ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 121	13-19136 -00-BR	LIVINGSTON	25	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 87674	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED

SURFACE TRANSPORTATION PROGRAM – BRIDGE

PROJECT BROS-0105(066)
SECTION 13-19136-00-BR
OWEGO ROAD DISTRICT
LIVINGSTON COUNTY
T.R. 121 / 1900N ROAD
GREEN BRIDGE
PROPOSED STRUCTURE NO. 053-4216
C-93-047-17

INDEX OF SHEETS

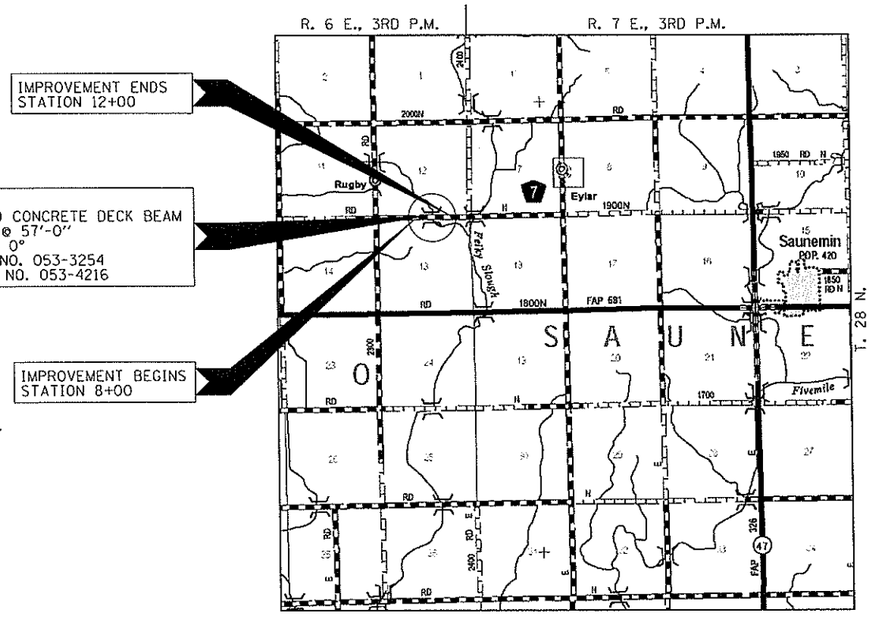
HIGHWAY STANDARDS:

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATERNS
515001-03	NAME PLATE FOR BRIDGES
701901-06	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

UTILITIES

COMMONWEALTH EDISON
1910 S. BRIGGS STREET
JOLIET, IL 60433

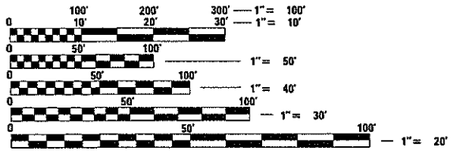
FRONTIER COMMUNICATIONS
109 W. MARKET STREET, 2ND FLOOR
BLOOMINGTON, IL 61701



LOCATION MAP

APPROXIMATE SCALE: 0 — 1 MILE

NET LENGTH OF SECTION = 400 FEET = 0.075 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:	25 ADT

LOCATION OF SECTION INDICATED THUS: – ■ –

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED 3-24 20 17
Clay Metcalf
COUNTY ENGINEER

APPROVED 3-24 2017
Tom Dohm
TOWNSHIP COMMISSIONER

PASSED 3/30 2017
DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review 3/30 2017
REGION TWO ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WARNING

CALL JULIE TOLL FREE 1-800-892-0123

CALL 811 BEFORE YOU DIG

DIG NO: A1421159

DATE: 03/16/2017

LICENSED PROFESSIONAL ENGINEER — STEVEN W. REGGINSON — 062-50051 — STATE OF ILLINOIS

EXPIRES: 11/30/2017

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: 14.0161.130 DATE: 03/16/17

CONTRACT NO. 87674 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	CONSTRUCTION TYPE CODE 0011 UNIT	TOTAL
^	20200100	EARTH EXCAVATION	CU YD	200
	20300100	CHANNEL EXCAVATION	CU YD	125
	20400800	FURNISHED EXCAVATION	CU YD	45
	28000500	INLET AND PIPE PROTECTION	EACH	4
	28100107	STONE RIPRAP, CLASS A4	SQ YD	385
	28200200	FILTER FABRIC	SQ YD	385
	35101400	AGGREGATE BASE COURSE, TYPE B	TON	380
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	1,879
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	168
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	105.4
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	62
^	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50300225	CONCRETE STRUCTURES	CU YD	22.2
^	50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1,539
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,610
*	50900205	STEEL RAILING, TYPE S1	FOOT	111
	51201400	FURNISHING STEEL PILES HP10X42	FOOT	585
	51202305	DRIVING PILES	FOOT	585
	51203400	TEST PILE STEEL HP10X42	EACH	1
	51500100	NAME PLATES	EACH	1
^	542D0220	PIPE CULVERTS, CLASS D TYPE 1 15"	FOOT	240
	67100100	MOBILIZATION	LSUM	1
^	70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	LSUM	1
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
^	X2070302	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	100
^	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5
^	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	100

^ 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, 2017, 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, 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 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, TYPE B 2.05 TON/CU YD
   POROUS GRANULAR EMBANKMENT 2.00 TON/CU YD

8) 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) = **0.5 ACRES**

9) 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 FURNISHED EXCAVATION.

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 121							
STA. 8+00 TO STA. 9+68.84	108		25.00%	100.00%	81	138	-57
STA. 9+68.84 TO STA. 10+27.17		125	25.00%	70.00%	66		66
STA. 10+27.17 TO STA. 12+00	92		25.00%	100.00%	69	121	-52
TOTAL	200	125			216	259	-43
USE	200	125					45

FURNISHED = 45 CU YDS

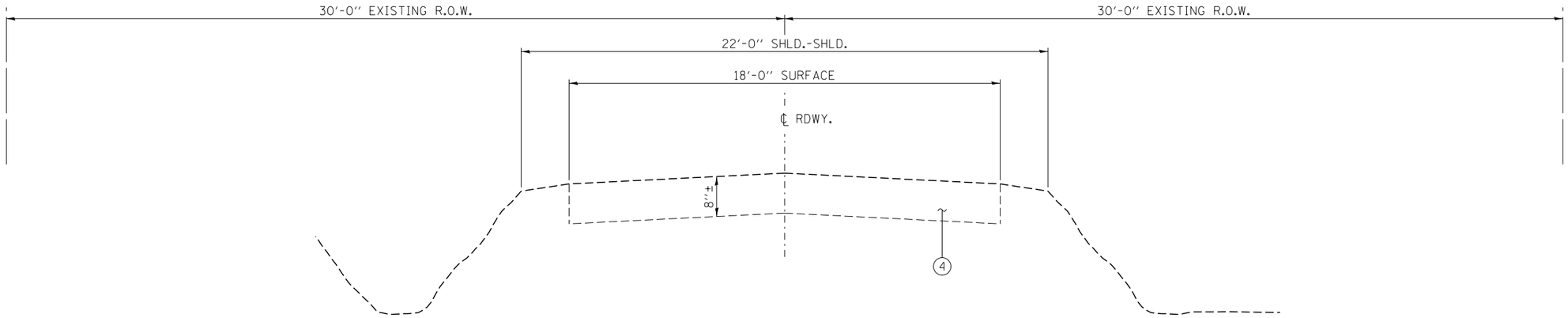
FILE NAME = 140161-sht-summary.dgn	USER NAME = $USER$	DESIGNED - L.A.P.	REVISED -	
HAMPTON, LENZINI AND RENWICK, INC. 3361 SPECTRUM DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LIC. NO. 184.003959		DRAWN - T.W.K.	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -	
	PLOT DATE = 4/3/2017	DATE - 03/16/17	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

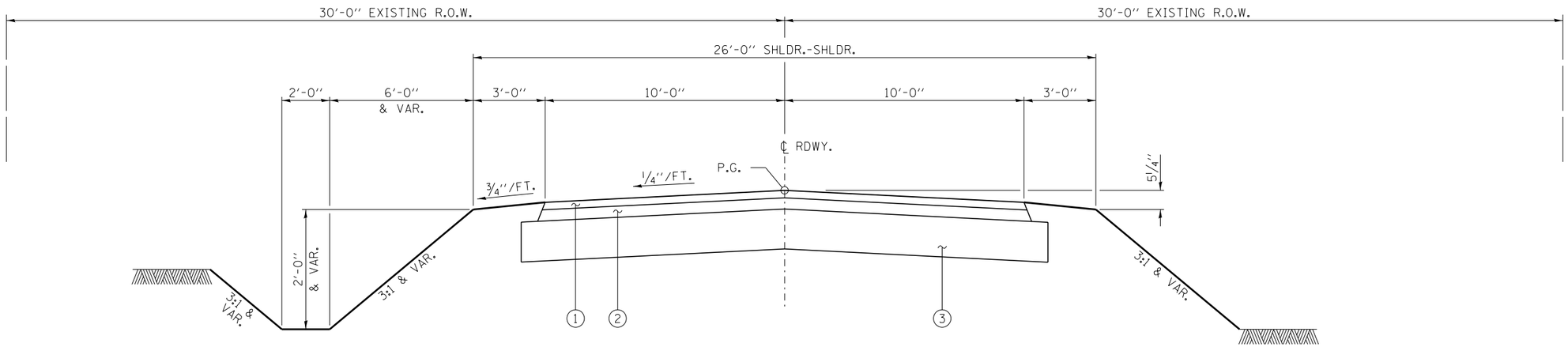
SUMMARY OF QUANTITIES AND GENERAL NOTES

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	2
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS FED. AID PROJECT BROS-0105(068)				



EXISTING CROSS SECTION
STA. 8+00 TO 12+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. 8+00 TO 12+00

NOTE:
TRANSITIONS FROM THE PROPOSED ROADWAY TO THE EXISTING ROADWAY ARE TO BE CONSTRUCTED FROM STA. 8+00 TO STA. 9+00 AND STA. 11+00 TO STA. 12+00. SEE SHEET 15 FOR TRANSITION AT BRIDGE

LEGEND

1. HMA SURFACE COURSE, MIX C, N50 (1½" THICKNESS)
2. HMA BINDER COURSE, IL.-19, FG N50 (2½" THICKNESS)
3. AGGREGATE BASE COURSE, TYPE B (8")
4. EXISTING AGGREGATE SURFACE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
LOCATIONS(S)	TR 121	TR 121
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALT BINDER COURSE
PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4% @ 50 Gyr.	4% @ 50 Gyr.
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 9.5	IL 19.0
FRICTION AGGREGATE:	MIXTURE C	NONE
DENSITY TEST METHOD	CORES	CORES
MIXTURE WEIGHT:	112 LBS \ SY \ INCH THICKNESS	112 LBS \ SY \ INCH THICKNESS
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA

FILE NAME = 140161-sht-typsections.dgn	USER NAME = $USER$	DESIGNED - L.A.P.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		DRAWN - T.W.K.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	3
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

PHILIP AND LINDA CORBAN
SW¼, SE¼, SEC 12, T. 28 N., R. 6 E., 3RD P.M.

MAG NAIL IN FENCE POST
MAG NAIL IN POWER POLE
MAG NAIL IN FENCE POST

PIPE CULVERTS, CLASS D TYPE 1 15"
LENGTH = 58 FOOT
27' LT. STA. 9+25 ELEV. 677.85
25' LT. STA. 9+83 ELEV. 675.00

N.W. COR., SEC. 13
T. 28 N., R. 6 E., 3RD P.M.
RR SPIKE (FOUND)
N. 1543515.71
E. 940822.14

N.W. COR., NE¼ SEC. 13
T. 28 N., R. 6 E., 3RD P.M.
P.O.T. STA. 4+97.57
⅝"Ø IRON ROD (FOUND)
N. 1543547.66
E. 943421.15

CROPLAND

SOUTH LINE
SEC. 12-28-6

℄ PROPOSED IMPROVEMENT

SLOUGH TRIBUNARY

PHILIP AND LINDA CORBAN
SW¼, SE¼, SEC 12, T. 28 N., R. 6 E., 3RD P.M.

MAG NAIL IN TREE
SET SCREW IN CMP
0.46' OFFSET (MAG NAIL)
CP#3 IR/HLR CAP
SET SCREW IN CMP
'X' ON 18" RCP
SET SCREW IN CMP

GRASS
TIMBER
GRASS

PIPE CULVERTS, CLASS D TYPE 1 15"
LENGTH = 62 FOOT
25' LT. STA. 10+13 ELEV. 675.00
27' LT. STA. 10+75 ELEV. 678.07

P.O.T. STA. 13+49.87
(TO BE SET)
N. 1543558.13
E. 944273.38

N.W.¼, N.E.¼, SEC. 13
T. 28 N., R. 6 E., 3RD P.M.
½" MAG (SET)
N. 1543579.61
E. 946020.15

N
0 20' 40'
GRAPHIC SCALE

+23 P.I.
+71 P.I.
9"Ø

BM#2
BM#1
BM#3
CP#2
CP#1

30' R.O.W.
18'
30' EXIST.
3'
10'
10'
3'
90°

7 TR 121 / 1900N RD 8 9 10 11 12 13
OIL & CHIP SURFACE

+46 P.I.

IMPROVEMENT BEGINS
STATION 8+00

IMPROVEMENT ENDS
STATION 12+00

CONSTRUCTION LIMITS

PIPE CULVERTS, CLASS D TYPE 1 15"
LENGTH = 58 FOOT
27' RT. STA. 9+25 ELEV. 677.85
25' RT. STA. 9+83 ELEV. 675.00

PIPE CULVERTS, CLASS D TYPE 1 15"
LENGTH = 62 FOOT
25' RT. STA. 10+13 ELEV. 675.00
27' RT. STA. 10+75 ELEV. 677.78

CROPLAND
CROPLAND

FELKY

LEGEND
INET AND PIPE PROTECTION

STATION 9+98
PRECAST PRESTRESSED CONCRETE DECK BEAM
BRIDGE. SINGLE SPAN @ 57'-0"
27'-0" RDWY.; SKEW = 0°
PROPOSED STRUCTURE NO. 053-4216

BARBARA HIGHLAND & SANDRA REILLY
NW½, NE¼, SEC 13, T. 28 N., R. 6 E., 3RD P.M.

BARBARA HIGHLAND & SANDRA REILLY
NW½, NE¼, SEC 13, T. 28 N., R. 6 E., 3RD P.M.

EXISTING STRUCTURE NO. 053-3254
STATION 10+00 - TWO SPAN CONCRETE SLAB BRIDGE WITH CONCRETE RAILING ON TIMBER PILE BENT ABUTMENTS AND TIMBER PIER.
42.0' FC.-FC. ABUTS; 28'-4" o.-o. DECK

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

PROFILE
SURVEYED
PLOTTED
ALIGNMENT CHECKED
BM. NOTED
STRUCTURE NO/ATNS CHKD
NOTE BOOK
NO.
BY
DATE

BM#2 - BENCH TIE IN POWER POLE
26' LT., STA. 7+44
ELEV. 682.17

BM#1 - CHISELED " ☒ " ON N.E. CURB
12' LT., STA. 10+23
ELEV. 683.32

BM#3 - BENCH TIE IN POWER POLE
26' LT., STA. 11+52
ELEV. 680.90

VPC
VPI STA. 8+40
ELEV. 682.30
K = 116
90' v.c.

VPRC
VPI STA. 9+30
ELEV. 683.00
K = 116
90' v.c.

VPC
VPI STA. 10+70
ELEV. 683.00
K = 81
90' v.c.

VPRC
VPI STA. 11+60
ELEV. 682.00
K = 60
90' v.c.

VPT

PROPOSED ℄ GRADE
EXISTING ℄ GRADE

+0.00%
+0.78%
-2.00%
-1.00%
+0.00%
-1.11%
+0.39%
+1.86%
+0.50%

679.60 LT. & RT.
678.60 LT. & RT.
SP. DITCH LT. & RT.
677.85 LT. & RT.
9+75

100 YEAR H.W. ELEV. 681.3
15 YEAR H.W. ELEV. 680.0

CHANNEL EXCAVATION
℄ ELEV. 671.0
STONE RIPRAP, CL A4
* 1V:2H @ RT. L'S

10+75
678.07 LT.
10+75
677.78 RT.
SP. DITCH RT.
SP. DITCH LT.
680.40 RT.
678.40 RT.

700 695 690 685 680 675 670 665 660

682.3 682.4 682.3 682.30 682.0 682.43 682.2 682.76 682.8 682.97 683.0 683.00 682.5 682.96 681.8 682.65 681.8 682.21 682.1 682.10 682.5 682.6

7+00 7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50 13+00

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	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
5985 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000969

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE

SCALE: 20H:5V | SHEET NO. 1 OF 1 SHEETS | STA. 7+00.00 TO STA. 13+00.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	4
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	ILLINOIS FED. AID PROJECT BROS-0105(066)			

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

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

IMPROVEMENT BEGINS

AHEAD C = 21 F = 0
BACK C = 0 F = 0

684
682
680
678

EXIST. R.O.W.

682.30
682.3

S.D.
679.60

S.D.
679.60

EXIST. R.O.W.

8+00.00

686
684
682
680

RT STA. +50 F.E.

EXIST. R.O.W.

682.4

EXIST. R.O.W.

7+50.00

684
682
680

EXIST. R.O.W.

EXIST. R.O.W.

7+00.00

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

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		DRAWN - T.W.K.	REVISED -
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	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

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

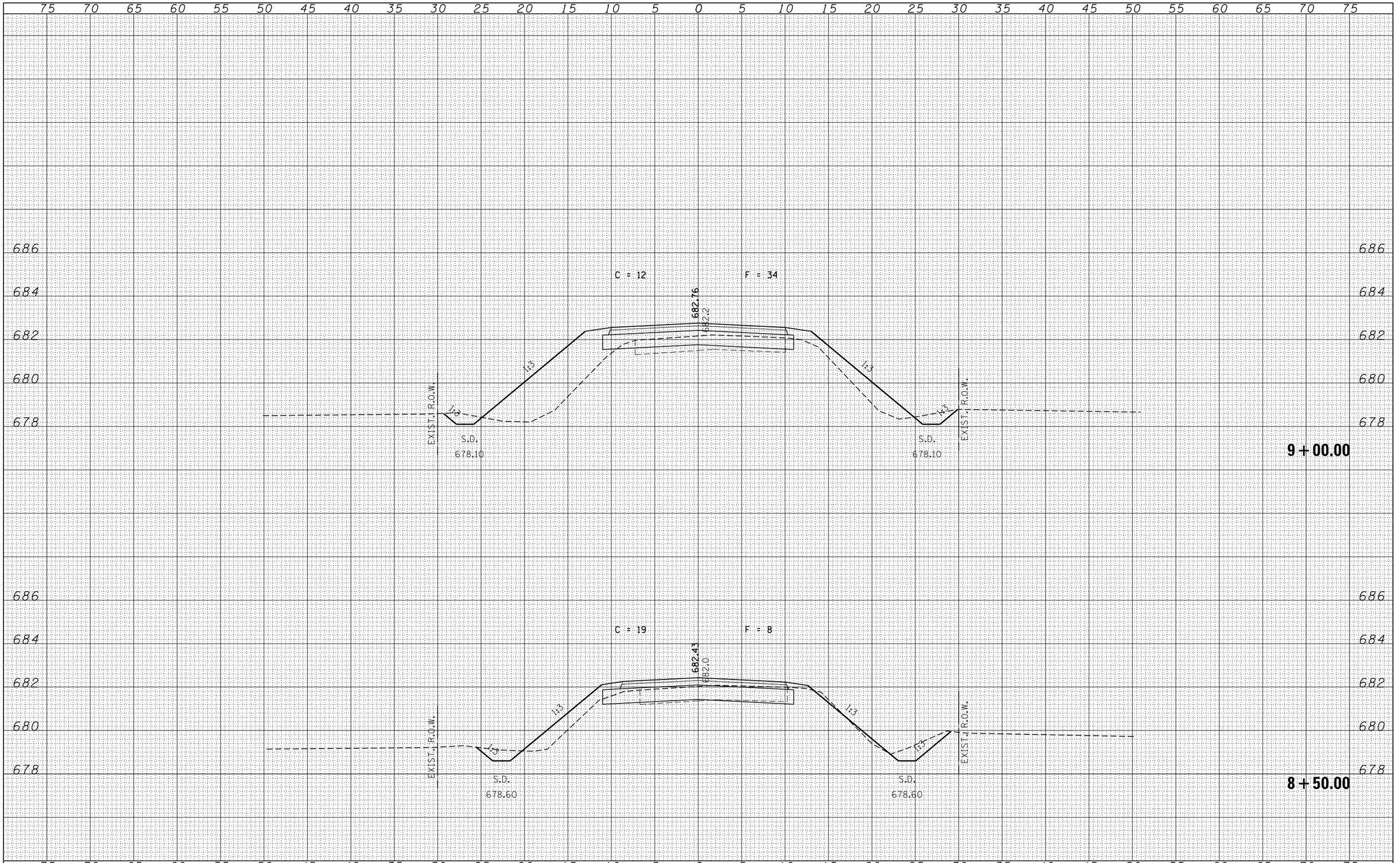
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 1 OF 10 SHEETS | STA. 7+00.00 TO STA. 8+00.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	5
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

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



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

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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 - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

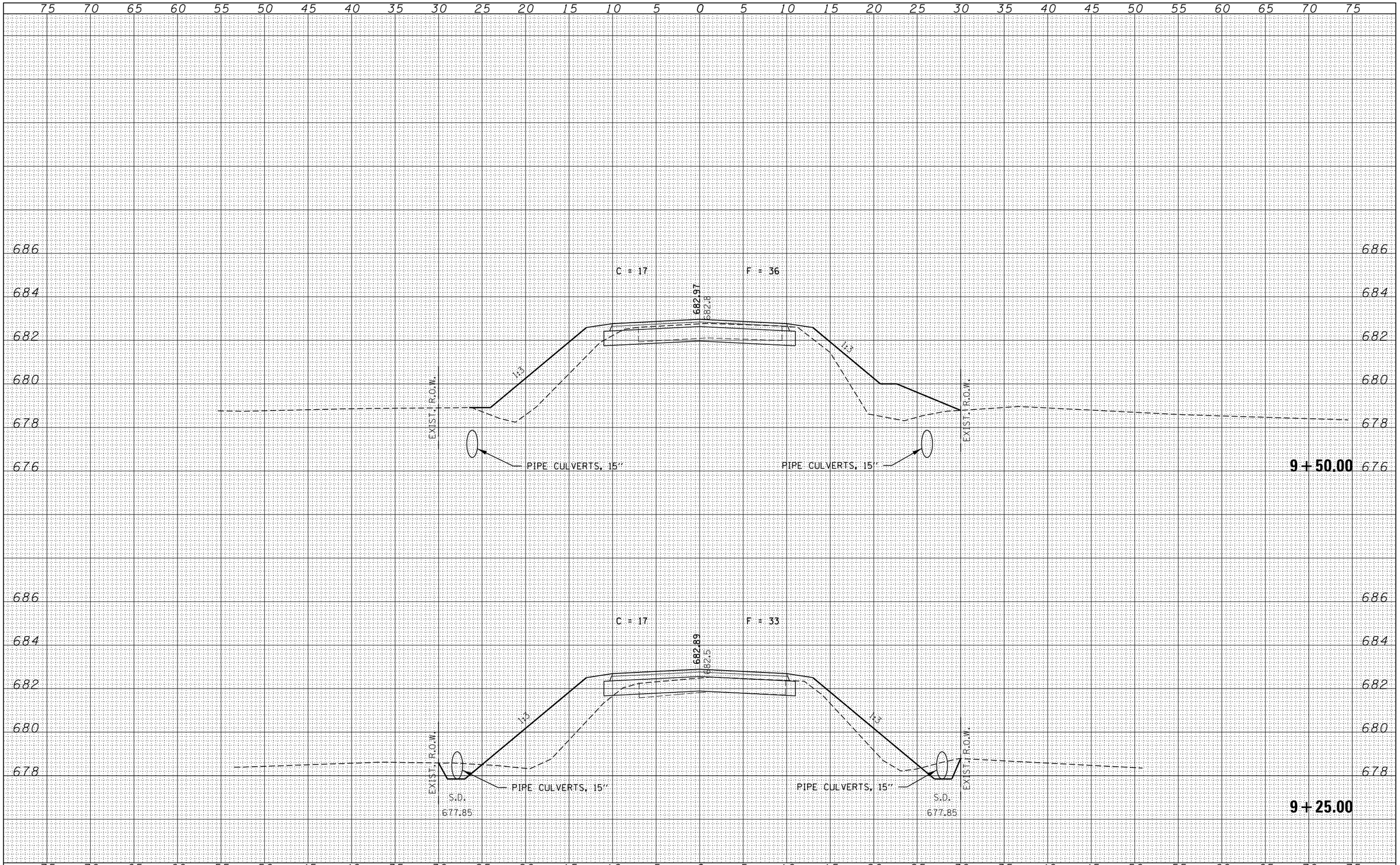
STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 2 OF 10 SHEETS | STA. 8+50.00 TO STA. 9+00.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	6
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	ILLINOIS	FED. AID PROJECT BROS-0105(066)		

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

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



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		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

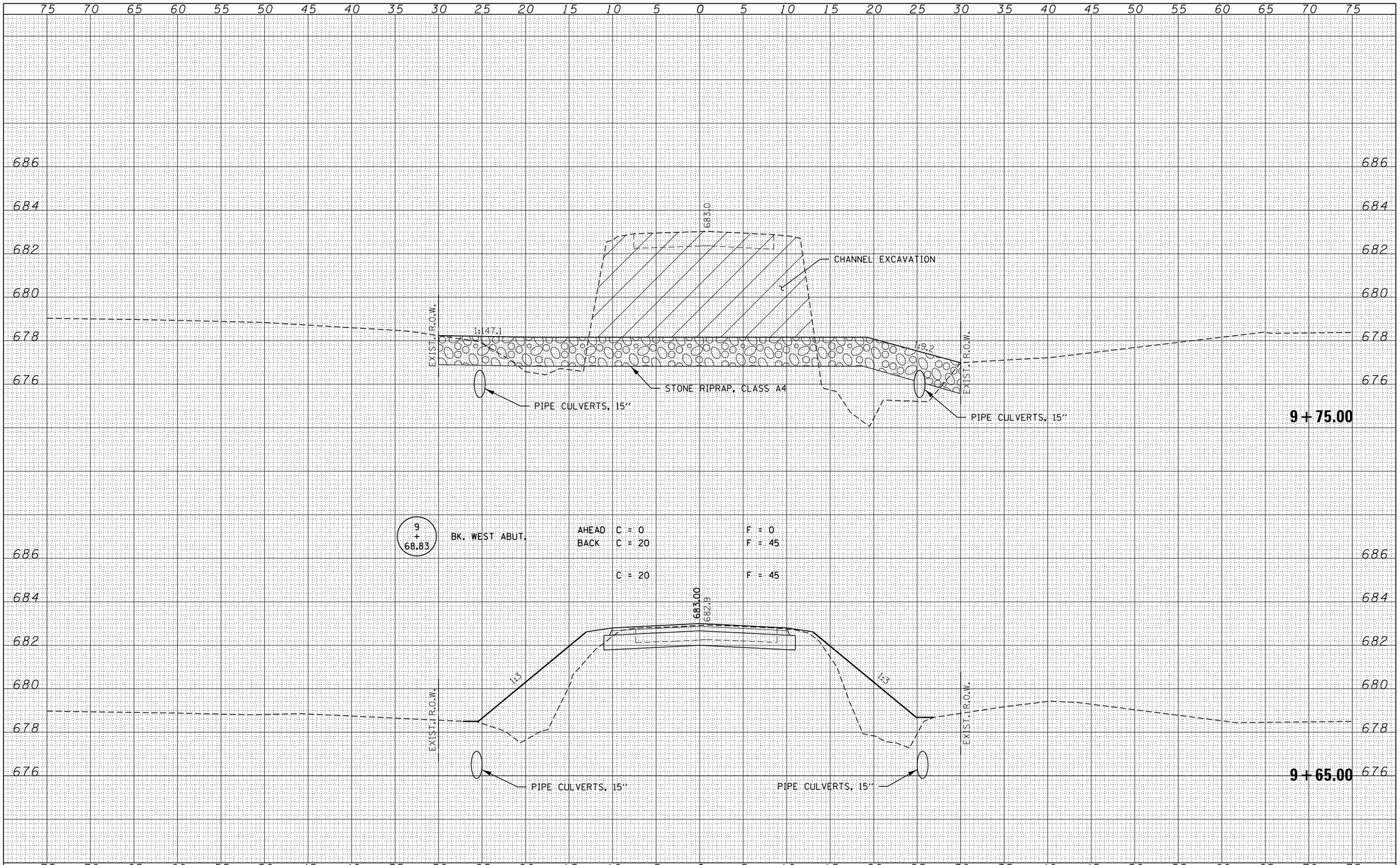
HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 3 OF 10 SHEETS | STA. 9+25.00 TO STA. 9+50.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	7
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			



FINAL SURVEY

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

ORIGINAL SURVEY

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

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		DRAWN - T.W.K.	REVISED -
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	PLOT DATE = 3/16/2017	DATE - 03/16/17	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
DEPARTMENT OF TRANSPORTATION

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 4 OF 10 SHEETS | STA. 9+65.00 TO STA. 9+75.00

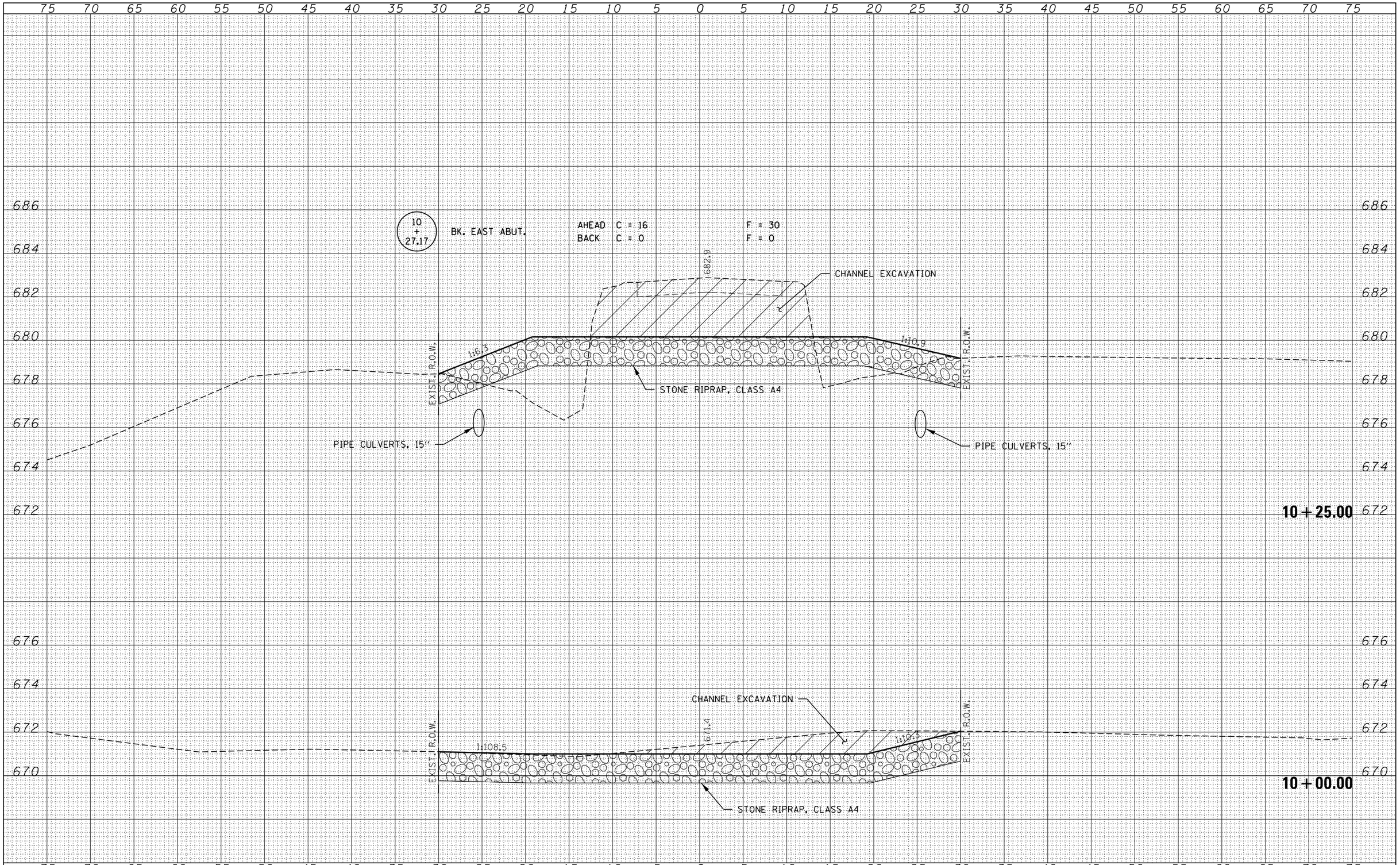
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	8
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

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



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	PLOT DATE = 3/16/2017	DATE - 03/16/17	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
DEPARTMENT OF TRANSPORTATION

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 5 OF 10 SHEETS | STA. 10+00.00 TO STA. 10+25.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	9
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

FINAL SURVEY	NOTE BOOK	NO.
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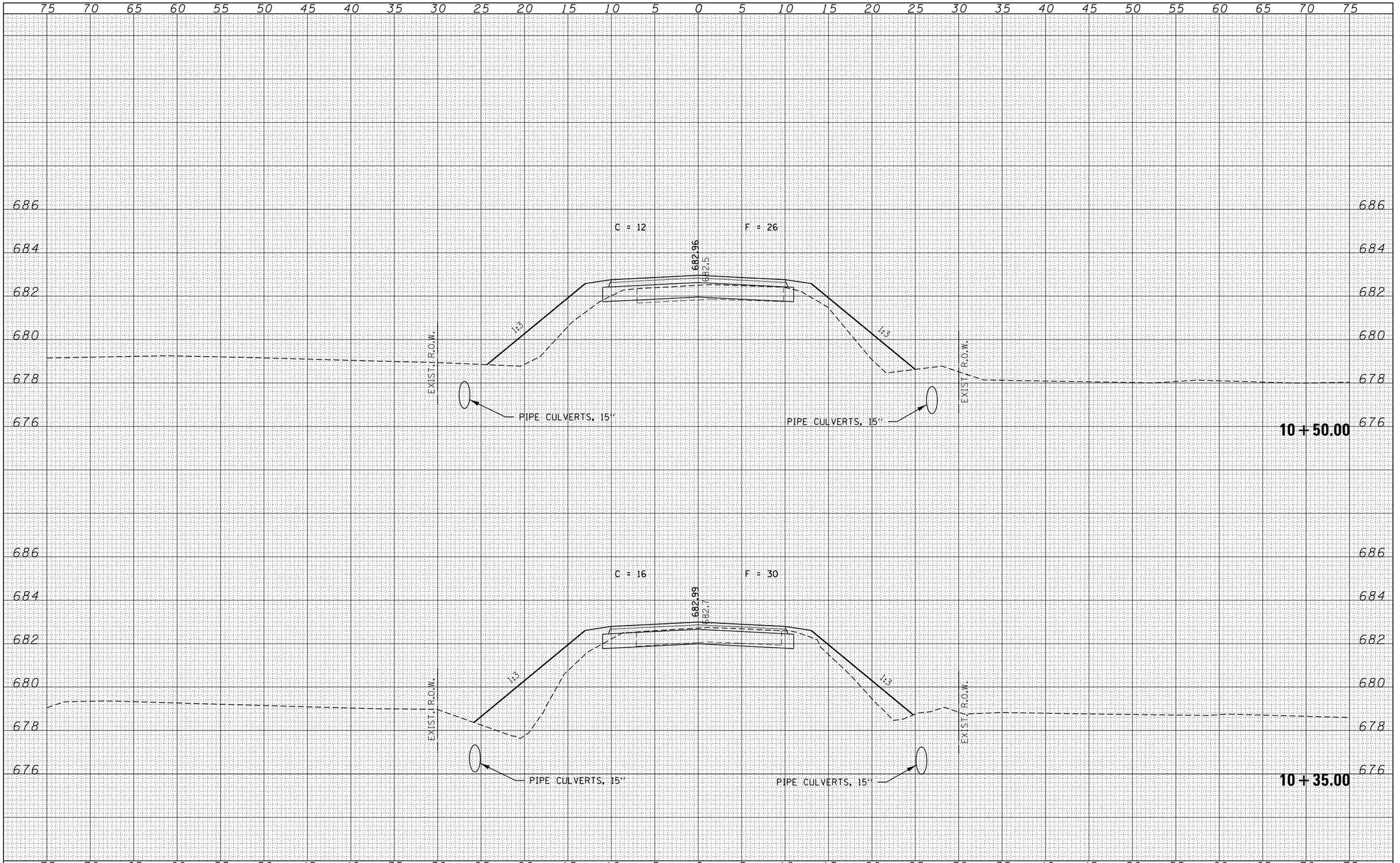
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE



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	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE

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		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

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

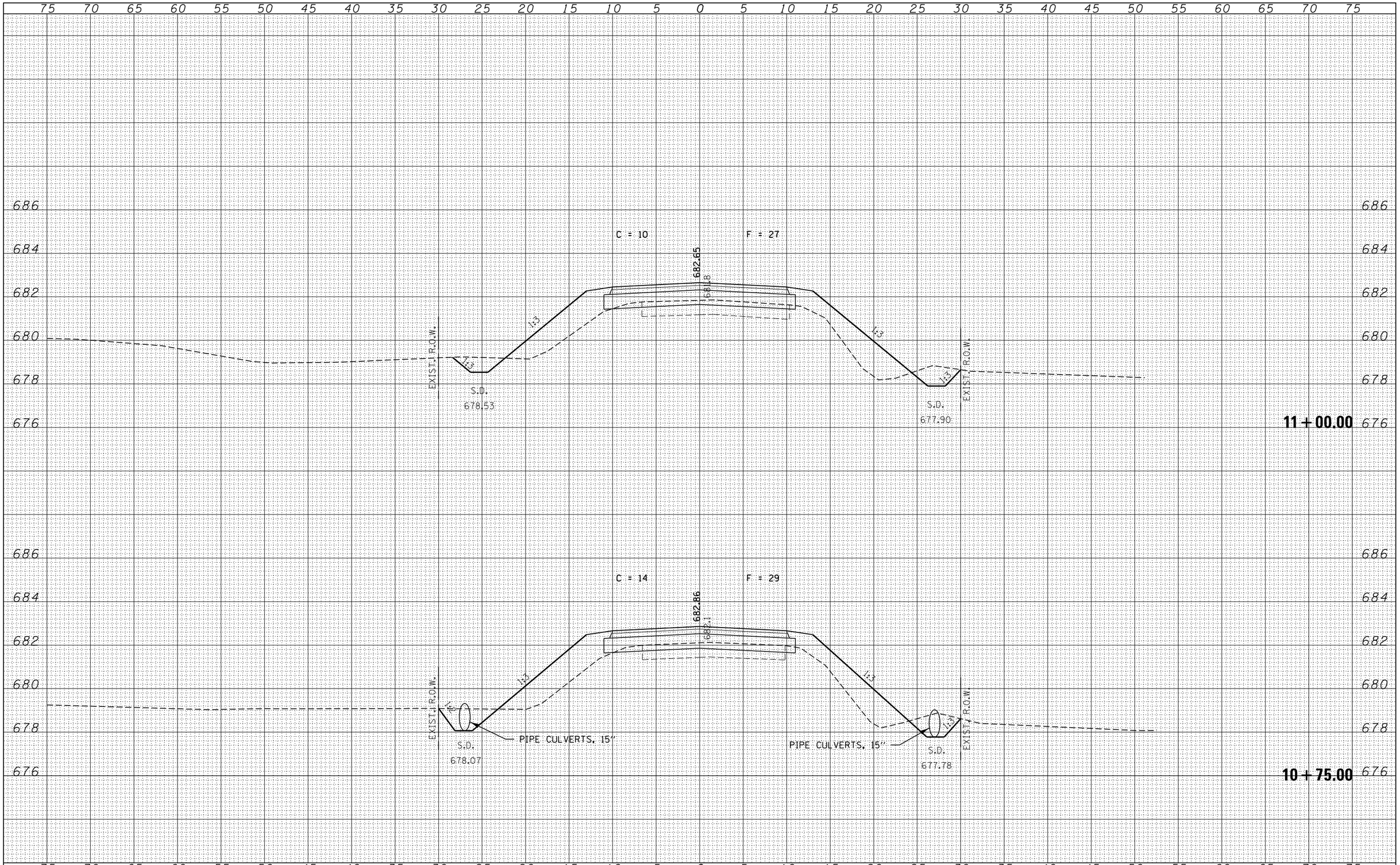
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 6 OF 10 SHEETS | STA. 10+35.00 TO STA. 10+50.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	10
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	ILLINOIS	FED. AID PROJECT BROS-0105(066)		

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



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

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HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - T.W.K.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

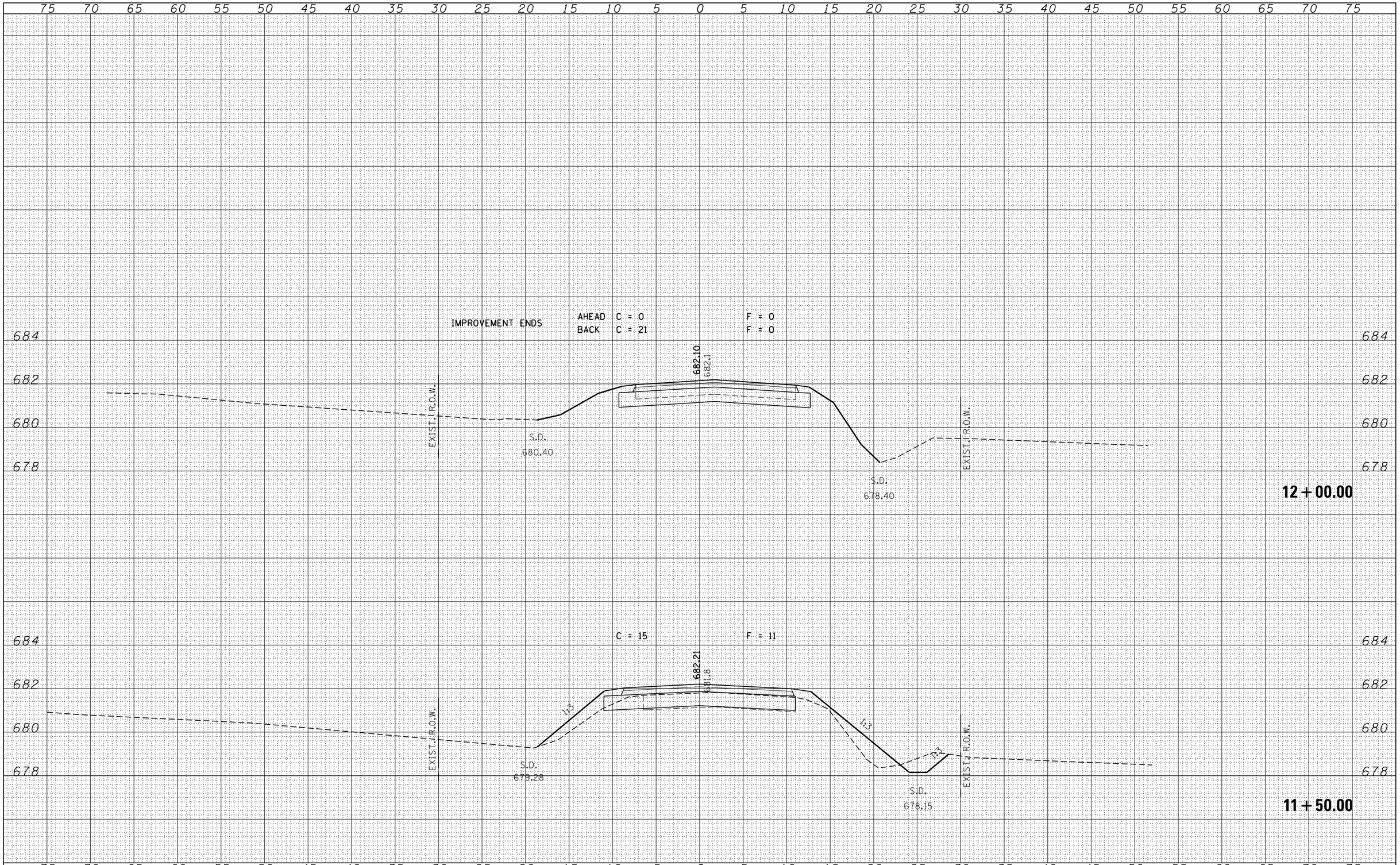
STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 7 OF 10 SHEETS | STA. 10+75.00 TO STA. 11+00.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	11
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

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

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



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HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - T.W.K.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 8 OF 10 SHEETS | STA. 11+50.00 TO STA. 12+00.00

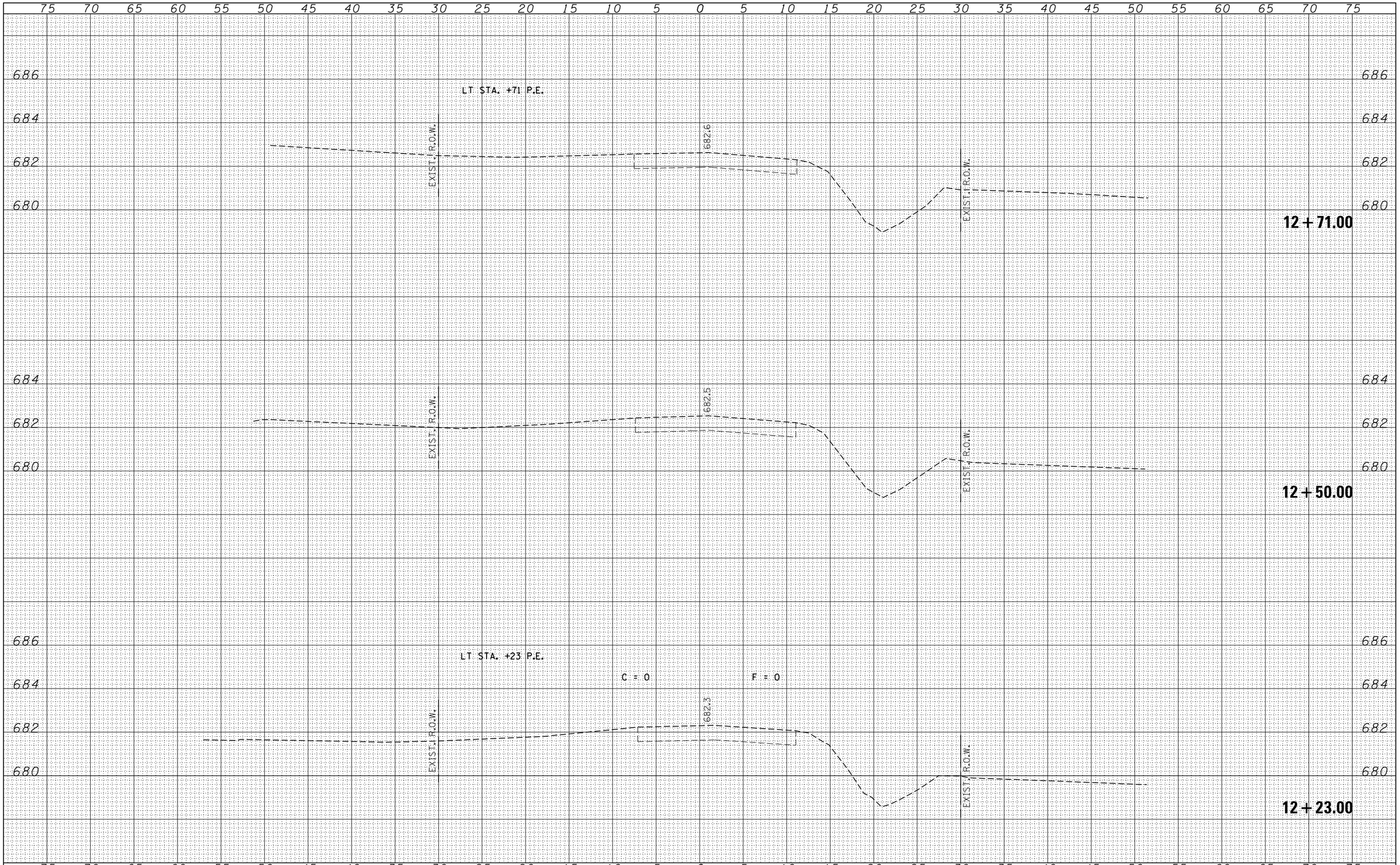
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	12
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

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



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3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 3/16/2017	DATE - 03/16/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

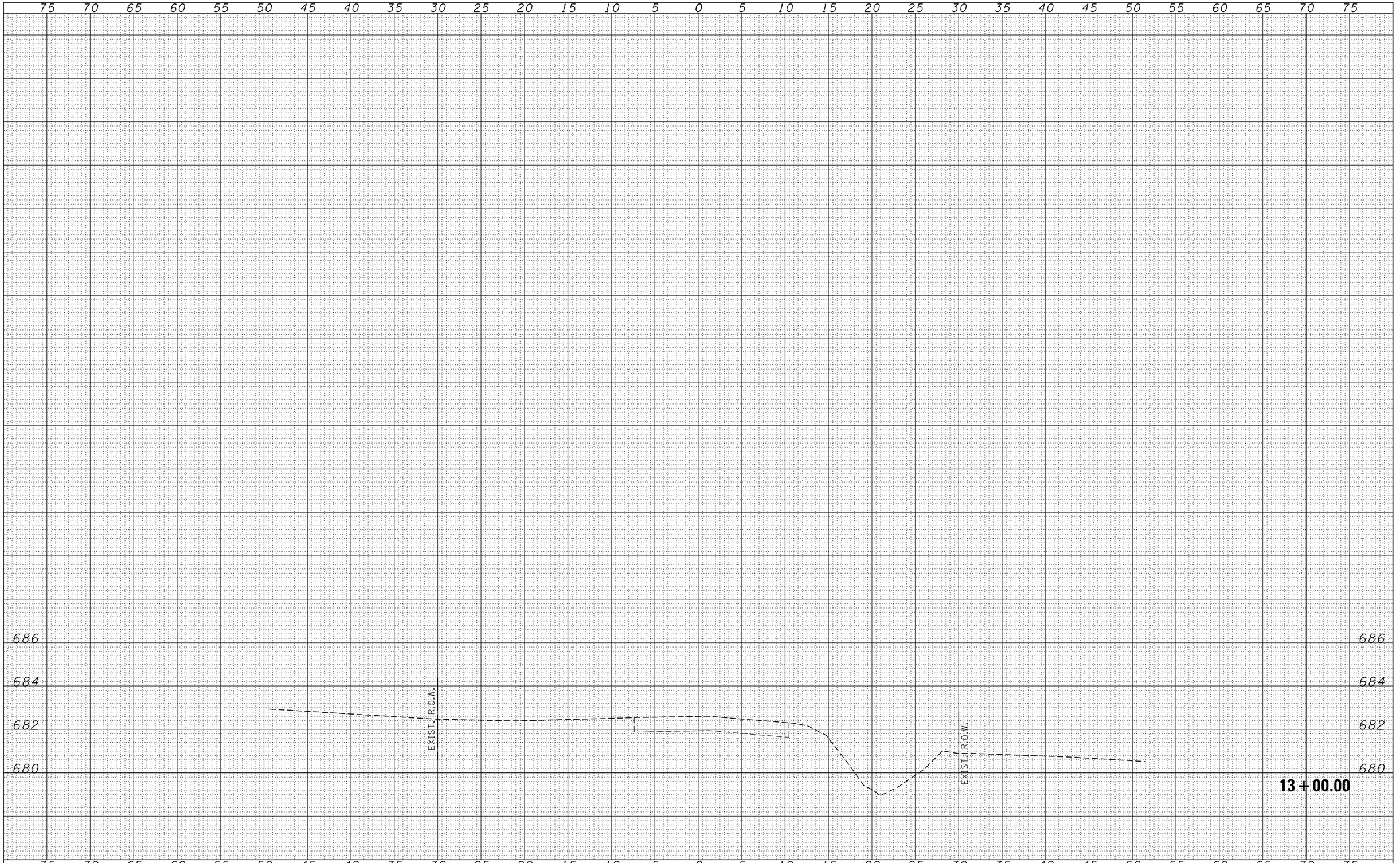
STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 9 OF 10 SHEETS | STA. 12+23.00 TO STA. 12+71.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	13
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

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

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



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	PLOT DATE = 3/16/2017	DATE - 03/16/17	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
DEPARTMENT OF TRANSPORTATION

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 10 OF 10 SHEETS | STA. 13+00.00 | TO STA. 13+00.00

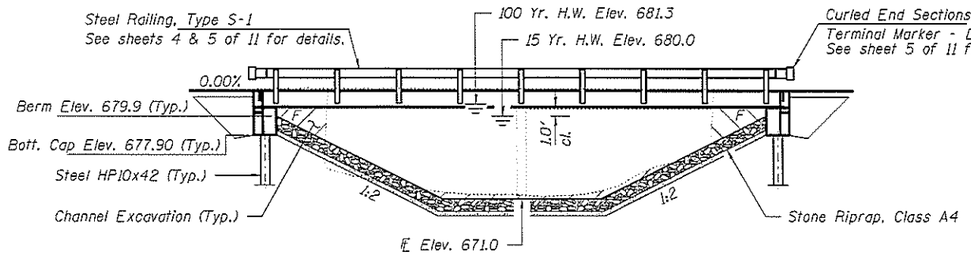
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	14
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			

BENCHMARK: Chiseled "X" on N.E. Curb 12.0' Lt., Sta. 10+23, Elev. 683.32

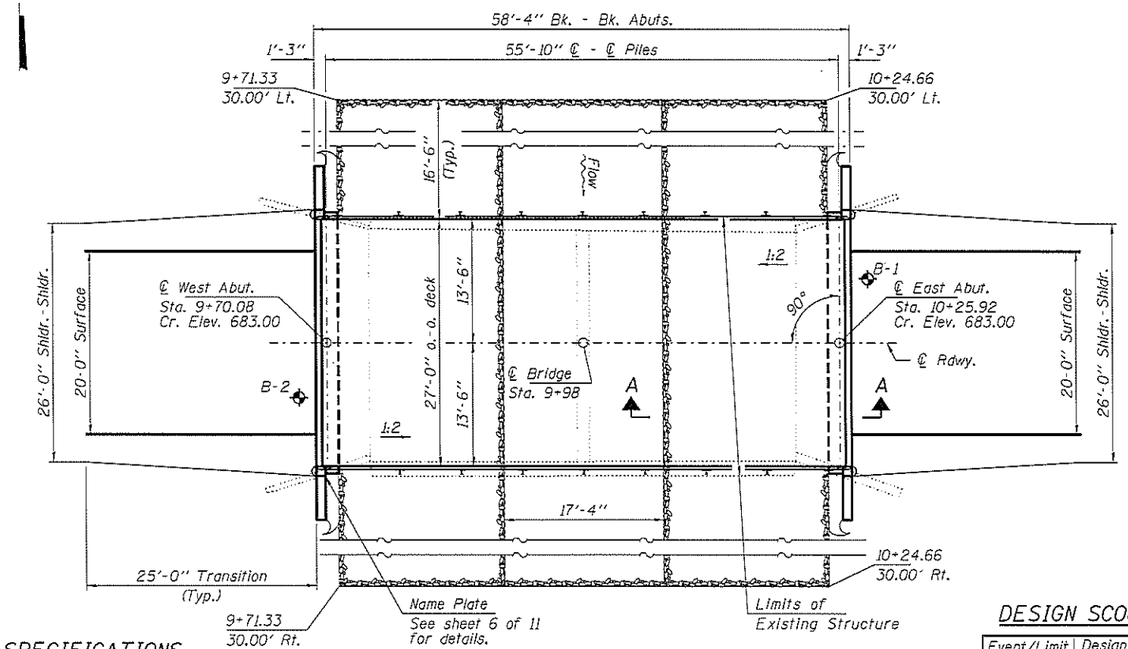
EXISTING STRUCTURE NO. 053-3254: Sta. 10+00 - Two span concrete slab bridge with concrete railing on closed timber abutments and timber pile bent pier. 42.0' f.c.-f.c. abuts; 28.4' o.-o. deck.

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.

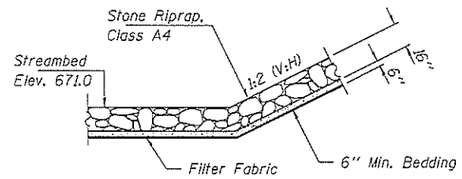
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the East Abutment or approved by the Engineer before ordering the remainder of piles.

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

All bars to be epoxy coated.

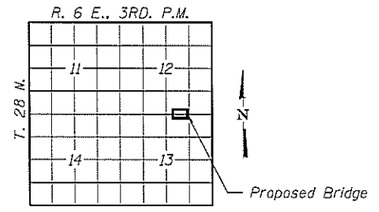
Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.

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.



SECTION A-A

INDEX OF STRUCTURE SHEETS



LOCATION SKETCH

FELKY SLOUGH TRIBUTARY
BUILT 201_ BY
LIVINGSTON COUNTY
SEC. 13-19136-00-BR
OWEGO ROAD DISTRICT
STR. NO. 053-4216
LOADING HL-93

NAME PLATE

See Std. 515001

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with all interims.

LOADING HL-93

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

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 ($\frac{1}{2}$"ϕ low lax. strands)
fpbt = 201,960 psi ($\frac{1}{2}$"ϕ low lax. strands)
fy = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.109g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.177g
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 7.5 Sq. Mi.

Existing Low Grade Elev. 681.8 @ Sta. 11+00
Proposed Low Grade Elev. 682.2 @ Sta. 12+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1360	250	300	679.67	0.32	0.26	679.99	679.93
Design	15	1560	260	320	679.99	0.43	0.33	680.42	680.32
Base (Exist. Overtop)	100	2590	320	370	681.25	1.03	0.61	682.28	681.86
Scour Check	200	2960	330	370	681.52	0.92	1.17	682.44	682.69
Max. Calc. (Prop. Overtop)	500	3500	330	370	681.79	1.14	1.25	682.93	683.04

10 Year Velocity through Existing Bridge = 5.4 fps
10 Year Velocity through Proposed Bridge = 4.5 fps

DESIGN SCOUR ELEVATION TABLE

Event/Limit State	Design Scour Elevations (ft.) W. Abut.	E. Abut.	Item 113
0100	677.4	677.4	8
0200	677.4	677.4	
Design	677.4	677.4	
Check	677.4	677.4	

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. Muggenson 03/16/2017
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064

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

Expires 11-30-2018

TOTAL BILL OF MATERIAL

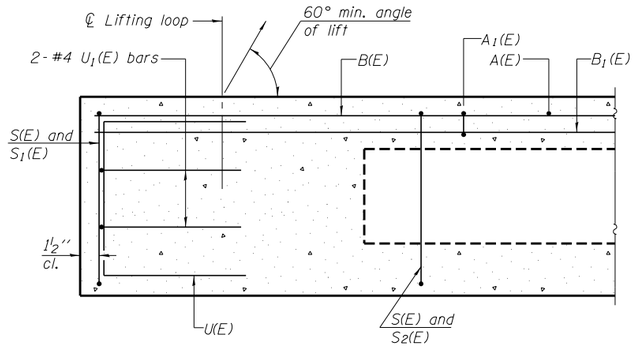
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			125
Stone Riprap, Class A4	Sq. Yd.			385
Filter Fabric	Sq. Yd.			385
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		22.2	22.2
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1.539		1.539
Reinforcement Bars, Epoxy Coated	Pound		2.610	2.610
Steel Railing, Type S-1	Foot	111		111
Furnishing Steel Piles HP10x42	Foot		585	585
Driving Piles	Foot		585	585
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each		1	1
Porous Granular Embankment, Special	Ton		100	100
Pipe Underdrains for Structures 4"	Foot		100	100

FILE NAME = 140181-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED
HAMPTON, LENZINI AND RENWICK, INC. 3247 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS-PE-SE CORP. 184.005958	PLOT SCALE =	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -

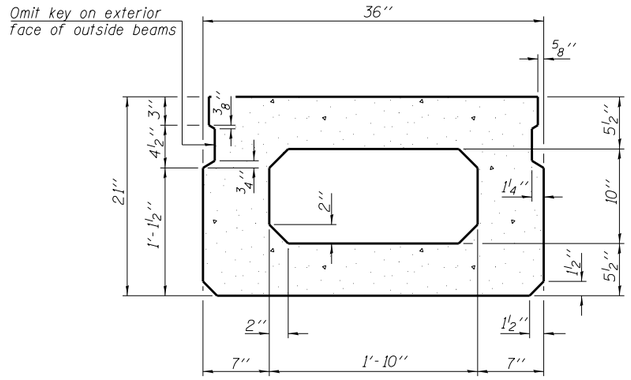
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 053-4216
SHEET NO. 1 OF 11 SHEETS

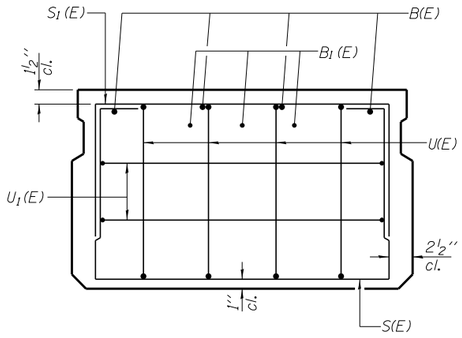
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	15
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BRDS-0105(068)			



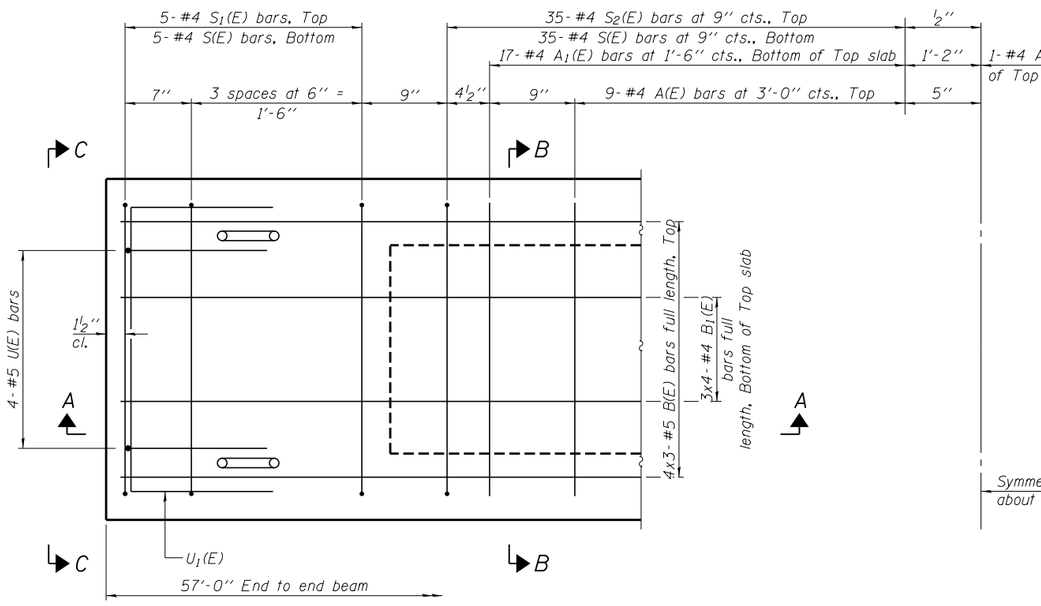
SECTION A-A



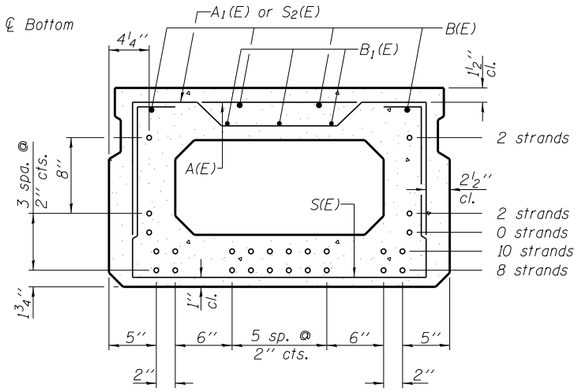
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



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.

Symmetrical about ℄

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	18	#4	2'-7''	—
$A_1(E)$	35	#4	2'-10''	~
B(E)	12	#5	20'-7''	—
$B_1(E)$	12	#4	15'-8''	—
S(E)	80	#4	6'-5''	⊔
$S_1(E)$	10	#4	4'-11''	⊓
$S_2(E)$	70	#4	5'-2''	⊓
U(E)	8	#5	4'-0''	⊏
$U_1(E)$	4	#4	5'-0''	⊓

Note: See sheet 3 of 11 for additional details and Bill of Material.

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

Notes:
Spacing of S(E) and $S_2(E)$ 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 4x3-#5 etc. indicates 4 lines of bars with 3 lengths per line.

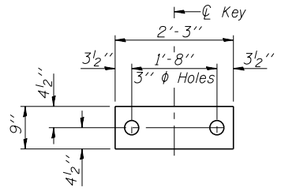
PD-2136-0 06-01-16

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	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 - R.D.H.	REVISED -
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -

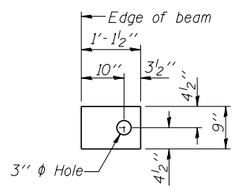
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

21'' x 36'' PPC DECK BEAM
STRUCTURE NO. 053-4216
SHEET NO. 2 OF 11 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	16
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			



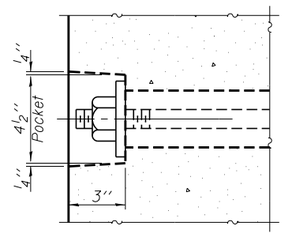
FABRIC BEARING PAD
(Interior - 16 req'd)



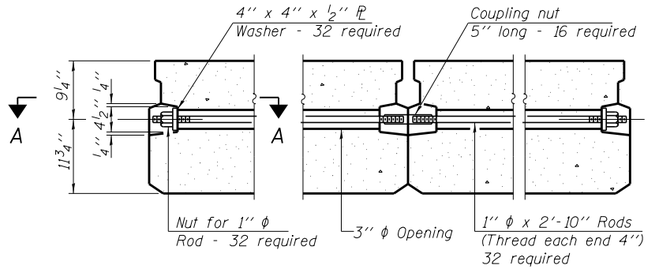
FABRIC BEARING PAD
(Exterior - 4 req'd)

FIXED

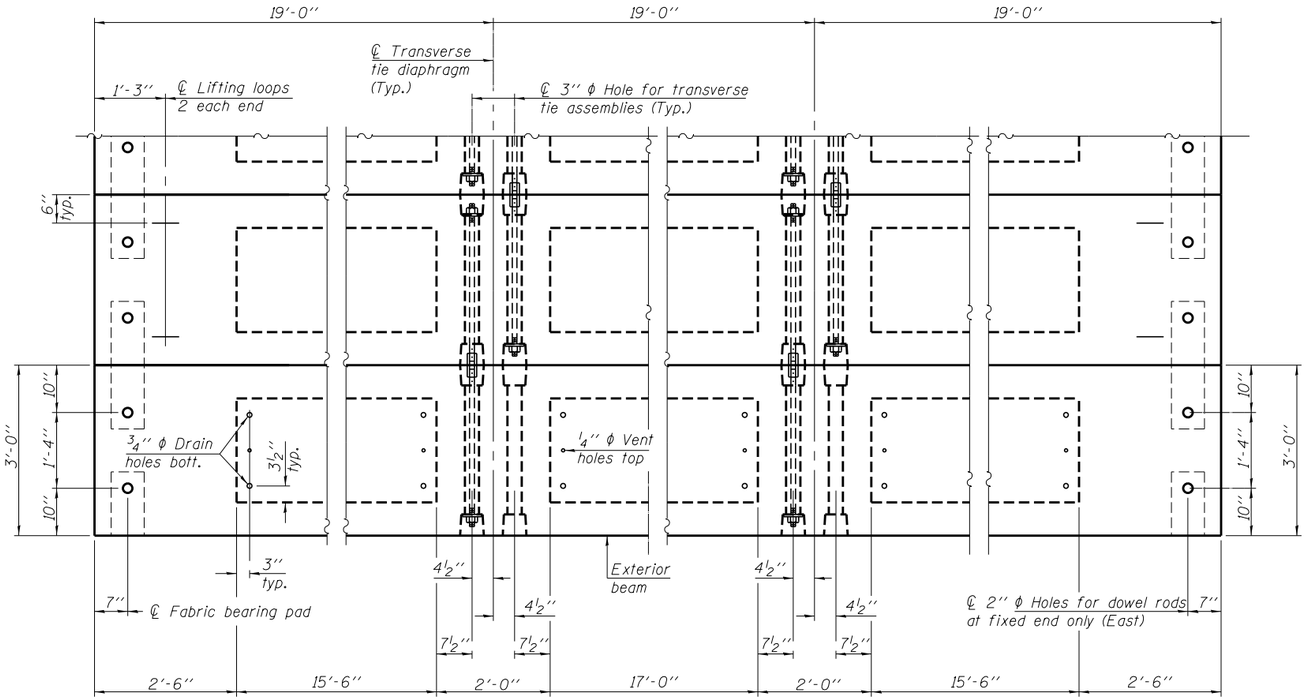
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

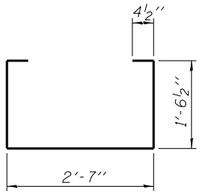


TYPICAL TRANSVERSE TIE ASSEMBLY

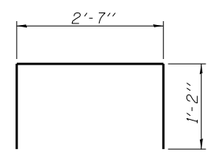


PLAN VIEW

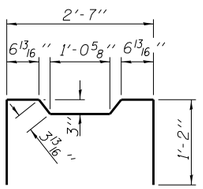
Note: Connect beams in pairs with the transverse tie configuration shown.



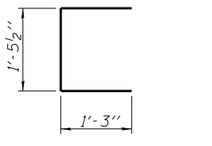
BAR S(E)



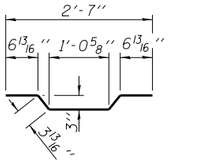
BAR S1(E)



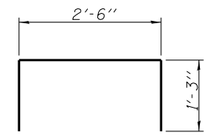
BAR S2(E)



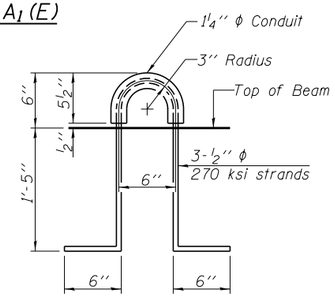
BAR U(E)



BAR A1(E)



BAR U1(E)



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1,539

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" ϕ 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" ϕ 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.

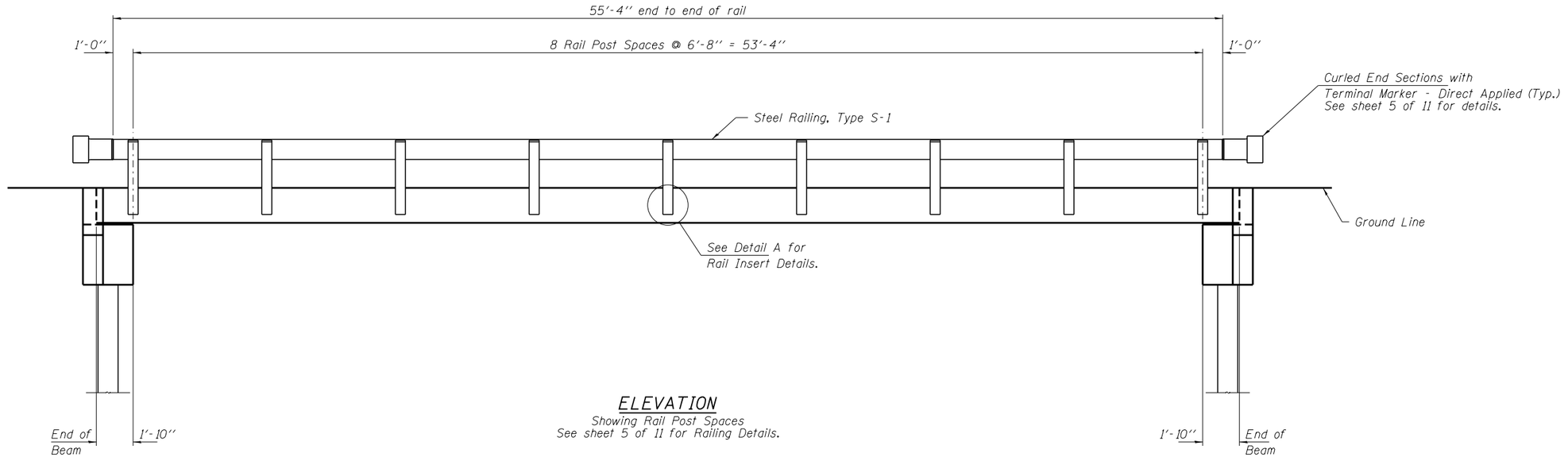
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

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

Reinforcement bars designated (E) shall be epoxy coated.

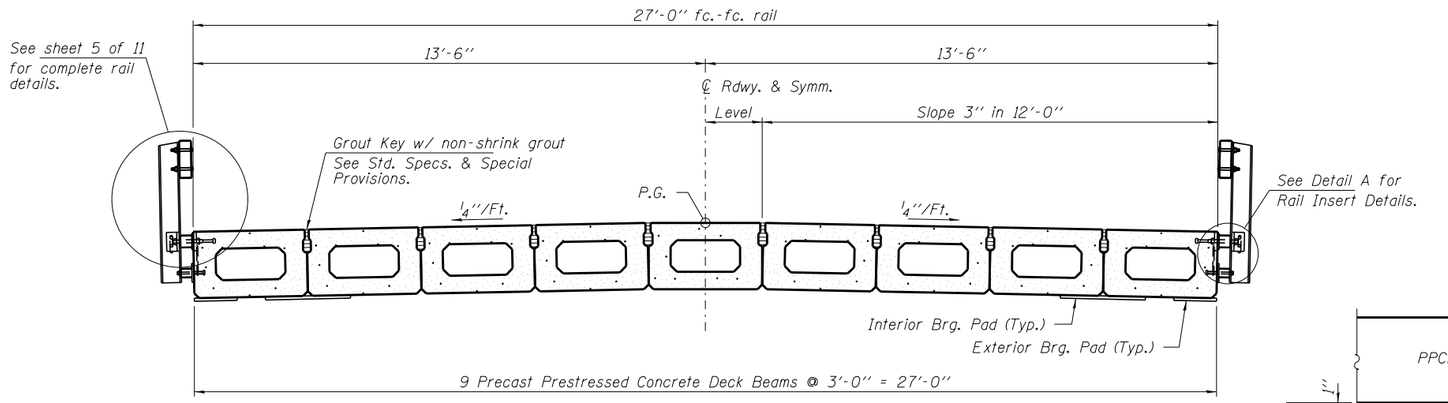
PD-2136-0D 1-28-16

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	21" x 36" PPC DECK BEAM DETAILS STRUCTURE NO. 053-4216	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -			121	13-19136-00-BR	LIVINGSTON	25	17
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - R.D.H.	REVISED -			OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -		SHEET NO. 3 OF 11 SHEETS			ILLINOIS	FED. AID PROJECT BROS-0105(066)	



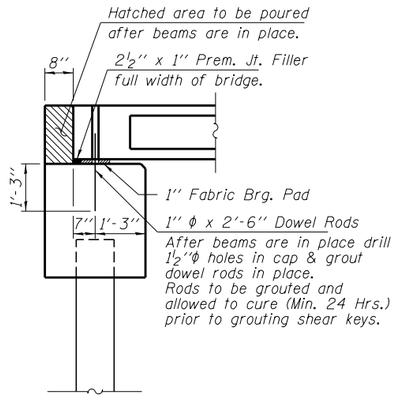
ELEVATION

Showing Rail Post Spaces
See sheet 5 of 11 for Railing Details.



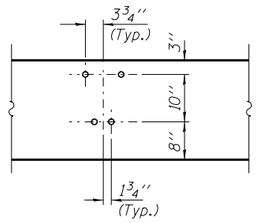
CROSS SECTION

See sheets 2 & 3 of 11 for Superstructure.

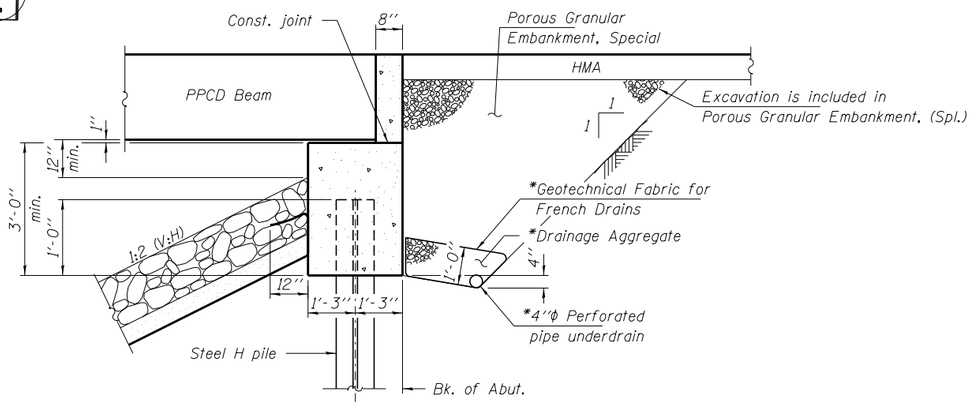


SECTION AT ABUTMENTS

@ Rt. L's



DETAIL A



SECTION THRU ABUTMENT

(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains
for Structures. (See Special Provisions)

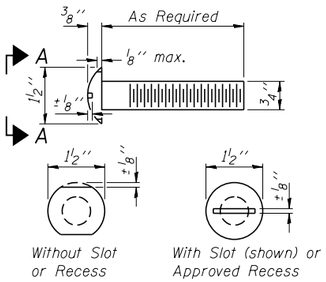
Note:
Outlet pipe underdrains to the South only as directed by the Engineer.

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	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 - R.D.H.	REVISED -
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -

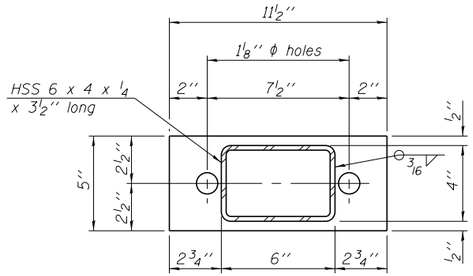
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 053-4216
SHEET NO. 4 OF 11 SHEETS

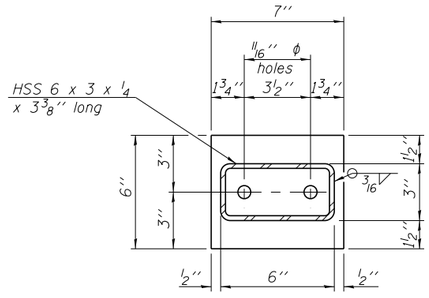
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	18
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
ILLINOIS	FED. AID PROJECT BROS-0105(066)			



VIEW A-A
ROUND HEAD BOLT

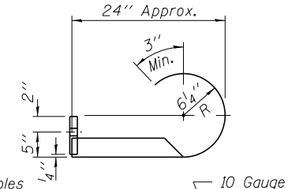


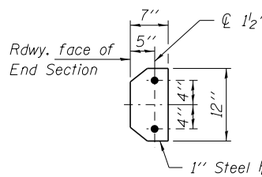
PL 1/2" x 11 1/2" x 5"

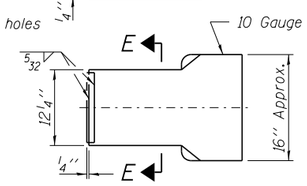


PL 1/2" x 7" x 6"

Note: Cost of curled end sections shall be included with the Steel Railing. (4 Required)

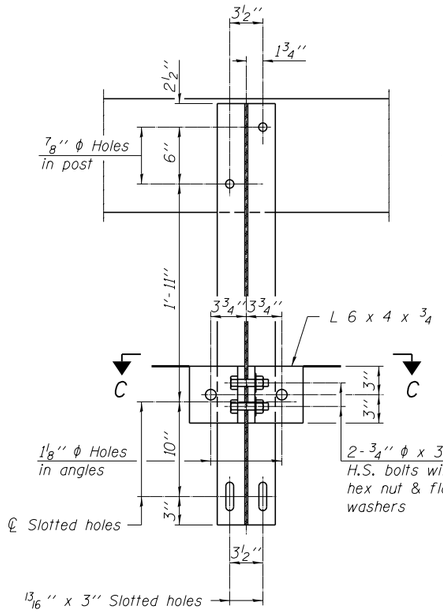




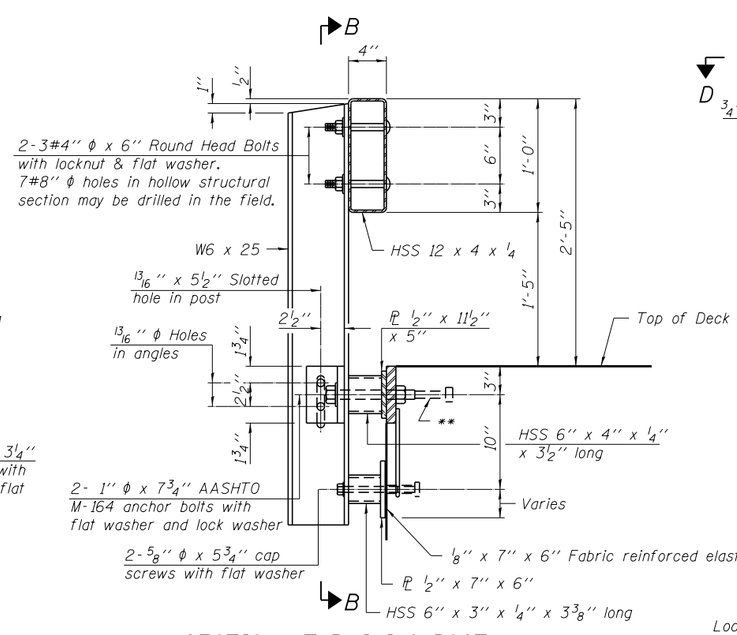


SECTION E-E

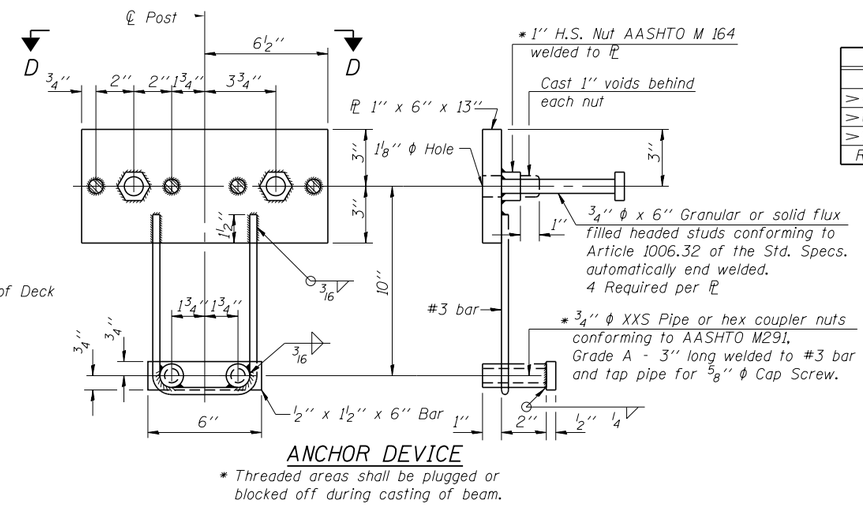
CURLED END SECTION DETAILS



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"	——

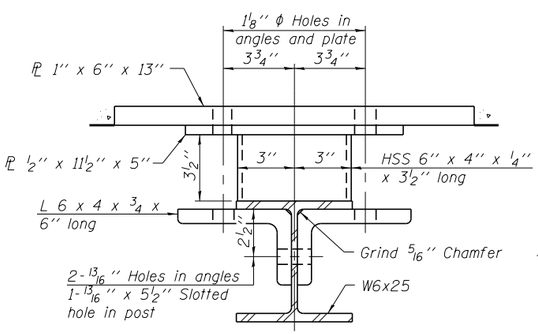
T = Total movement at expansion joint as shown on the design plans.

Notes:

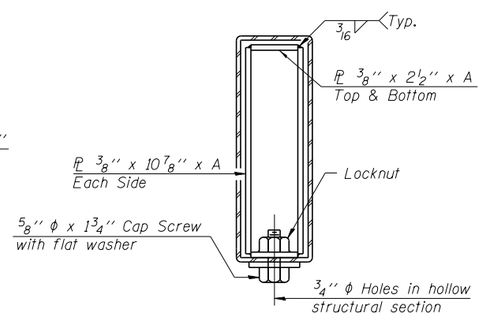
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.

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

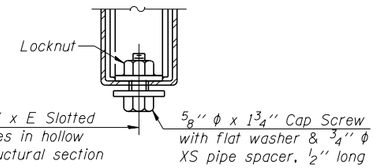
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



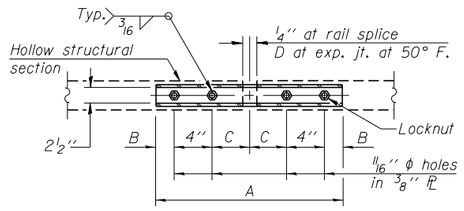
SECTION C-C



SECTIONS AT RAIL SPLICE

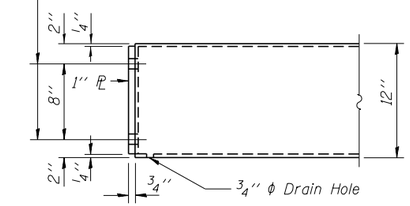


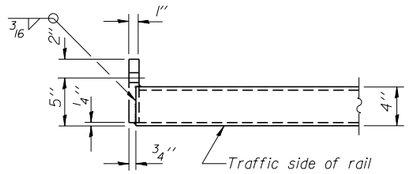
RAIL SPLICE CONNECTION AT EXPANSION JT.



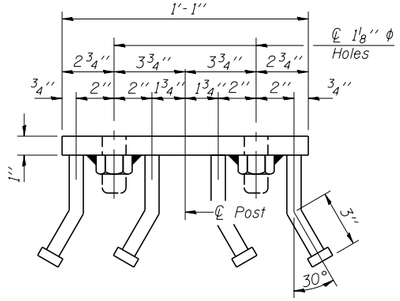
PLAN-BOTT. SPLICE PL TYPICAL

1 1/8" ϕ Holes for 1" ϕ 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	111

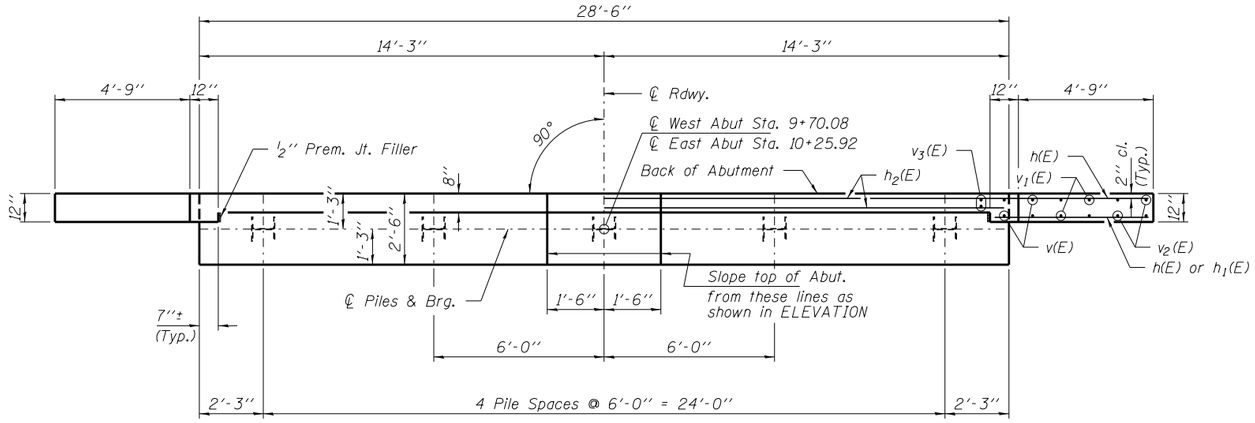
R-23A 11-22-16 (10'-9" Maximum Post Spacing)

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	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 - R.D.H.	REVISED -
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -

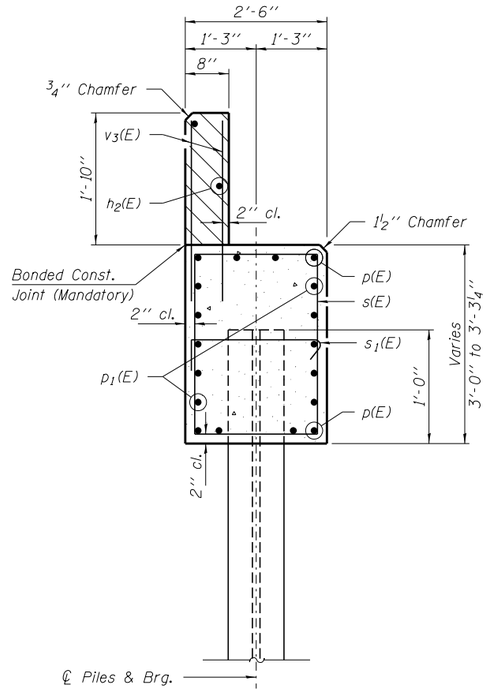
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE S-1
STRUCTURE NO. 053-4216
SHEET NO. 5 OF 11 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	19
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
		ILLINOIS FED. AID PROJECT BROS-0105(066)		

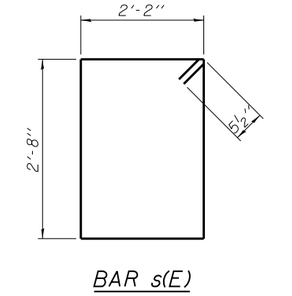


PLAN

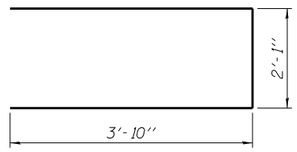


SECTION A-A

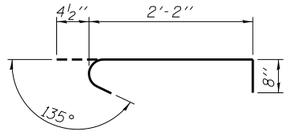
Hatched area to be poured after beams are in place.



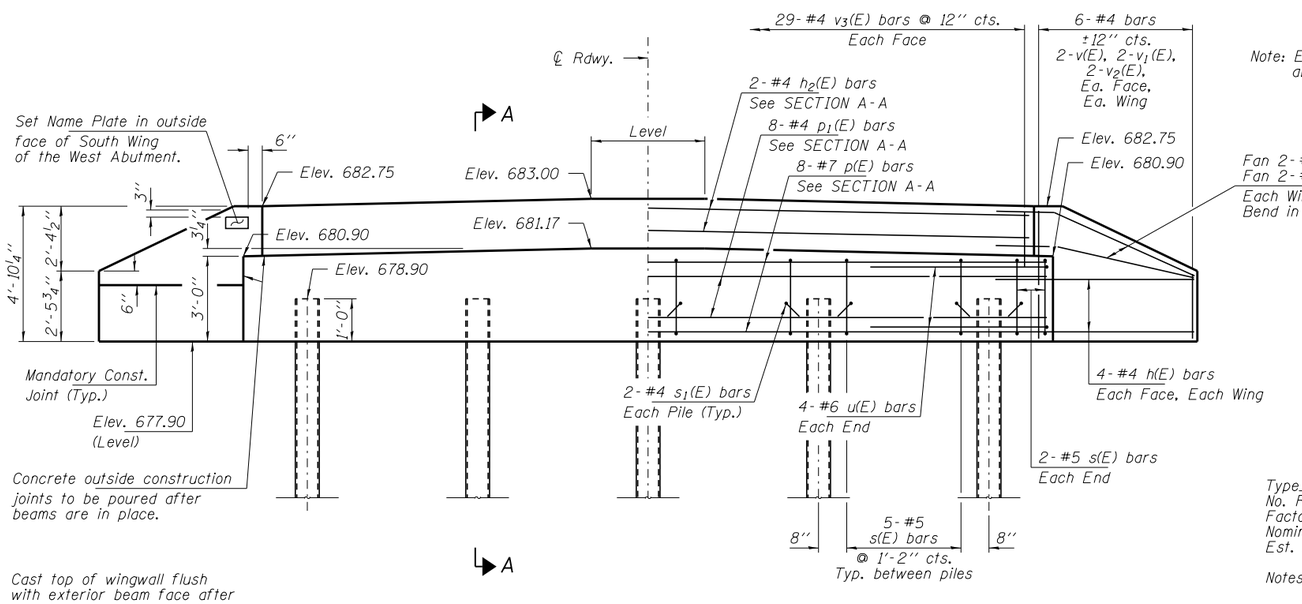
BAR s(E)



BAR u(E)



BAR s1(E)



ELEVATION

Note: Extend h(E) bars into abutment cap.

PILE DATA

Type _____ Steel HP10x42
No. Req'd. (2. Abuts.) _____ *10
Factored Resistance Available ___ 136 Kips/Pile
Nominal Req'd Bearing _____ 247 Kips/Pile
Est. Length _____ 65 Ft/Pile

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

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

BILL OF MATERIAL - 2 ABUTS.

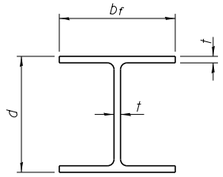
BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	40	#4	7'-0"	
h_1(E)	8	#4	5'-6"	
h_2(E)	4	#4	28'-2"	
p(E)	16	#7	28'-2"	
p_1(E)	16	#4	28'-2"	
s(E)	48	#5	10'-7"	
s_1(E)	20	#4	3'-3"	
u(E)	16	#6	9'-9"	
v(E)	16	#4	4'-4"	
v_1(E)	16	#4	3'-3"	
v_2(E)	16	#4	2'-2"	
v_3(E)	116	#4	2'-8"	
Concrete Structures			Cu. Yd.	22.2
Reinforcement Bars, Epoxy Coated			Pound	2,610
Steel Piles HP10x42			Foot	585
Test Pile Steel HP10x42			Each	1
Name Plates			Each	1

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	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 - R.D.H.	REVISED -
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

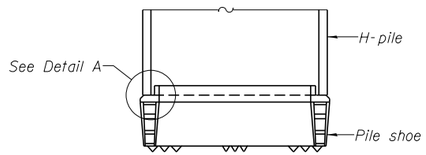
ABUTMENTS
STRUCTURE NO. 053-4216
SHEET NO. 6 OF 11 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	13-19136-00-BR	LIVINGSTON	25	20
OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	ILLINOIS FED. AID PROJECT BROS-0105(066)			

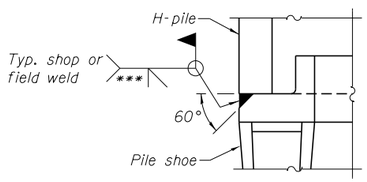


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

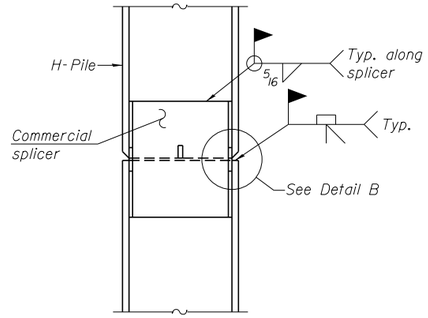


ELEVATION

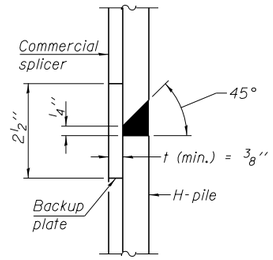


DETAIL A

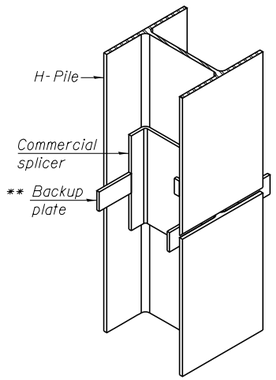
H-PILE SHOE ATTACHMENT



ELEVATION

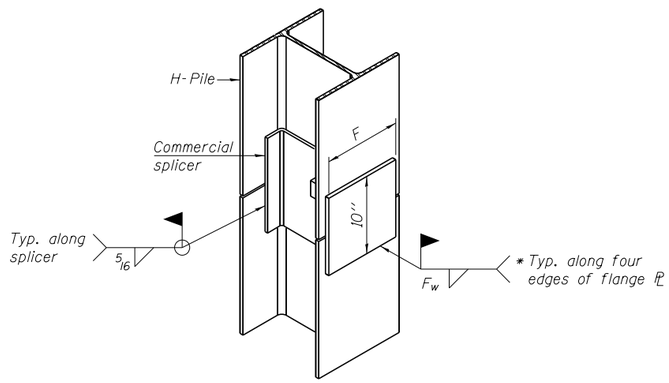


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



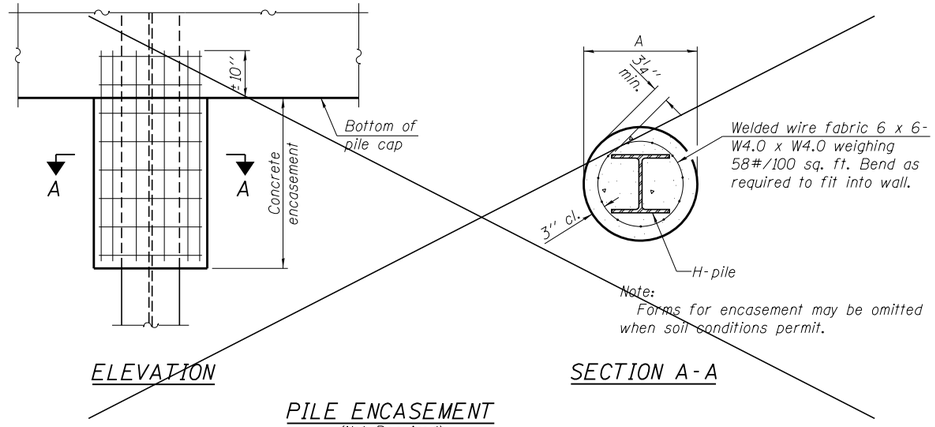
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds 1/4" from end of web and/or each flange.

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

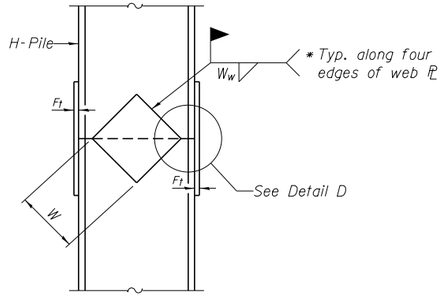
*** Weld size per pile shoe manufacturer (5/16" min.).



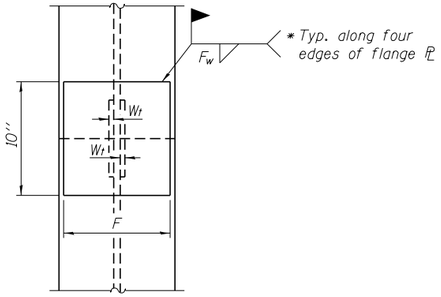
ELEVATION

SECTION A-A

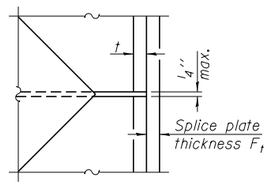
PILE ENCASEMENT
(Not Required)



ELEVATION



END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

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

F-HP 1-27-12

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NO. 053-4216	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -			121	13-19136-00-BR	LIVINGSTON	25	21
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - R.D.H.	REVISED -			OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -		SHEET NO. 7 OF 11 SHEETS			ILLINOIS	FED. AID PROJECT BROS-0105(066)	

Midwest Testing Services, Inc.
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BORING LOG

Sheet 1 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-1
Surface Elev. 99.60 (682.6)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' East of Center of Bridge
7' North of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV. 99.60	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES: Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
98.60	Asphalt over Aggregate		1								
	(681.6)										
97.60	Medium Stiff		2								
96.60	Browm/Black Silty Clay (Fill)		3	1	SS	0.8	7	B	27		
	(678.6)										
95.60			4								
94.60			5								
93.60	Medium Stiff Black/Brown/Gray Silty Clay		6	2	SS	0.8	6	B	26		
92.60			7								
91.60			8	3	SS	1.0	7	B	24		
	(673.6)										
90.60			9								
89.60	Medium Stiff to Stiff		10								
88.60	Brown/Gray Silty Clay		11	4	SS	1.4	7	B	25		
87.60			12								Water
	(669.6)										
86.60			13	5	SS	---	12	---	9		
85.60			14								
84.60	Medium Dense Gray Coarse Gravel		15								
83.60			16	6	SS	---	28	---	8		
82.60			17								
81.60			18	7	SS	---	27	---	8		
	(663.6)										
80.60			19								
79.60	Medium Dense Gray Coarse Gravel with Clay		20								
				8	SS	---	25	---	22		

Groundwater Data: Static water level after auger removal - 12' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

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BORING LOG

Sheet 2 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-1
Surface Elev. 99.60 (682.6)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' East of Center of Bridge
7' North of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV. 78.60	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES: Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
77.60			22								
76.60			23	9	SS	---	34	---	9		
75.60	Dense Gray Coarse Gravel and Cobbles mixed with Clay		24								
74.60			25								
73.60			26	10	SS	---	50	---	10		
72.60			27								
71.60			28								
	(654.6)										
70.60			29								
69.60			30								
68.60			31	11	SS	2.0	11	B	26		
67.60	Stiff Gray Clay Till		32								
66.60			33								
65.60			34								
64.60			35								
63.60			36	12	SS	1.6	8	B	20		
62.60			37								
	(645.6)										
61.60			38								
60.60	Medium Stiff Gray Silty Clay Loam Till		39								
59.60			40								
58.60			41	13	SS	0.8	8	B	17		

Groundwater Data: Static water level after auger removal - 12' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

BORING-1

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BORINGS STRUCTURE NO. 053-4216	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -			121	13-19136-00-BR	LIVINGSTON	25	22
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - R.D.H.	REVISED -		SHEET NO. 8 OF 11 SHEETS	OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -			ILLINOIS	FED. AID PROJECT BROS-0105(066)			

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BORING LOG

Sheet 3 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-1
Surface Elev. 99.60 (682.6)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' East of Center of Bridge
7' North of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
57.60											
56.60			43								
55.60			44								
54.60			45	14	SS	2.5	14	B	18		
53.60			46								
52.60			47								
51.60			48								
50.60			49								
49.60	Very Stiff Gray Silty Clay Till		50	15	SS	2.7	15	B	17		
48.60			51								
47.60			52								
46.60			53								
45.60			54								
44.60			55								
43.60			56	16	SS	3.2	28	B	16		
42.60			57								
41.60			58								
40.60			59								
39.60			60								
38.60			61	17	SS	3.5	33	B	15		
37.60			62								

Groundwater Data: Static water level after auger removal - 12' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

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BORING LOG

Sheet 4 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-1
Surface Elev. 99.60 (682.6)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' East of Center of Bridge
7' North of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
36.60											
35.60			64								
34.60			65	18	SS	3.3	30	B	16		
33.60	Very Stiff Gray Silty Clay Till		66								
32.60			67								
31.60			68								
30.60			69								
29.60			70								
28.60	(611.6) Boring Terminated		71	19	SS	3.0	26	B	17		
27.60			72								
26.60			73								
25.60			74								
24.60			75								
23.60			76								
22.60			77								
21.60			78								
20.60			79								
19.60			80								
18.60			81								
17.60			82								
16.60			83								

Groundwater Data: Static water level after auger removal - 12' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

BORING-1

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BORING LOG

Sheet 1 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-2
Surface Elev. 99.80 (682.8)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' West of Center of Bridge
6' South of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Depth in feet	Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
99.80	Asphalt over Aggregate									
(681.8)										
98.80		1								
97.80		2								
96.80		3	1	SS	---	12	---	26		
95.80		4								
94.80		5	2	SS	---	14	---	25		
93.80		6								
92.80	Medium Stiff	7								
91.80	Black/Brown Silty Clay	8	3	SS	---	12	---	27		
90.80	with Gravel, Wood and Concrete	9								
89.80	(Fill)	10								
88.80		11	4	SS	---	8	---	24		Water
87.80		12								
86.80		13	5	SS	---	8	---	20		
(668.8)										
85.80		14								
84.80		15	6	SS		26		9		
83.80	Medium Dense	16								
82.80	Gray Coarse Gravel	17								
81.80		18	7	SS		26		9		
(663.8)										
80.80		19								
79.80	Medium Dense	20								
	Gray Coarse Gravel with Clay		8	SS		23		23		

Groundwater Data: Static water level after auger removal - 11' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

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BORING LOG

Sheet 2 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-2
Surface Elev. 99.80 (682.8)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' West of Center of Bridge
6' South of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Depth in feet	Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
78.80		22								
77.80		23	9	SS		30		12		
76.80	Dense	24								
75.80	Gray Coarse Gravel and Cobbles	25	10	SS		43		12		
74.80	mixed with Clay	26								
73.80		27								
(655.8)										
72.80		28								
71.80		29								
70.80		30	11	SS	2.0	11	B	26		
69.80		31								
68.80	Stiff	32								
67.80	Gray Clay Till	33								
66.80		34								
65.80		35								
64.80		36	12	SS	1.8	8	B	22		
63.80		37								
(646.3)										
62.80		38								
61.80		39								
60.80	Medium Stiff	40								
59.80	Gray Silty Clay Loam Till	41	13	SS	0.8	7	B	18		
58.80										

Groundwater Data: Static water level after auger removal - 11' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

BORING-2

FILE NAME = 140161-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**BORINGS STRUCTURE NO. 053-4216**	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -			121	13-19136-00-BR	LIVINGSTON	25	24
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - R.D.H.	REVISED -			OWEGO ROAD DISTRICT		CONTRACT NO. 87674		
	PLOT DATE = 3/16/2017	CHECKED - S.W.M.	REVISED -		SHEET NO. 10 OF 11 SHEETS			ILLINOIS	FED. AID PROJECT BROS-0105(066)	

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BORING LOG

Sheet 3 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-2
Surface Elev. 99.80 (682.8)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' West of Center of Bridge
6' South of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
57.80											
56.80			43								
55.80			44								
54.80			45	14	SS	2.5	12	B	19		
53.80			46								
52.80			47								
51.80	Stiff to Very Stiff		48								
50.80	Gray Silty Clay Till		49								
49.80			50	15	SS	3.0	15	B	17		
48.80			51								
47.80			52								
46.80			53								
45.80			54								
44.80			55	16	SS	3.3	22	B	17		
43.80			56								
42.80			57								
41.80			58								
40.80			59								
39.80			60								
38.80			61	17	SS	3.4	30	B	16		
37.80			62								

Groundwater Data: Static water level after auger removal - 11' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

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BORING LOG

Sheet 4 of 4

Client: Hampton, Lenzini & Renwick, Inc.
Project Name: Owego Township Section No.: 13-19136-00-BR
Project Site: Livingston County, IL

Boring No. B-2
Surface Elev. 99.80 (682.8)
Auger Depth 71' Rotary Depth NA
Start Date 07/05/14 Finish Date 07/05/14

Location: 31' West of Center of Bridge
6' South of Centerline of Roadway

DRILLED BY: Randy Safranski
Diedrich D-120

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
36.80											
35.80			64								
34.80			65	18	SS	3.4	29	B	16		
33.80	Very Stiff		66								
32.80	Gray Silty Clay Till		67								
31.80			68								
30.80			69								
29.80			70								
28.80 (611.8)	Boring Terminated		71	19	SS	3.0	26	B	18		
27.80			72								
26.80			73								
25.80			74								
24.80			75								
23.80			76								
22.80			77								
21.80			78								
20.80			79								
19.80			80								
18.80			81								
17.80			82								
16.80			83								

Groundwater Data: Static water level after auger removal - 11' Depth.
Comments: *Assumed Center of Bridge to be Elevation 100.0* (683.6 U.S.G.S.)

BORING-2