ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 351	08-00145 -05-BR	LIVINGSTON	29	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 87494	

06-15-12 LETTING ITEM 172

INDEX OF SHEETS

HIGHWAY STANDARDS:

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
601101-01	CONCRETE HEADWAL FOR PIPE DRAIN
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC / HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-07	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701901-02	TRAFFIC CONTROL DEVICES
780001-03	TYPICAL PAVEMENT MARKINGS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION OF RURAL LOCAL HIGHWAYS
BLR 23-4	TRAFFIC BARRIER TERMINAL TYPE 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED HIGHWAY BRIDGE PROGRAM

PROJECT BRS-0351(108)
SECTION 08-00145-05-BR
LIVINGSTON COUNTY
C.H. 6 / 7th STREET OVER INDIAN CREEK
PROPOSED STRUCTURE NO. 053-3457
C-93-133-11

LOCATION OF SECTION INDICATED THUS:- ■

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
DESIGN SPEED: 40 MPH
DESIGN TRAFFIC: 2600 ADT

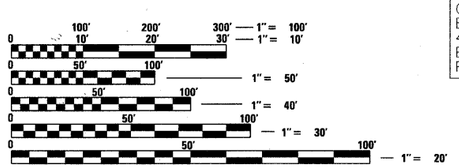
UTILITIES

AMEREN ILLINOIS
1205 EAST PELLS STREET
PAXTON, IL 60957
ATTN: BRUCE KALLAL
217-379-5441

NICOR GAS
1844 FERRY ROAD
NAPERVILLE, IL 60563
ATTN: CONNIE LANE
630-388-3830

CITY OF FAIRBURY
PO BOX 228
FAIRBURY, IL 61739
ATTN: LEROY MCPHERSON
815-692-2743

FRONTIER COMMUNICATIONS
104 MULBERRY STREET
NORMAL, ILLINOIS 61761

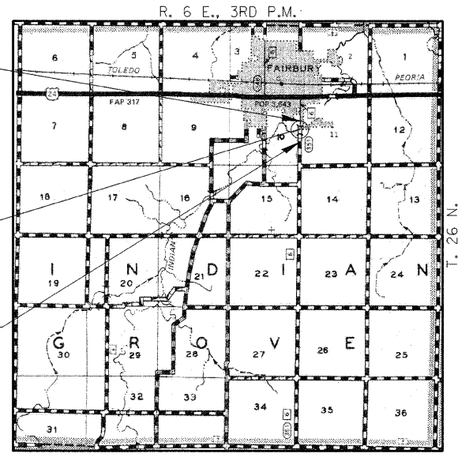


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

IMPROVEMENT ENDS STATION 516+00

STA. 513+25
CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE. 5 SPANS: 32'-0", 40'-0", 40'-0", 40'-0", 32'-0"; 32'-0" RDWY; SKEW = 20°
EXISTING STRUCTURE NO. 053-3415
PROPOSED STRUCTURE NO. 053-3457

IMPROVEMENT BEGINS STATION 510+66



LOCATION MAP

APPROXIMATE SCALE: 0 ——— 1 MILE

NET LENGTH OF SECTION = 534 FEET = 0.101 MILES

WARNING

CALL JULIE TOLL FREE 1-800-892-0123

CALL 811 BEFORE YOU DIG

JULIE #A2460154

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED 02-17 20 12
COUNTY ENGINEER

PASSED 2-28 20 12
DISTRICT THREE IMPLEMENTATION ENGINEER

Releasing For Bid Based on Limited Review 2-28 20 12
DEPUTY DIRECTOR OF HIGHWAYS
REGION TWO ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE: 2/13/2012

PROFESSIONAL ENGINEER JOSEPH W. FRAZEE 062-54470 STATE OF ILLINOIS

EXPIRES: 11/30/2013

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: 10.0191.130 DATE: 02/13/12

CONTRACT NO. 87494

SUMMARY OF QUANTITIES

CODE NO.	ITEM	CONSTRUCTION CODE 0011 UNIT	TOTAL QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.03
20101000	TEMPORARY FENCE	FOOT	50
20200100	EARTH EXCAVATION	CU YD	281
20300100	CHANNEL EXCAVATION	CU YD	880
28100107	STONE RIPRAP, CLASS A4	SQ YD	975
28200200	FILTER FABRIC	SQ YD	975
35101400	AGGREGATE BASE COURSE, TYPE B	TON	190
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	98
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	48
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	18
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	42
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	74
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	353
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	75.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	401.5
50300260	BRIDGE DECK GROOVING	SQ YD	822
50300280	CONCRETE ENCASEMENT	CU YD	36.2
50300300	PROTECTIVE COAT	SQ YD	939
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	124310
50800515	BAR SPLICERS	EACH	64
* 50901050	STEEL RAILING, TYPE SM	FOOT	432
51201600	FURNISHING STEEL PILES HP12X53	FOOT	825
51202305	DRIVING PILES	FOOT	225
51203600	TEST PILE STEEL HP12X53	EACH	1
51500100	NAME PLATES	EACH	1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	27
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	37.5
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3
63200310	GUARDRAIL REMOVAL	FOOT	304
67100100	MOBILIZATION	L SUM	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	788
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	12
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4

^ SEE SPECIAL PROVISIONS

SUMMARY OF QUANTITIES

CODE NO.	ITEM	CONSTRUCTION CODE 0011 UNIT	TOTAL QUANTITY
^ Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	106
^ Z0065000	SETTING PILES IN ROCK	EACH	20
* ^ LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	1
^ X2070302	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	113
^ X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.22

^ SEE SPECIAL PROVISIONS

*SPECIALTY ITEMS

FAS 351/CH6 CENTERLINE				
DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
POT	507+31.36	0	81997.4554	36244.9437
POT	510+00.02	0.17'LT	82266.0820	36240.8140
POT	513+00.00	0.09'LT	82566.0270	36236.4690
POT	516+00.23	1.03'LT	82866.2200	36231.1010
POT	518+60.75	0	83126.7182	36228.2937

GENERAL NOTES

1. CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2012", (HEREIN AFTER REFERRED TO AS THE STANDARD SPECIFICATIONS; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2012; 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. CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

3. THE LOCATIONS 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.

4. 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.

5. ANY REFERENCE TO A STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO MEAN THE LATEST STANDARD OF THE DEPARTMENT.

6. ALL DISTURBED TURF AREAS SHALL BE STABILIZED WITH SEED ACCORDING TO THE STANDARD SPECIFICATIONS, SECTION 250
ESTIMATED QUANTITY = 0.22 ACRES

7. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES

AGGREGATE BASE COURSE	2.05 TON/CU.YD.
STONE RIPRAP, CLASS A4	1.75 TON/CU.YD.
HMA SURFACE COURSE	112 LBS/INCH DEPTH/SQ. YD.
HMA BINDER COURSE,	112 LBS/INCH DEPTH/SQ. YD.
BITUMINOUS MATERIALS (PRIME COAT)	0.35 GAL/SQ. YD.
AGGREGATE SHOULDERS	2.05 TON/CU.YD.

FILE NAME = 120191-sht-notes.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -
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 =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 2/15/2012	DATE - 02/13/12	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

SUMMARY OF QUANTITIES AND GENERAL NOTES
C.H. 6 / 7TH STREET

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

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	2
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6A	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	GUARDRAIL REMOVAL	TRAFFIC BARRIER TERMINAL, TYPE 1	GUARDRAIL MARKERS TYPE A	TERMINAL MARKER DIRECT APPLIED
	63000001	63100087	63100167	63200310	LR631020	78200410	78201000
	FOOT	EACH	EACH	FOOT	EACH	EACH	EACH
LT. STA. 511+17.47 TO LT. 512+11.37		1	1				1
LT. STA. 514+26.98 TO LT. 515+45.88	25	1	1				1
LT. STA. 511+17.47 TO LT. 515+45.88				152		6	
RT. STA. 511+41.62 TO RT. 512+23.02	12.5	1			1		1
RT. STA. 514+38.63 TO RT. 515+32.53		1	1				1
RT. STA. 511+41.62 TO RT. 515+32.53				152		6	
TOTAL	37.5	4	3	304	1	12	4

EARTHWORK SUMMARY

LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	SHRINKAGE FACTOR	% USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE(25%)	EMBANKMENT REQUIRED	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	20200100	20300100					
	CUBIC YARD	CUBIC YARD			CUBIC YARD	CUBIC YARD	CUBIC YARD
C.H. 6 / 7TH STREET							
STA. 510+66 TO STA. 512+31.67	135		25.00%	100.00%	101	87	14
STA. 514+18.76 TO STA. 516+00	146		25.00%	100.00%	110	123	-13
CHANNEL EXCAVATION		880	25.00%	70.00%	462		462
	281	880			673	210	463

WASTE = 463 CU.YD.

PAVEMENT MARKING SCHEDULE

LOCATION	PAINT PAVEMENT MARKING LINE 4"	
	78001110	
	WHITE EDGE LINE SOLID	YELLOW CENTER LINE SKIP DASH
	FOOT	FOOT
LT. STA. 511+50 TO LT. 515+00	350	
CL. STA. 511+50 TO CL. 515+00		88
RT. STA. 511+50 TO RT. 515+00	350	
SUB TOTAL	700	88
TOTAL	788	

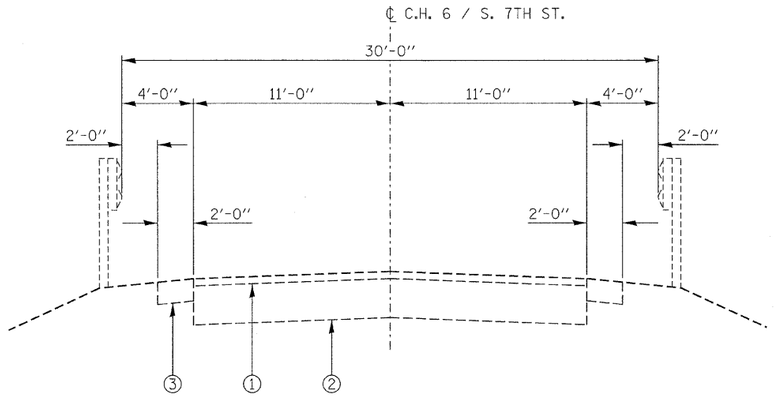
PAVEMENT DESIGN (NON-MECHANISTIC)
DESIGN PERIOD 20 YEARS (2032)
STRUCTURAL DESIGN TRAFFIC (SDT): 2252 (2022)
PV = 2162 SU = 45 MU = 45
ROAD/STREET CLASSIFICATION: Class II
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE
P = 0.5 S = 0.5 MU = 0.5
TRAFFIC FACTOR ACTUAL TF 0.23
MINIMUM TF NA
PG GRADE: BINDER = PG 64-28 SURFACE = PG 64-28

ROADWAY SCHEDULE

LOCATION	AGGREGATE BASE COURSE TYPE B 12"	BITUMINOUS MATERIALS (PRIME COAT)	HOT-MIX ASPHALT BINDER COURSE IL-19.0, N50 3.75"	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50 1.5"	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	HOT-MIX ASPHALT SHOULDERS 8"	AGGREGATE SHOULDERS TYPE B 8"
	35101400	40600100	40603080	40603310	42001430	48203029	48101600
	TON	GAL	TON	TON	SQ YD	SQ YD	SQ YD
LT. STA. 510+66 TO STA. 512+25.50						83	24
CL. STA. 511+50 TO STA. 512+02.20	95	49	24	9	21		
RT. STA. 511+32.52 TO STA. 512+37.49						88	
LT. STA. 514+12.51 TO STA. 516+00						93	21
CL. STA. 514+47.80 TO STA. 516+00	95	49	24	9	21		
RT. STA. 514+24.15 TO STA. 516+00						89	29
TOTAL	190	98	48	18	42	353	74

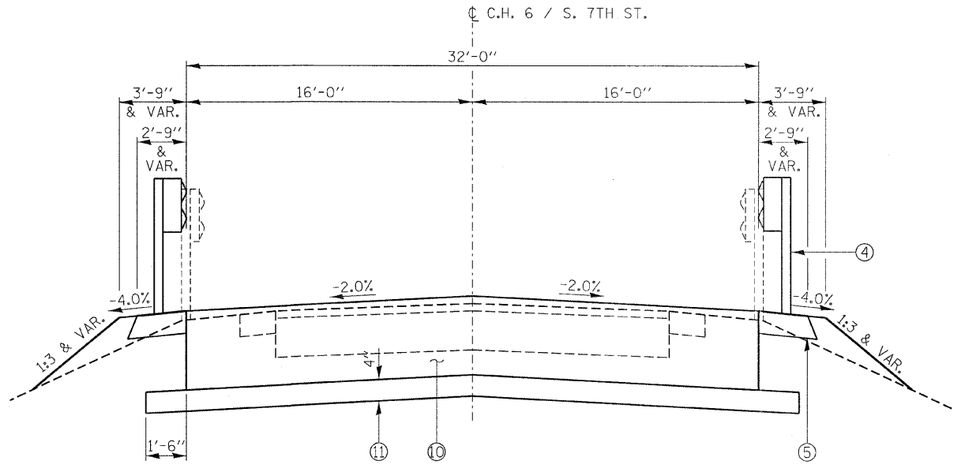
	HMA SURFACE	HMA BINDER	HMA SHOULDERS TOP LIFT	HMA SHOULDERS BOTTOM LIFT
PG GRADE **	PG64-22	PG64-22	PG64-22	PG58-22
DESIGN AIR VOIDS	4% @ N50	4% @ N50	4% @ N50	4% @ N50
MIXTURE COMPOSITION	IL 9.5	IL 19.0	IL 19.0	IL 19.0
FRICTION AGGREGATE	MIXTURE C			
DENSITY TEST METHOD	CORES	CORES	CORES*	CORES*

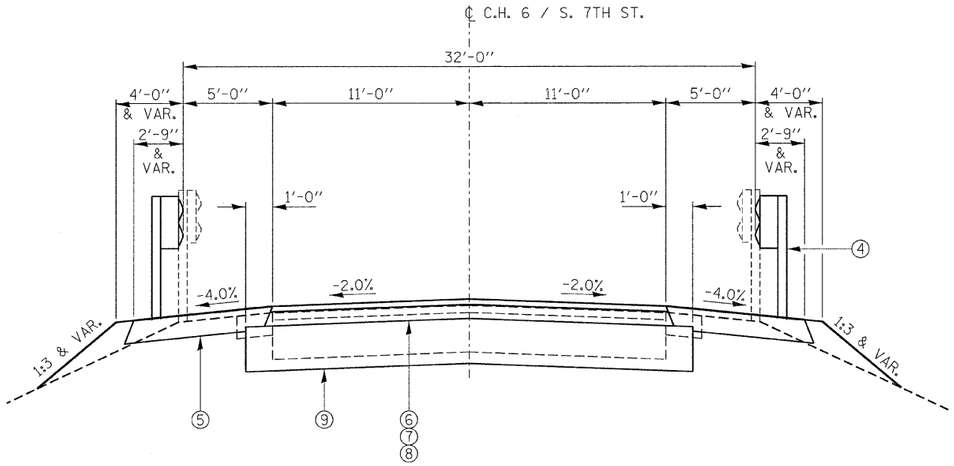
* MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MINIMUM PERCENT COMPACTION SHALL BE 90.0%. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION



EXISTING TYPICAL CROSS SECTION

STA. 510+00 TO STA. 512+37.20
STA. 513+63.08 TO STA. 517+00





PROPOSED TYPICAL CROSS SECTION

STA. 511+50 TO STA. 511+96.20
STA. 514+47.80 TO STA. 515+00

PROPOSED TYPICAL CROSS SECTION

STA. 512+02.20 TO STA. 512+32.20
STA. 514+17.80 TO STA. 514+47.80
STA. 511+96.20 TO STA. 512+02.20 (FLEXIBLE CONNECTOR)
STA. 514+47.80 TO STA. 514+53.80 (FLEXIBLE CONNECTOR)

LEGEND

① EXISTING HOT-MIX ASPHALT SURFACE (3" THICKNESS)
② EXISTING AGGREGATE BASE
③ EXISTING AGGREGATE SHOULDERS
④ TRAFFIC BARRIER TERMINALS TYPE 6A AND TYPE 1 (SPECIAL) TANGENT
⑤ HOT-MIX ASPHALT SHOULDERS, 8"
⑥ HMA SURFACE COURSE, MIX "C", N50 (1.5" THICKNESS)
⑦ HMA BINDER COURSE, IL-19.0, N50 (3.75" THICKNESS)
⑧ BITUMINOUS MATERIALS (PRIME COAT)
⑨ AGGREGATE BASE COURSE, TYPE B (12" THICKNESS)
⑩ BRIDGE APPROACH PAVEMENT (COST INCLUDED WITH CONCRETE SUPERSTRUCTURES)
⑪ SUB-BASE GRANULAR MATERIAL, TY B, 4" (COST INCLUDED WITH CONCRETE SUPERSTRUCTURES)

FILE NAME = 180191-sht-typsections.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	**STATE OF ILLINOIS**
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -	**LIVINGSTON COUNTY HIGHWAY DEPARTMENT**
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -	
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -	

TYPICAL CROSS SECTIONS
C.H. 6 / 7TH STREET

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

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	4
SOUTH 7TH STREET		CONTRACT NO. 87494		
		ILLINOIS	FED. AID PROJECT	

THOMAS C. MUNZ, etal
NE¼, SE¼, SEC 10, T. 26 N., R. 6 E., 3RD P.M.

I.R.
MAG NAIL IN POWER POLE
MAG NAIL IN POWER POLE
0.17' LT. STA STA. 510+00.02
½"Ø IRON PIN (SET)
N. 82,266.082
E. 36,240.814

I.R. W/CAP
"X" ON CURB
MAG NAIL W/B.C. IN POWER POLE
E.¼, SEC. 10, T. 26 N., R. 6 E.
1.25' LT. STA. 511+75.01
MAG NAIL (FOUND)
N. 82,441.040
E. 36,237.156

0.09' LT. STA. 513+00.00
½"Ø IRON PIN (SET)
N. 82,566.027
E. 36,236.469

GOLF COURSE
PROPOSED R.O.W. LINE
INDIAN CREEK
STATION 513+25
CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE. 5 SPANS: 32'-0", 40'-0", 40'-0", 40'-0", 32'-0"; 32'-0" RDWY.; SKEW = 20°
PROPOSED STRUCTURE NO. 053-3457
STA. 514+42
F.E. TO BE REMOVED
GRAPHIC SCALE 0 20' 40'

510+00 C.H. 6 / S. 7TH STREET 511 512 513 514 515+00
HMA SURFACE
33' R.O.W.
33' EXISTING
25' TAPER
SLOPEWALL
70°
TIMBER RIDGE DRIVE
+11.00
+96 F.E.
IMPROVEMENT BEGINS STATION 510+66
PAVEMENT BEGINS STATION 511+50
CROPLAND
GRASS
TIMBER
TREE REMOVAL ACRES
RT. STA. 512+15 TO RT. STA. 512+65 TEMPORARY FENCE LENGTH = 50 FT.
EXISTING WETLAND LIMITS
+25 33'
+25 40'
+50 33'
+50 40'
+42 F.E.
PAVEMENT ENDS STATION 515+00

NOTE:
THE CONTRACTOR IS TO COORDINATE WITH THE ENGINEER FOR THE REMOVAL OF THE LIMBS THAT CONFLICT WITH CONSTRUCTION WITHIN THE ROW FOR THE TREE 36' RT. STA. 513+96.32. THE REMOVAL OF LIMBS IS CONSIDERED TO BE INCLUDED WITH TREE REMOVAL ACRES.

BRIAN & DENISE PLENERT
CHAD & SALLY PLENERT
SE¼, NW ¼, SEC 11, T. 26 N., R. 6 E., 3RD P.M.

EXISTING STRUCTURE NO. 053-3415
STATION 513+00 - THREE SPAN R.C. SLAB BRIDGE WITH CONCRETE CURB & HANDRAIL ON CONCRETE ABUTMENTS, PIERS AND WINGWALLS.
118.3' FC.-FC. ABUTS; 32.50' o.-o. DECK

BM#1 - R.R. SPIKE IN POWER POLE
29' RT., STA. 510+46
ELEV. 677.457

BM#2 - CHISELED "□" ON S.E. WING
17' RT., STA. 512+41
ELEV. 677.622

BM#3 - R.R. SPIKE IN POWER POLE
27' RT., STA. 515+36
ELEV. 675.247

695 690 685 680 675 670 665 660 655

VPI STA. 512+00
ELEV. 677.00
VPI STA. 514+50
ELEV. 677.00
PROP. PAVEMENT TRANSITION
+0.640%
+0.000%
+0.000%
-0.200%
100 YEAR H.W. ELEV. 672.9
30 YEAR H.W. ELEV. 672.3
PROPOSED ℄ GRADE
EXISTING ℄ GRADE
STONE RIPRAP CL A4
NWL=665.0
CHANNEL EXCAVATION
BERM ELEV. 669.0
* 2H:1V @ RT. ℄'S
** 5H:1V @ RT. ℄'S SEE SHEET 7 FOR LAYOUT
℄ ELEV. 662.1
ROCK ELEV. 652.5

676.56 676.43 676.46 676.68 676.68 676.94 677.00 677.03 677.00 677.03 677.00 677.03 677.00 677.11 677.00 677.10 677.00 676.90 676.90 676.66

510+00 510+50 511+00 511+50 512+00 512+50 513+00 513+50 514+00 514+50 515+00 515+50

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
ALIGNMENT CHECKED
NOTE BOOK
NO.
STRUCTURE NO.
BY
DATE

FILE NAME = 120191-sht-pp2.dgn
USER NAME =
PLOT SCALE =
PLOT DATE = 2/14/2012

HAMPTON, LENZINI AND RENWICK, INC.
3345 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.005959

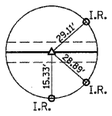
DESIGNED - J.W.F.
DRAWN - D.T.M.
CHECKED - S.W.M.
DATE - 02/13/12
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

PLAN & PROFILE
C.H. 6 / S. 7TH STREET
SCALE: H:20 V:5 | SHEET NO. 2 OF 3 SHEETS | STA. 509+80 TO STA. 515+80

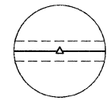
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	5
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

OWNER
SE¼, NE¼, SEC 10, T. 26 N., R. 6 E., 3RD P.M.

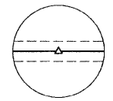


1.03' LT. STA. 516+00.23
MAG NAIL (SET)
N. 82866.220
E. 36231.101

GOLF COURSE



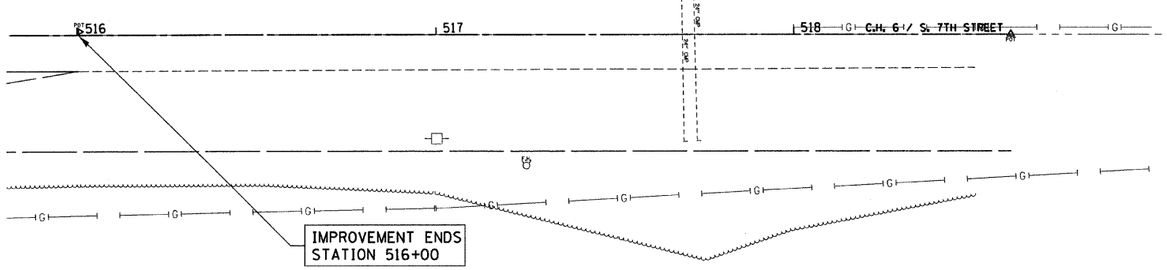
P.O.T. STA. 518+60.75
½"Ø IRON PIN (TO BE SET)
N. 83,126.718
E. 36,228.294



N.E. COR. SEC 10, T. 26 N., R 6 E.
N. 87,700.789
E. 36,160.853

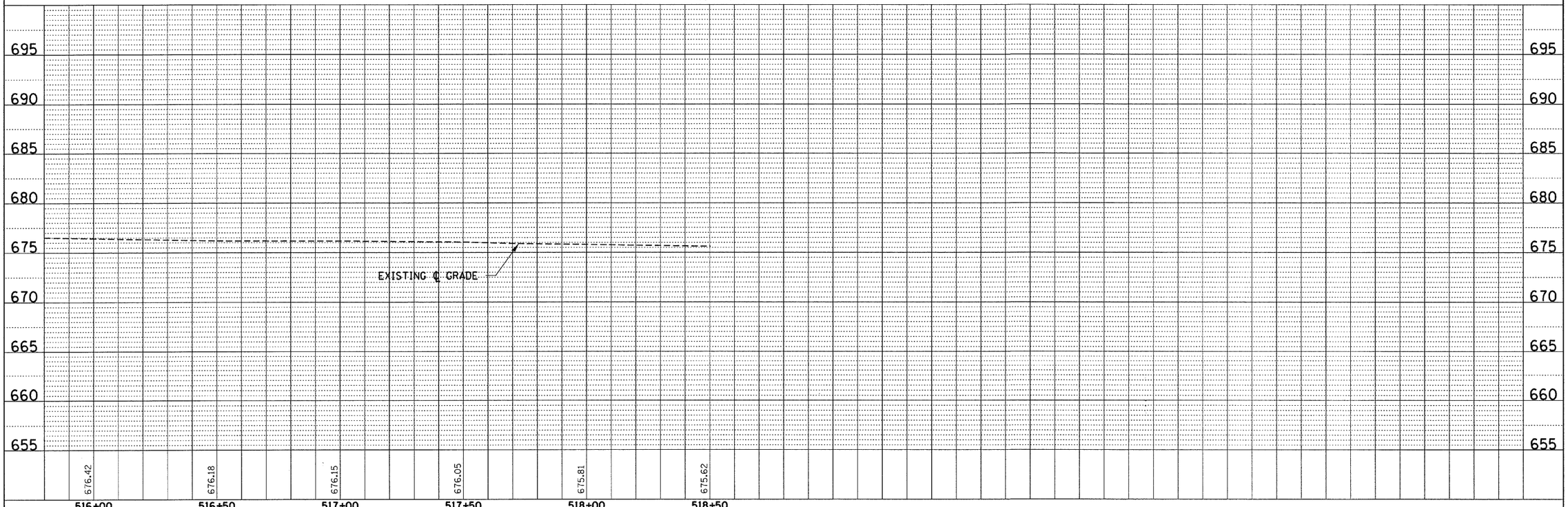
N

0 20' 40'
GRAPHIC SCALE



PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
NOTE BOOK
NO.
BY
DATE

OWNER
SW¼, NW¼, SEC 11, T. 26 N., R. 6 E., 3RD P.M.



PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
NOTE BOOK
NO.
BY
DATE

FILE NAME = 100191-sht-pp3.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -
		DRAWN - D.T.M.	REVISED -
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -

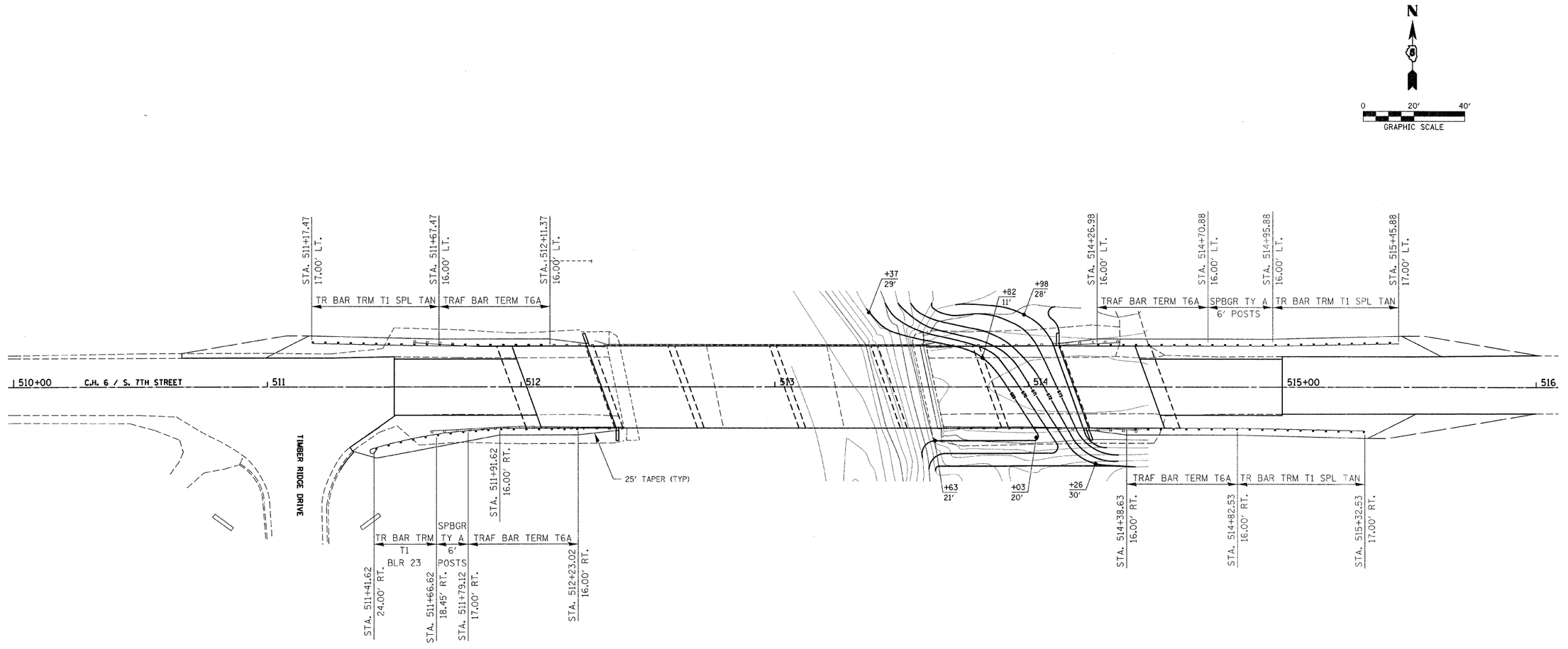
HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

PLAN & PROFILE
C.H. 6 / S. 7TH STREET

SCALE: H20:V5 | SHEET NO. 3 OF 3 SHEETS | STA. 515+80 TO STA. 518+60.75

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	6
SOUTH 7TH STREET		CONTRACT NO. 87494		
		ILLINOIS FED. AID PROJECT		



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HAMPTON, LENZINI AND RENWICK, INC. 3055 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LB/PE/SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

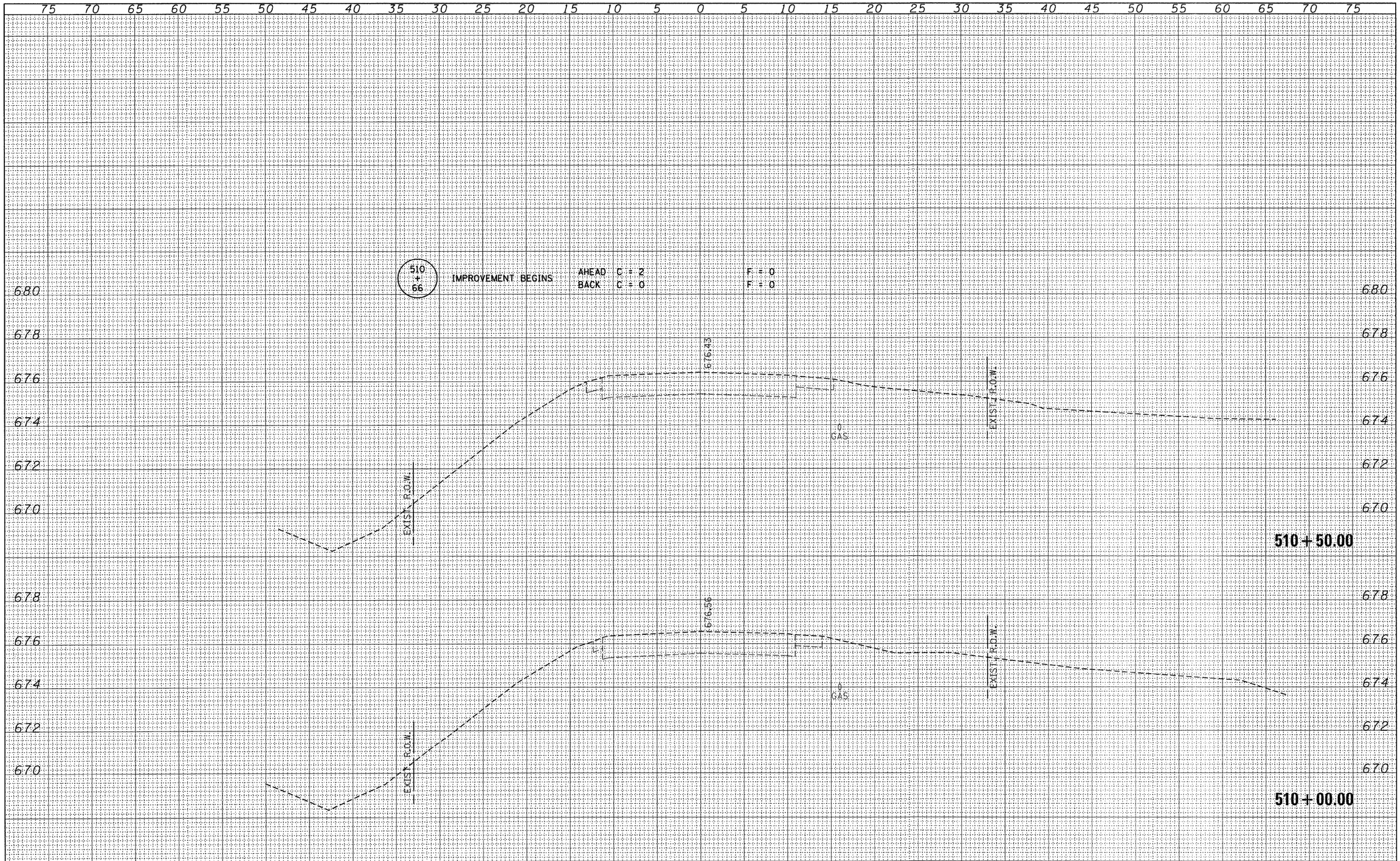
GUARDRAIL AND GRADING LAYOUT
C.H. 6 / S. 7TH STREET

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

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	7
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

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

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



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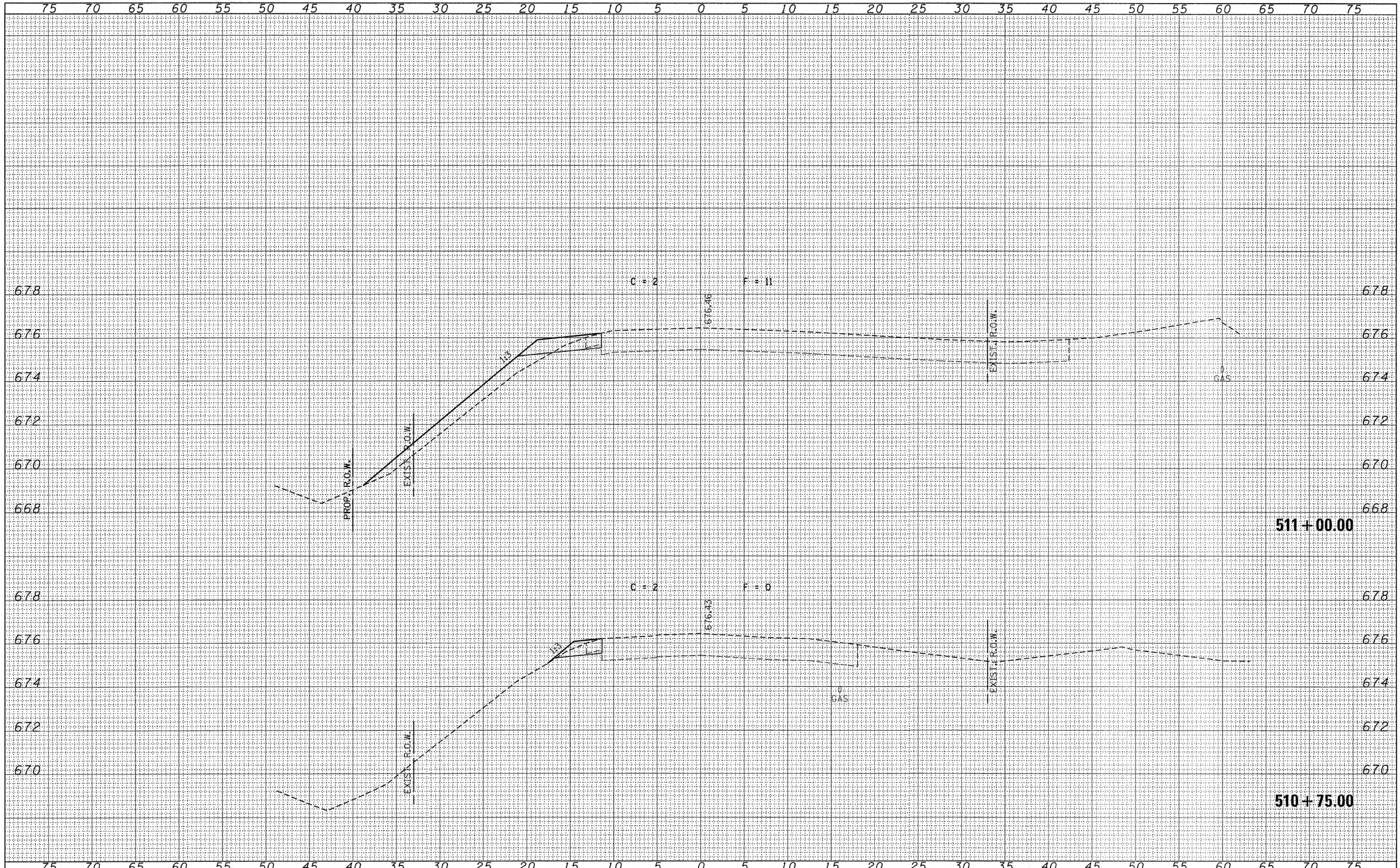
HAMPTON, LENZINI AND RENWICK, INC. 5081 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LE / PE / SE CORP. 184.000859		DRAWN - T.W.K.	REVISED -		
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -		SCALE: H:5 V:2 | SHEET NO. OF SHEETS | STA. 510+00.00 TO STA. 510+50.00
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -		

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	8
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

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

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



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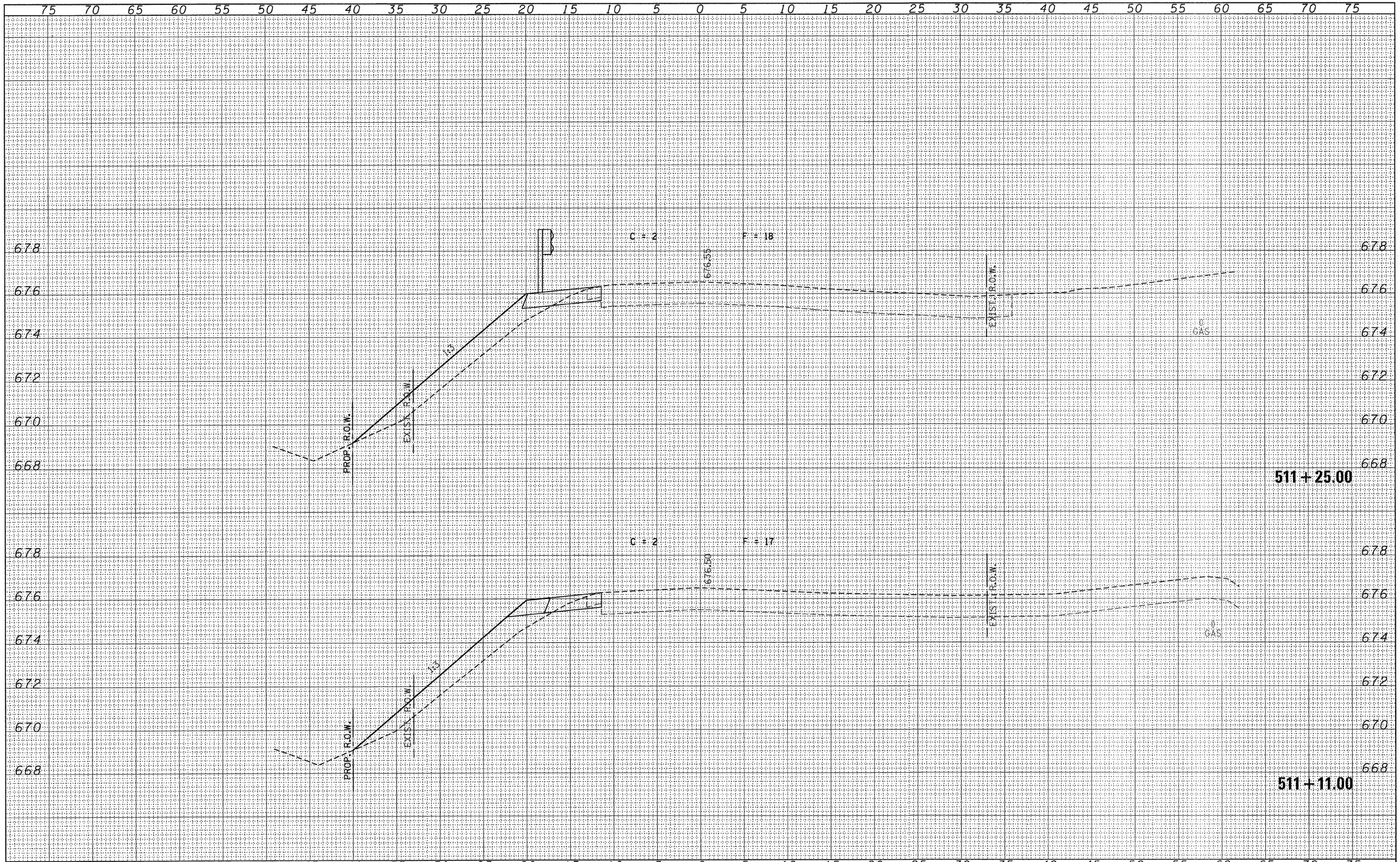
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -		
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -		
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -	SCALE: H5xV2	SHEET NO. OF SHEETS STA. 510+75.00 TO STA. 511+00.00

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	9
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

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



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

FILE NAME = 100191-sht-xs.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -
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 =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

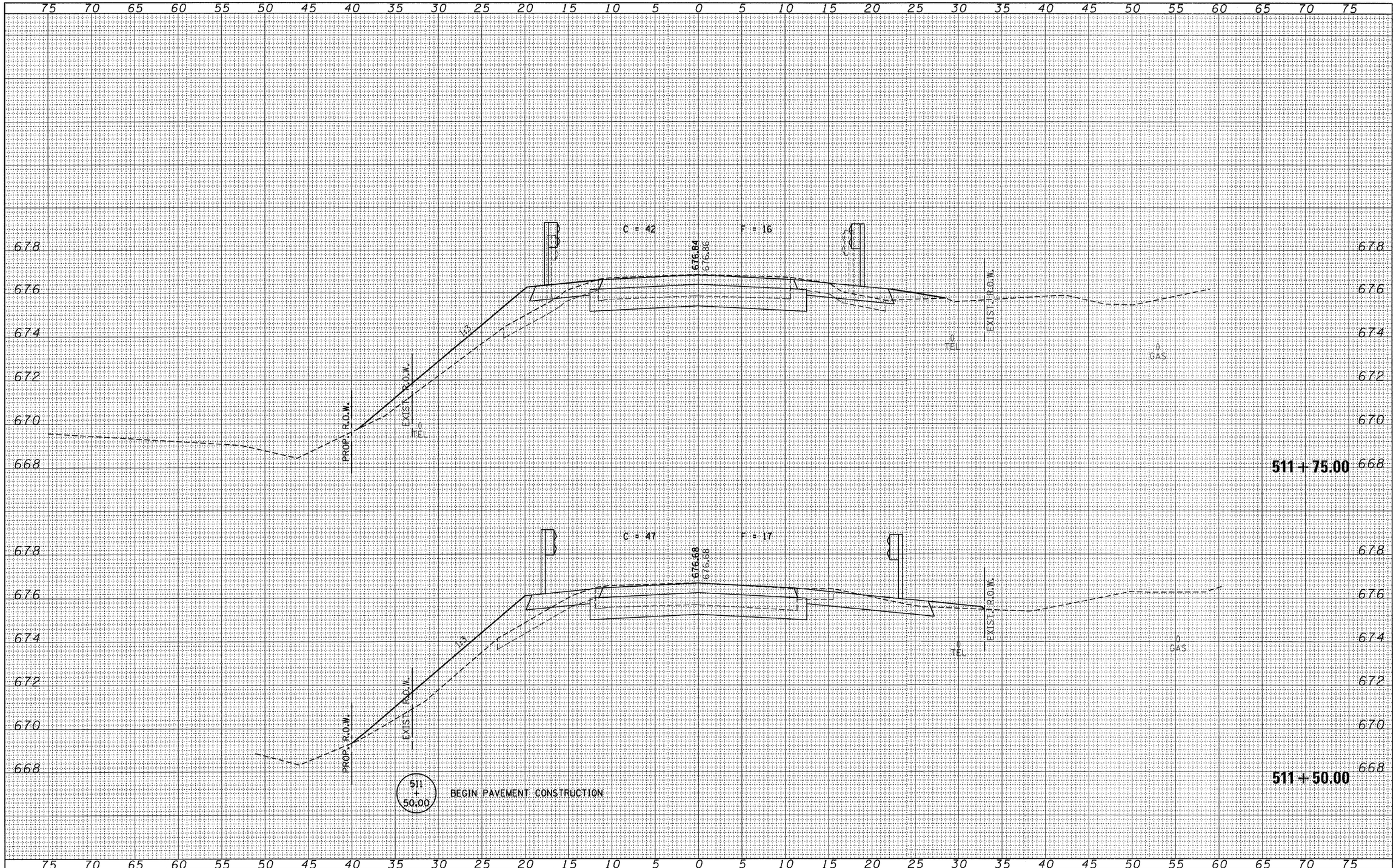
STATION CROSS SECTIONS
C.H. 6 / S. 7TH STREET

SCALE: H:1 V:2 | SHEET NO. OF SHEETS | STA. 511+11.00 | TO STA. 511+25.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	10
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS FED. AID PROJECT				

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

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



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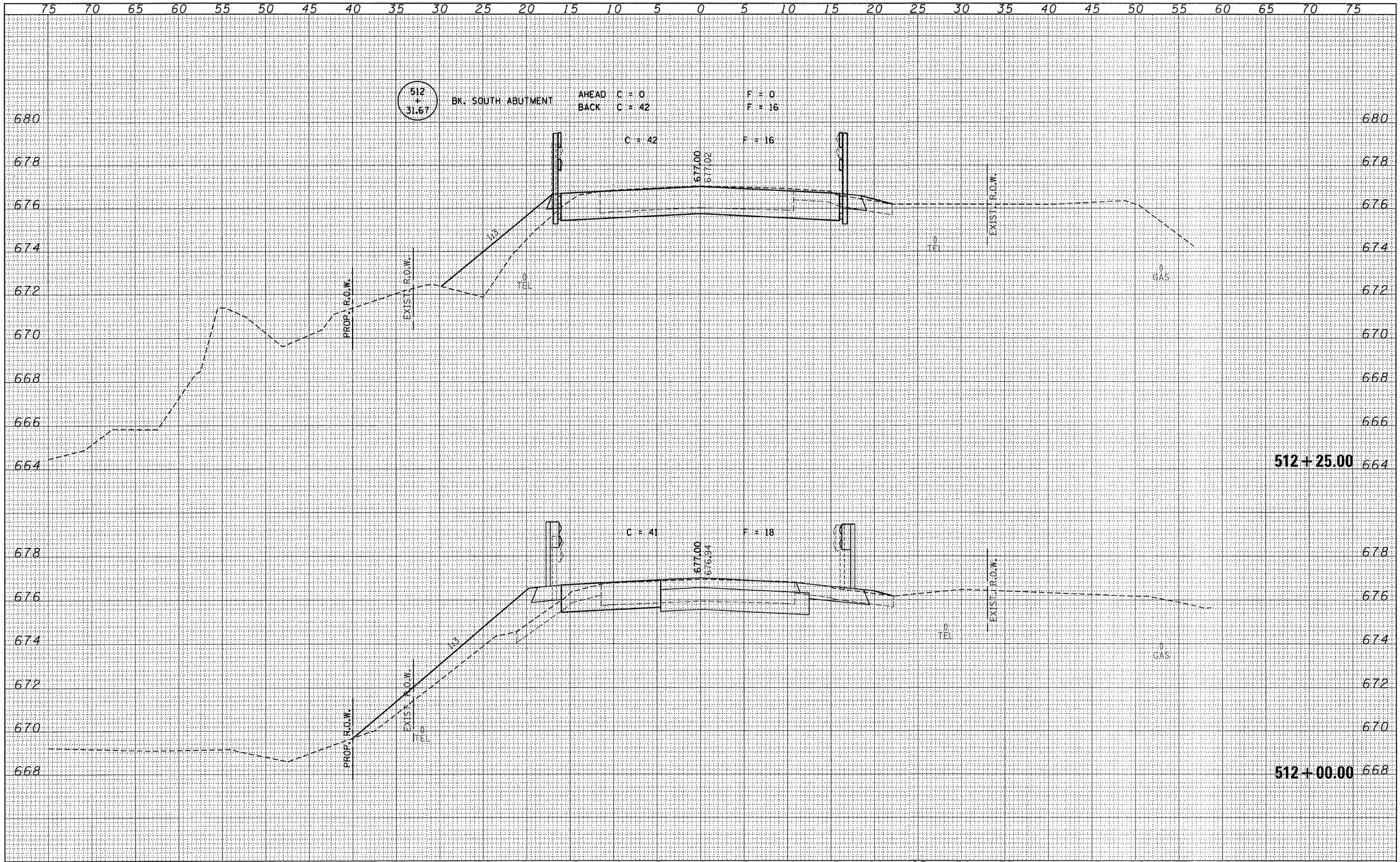
HAMPTON, LENZINI AND RENWICK, INC. 5395 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -		
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -		
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -		SCALE: H:5 V:2 | SHEET NO. OF SHEETS | STA. 511+50.00 TO STA. 511+75.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	11
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

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



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

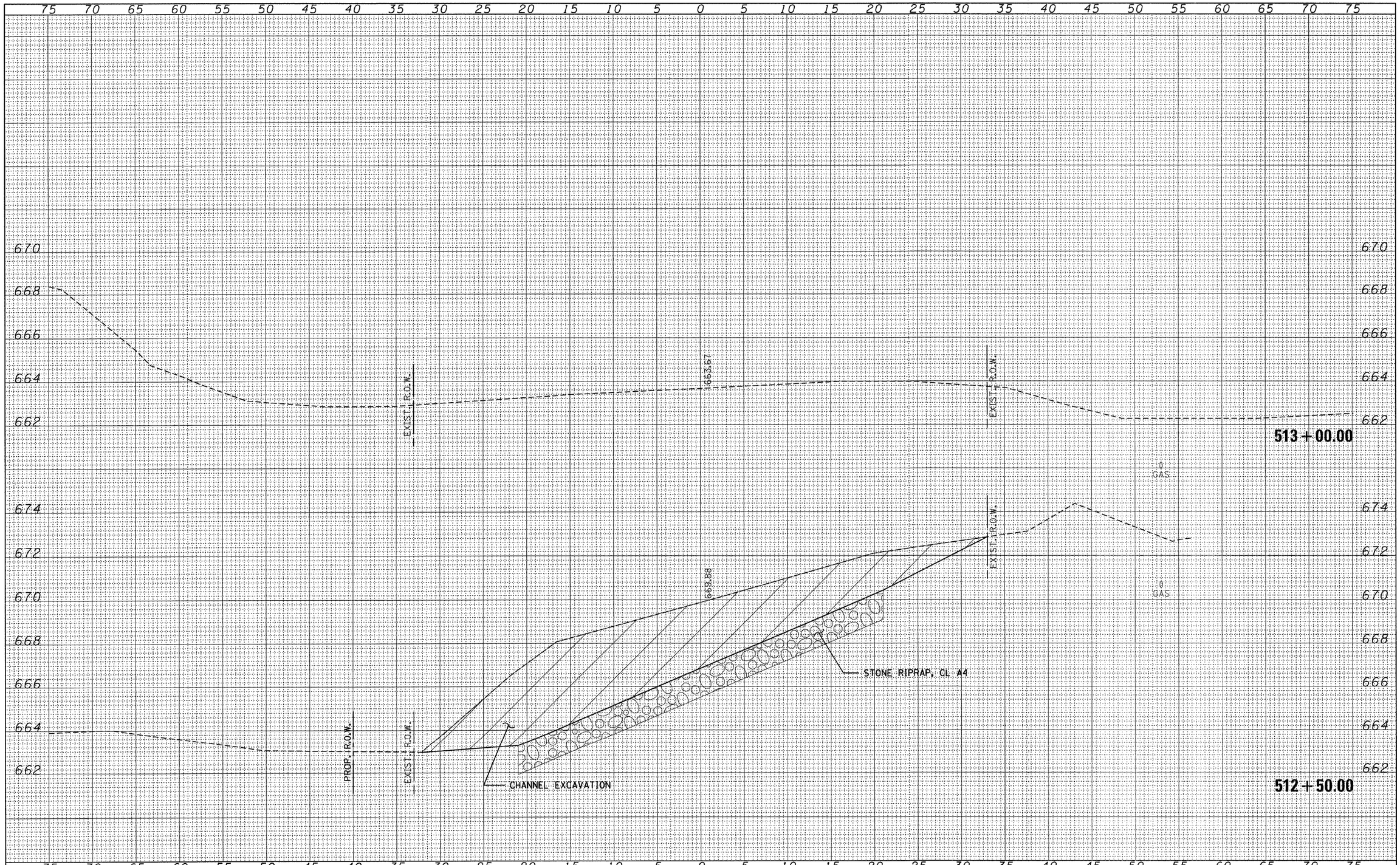
FILE NAME = 10@191-sht-sxs.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT
HAMPTON, LENZINI AND RENWICK, INC. 3068 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -	
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -	
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -	

STATION CROSS SECTIONS
C.H. 6 / S. 7TH STREET

SCALE: H5:V2 | SHEET NO. OF SHEETS | STA. 512+00.00 TO STA. 512+25.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	12
SOUTH 7TH STREET		CONTRACT NO. 87494		
		ILLINOIS FED. AID PROJECT		

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



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

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ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -

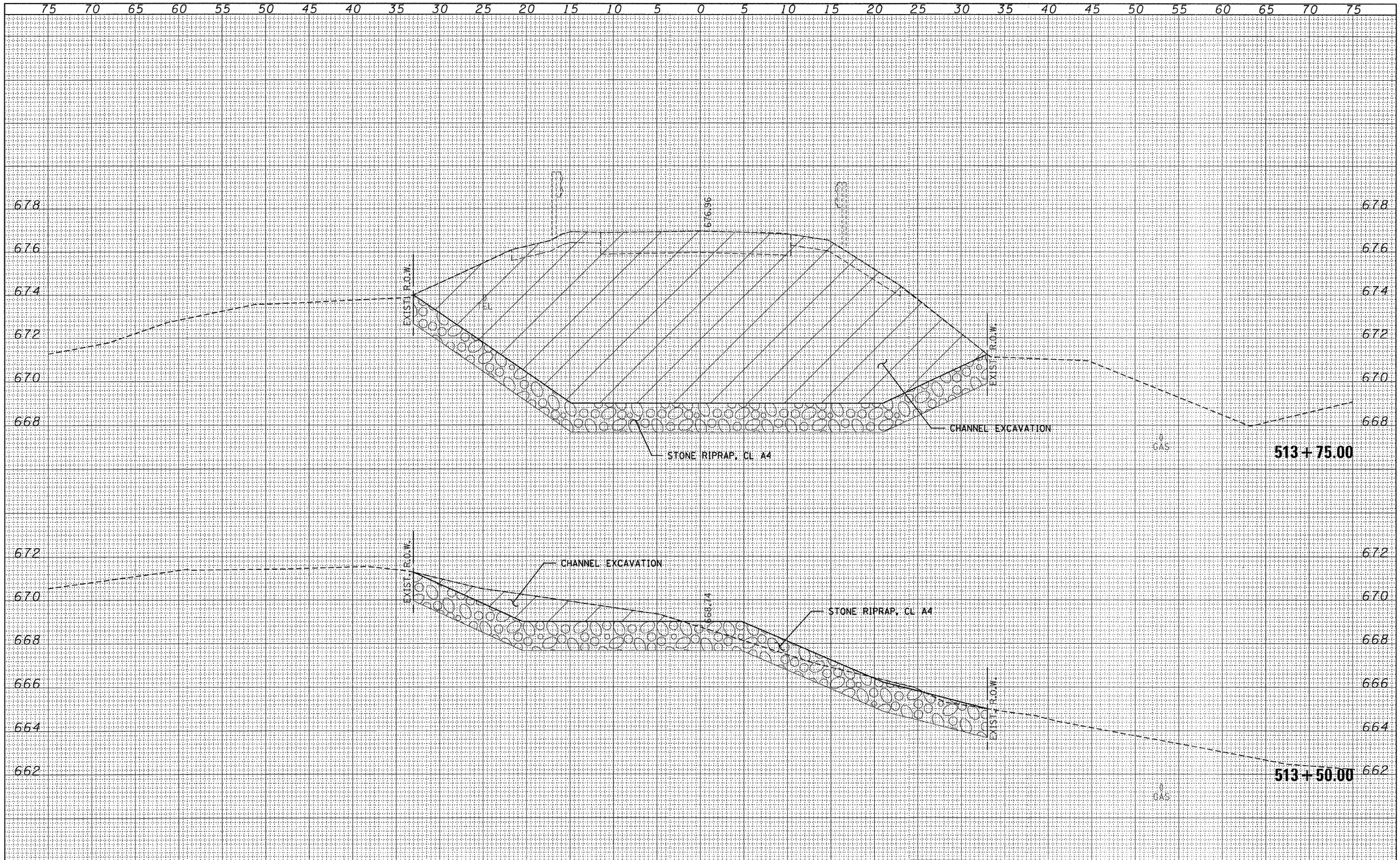
STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS
C.H. 6 / S. 7TH STREET

SCALE: H:5 V:2 | SHEET NO. OF SHEETS | STA. 512+50.00 TO STA. 513+00.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	13
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS FED. AID PROJECT				

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



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

FILE NAME = 120191-sht-sxs.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -	
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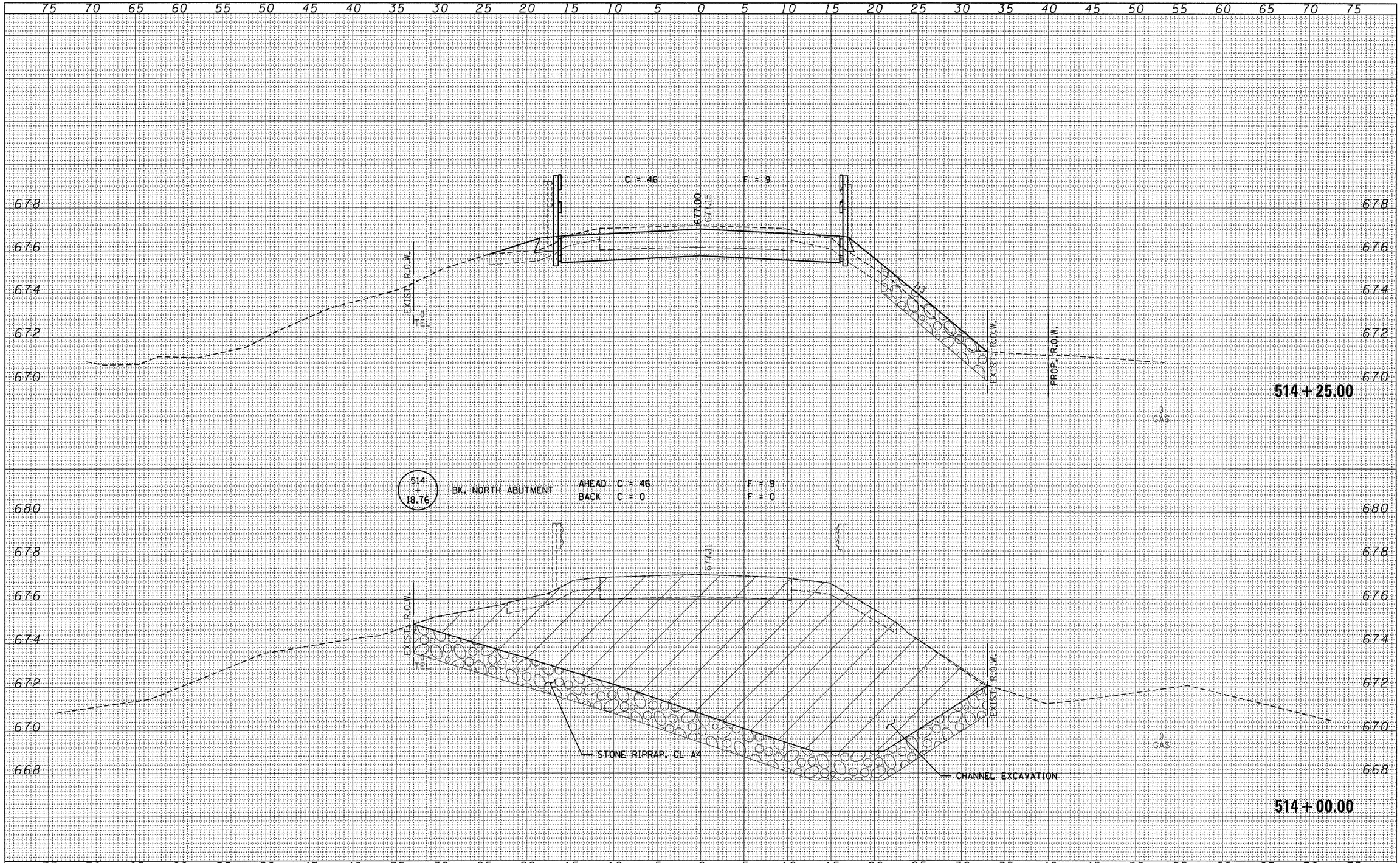
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -	

STATION CROSS SECTIONS
C.H. 6 / S. 7TH STREET

SCALE: H:1 V:2 | SHEET NO. OF SHEETS | STA. 513+50.00 TO STA. 513+75.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	14
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

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



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

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HAMPTON, LENZINI AND RENWICK, INC. 3360 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.002909		DRAWN - T.W.K.	REVISED -
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	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS
C.H. 6 / S. 7TH STREET

SCALE: H:5 V:2 | SHEET NO. OF SHEETS | STA. 514+00.00 TO STA. 514+25.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	15
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS FED. AID PROJECT			

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

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

515 + 00.00 END PAVEMENT CONSTRUCTION

C = 39 F = 32

676.90
676.80

EXIST. R.O.W.

EXIST. R.O.W.

PROP. R.O.W.

GAS

515 + 00.00

C = 46 F = 25

677.00
677.10

EXIST. R.O.W.

EXIST. R.O.W.

PROP. R.O.W.

GAS

514 + 50.00

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

678 676 674 672 670

FILE NAME = 100191-sht-sxs.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT
HAMPTON, LENZINI AND RENWICK, INC. 3040 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LR / PE / SE CORP. 184.003959		DRAWN - T.W.K.	REVISED -	
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	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -	

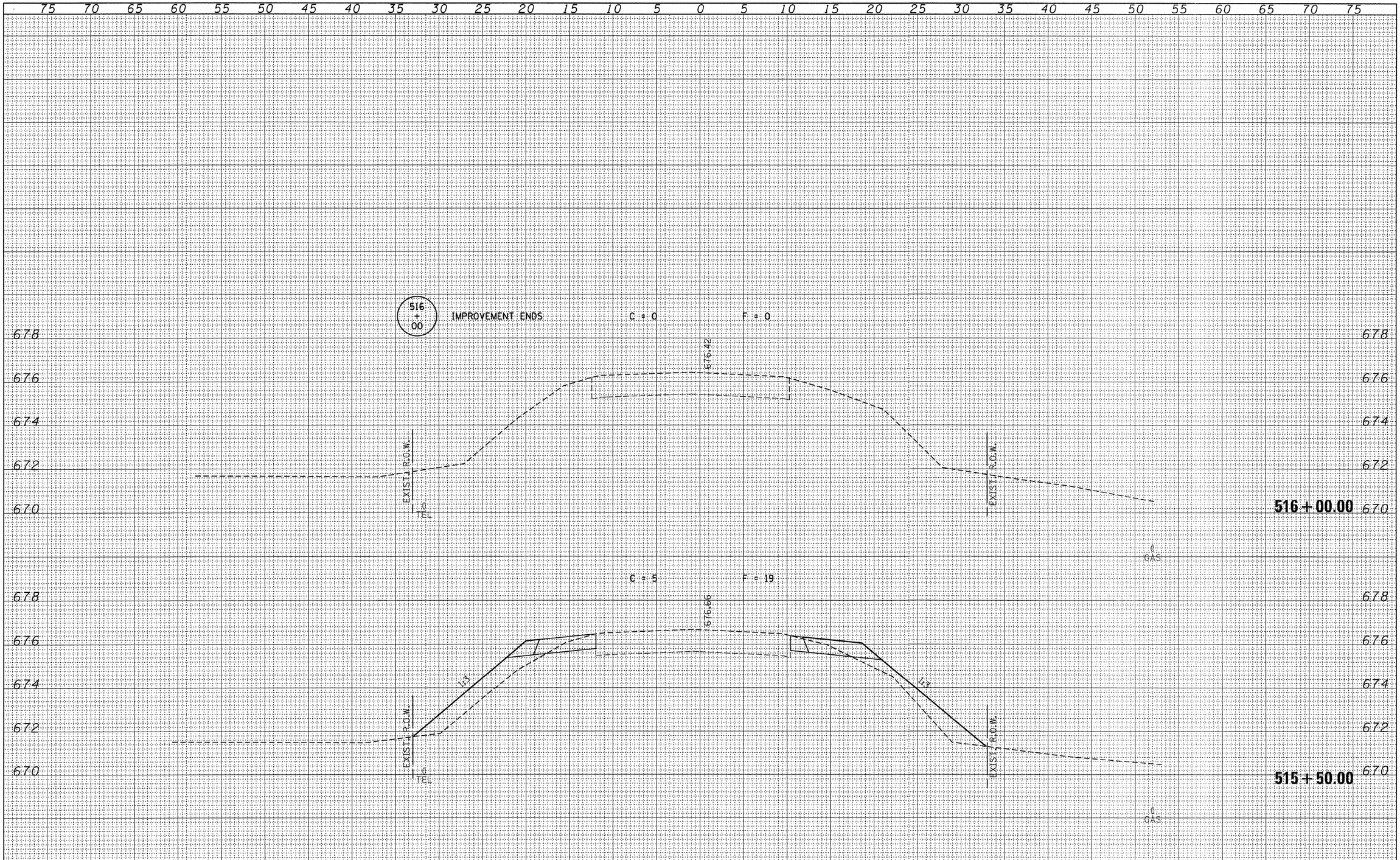
STATION CROSS SECTIONS
C.H. 6 / S. 7TH STREET

SCALE: H:5 V:2 | SHEET NO. OF SHEETS | STA. 514+50.00 TO STA. 515+00.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	16
SOUTH 7TH STREET		CONTRACT NO. 87494		
ILLINOIS	FED. AID PROJECT			

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

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



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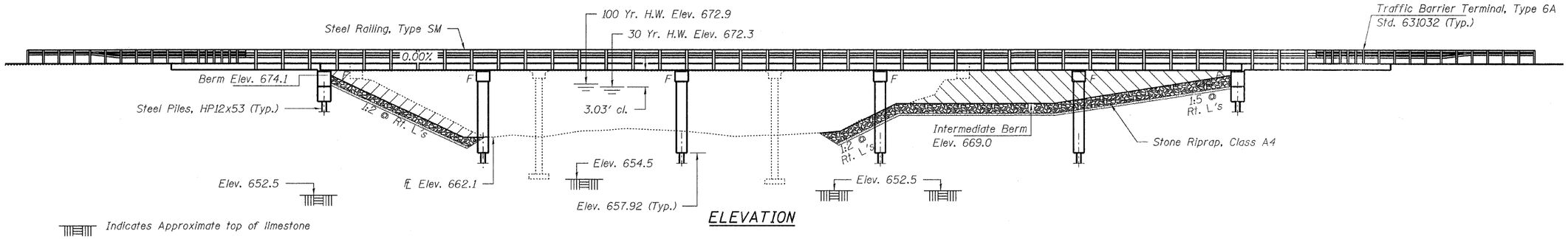
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000859		DRAWN - T.W.K.	REVISED -		
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -		SCALE: H:5 V:2 | SHEET NO. OF SHEETS | STA. 515+50.00 TO STA. 516+00.00
	PLOT DATE = 2/14/2012	DATE - 02/13/12	REVISED -		

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	17
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS FED. AID PROJECT			

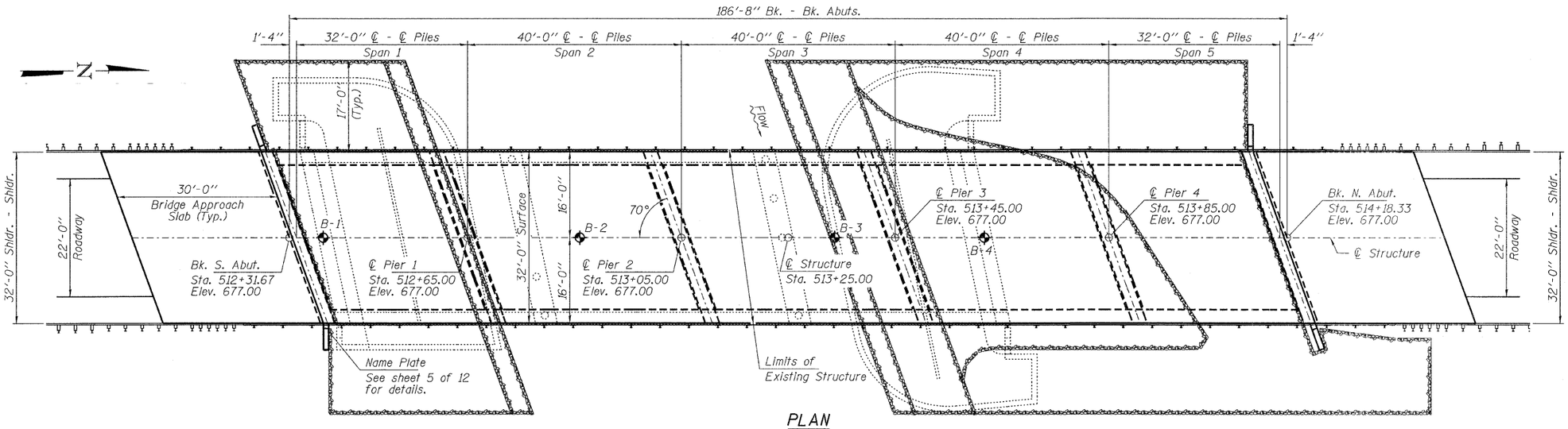
BENCHMARK: Chiseled "□" on S.E. wingwall. 17' Rt., Sta. 512+41, Elev. 677.622.

EXISTING STRUCTURE 053-3415: Three span R.C. slab bridge with concrete curb and handrail on concrete abutments, piers and wingwalls. 118.3' f.c.-f.c. abuts.; 32.5' o.-o. deck

Salvage: No Salvage



ELEVATION



PLAN

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi — Load Resistance
fy = 60,000 psi (Reinf.) — Factor Design

LOADING HL-93

Design Specifications: 2010 AASHTO LRFD with all applicable interims.
50#/Sq. Ft. included in dead load 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}) = 0.184g
Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	N. Abut.
	671.1	653.0	653.0	653.0	653.0	671.1

WATERWAY INFORMATION

Drainage Area = 68.2 Sq. Mi. — Existing Low Grade Elev. 674.8 @ Sta. 520+50; Proposed Low Grade Elev. 674.8 @ Sta. 520+50

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	3730	750	940	671.58	0.36	0.25	671.94	671.83
Design	30	5160	810	1030	672.21	0.67	0.53	672.88	672.74
Base	100	6770	870	1130	672.81	1.09	0.84	673.90	673.65
Overtop	500	8980	950	1250	673.55	1.32	0.87	674.87	674.42

10 Year Velocity through Existing Bridge = 5.0 fps — 10 Year Velocity through Proposed Bridge = 4.0 fps

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."

Michael H. Berry 2/13/2012
ILLINOIS STRUCTURAL NO. 081-4622

LICENSED STRUCTURAL ENGINEER — MICHAEL G. BERRY 081-4622 SPRINGFIELD, IL — STATE OF ILLINOIS

Expires 11-30-2012

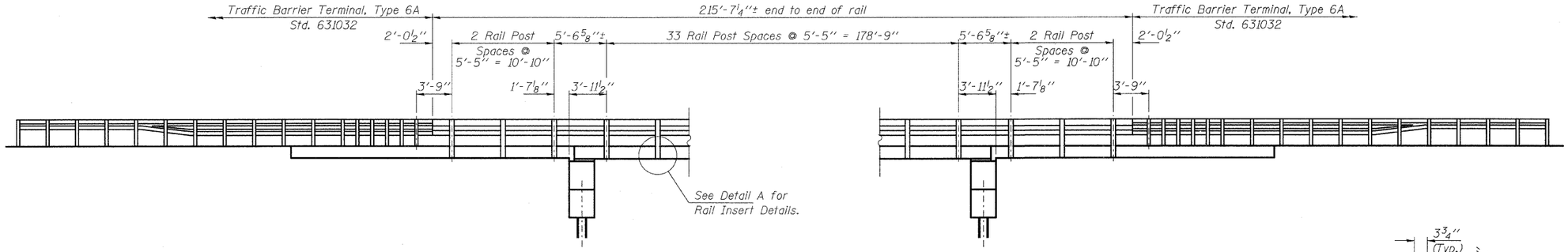
INDEX OF STRUCTURE SHEETS

FILE NAME = 120191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	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. 184.005659	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
	PLOT DATE = 2/13/2012	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 053-3457
SHEET NO. 1 OF 12 SHEETS

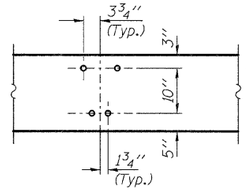
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	18
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS FED. AID PROJECT			



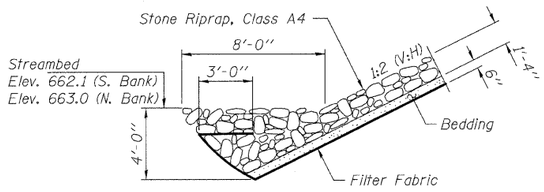
ELEVATION

Showing Rail Post Spaces

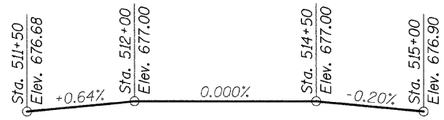
See sheet 9 of 12 for Railing Details.



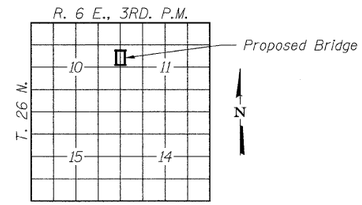
DETAIL A



SECTION A-A



PROFILE GRADE

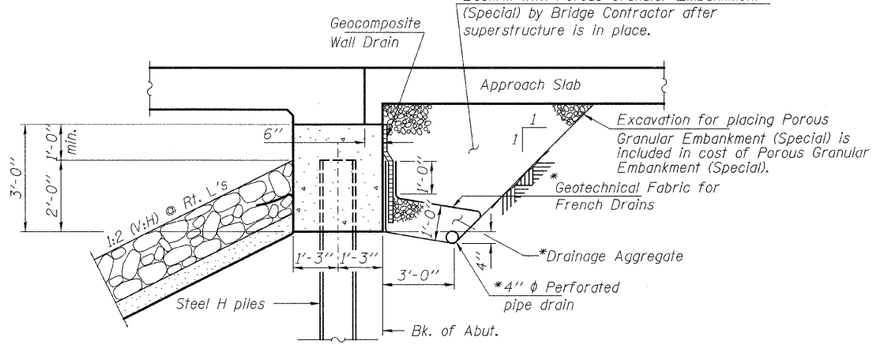


LOCATION SKETCH

INDIAN CREEK
BUILT 201_ BY
LIVINGSTON COUNTY
SEC. 08-00145-05-BR
C.H. 6 / S. 7th. STREET
STR. NO. 053-3457
LOADING HL-93

NAME PLATE

See Std. 515001



SECTION THRU ABUTMENT

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

* Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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 North 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.

Removal of the existing slope wall shall be included in the cost of Removal of Existing Structures.

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.

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.

The Contractor shall make allowance for the deflection of forms, shrinkage, and settlement of falsework, in addition to allowance for dead low deflection.

Protective Coat shall be applied to the top surface and the sides of the concrete deck and approach slab.

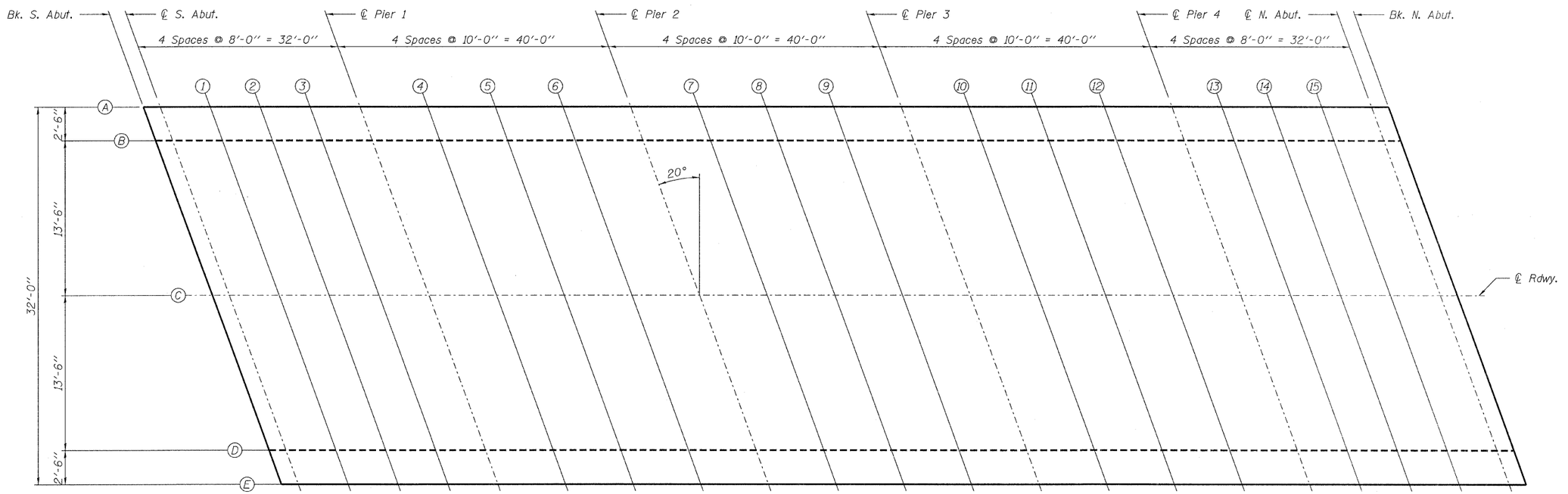
Bridge Deck Grooving shall be completed on the bridge deck and Bridge Approach Slab.

Pavement rollers shall not be allowed on bridge deck grooving.

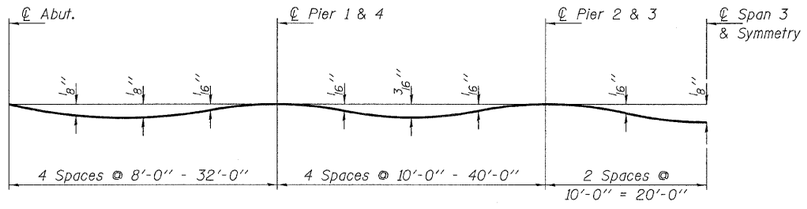
All construction joints shall be bonded.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			880
Stone Riprap, Class A4	Sq. Yd.			975
Filter Fabric	Sq. Yd.			975
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		75.2	75.2
Concrete Superstructure	Cu. Yd.	401.5		401.5
Bridge Deck Grooving	Sq. Yd.	822		822
Concrete Encasement	Cu. Yd.		36.2	36.2
Protective Coat	Sq. Yd.	939		939
Reinforcement Bars, Epoxy Coated	Pound	112,280	12,030	124,310
Bar Splicers	Each			64
Steel Railing, Type SM	Foot	432		432
Furnishing Steel Piles HP12x53	Foot		825	825
Driving Piles	Foot		225	225
Test Pile Steel HP12x53	Each		1	1
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.			27
Pipe Underdrains for Structures, 4"	Foot			106
Setting Piles in Rock	Each		20	20
Porous Granular Embankment (Special)	Ton		113	113



PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Notes:
The deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown.
The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework in addition to allowance for dead load deflection.

FILE NAME = 100191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	SLAB ELEVATIONS STRUCTURE NO. 053-3457 SHEET NO. 3 OF 12 SHEETS
HAMPTON, LENZINI AND RENWICK, INC. 3088 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000559		CHECKED - S.W.M.	REVISED -		
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -		
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -		

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	20
SOUTH 7TH STREET		CONTRACT NO. 87494		
		ILLINOIS	FED. AID PROJECT	

TABLE OF ELEVATIONS

LOCATION		BK. OF	CL OF	SPAN 1			CL OF	SPAN 2			CL OF	SPAN 3			CL OF	SPAN 4			CL OF	SPAN 5			CL OF	BK OF
		S. ABUT	S. ABUT	1	2	3	PIER 1	4	5	6	PIER 2	7	8	9	PIER 3	10	11	12	PIER 4	13	14	15	N. ABUT	N. ABUT
LINE	T.	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667
A	ADJ.	676.667	676.667	676.676	676.677	676.672	676.667	676.674	676.680	676.674	676.667	676.674	676.679	676.674	676.667	676.674	676.680	676.674	676.667	676.672	676.677	676.676	676.667	676.667
** Bott. of Slab		675.167	675.167	675.176	675.177	675.172	675.167	675.174	675.180	675.174	675.167	675.174	675.179	675.174	675.167	675.174	675.180	675.174	675.167	675.172	675.177	675.176	675.167	675.167

LOCATION		BK. OF	CL OF	SPAN 1			CL OF	SPAN 2			CL OF	SPAN 3			CL OF	SPAN 4			CL OF	SPAN 5			CL OF	BK OF
		S. ABUT	S. ABUT	1	2	3	PIER 1	4	5	6	PIER 2	7	8	9	PIER 3	10	11	12	PIER 4	13	14	15	N. ABUT	N. ABUT
LINE	T.	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719
B	ADJ.	676.719	676.719	676.728	676.729	676.724	676.719	676.726	676.732	676.726	676.719	676.726	676.731	676.726	676.719	676.726	676.732	676.726	676.719	676.724	676.729	676.728	676.719	676.719
Bott. of Slab		675.385	675.385	675.395	675.395	675.390	675.385	675.393	675.399	675.393	675.385	675.393	675.398	675.393	675.385	675.393	675.399	675.393	675.385	675.390	675.395	675.395	675.385	675.385

LOCATION		BK. OF	CL OF	SPAN 1			CL OF	SPAN 2			CL OF	SPAN 3			CL OF	SPAN 4			CL OF	SPAN 5			CL OF	BK OF
		S. ABUT	S. ABUT	1	2	3	PIER 1	4	5	6	PIER 2	7	8	9	PIER 3	10	11	12	PIER 4	13	14	15	N. ABUT	N. ABUT
LINE	T.	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000	677.000
C	ADJ.	677.000	677.000	677.009	677.010	677.005	677.000	677.008	677.013	677.008	677.000	677.008	677.013	677.008	677.000	677.008	677.013	677.008	677.000	677.005	677.010	677.009	677.000	677.000
Bott. of Slab		675.667	675.667	675.676	675.677	675.672	675.667	675.674	675.680	675.674	675.667	675.674	675.679	675.674	675.667	675.674	675.680	675.674	675.667	675.672	675.677	675.676	675.667	675.667

LOCATION		BK. OF	CL OF	SPAN 1			CL OF	SPAN 2			CL OF	SPAN 3			CL OF	SPAN 4			CL OF	SPAN 5			CL OF	BK OF
		S. ABUT	S. ABUT	1	2	3	PIER 1	4	5	6	PIER 2	7	8	9	PIER 3	10	11	12	PIER 4	13	14	15	N. ABUT	N. ABUT
LINE	T.	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719	676.719
D	ADJ.	676.719	676.719	676.728	676.729	676.724	676.719	676.726	676.732	676.726	676.719	676.726	676.731	676.726	676.719	676.726	676.732	676.726	676.719	676.724	676.729	676.728	676.719	676.719
Bott. of Slab		675.385	675.385	675.395	675.395	675.390	675.385	675.393	675.399	675.393	675.385	675.393	675.398	675.393	675.385	675.393	675.399	675.393	675.385	675.390	675.395	675.395	675.385	675.385

LOCATION		BK. OF	CL OF	SPAN 1			CL OF	SPAN 2			CL OF	SPAN 3			CL OF	SPAN 4			CL OF	SPAN 5			CL OF	BK OF
		S. ABUT	S. ABUT	1	2	3	PIER 1	4	5	6	PIER 2	7	8	9	PIER 3	10	11	12	PIER 4	13	14	15	N. ABUT	N. ABUT
LINE	T.	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667	676.667
E	ADJ.	676.667	676.667	676.676	676.677	676.672	676.667	676.674	676.680	676.674	676.667	676.674	676.679	676.674	676.667	676.674	676.680	676.674	676.667	676.672	676.677	676.676	676.667	676.667
** Bott. of Slab		675.167	675.167	675.176	675.177	675.172	675.167	675.174	675.180	675.174	675.167	675.174	675.179	675.174	675.167	675.174	675.180	675.174	675.167	675.172	675.177	675.176	675.167	675.167

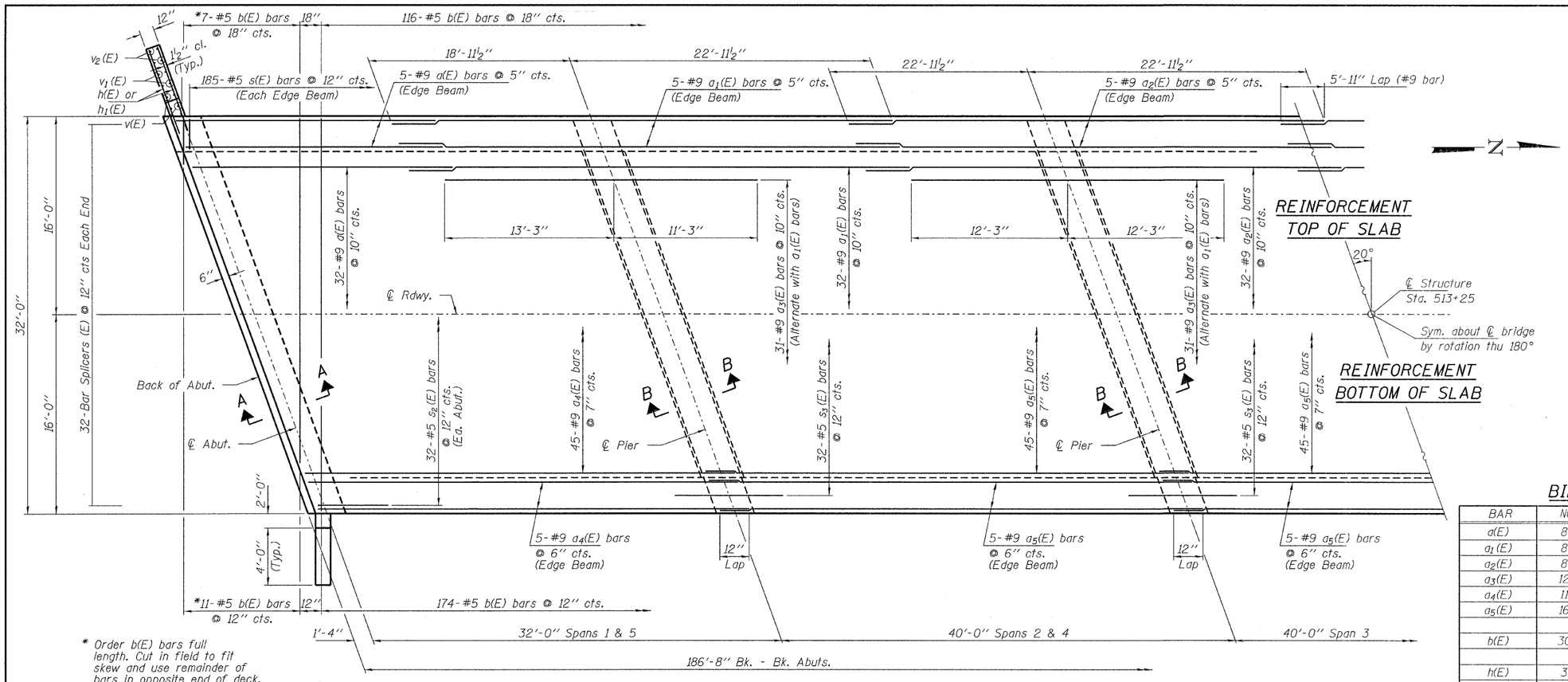
T. - Theoretical elevation at top of slab

Adj. - T adjusted for dead load deflection

** *Bottom of slab elevation equals bottom of edge beam*

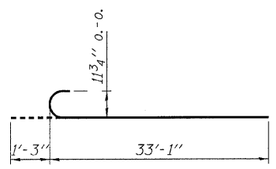
FILE NAME = 100191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	**STATE OF ILLINOIS**	**SLAB ELEVATIONS**
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -	**LIVINGSTON COUNTY HIGHWAY DEPARTMENT**	**STRUCTURE NO. 053-3457**
3085 STEVENSON DRIVE, SUITE 207 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - D.A.B.	REVISED -		SHEET NO. 4 OF 12 SHEETS
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000659	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -		

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	21
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS	FED. AID PROJECT		

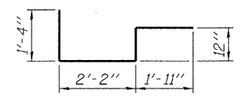


* Order b(E) bars full length. Cut in field to fit skew and use remainder of bars in opposite end of deck.

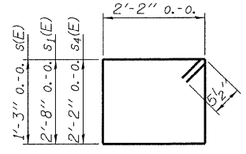
PLAN



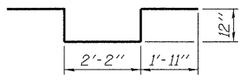
BARS a4(E)



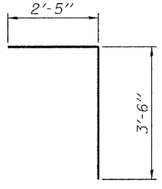
BAR s2(E)



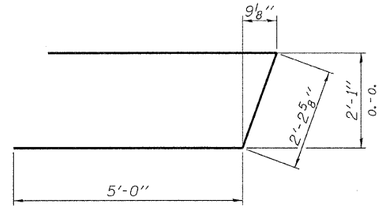
BARS s(E), s1(E) & s4(E)



BAR s3(E)

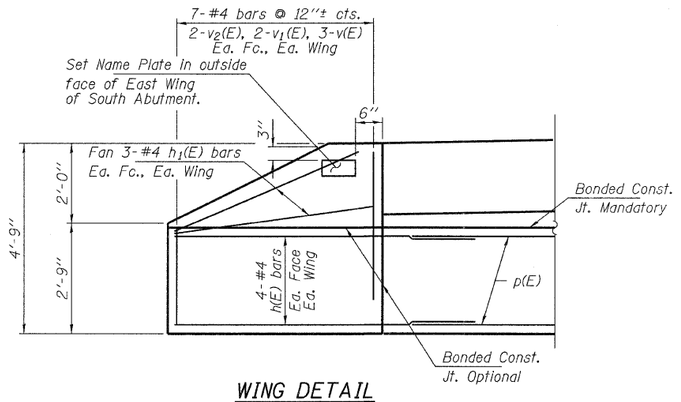


BAR v4(E)



BAR u(E)

MIN. BAR LAPS
#9 = 5'-11"



WING DETAIL
(Typ. all Wingwalls)

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	84	#9	19'-7"	
a1(E)	84	#9	41'-11"	
a2(E)	84	#9	45'-11"	
a3(E)	124	#9	24'-6"	
a4(E)	110	#9	34'-4"	
a5(E)	165	#9	41'-0"	
b(E)	308	#5	31'-8"	
h(E)	32	#4	7'-3"	
h1(E)	24	#4	5'-9"	
p(E)	64	#7	33'-9"	
s(E)	370	#5	7'-9"	
s1(E)	40	#5	10'-7"	
s2(E)	64	#5	6'-5"	
s3(E)	128	#5	8'-0"	
s4(E)	80	#5	9'-7"	
u(E)	40	#6	12'-3"	
v(E)	24	#4	4'-4"	
v1(E)	16	#4	3'-4"	
v2(E)	16	#4	2'-4"	
v3(E)	340	#5	3'-3"	
v4(E)	68	#5	5'-11"	

Concrete Structures	Cu. Yd.	54.2
Concrete Superstructure	Cu. Yd.	308.2
Bridge Deck Grooving	Sq. Ft.	622
Concrete Encasement	Cu. Yd.	36.2
Protective Coat	Sq. Ft.	726
Reinforcement Bars, Epoxy Coated	Pound	99,850
Bar Splicers	Each	64
Furnishing Steel Pile HP12x53	Foot	825
Test Pile Steel HP12x53	Each	1
Name Plates	Each	1

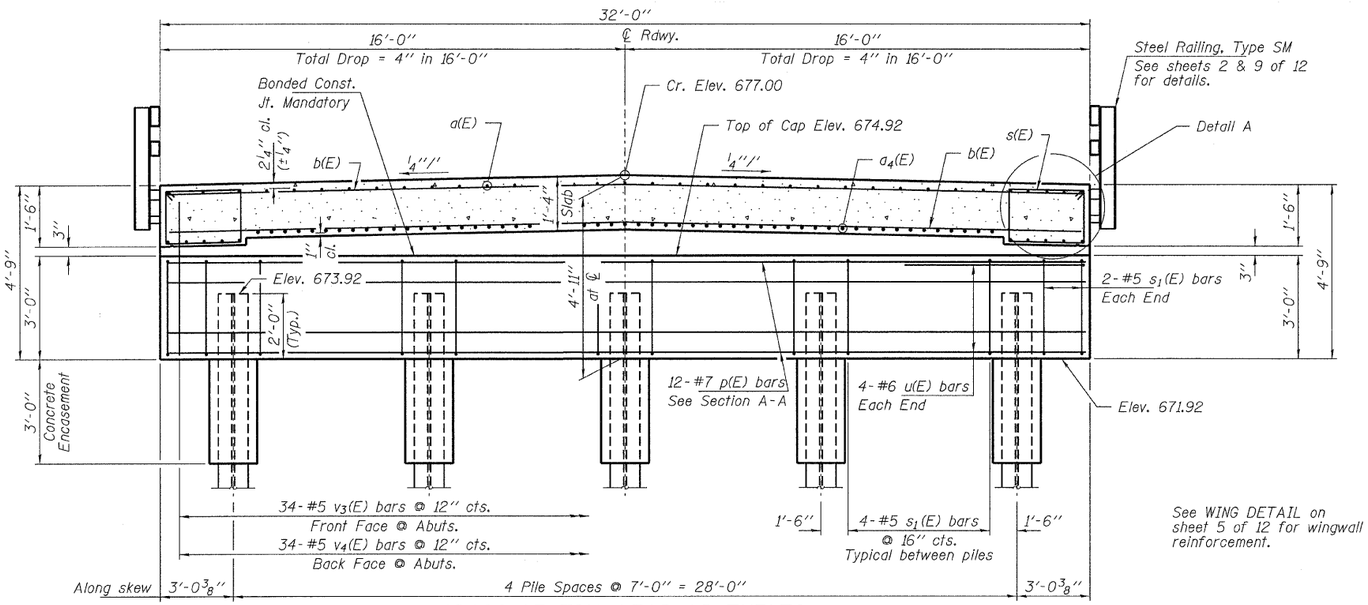
Reinforcement bars designated (E) shall be epoxy coated. For Elevations, Sections A-A, and B-B see sheet 6 of 12. For Edge Beam Details see Detail A on sheet 6 of 12.

FILE NAME = 100191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.005859		CHECKED - S.W.M.	REVISED -
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

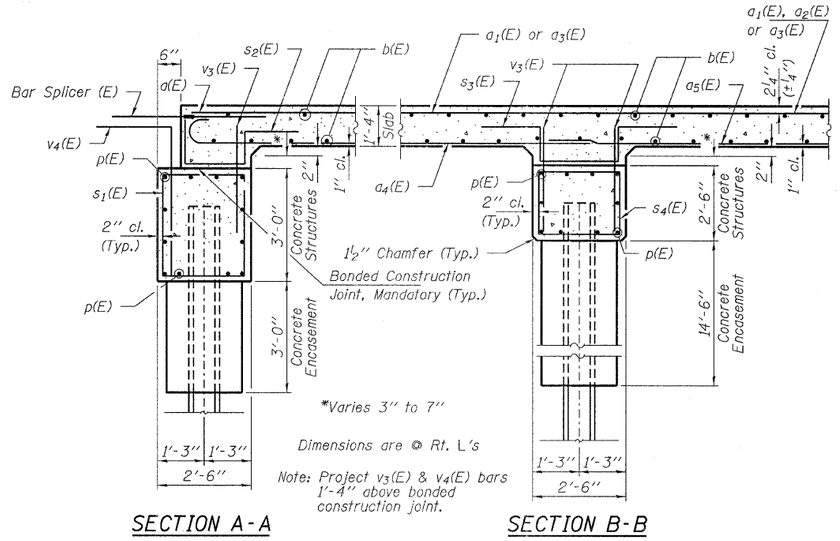
SUPERSTRUCTURE
STRUCTURE NO. 053-3457
SHEET NO. 5 OF 12 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	22
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS FED. AID PROJECT			



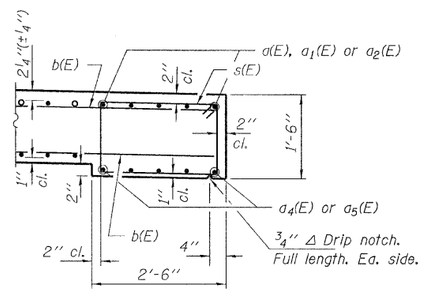
CROSS SECTION NEAR ABUTMENTS
(Looking North)

See WING DETAIL on sheet 5 of 12 for wingwall reinforcement.

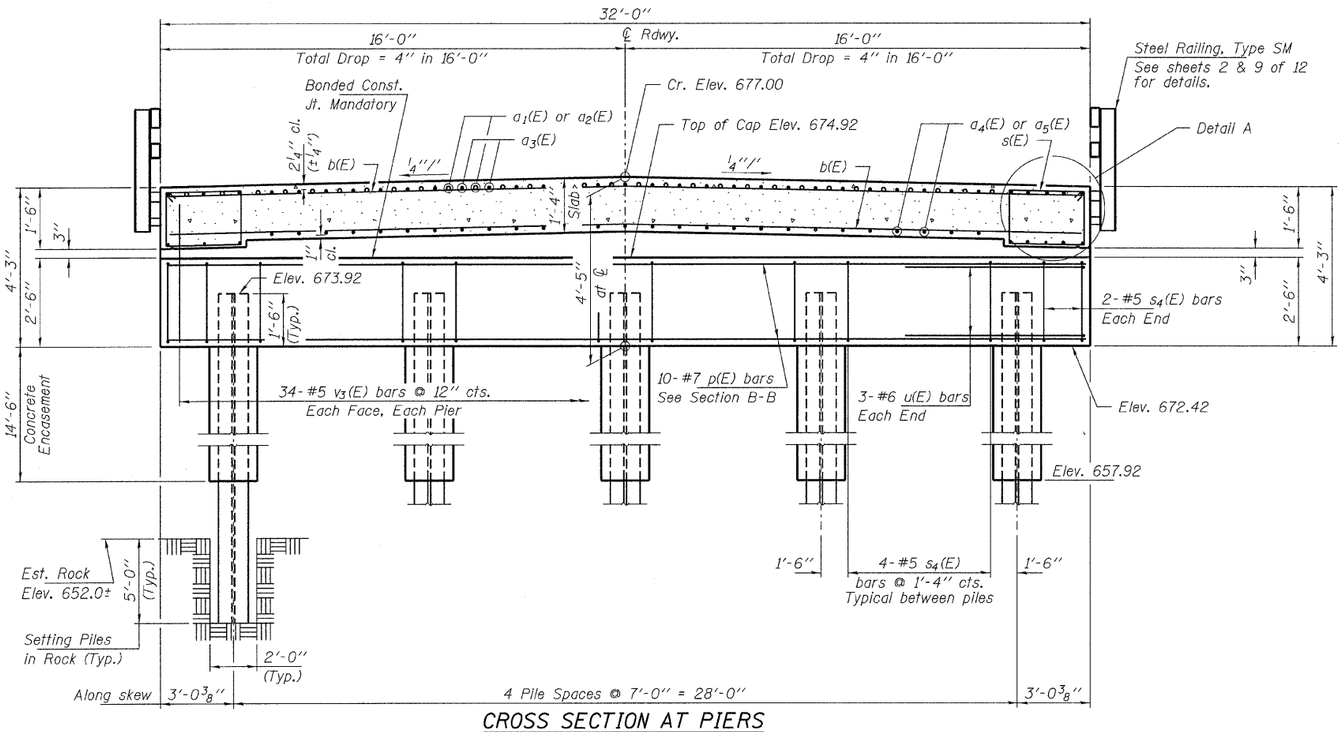


SECTION A-A

SECTION B-B



DETAIL A



CROSS SECTION AT PIERS
(Looking North)

PILE DATA

Type and Size	Steel Piles HP12x53
No. Req'd.	*30
Factored Resistance Available (Rf)	230 Kips/Pile
Nominal Required Bearing (Rn)	419 Kips/Pile (Abuts.) Set in Rock (Piers)
Est. Lengths	25 Ft/Pile (Abuts.) 30 Ft/Pile (Piers)

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

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

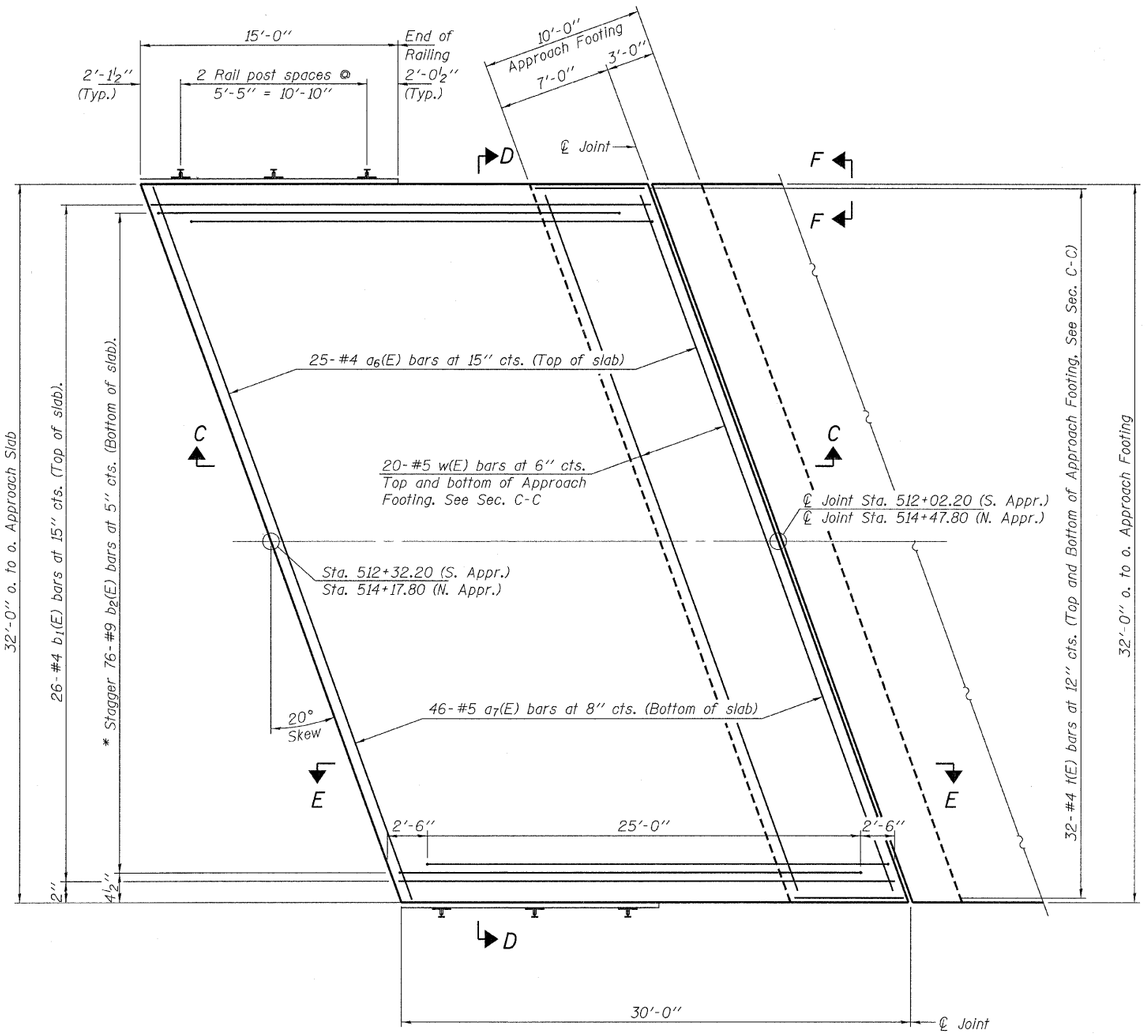
FILE NAME = 180191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 053-3457
SHEET NO. 6 OF 12 SHEETS

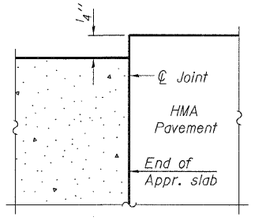
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	23
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS	FED. AID PROJECT		

Notes:
See sheet 8 of 12 for Sections C-C & D-D and View E-E.
a(E) and a_1(E) bar spacings measured along ℄ Rdwy.



PLAN

* Tilt #9 b_1(E) bars as required to maintain clearance.

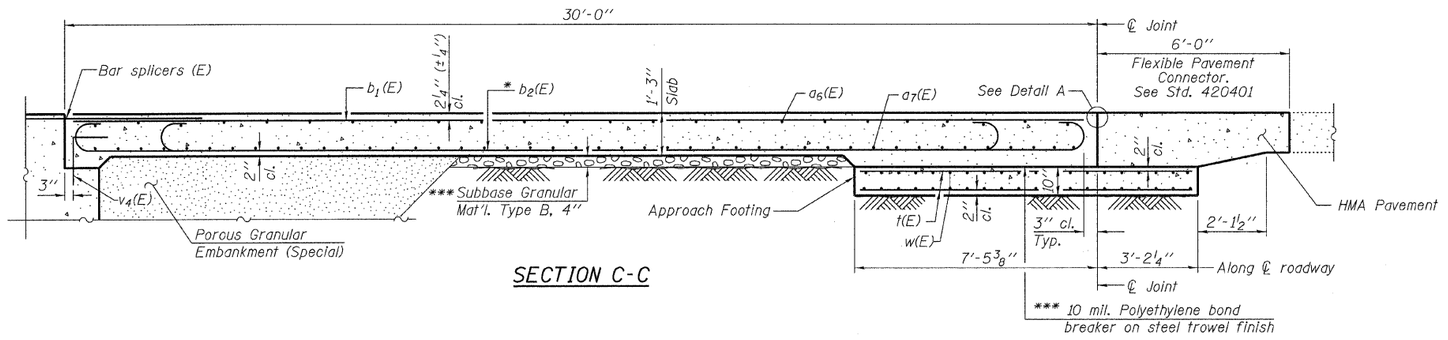


FLEXIBLE PAVEMENT

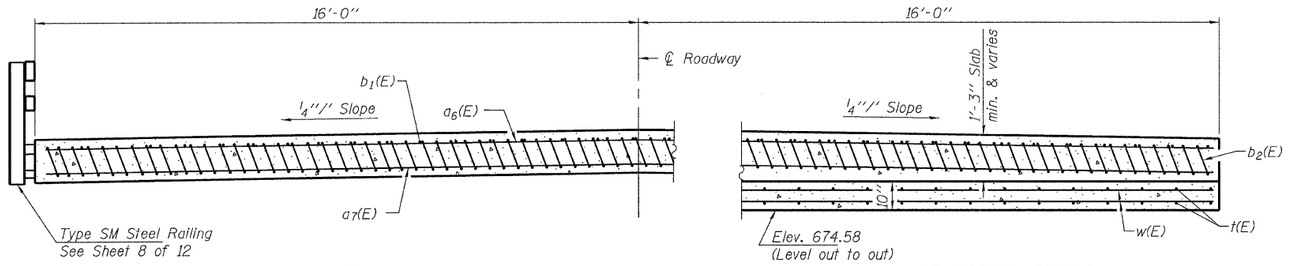
DETAIL A

(Sheet 1 of 2)

FILE NAME = 100191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 053-3457 SHEET NO. 7 OF 12 SHEETS	F.A.S. 351 / SECTION 08-00145-05-BR / COUNTY LIVINGSTON / TOTAL SHEETS 29 / SHEET NO. 24
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000699		CHECKED - S.W.M.	REVISED -			SOUTH 7TH STREET CONTRACT NO. 87494 ILLINOIS FED. AID PROJECT
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -			
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -			



SECTION C-C



NEAR ABUTMENT

SECTION D-D

(See Plan for dimensions not shown)

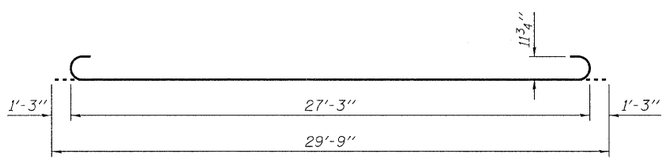
AT APPROACH FOOTING

Notes:

See sheet 7 of 12 for Detail A.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v_4(E) bar details, see sheet 5 of 12.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 10 of 12.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 12.
Cost of Sawcut included with Concrete Structures.

* Tilt #9 b_2(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.



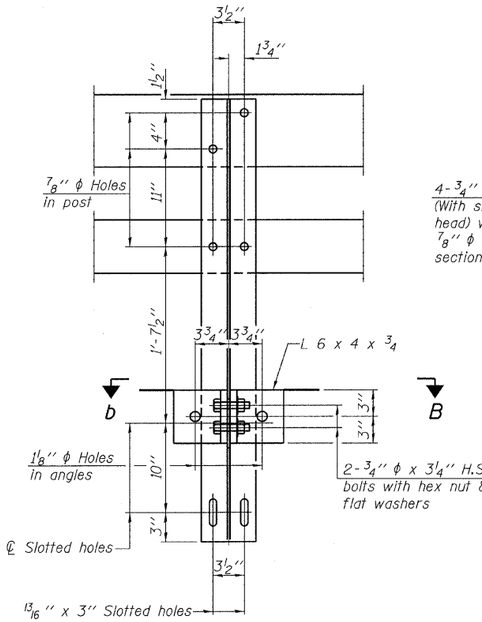
BAR b_2(E)

TWO APPROACHES
BILL OF MATERIAL

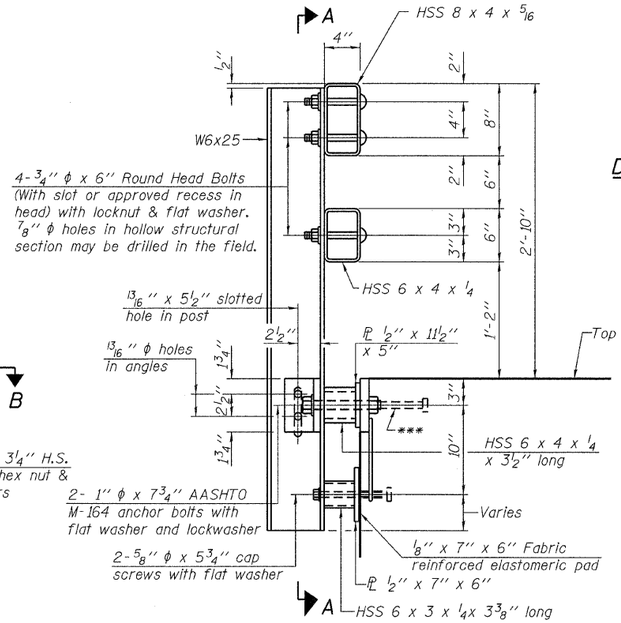
Bar	No.	Size	Length	Shape
a_6(E)	50	#4	33'-9"	———
a_7(E)	92	#5	33'-9"	———
b_1(E)	52	#4	29'-8"	———
b_2(E)	152	#9	29'-9"	⊂——⊃
t(E)	128	#4	10'-3"	———
w(E)	80	#5	33'-9"	———
Concrete Structures			Cu. Yd.	21.0
Concrete Superstructure			Cu. Yd.	93.3
Bridge Deck Grooving			Sq. Yd.	200
Protective Coat			Sq. Yd.	213
Reinforcement Bars, Epoxy Coated			Pound	24,460

FILE NAME = 100191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 053-3457
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.005659		CHECKED - S.W.M.	REVISED -		SHEET NO. 8 OF 12 SHEETS
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -		
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -		

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	25
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS	FED. AID PROJECT		

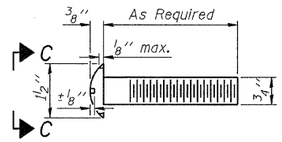


SECTION A-A

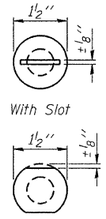


SECTION AT RAIL POST

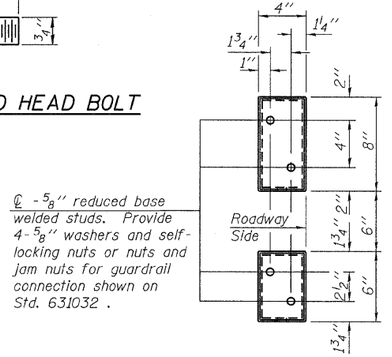
Reinforcement bars in the top of the slab may be placed with a 1½" minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



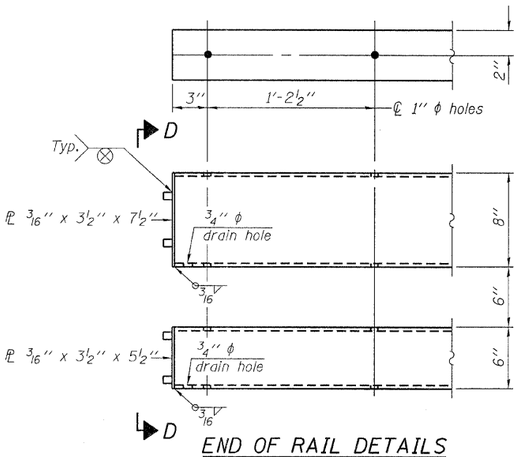
DETAIL OF ¾" ϕ ROUND HEAD BOLT



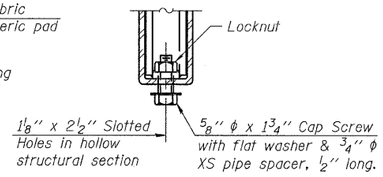
VIEW C-C



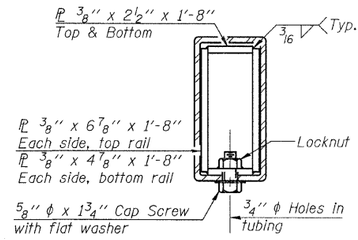
VIEW D-D



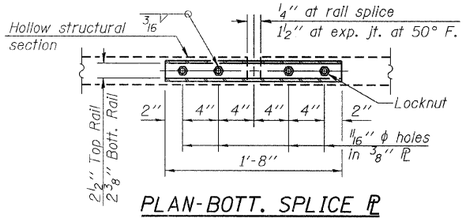
END OF RAIL DETAILS



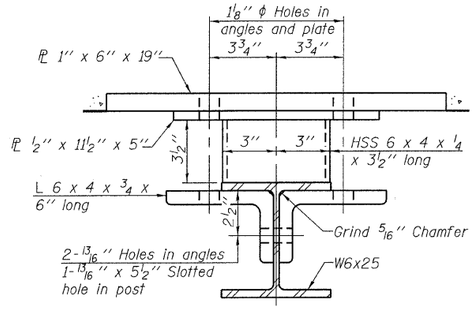
RAIL SPLICE CONNECTION AT EXPANSION JT.



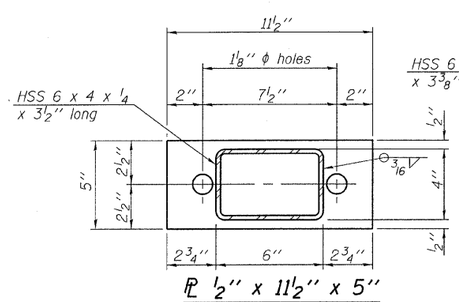
SECTION AT RAIL SPLICE



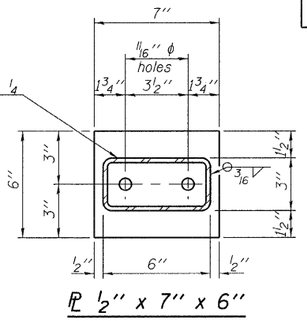
PLAN-BOTT. SPLICE PL TYPICAL



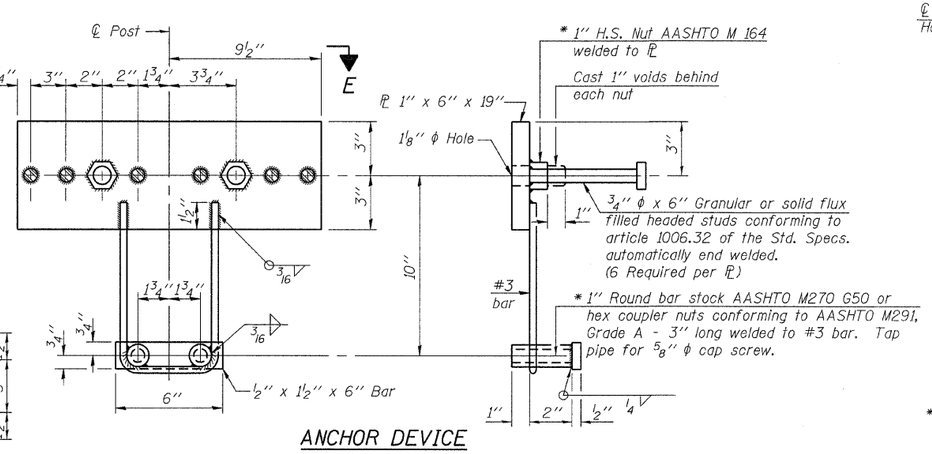
SECTION B-B



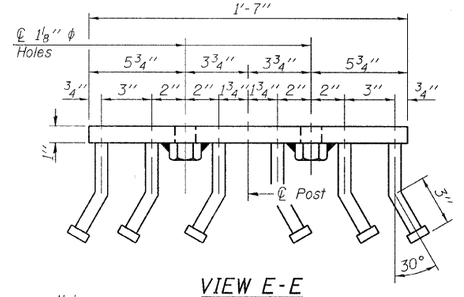
PL ½" x 11½" x 5"



PL ½" x 7" x 6"



ANCHOR DEVICE



VIEW E-E

Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient ¼" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.

All steel rail members 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.*

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	432

(6'-3" Maximum Post Spacing) (1¼" minimum to 3⅛" maximum HMA thickness)

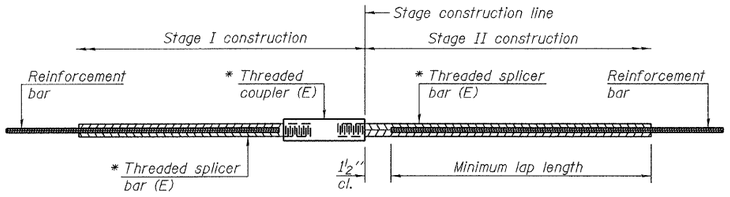
*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

FILE NAME = 100191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.005959		CHECKED - S.W.M.	REVISED -
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE SM
STRUCTURE NO. 053-3457
SHEET NO. 9 OF 12 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	26
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

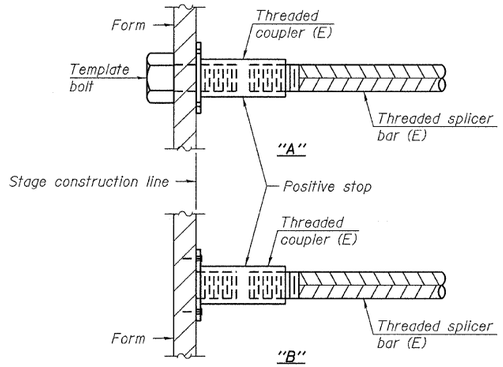
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

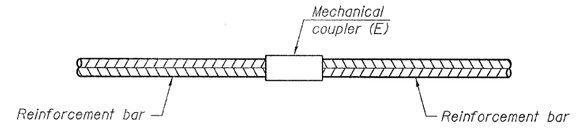
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



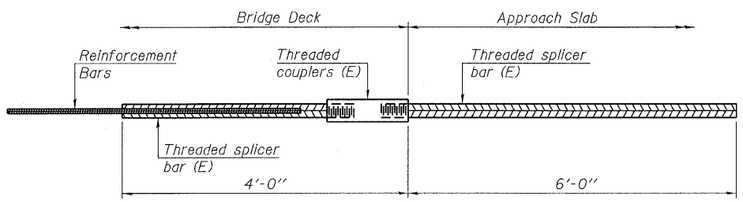
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



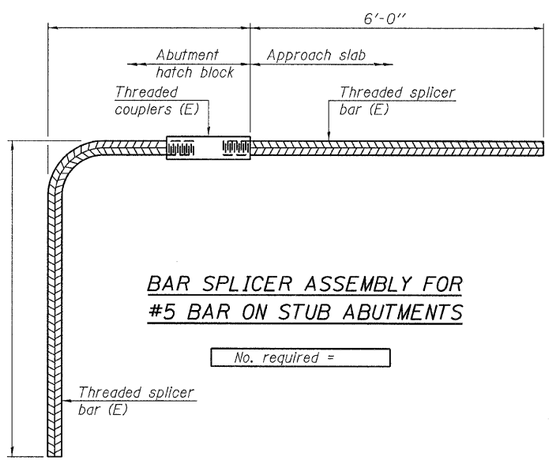
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 64



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

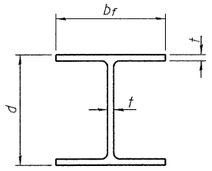
See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 7-1-10

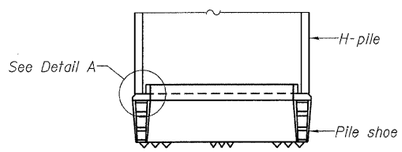
FILE NAME = 180191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 053-3457 SHEET NO. 10 OF 12 SHEETS
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000659		CHECKED - S.W.M.	REVISED -		
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -		
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -		

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	08-00145-05-BR	LIVINGSTON	29	27
SOUTH 7TH STREET		CONTRACT NO. 87494		
	ILLINOIS	FED. AID PROJECT		

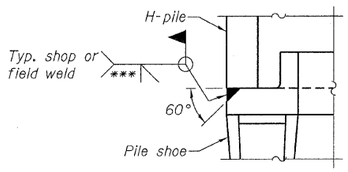


STEEL PILE TABLE

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"

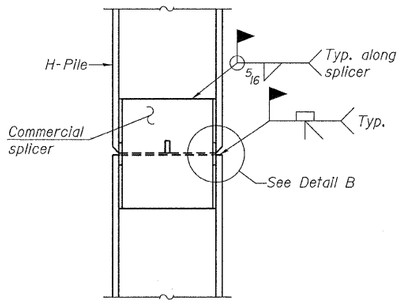


ELEVATION

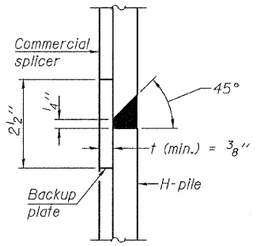


DETAIL A

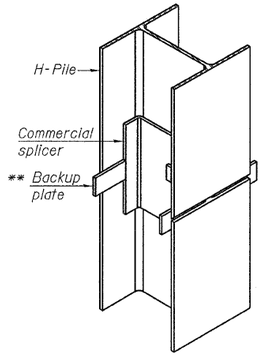
H-PILE SHOE ATTACHMENT



ELEVATION

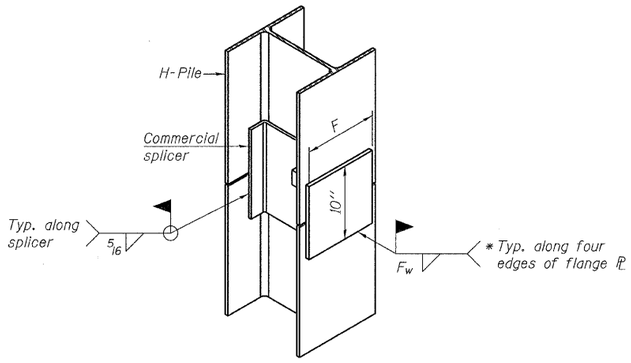


DETAIL "B"

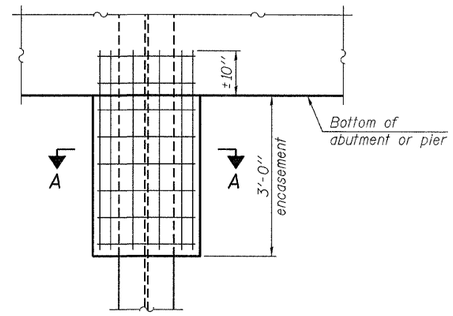


ISOMETRIC VIEW

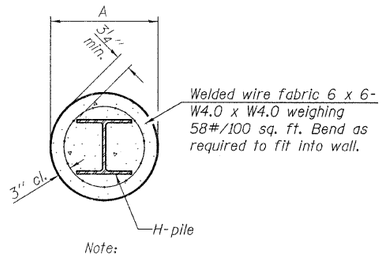
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW



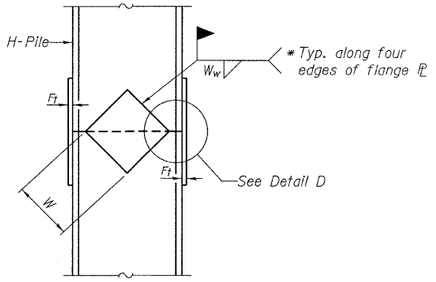
ELEVATION



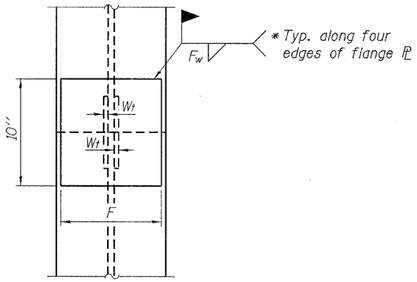
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

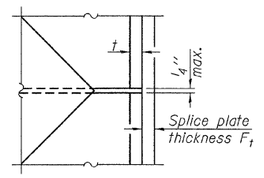
PILE ENCASEMENT



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

WELDED COMMERCIAL SPLICE ALTERNATE

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

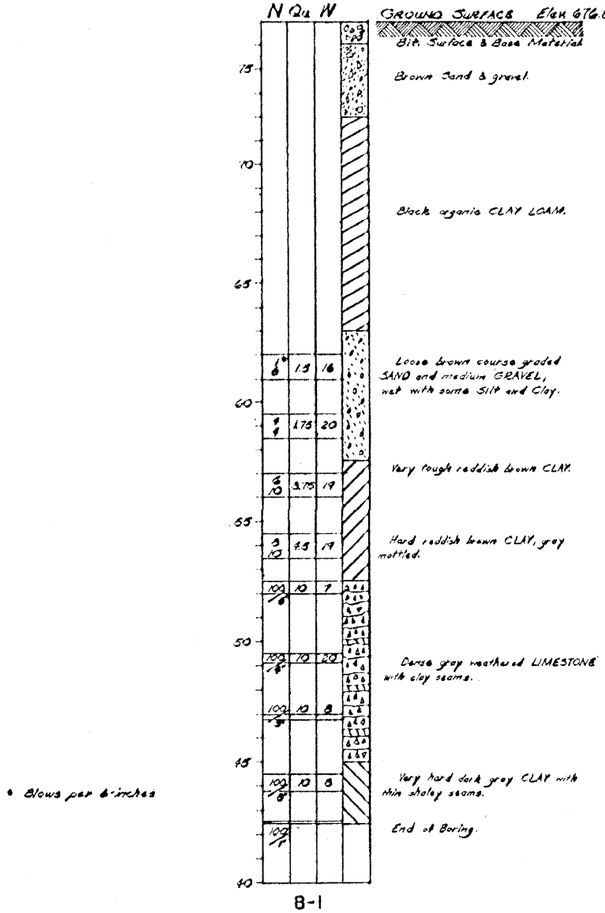
** Remove portions of backup plates that extend outside the flanges.

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

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

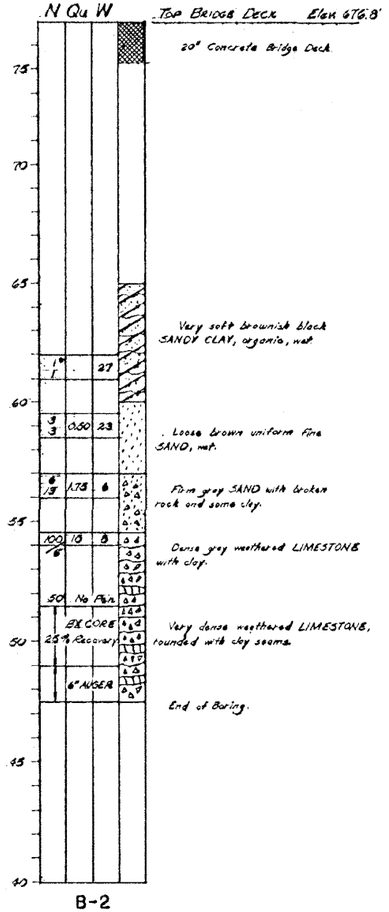
F-HP 7-1-10

FILE NAME = 100191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	HP PILE DETAILS STRUCTURE NO. 053-3457	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3285 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.005959		CHECKED - S.W.M.	REVISED -			351	08-00145-05-BR	LIVINGSTON	29	28
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -			SOUTH 7TH STREET		CONTRACT NO. 87494		
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -		SHEET NO. 11 OF 12 SHEETS	ILLINOIS	FED. AID PROJECT			

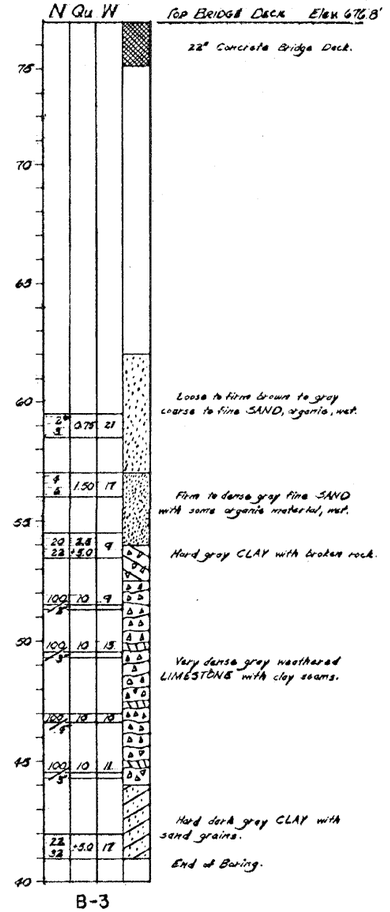


• Blows per 6" inches

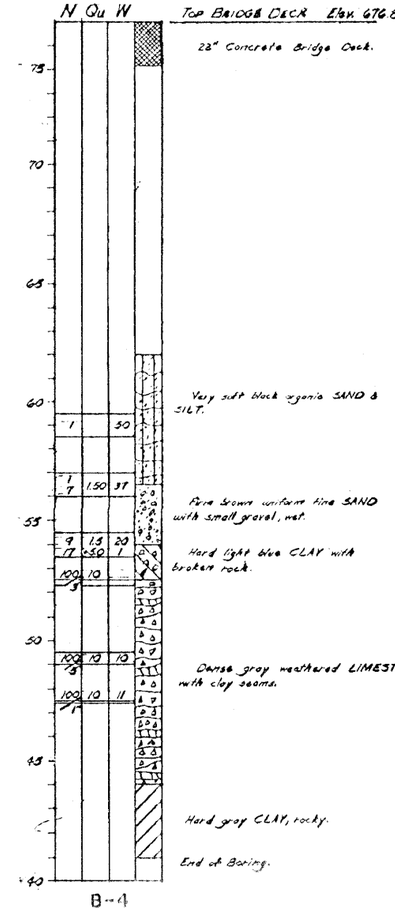
B-1



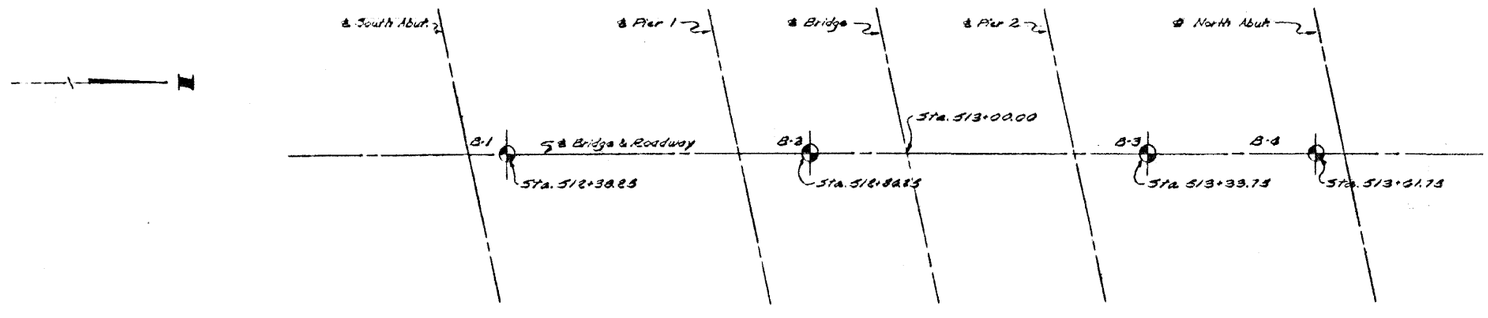
B-2



B-3



B-4



BORING PLAN

N= Blows per 6" with 140 lbs hammer

Qu= Unconfined compressive strength of the soil in tons/sq.ft. (estimated)

W= Natural water content (% dry weight)

FILE NAME = 120191-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	BORINGS STRUCTURE NO. 053-3457 SHEET NO. 12 OF 12 SHEETS	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3565 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PS / SE CORP. 184.003959		CHECKED - S.W.M.	REVISED -			351	08-00145-05-BR	LIVINGSTON	29	29
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -			SOUTH 7TH STREET		CONTRACT NO. 87494		
	PLOT DATE = 2/14/2012	CHECKED - S.W.M.	REVISED -				ILLINOIS	FED. AID PROJECT		