

11-08-2013 LETTING ITEM 056

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 15	08-00299-00-BR	IROQUOIS	19	1
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 87553		

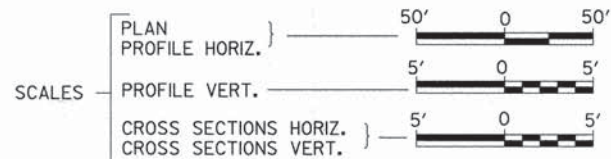
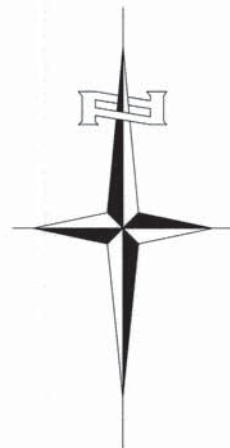
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
IROQUOIS COUNTY
SECTION 08-00299-00-BR
COUNTY HIGHWAY 15 OVER PIKE CREEK
PROJECT NO. BROS-0075(149)
JOB NUMBER C-93-058-13

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, DETAILS, TYPICAL SECTIONS
3.	SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES
4.	TRAFFIC CONTROL PLAN
5.	EROSION CONTROL PLAN
6.	PLAN AND PROFILE
7.-11.	STRUCTURE PLANS
12.-13.	EXISTING STRUCTURE PLANS
14.-19.	CROSS SECTIONS

REQUIRED HIGHWAY STANDARDS

- 000001-06
- 280001-07
- 515001-03
- 630301-06
- 631032-08
- 635006-03
- 701901-02
- BLR 21-9

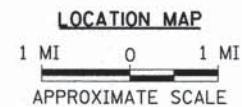
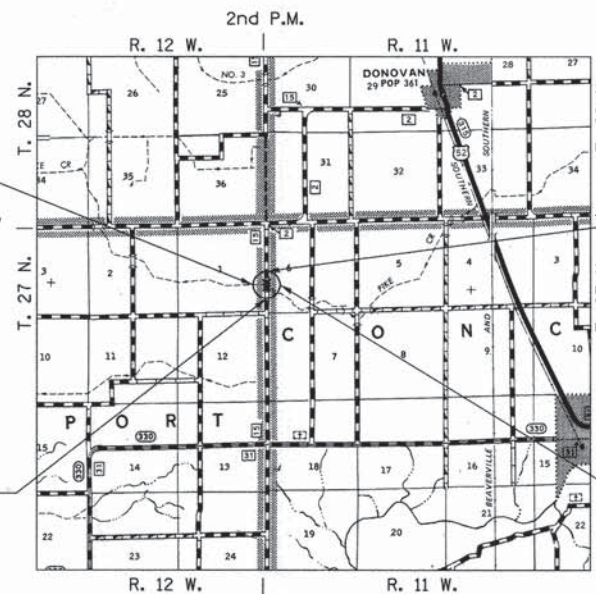


PROPOSED STRUCTURE SN 038-3703
TRIPLE 10'x10' REINFORCED CONCRETE
BOX CULVERT, 35'-4" O. TO O. HEADWALLS,
25° SKEW LT AH

SECTION 08-00299-00-BR
ENDS
STATION 21+75.00

SECTION 08-00299-00-BR
BEGINS
STATION 18+00.00

EXISTING STRUCTURE SN 038-3701
SINGLE SPAN CAST IN PLACE CONCRETE
THRU GIRDER SUPERSTRUCTURE ON
CONCRETE CLOSED ABUTMENTS
33'-3" BK. TO BK., 21'-2" O. TO O.,
NO SKEW (TO BE REMOVED)



NET LENGTH OF PROJECT = 375.00 FEET = 0.071 MILES
DESIGN CLASSIFICATION: LOCAL ROAD (NON-URBAN)
DESIGN ADT = 175 (I3)
DESIGN SPEED = 30 MPH

Hutchison Engineering, Inc.
JACKSONVILLE-SHOREWOOD-PEORIA

2013

JOB#3252



PLANS DESIGNED IN ACCORDANCE WITH BUREAU
OF LOCAL ROADS AND STREETS MANUAL GUIDELINES
FOR TWO LANE RURAL LOCAL ROADS - RECONSTRUCTION

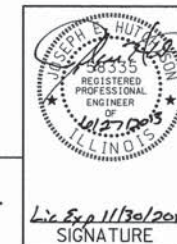
APPROVED July 1st 2013
Paul A. Givone
IROQUOIS COUNTY ENGINEER

PASSED 7-9 2013
Paul A. Givone
DISTRICT THREE ENGINEER OF
LOCAL ROADS & STREETS

Released For
Bid Based on
Limited Review 7-9 2013

Paul A. Givone
DEPUTY DIRECTOR OF HIGHWAYS,
REGION TWO ENGINEER

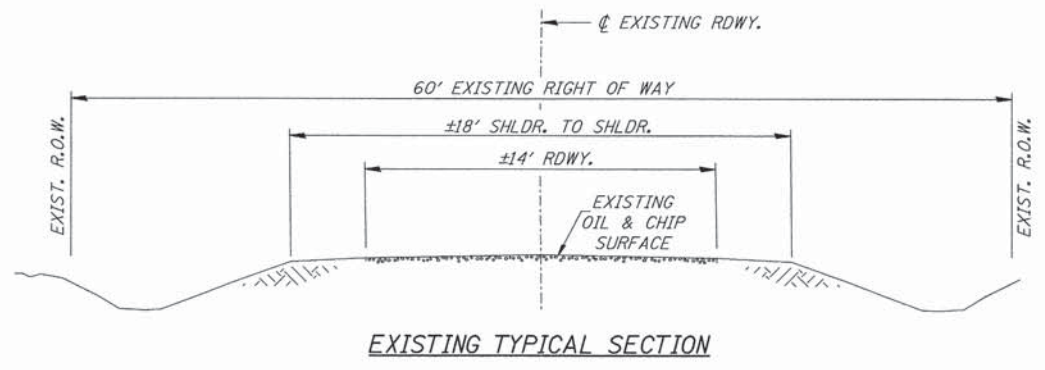
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



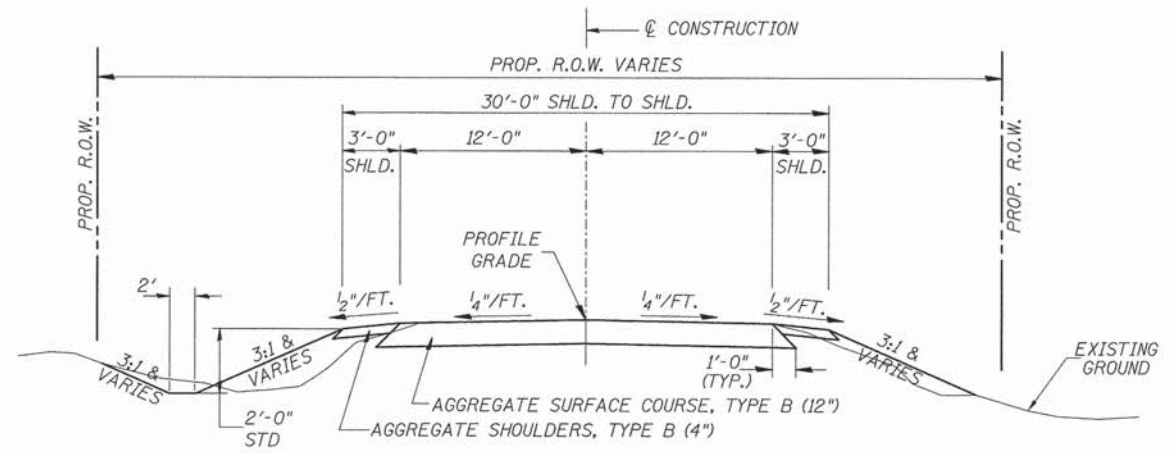
ENGINEER'S SEAL

CONTRACT NO. 87553

3252E001



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION
STA. 18+00.00 TO STA. 21+75.00
EXCEPT TRANSITIONS

CONSTRUCT GUARDRAIL
SHOULDER WIDENING IN
ACCORDANCE WITH STD 630301

GENERAL NOTES

THE REMOVAL OF EXISTING OIL & CHIP SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE PROJECT SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

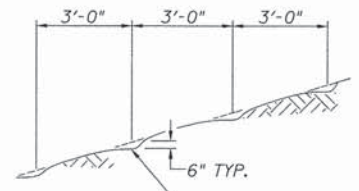
ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

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

ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.



6" DEEP TRENCHES APPROXIMATELY
3'-0" C-C PARALLEL TO THE CONTOUR
LINES OF THE FILL.

NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL. COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

DETAIL OF CONTOUR PLOWING

FILE NAME = V:\Bridge\3252-Iroquois\3252\001.dgn	USER NAME = cthomas	DESIGNED -	REVISED -	IROQUOIS COUNTY COUNTY HIGHWAY 15 OVER PIKE CREEK	GENERAL NOTES, DETAILS, TYPICAL SECTIONS	RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 1.0000' / in.	CHECKED -	REVISED -	CH 15			08-00299-00-BR	IROQUOIS	19	2	
PLOT DATE = 6/27/2013	DATE -	REVISED -	CONTRACT NO. 87553							
						SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+00.00 TO STA. 21+75.00	FED. ROAD DIST. NO. 7	ILLINOIS

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.1
20200100	EARTH EXCAVATION	CU YD	510
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	50
① 20700220	POROUS GRANULAR EMBANKMENT	CU YD	340
28000305	TEMPORARY DITCH CHECKS	FOOT	156
28000400	PERIMETER EROSION BARRIER	FOOT	140
28100209	STONE RIPRAP, CLASS A5	TON	385
28200200	FILTER FABRIC	SQ YD	445
28300400	AGGREGATE DITCH	TON	59
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	592
48101200	AGGREGATE SHOULDERS, TYPE B	TON	74
① 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50800105	REINFORCEMENT BARS	POUND	28,830
51500100	NAME PLATES	EACH	1
54003000	CONCRETE BOX CULVERTS	CU YD	177.2
② 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	2
② 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
67100100	MOBILIZATION	L SUM	1
② ① 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
① X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.3
② ① XX006199	STEEL BRIDGE RAIL, TYPE SM (SPECIAL)	FOOT	74
① XX008899	FIELD TILE ADJUSTMENT, 8" OR LESS	FOOT	50
① XX008900	FIELD TILE ADJUSTMENT, OVER 8"	FOOT	50

① SEE SPECIAL PROVISIONS
 ② SPECIALTY ITEMS
 CONSTRUCTION CODE TYPE: 0011

TREE REMOVAL, ACRES

STATION TO STATION	SIDE	ACRES
18+00 - 21+75	RIGHT	0.1
	TOTAL	0.1

TEMPORARY DITCH CHECKS

STATION	SIDE	FOOT
18+75	RIGHT	12
19+25	LEFT	12
19+35	RIGHT	12
19+50	LEFT	12
19+54	RIGHT	12
19+75	LEFT	12
20+09	RIGHT	12
20+23	RIGHT	12
20+30	LEFT	12
20+37	RIGHT	12
20+50	RIGHT	12
20+52	LEFT	12
20+75	LEFT	12
TOTAL		156

AGGREGATE DITCH**

STATION TO STATION	SIDE	WIDTH	TON	FILTER FABRIC (SQ YD)
19+25 - 19+54	RIGHT	6'	10	19
19+25 - 19+75	LEFT	6'	18	33
20+09 - 20+50	RIGHT	6'	15	28
20+30 - 20+75	LEFT	6'	16	30
TOTAL			59	110

** Aggregate Ditch shall conform to material type B-3 of the Standard Specifications.

AGGREGATE SURFACE COURSE, TYPE B

STATION TO STATION	THICKNESS	WIDTH	LENGTH	TON
18+00.00 - 18+50.00	1.00'	20.04' AVG.	50.00'	70
18+50.00 - 19+73.61	1.00'	25.00'	123.61'	216
19+73.61 - 20+10.39	0.55'	24.55'	36.78'	35
20+10.39 - 21+25.00	1.00'	25.00'	114.61'	201
21+25.00 - 21+75.00	1.00'	20.07' AVG.	50.00'	70
			TOTAL	592

EARTHWORK SUMMARY

STATION TO STATION	EARTH EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD	CU YD	CU YD
RDWY 18+00.00 - 19+73.61	249	112	75
SEE SPECIAL PROVISIONS FOR STRUCTURE AREA EXCAVATION			
FILL OVER CULVERT	0	0	0
RDWY 20+10.39 - 21+75.00	259	105	89
TOTAL	508	217	164
USE	510	-	165

② 25% SHRINKAGE

TRAFFIC BARRIER TERMINAL, TYPE 6A

SIDE	STATION TO STATION	EACH
RIGHT	19+22.41 - 19+66.16	1
LEFT	20+17.84 - 20+61.59	1
	TOTAL	2

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

SIDE	STATION TO STATION	EACH
RIGHT	18+72.41 - 19+22.41	1
LEFT	20+61.59 - 21+11.59	1
	TOTAL	2

AGGREGATE SHOULDERS, TYPE B

STATION TO STATION	SIDE	WIDTH	LENGTH	TON
18+00.00 - 18+50.00	LEFT	2.84' AVG.	50.00'	3
18+00.00 - 18+62.41	RIGHT	4.00' AVG.	62.41'	6
18+50.00 - 20+17.84	LEFT	3.00'	167.84'	12
18+62.41 - 18+97.41	RIGHT	7.00'	35.00'	6
18+97.41 - 18+98.91	RIGHT	6.88' AVG.	1.50'	1
18+98.91 - 19+49.66	RIGHT	6.75'	50.75'	8
19+49.66 - 19+66.16	RIGHT	5.38' AVG.	16.50'	2
19+66.16 - 21+25.00	RIGHT	3.00'	158.84'	11
20+17.84 - 20+34.34	LEFT	5.38' AVG.	16.50'	2
20+34.34 - 20+85.09	LEFT	6.75'	50.75'	8
20+85.09 - 20+86.59	LEFT	6.88' AVG.	1.50'	1
20+86.59 - 21+21.59	LEFT	7.00'	35.00'	6
21+21.59 - 21+75.00	LEFT	4.34' AVG.	53.41'	5
21+25.00 - 21+75.00	RIGHT	2.74' AVG.	50.00'	3
			TOTAL	74

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
18+00 - 18+25	RIGHT	30
18+00 - 18+50	LEFT	55
21+50 - 21+75	LEFT	25
21+50 - 21+75	RIGHT	30
	TOTAL	140



- 1

ROAD CLOSED
1 3/4 MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3

ROAD CLOSED
1 3/4 MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3
- 2

ROAD CLOSED
3/4 MILE AHEAD
LOCAL TRAFFIC ONLY

R11-3

ROAD CLOSED
3/4 MILE AHEAD
LOCAL TRAFFIC ONLY

R11-3
- 3

ROAD CLOSED
AHEAD

W20-3
- 4

ROAD CLOSED
500 FT

W20-3
- 5

TYPE III BARRICADES

SEE STANDARD BLR 21
AND SPECIAL PROVISIONS

FILE NAME = V:\Bridge\3252-Iroquois\3252h001.dgn	USER NAME = cthomas	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1,0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 6/27/2013	DATE -	REVISED -

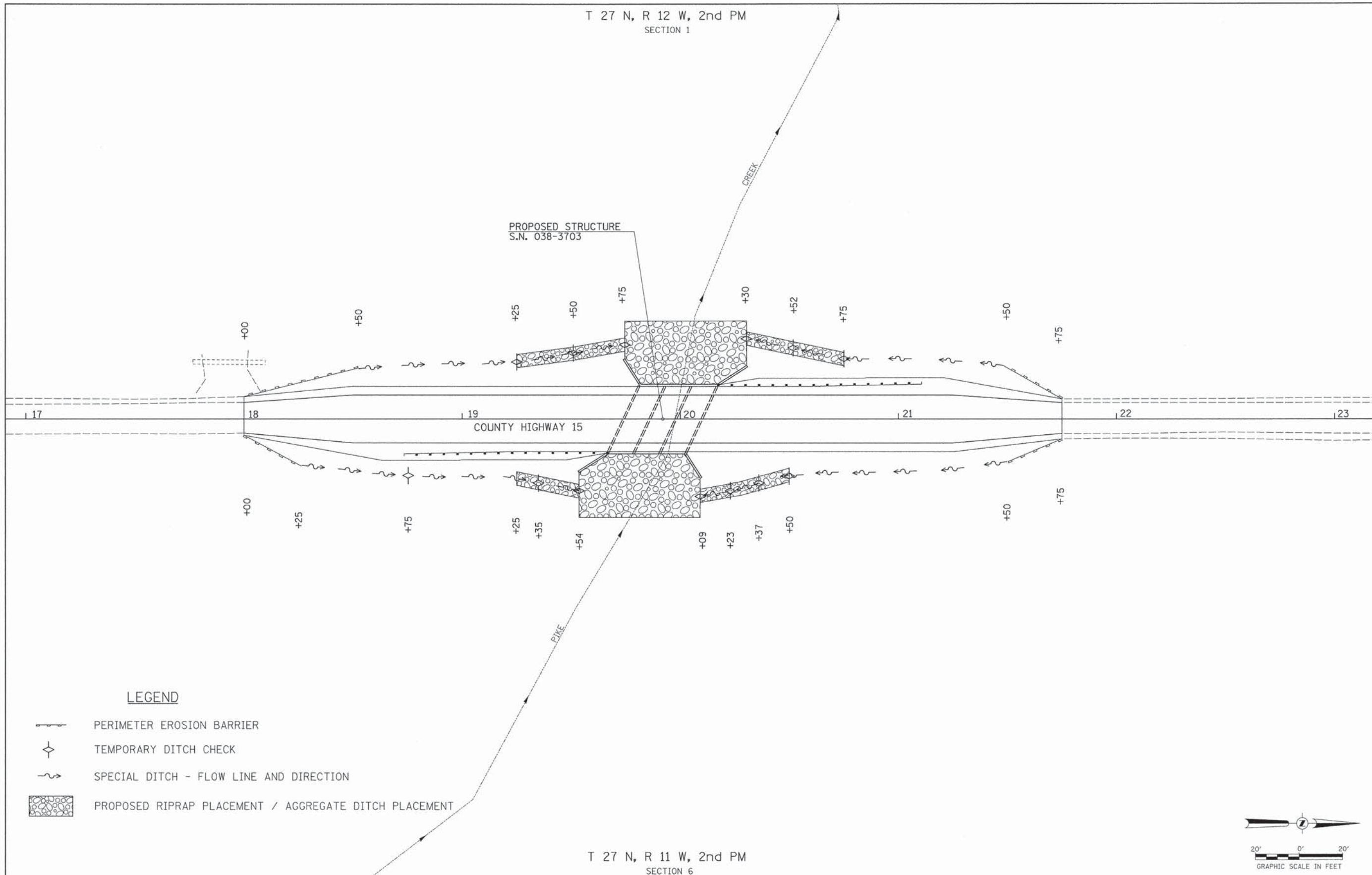
**IROQUOIS COUNTY
COUNTY HIGHWAY 15
OVER PIKE CREEK**

TRAFFIC CONTROL PLAN





SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 18+00.00 TO STA. 21+75.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 15	08-00299-00-BR	IROQUOIS	19	4
CONTRACT NO. 87553				
FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BR05-0075(149)				

T 27 N, R 12 W, 2nd PM
SECTION 1



LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  PROPOSED RIPRAP PLACEMENT / AGGREGATE DITCH PLACEMENT

T 27 N, R 11 W, 2nd PM
SECTION 6

FILE NAME = V:\Bridge\3252-Iroquois\3252S801.dgn	USER NAME = cthomas	DESIGNED -	REVISED -	IROQUOIS COUNTY COUNTY HIGHWAY 15 OVER PIKE CREEK	EROSION CONTROL PLAN			RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 20.0000' / 1" =	DRAWN -	REVISED -					CH 15	08-00299-00-BR	IROQUOIS	19	5
	PLOT DATE = 6/27/2013	CHECKED -	REVISED -					CONTRACT NO. 87553				
				SCALE: 1"=20'			SHEET NO. 1 OF 1 SHEETS			STA. 18+00.00 TO STA. 21+75.00		
							FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR05-0075(49)		

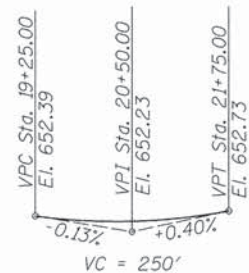
B.M.: Railroad Spike in 26" Tree
Sta. 17+85, ±30' Rt
Elev. 652.91

B.M.: Rail Road Spike in Tree
Sta. 22+40, ±30' Rt.
Elev. 655.55

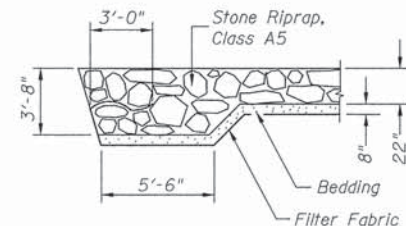
Existing Structure:
Single span cast in place reinforced concrete thru girder superstructure on concrete closed abutments. The structure is 33'-3" back to back of abutments, 21'-2" out to out of deck, and is not skewed.
Str. No. 038-3701

Salvage: None
Road to be closed to traffic during construction.

** Unsuitable Material Removal and Replacement with P.G.E. Limits are 2' outside the bottom slab and extends the length of the barrel.



PROFILE GRADE



SECTION A-A

**PIKE CREEK
BUILT 201 BY
IROQUOIS COUNTY
SEC. 08-00299-00-BR
C.H. 15 STATION 19+92.00
F.A. PROJ. BROS-0075(149)
STR. NO. 038-3703 LOADING HL-93**

NAME PLATE
Locate Name Plate at East Headwall
S.E. Corner of Culvert (See Std. 515001)

WATERWAY INFORMATION

Drainage Area = 9.45 Sq. Mi.		Low Grade Elev. = 652.35 @ Sta. 19+87.27					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.	
			Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist.	Prop.
Design	15	1,100	210 299	650.67 0.43	0.00	651.10	650.67
Base	100	1,770	210 300	651.48 1.43	0.59	652.91	652.07

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications

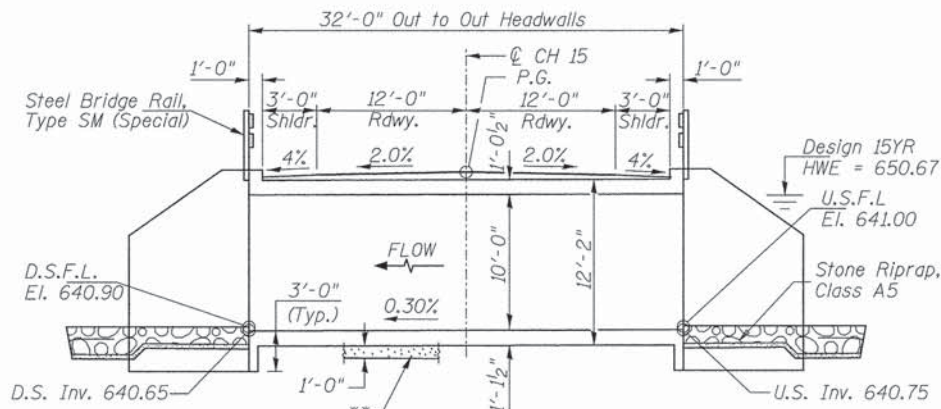
DESIGN STRESSES
FIELD UNITS
f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)

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

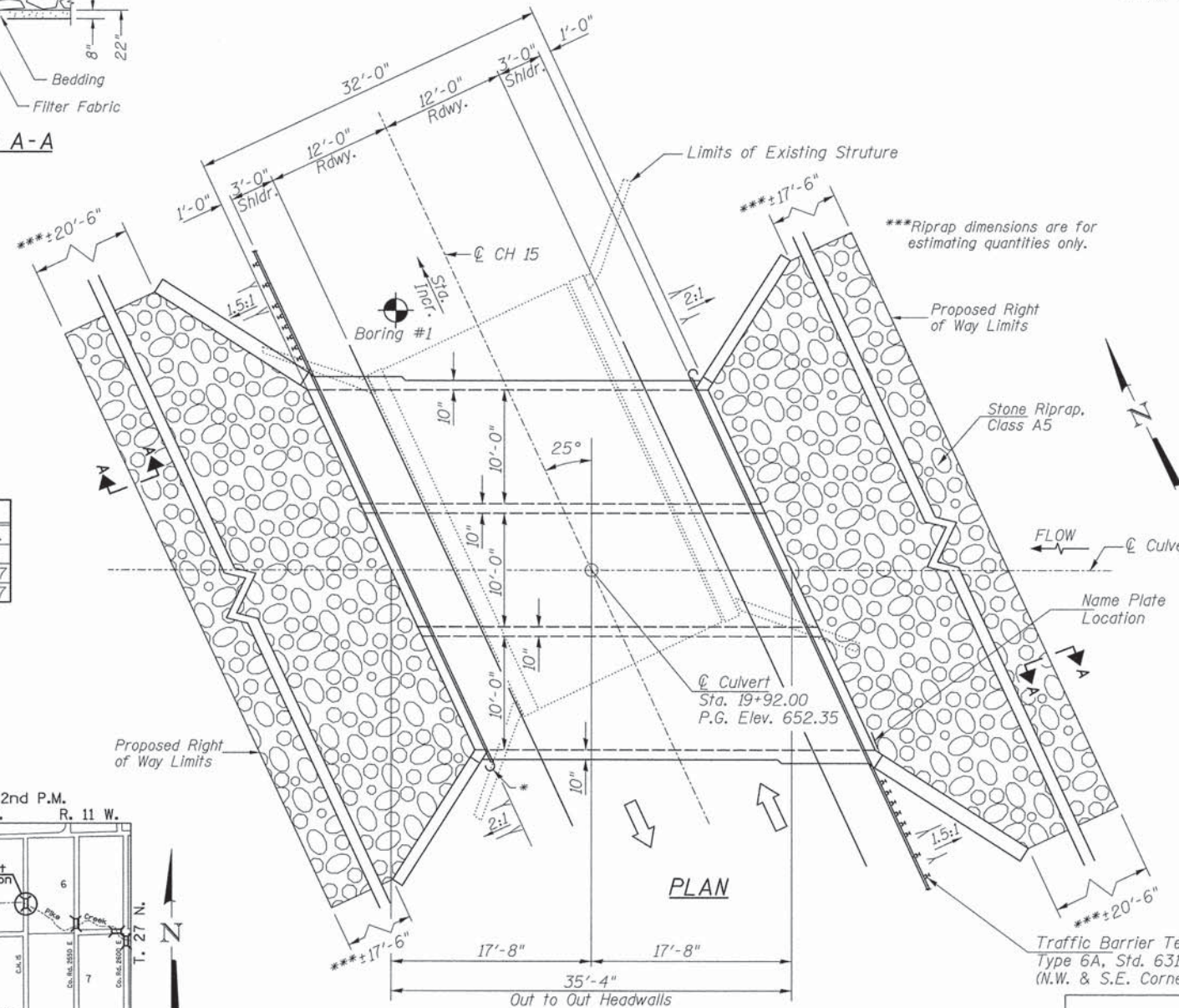
DESIGNED	NPH
CHECKED	CTM
DRAWN	NPH
CHECKED	CTM



LOCATION SKETCH



LONGITUDINAL SECTION
Dimensions are at Rt.L's to C Roadway



PLAN

* Curled End Section (N.E. and S.W. Corner)
Terminal Marker-Direct Applied to be placed on Curled End Sections in accordance with Std. 635006

GENERAL NOTES

The existing abutment footings shall be removed completely within 2' of the limits of the proposed structure. Porous granular embankment shall be used to backfill the area. Cost included with Removal of Existing Structures. Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60.
For backfilling and embankment see Standard Specifications. Precast culvert option will not be allowed. All construction joints shall be bonded. Exposed concrete edges shall have a 3/4" chamfer unless otherwise noted. Layout of stone riprap/slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
A distance of half the length of the wingwall, but not less than 6 feet of the barrel shall be poured monolithically with the wingwall. Areas of excavation required for removal of the existing structure or construction of the new culvert shall be backfilled with Porous Granular Embankment up to the top of slab elevation. See Special Provisions for more detailed information.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressures before removing the existing superstructure. All excavation required for construction of the culvert as shown in these plans and in accordance with the Standard Specifications shall be included in the cost of Concrete Box Culverts.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	CU YD	177.2
Reinforcement Bars	POUND	28,830
① Removal of Existing Structures	EACH	1
Name Plates	EACH	1
Stone Riprap, Class A5	TON	385
Filter Fabric	SQ YD	335
Removal & Disposal of Unsuitable Material	CU YD	50
① Porous Granular Embankment	CU YD	340
① Steel Bridge Rail, Type SM (Special)	FOOT	74

① See Special Provisions

DESIGN SCOUR TABLE

Location	Upstream	Downstream
Design Scour Elevation	640.75	640.65

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 Standard Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

Joseph E. Nutt 6/27/2013
Illinois Structural No. 6440
Expires 11/30/2014

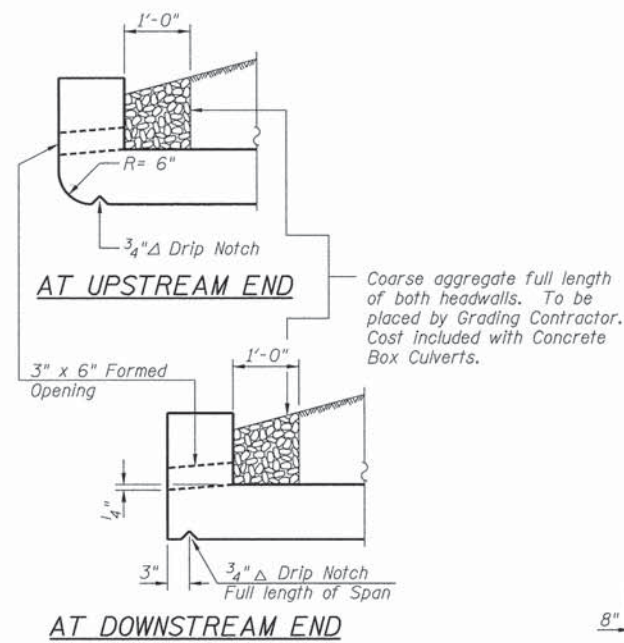
SEAL: JOSEPH E. NUTT, LICENSED STRUCTURAL ENGINEER OF JACKSONVILLE, ILLINOIS, LICENSE NO. 086440, EXPIRES 11/30/2014.

GENERAL PLAN & ELEVATION
IROQUOIS COUNTY
SECTION 08-00299-00-BR
C.H. 15 OVER PIKE CREEK

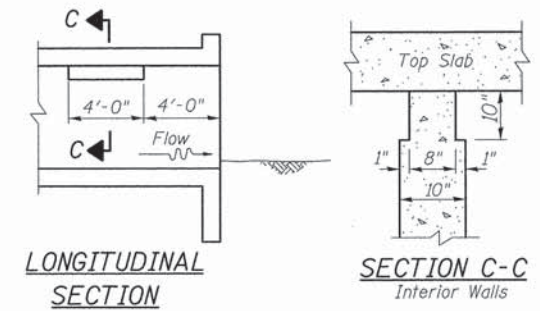
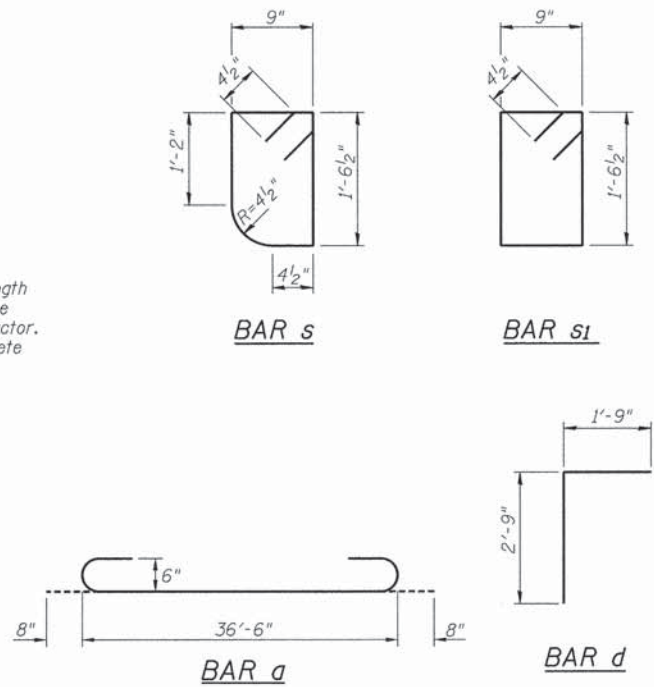
SHEET NO. 1	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5 SHEETS	CH 15	08-00299-00-BR	IROQUOIS	19	7
S.N. 038-3703			CONTRACT NO. 87553		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BROS-0075(149)		

Bar	a	b	c	d
h ₁	5'-0"	3'-0"	2'-6 ³ / ₈ "	1'-7 ³ / ₈ "
h ₂	16'-0"	3'-0"	2'-6 ³ / ₈ "	1'-7 ³ / ₈ "
h ₃	5'-0"	3'-0"	1'-7 ³ / ₈ "	2'-6 ³ / ₈ "
h ₄	13'-6"	3'-0"	1'-7 ³ / ₈ "	2'-6 ³ / ₈ "

BARS h₁, h₂, h₃, & h₄

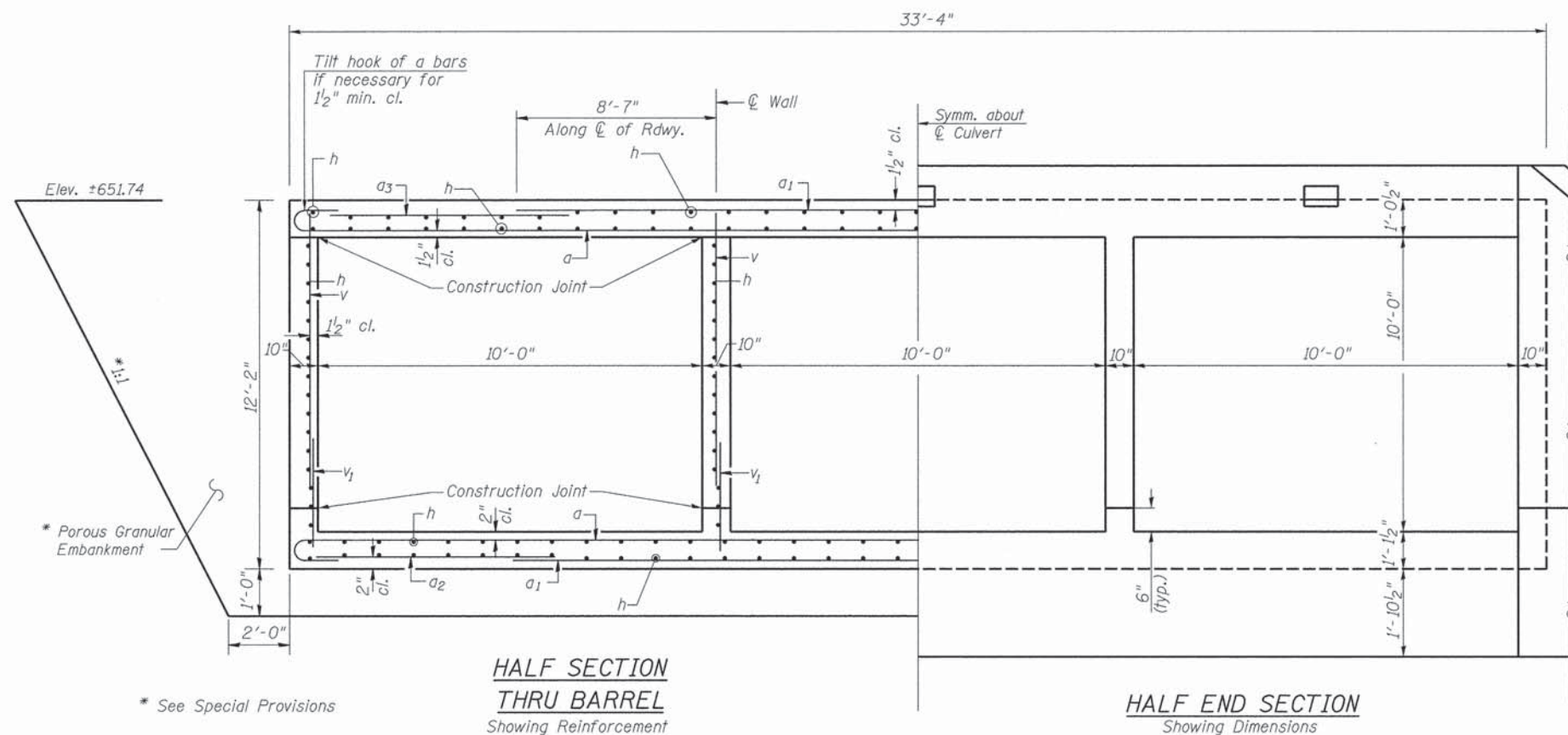


DRAIN DETAIL



PHOEBE NESTING SITE DETAIL
(Downstream End Only - Cost included with Concrete Box Culverts)

Note: Notch by rough-finished board attached to and removed with formwork, each interior wall. (Do not chamfer)



HALF SECTION THRU BARREL
Showing Reinforcement

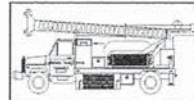
HALF END SECTION
Showing Dimensions

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	102	#6	37'-10"	
a ₁	108	#5	29'-2"	
a ₂	32	#4	5'-0"	
a ₃	54	#5	5'-4"	
d	64	#4	4'-6"	
d ₁	60	#5	3'-10"	
h	202	#5	35'-0"	
h ₁	42	#8	8'-0"	
h ₂	60	#8	19'-0"	
h ₃	42	#8	8'-0"	
h ₄	60	#8	16'-6"	
h ₅	18	#6	36'-3"	
s	36	#4	5'-2"	
s ₁	36	#4	5'-4"	
v	188	#5	10'-3"	
v ₁	188	#5	3'-4"	
v ₂	16	#4	14'-6"	
Concrete Box Culverts			CU YD	177.2
Reinforcement Bars			POUND	28,830

CULVERT DETAILS
IROQUOIS COUNTY
SECTION 08-00299-00-BR
C.H. 15 OVER PIKE CREEK

SHEET NO. 3 5 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 15	08-00299-00-BR	IROQUOIS	19	9
	S.N. 038-3703		CONTRACT NO. 87553		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BROS-0075(149)			



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 2

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

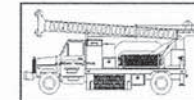
Client: Hutchison Engineering, Inc.
Project Name: Section 08-00299-00-BR
Project Site: C.H. 15 Over Pike Creek
Iroquois County, Illinois

Boring No. B-1
Surface Elev. 652.50
Auger Depth 36' Rotary Depth NA
Start Date 02/20/13 Finish Date 02/20/13

Location: 6' Left of Station 20+20

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
652.50											
651.50	Stiff Black And Brownish Gray Clay (Fill)		1								
650.50			2								
649.50			3	1	SS	1.3	8	B	21		
648.50	Very Stiff Gray Clay Till		4								
647.50			5	2	SS	1.5	8	B	20		
646.50			6								
645.50	Very Stiff Gray Clay Till		7								
644.50			8	3	SS	2.0	11	B	18		
643.50			9								
642.50	Very Stiff Gray Clay Till		10								
641.50			11	4	SS	2.4	16	B	16		
640.50			12								
639.50	Very Stiff Gray Clay Till		13	5	SS	2.4	13	B	18		
638.50			14								
637.50			15								
636.50	Medium Gray Silt		16	6	SS	2.1	14	B	22		
635.50			17								
634.50			18	7	SS	---	22	---	18		
633.50			19								
632.50			20	8	SS	---	20	---	20		

Groundwater Data: Static water at elevation - 636.0
Comments:



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 2

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name: Section 08-00299-00-BR
Project Site: C.H. 15 Over Pike Creek
Iroquois County

Boring No. B-1
Surface Elev. 652.50
Auger Depth 36' Rotary Depth NA
Start Date 02/20/13 Finish Date 02/20/13

Location: 6' Left of Station 20+20

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
631.50											
630.50	Very Stiff Gray Clay Till With Silt Seams		22								
629.50			23	9	SS	2.6	16	B	20		
628.50			24								
627.50	Medium Gray Silt		25	10	SS	2.9	20	B	17		
626.50			26								
625.50			27								
624.50	Medium Gray Silt		28	11	SS	2.6	18	B	17		
623.50			29								
622.50			30	12	SS	2.3	15	B	18		
621.50	Medium Gray Silt		31								
620.50			32								
619.50			33	13	SS	---	13	---	22		
618.50	Medium Gray Silt		34								
617.50			35								
616.50			36	14	SS	---	12	---	22		
615.50			37								
614.50			38								
613.50			39								
612.50			40								
611.50			41								

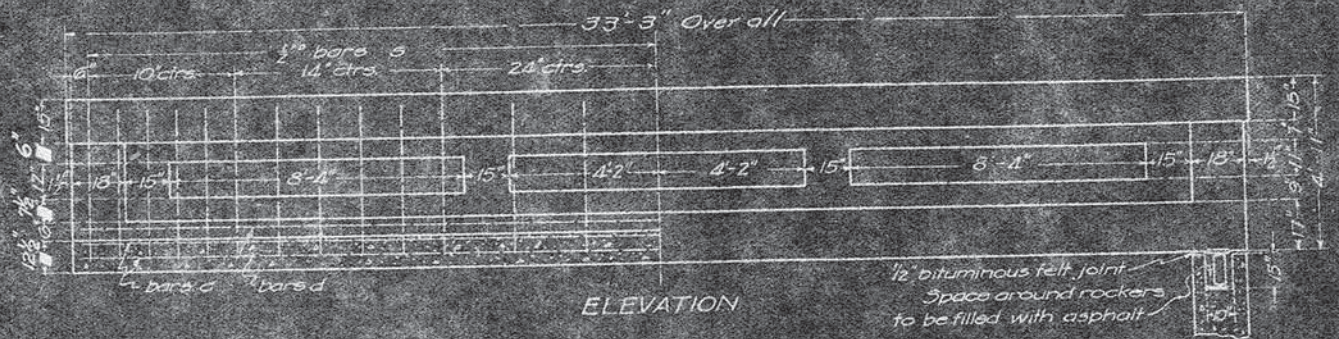
Groundwater Data: Static water at elevation - 636.0
Comments:

SOIL BORING LOGS
IROQUOIS COUNTY
SECTION 08-00299-00-BR
C.H. 15 OVER PIKE CREEK

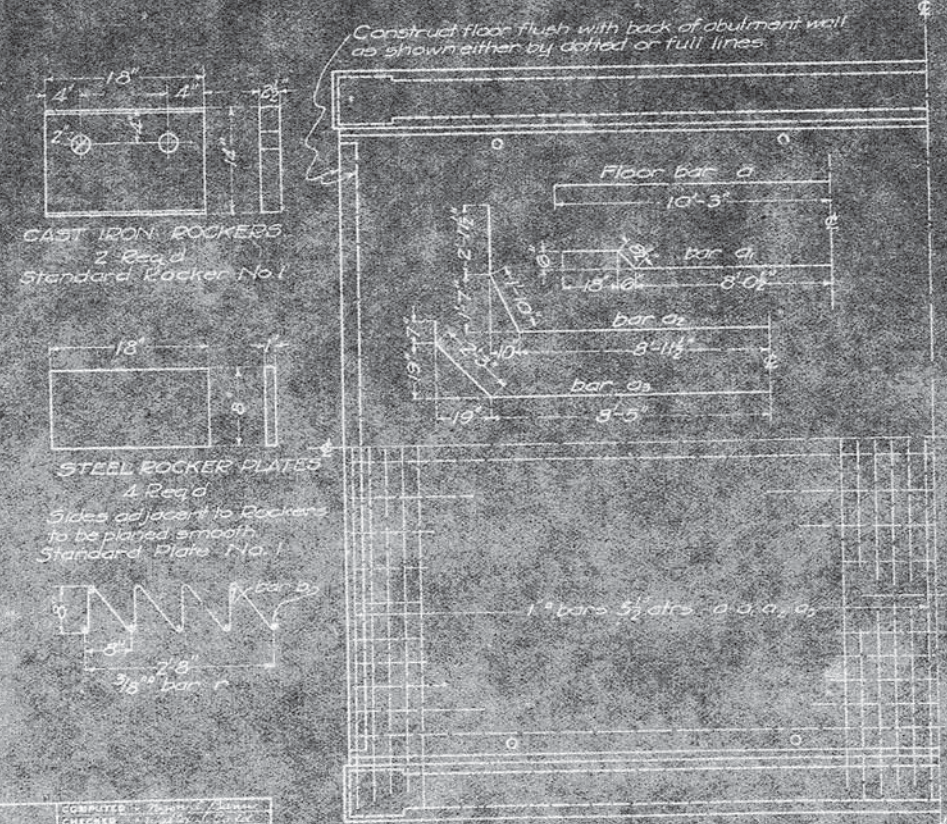
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	CH 15	08-00299-00-BR	IROQUOIS	19	11
	S.N. 038-3703		CONTRACT NO. 87553		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BROS-0075(149)		

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
REINFORCED CONCRETE GIRDER
SPAN 30 FT. ROADWAY 18 FT.

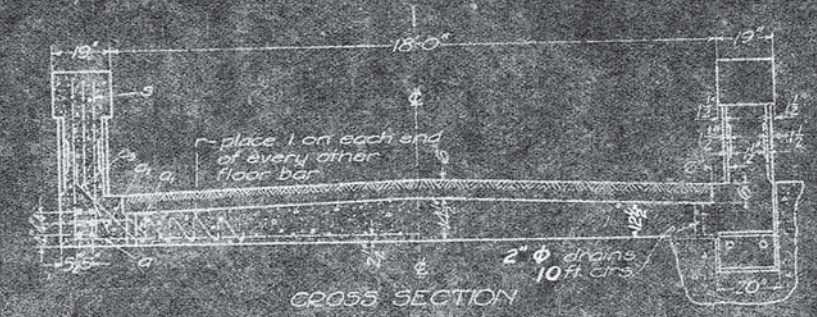
SHEET NO. 1
2 SHEETS



ELEVATION



HALF PLAN



CROSS SECTION

BILL OF MATERIAL

Letter	No.	Size	Length
a	18	1"	20'-6"
a	18	1"	20'-6"
a	18	1"	27'-6"
a1	17	1"	28'-6"
b	20	1/2"	17'-6"
b	28	1/2"	17'-6"
c	8	1/4"	32'-6"
d	4	1"	32'-6"
e	54	1/2"	8'-6"
c	72	3/16"	8'-0"

2 Cast Iron Rockers lbs 378
4 Steel Plates lbs 163
Reinforcing Steel lbs 3580
Concrete cu yds 41.0

PLAN FOR
BRIDGE NO. 12-148
BETWEEN
CONCORD-MIDDLEPORT
TOWNSHIPS
IROQUOIS COUNTY
ILLINOIS.



Note: Class A concrete to be used throughout.
Proportions: 1:2 1/2:4

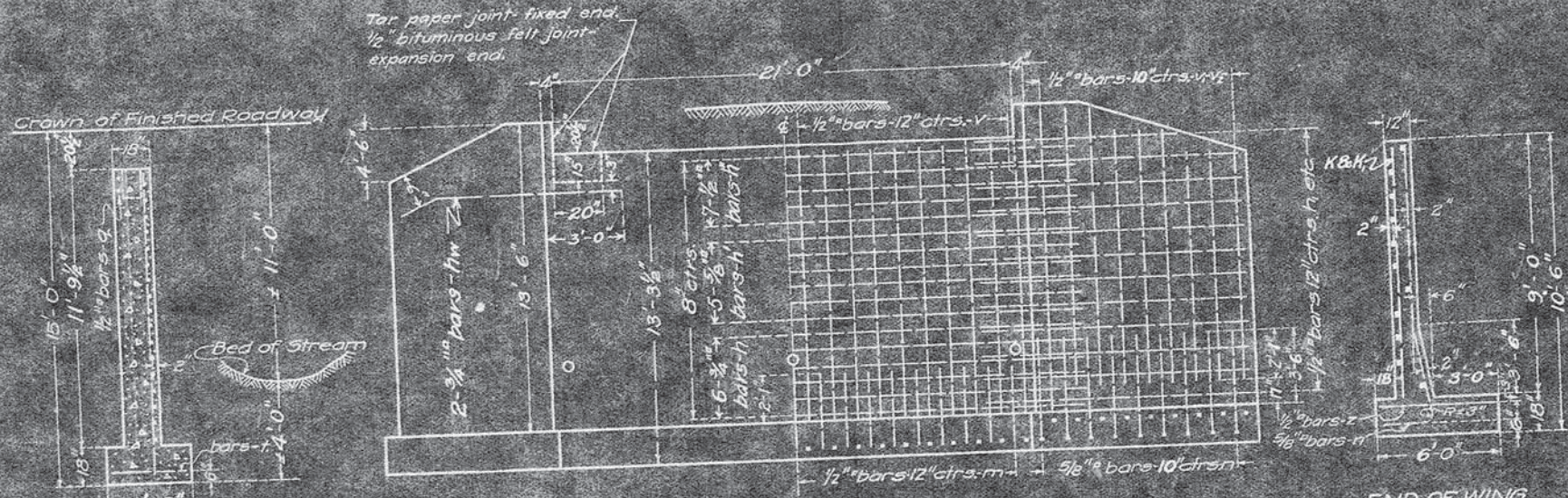
COMPUTED BY: J. H. BUNNELL
CHECKED BY: J. H. BUNNELL
DRAWN BY: J. H. BUNNELL
APPROVED BY: J. H. BUNNELL
STANDARD: J. H. BUNNELL
SPECIAL: J. H. BUNNELL

APPROVED BY: J. H. BUNNELL
ENGINEER OF DESIGN

EXISTING STRUCTURE PLANS
IROQUOIS COUNTY
SECTION 08-00299-00-BR
C.H. 15 OVER PIKE CREEK

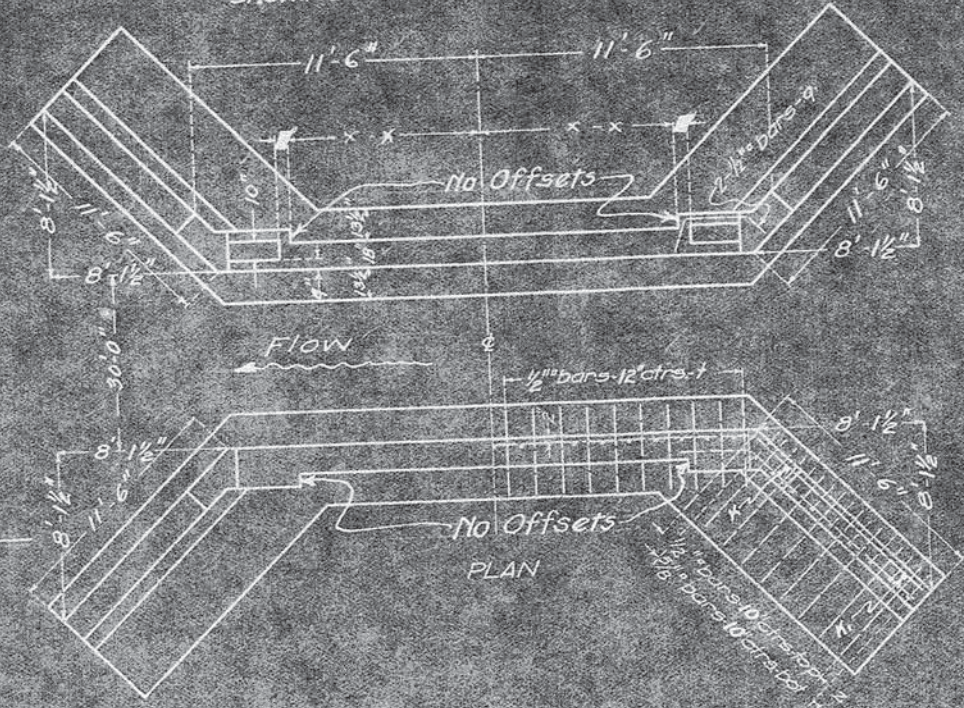
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	CH 15	08-00299-00-BR	IROQUOIS	19	12
S.N. 038-3703			CONTRACT NO. 87553		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0075(149)		

Note: Finished Roadway to be at same Elev. as Floor of Existing Bridge.
STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
R. C. ABUTMENTS FOR GIRDER BRIDGE
HEIGHT OVER ALL 15 FT.



HORIZONTAL STEEL - MAIN WALL

Bars	Length of Bridge Seat											
	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"	25'-0"	26'-0"	27'-0"	28'-0"	29'-0"	30'-0"
No. 6	7	7	7	5	5	6	6	7				
Size	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"				
Cts.	8 1/2	7 1/2	7	10 1/2	9 1/2	8 1/2	8 1/2	7 1/2				
No. 5	5	5	5	5	5	5	5	5				
Size	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"				
Cts.	5 1/2	7 1/2	7	10 1/2	9 1/2	8 1/2	8 1/2	7 1/2				
No. 6	7	7	5	5	6	7	7					
Size	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"					
Cts.	8 1/2	7 1/2	7	10 1/2	9 1/2	8 1/2	8 1/2					
Inch. of wall	12	12	12	13	10	13	13					



BILL OF MATERIAL

Bars	No.	Size	Length
v	42	1/2"	11'-6"
v	12	1/2"	11'-6"
v	8	1/2"	10'-6"
v	16	1/2"	9'-0"
v	16	1/2"	7'-6"
h	12	3/4"	27'-0"
h	10	3/4"	26'-0"
h	14	1/2"	26'-0"
h	40	1/2"	13'-6"
h	8	1/2"	10'-6"
h	4	1/2"	12'-0"
h	4	1/2"	9'-0"
h	42	1/2"	7'-0"
h	52	3/8"	7'-0"
t	42	1/2"	3'-6"
h	8	3/4"	14'-0"
z	52	1/2"	5'-9"
z	2	1/2"	5'-0"
Reinforcing Steel lbs.			3890
Concrete cu yds.			72.3

PASSED *W. J. ...*
ENGINEER OF DESIGN

STANDARD: CHECKED *...*
DRAWN: *...*
CHECKED: *...*
APPROVED: *...*
SPECIAL: *...*
EXAMINED: *...*
APPROVED: *...*
STATE HIGHWAY ENGINEER

PLAN
NO
38.7+4
JUNE 23
1922

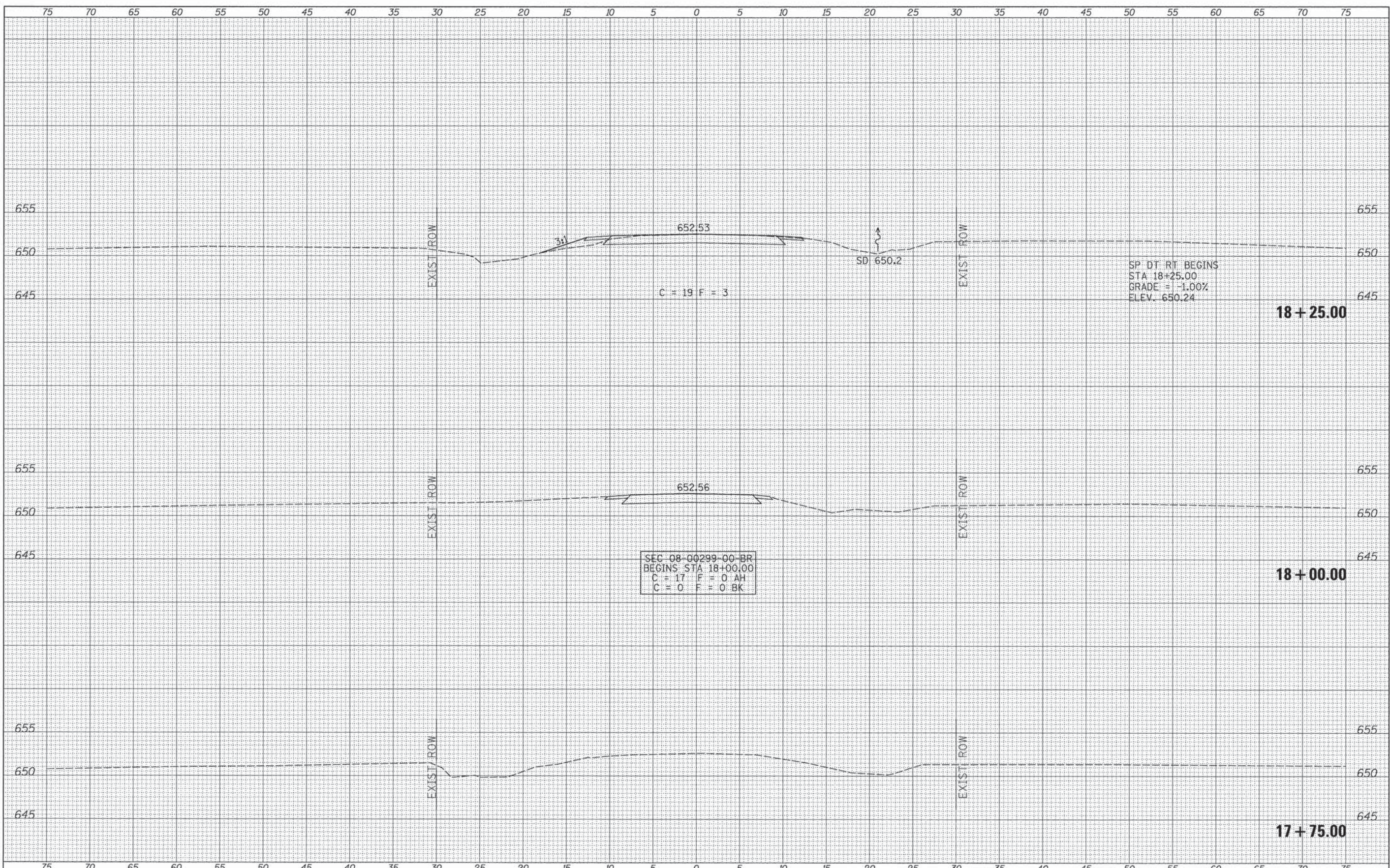
Class A concrete to be used throughout. Proportions 1-2 1/2-4.

EXISTING STRUCTURE PLANS
IROQUOIS COUNTY
SECTION 08-00299-00-BR
C.H. 15 OVER PIKE CREEK

SHEET NO. 2	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2 SHEETS	CH 15	08-00299-00-BR	IROQUOIS	19	13
S.N. 038-3703			CONTRACT NO. 87553		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0075(149)		

DATE	
BY	
FINAL SURVEY	
NOTED	
TEMPLATE	
AREAS CHECKED	
NO.	

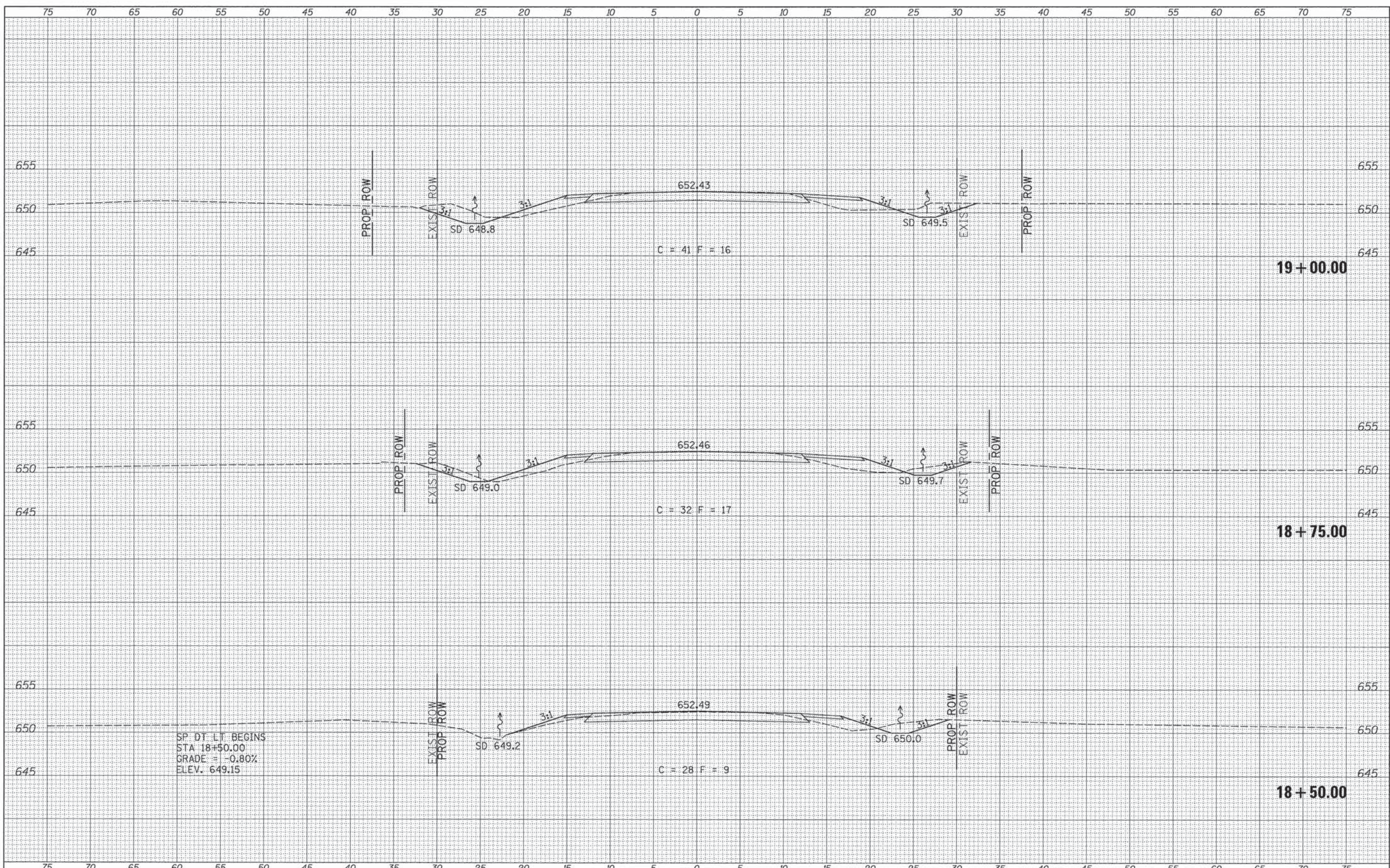
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BY	
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AREAS CHECKED	
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#MODELNAME#	PLOT SCALE = 5.0000' / 1" =	DRAWN -	REVISED -		SCALE: 1"=5'	SHEET 1	OF 6 SHEETS	STA. 17+75.00	TO STA. 18+25.00	CH 15	08-00299-00-BR	IROQUOIS	19	14
	PLOT DATE = 6/27/2013	CHECKED -	REVISED -											
		DATE -	REVISED -											
												CONTRACT NO. 87553		
												FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BR05-0075(149)		

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

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
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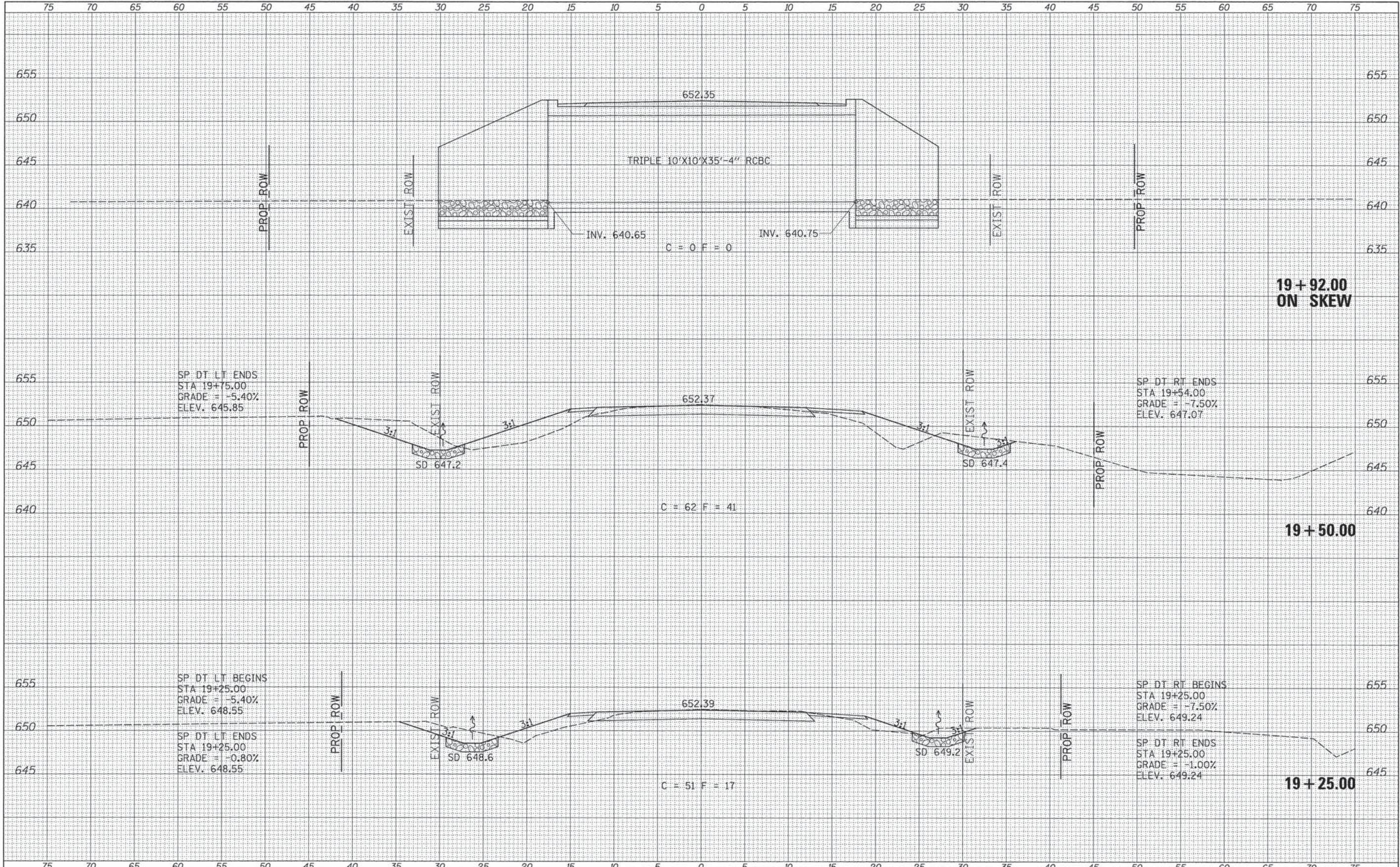


SP DT LT BEGINS
 STA 18+50.00
 GRADE = -0.80%
 ELEV. 649.15

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#MODELNAME#	PLOT SCALE = 5.0000' / 1"	DRAWN -	REVISED -		CH 15	08-00299-00-BR	IROQUOIS	19	15	CONTRACT NO. 87553		
	PLOT DATE = 6/27/2013	CHECKED -	REVISED -		SCALE: 1"=5'			SHEET 2 OF 6 SHEETS			STA. 18+50.00 TO STA. 19+00.00	
		DATE -	REVISED -		FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR05-0075(149)				

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
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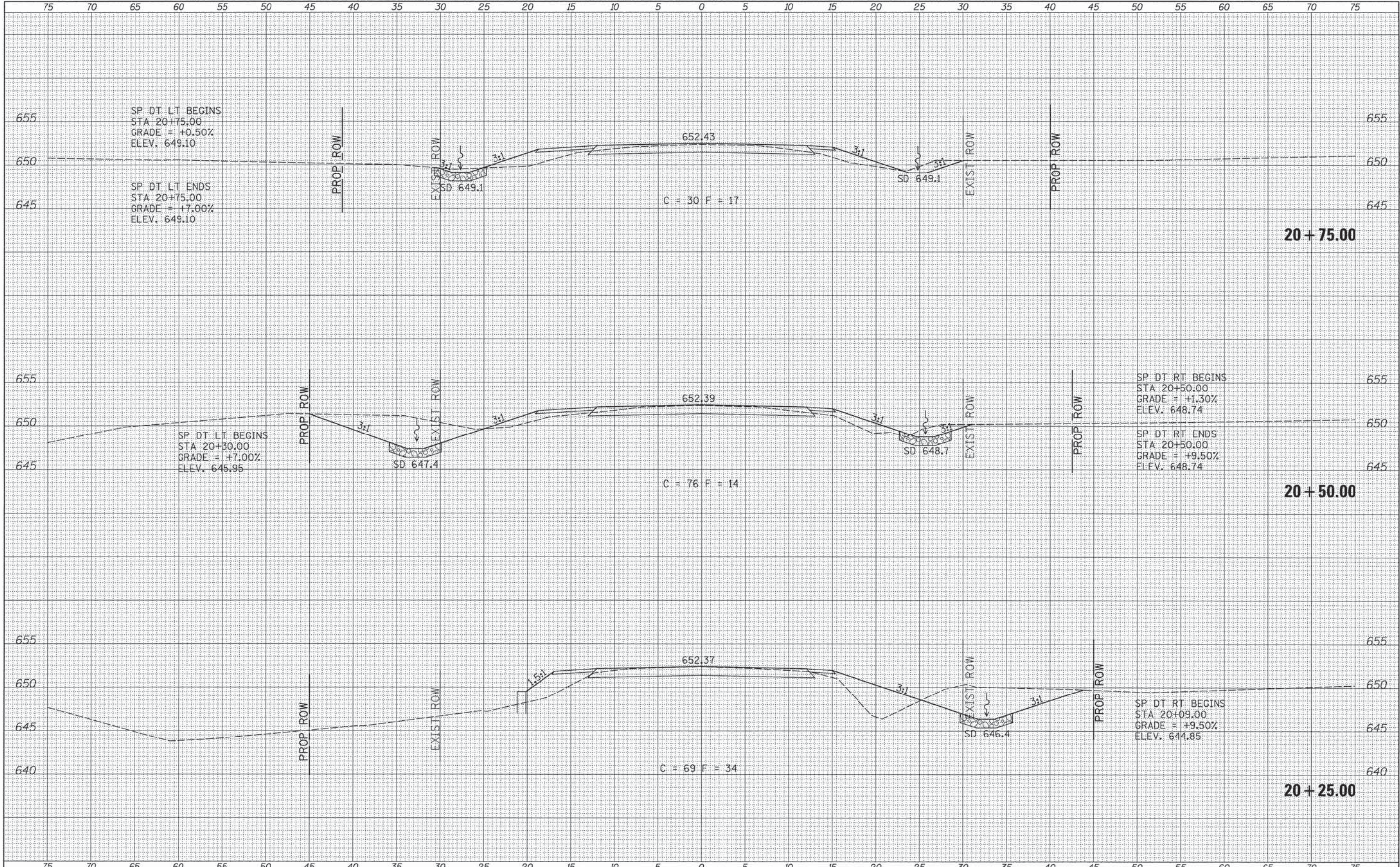


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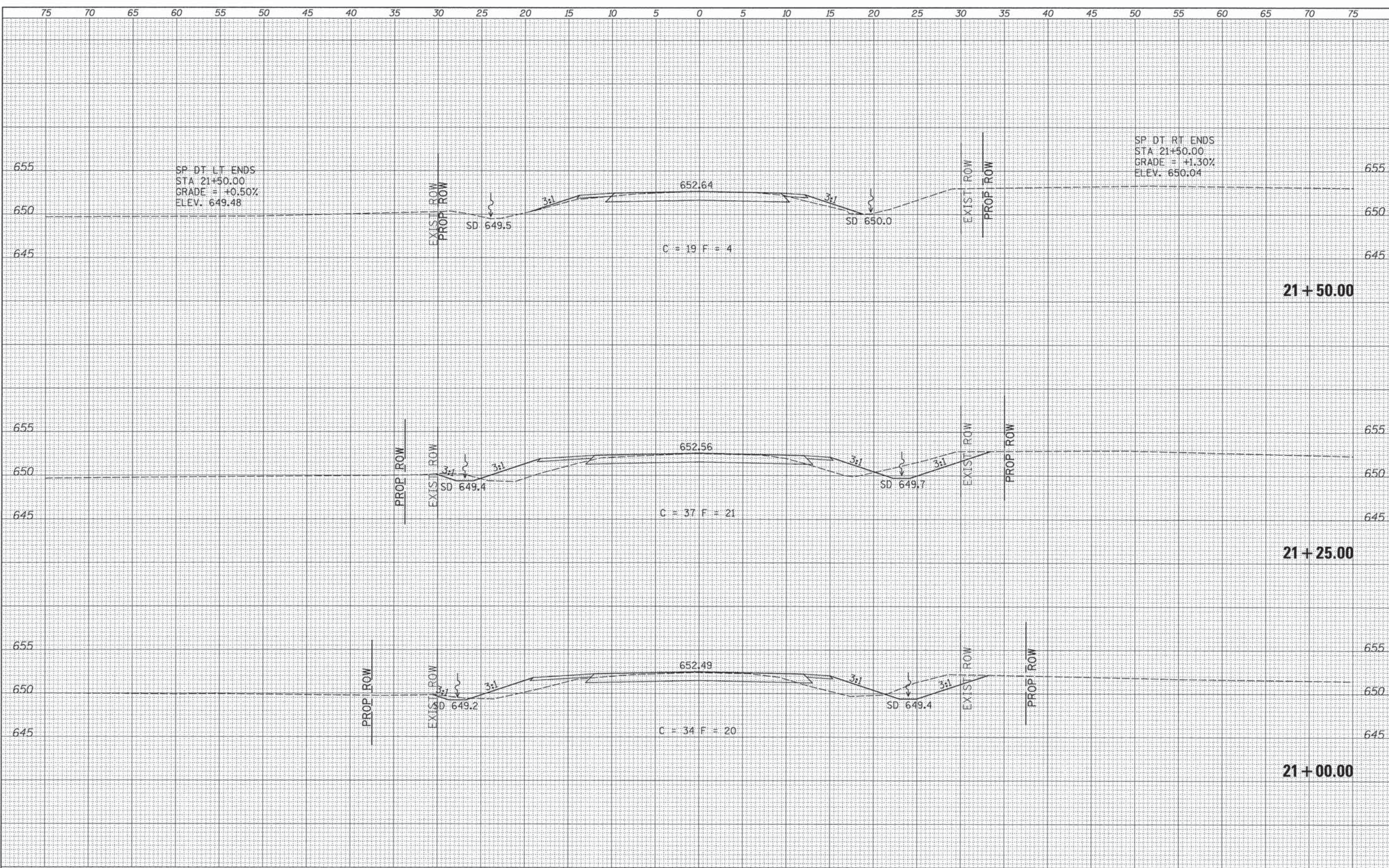
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DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	



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		DATE -	REVISED -			FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BR05-0075(149)					



SP DT LT ENDS
 STA 21+50.00
 GRADE = +0.50%
 ELEV. 649.48

SP DT RT ENDS
 STA 21+50.00
 GRADE = +1.30%
 ELEV. 650.04

21 + 50.00

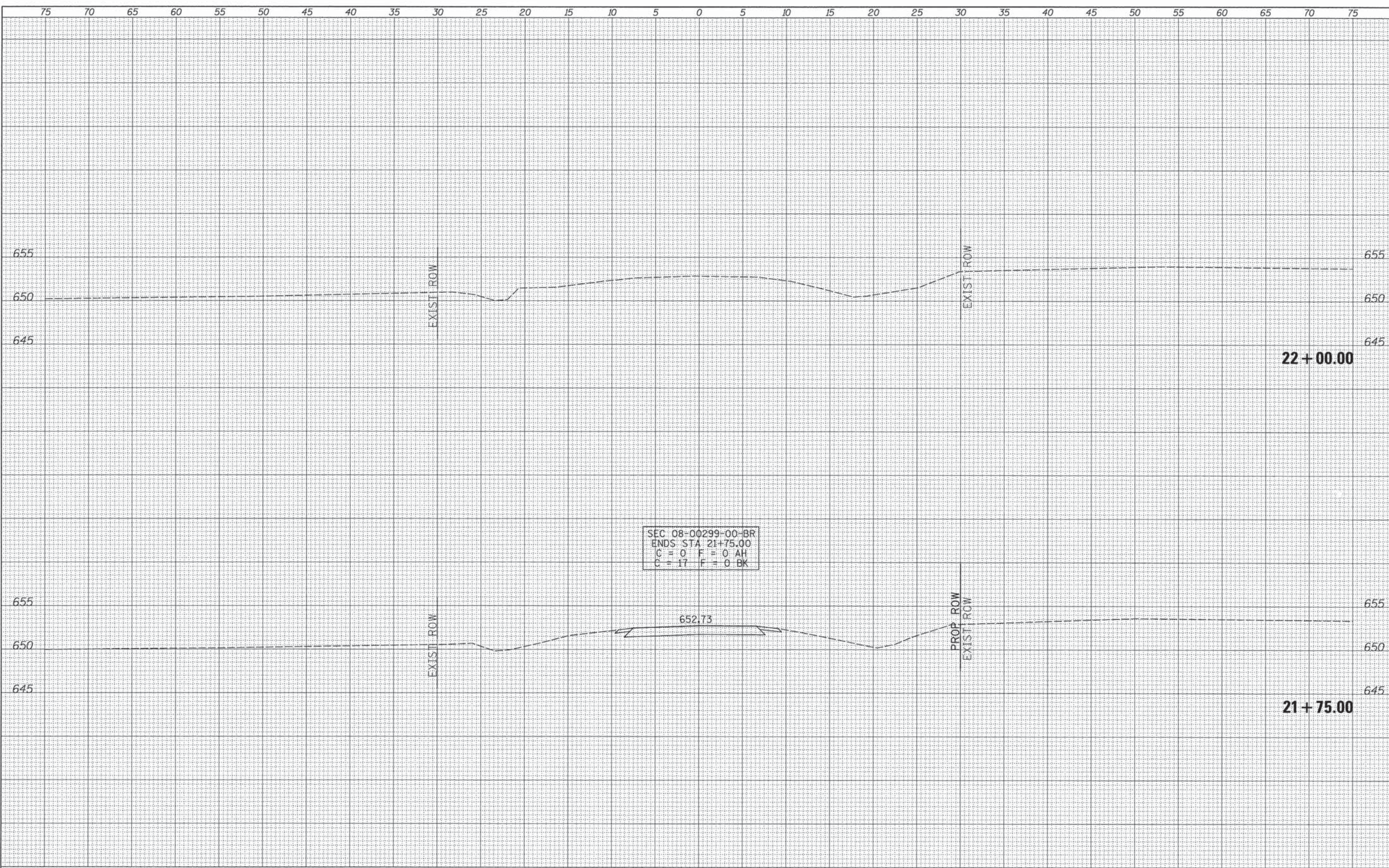
21 + 25.00

21 + 00.00

DATE	
BY	
FINAL SURVEY	
NOTED	
NOTE BOOK	
NO.	
APPROVED	
AREA	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTED	
NOTE BOOK	
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AREA	
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#MODELNAME#	PLOT SCALE = 5,0000' / in.	DRAWN -	REVISED -		SCALE: 1"=5'	SHEET 5 OF 6 SHEETS	STA. 21+00.00 TO STA. 21+50.00	CH 15	08-00299-00-BR	IROQUOIS	19	18
	PLOT DATE = 6/27/2013	CHECKED -	REVISED -					CONTRACT NO. 87553				
		DATE -	REVISED -					FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BR05-0075(49)				



DATE	
BY	
REVISIONS	
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	PLOT DATE = 6/27/2013		

**IROQUOIS COUNTY
COUNTY HIGHWAY 15
OVER PIKE CREEK**

CROSS SECTIONS

SCALE: 1"=5' SHEET 6 OF 6 SHEETS STA. 21+75.00 TO STA. 22+00.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 15	08-00299-00-BR	IROQUOIS	19	19
FED. ROAD DIST. NO. 7 [ILLINOIS]			FED. AID PROJECT BR05-00750499	