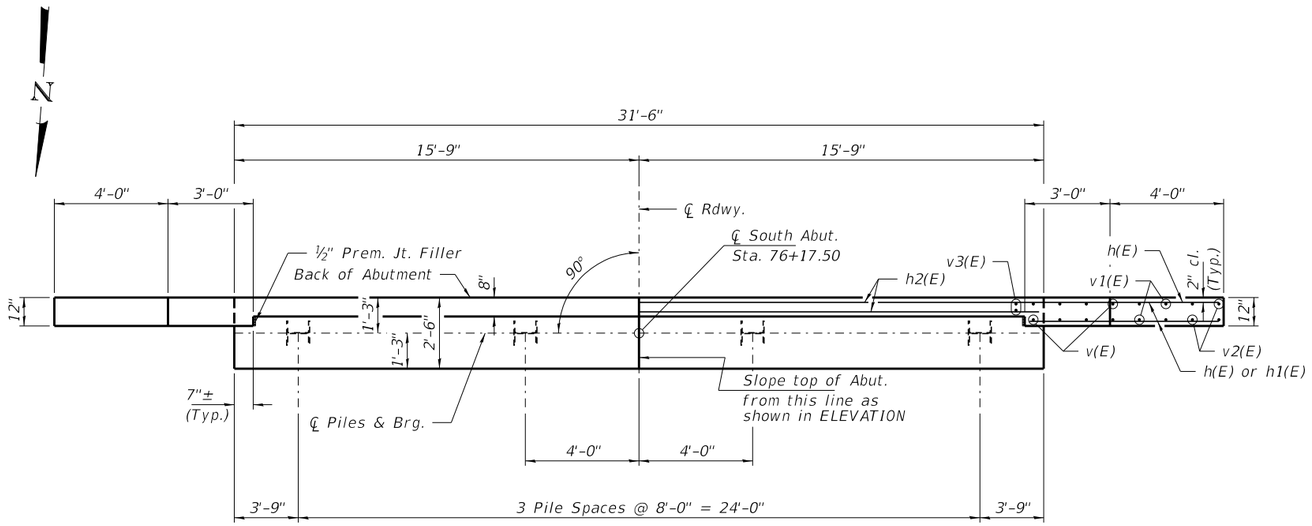
Item	Unit	Quantity
Steel Railing, Type S-1	Foot	260

R-23A

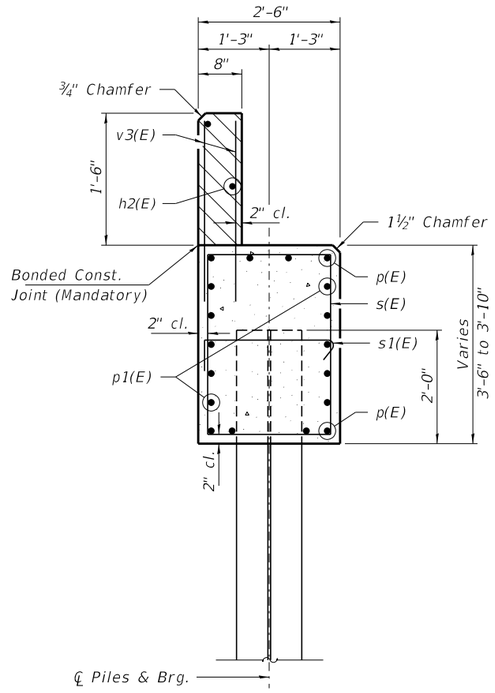
8-11-2017 (10'-9" Maximum Post Spacing)

FILE NAME = 150177-shl-bridge.dgn	USER NAME = mosick	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	STEEL RAILING, TYPE S-1 STRUCTURE NO. 038-4939 SHEET NO. 6 OF 18 SHEETS
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -		
	PLOT SCALE =	DRAWN - M.M.P.	REVISED -		
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -		

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	14
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		



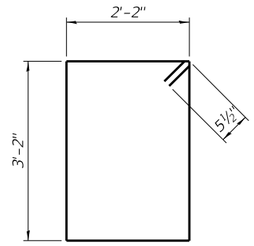
PLAN



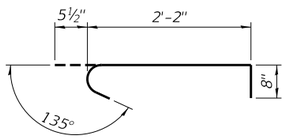
SECTION A-A

Hatched area to be poured after beams are in place.

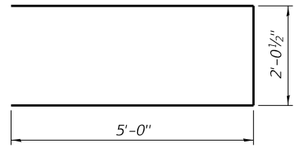
Cast top of wingwall flush with exterior beam face after beams have been erected.



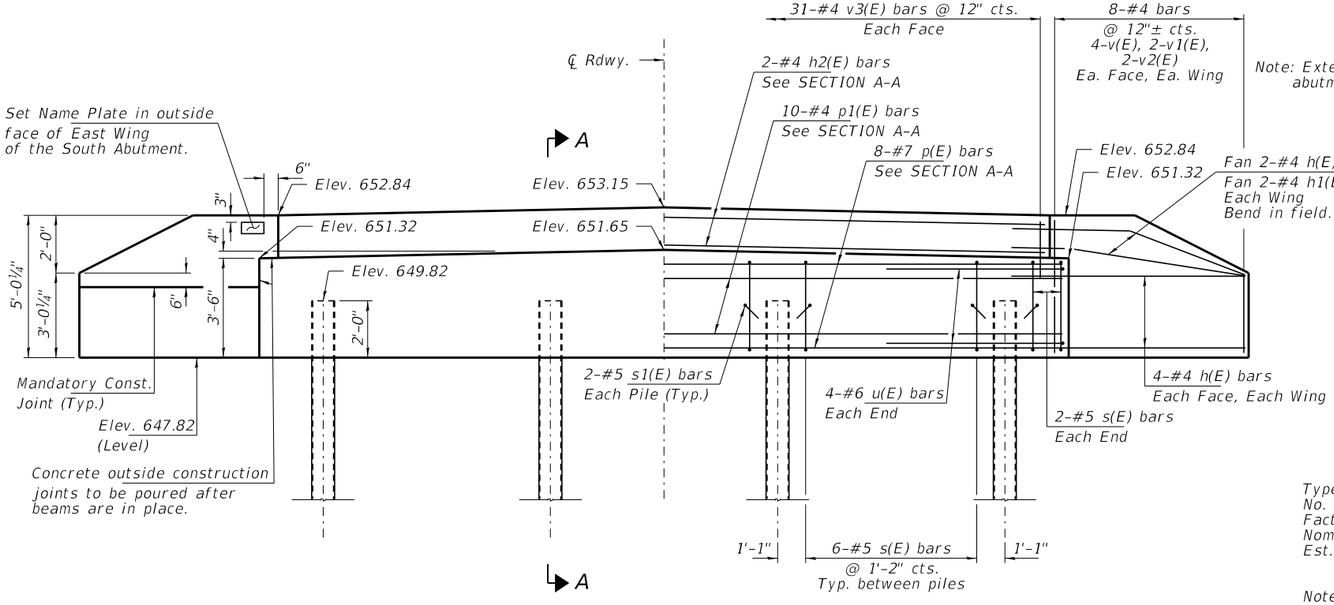
BAR s(E)



BAR s1(E)



BAR u(E)



ELEVATION

PILE DATA

Type _____ Steel HP10x42
No. Req'd. _____ 4*
Factored Resistance Available (Rf) _____ 184 Kips/Pile
Nominal Required Bearing (Rn) _____ 335 Kips/Pile
Est. Length _____ 55 Ft/Pile

Notes: *Includes one test pile to be driven in permanent location at the South Abutment.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

BILL OF MATERIAL - S. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	20	#4	8'-3"	
h1(E)	4	#4	6'-9"	
h2(E)	2	#4	31'-2"	
p(E)	8	#7	31'-2"	
p1(E)	10	#4	31'-2"	
s(E)	22	#5	11'-7"	
s1(E)	8	#5	3'-4"	
u(E)	8	#6	12'-1"	
v(E)	16	#4	4'-7"	
v1(E)	8	#4	3'-8"	
v2(E)	8	#4	2'-9"	
v3(E)	62	#4	2'-4"	

Concrete Structures	Cu. Yd.	14.0
Reinf. Bars, Epoxy Coated	Pound	1,510
Steel Piles HP10x42	Foot	165
Test Pile Steel HP10x42	Each	1
Name Plates	Each	1

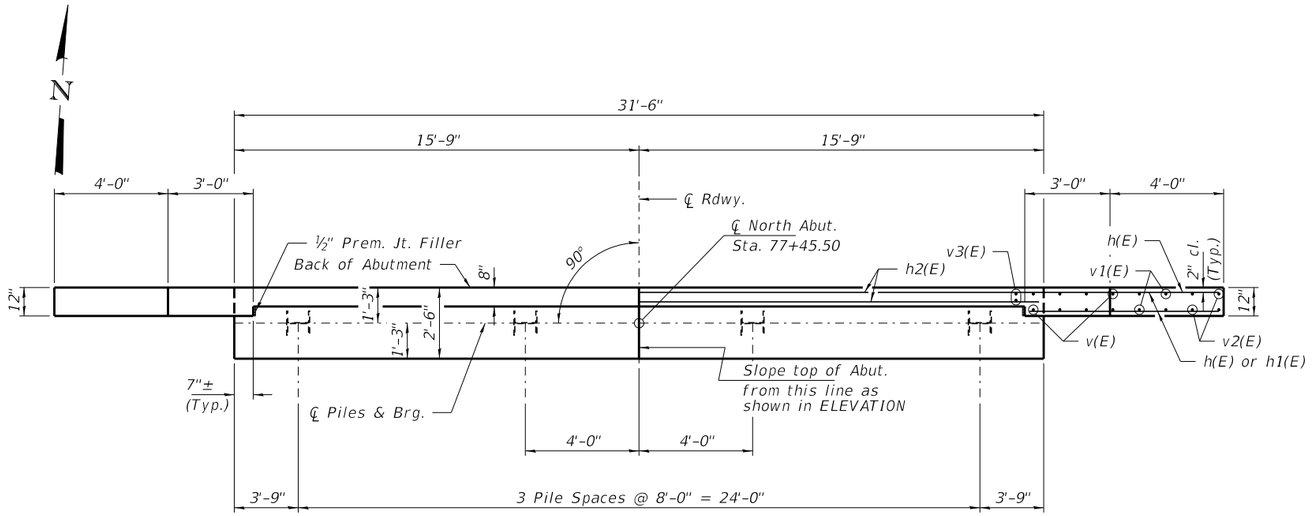
FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -
		CHECKED - S.W.M.	REVISED -
	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
3065 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

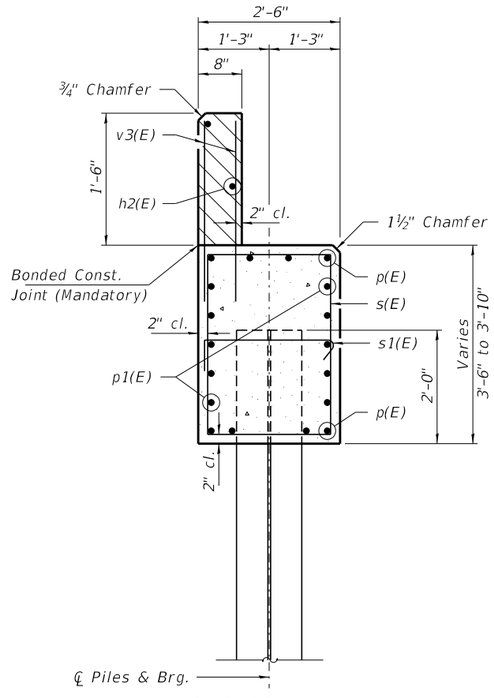
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

SOUTH ABUTMENT
STRUCTURE NO. 038-4939
SHEET NO. 7 OF 18 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	15
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



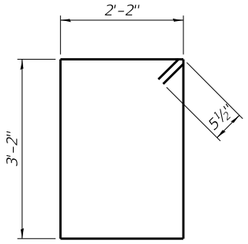
PLAN



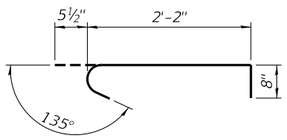
SECTION A-A

Hatched area to be poured after beams are in place.

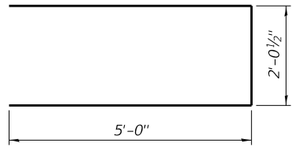
Cast top of wingwall flush with exterior beam face after beams have been erected.



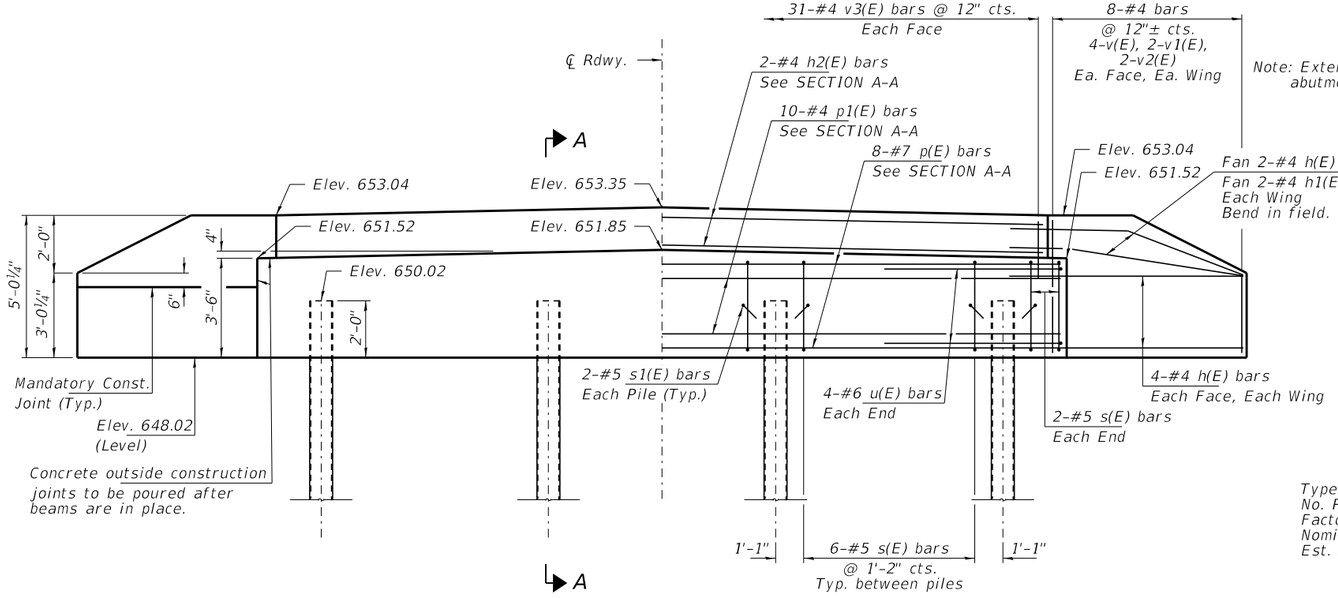
BAR s(E)



BAR s1(E)



BAR u(E)



ELEVATION

PILE DATA

Type _____ Steel HP10x42
No. Req'd. _____ 4
Factored Resistance Available (Rf) _____ 184 Kips/Pile
Nominal Required Bearing (Rn) _____ 335 Kips/Pile
Est. Length _____ 55 Ft/Pile

BILL OF MATERIAL - N. ABUT.

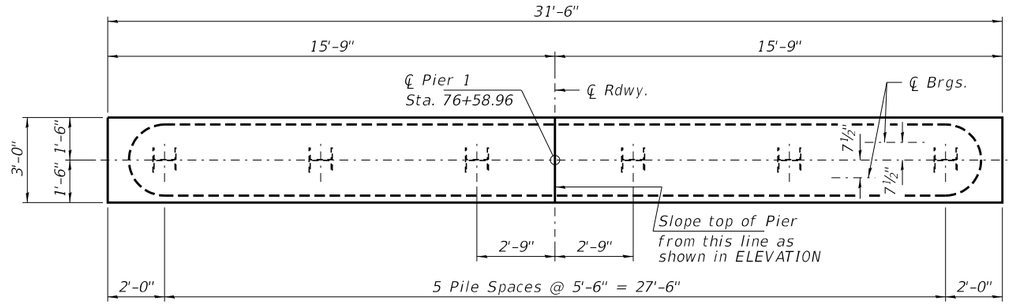
BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	20	#4	8'-3"	
h1(E)	4	#4	6'-9"	
h2(E)	2	#4	31'-2"	
p(E)	8	#7	31'-2"	
p1(E)	10	#4	31'-2"	
s(E)	22	#5	11'-7"	
s1(E)	8	#5	3'-4"	
u(E)	8	#6	12'-1"	
v(E)	16	#4	4'-7"	
v1(E)	8	#4	3'-8"	
v2(E)	8	#4	2'-9"	
v3(E)	62	#4	2'-4"	
Concrete Structures			Cu. Yd.	14.0
Reinf. Bars, Epoxy Coated			Pound	1,510
Steel Piles HP10x42			Foot	220

FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

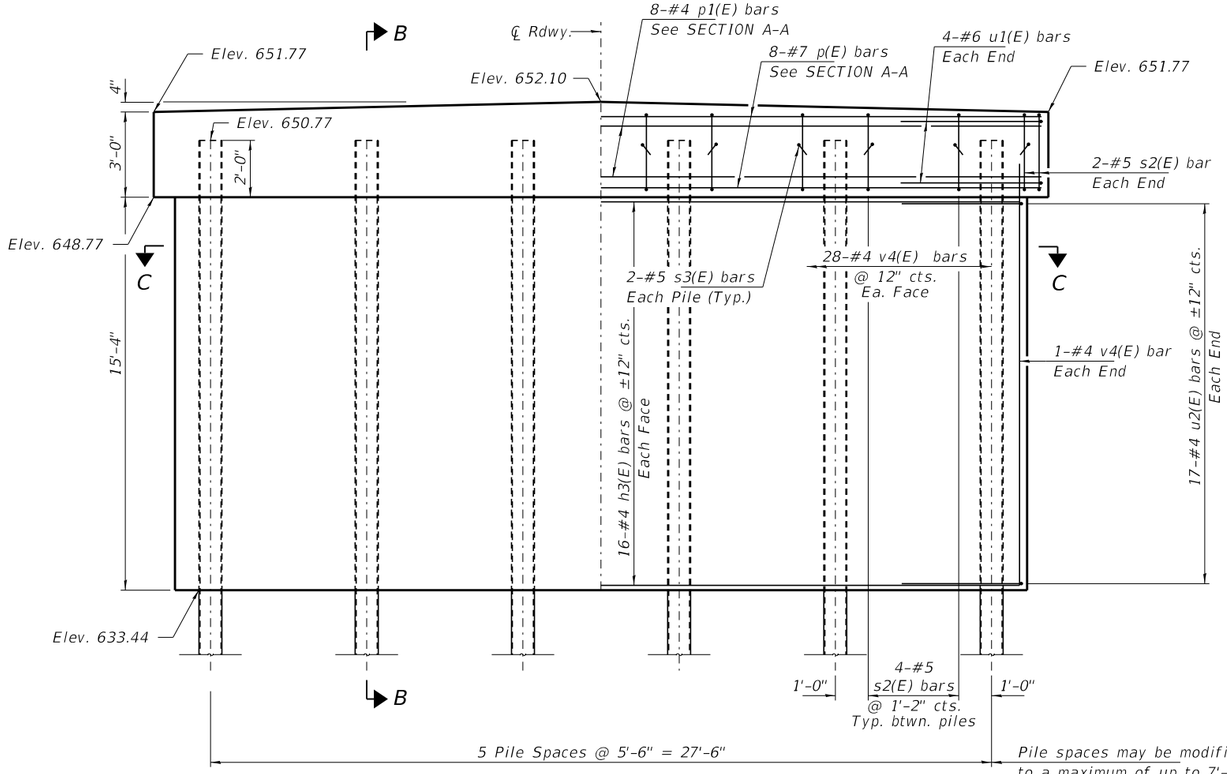
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

NORTH ABUTMENT
STRUCTURE NO. 038-4939
SHEET NO. 8 OF 18 SHEETS

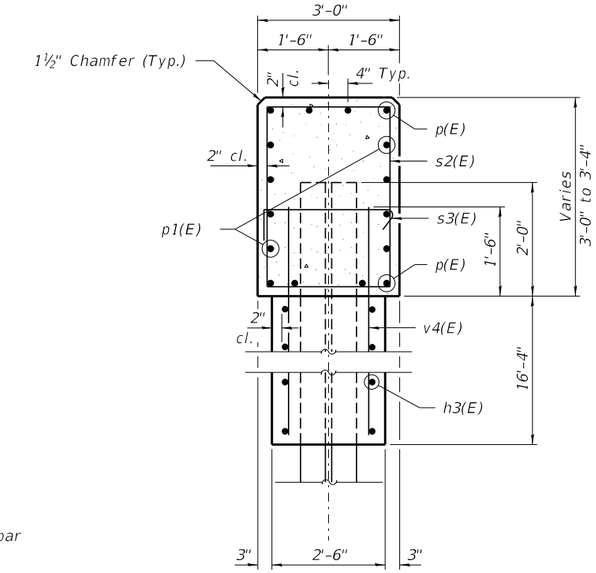
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	16
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



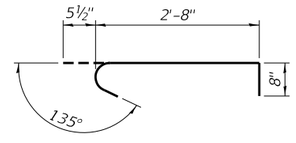
PLAN



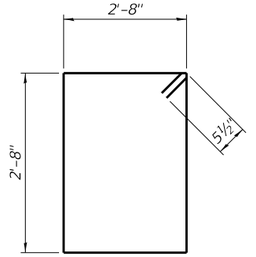
ELEVATION



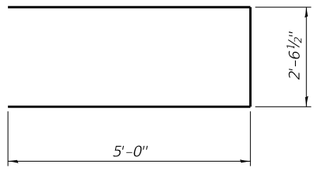
SECTION B-B



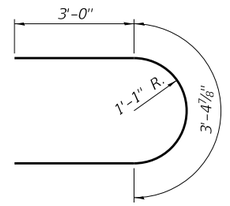
BAR s3(E)



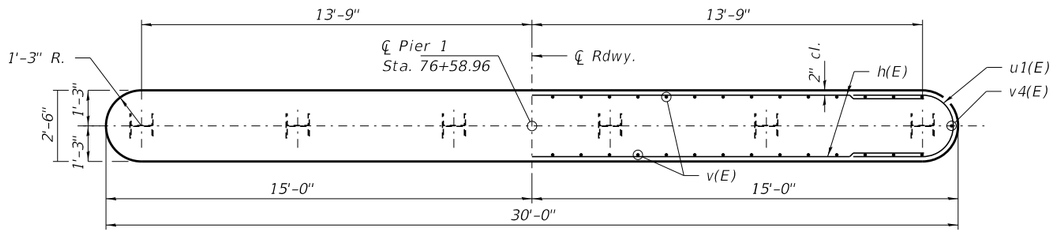
BAR s2(E)



BAR u1(E)



BAR u2(E)



SECTION C-C

PILE DATA

Type _____ Steel HP10x42
No. Req'd. _____ 6
Factored Resistance Available (Rf) _____ 184 Kips/Pile
Nominal Required Bearing (Rn) _____ 335 Kips/Pile
Est. Length _____ 60 Ft/Pile

BILL OF MATERIAL - PIER 1

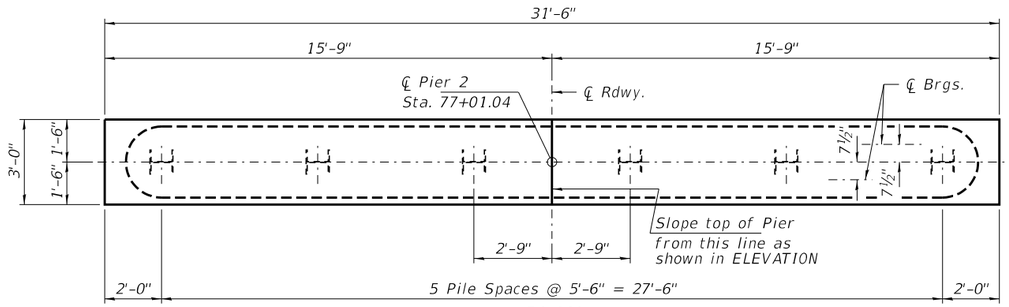
BAR	NO.	SIZE	LENGTH	SHAPE
h3(E)	32	#4	27'-6"	
p(E)	8	#7	31'-2"	
p1(E)	8	#4	31'-2"	
s2(E)	34	#5	11'-7"	
s3(E)	12	#5	3'-10"	
u1(E)	8	#6	12'-7"	
u2(E)	26	#4	9'-5"	
v4(E)	58	#4	16'-8"	
Cofferdam (Type 1) (Location - 1)			Each	1
Concrete Structures			Cu. Yd.	52.6
Reinforcement Bars, Epoxy Coated			Pound	2,680
Furnishing Steel Piles HP10x42			Foot	360

FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

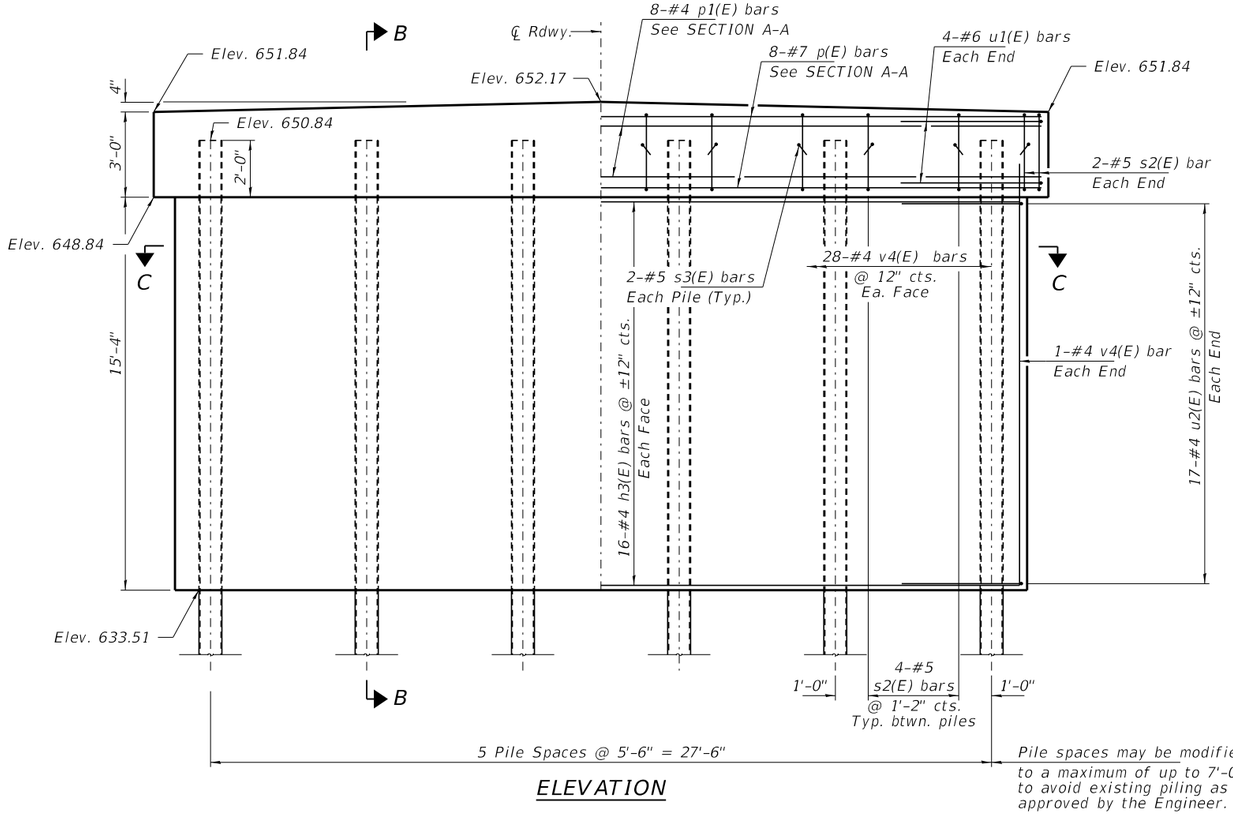
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

PIER 1
STRUCTURE NO. 038-4939
SHEET NO. 9 OF 18 SHEETS

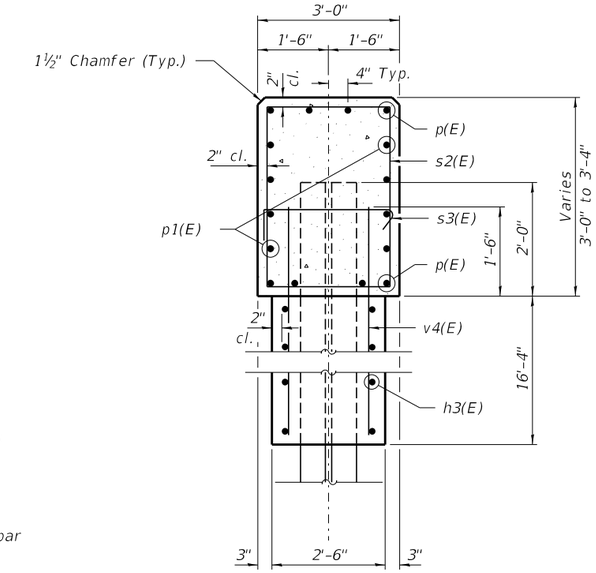
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	17
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



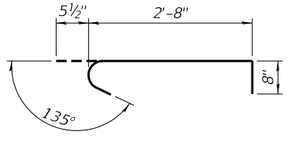
PLAN



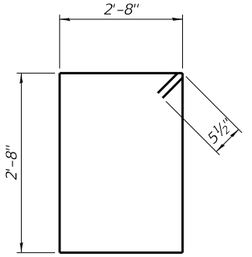
ELEVATION



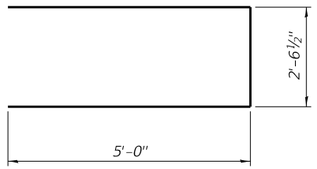
SECTION B-B



BAR s3(E)



BAR s2(E)



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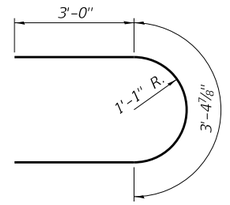
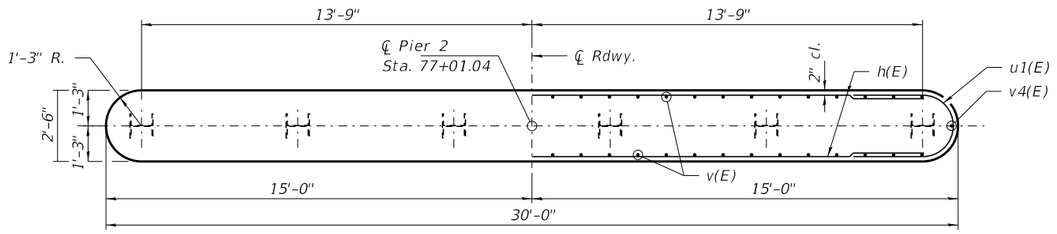


BAR u2(E)



SECTION C-C

BILL OF MATERIAL - PIER 2

BAR	NO.	SIZE	LENGTH	SHAPE
h3(E)	32	#4	27'-6"	
p(E)	8	#7	31'-2"	
p1(E)	8	#4	31'-2"	
s2(E)	34	#5	11'-7"	
s3(E)	12	#5	3'-10"	
u1(E)	8	#6	12'-7"	
u2(E)	26	#4	9'-5"	
v4(E)	58	#4	16'-8"	
Cofferdam (Type 1) (Location - 2)			Each	1
Concrete Structures			Cu. Yd.	52.6
Reinforcement Bars, Epoxy Coated			Pound	2,680
Furnishing Steel Piles HP10x42			Foot	300
Test Piles Steel HP10x42			Each	1

PILE DATA

Type _____ Steel HP10x42
No. Req'd. _____ 6*
Factored Resistance Available (Rf) _____ 184 Kips/Pile
Nominal Required Bearing (Rn) _____ 335 Kips/Pile
Est. Length _____ 60 Ft/Pile

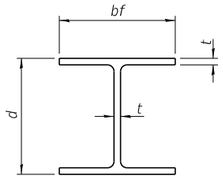
Notes:

* Includes one test pile to be driven in a permanent location at Pier 2.

The test pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

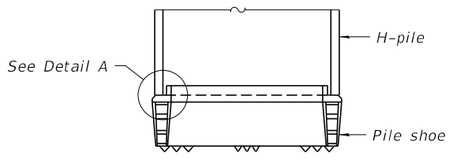
FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	PIER 2 STRUCTURE NO. 038-4939
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -		SHEET NO.10 OF 18 SHEETS
	PLOT SCALE =	DRAWN - M.M.P.	REVISED -		
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -		

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	18
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			

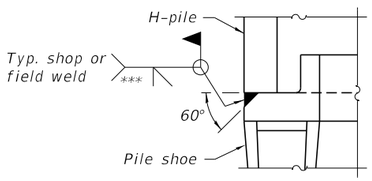


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14¼"	14⅞"	13/16"	30"
x102	14"	14¾"	11/16"	30"
x89	13⅞"	14¾"	⅝"	30"
x73	13⅝"	14⅝"	½"	30"
HP 12x84	12¼"	12¼"	11/16"	24"
x74	12⅛"	12¼"	⅝"	24"
x63	12"	12⅛"	½"	24"
x53	11¾"	12"	7/16"	24"
HP 10x57	10"	10¼"	9/16"	24"
x42	9¾"	10⅛"	7/16"	24"
HP 8x36	8"	8⅛"	7/16"	18"



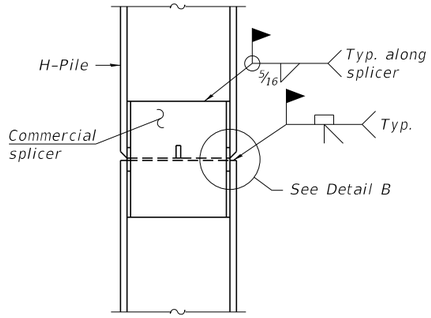
ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



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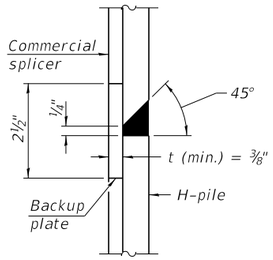
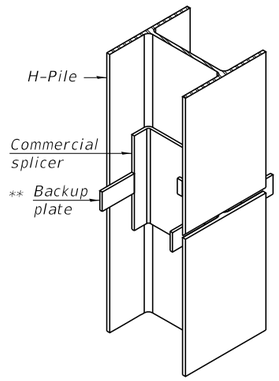
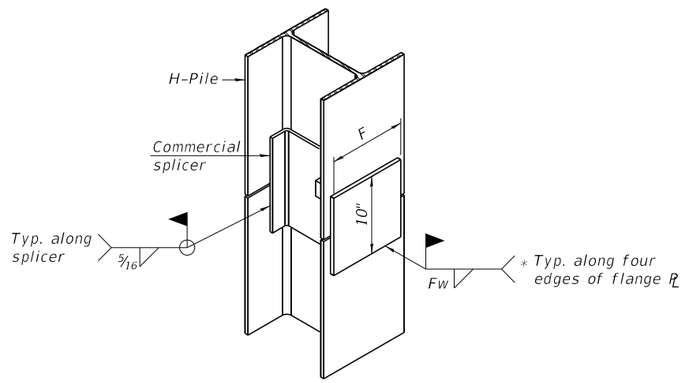


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



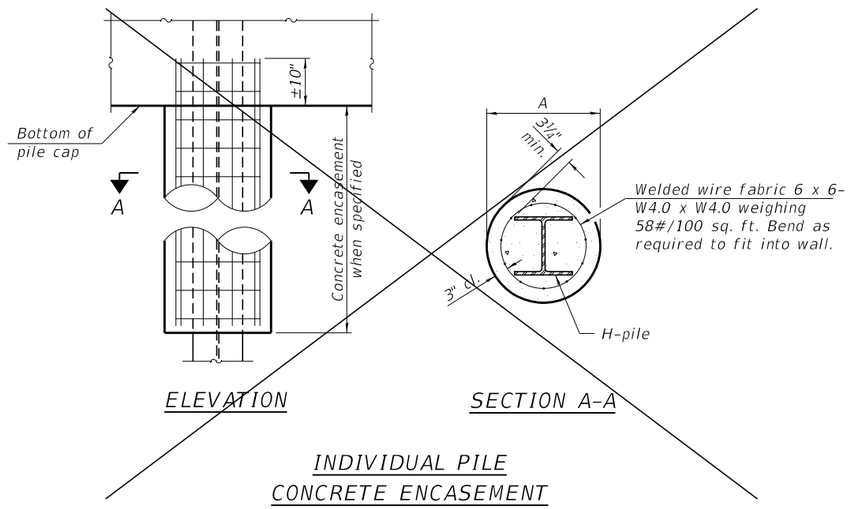
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

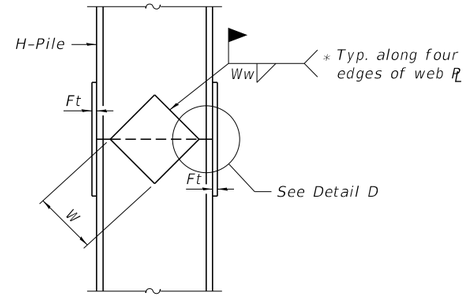
*** Weld size per pile shoe manufacturer (5/16" min.).



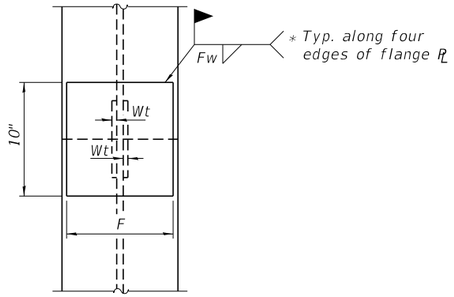
ELEVATION SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

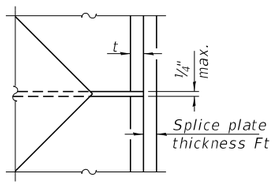
(Forms for encasement may be omitted when soil conditions permit).
(Not Required)



ELEVATION



END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12½"	1"	7/8"	7¾"	⅝"	½"
x102	12½"	⅞"	¾"	7¾"	⅝"	½"
x89	12½"	¾"	11/16"	7¾"	⅝"	½"
x73	12½"	⅝"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	⅞"	11/16"	6½"	⅝"	½"
x74	10"	⅞"	11/16"	6½"	⅝"	½"
x63	10"	⅝"	½"	6½"	½"	⅜"
x53	10"	⅝"	½"	6½"	½"	⅜"
HP 10x57	8"	¾"	9/16"	5¼"	½"	⅜"
x42	8"	⅝"	9/16"	5¼"	½"	⅜"
HP 8x36	7"	⅝"	7/16"	4¼"	½"	⅜"

WELDED PLATE FIELD SPLICE

F-HP 8-11-2017

FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhoslck	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	HP PILE DETAILS STRUCTURE NO. 038-4939
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -		SHEET NO. 11 OF 18 SHEETS
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - M.M.P.	REVISED -		
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -		

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	19
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS FED. AID PROJECT 3H7Z(853)			

GEOCON PROFESSIONAL SERVICES — BORING NO. B-1

PAGE 1 OF 3

CLIENT Hampton Lenzini and Renwick — **PROJECT NAME** 1300 N over Spring Creek
PROJECT NUMBER 15-G340 — **PROJECT LOCATION** Onarga Twp, Iroquois Co, Illinois
DATE COMPLETED 6/11/15 — **LOGGED BY** NJ/GL — **DRILLING METHOD** 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0	653.8												
	100.0	0-3" ASPHALT PAVEMENT											
	99.3 / 653.1	3"-11" GRAVEL SUBBASE											
		Mixed Black and Brown SILTY CLAY FILL little gravel medium stiff to stiff, moist to very moist	SS 1	33	3-3-3 (6)	1.0		31.3					
5			SS 2	67	2-3-3 (6)	1.25		25.0					
	93.2		SS 3	67	1-3-4 (7)	1.25	0.7	26.1					
	647.0	Brown SILTY CLAY trace sand and gravel very stiff, moist											
10			SS 4	78	2-3-6 (9)	4.0	3.4	20.6					
			SS 5	89	2-4-6 (10)	2.5	2.6	21.4					
15		▼	SS 6	89	2-3-5 (8)	2.5	2.5	22.0					
	83.5		SS 7	67	2-1-3 (4)	1.0	1.1	25.3					
	637.3	Brown mottled Gray SILTY CLAY trace sand and gravel stiff, moist											
	81.2												
20	635.0	Gray SILTY CLAY trace sand and gravel very stiff to hard, moist	SS 8	89	1-5-6 (11)	3.25	3.4	8.8					
			SS 9	89	4-7-7 (14)	3.5	4.4	24.6					
25			SS 10	89	3-4-7 (11)	2.75	2.6	24.7					
			SS 11	89	3-3-6 (9)	2.5	2.8	24.1					
30			SS 12	89	3-4-7 (11)	2.5	2.6	21.9					

COMPLETION DEPTH 75 ft — **GROUND ELEVATION** 100.2 ft
CAVE DEPTH 15 ft — **BACKFILL** Soil Cuttings 654.0
GROUND WATER LEVELS:
∇ **AT TIME OF DRILLING** 15.00 ft / Elev 85.20 ft 639.00
AT END OF DRILLING ---
▼ **AFTER DRILLING** 15.00 ft / Elev 85.20 ft 639.00

NOTES
Boring located 60 ft south of center of bridge and 8 ft east of centerline. Water encountered at 15 ft and 60 ft below grade. The top of the bridge deck in the center was used as a temporary benchmark, and assigned an elevation of 100 ft. 653.8

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

9370 W. Laraway Rd, Suite D Frankfort, Illinois Phone (815) 806-9986 Fax (815) 464-8691

GPS STANDARD GEOTECH LOG - GPS STD DATA TEMPLATE.GDT - 6/23/15 08:39 - \\GPS-FF-FILE01\FRANKFORT\GINT\PROJECTS\15-G340 ONARGA TWP BRIDGE BORING.GPJ

GEOCON PROFESSIONAL SERVICES — BORING NO. B-1

PAGE 2 OF 3

CLIENT Hampton Lenzini and Renwick — **PROJECT NAME** 1300 N over Spring Creek
PROJECT NUMBER 15-G340 — **PROJECT LOCATION** Onarga Twp, Iroquois Co, Illinois
DATE COMPLETED 6/11/15 — **LOGGED BY** NJ/GL — **DRILLING METHOD** 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
30		Gray SILTY CLAY trace sand and gravel very stiff to hard, moist *(continued)*											
35			SS 13	89	3-6-7 (13)	2.5	3.0	22.1					
40			SS 14	67	3-4-8 (12)	3.75	3.2	26.1					
45			SS 15	78	5-8-9 (17)	4.0	3.6	16.1					
50			SS 16	89	5-8-12 (20)	4.5	5.6	16.2					
55			SS 17	53	12-18-50/3"	4.5	5.0	12.8					
	41.2		SS 18	75	18-37-50/4"			8.9					
60	595.0	Gray Fine SAND with gravel very dense, moist to wet											
65			SS 19	100	22-40-50/1"			8.3					

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

9370 W. Laraway Rd, Suite D Frankfort, Illinois Phone (815) 806-9986 Fax (815) 464-8691

GPS STANDARD GEOTECH LOG - GPS STD DATA TEMPLATE.GDT - 6/23/15 08:39 - \\GPS-FF-FILE01\FRANKFORT\GINT\PROJECTS\15-G340 ONARGA TWP BRIDGE BORING.GPJ

GEOCON PROFESSIONAL SERVICES — BORING NO. B-1

PAGE 3 OF 3

CLIENT Hampton Lenzini and Renwick — **PROJECT NAME** 1300 N over Spring Creek
PROJECT NUMBER 15-G340 — **PROJECT LOCATION** Onarga Twp, Iroquois Co, Illinois
DATE COMPLETED 6/11/15 — **LOGGED BY** NJ/GL — **DRILLING METHOD** 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
		Gray Fine SAND with gravel very dense, moist to wet *(continued)*	SS 20	100	19-42-50/1"			8.9					
70													
75	25.2		SS 21	100	50/2"			15.5					
	579.0	Bottom of borehole at 75.0 feet.											

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

9370 W. Laraway Rd, Suite D Frankfort, Illinois Phone (815) 806-9986 Fax (815) 464-8691

GPS STANDARD GEOTECH LOG - GPS STD DATA TEMPLATE.GDT - 6/23/15 08:39 - \\GPS-FF-FILE01\FRANKFORT\GINT\PROJECTS\15-G340 ONARGA TWP BRIDGE BORING.GPJ

BORING-1

FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhosick	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	BORINGS STRUCTURE NO. 038-4939
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -		
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - M.M.P.	REVISED -		
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -		SHEET NO. 12 OF 18 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	20
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
		ILLINOIS	FED. AID PROJECT 3H7Z(853)	

GEOCON PROFESSIONAL SERVICES — BORING NO. B-2 (PAGE 1 OF 3)

CLIENT: Hampton Lenzini and Renwick | PROJECT NAME: 1300 N over Spring Creek
PROJECT NUMBER: 15-G340 | PROJECT LOCATION: Onarga Twp, Iroquois Co, Illinois
DATE COMPLETED: 6/11/15 | LOGGED BY: NJ/GL | DRILLING METHOD: 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0	654.8												
	101.0	0-3" ASPHALT PAVEMENT											
	100.4 / 654.2	3"-10" GRAVEL SUBBASE											
		Mixed Black and Brown SILTY CLAY FILL, little gravel, stiff to very stiff, moist	SS 1	56	5-3-4 (7)	1.5	1.6	12.9					
5	95.7		SS 2	56	2-3-3 (6)	1.75	2.3	27.0					
	649.5	Black SILTY CLAY, trace organic, sand and gravel, stiff, moist	SS 3	56	2-2-2 (4)	1.5		24.9					
	93.2 / 647.0	Brown SILTY CLAY, trace sand and gravel, stiff, moist											
10			SS 4	100	2-3-5 (8)	1.25	1.2	25.6					
			SS 5	100	3-3-4 (7)	1.75	1.7	23.6					
15	86.2		SS 6	100	2-3-5 (8)	2.25	1.6	23.2					
	640.0	Brown Fine SAND, little clay, trace gravel, medium dense, moist to wet	SS 7	78	3-3-5 (8)			22.2					
20	80.7		SS 8	100	1-2-3 (5)			25.9					
	634.5	Gray SILTY CLAY, trace sand and gravel, stiff to very stiff, moist to very moist	SS 9	89	4-5-7 (12)	2.25	1.9	25.3					
25			SS 10	100	5-5-6 (11)	2.5	2.4	27.7					
			SS 11	100	4-4-6 (10)	3.5	3.6	25.9					
30			SS 12	100	4-5-7 (12)	2.25	2.7	21.6					

COMPLETION DEPTH: 75 ft | GROUND ELEVATION: 101.2 ft
CAVE DEPTH: 26 ft | BACKFILL: Soil Cuttings 655.0

GROUND WATER LEVELS:
- AT TIME OF DRILLING: 17.00 ft / Elev 84.20 ft
- AT END OF DRILLING: --- 638.00
- AFTER DRILLING: 16.00 ft / Elev 85.20 ft 639.00

NOTES
Boring located 57 ft north of center of bridge and 10 ft west of centerline. Water encountered at 17 ft, 35 ft and 59 f below grade. The top of the bridge deck in the center was used as a temporary benchmark, and assigned an elevation of 100 ft.
653.8

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

9370 W. Laraway Rd, Suite D Frankfort, Illinois Phone (815) 806-9986 Fax (815) 464-8691

GEOCON PROFESSIONAL SERVICES — BORING NO. B-2 (PAGE 2 OF 3)

CLIENT: Hampton Lenzini and Renwick | PROJECT NAME: 1300 N over Spring Creek
PROJECT NUMBER: 15-G340 | PROJECT LOCATION: Onarga Twp, Iroquois Co, Illinois
DATE COMPLETED: 6/11/15 | LOGGED BY: NJ/GL | DRILLING METHOD: 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
30		Gray SILTY CLAY, trace sand and gravel, stiff to very stiff, moist to very moist *(continued)*											
35			SS 13	100	3-4-5 (9)	3.25	2.7	25.7					
	62.7 / 616.5	Gray SILTY CLAY, with gravel, hard, moist	SS 14	89	5-6-8 (14)	4.5	8.2	20.2					
40													
45			SS 15	100	4-4-6 (10)	4.5	4.2	14.8					
50			SS 16	67	4-6-9 (15)	4.5	7.2	16.9					
55			SS 17	100	18-27-50/3"	4.5	5.4	16.0					
60	41.2		SS 18	100	20-33-50/4"	4.0	5.0	16.2					
	595.0	Gray Fine SAND, with gravel, very dense, moist to wet											
65			SS 19	100	16-18-47 (65)			15.5					

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

9370 W. Laraway Rd, Suite D Frankfort, Illinois Phone (815) 806-9986 Fax (815) 464-8691

GEOCON PROFESSIONAL SERVICES — BORING NO. B-2 (PAGE 3 OF 3)

CLIENT: Hampton Lenzini and Renwick | PROJECT NAME: 1300 N over Spring Creek
PROJECT NUMBER: 15-G340 | PROJECT LOCATION: Onarga Twp, Iroquois Co, Illinois
DATE COMPLETED: 6/11/15 | LOGGED BY: NJ/GL | DRILLING METHOD: 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
		Gray Fine SAND, with gravel, very dense, moist to wet *(continued)*	SS 20	100	50/2"			13.2					
70													
75	26.2		SS 21	100	50/1"			8.4					
	580.0	Bottom of borehole at 75.0 feet.											

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

9370 W. Laraway Rd, Suite D Frankfort, Illinois Phone (815) 806-9986 Fax (815) 464-8691

BORING-2

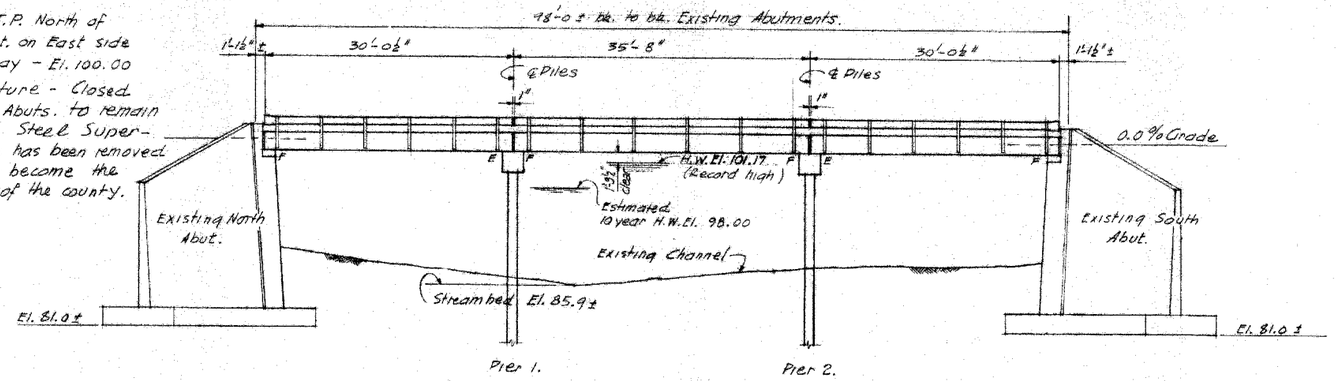
FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhosick	DESIGNED - J.R.B.	REVISED -	STATE OF ILLINOIS IROQUOIS COUNTY HIGHWAY DEPARTMENT	BORINGS STRUCTURE NO. 038-4939	T.R. 74	SECTION 14-20101-00-BR
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -			COUNTY IROQUOIS	TOTAL SHEETS 37 / SHEET NO. 21
HLR ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - M.M.P.	REVISED -			ONARGA ROAD DISTRICT	CONTRACT NO. 87691
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -		SHEET NO. 13 OF 18 SHEETS	ILLINOIS	FED. AID PROJECT 3H7Z(853)

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
		IROQUOIS		
CED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET 1 OF 4

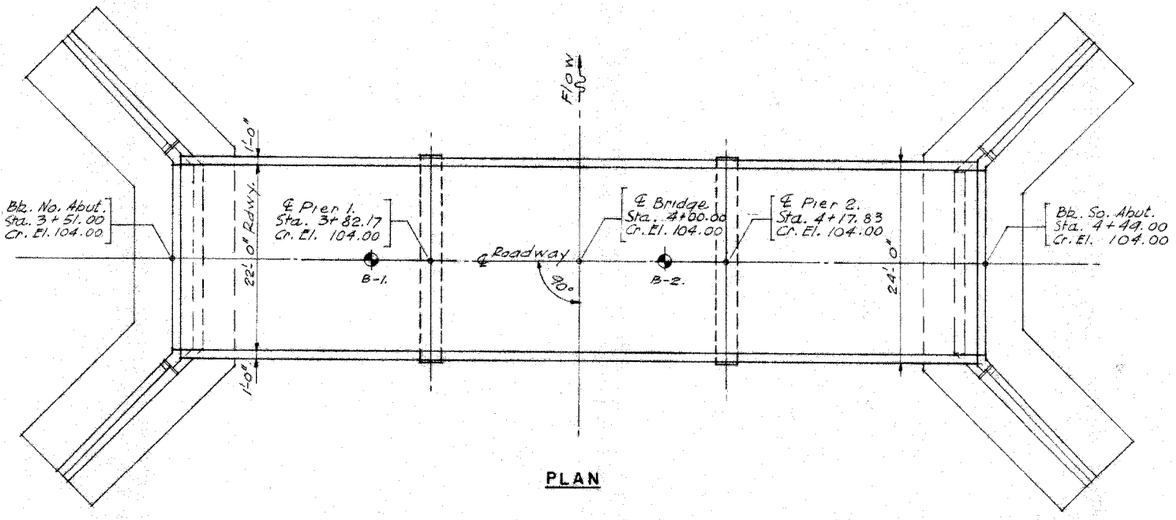
B. M. - Spike in T.P. North of North Abut. on East side of roadway - El. 100.00

Existing Structure - Closed Concrete Abuts. to remain in place. Steel Superstructure has been removed and will become the property of the county.



ELEVATION

N



PLAN

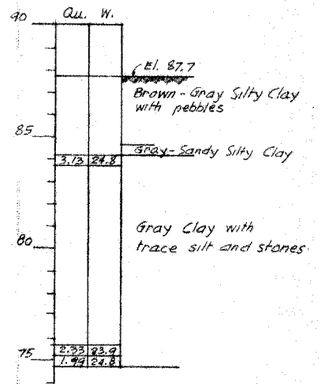
GENERAL NOTES

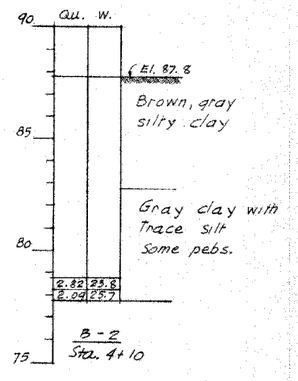
Class X concrete shall be used in pile bent caps, in abut. seats and in curbs.

The contractor shall drive one test pile in permanent location as directed by the Engineer, before ordering the remainder of the piles.

Bent piles shall penetrate a minimum of 15'-0" below streambed elevation.

For items ; Metal Plate Bridge Rail, Name Plate, Bituminous Surface Treatment Subclass A-3 and Shaping Roadway, see Special Provisions.





Qu = Unconfined compressive strength in tons per sq.ft.
W = Water content, % of dry weight.

BORING DATA

TOTAL BILL OF MATERIAL

ITEM		SUPER	SUB	TOTAL
Bituminous Surface Treatment Subclass A-3	Sq. Yds.	240	—	240
Precast Prestressed Concrete Bridge Deck	Sq. Ft.	2294	—	2294
Class X Concrete	Cu. Yds.	6.1	15.9	22.0
Reinforcement Bars	Lbs.	—	1420	1420
Furnishing Precast Concrete Piles, 14"	Lin. Ft.	—	203	203
Test Pile, Precast Concrete	Each	—	1	1
Driving Precast Concrete Piles, 14"	Lin. Ft.	—	203	203
Name Plate	Each	1	—	1
Metal Plate Bridge Rail	Lin. Ft.	185	—	185
Shaping Roadway	Sta.	—	—	1.00
Gravel or Crushed Stone Surface Course, Type A	Tons	—	—	53

BRIDGE NO. 4.
ONARGA ROAD DISTRICT
BUILT 196
IROQUOIS COUNTY
LOADING H15-S12-44

LETTERING FOR NAME PLATE

Locate Name Plate at the Northeast corner of bridge. See Special Provisions.

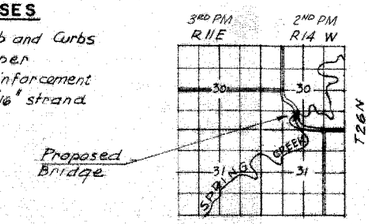
WATERWAY DATA

Drainage Area	108,000	Acres
Present Opening *	1,220	Sq. Ft.
Required Opening (10yr)	940	Sq. Ft.
Proposed Opening (10yr)	940	Sq. Ft.

*Below H.W.El. 101.17 (Record)

DESIGN STRESSES

fc	1,400 p.s.i.	Sub and Curbs
fc	2,000 p.s.i.	Super
fs	20,000 p.s.i.	Reinforcement
fs	18,900 lbs. per 7/16" strand	



LOCATION PLAN

Loading H15-S12-44

Carl Regok Jr.
Illinois Structural #2695

CARL REGOK JR. 2695 REGISTERED STRUCTURAL ENGINEER OF ILLINOIS

GENERAL PLAN AND ELEVATION
BRIDGE 4
ONARGA ROAD DISTRICT
IROQUOIS COUNTY
STATION 4+00

WALTER E. HANSON & COMPANY
ENGINEERS - CONSULTANTS

DESIGNED DDO DRAWN GL DATE Dec. 4-1963
CHECKED GL CHECKED C.R. NO. 63-54.

FILE NAME = 150177-sht-bridge.dgn	USER NAME = mosick	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -
	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

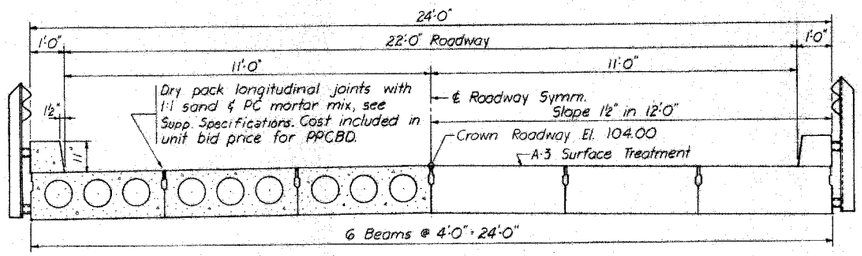
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

EXISTING STRUCTURE PLANS
STRUCTURE NO. 038-4939
SHEET NO. 14 OF 18 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	22
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		

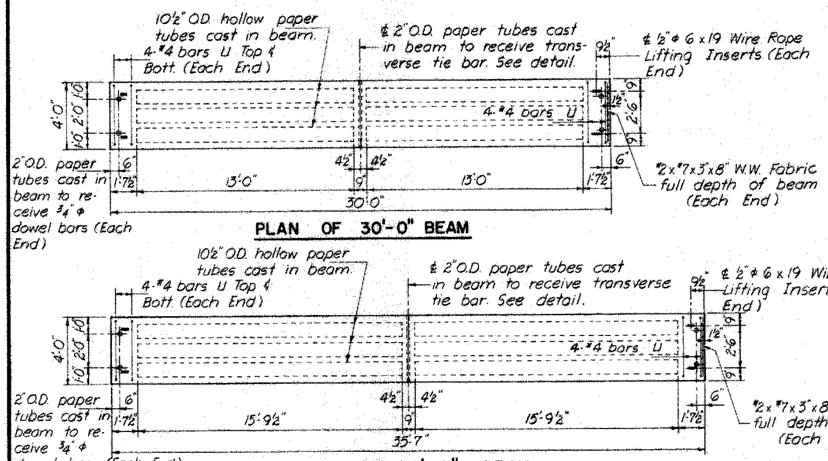
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
		Iroquois		
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET 3 OF 4



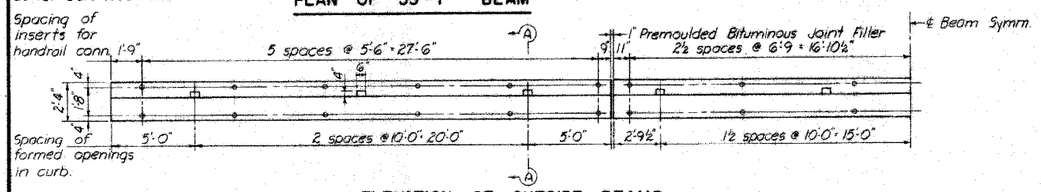
HALF CROSS SECTION

HALF END ELEVATION

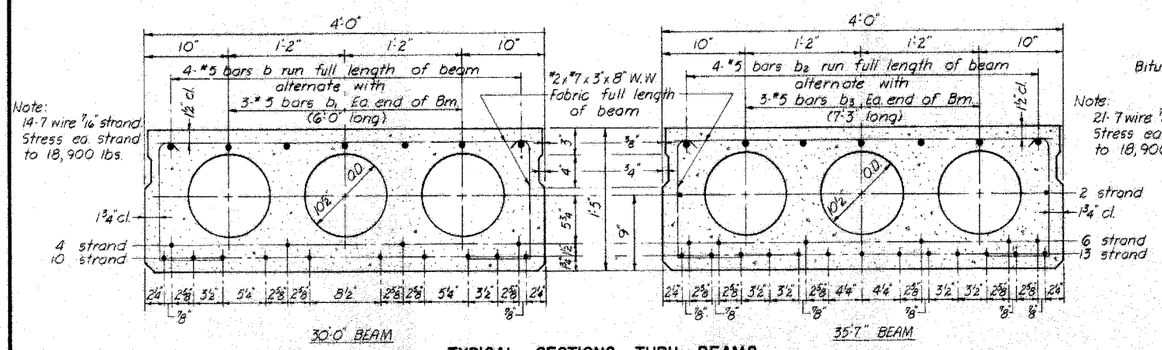


PLAN OF 30'-0" BEAM

PLAN OF 35'-7" BEAM



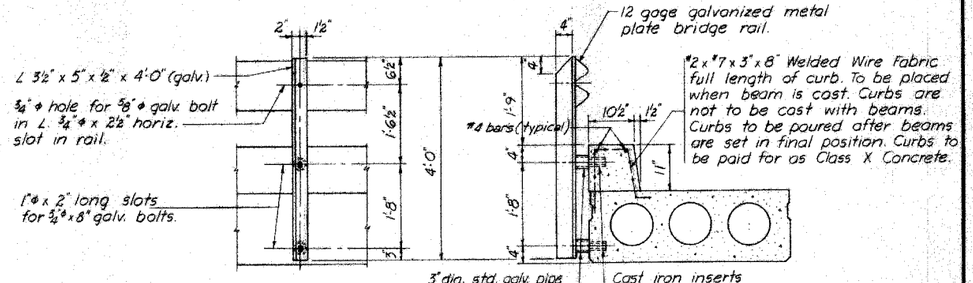
ELEVATION OF OUTSIDE BEAMS



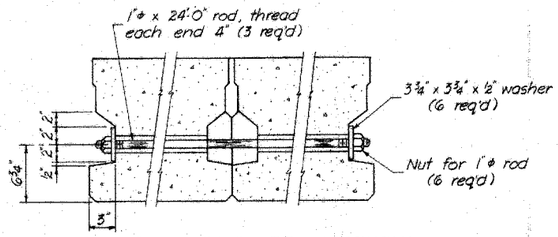
30'-0" BEAM

35'-7" BEAM

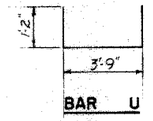
TYPICAL SECTIONS THRU BEAMS



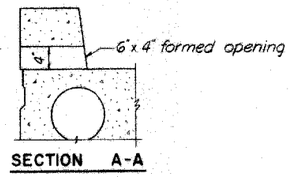
HANDRAIL & CURB DETAILS



TYPICAL TRANSVERSE TIE ASSEMBLY



BAR U

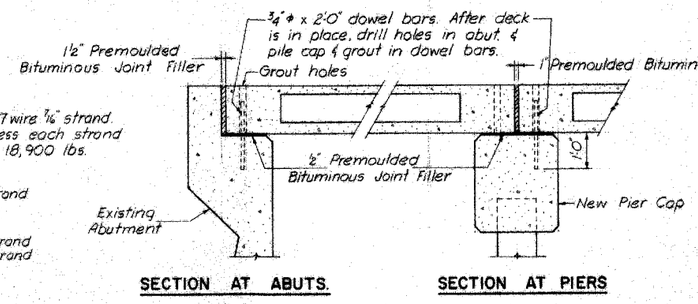


SECTION A-A

BILL OF MATERIAL – SUPERSTRUCTURE

	ITEM	UNIT	QUANT
*	Precast Prestressed Concrete Bridge Deck	Sq. Ft.	2294
	Class X Concrete	Cu. Yds.	6.1
	Metal Plate Bridge Rail	Lin. Ft.	185
	Bituminous Surface Treatment, Subclass A-3	Sq. Yds.	240

* Reinforcement bars, wire fabric, strands and the hardware are incidental to the item "Precast Prestressed Concrete Bridge Deck."



SECTION AT ABUTS.

SECTION AT PIERS

SUPERSTRUCTURE
BRIDGE 4
ONARGA ROAD DISTRICT
IROQUOIS COUNTY
STATION 4+00

WALTER E. HANSON & COMPANY
ENGINEERS - CONSULTANTS

DESIGNED DDO DRAWN KLO DATE Dec. 4, 1963
CHECKED GL CHECKED CR NO. 63-54

FILE NAME = 150177-sht-bridge.dgn	USER NAME = moslck	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

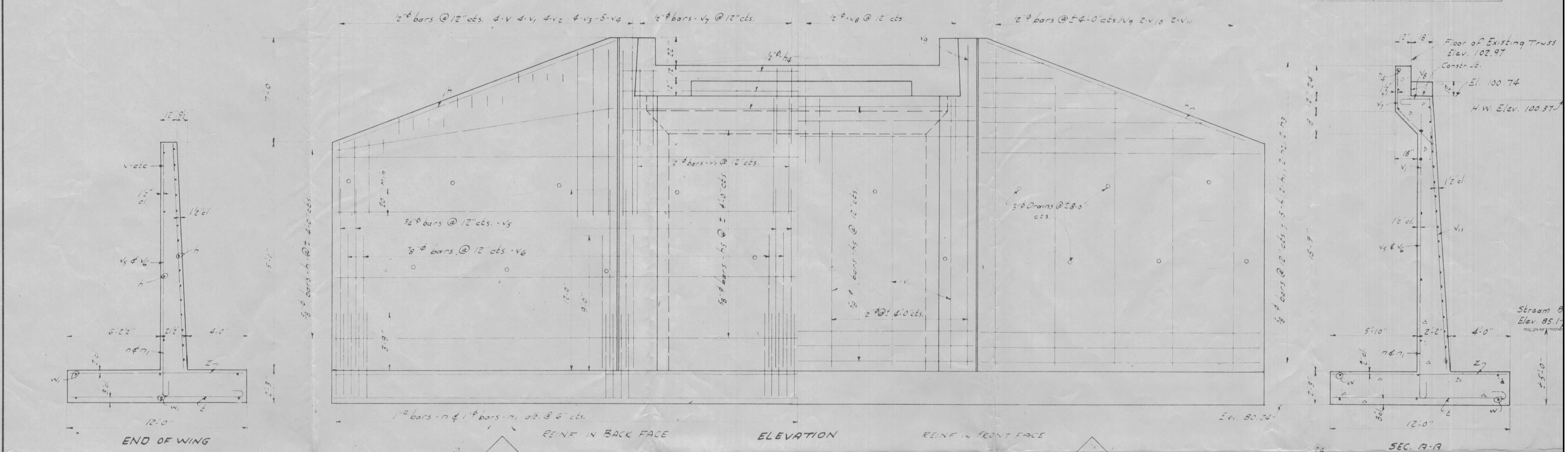
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

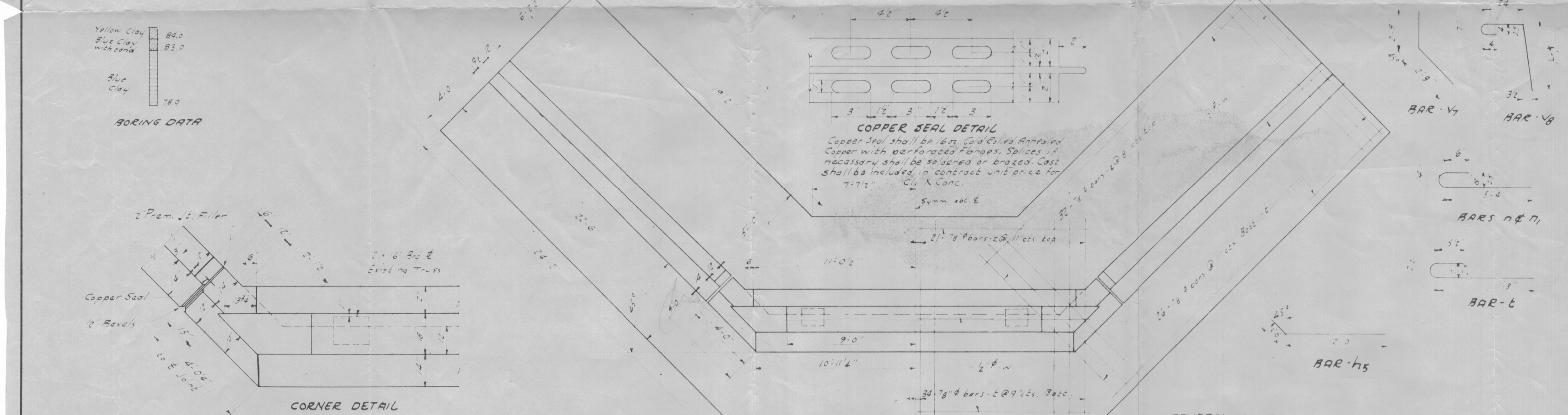
EXISTING STRUCTURE PLANS
STRUCTURE NO. 038-4939
SHEET NO. 15 OF 18 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	23
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
		ILLINOIS	FED. AID PROJECT 3H7Z(853)	

B.M. Spike & washer in Oak tree 100' south of bridge on west side of road.
Existing Structure 92' Truss 14.1' Rdwy. Stone masonry So. Abut shall be removed by Contr. See Note.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS





BILL OF MATERIAL
ONE ABUTMENT

Bar	No.	Size	Length	Shape
v	8	½"φ	5'-0"	
v_1	30	"	6'-6"	
v_2	8	"	8'-0"	
v_3	8	"	9'-6"	
v_4	10	"	11'-0"	
v_5	64	¾"φ	12'-0"	
v_6	63	⅞"φ	9'-0"	
v_7	22	½"φ	5'-6"	
v_8	22	"	7'-6"	
v_9	4	"	21'-6"	
v_{10}	4	"	19'-0"	
v_{11}	10	"	16'-0"	
h	44	⅝"φ	18'-3"	
h_1	4	"	14'-6"	
h_2	4	"	9'-0"	
h_3	4	"	4'-0"	
h_4	3	½"φ	24'-0"	
h_5	46	⅝"φ	15'-0"	
n	64	1"φ	7'-0"	
n_1	63	1"φ	7'-0"	
t	86	⅞"φ	12'-9"	
z	85	⅞"φ	11'-6"	
w	6	½"φ	25'-0"	
w_1	12	½"φ	23'-0"	

Cl X Conc. Cu. Yds. 138.5
Reinf. Bars Lbs. 11980
Removal of Exist. Struct. Ea. 1

GENERAL NOTES

Cl. X Conc. shall be used thru-out.

Boring Data are shown only as a guide to bidders in estimating soil conditions which may be encountered in the work.

The item "Removal of Existing Structure" shall include the removal of the old masonry **South** abutment, the supporting of the existing truss, and the placing of the truss on the new abutment.

f_s = 20,000 #/□"
f_c = 800 #/□"
n = 10

SOUTH ABUTMENT
WARN BRIDGE
OVER SPRING CREEK
ONARGA TWP.
IROQUOIS CO.

COMPUTED H. L. Owen
CHECKED Harry P. Graham
DRAWN H.P.G.
CHECKED H.P.G.
ASSEMBLED
CHECKED
EXAMINED
PASSED
APPROVED

FILE NAME = 150177-sht-bridge.dgn	USER NAME = rhosick	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
		DRAWN - M.M.P.	REVISED -
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

EXISTING STRUCTURE PLANS
STRUCTURE NO. 038-4939
SHEET NO. 16 OF 18 SHEETS

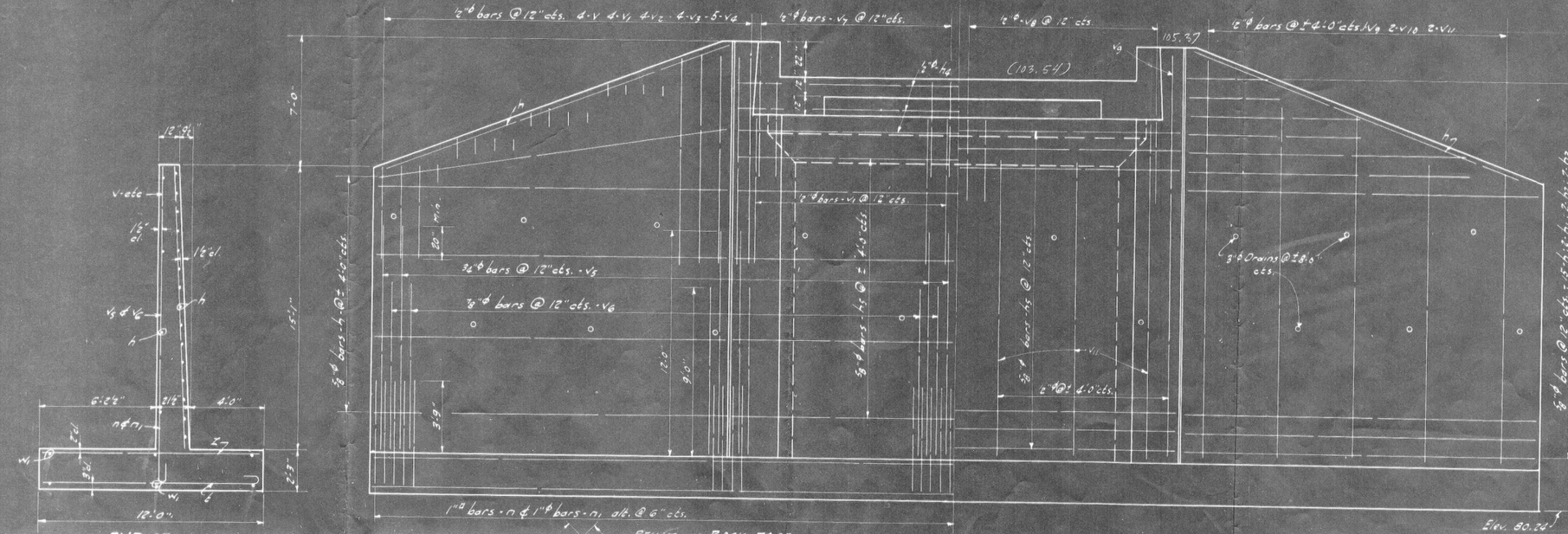
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	24
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
		ILLINOIS	FED. AID PROJECT 3H7Z(853)	

B.M. Spike & washer in Oak tree 100' south of bridge on west side of road.
Existing Structure 92' Truss 14.1' Rdwy. Stone masonry abuts.
No Abut. shall be removed by Contr. See Note.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. / / SHEETS



BILL OF MATERIAL ONE ABUTMENT

Bar	No.	Size	Length	Shape
V	8	¾"ϕ	5'-0"	
V1	30	"	6'-6"	
V2	8	"	8'-0"	
V3	8	"	9'-6"	
V4	10	"	11'-0"	
V5	64	⅝"ϕ	12'-0"	
V6	63	⅞"ϕ	9'-0"	
V7	22	½"ϕ	5'-6"	
V8	22	"	7'-6"	
V9	4	"	21'-6"	
V10	4	"	19'-0"	
V11	10	"	16'-0"	
n	44	⅝"ϕ	18'-3"	
h1	4	"	14'-6"	
h2	4	"	9'-0"	
h3	4	"	4'-0"	
h4	3	⅞"ϕ	24'-0"	
h5	46	⅝"ϕ	15'-0"	
n	66	1"ϕ	7'-0"	
n1	63	1"ϕ	7'-0"	
L	86	⅞"ϕ	12'-9"	
Z	85	⅞"ϕ	11'-6"	
w	6	½"ϕ	25'-0"	
w1	12	½"ϕ	29'-0"	
Cl. X Conc.				Cu. Yds. 128.5
Reinf. Bars				Lbs. 11980
Removal of Exist. Struct.				Ea. 1

COMPUTED	N.P. Owen	EXAMINED	6-21-1948
CHECKED	Harry P. Graham		BRIDGE ENGINEER
DRAWN	H.K.B. Sutger	PASSED	ENGINEER OF DESIGN
CHECKED	H.P.G.	APPROVED	CHIEF HIGHWAY ENGINEER
ASSEMBLED			
CHECKED			

WARN BRIDGE
OVER SPRING CREEK
ONARGA TWP.
IROQUOIS CO.

FILE NAME = 150177-sht-bridge.dgn	USER NAME = mosick	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

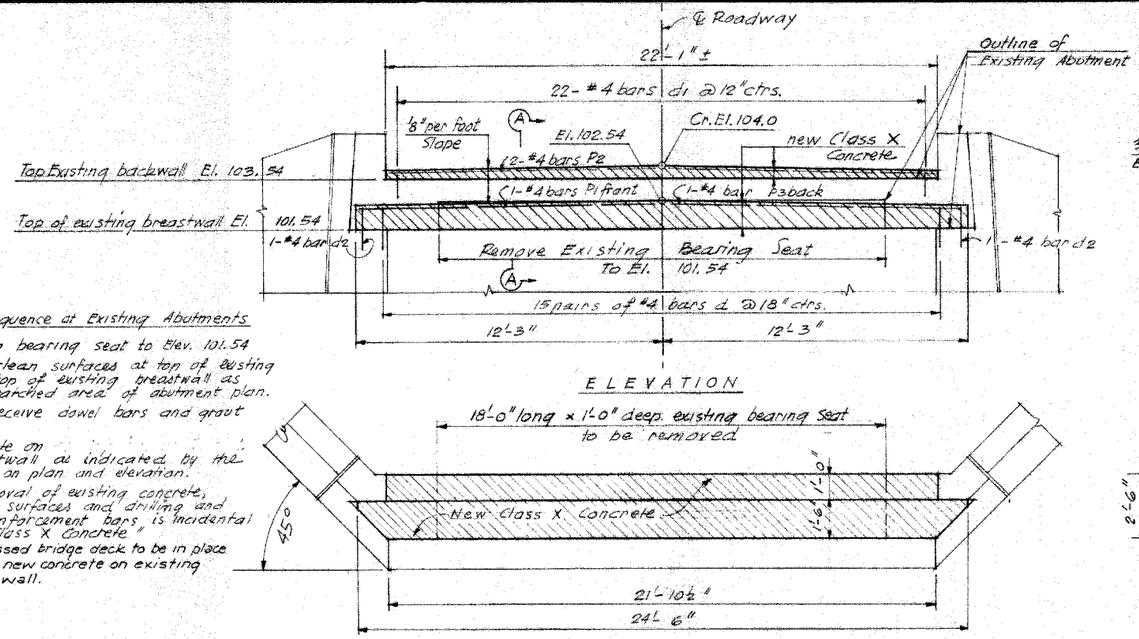
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

EXISTING STRUCTURE PLANS
STRUCTURE NO. 038-4939
SHEET NO. 17 OF 18 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	25
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3HFZ(853)		

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
		IROQUOIS		
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET 4 OF 4



Construction Sequence at Existing Abutments

1. Remove existing bearing seat to Elev. 101.54
2. Roughen and clean surfaces at top of existing backwall and top of existing breastwall as indicated by hatched area of abutment plan.
3. Drill holes to receive dowel bars and grout in bars.
4. Pour new concrete on existing breastwall as indicated by the hatched area on plan and elevation.
5. All work of removal of existing concrete, preparation of surfaces and drilling and grouting of reinforcement bars is incidental to the item "Class X Concrete"
6. Precast prestressed bridge deck to be in place prior to pouring new concrete on existing abutment backwall.

For pile lengths up to 45' use 2 slings placed at a distance of 0.21L from each end. On piles longer than 45' use 3 slings placed at 0.12L from each end and at midpoint of pile.

Note 1. Roughen & clean existing surface and provide bond to new conc. on full length.

BILL OF MATERIAL
2 ABUTMENTS & 2 PIERS

BAR	NO.	SIZE	LENGTH	SHAPE
d	60	# 4	2'-4"	⌐
d1	44	4	1'-6"	⌐
d2	4	4	1'-2"	—
P	12	7	24'-3"	—
P1	2	4	21'-6"	—
P2	4	4	21'-10"	—
P3	2	4	24'-0"	—
S	48	4	10'-1"	□
U	16	6	10'-1"	⊐
Class X Concrete			Cu. Yds.	15.9
Reinforcement Bars			Lbs.	1420
Precast Conc. Piles, 14"			Lin. Ft.	203
Test Pile, Conc., 14"			Each	1

PILE DATA

Type	Precast Concrete
Min. Capacity	30 Tons
Est. Length	29 Ft.
No. Required	8 *

*Including 1 Test Pile

PIERS AND ABUTMENTS
BRIDGE 4
ONARGA ROAD DISTRICT
IROQUOIS COUNTY
STATION 4+00

WALTER E. HANSON & COMPANY
ENGINEERS - CONSULTANTS

DESIGNED DDO DRAWN GL DATE Dec. 4, 1963
CHECKED GL CHECKED CR NO. 63-54

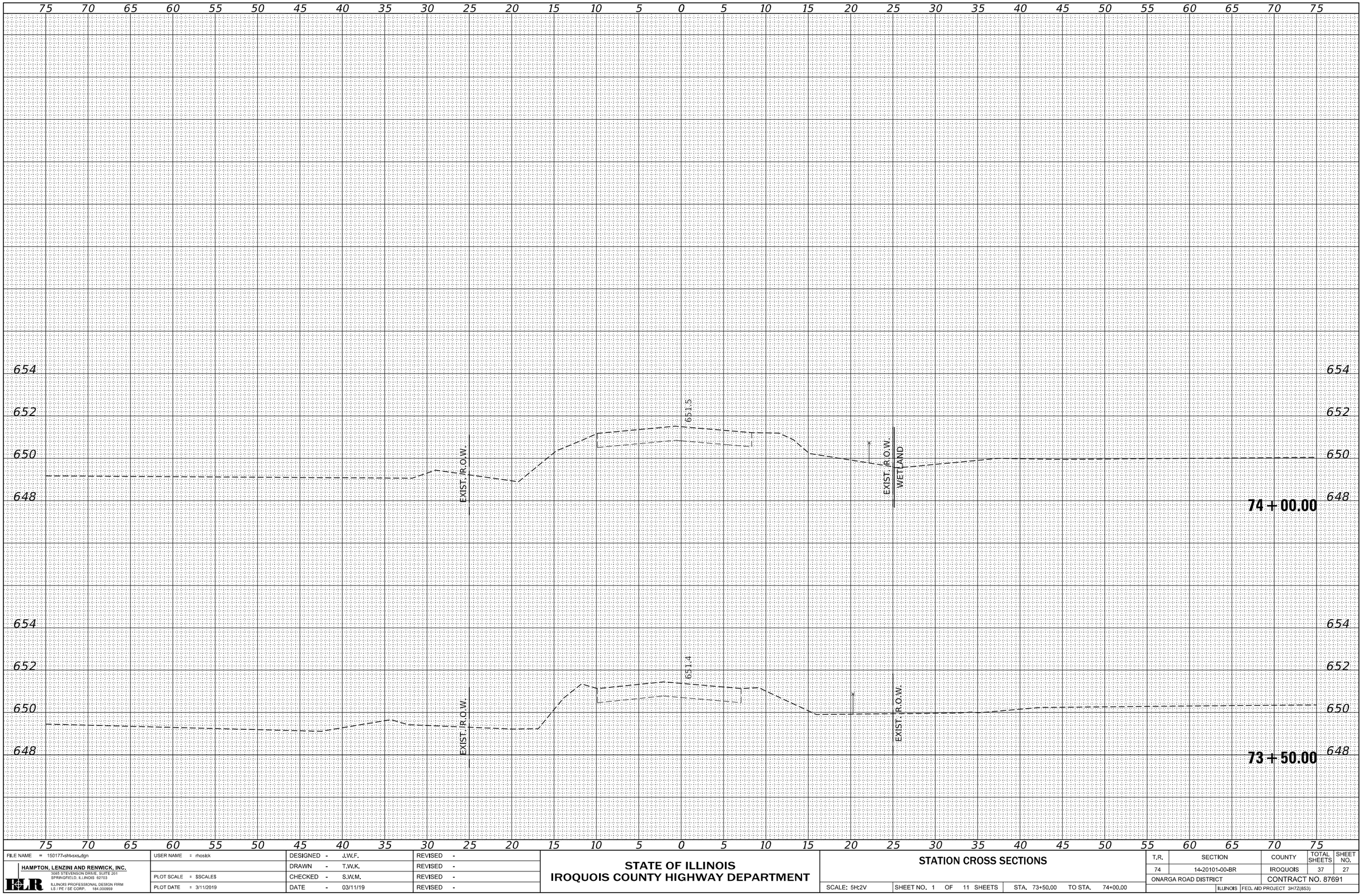
FILE NAME = 150177-shl-bridge.dgn	USER NAME = moslck	DESIGNED - J.R.B.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -
	PLOT SCALE =	DRAWN - M.M.P.	REVISED -
	PLOT DATE = 3/11/2019	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

EXISTING STRUCTURE PLANS
STRUCTURE NO. 038-4939
SHEET NO. 18 OF 18 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	26
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
		ILLINOIS	FED. AID PROJECT 3H7Z(853)	

ORIGINAL SURVEY	NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE



FINAL SURVEY	NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -	**STATE OF ILLINOIS**
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		DRAWN - T.W.K.	REVISED -	**IROQUOIS COUNTY HIGHWAY DEPARTMENT**
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -	
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -	

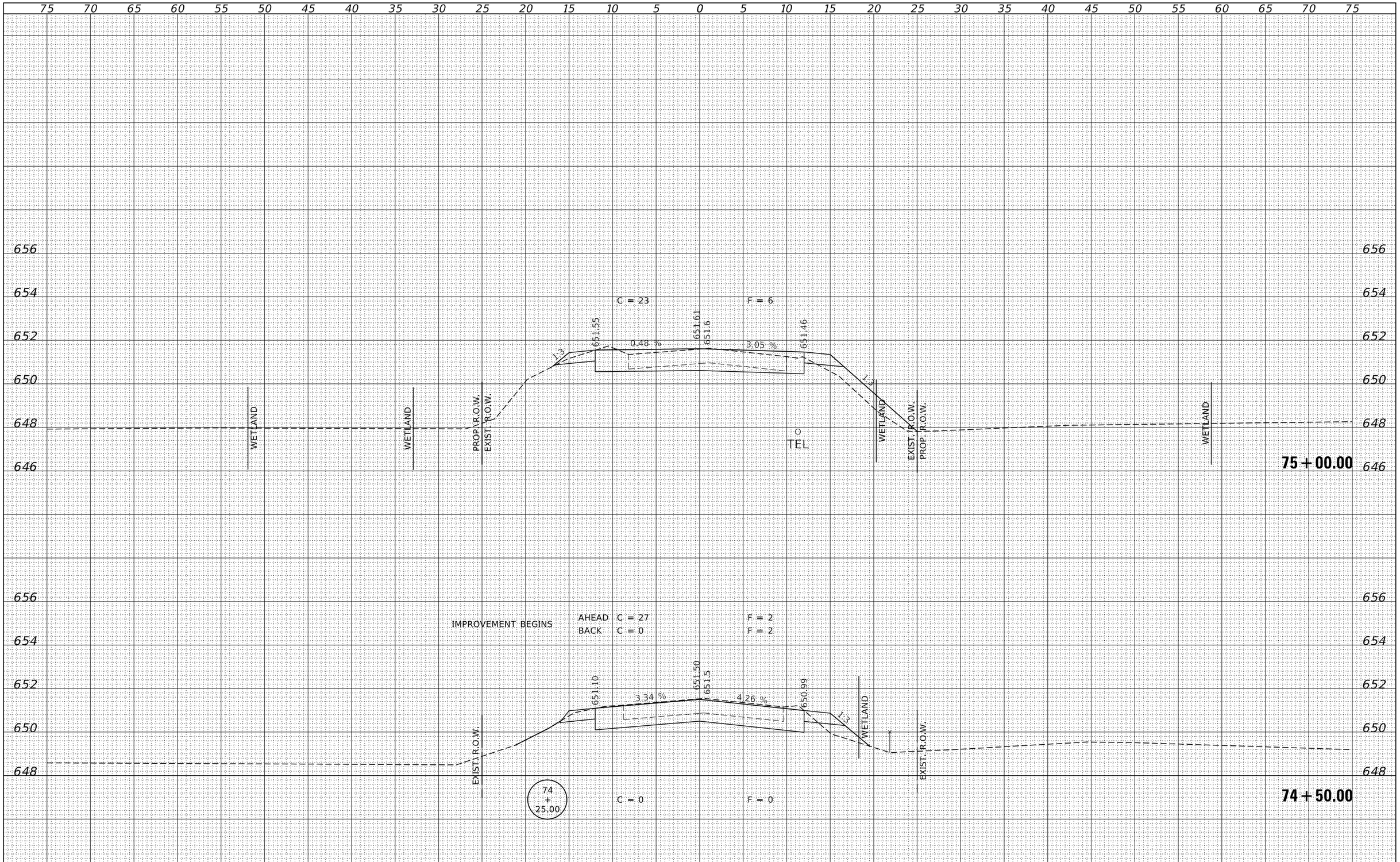
STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 1 OF 11 SHEETS | STA. 73+50.00 TO STA. 74+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	27
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE



ORIGINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE

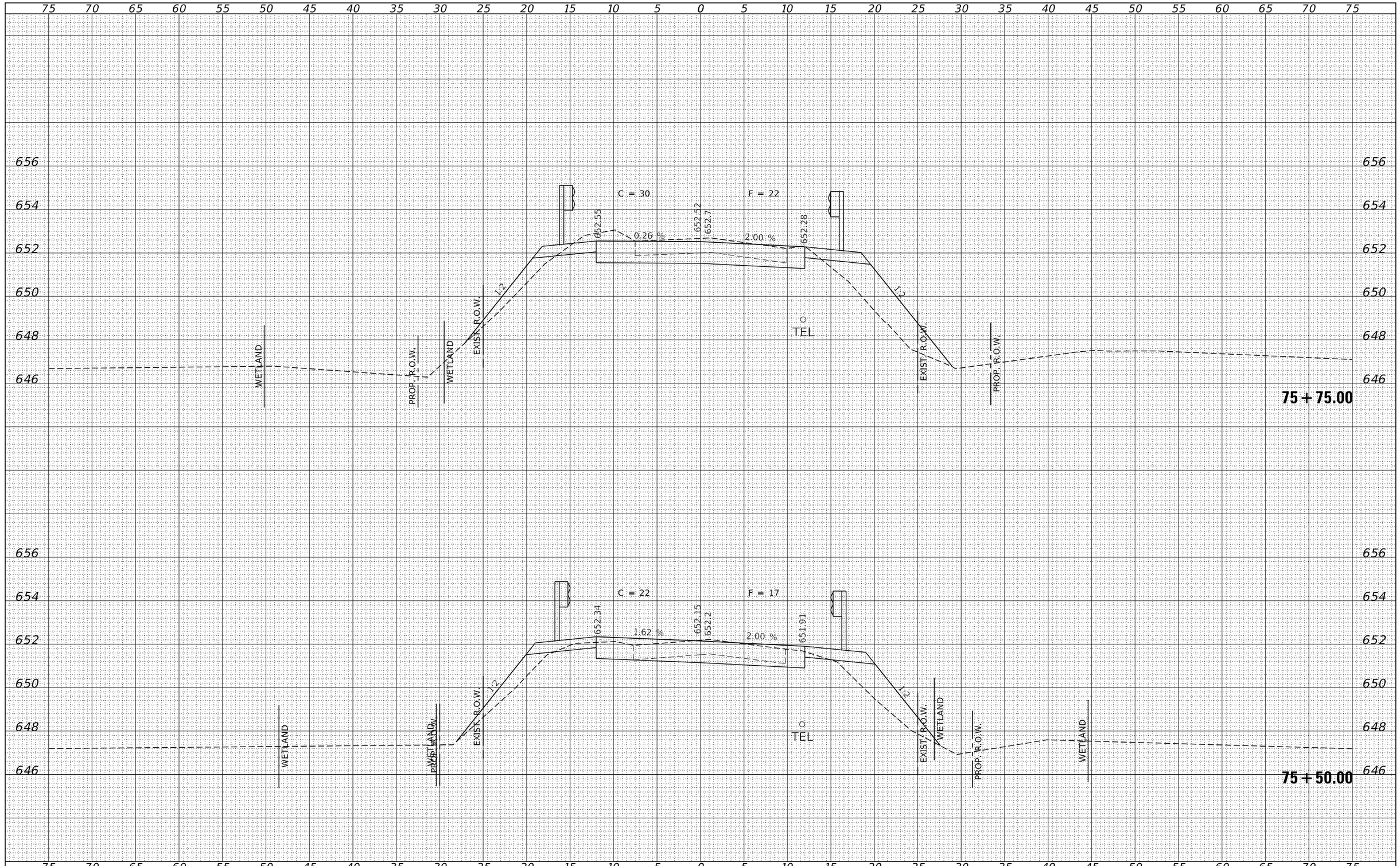
FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - T.W.K.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 2 OF 11 SHEETS | STA. 74+50.00 TO STA. 75+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	28
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



FINAL SURVEY

NOTE BOOK

NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY

NOTE BOOK

NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

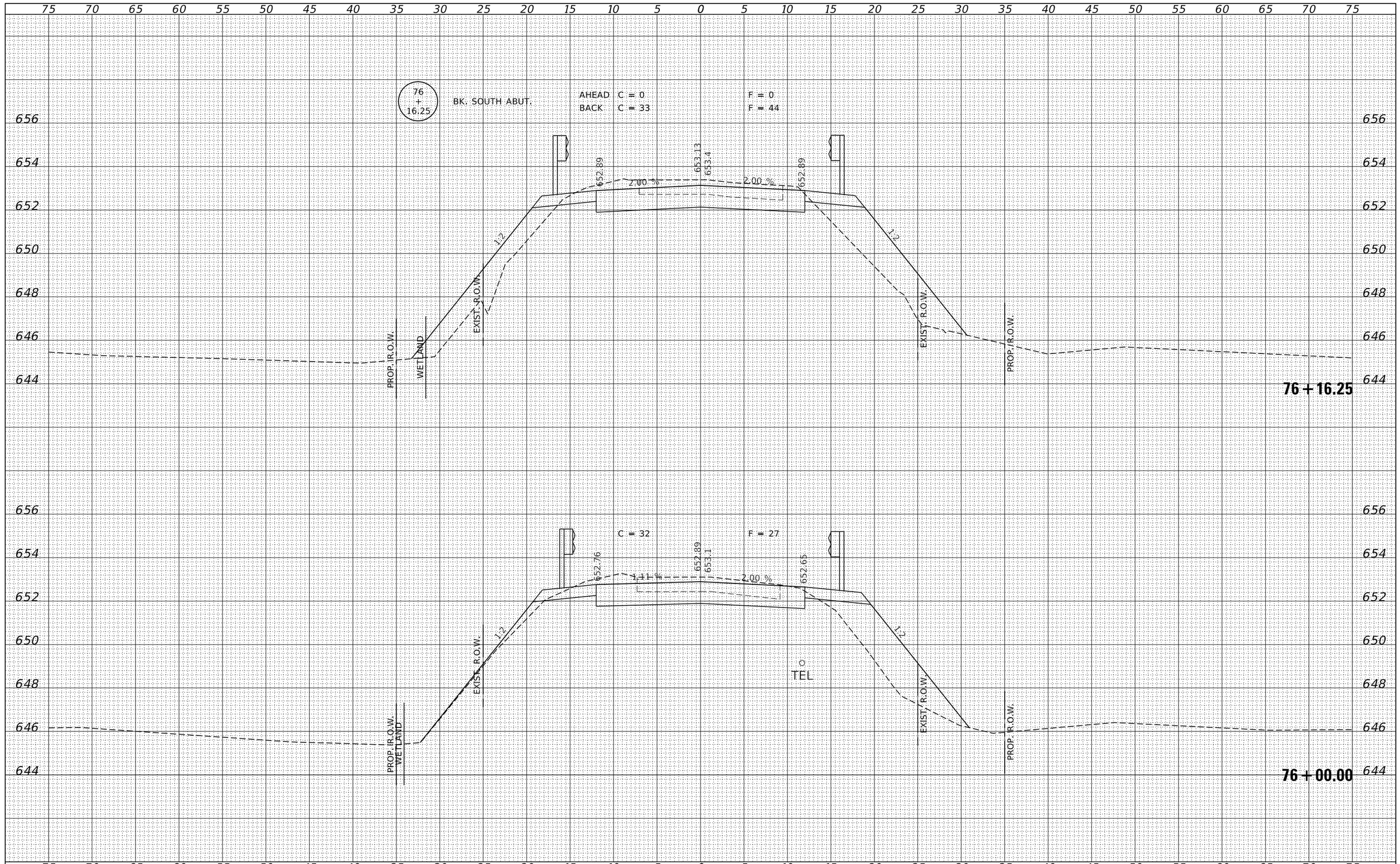
HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 3 OF 11 SHEETS | STA. 75+50.00 TO STA. 75+75.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	29
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		



FINAL SURVEY

NO.	NOTE BOOK	BY	DATE
	AREAS CHECKED		
	AREAS		
	TEMPLATE		
	PLOTTED		
	SURVEYED		

ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE
	AREAS CHECKED		
	AREAS		
	TEMPLATE		
	PLOTTED		
	SURVEYED		

FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

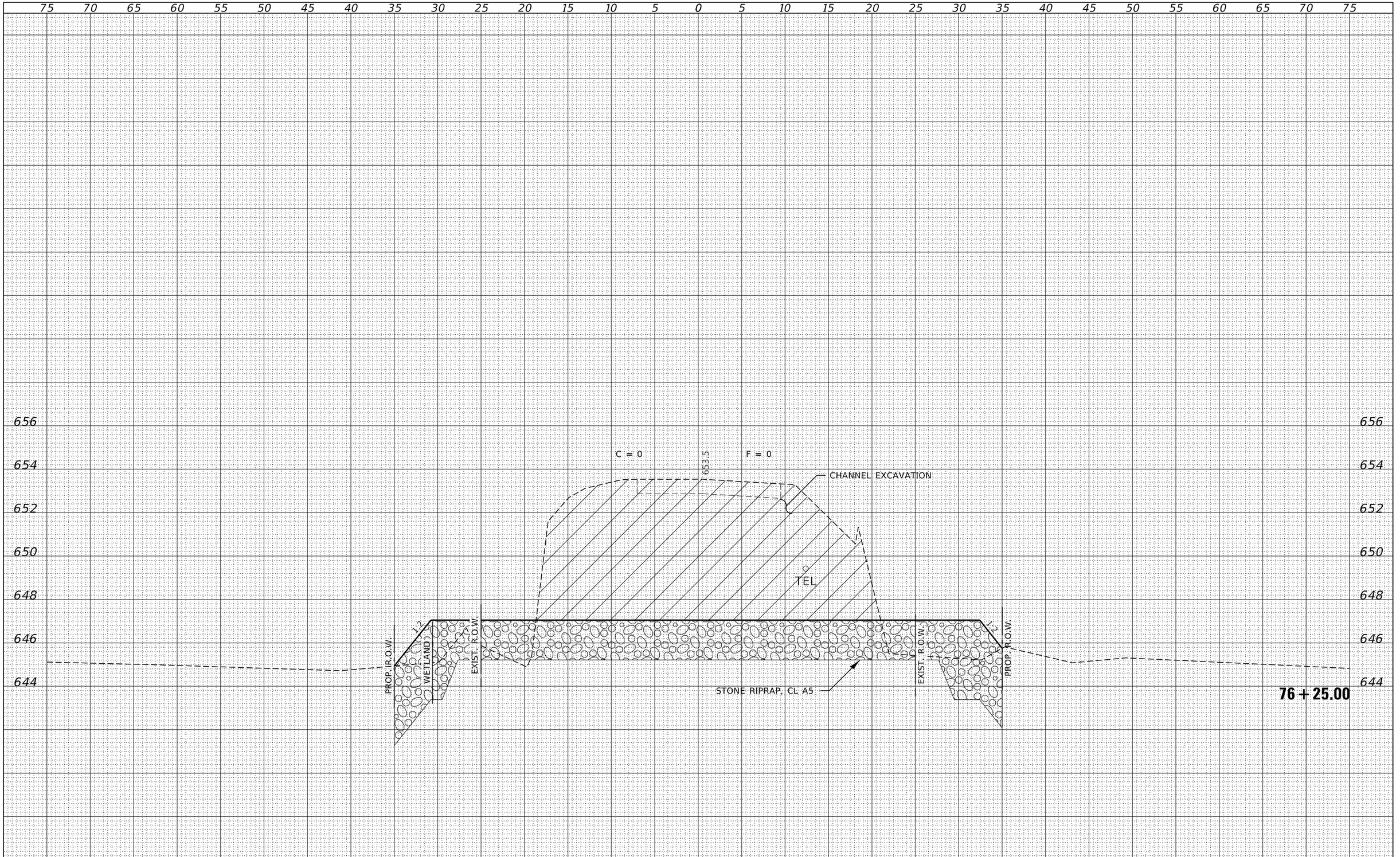
SCALE: 5H:2V | SHEET NO. 4 OF 11 SHEETS | STA. 76+00.00 TO STA. 76+16.25

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	30
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE



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		DRAWN - T.W.K.	REVISED -
PLOT SCALE = $SCALE$		CHECKED - S.W.M.	REVISED -
PLOT DATE = 3/11/2019		DATE - 03/11/19	REVISED -

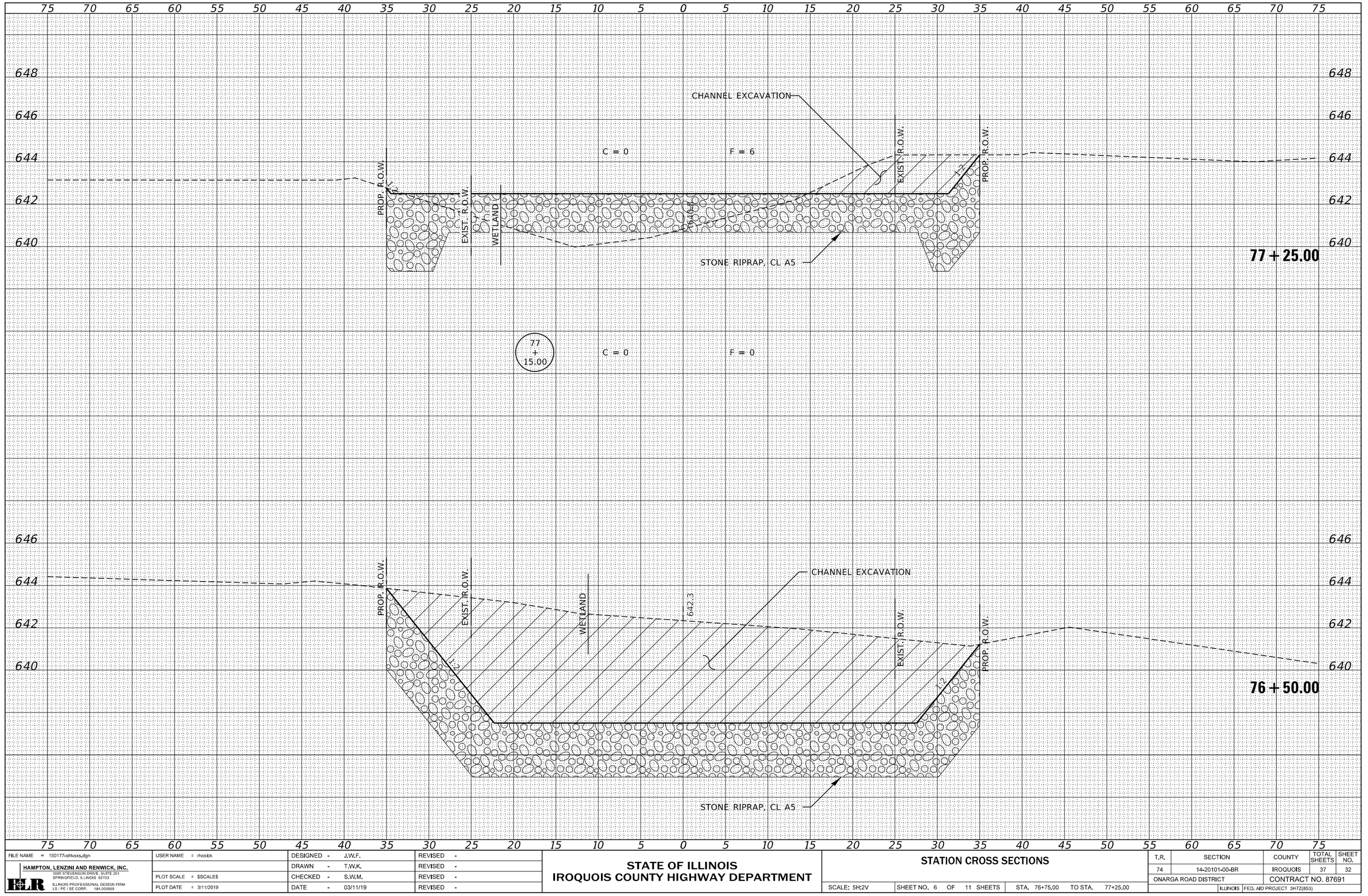
HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 5 OF 11 SHEETS | STA. 76+25.00 TO STA. 76+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	31
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
ILLINOIS	FED. AID PROJECT 3H7Z(853)			



FINAL SURVEY

NOTE BOOK

NO.

SURVEYED

PLOTTED

TEMPLATE

AREAS

AREAS CHECKED

BY

DATE

ORIGINAL SURVEY

NOTE BOOK

NO.

SURVEYED

PLOTTED

TEMPLATE

AREAS

AREAS CHECKED

BY

DATE

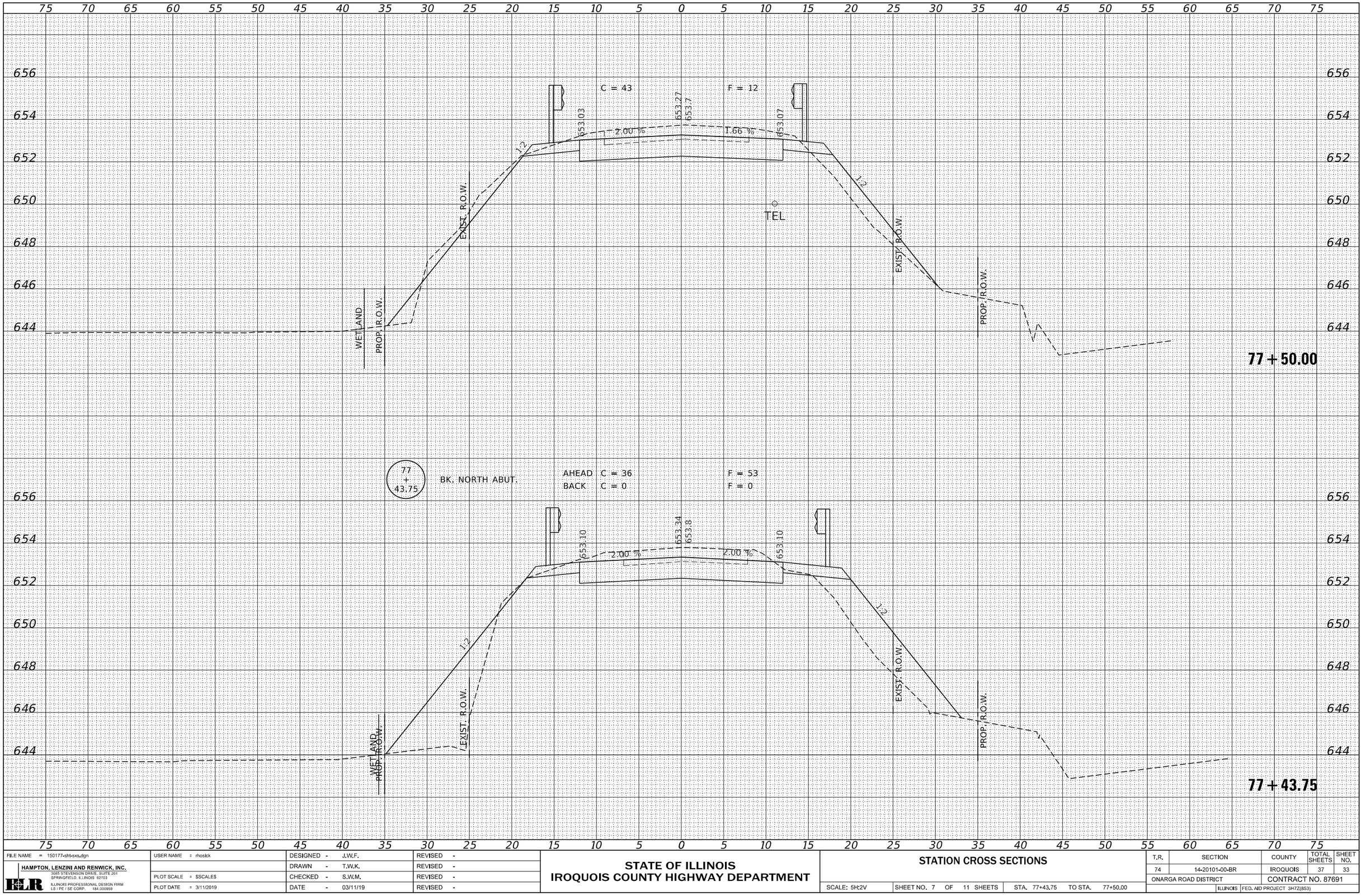
FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - T.W.K.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 6 OF 11 SHEETS | STA. 76+75.00 TO STA. 77+25.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	32
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		



FINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

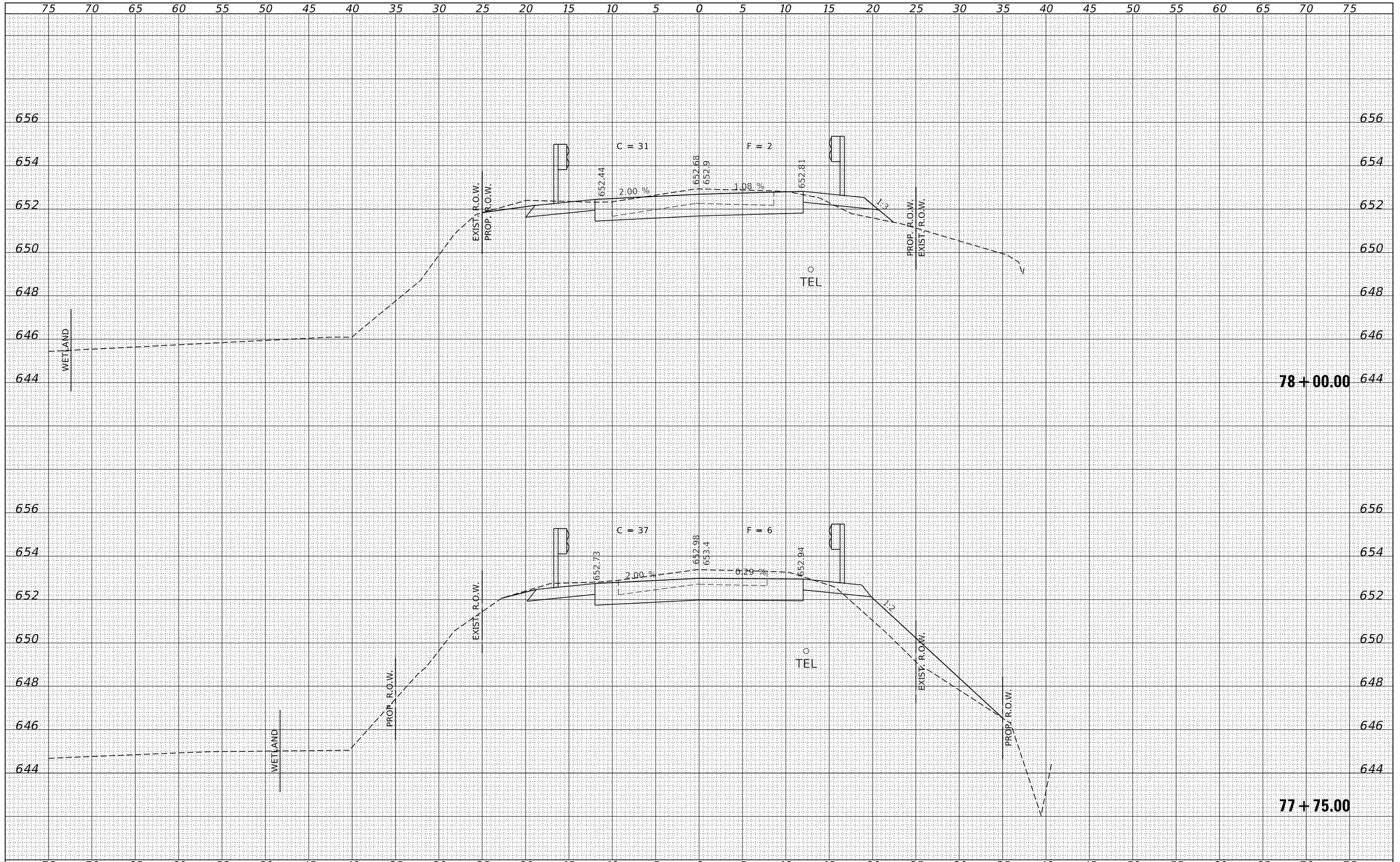
HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 7 OF 11 SHEETS | STA. 77+43.75 TO STA. 77+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	33
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		



FINAL SURVEY

NOTE BOOK

NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY

NOTE BOOK

NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
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	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

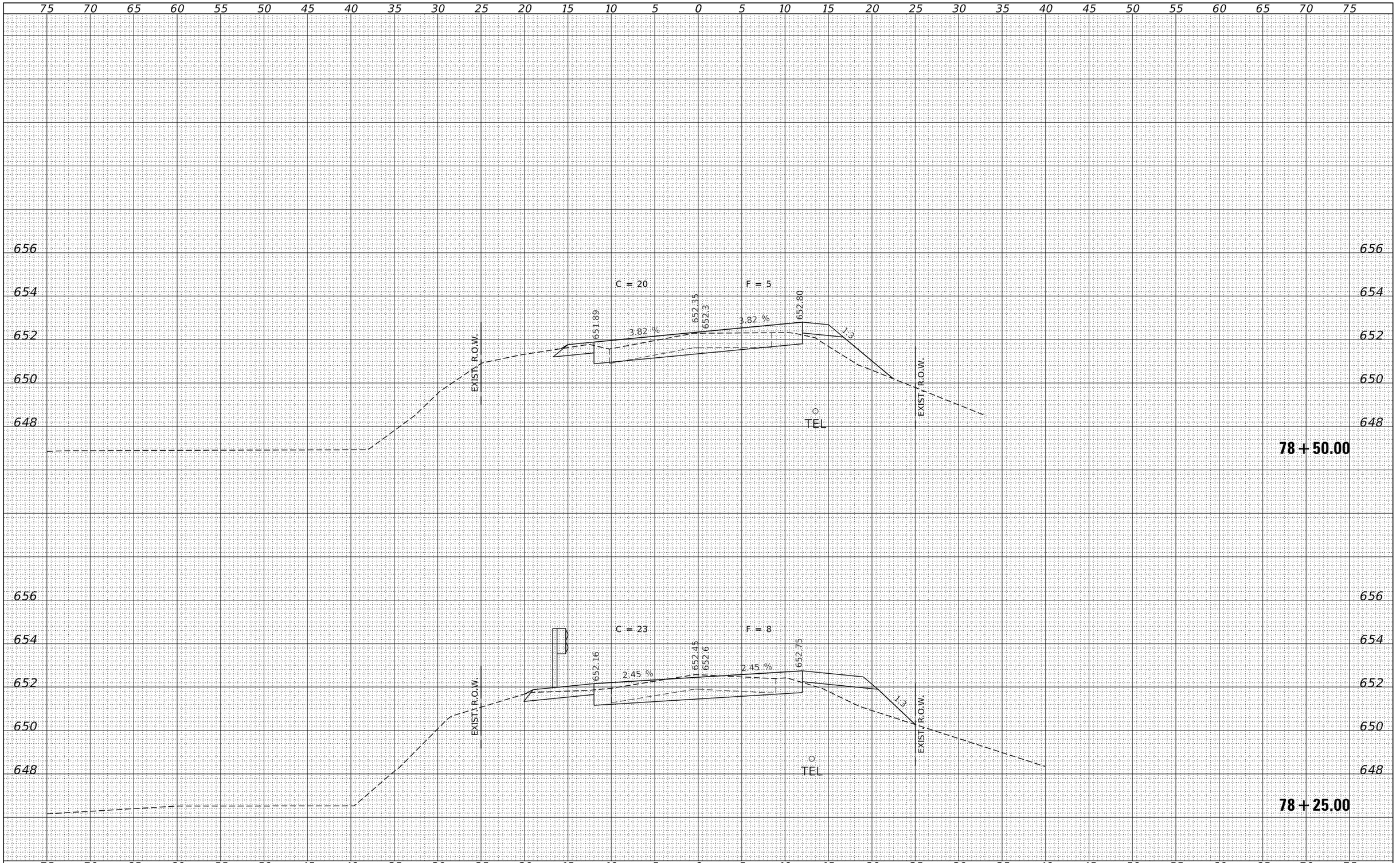
STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 8 OF 11 SHEETS | STA. 77+75.00 TO STA. 78+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	34
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE



ORIGINAL SURVEY	NOTE BOOK	NO.
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	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE

FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslck	DESIGNED - J.W.F.	REVISED -
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	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 3/11/2019	DATE - 03/11/19	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 9 OF 11 SHEETS | STA. 78+25.00 TO STA. 78+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	35
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	BY
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	DATE

ORIGINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	BY
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	DATE

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

658 656 654 652 650 648

EXIST. R.O.W.

653.2

EXIST. R.O.W.

TEL

79 + 50.00

IMPROVEMENT ENDS

AHEAD C = 0 F = 0

BACK C = 33 F = 1

651.66

6.96 %

652.50

652.5

0.74 %

652.59

EXIST. R.O.W.

TEL

79 + 00.00

FILE NAME = 150177-sht-sxs.dgn	USER NAME = rhoslek	DESIGNED - J.W.F.	REVISED -
		DRAWN - T.W.K.	REVISED -
PLOT SCALE = $SCALE$		CHECKED - S.W.M.	REVISED -
PLOT DATE = 3/11/2019		DATE - 03/11/19	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
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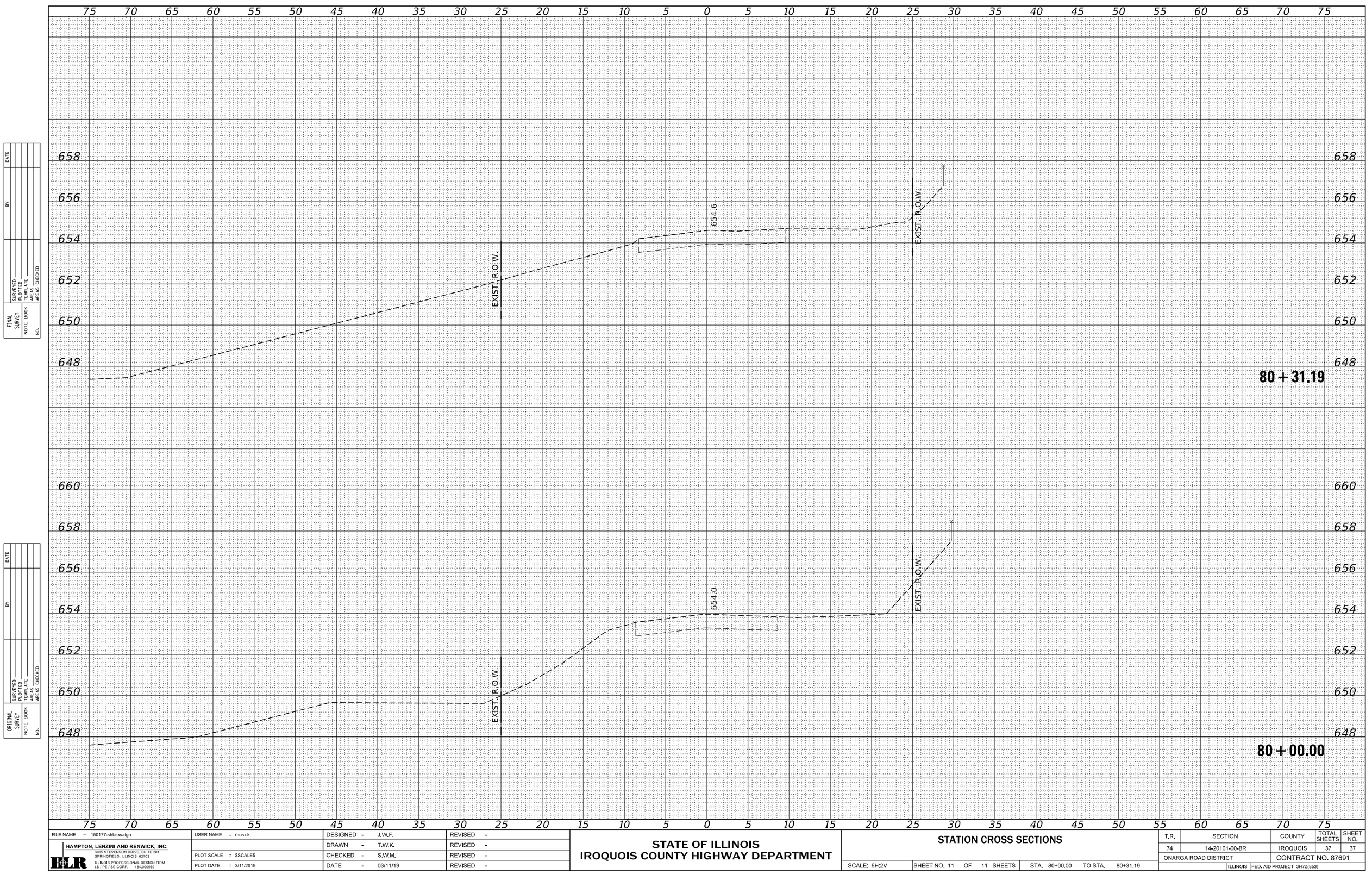
STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 10 OF 11 SHEETS | STA. 79+00.00 TO STA. 79+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	36
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		



FINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE

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AREAS CHECKED

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	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
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HAMPTON, LENZINI AND RENWICK, INC.
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STATE OF ILLINOIS
IROQUOIS COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 11 OF 11 SHEETS | STA. 80+00.00 TO STA. 80+31.19

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	14-20101-00-BR	IROQUOIS	37	37
ONARGA ROAD DISTRICT		CONTRACT NO. 87691		
	ILLINOIS	FED. AID PROJECT 3H7Z(853)		