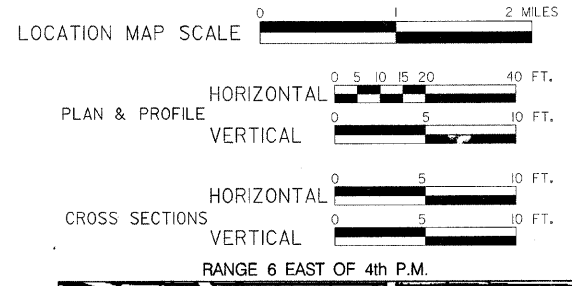


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED LOCAL AGENCY IMPROVEMENT

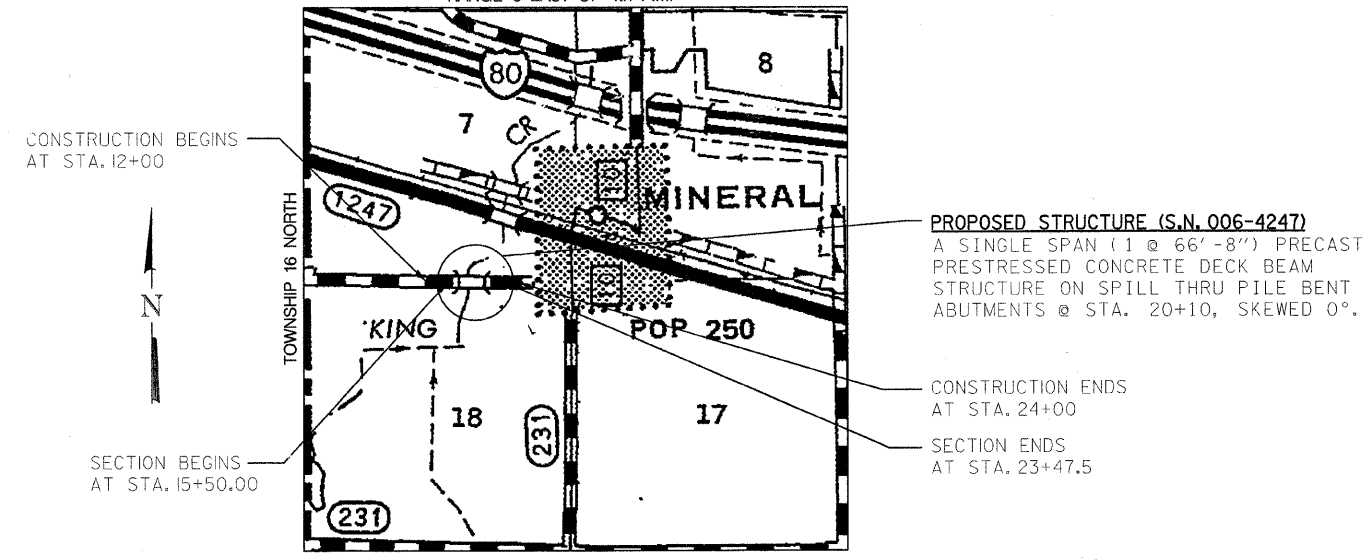
FEDERAL-AID HBP PROJECT HIGHWAY BRIDGE PROGRAM TR 257 SECTION 07-17137-00-BR/ BUREAU COUNTY PROJECT BROS-0011(071) JOB NO. C-93-033-09 CONTRACT NO. 87381 2009

NET LENGTH 797.5 FT. = 0.15 MILES
TOTAL LENGTH 1200 FT. = 0.23 MILES



- INDEX OF SHEETS**
- 1 = COVER SHEET
 - 2 = SUMMARY OF QUANTITIES
 - 3 = GENERAL NOTES AND SCHEDULES
 - 4 = TYPICAL SECTIONS
 - 5-7 = PLAN & PROFILE
 - 8 = ALIGNMENT & CONTROL POINT DETAILS
 - 9-II = EROSION CONTROL PLAN
 - 12 = GENERAL PLAN AND ELEVATION
 - 13 = RIPRAP AND PILE LAYOUT
 - 14 = 27"x48" PPC DECK BEAM
 - 15 = 27"x48" PPC DECK BEAM DETAILS
 - 16 = WEST ABUTMENT DETAILS
 - 17 = EAST ABUTMENT DETAILS
 - 18 = STEEL RAILING, TYPE SM DETAILS
 - 19 = METAL SHELL PILE DETAILS
 - 20 = SOIL BORINGS
 - 21-27 = CROSS SECTIONS

- STANDARDS**
- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
 - 280001-04 TEMPORARY EROSION CONTROL SYSTEMS
 - 515001-03 NAME PLATE FOR BRIDGES
 - 542401-01 METAL END SECTION FOR PIPE CULVERTS
 - 601001-03 SUB-SURFACE DRAINS
 - 60101-01 CONCRETE HEADWALL FOR PIPE DRAIN
 - 701901-01 TRAFFIC CONTROL DEVICES
 - 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
 - B.L.R. 21-8 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
 - B.L.R. 22-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO-LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)



NAME AND ADDRESS OF UTILITIES	TYPE
Ameren IP Attn: Ms. Kathy Cromwell 1450 Red Adams Road Kewanee, IL 61443 (309) 852-2963	ELECTRIC
AT&T Attn: Mr. Keith Heimlick (815) 774-6762	TELEPHONE
Henry County Telephone Attn: Mr. Matt Storm 111 East 1st St. Geneseo, IL 61254 (309) 944-2103	TELEPHONE
Mediacom Attn: Mr. John Smith 3900 26th Ave. Moline, IL 61265 (309) 314-0902	CABLE
Verizon North, Inc. Attn: Mr. Terry Spurgeon 111 S. Main St. Kewanee, IL 61443 (309) 853-6293	TELEPHONE

LOCATION MAP

ATTENTION CONTRACTORS
THE ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF MATERIALS AND PHYSICAL RESEARCH,
"PROJECT PROCEDURES GUIDE" IS APPLICABLE
TO THIS PROJECT.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
APPROVED	July 2, 2009 <i>John A. Johnson</i> BUREAU COUNTY ENGINEER
PASSED	07-07-09 2009 <i>Harold C. Long</i> DISTRICT 3 ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	07-07-09 2009 <i>George E. Lopez</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER



PLANS PREPARED BY:
WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture
800 East Second Street, Dixon, Illinois, 61021
Phone 815.284.3381 Fax 815.284.3385
Design Firm #184-000919
www.willett-hofmann.com
WHA # 1115D08

Brian K. Converse
DATE: 7/1/09
EXPIRES 11/30/09

HIGHWAY CLASSIFICATION: LOCAL ROAD (NON-URBAN)
DESIGN SPEED: 30
ADT = 80

CONTRACT NO. 87381

FILE NAME = s:\shw\1115D08\dwg\1115D08.dgn

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: X081-2A

PAY CODE	QUANTITY	UNIT	ITEM
20100110	24	Unit	Tree Removal (6 to 15 Units Diameter)
20100210	16	Unit	Tree Removal (Over 15 Units Diameter)
* 20200410	1,278	Cu. Yd.	Earth Excavation (Special)
20300100	330	Cu. Yd.	Channel Excavation
* 20700220	19	Cu. Yd.	Porous Granular Embankment
* 25001100	1.17	Acre	Seeding, Class 3 (Special)
25100630	5,663	Sq. Yd.	Erosion Control Blanket
28000300	16	Each	Temporary Ditch Checks
28000400	80	Foot	Perimeter Erosion Barrier
* 28100209	1,490	Ton	Stone Riprap, Class A5
* 40200100	1,471	Ton	Aggregate Surface Course, Type A
* 40200800	160	Ton	Aggregate Surface Course, Type B
50100100	1	Each	Removal of Existing Structures
* 50300225	27.4	Cu. Yd.	Concrete Structures
* 50400505	1,600	Sq. Ft.	Precast Prestressed Concrete Deck Beams (27" Depth)
50800105	2,780	Pound	Reinforcement Bars
Δ50901050	136	Foot	Steel Railing, Type SM
51200957	265	Foot	Furnishing Metal Shell Piles 12"x0.250"
* 51202305	265	Foot	Driving Piles
51203200	1	Each	Test Pile Metal Shells
51500100	1	Each	Name Plates
54200643	82	Foot	Pipe Culverts, Type 1, Corrugated Steel or Aluminum Culvert Pipe 18"
54200649	38	Foot	Pipe Culverts, Type 1, Corrugated Steel or Aluminum Culvert Pipe 24"
54205929	42	Foot	Pipe Culverts, Type 1, Corrugated Steel, Equivalent Round-Size 54"
54213873	4	Each	Steel End Sections 18"
54213879	2	Each	Steel End Sections 24"
54215169	2	Each	Steel End Sections, Equivalent Round-Size 54"
* 60107700	1,612	Foot	Pipe Underdrains 6"
67100100	1	L. Sum	Mobilization
* 70101700	1	L. Sum	Traffic Control And Protection
* Z0013798	1	L. Sum	Construction Layout

* See Special Provisions.
Δ Specialty Items

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CONSULTING ENGINEERS
 808 East Second Street Dixon, IL 61021
 Phone 815.284.3381 Fax 815.284.3385
 Design Firm # 184-00918
 www.willett-hofmann.com

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	DRAWN - RDA	REVISED -
PLOT SCALE =	CHECKED - BKC	REVISED -
PLOT DATE =	DATE - 06/09	REVISED -

BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

SUMMARY OF QUANTITIES

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	2
			CONTRACT NO. 87381	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR05-001107D				

GENERAL NOTES

Existing structures (including foundations, walls, cisterns, wells or other underground structures) within the right of way shall be removed in accordance with Article 501.02 and 501.03 of the Standard Specifications, without additional compensation, unless otherwise noted in the plans or special provisions.

The Contractor shall seed all disturbed areas within the project limits.

No overhaul has been computed and none shall be paid for from any source.

The final top four inches of soil in any right of way area disturbed by the Contractor must be a cohesive soil capable of supporting vegetation.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications.

The utilities located within the project limits or immediately adjacent to the project construction limits include:

Ameren IP Attn: Ms. Kathy Cromwell 1450 Red Adams Road Kewanee, IL 61443 (309) 852-2963	Henry County Telephone Attn: Mr. Matt Storm 111 E. 1st St. Geneseo, IL 61254 (309) 944-2103	Verizon North, Inc. Attn: Terry Spurgeon 111 S. Main St. Kewanee, IL 61443 (309) 853-6293
---	---	---

AT&T Attn: Mr. Keith Heimlick (815) 774-6762	Mediacom Attn: Mr. John Smith 900 26th Ave. Moline, IL 61265 (309) 314-0902
--	---

A minimum of 48 hours advance notice is required for non-emergency work.

A nation wide permit has been issued for this project and the conditions of that permit must be adhered to.

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 markers, monuments and right of way pins until the Owner, an Authorized Surveyor, or Agent has witnessed or otherwise referenced their location.

Existing mail boxes, street signs and traffic signs that are within the construction limits shall be removed and reset by the Contractor. Cost of removing and resetting to be included in the contract unit price bid per Cubic Yard for Earth Excavation.

SCHEDULE OF QUANTITIES - CONT.

EROSION CONTROL BLANKET

LOCATION	SQ. YD.	REMARKS
RT. STA. 12+00 - 15+50	1065	
RT. STA. 15+50 - 19+11	1210	
LT. STA. 15+50 - 19+16	1065	
RT. STA. 19+37 - 19+98	145	
LT. STA. 19+36 - 20+00	97	
RT. STA. 20+15 - 20+73	97	
LT. STA. 20+26 - 20+90	145	
RT. STA. 20+99 - 24+00	968	
LT. STA. 21+08 - 24+00	871	
TOTAL	5663 SQ. YD.	

TEMPORARY DITCH CHECKS

LOCATION	EACH	REMARKS
RT. STA. 12+50	1	
RT. STA. 13+50	1	
RT. STA. 14+50	1	
RT. STA. 15+50	1	
LT. & RT. STA. 16+50	2	
LT. & RT. STA. 17+50	2	
LT. & RT. STA. 18+50	2	
LT. & RT. STA. 21+50	2	
LT. & RT. STA. 22+50	2	
LT. & RT. STA. 23+50	2	
TOTAL	16 EACH	

PERIMETER EROSION BARRIER

LOCATION	FOOT	REMARKS
RT. STA. 19+77 - 19+97	20	
LT. STA. 19+80 - 20+00	20	
RT. STA. 20+14 - 20+34	20	
LT. STA. 20+26 - 20+46	20	
TOTAL	80 FOOT	

AGGREGATE SURFACE COURSE, TYPE A

LOCATION	TON	REMARKS
STA. 15+50 - 16+27.50	97	TAPER 15" COMPACTED
STA. 16+27.50 - 19+76	705	15" COMPACTED
STA. 20+44 - 23+47.50	576	15" COMPACTED
STA. 23+47.50 - 24+00	93	TAPER 15" COMPACTED
TOTAL	1471 TON	

AGGREGATE SURFACE COURSE, TYPE B

LOCATION	TON	REMARKS
F.E.R. STA. 19+24	46	8" COMPACTED
F.E.L. STA. 19+26	32	8" COMPACTED
F.E.R. STA. 20+87	49	8" COMPACTED
F.E.L. STA. 21+00	33	8" COMPACTED
TOTAL	160 TON	

PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18"

LOCATION	FOOT	REMARKS
F.E.R. STA. 20+87	44	
F.E.L. STA. 21+00	38	
TOTAL	82 FOOT	

SCHEDULE OF QUANTITIES - CONT.

PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 24"

LOCATION	FOOT	REMARKS
F.E.L. STA. 19+26	38	
TOTAL	38 FOOT	

PIPE CULVERTS, TYPE 1, CORRUGATED STEEL, EQUIVALENT ROUND - SIZE 54"

LOCATION	FOOT	REMARKS
F.E.R. STA. 19+24	42	
TOTAL	42 FOOT	

STEEL END SECTIONS 18"

LOCATION	EACH	REMARKS
F.E.R. STA. 20+87	2	
F.E.L. STA. 21+00	2	
TOTAL	4 EACH	

STEEL END SECTIONS 24"

LOCATION	EACH	REMARKS
F.E.L. STA. 19+26	2	
TOTAL	2 EACH	

STEEL END SECTIONS, EQUIVALENT ROUND - SIZE 54"

LOCATION	EACH	REMARKS
F.E.R. STA. 19+24	2	
TOTAL	2 EACH	

PIPE UNDERDRAINS 6"

LOCATION	FOOT	REMARKS
LT. STA. 15+50 - 19+76	438	
RT. STA. 15+50 - 19+76	438	
LT. STA. 20+44 - 24+00	368	
RT. STA. 20+44 - 24+00	368	
TOTAL	1612 FOOT	

SCHEDULE OF QUANTITIES

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

LOCATION	UNIT	REMARKS
LT. STA. 19+70	12	STUMP
LT. STA. 19+84	6	
LT. STA. 19+84	6	
TOTAL	24 UNIT	

TREE REMOVAL (OVER 15 UNITS DIAMETER)

LOCATION	UNIT	REMARKS
LT. STA. 20+24	16	
TOTAL	16 UNIT	

SEEDING, CLASS 3 (SPECIAL)

LOCATION	ACRE	REMARKS
RT. STA. 12+00 - 15+50	0.22	
RT. STA. 15+50 - 19+11	0.25	
LT. STA. 15+50 - 19+16	0.22	
RT. STA. 19+37 - 19+98	0.03	
LT. STA. 19+36 - 20+00	0.02	
RT. STA. 20+15 - 20+73	0.02	
LT. STA. 20+26 - 20+90	0.03	
RT. STA. 20+99 - 24+00	0.20	
LT. STA. 21+08 - 24+00	0.18	
TOTAL	1.17 ACRE	

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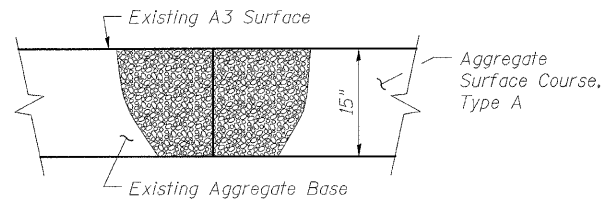
WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
 809 East Second Street Dixon, IL 61021
 Phone 815.294.3381 Fax 815.294.3385
 Design Firm # 184-00918
 www.willett-hofmann.com

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PLOT DATE =	CHECKED - BKC	REVISED -
	DATE - 06/09	REVISED -

BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

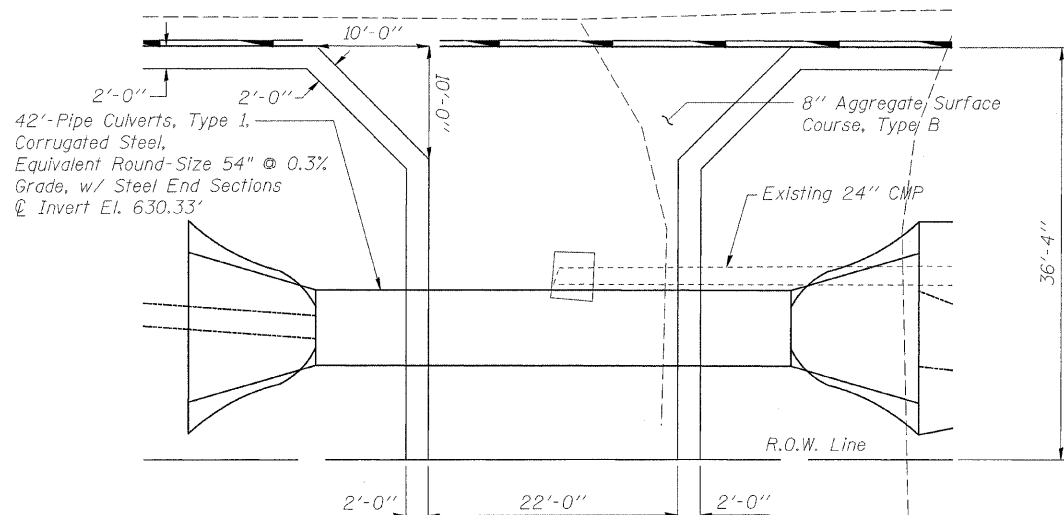
GENERAL NOTES & SCHEDULES

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	3
CONTRACT NO. 87381			FED. ROAD DIST. NO. 7 (ILLINOIS) FED. AID PROJECT BROS-0011(071)	

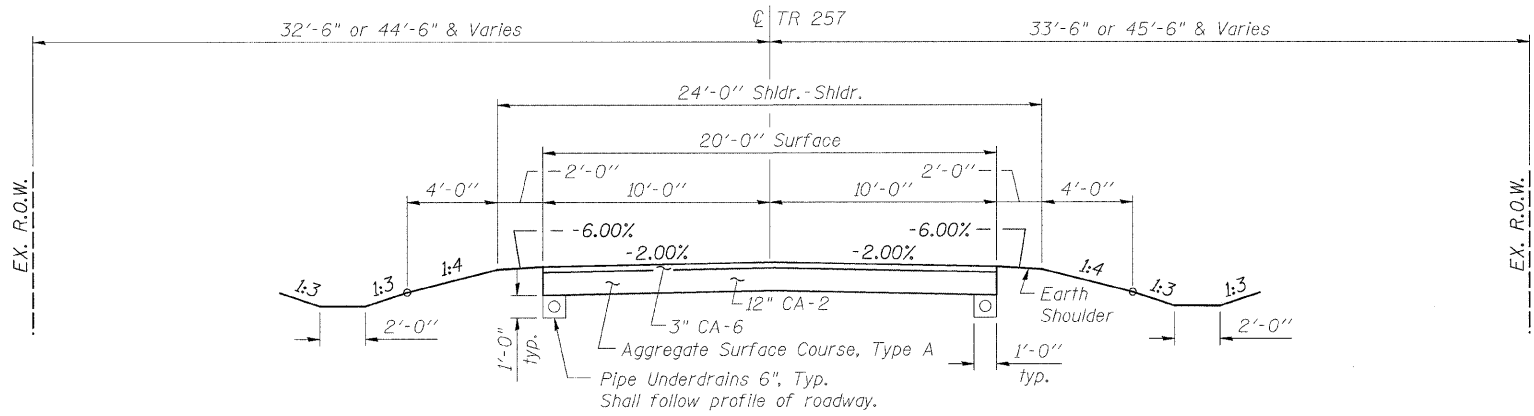


CORE JOINT DETAIL

© Sta. 15+50 & Sta. 24+00 (Mirrored)

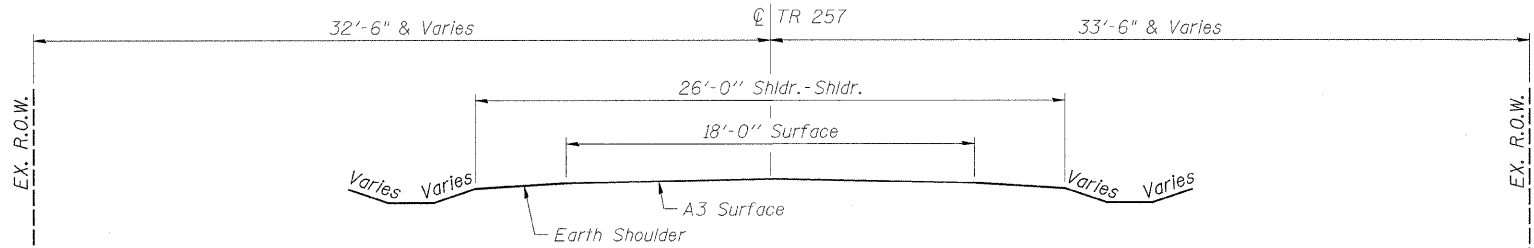


F.E.R. 19+24

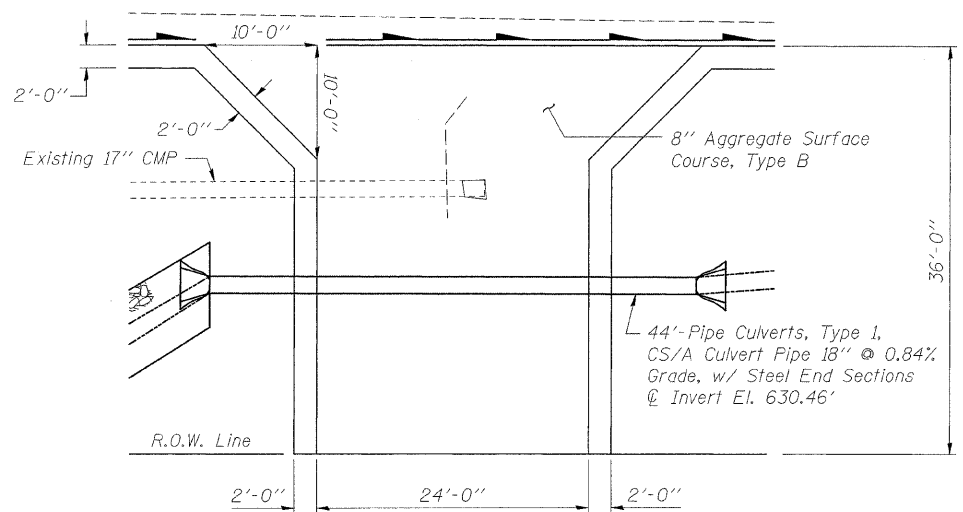


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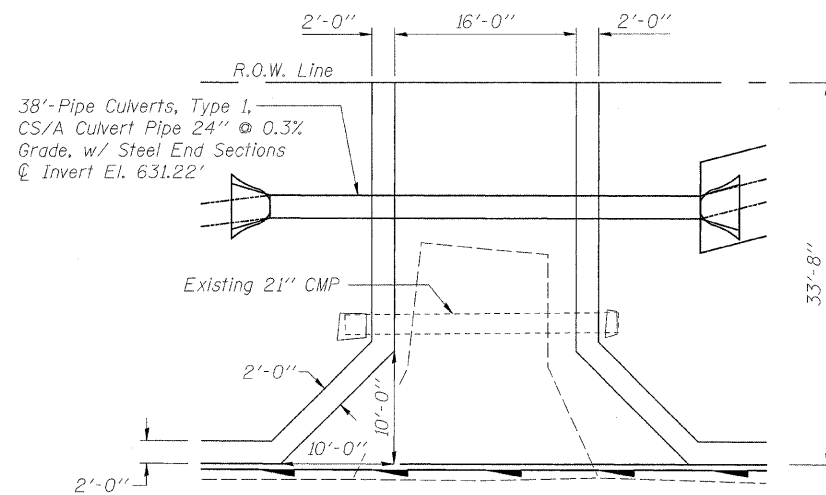
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Design Speed: 30
ADT = 80



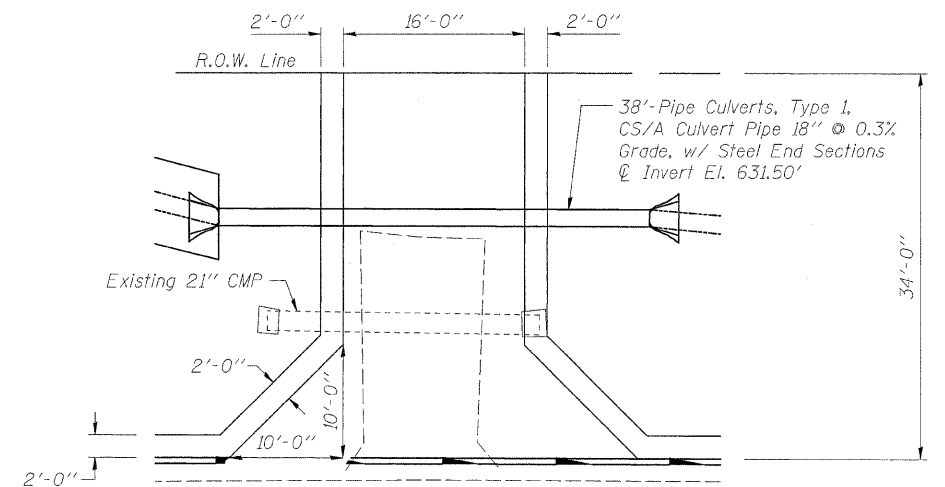
EXISTING TYPICAL SECTION



F.E.R. 20+87



F.E.L. 19+26



F.E.L. 21+00

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www.willettthofmann.com

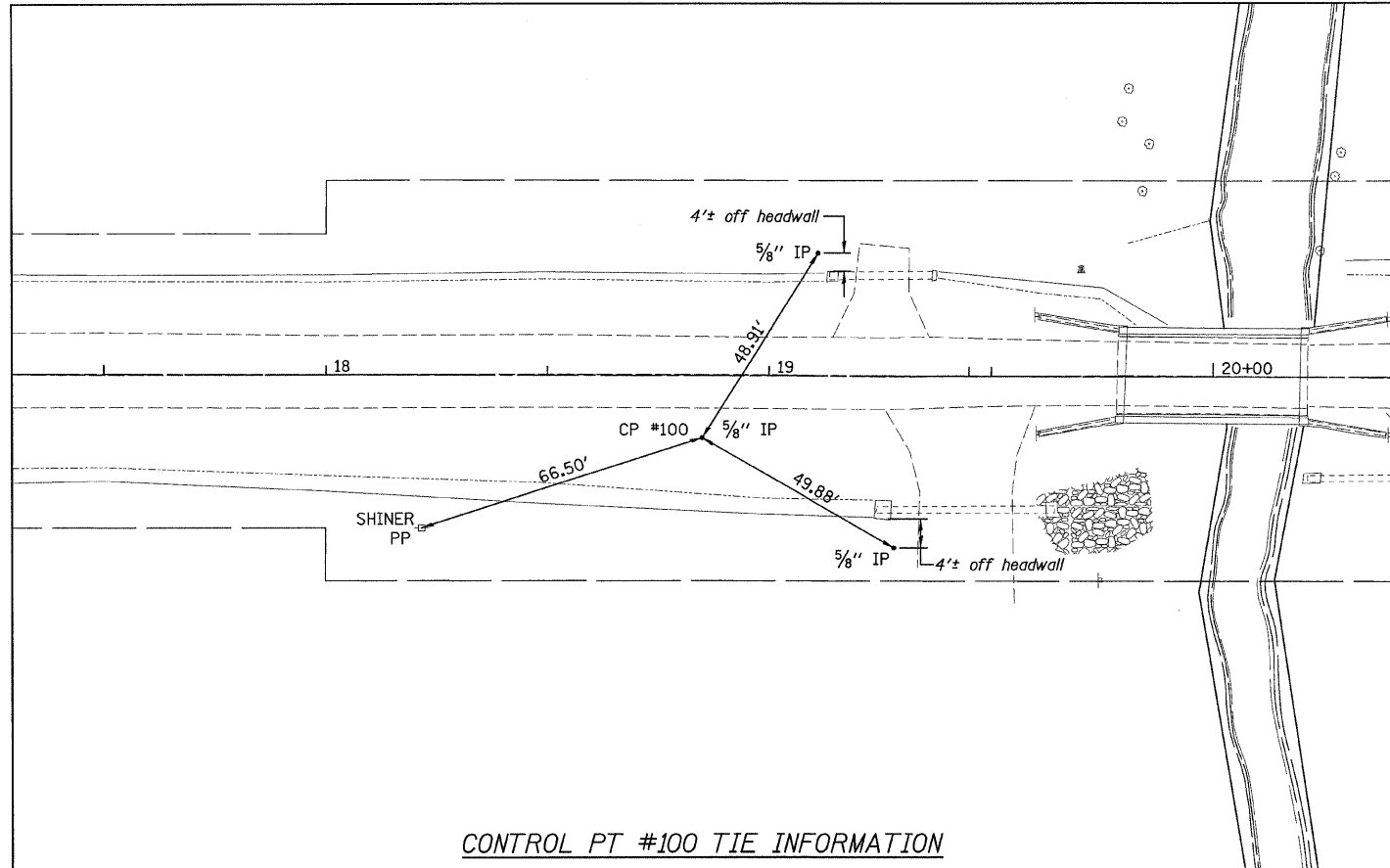
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	DATE - 06/09	REVISED -

**BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK**

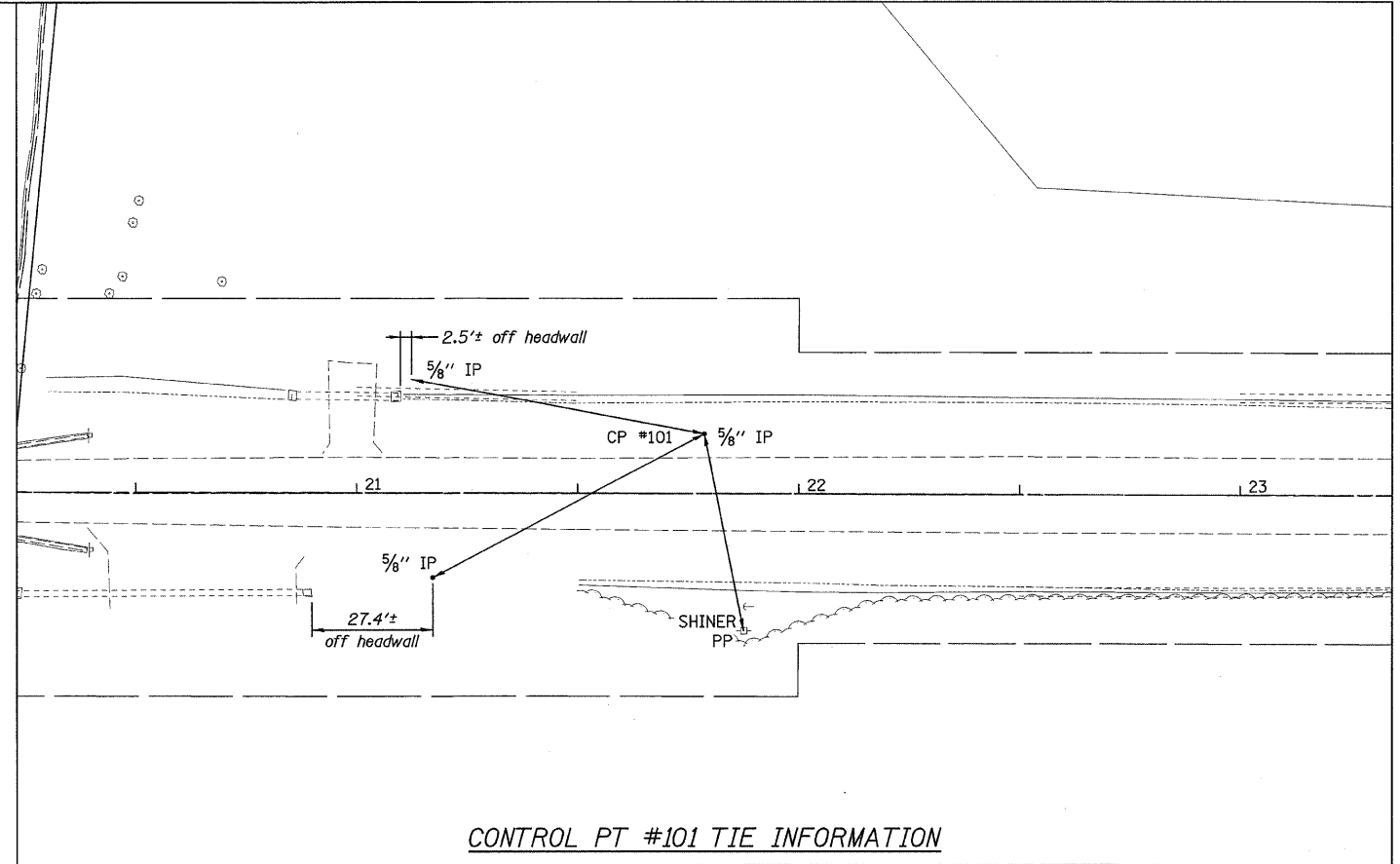
TYPICAL SECTIONS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	4
CONTRACT NO. 87381				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-001(071)				

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	PLOTTED		
	CHECKED		
	BY		
	DATE		
	NOTE BOOK NO.		
	CADD FILE NAME		



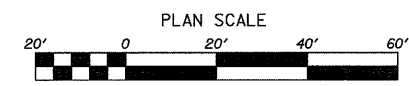
CONTROL PT #100 TIE INFORMATION



CONTROL PT #101 TIE INFORMATION

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	BY		
	DATE		
	NOTE BOOK NO.		
	STRUCTURE NOTATION CHNO		

T.R. 257 - HORIZONTAL CONTROL POINTS					
PT #	STA.	N	E	EL.	DESCRIPTION
100	14.0' RT 18+84.8	1716497.67	2384577.72	634.98	IP
101	13.6' LT 21+78.7	1716524.23	2384871.63	634.67	IP



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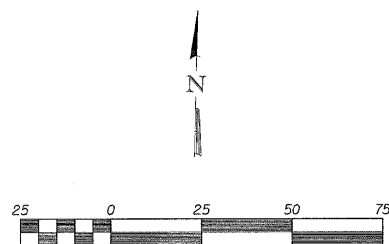
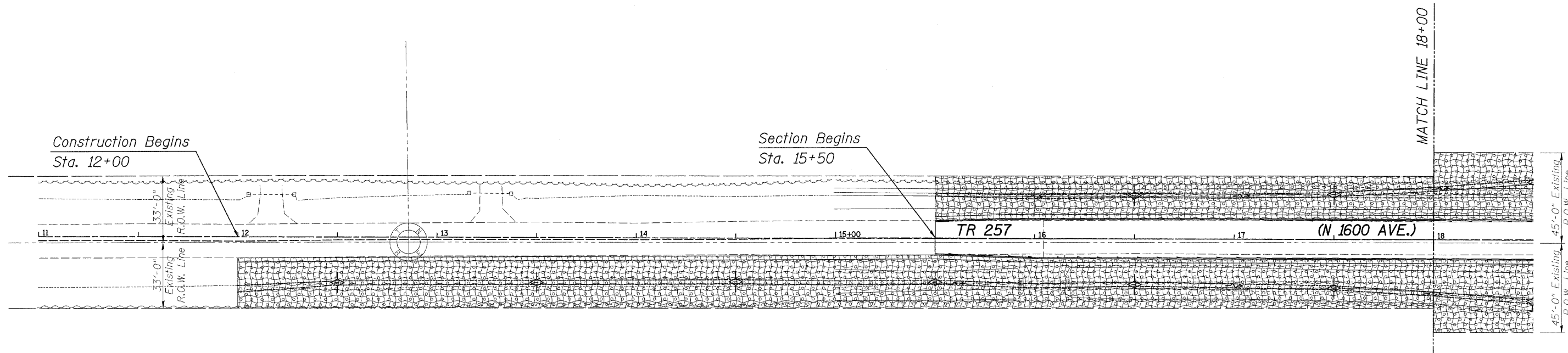
WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
 809 East Second Street Dixon, IL 61021
 Phone 815.294.3381 Fax 815.294.3385
 Design Firm # 184-00818
 www.willett-hofmann.com

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PLOT DATE =	DATE - 06/09	REVISED -

BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N 1600 AVE.) OVER KING CREEK

ALIGNMENT & CONTROL POINT DETAILS
 SCALE: SHEET NO. 1 OF SHEETS STA. 15+00 TO STA. 21+00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	8
CONTRACT NO. 87381			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011671	



LEGEND

Perimeter Erosion Barrier

Seeding, Class 3 (Special)

Erosion Control Blanket

Temporary Ditch Checks

EROSION CONTROL NOTES

Silt Fence shall be installed at all locations where water drains away from the project and shall be completed prior to construction efforts. The Silt Fence will remain in place until the contributing area is stabilized.

Perimeter Erosion Barrier shall comply with Section 280 of the Standard Specifications and shall be placed as shown on the "Erosion Control Plan" and in accordance with stations shown on the "Schedule of Quantities" sheet or as directed by the engineer.

The soil erosion and sediment control practices will be inspected weekly and after 1/2" or more of rain by the individual on site in charge of soil erosion and sediment control during the construction of the project.

Erosion control blanket shall be installed at all disturbed areas with slopes equal to or greater than 1V:5H and in critical areas (i.e. detention basin perimeters, streambanks, berms, etc.) immediately upon final grading.

Stockpiles of soil and other building materials to remain in place more than three (3) days shall be furnished with erosion and sediment control measures (i.e. Perimeter Erosion Barrier). Stockpiles to remain in place for 30 days or more shall receive temporary seeding.

All adjacent streets must be kept clear of debris, inspected daily and cleaned when necessary.

Temporary ditch checks shall comply with Section 280 of the Standard Specifications for Road and Bridge Construction and Standard 280001-04 located in the Proposal. Temporary ditch checks shall be aggregate.

Temporary ditch checks shall be placed at 100' maximum centers and shall be placed at stations called out in the Schedule of Quantities or as directed by the Engineer.

For Seeding, Class 3 (Special), see Special Provisions.

Erosion control blanket shall be placed in ditches as shown on this Erosion Control Plan Sheet and in accordance with Section 251 of the Standard Specifications for Road and Bridge Construction.

The use of green dye in the erosion control blanket is not acceptable.

The use of asphalt as a binder is not acceptable.

Mulch shall be placed over the entire seeded region.

Item	Unit	Quantity
Seeding, Class 3 (Special)	Acre	1.17
Erosion Control Blanket	Sq. Yd.	5,663
Temporary Ditch Checks	Each	16
Perimeter Erosion Barrier	Foot	80

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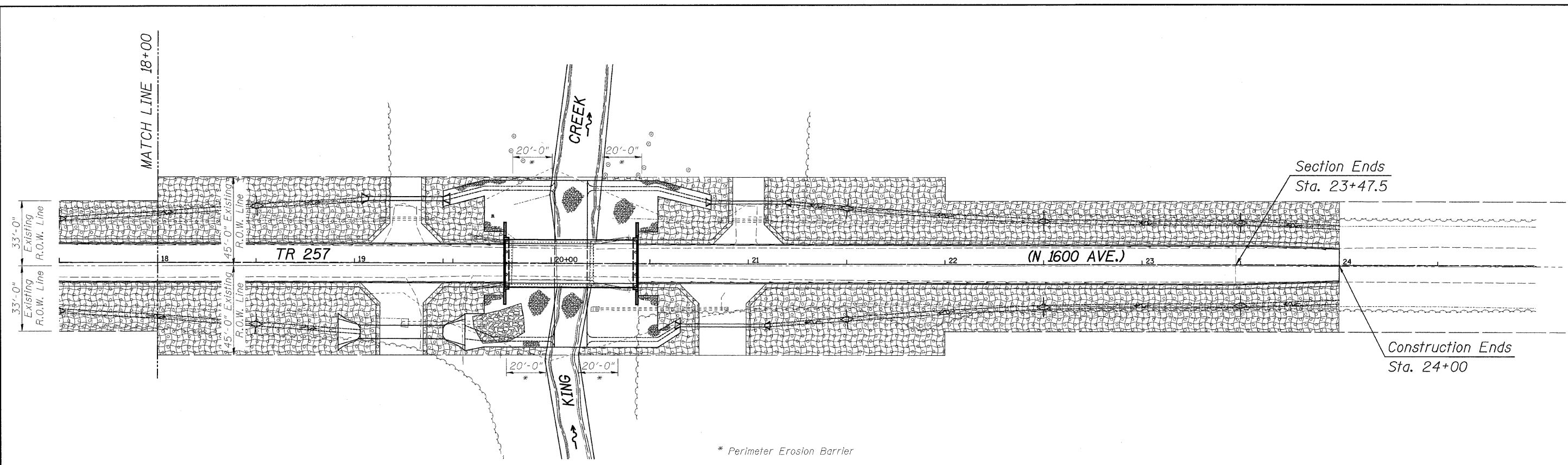
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CONSULTING ENGINEERS
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	DATE - 06/09	REVISED -

BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

EROSION CONTROL PLAN

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	9
CONTRACT NO. 87381			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-001(07)	

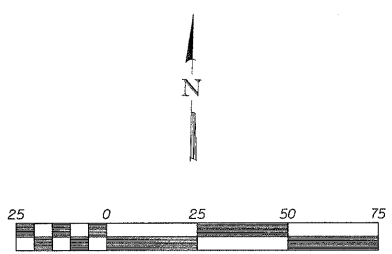


MATCH LINE 18+00

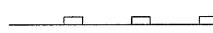
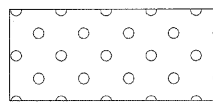
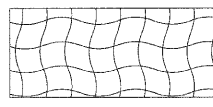

Section Ends
Sta. 23+47.5

Construction Ends
Sta. 24+00

* Perimeter Erosion Barrier



LEGEND

-  Perimeter Erosion Barrier
-  Seeding, Class 3 (Special)
-  Erosion Control Blanket
-  Temporary Ditch Checks

FILE NAME = s:\shuart\115336\Drawings\115336.dgn

WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
 809 East Second Street Dixon, IL 61021
 Phone 815.294.3381 Fax 815.294.3385
 Design Firm # 184-00918
 www.willettthofmann.com

USER NAME =	DESIGNED - MAS	REVISED -
	DRAWN - RDA	REVISED -
PLOT SCALE =	CHECKED - BKC	REVISED -
PLOT DATE =	DATE - 06/09	REVISED -

BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

EROSION CONTROL PLAN

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	10
CONTRACT NO. 87381			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR05-00110711	

STORM WATER POLLUTION PREVENTION PLAN

The following plan is established and incorporated in the project to direct the Contractor in the placement of temporary erosion control systems and to provide a Storm Sewer Water Pollution Prevention Plan for compliance under NPDES.

The purpose of this plan is to minimize erosion within the construction site and to limit sediments from leaving the construction site by utilizing proper temporary erosion control systems and providing ground cover within a reasonable amount of time.

Certain erosion control facilities shall be installed by the Contractor at the beginning of construction. Other items shall be installed by the Contractor as directed by the Engineer on a case by case situation depending on the Contractor's sequence of activities, time of year, and expected weather conditions.

The Contractor shall install permanent erosion control systems and seeding within a time frame specified herein and as directed by the Engineer, therefore minimizing the amount of area susceptible to erosion and reducing the amount of temporary seeding. The Engineer will determine if any temporary erosion control systems shown in the plan can be deleted and if any additional temporary erosion control systems, which are not included in this plan, shall be added. The Contractor shall perform all work as directed by the Engineer and as shown in Standard 280001-04 of the Specifications.

Section 280, Temporary Erosion Control, of the Standard Specifications additionally supplements this plan.

**SITE DESCRIPTION
DESCRIPTION OF CONSTRUCTION ACTIVITY:**

1. The project consists of bridge replacement on TR 257 (N 1600 Ave.) over King Creek and approach roadway work thereto.
2. Construction includes pavement removal, earth excavation, entrances, channel excavation, various pavement items, bridge items and other miscellaneous items of construction.

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. Pavement removal and earth excavation
2. Channel excavation
3. Aggregate surface
4. Placement of permanent erosion control, including seeding

AREA OF CONSTRUCTION SITE:

The total area of the construction site is estimated to be 1.79 acres of which 1.75 acres will be disturbed by excavation, grading, and other activities.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. Information of the soils and terrain within the site was obtained from soil borings that were utilized for the development of the proposed temporary erosion control systems.
2. Project plan documents, specifications and special provisions, and plan drawings indicating drainage patterns and approximate slopes anticipated after grading activities were utilized for the proposed placement of the temporary erosion control systems.

**CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL
DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:**

1. The drawings, specifications and special provisions will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices include: Temporary Seeding, Permanent Seeding, Mulching, Perimeter Erosion Barrier, and other appropriate measures as directed by the Engineer. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
 - (a) Areas of existing vegetation (wood and grasslands) outside the proposed construction limits shall be identified by the Engineer for preserving and shall be protected from construction activities.
 - (b) Dead, diseased, or unsuitable vegetation within the site shall be removed as directed by the Engineer, along with required tree removal.
 - (c) As soon as reasonable access is available to all locations where water drains away from the project, temporary ditch checks and perimeter erosion barrier shall be installed as called out in this plan and directed by the Engineer.
 - (d) Bare and sparsely vegetated ground in highly erodible areas, as determined by the Engineer, shall be temporarily seeded at the beginning of construction where no construction activities are expected within seven days.
 - (e) At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), temporary ditch checks will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the Right-of-Way Line.
2. Establishment of these temporary erosion control measures will have additional benefits to the project. Desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and overseeding can be completed.

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

1. During construction, areas outside the construction limits as outlined previously herein shall be protected. The Contractor shall not use this area for staging (except as described on the plans and directed by the Engineer), parking of vehicles or construction equipment, storage of materials, or other construction related activities.
 - (a) Within the construction limits, areas which may be susceptible to erosion as determined by the Engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.
 - (b) Earth stockpiles shall be temporarily seeded if they are to remain unused for more than fourteen days.
 - (c) As construction proceeds, the Contractor shall institute the following as directed by the Engineer:
 - I. Place temporary erosion control facilities at locations shown on the plans.
 - II. Temporarily seed erodable bare earth on a weekly basis to minimize the amount of erodable surface area within the contract limits.
 - (d) Excavated areas and embankment shall be permanently seeded immediately after final grading. If not, they shall be temporarily seeded if no construction activity in the area is planned for 7 days.
 - (e) Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or other pollutant in accordance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.
 - (f) The Resident Engineer shall inspect the project daily during construction activities. Inspection shall also be done weekly and after rains of 1/2 inch or greater or equivalent snowfall and during the winter shutdown period. The project shall additionally be inspected by the Construction Field Engineer on a bi-weekly basis to determine that erosion control efforts are in place and effective and if other erosion control work is necessary.
 - (g) Sediment collected during construction of the various temporary erosion control systems shall be disposed of on the site on a regular basis as directed by the Engineer. The cost of this maintenance shall be included in the unit price per Cubic Yard for Earth Excavation and shall not be paid for separately.
 - (h) The temporary erosion control systems shall be removed as directed by the Engineer after use is no longer needed or no longer functioning. The cost of this removal shall be included in the unit price per Cubic Yard for Earth Excavation and shall not be paid separately.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

1. Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control is in place and working properly and all proposed turf areas seeded and established.
2. Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded.

MAINTENANCE AFTER CONSTRUCTION:

1. Construction is complete after acceptance by Bureau County's final inspection. Maintenance up to this date will be by the Contractor.

MISCELLANEOUS:

1. Temporary erosion control seeding shall be applied at a rate of 100 Lbs./Acres.
2. Ditch checks shall be comprised of aggregate approved by the Erosion and Sediment Control Coordinator.
3. Sediment collected during construction by the various temporary erosion control systems shall be disposed of on the site on a regular basis, as directed by the Engineer. The cost of this maintenance shall be paid for at the contract unit price per Cubic Yard for Earth Excavation and shall not be paid for separately.
4. All erosion control products furnished shall be specifically recommended by the manufacturer for the use specified in the Erosion Control Plan. Prior to the approval and use of the product, the Contractor shall submit to the Engineer a notarized certification by the producer stating the intended use of the product and that the physical properties required for this application are met or exceeded. The Contractor shall provide manufacturer installation procedures to facilitate the Engineer in construction inspection.

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for Storm Water Discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

John C. Shaw
BUREAU COUNTY ENGINEER

02/01/09
DATE

FILE NAME = s:\Draw\115000\Drawings\111\erocn.dgn

WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
609 East Second Street Dixon, IL 61021
Phone: 815-294-3381 Fax: 815-294-3386
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USER NAME =	DESIGNED - MAS	REVISED -
	DRAWN - RDA	REVISED -
PLOT SCALE =	CHECKED - BKC	REVISED -
PLOT DATE =	DATE - 06/09	REVISED -

**BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK**

EROSION CONTROL PLAN

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	11
FED. ROAD DIST. NO. 7			ILLINOIS FED. AID PROJECT BROS-0011071	

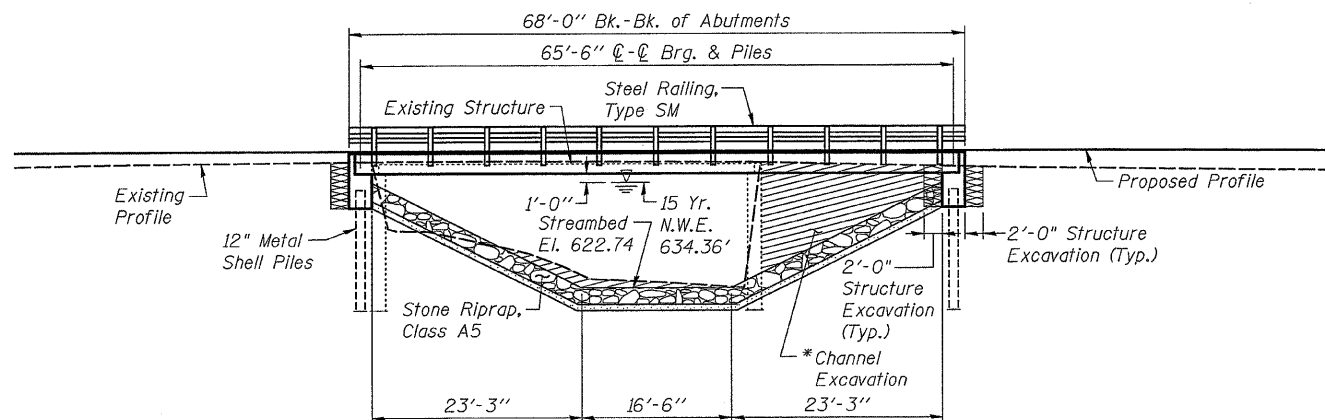
CONTRACT NO. 87381

Existing Structure: S.N. 006-4242
 A single span (1 @ 41'-6") reinforced concrete thru girder bridge on closed reinforced concrete abutments @ Sta. 20+00. Skew 0°. To be removed. No salvage.

Benchmark: Chis. "□" on top of SE wingwall of exist. bridge, 12.69' Rt. of Sta. 20+38.69, El. 639.70

BILL OF MATERIAL - BRIDGE

Item	Unit	Sub	Super	Total
Channel Excavation	Cu. Yd.	330	—	330
Porous Granular Embankment	Cu. Yd.	19	—	19
Stone Riprap, Class A5	Sq. Yd.	1,490	—	1,490
Removal of Existing Structures	Each	—	—	1
Concrete Structures	Cu. Yd.	27.4	—	27.4
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	—	1,600	1,600
Reinforcement Bars	Pound	2,780	—	2,780
Steel Railing, Type SM	Foot	—	136	136
Furnishing Metal Shell Piles 12" x 0.250"	Foot	265	—	265
Driving Piles	Foot	265	—	265
Test Pile Metal Shells	Each	1	—	1
Name Plates	Each	—	1	1



ELEVATION VIEW
 *See General Notes

KING CREEK
 BUILT 2009 BY
 BUREAU COUNTY
 SECTION 07-17137-00-BR
 T.R. 257 STATION 20+10
 STR. NO. 006-4247 LOADING HL-93

NAME PLATE LETTERING

Refer To Std. 515001-03

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Horizontal Bedrock Acceleration Coefficient (A) = 0.045 g
 Site Coefficient (S) = D

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
 f'cl = 5,000 psi
 f's = 270,000 psi (1/2" φ Low Lax Strands)
 f'si = 189,000 psi (1/2" φ Low Lax Strands)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 Interims

LOADING HL-93

Allow 50#/Sq. Ft. for Future Wearing Surface.

GENERAL NOTES

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

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 substructures specified or approved by the Engineer before ordering the remainder of piles.

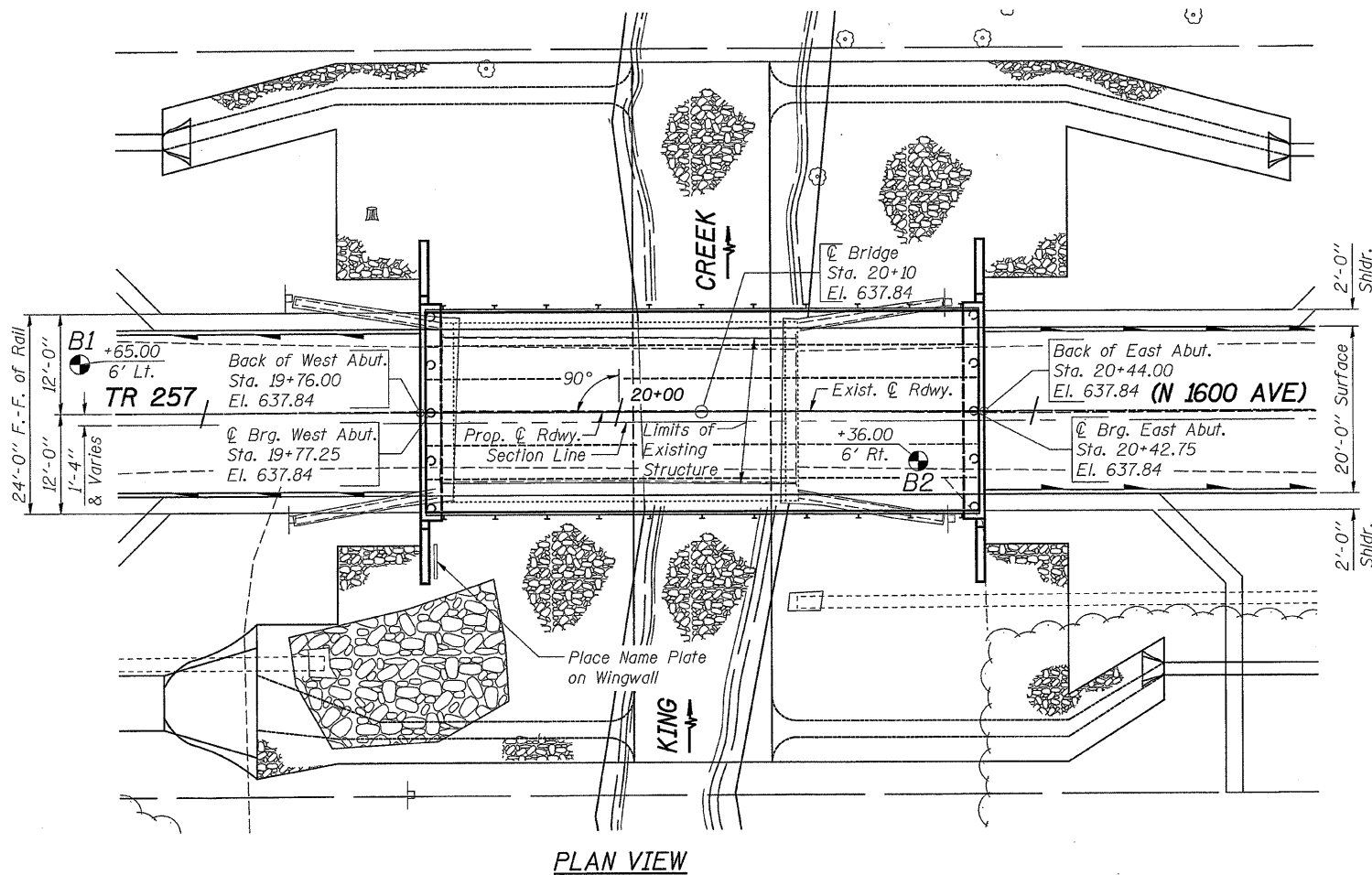
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

Channel to be transitioned to fit proposed structure inside Right of Way. Cost shall be included in price per Cubic Yard for Channel Excavation.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.

WATERWAY INFORMATION

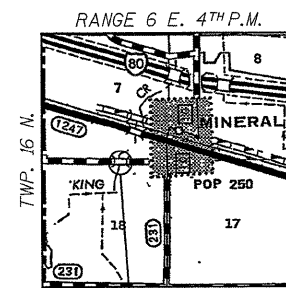
DRAINAGE AREA	17.95 Sq. Mi.
DESIGN DISCHARGE (15 YR.)	3,260 C.F.S.
EXISTING OPENING	341 Sq. Ft.
REQUIRED OPENING	464 Sq. Ft.
PROPOSED OPENING	464 Sq. Ft.
CREATED HEAD (15 YR.)	< 0.5'
100 YR. DISCHARGE	5,450 C.F.S.
CREATED HEAD (100 YR.)	< 1.0'
HIGH WATER ELEV. (100 YR.)	635.12 Ft.
CREATED HEAD (1,000' UPSTREAM)	< 0.5'



PLAN VIEW



Brian K. Converse
 DATE: 7/11/2009
 EXPIRES 11/30/10



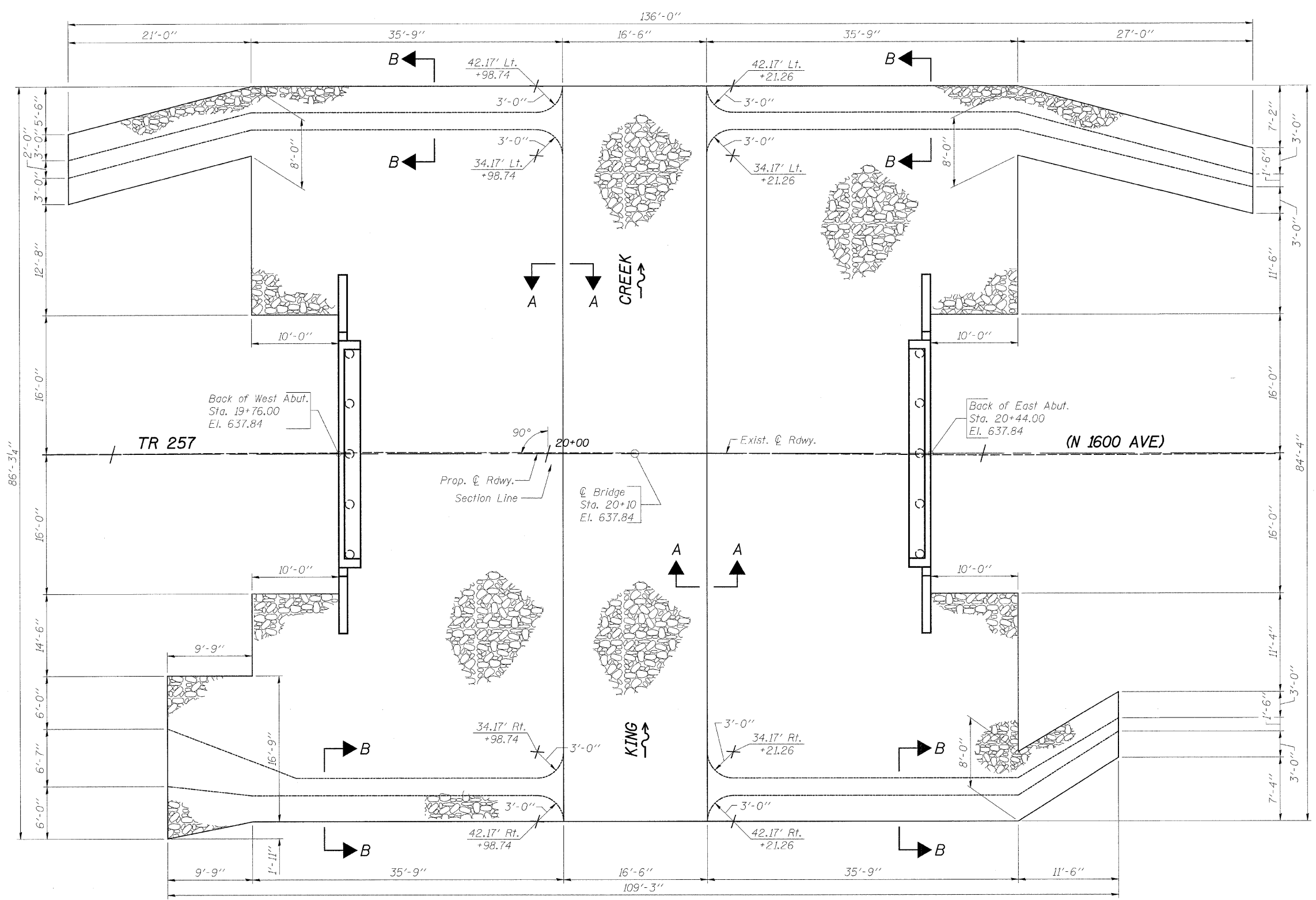
BRIDGE SITE LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
 TR 257 (N. 1600 AVE.) OVER KING CREEK
 STA. 20+10 (S.N. 006-4247)
 SECTION 07-17137-00-BR
 MINERAL ROAD DISTRICT
 BUREAU COUNTY**

WHA JOB NUMBER	1115D08	 WILLET, HOFMANN & ASSOCIATES, INC. CONSULTING ENGINEERS Land Surveying - Transportation - Structural Environmental - Architecture 609 East Second Street Dixon, Illinois 61021 Phone 815.284.3381 Fax 815.284.3386 Design Firm #18-00218 www.willett-hofmann.com	Designed By: M.C. Wagner Date: 4/09	
			Checked By: B.K. Converse Date: 4/09	
			Drawn By: R.D. Allen Date: 4/09	
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	12
CONTRACT NO. 87381				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011(071)				

STRUCTURAL SHEET NO. 1 OF 9 SHEETS

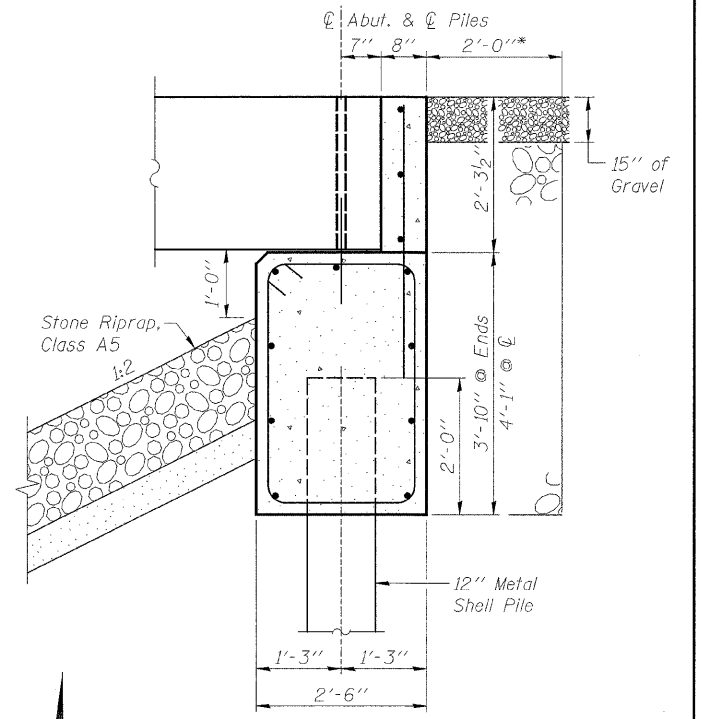
"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS, THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES'."



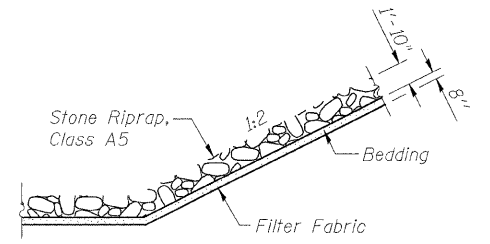
PLAN VIEW

BILL OF MATERIAL

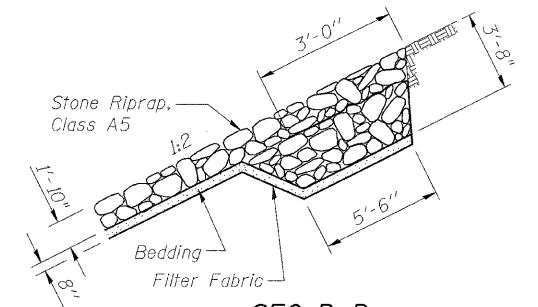
Item	Unit	Quantity
Stone Riprap, Class A5	Ton	1,490



SECTION THRU ABUTMENT



SEC A-A



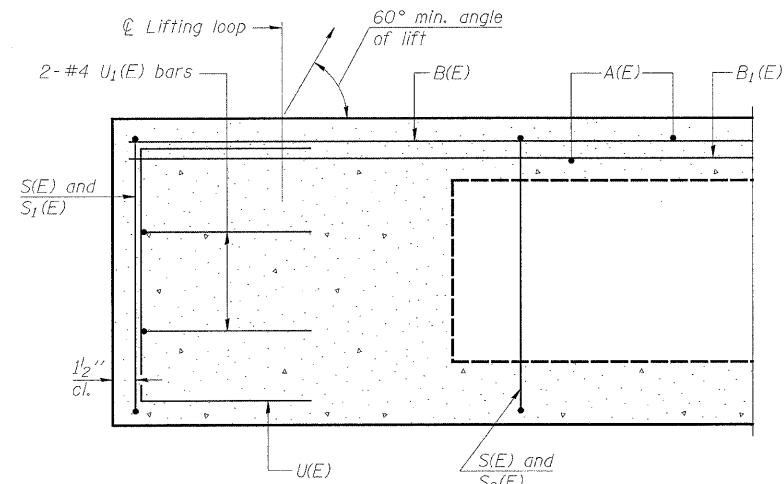
SEC B-B

STONE RIPRAP ANCHOR DETAILS

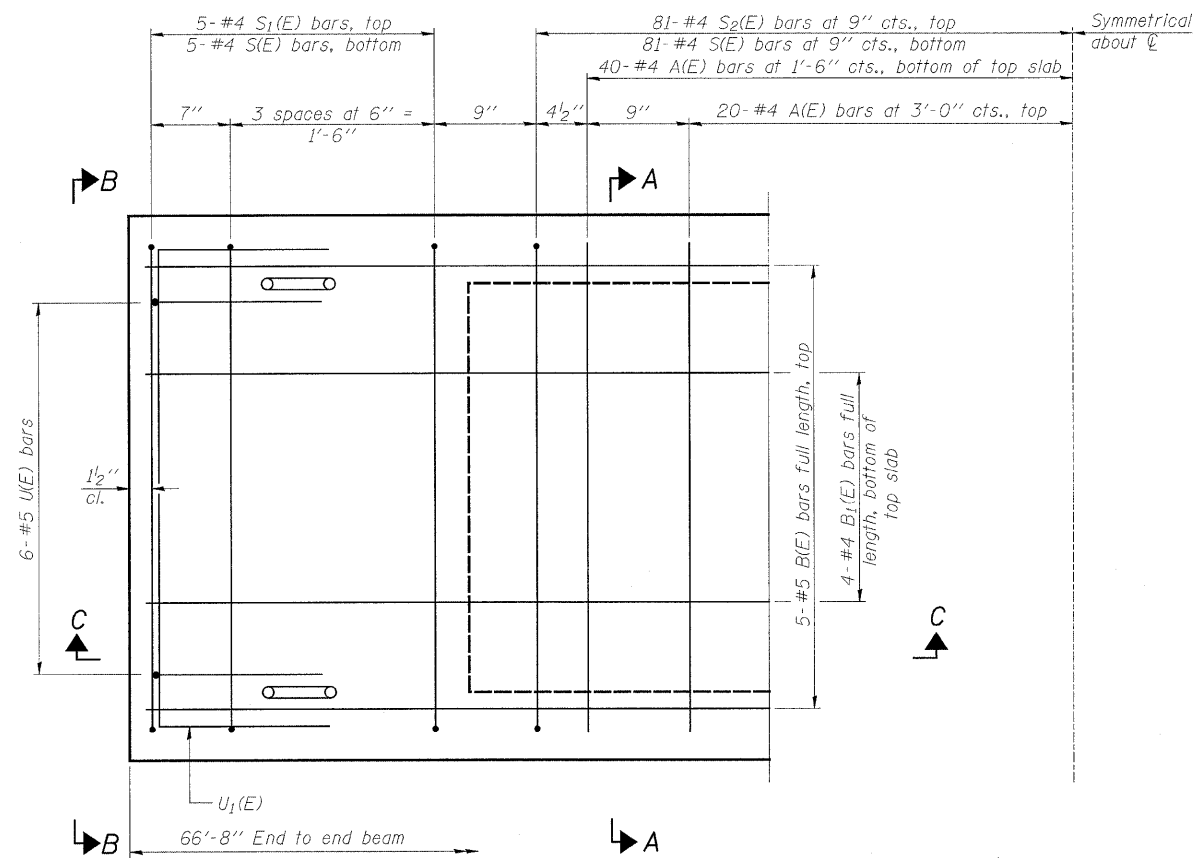
RIPRAP AND PILE LAYOUT
 TR 257 (N. 1600 AVE.) OVER KING CREEK
 STA. 20+10 (S.N. 006-4247)
 SECTION 07-17137-00-BR
 MINERAL ROAD DISTRICT
 BUREAU COUNTY
 WHA # 1115D08

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	13
CONTRACT NO. 87381				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-0011071				

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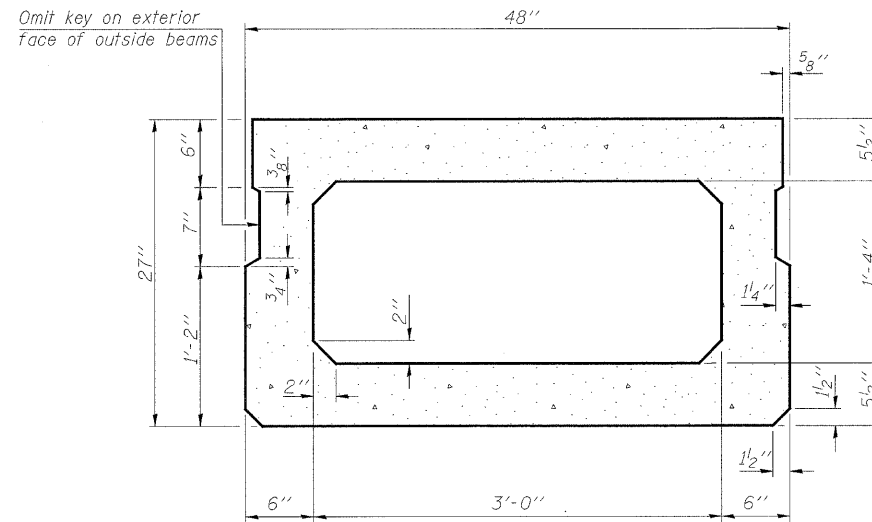


SECTION C-C

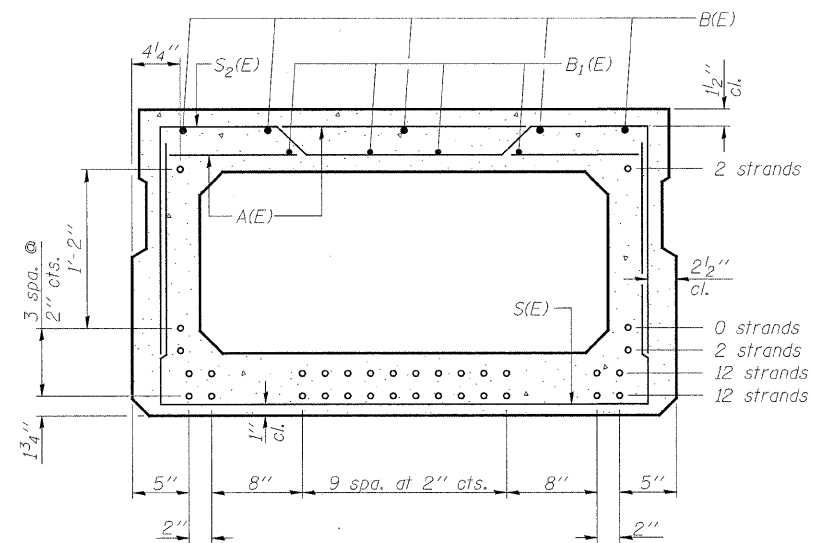


PLAN VIEW

Note: Spacing of S(E) and S₂(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

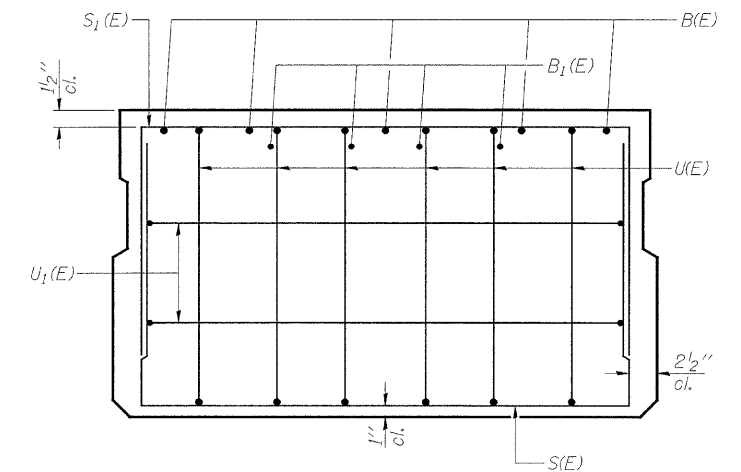


SECTION A-A
(Showing dimensions)



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

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



VIEW B-B

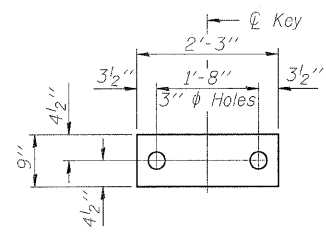
BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	60	#4	3'-7"	—
B(E)	5	#5	66'-5"	—
B ₁ (E)	4	#4	66'-5"	—
S(E)	86	#4	7'-5"	┌┐
S ₁ (E)	10	#4	6'-11"	┌┐
S ₂ (E)	81	#4	7'-2"	┌┐
U(E)	12	#5	4'-6"	┌┐
U ₁ (E)	4	#4	6'-0"	┌┐

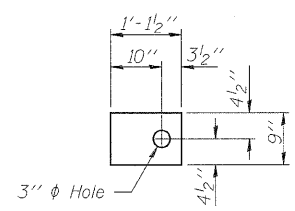
Note: See sheet 4 of 9 for additional details and Bill of Material.

27" X 48" PPC DECK BEAM
TR 257 (N. 1600 AVE.) OVER KING CREEK
STA. 20+10 (S.N. 006-4247)
SECTION 07-17137-00-BR
MINERAL ROAD DISTRICT
BUREAU COUNTY
WHA # 1115D08

STRUCTURAL SHEET NO. 3 OF 9 SHEETS	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	257	07-17137-00-BR	BUREAU	27	14
	CONTRACT NO. 87381				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011071					

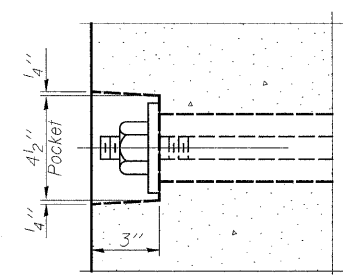


FABRIC BEARING PAD
(Interior)
8 Required

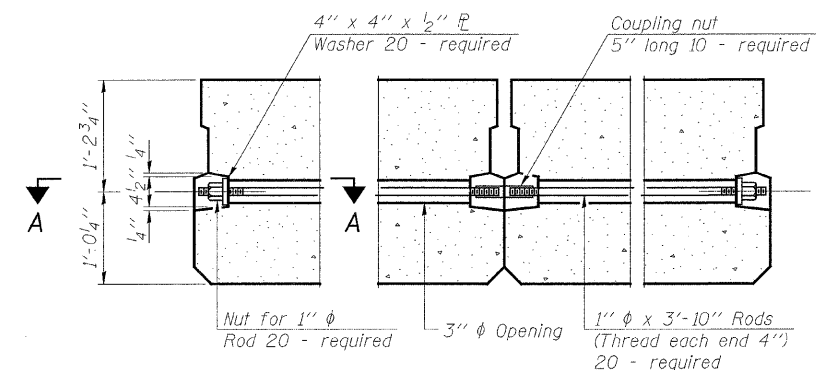


FABRIC BEARING PAD
(Exterior)
*8 Required

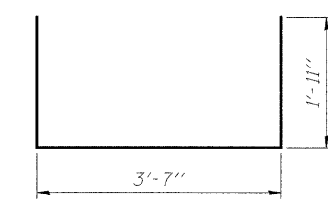
* 2 exterior pads are to be used at crown break of abutment cap, each abutment



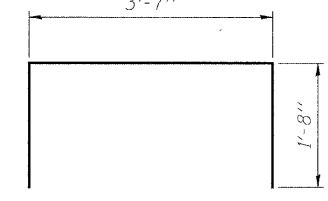
SECTION A-A



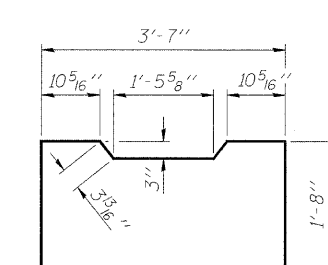
TYPICAL TRANSVERSE TIE ASSEMBLY



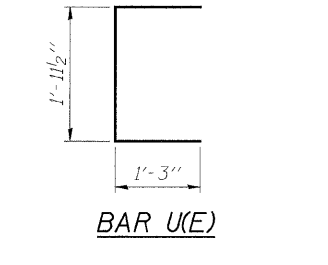
BAR S(E)



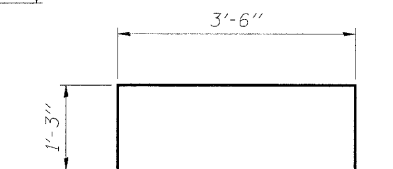
BAR S1(E)



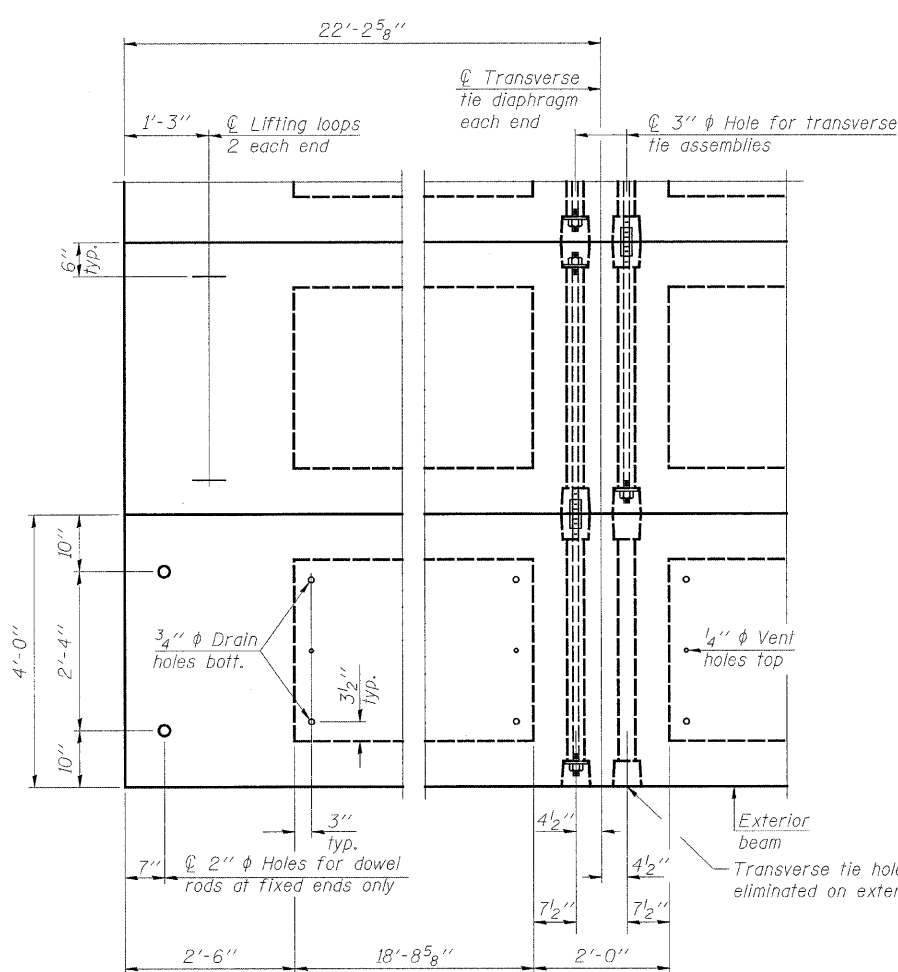
BAR S2(E)



BAR U(E)

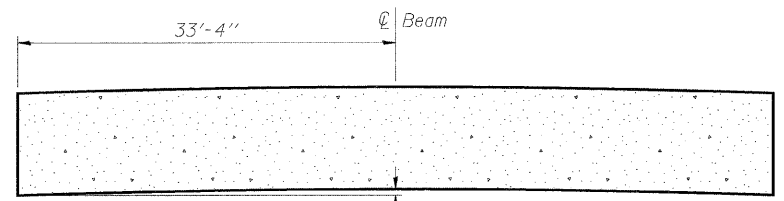


BAR U1(E)

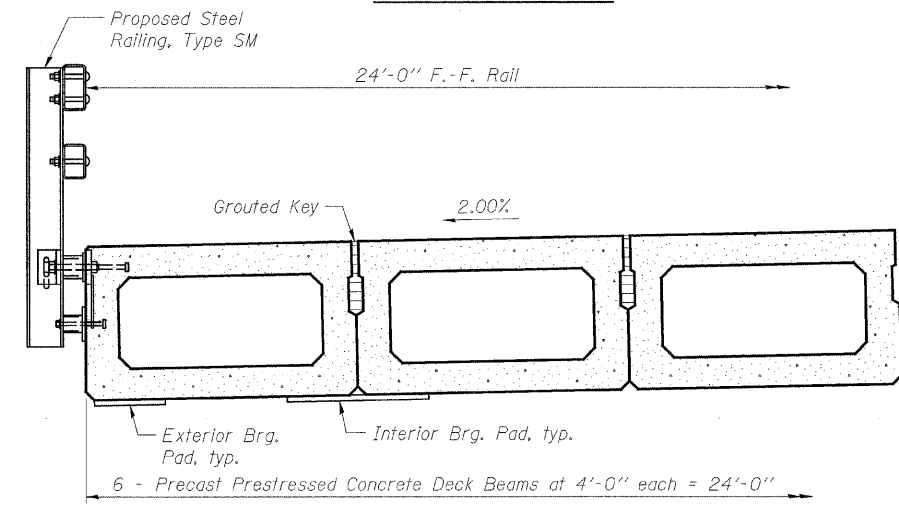


PLAN VIEW

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



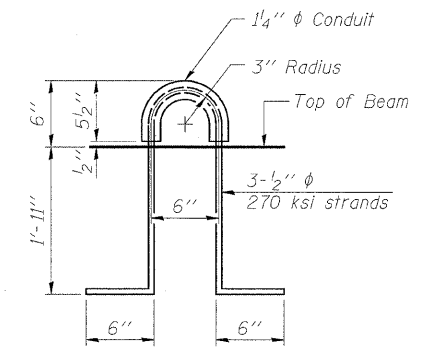
CAMBER DIAGRAM



HALF CROSS SECTION

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal ϕ shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'_c , shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'_{ci} , shall be 5000 psi.



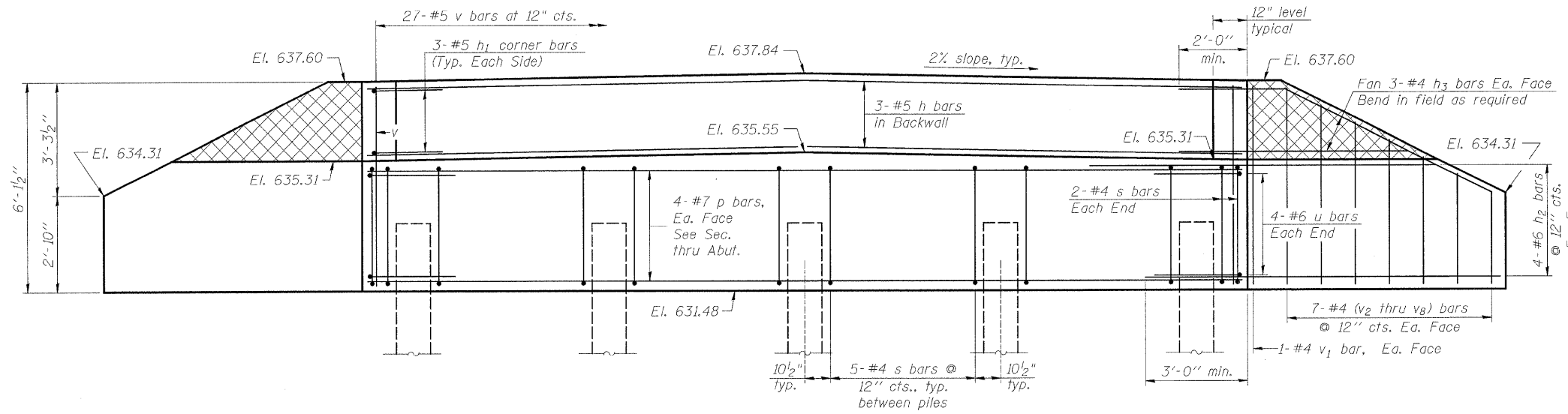
LIFTING LOOP DETAIL

BILL OF MATERIAL

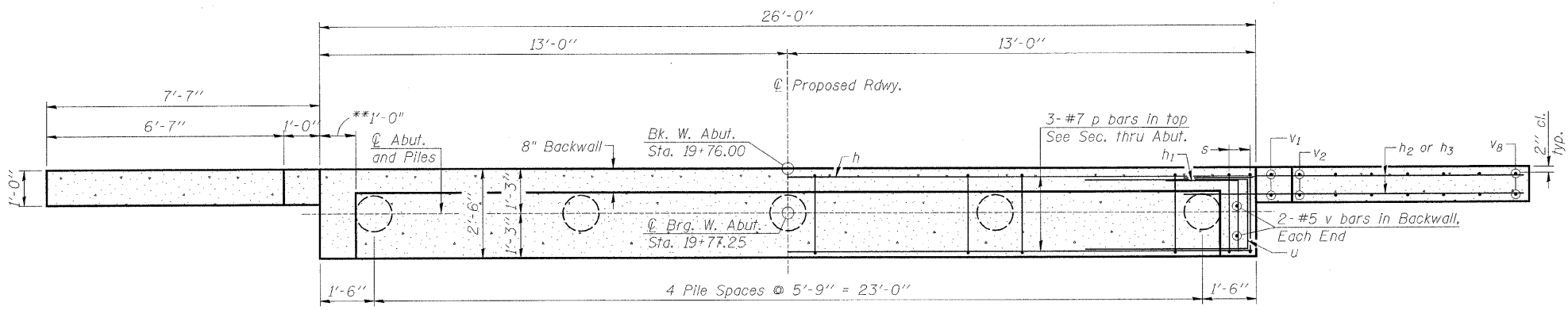
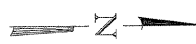
Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1,600

27" X 48" PPC DECK BEAM DETAILS
TR 257 (N. 1600 AVE.) OVER KING CREEK
STA. 20+10 (S.N. 006-4247)
SECTION 07-17137-00-BR
MINERAL ROAD DISTRICT
BUREAU COUNTY
WHA # 1115D08

STRUCTURAL SHEET NO. 4 OF 9 SHEETS	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	257	07-17137-00-BR	BUREAU	27	15
CONTRACT NO. 87381					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011(071)					



ELEVATION VIEW
(Looking West)



SHOWING DIMENSIONS

SHOWING REINFORCING

PLAN VIEW

** May vary due to over run of beams

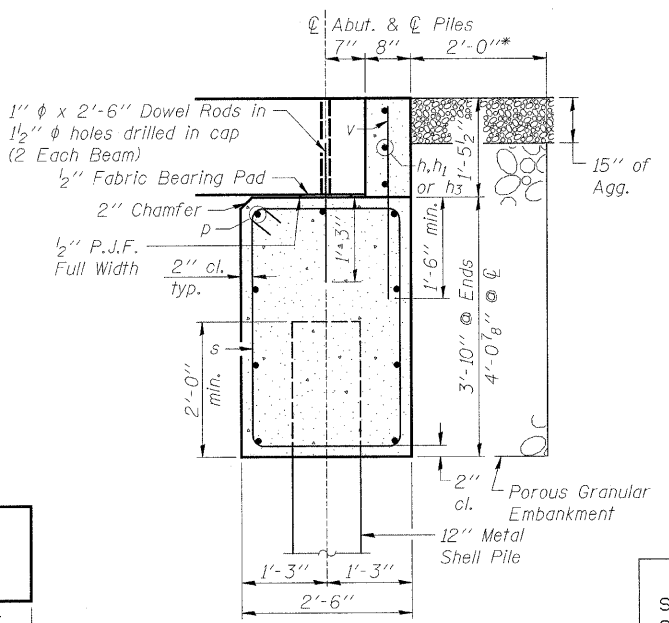
BILL OF MATERIAL-W. ABUT.

Bar	No.	Size	Length	Shape
h	3	#5	25'-8"	—
h ₁	6	#5	2'-10"	┌
h ₂	16	#6	10'-2"	—
h ₃	12	#4	9'-8"	—
p	9	#7	25'-8"	—
s	24	#4	12'-1"	□
u	8	#6	7'-1"	▭
v	31	#5	3'-8"	—
v ₁	4	#4	5'-9"	—
v ₂	4	#4	5'-8"	—
v ₃	4	#4	5'-2"	—
v ₄	4	#4	4'-8"	—
v ₅	4	#4	4'-2"	—
v ₆	4	#4	3'-8"	—
v ₇	4	#4	3'-2"	—
v ₈	4	#4	2'-8"	—
Porous Granular Embankment			Cu. Yd.	9.5
Concrete Structures			Cu. Yd.	13.7
Reinforcement Bars			Pound	1,390
Furnishing Metal Shell Piles, 12"x0.250"			Foot	145
Driving Piles			Foot	145

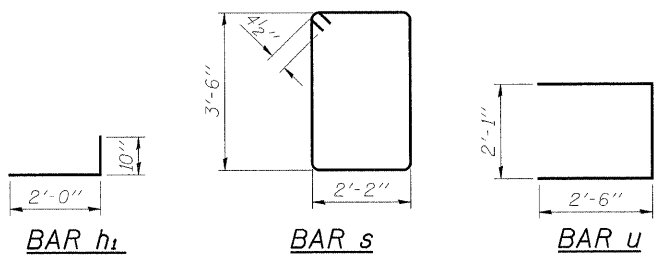
NOTES:

- Hatched portion of wingwalls to be poured with the backwall after the deck beams have been installed and grout has cured for a minimum of 24 hours.
- Wing reinforcement shown is typical, unless shown otherwise.
- All exposed edges shall have standard 3/4" chamfers, except as noted.
- Space reinforcement in cap to miss dowel rods.
- After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a min. of 24 hours prior to grouting the shear keys.
- For Metal Shell Pile Details see structural sheet 8 of 9.

WEST ABUTMENT DETAILS
TR 257 (N. 1600 AVE.) OVER KING CREEK
STA. 20+10 (S.N. 006-4247)
SECTION 07-17137-00-BR
MINERAL ROAD DISTRICT
BUREAU COUNTY
 WHA # 1115D08



SECTION THRU ABUTMENT
*Pay Limits of Porous Granular Embankment

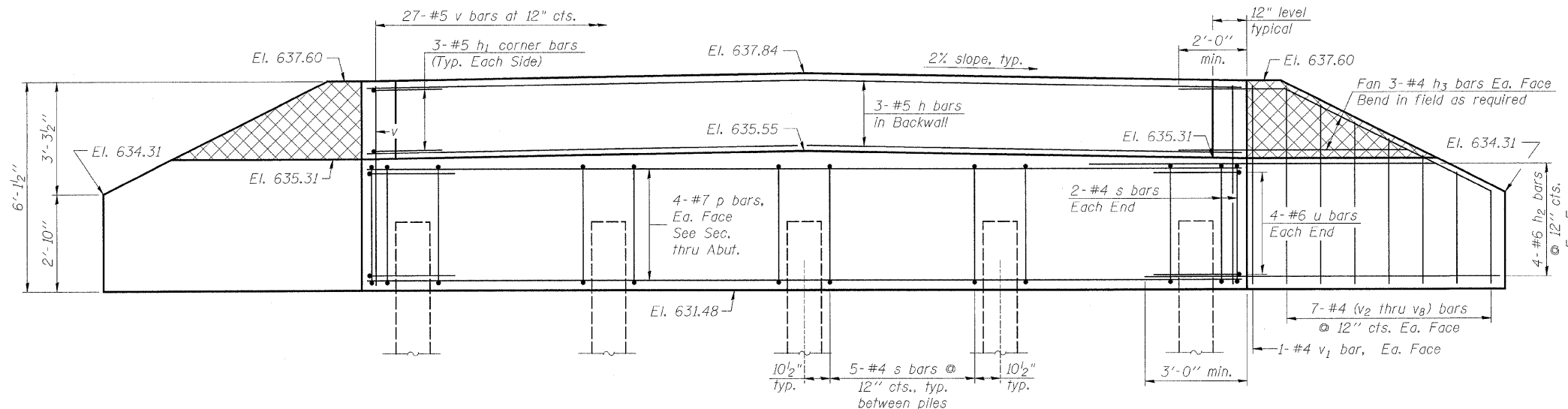


PILE DATA

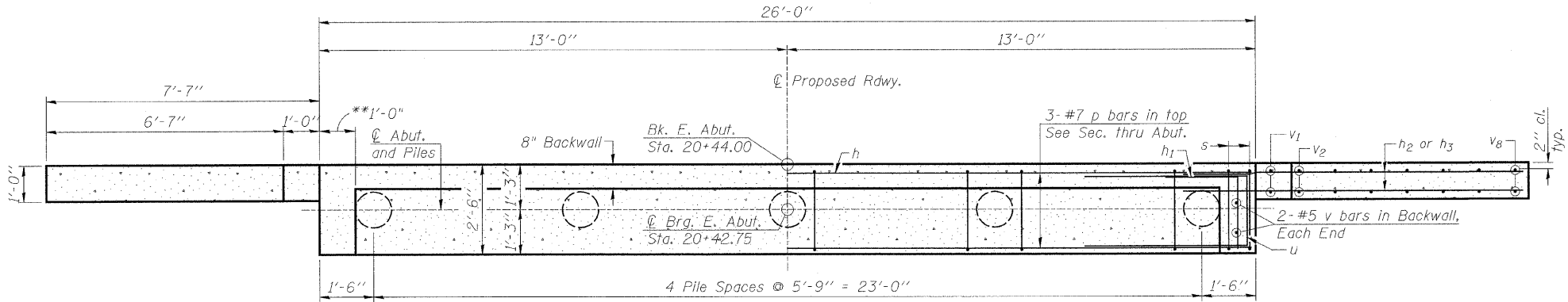
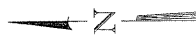
Type & Size	Metal Shell - 12" dia. x 0.250" walls
Nominal Required Bearing	245 k
Factored Resistance Available	123 k
Est. Length	29'
No. Production Piles	5
No. Test Piles	0

STRUCTURAL SHEET NO. 5 OF 9 SHEETS	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	257	07-17137-00-BR	BUREAU	27	16
			CONTRACT NO. 87381		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011(071)					

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ELEVATION VIEW
(Looking East)

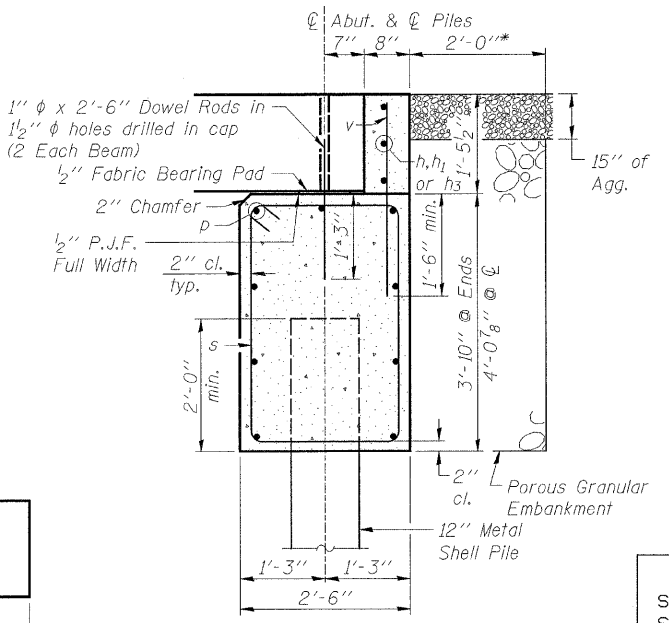


SHOWING DIMENSIONS

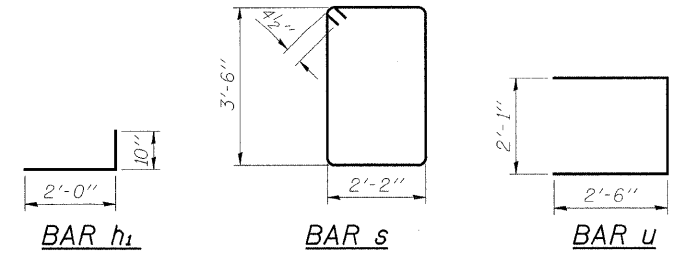
SHOWING REINFORCING

PLAN VIEW

** May vary due to over run of beams



SECTION THRU ABUTMENT
*Pay Limits of Porous Granular Embankment



BILL OF MATERIAL-E. ABUT.

Bar	No.	Size	Length	Shape
h	3	#5	25'-8"	—
h ₁	6	#5	2'-10"	┌
h ₂	16	#6	10'-2"	—
h ₃	12	#4	9'-8"	—
p	9	#7	25'-8"	—
s	24	#4	12'-1"	□
u	8	#6	7'-1"	▭
v	31	#5	3'-8"	—
v ₁	4	#4	5'-9"	—
v ₂	4	#4	5'-8"	—
v ₃	4	#4	5'-2"	—
v ₄	4	#4	4'-8"	—
v ₅	4	#4	4'-2"	—
v ₆	4	#4	3'-8"	—
v ₇	4	#4	3'-2"	—
v ₈	4	#4	2'-8"	—
Porous Granular Embankment			Cu. Yd.	9.5
Concrete Structures			Cu. Yd.	13.7
Reinforcement Bars			Pound	1,390
Furnishing Metal Shell Piles, 12" x 0.250"			Foot	120
Driving Piles			Foot	120
Test Pile			Each	1

NOTES:

- Hatched portion of wingwalls to be poured with the backwall after the deck beams have been installed and grout has cured for a minimum of 24 hours.
- Wing reinforcement shown is typical, unless shown otherwise.
- All exposed edges shall have standard 3/4" chamfers, except as noted.
- Space reinforcement in cap to miss dowel rods.
- After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a min. of 24 hours prior to grouting the shear keys.
- For Metal Shell Pile Details see structural sheet 8 of 9.

EAST ABUTMENT DETAILS
TR 257 (N. 1600 AVE.) OVER KING CREEK
STA. 20+10 (S.N. 006-4247)
SECTION 07-17137-00-BR
MINERAL ROAD DISTRICT
BUREAU COUNTY
 WHA # 1115D08

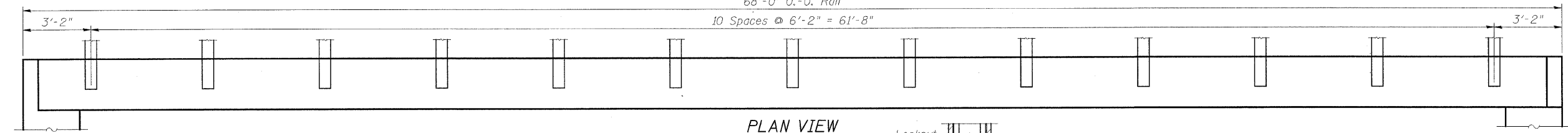
STRUCTURAL SHEET NO. 6 OF 9 SHEETS	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	257	07-17137-00-BR	BUREAU	27	17
CONTRACT NO. 87381					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-0011(071)					

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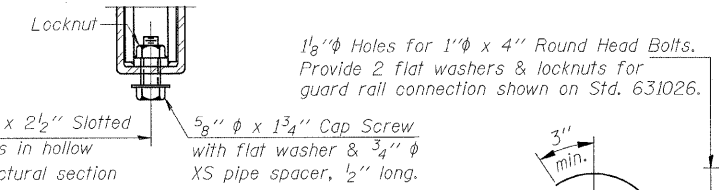
PILE DATA

Type & Size	Metal Shell - 12" dia. x 0.250" walls
Nominal Required Bearing	245 k
Factored Resistance Available	123 k
Est. Length	30'
No. Production Piles	4
No. Test Piles	1

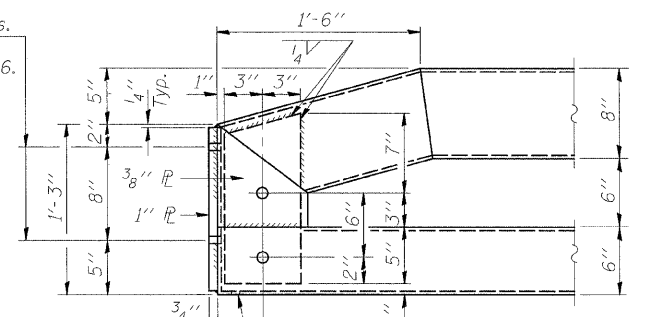
68'-0" O.-O. Rail
10 Spaces @ 6'-2" = 61'-8"



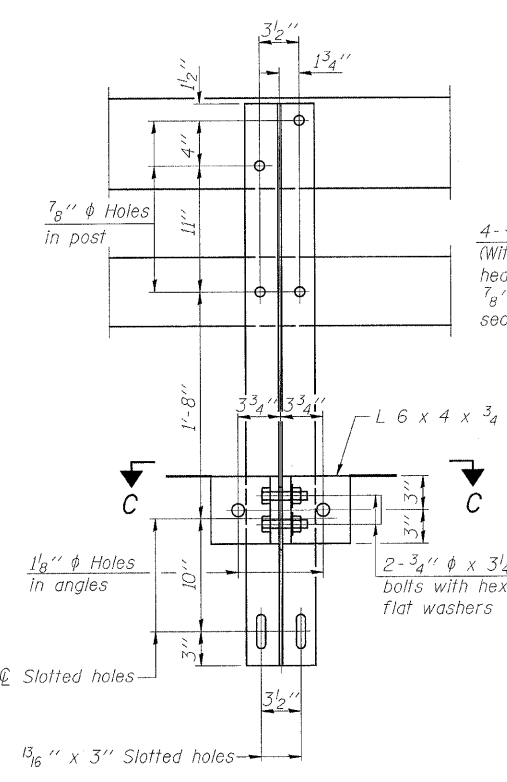
PLAN VIEW



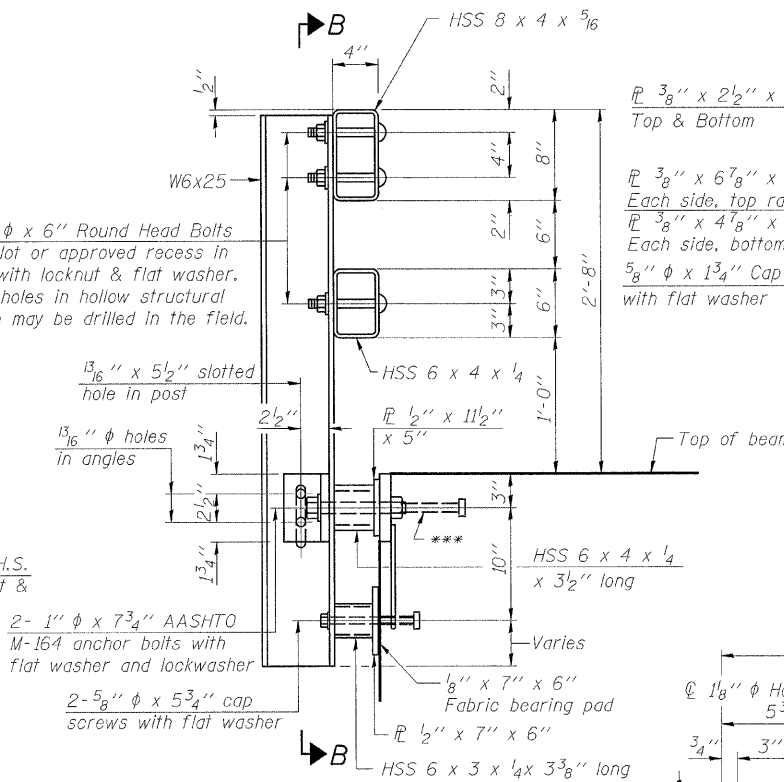
RAIL SPLICE CONNECTION AT EXPANSION JT.



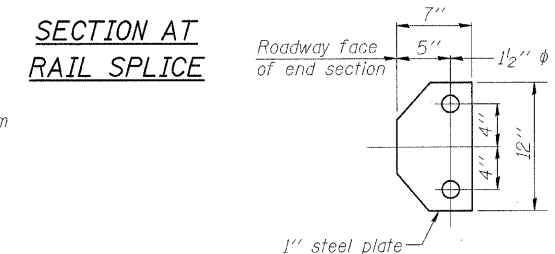
END OF RAIL DETAILS



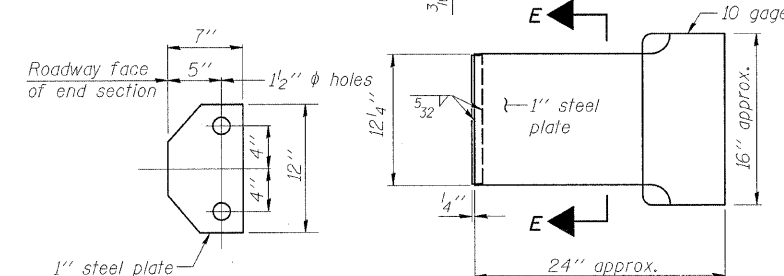
SECTION B-B



SECTION AT RAIL POST

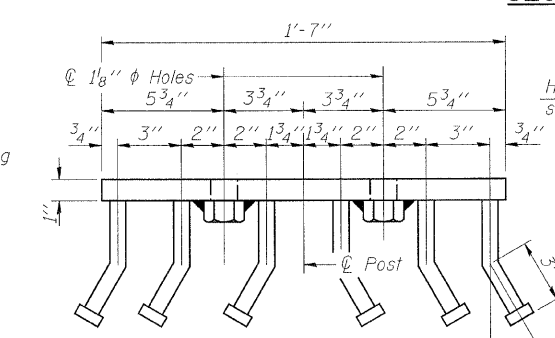


SECTION AT RAIL SPLICE

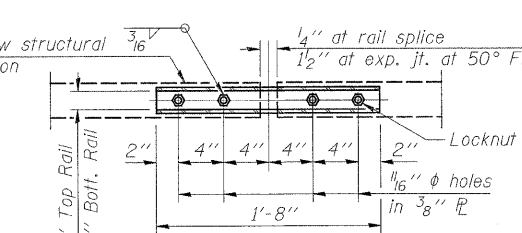


SECTION E-E

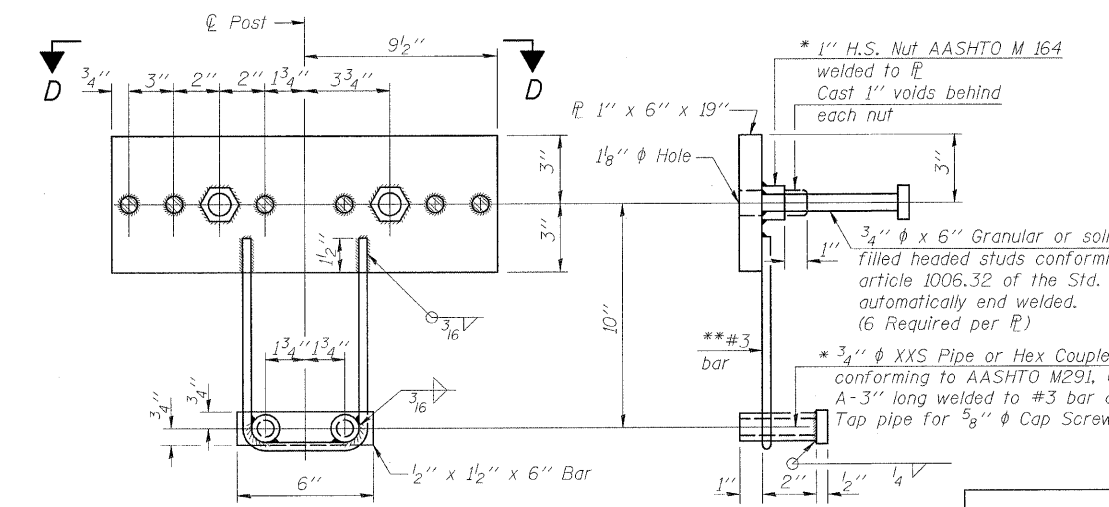
****CURLED END SECTION DETAILS (4 Required)



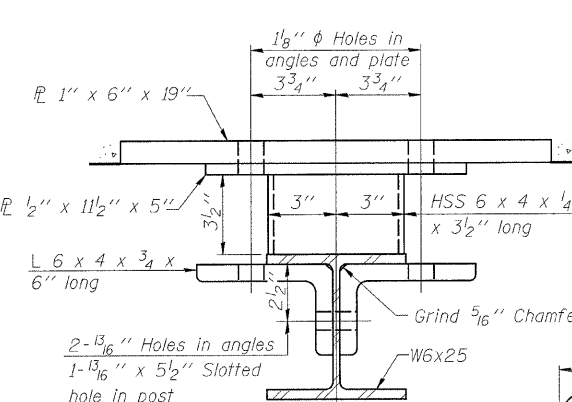
VIEW D-D



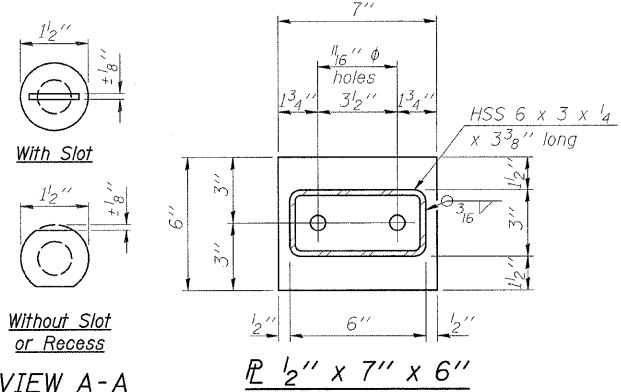
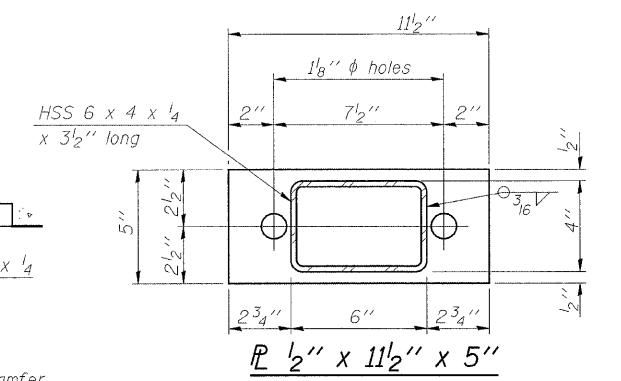
PLAN-BOTT. SPLICE P TYPICAL



ANCHOR DEVICE



SECTION C-C



DETAIL OF 3/4" φ ROUND HEAD BOLT VIEW A-A

NOTES:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
 ** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".
 *** 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.
 **** Cost of curled end sections shall be considered incidental to Steel Railing, Type SM.

BILL OF MATERIAL

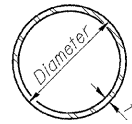
Item	Unit	Quantity
Steel Railing, Type SM	Foot	136

STEEL RAILING, TYPE SM DETAILS
 TR 257 (N. 1600 AVE.) OVER KING CREEK
 STA. 20+10 (S.N. 006-4247)
 SECTION 07-17137-00-BR
 MINERAL ROAD DISTRICT
 BUREAU COUNTY
 WHA # 1115D08

STRUCTURAL SHEET NO. 7 OF 9 SHEETS	T.R. RTE. 257	SECTION 07-17137-00-BR	COUNTY BUREAU	TOTAL SHEETS 27	SHEET NO. 18
CONTRACT NO. 87381					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011(071)					

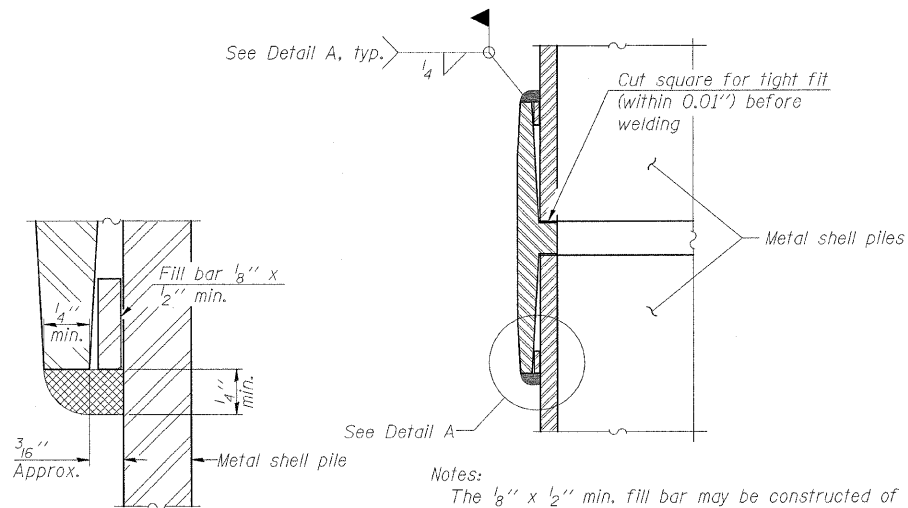
*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

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METAL SHELL PILE TABLE

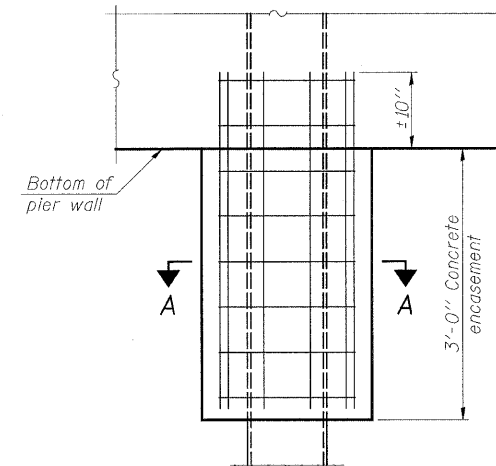
Designation and outside diameter	Wall thickness <i>t</i>	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



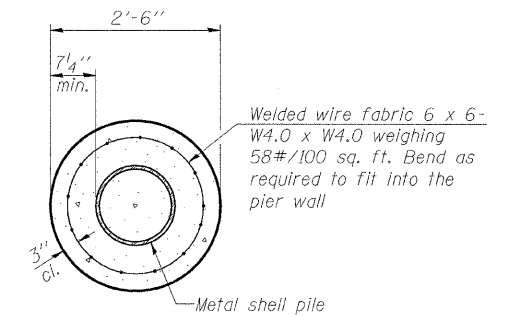
DETAIL A

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



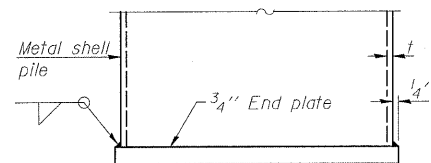
ELEVATION



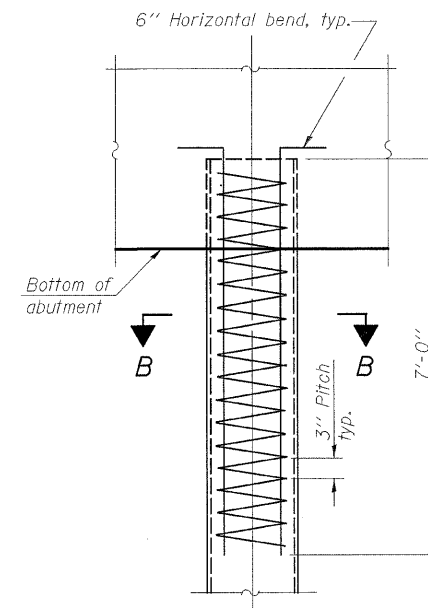
SECTION A-A

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

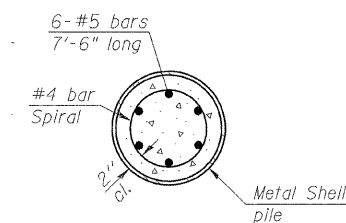
CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

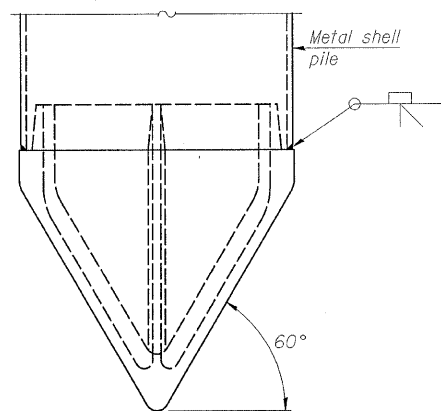


ELEVATION



SECTION B-B

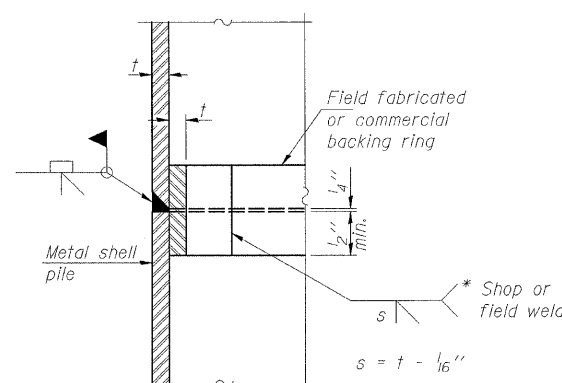
METAL SHELL REINFORCEMENT AT ABUTMENTS



METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



COMPLETE PENETRATION WELD SPLICE

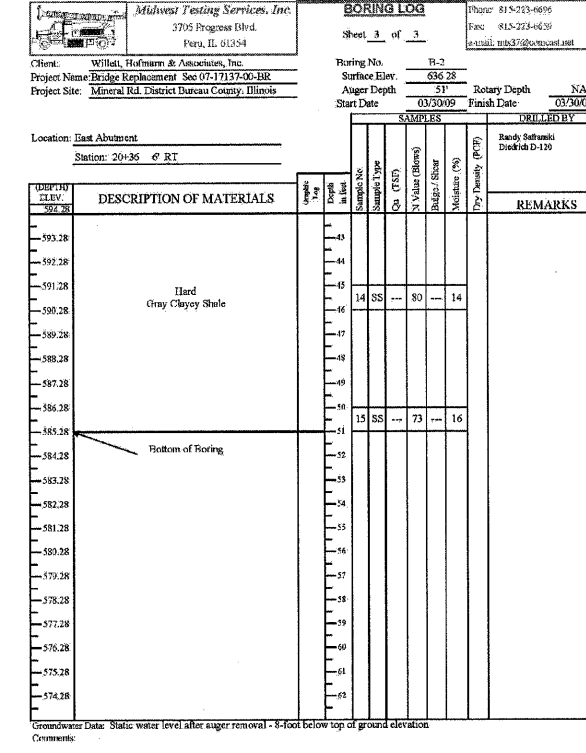
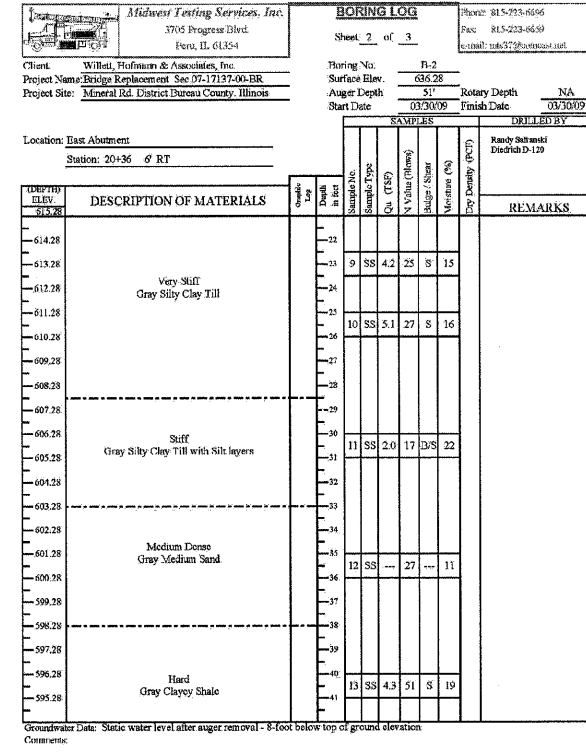
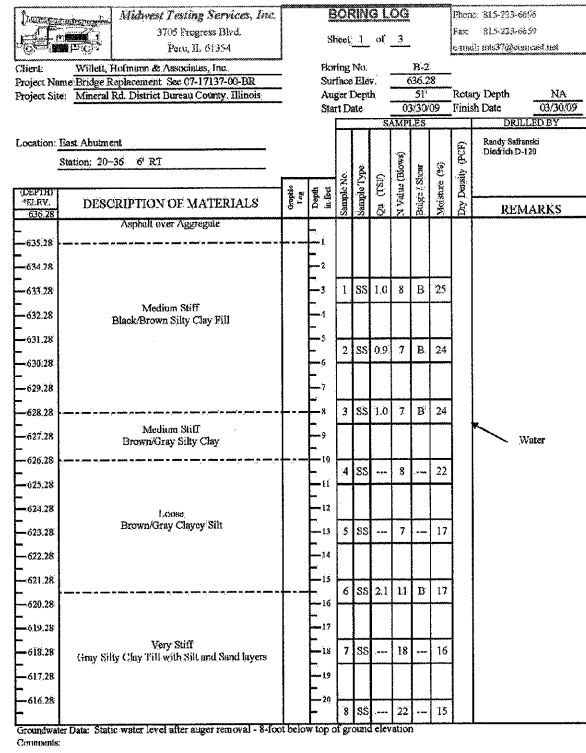
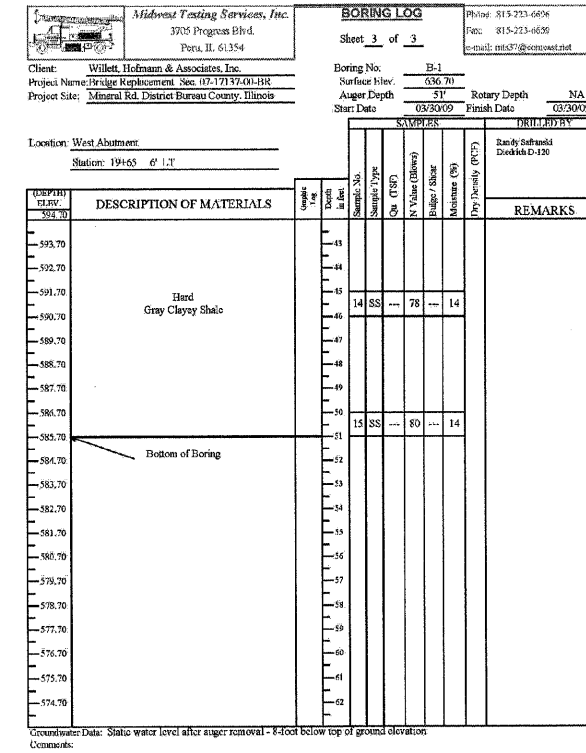
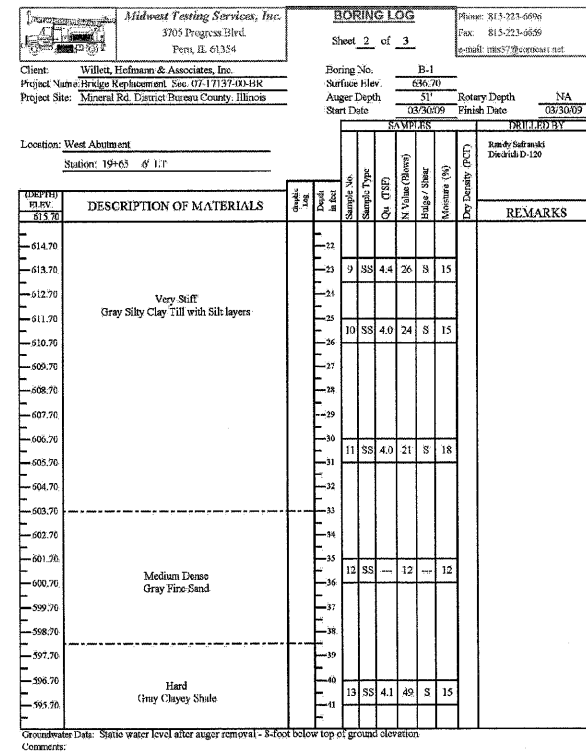
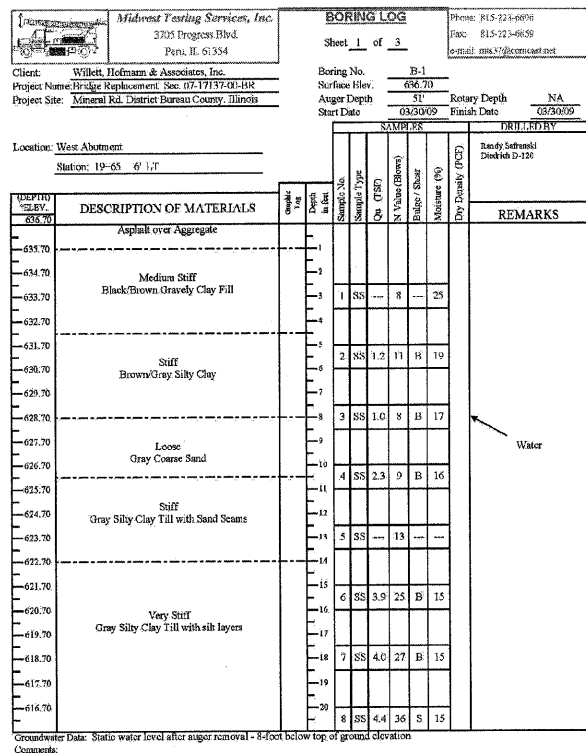
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

NOTE:

The metal shell piles shall be according to ASTM A 252 Grade 3.

METAL SHELL PILE DETAILS
 TR 257 (N. 1600 AVE.) OVER KING CREEK
 STA. 20+10 (S.N. 006-4247)
 SECTION 07-17137-00-BR
 MINERAL ROAD DISTRICT
 BUREAU COUNTY
 WHA # 1115D08

STRUCTURAL SHEET NO. 8 OF 9 SHEETS	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	257	07-17137-00-BR	BUREAU	27	19
CONTRACT NO. 87381					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011(071)					



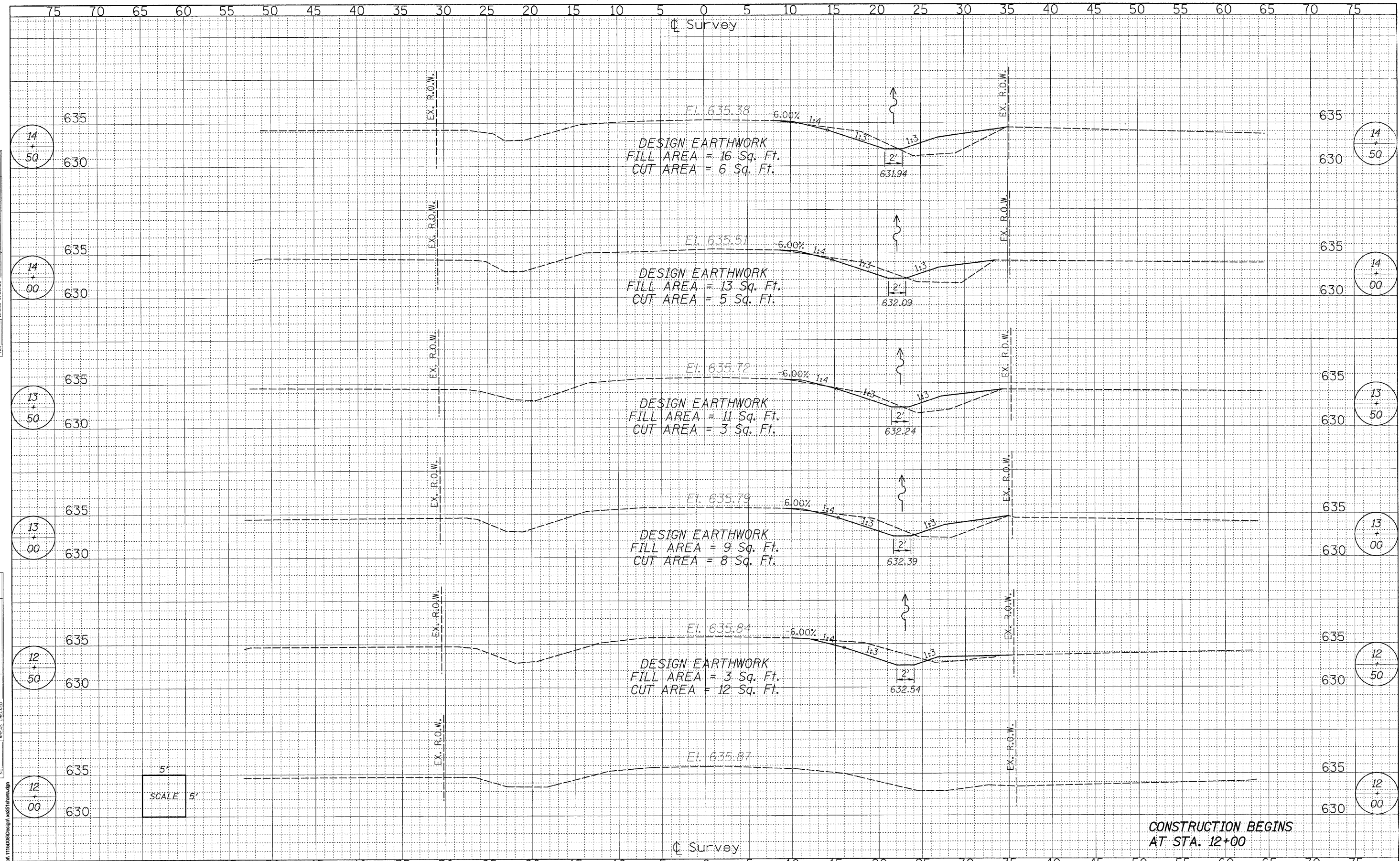
SOIL BORINGS
TR 257 (N. 1600 AVE.) OVER KING CREEK
STA. 20+10 (S.N. 006-4247)
SECTION 07-17137-00-BR
MINERAL ROAD DISTRICT
BUREAU COUNTY
 WHA # 1115D08

STRUCTURAL SHEET NO. 9 OF 9 SHEETS	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	257	07-17137-00-BR	BUREAU	27	20
	CONTRACT NO. 87381				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011(071)					

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TEMPLATE	
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SURVEYED	BY
PLOTTED	
TEMPLATE	
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 Phone 815.284.3381 Fax 815.284.3385
 Design Firm # 184-00918
 www.willett-hofmann.com

USER NAME =	DESIGNED - MAS	REVISED -
PLOT SCALE =	DRAWN - RDA	REVISED -
PLOT DATE =	CHECKED - BKC	REVISED -
	DATE - 06/09	REVISED -

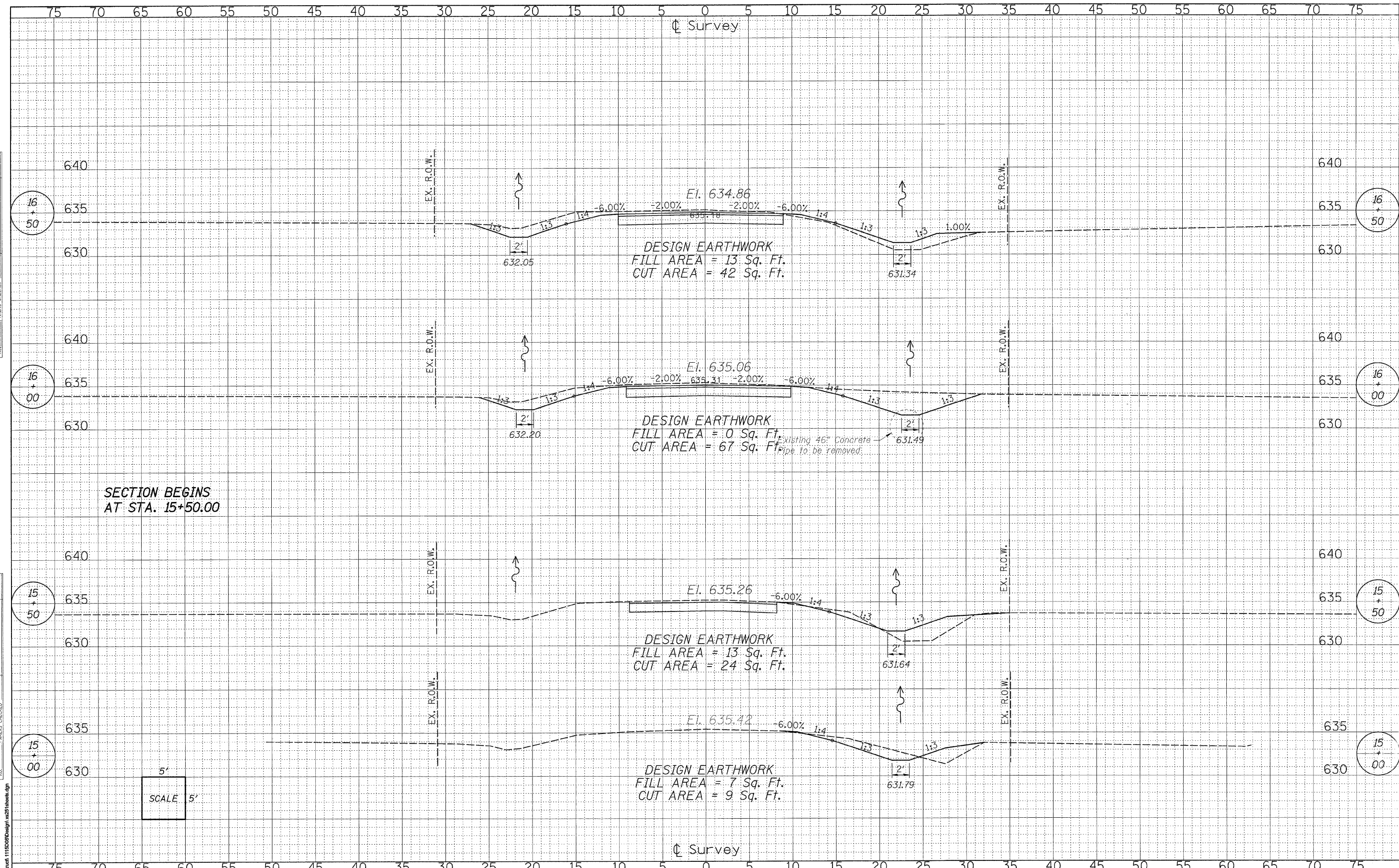
BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

CROSS SECTIONS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	21
STA. 12+00.00 TO STA. 14+50.00			CONTRACT NO. 87381	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-001107D				

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AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
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PLOTTED	
NOTE BOOK	
AREAS CHECKED	
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SECTION BEGINS
AT STA. 15+50.00

5'
SCALE 5'

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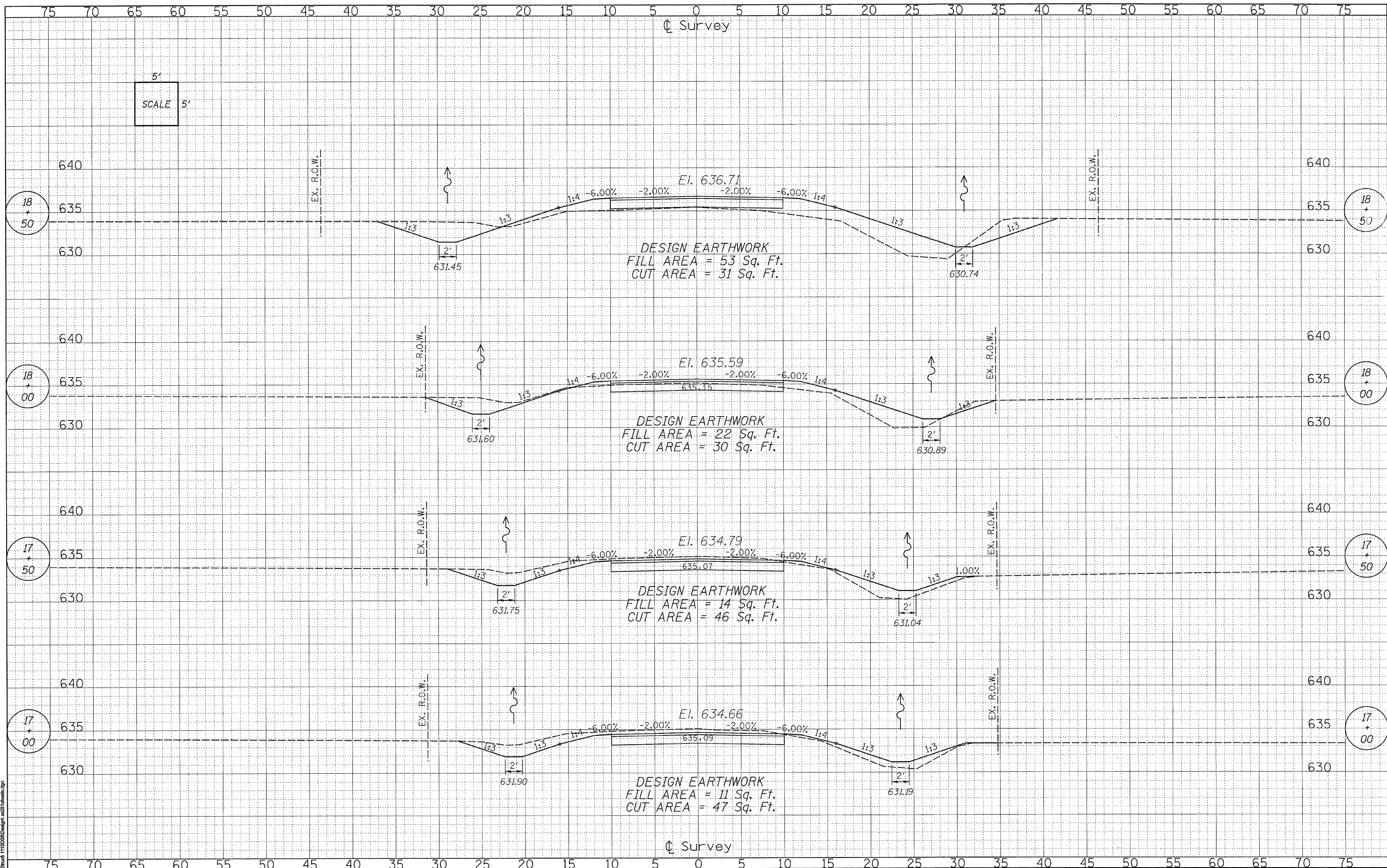
WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
809 East Second Street Dixon, IL 61021
Phone 815.284.3381 Fax 815.284.3385
Design Firm # 184-02918
www.willett-hofmann.com

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	DRAWN - RDA	REVISED -
PLOT SCALE =	CHECKED - BKC	REVISED -
PLOT DATE =	DATE - 06/09	REVISED -

BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

CROSS SECTIONS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	22
STA. 15+00.00 TO STA. 16+50.00			CONTRACT NO. 87381	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-00110711				



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SURVEY	
NOTE BOOK	
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PLOTTED	
TEMPLATE	
AREAS	
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DATE	
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ORIGINAL	
SURVEY	
NOTE BOOK	
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 Design Firm # 184-00918
 www.willett-hofmann.com

USER NAME =	DESIGNED - MAS	REVISED -
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PLOT DATE =	CHECKED - BKC	REVISED -
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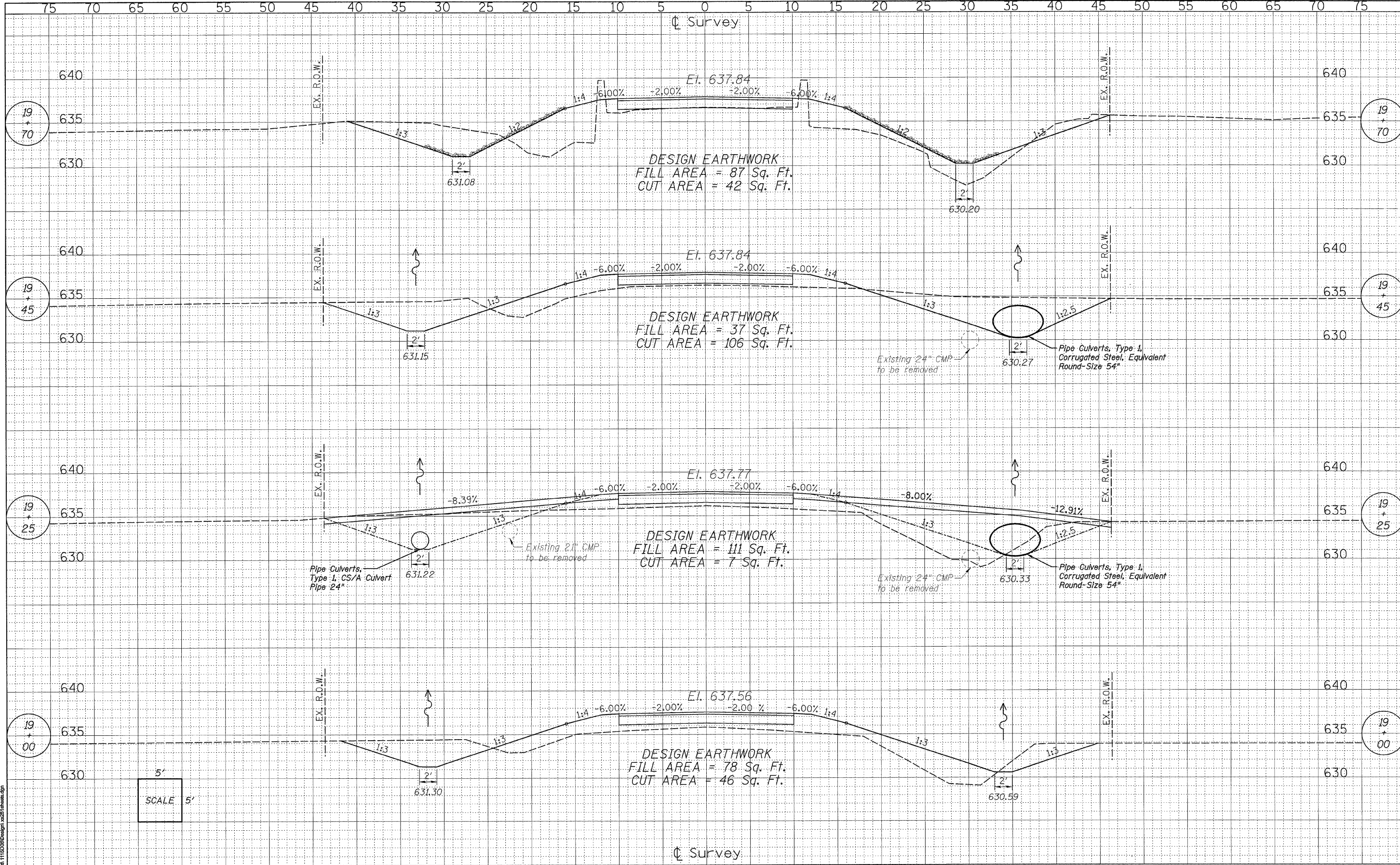
BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

CROSS SECTIONS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	23
STA. 17+00.00 TO STA. 18+50.00		CONTRACT NO. 87381		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-001107J				

DATE	
BY	
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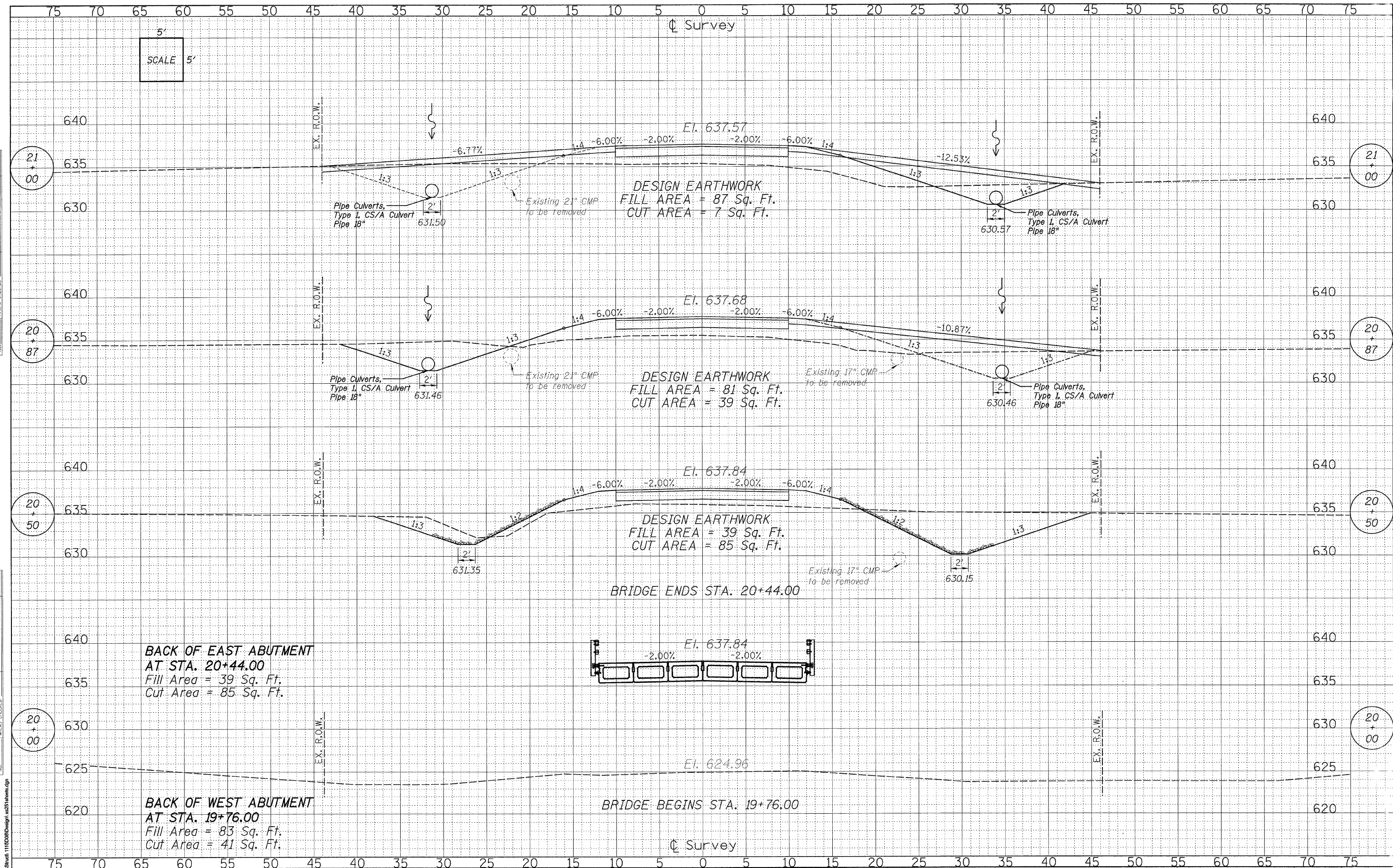
DATE	
BY	
ORIGINAL SURVEY	
NOTED SURVEY	
NOTE BOOK	
AREAS CHECKED	
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WILLETT, HOFMANN & ASSOCIATES, INC. CONSULTING ENGINEERS 800 East Second Street, Dixon, IL 61021 Phone: 815.284.3381 Fax: 815.284.3385 Design Firm # 184-00918 www.willett-hofmann.com	USER NAME =	DESIGNED - MAS	REVISED -	BUREAU COUNTY MINERAL ROAD DISTRICT TR 257 (N. 1600 AVE.) OVER KING CREEK	CROSS SECTIONS	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE =	CHECKED - BKC	REVISED -			STA. 19+00.00 TO STA. 19+70.00		CONTRACT NO. 87381		
		DATE - 06/09	REVISED -			FED. ROAD DIST. NO. 7 (ILLINOIS) FED. AID PROJECT BROS-001107J				

DATE	
BY	
NO.	
FINAL SURVEY	
NO. OF SHEETS	
NO. OF PAGES	
NO. OF PLATES	
NO. OF AREAS CHECKED	

DATE	
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ORIGINAL SURVEY	
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 800 East Second Street, Dixon, IL 61021
 Phone 815.284.3381 Fax 815.284.3385
 Design Firm # 184-00918
 www.willett-hofmann.com

USER NAME =	DESIGNED - MAS	REVISED -
PLOT SCALE =	DRAWN - RDA	REVISED -
PLOT DATE =	CHECKED - BKC	REVISED -
	DATE - 06/09	REVISED -

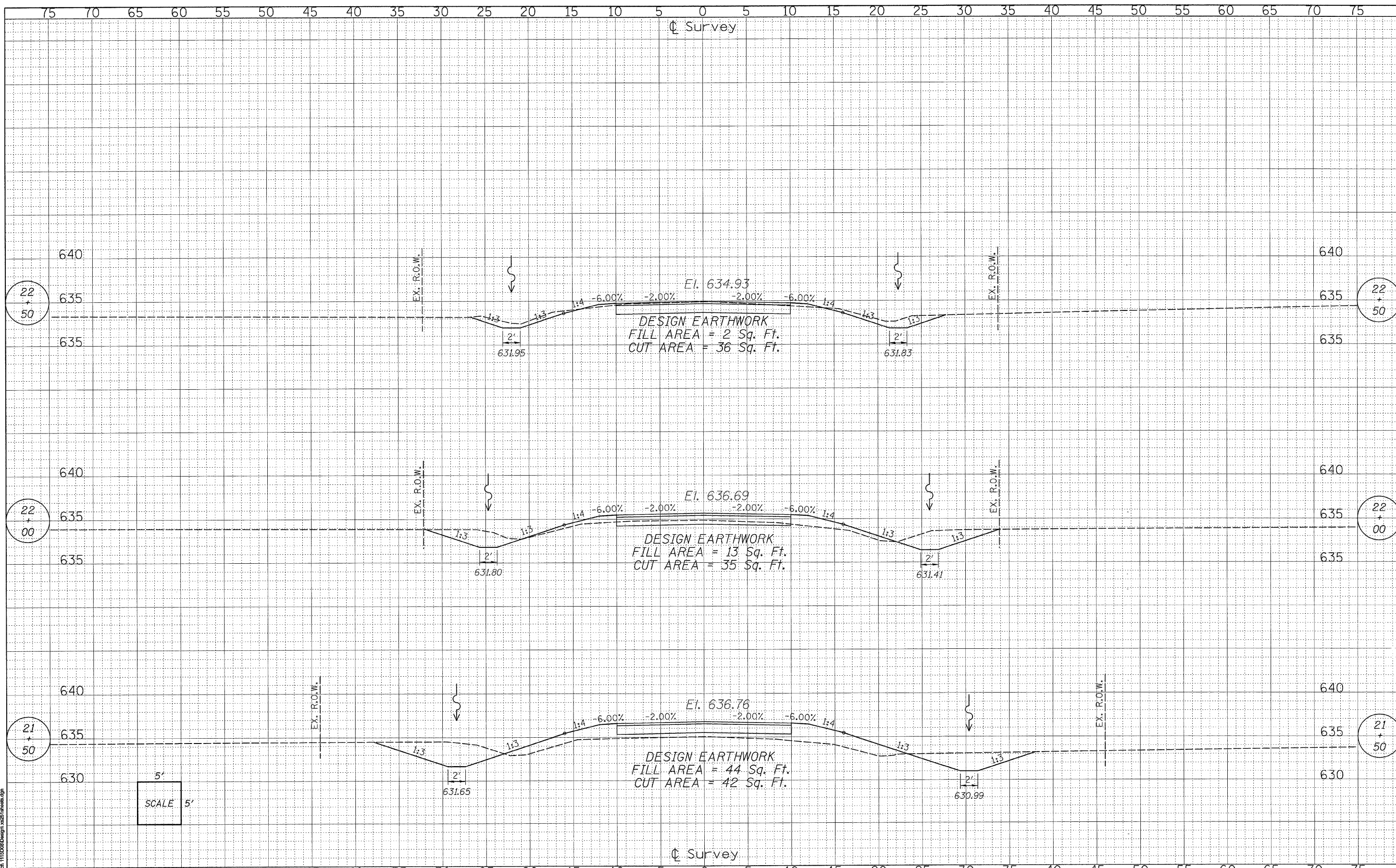
BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

CROSS SECTIONS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	25
STA. 20+00.00 TO STA. 21+00.00		CONTRACT NO. 87381		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRCS-00110711				

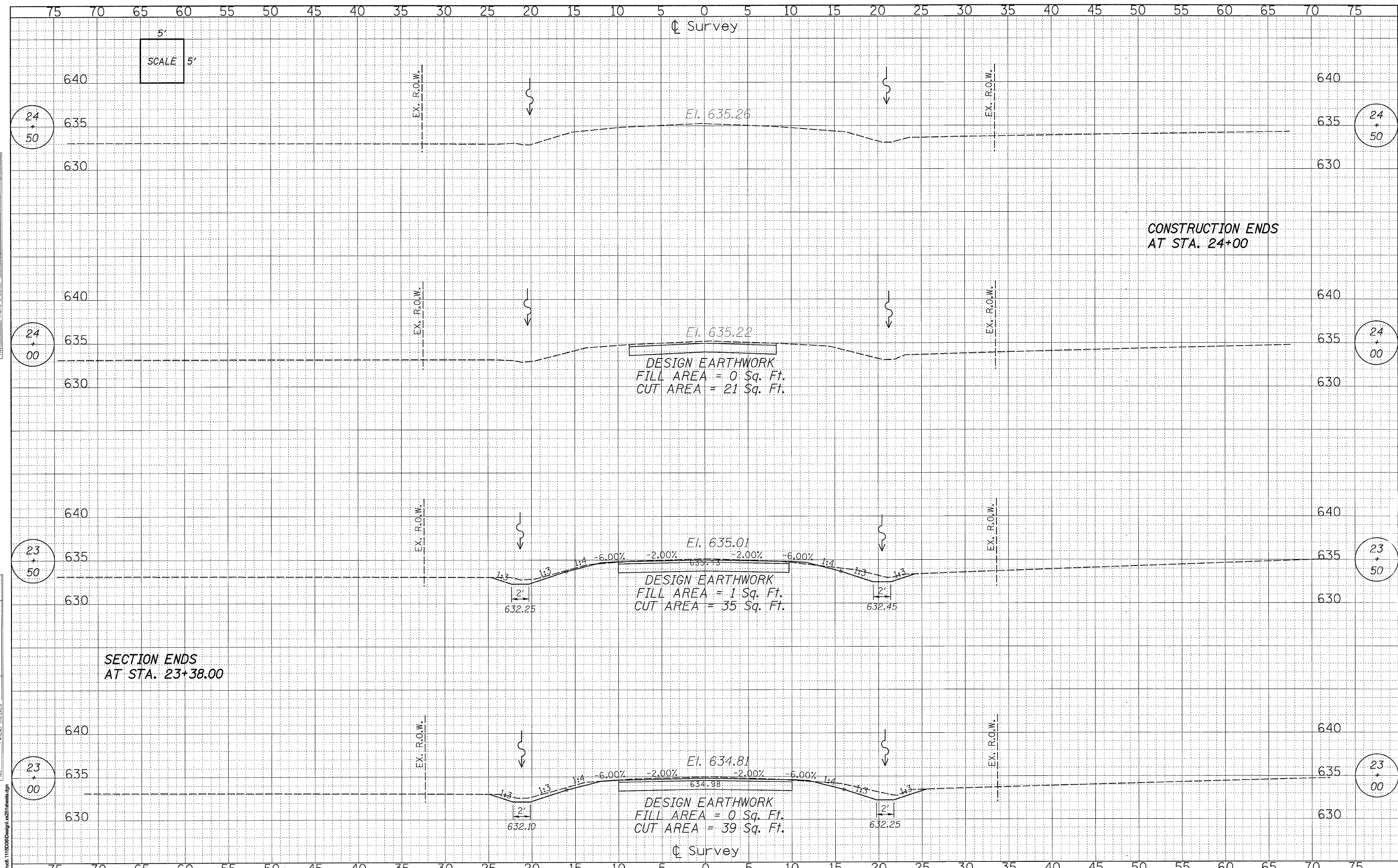
FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	

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



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

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



CONSTRUCTION ENDS
AT STA. 24+00

SECTION ENDS
AT STA. 23+38.00

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WILLET HOFMANN & ASSOCIATES, INC.
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	DATE - 06/09	REVISED -

BUREAU COUNTY
MINERAL ROAD DISTRICT
TR 257 (N. 1600 AVE.) OVER KING CREEK

CROSS SECTIONS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	07-17137-00-BR	BUREAU	27	27
STA. 23+00.00 TO STA. 24+50.00		CONTRACT NO. 87381		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-00110711				