

BRIDGE AND APPROACHES - CCS
 LETTING DATE: NOVEMBER 18, 2014

PROJECT NO. BROS-C095(61)--8J-95

WINNEBAGO COUNTY

TOTAL SHEETS
 13

STANDARD ROAD PLANS
 STANDARD ROAD PLANS ARE LISTED ON SHEET 10.

SECTION 404 PERMIT AND CONDITIONS 281-1
10-15-13
 CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT 14, PERMIT NO. 2010-1302. A COPY OF THIS PERMIT IS AVAILABLE FROM THE IOWA DOT WEBSITE (<http://envpermits.iowadot.gov/CMEPortalENV/Home.aspx>). THE U.S. ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VISIT THE SITE WITHOUT PRIOR NOTICE.

THIS PROJECT IS COVERED BY IOWA DNR FLOODPLAIN CONSTRUCTION PERMIT NO. FP 2010-294, DATED: 12-21-2010

IOWA
 DEPARTMENT OF TRANSPORTATION
 Highway Division
 PLANS OF PROPOSED IMPROVEMENT ON THE
 SECONDARY ROADS SYSTEM
WINNEBAGO COUNTY

PROJECT NO. BROS-C095(61)--8J-95
BRIDGE AND APPROACHES - CCS
 ON 200TH AVENUE OVER LIME CREEK
 APPROXIMATELY 3 MILES NORTHWEST OF LAKE MILLS

REFER TO THE PROPOSAL FORM FOR LIST OF APPLICABLE SPECIFICATIONS.

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2. THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONS OF GENERAL PERMIT NO. 2 AND THE STORM WATER POLLUTION PREVENTION PLAN WHICH IS A PART OF THESE CONTRACT DOCUMENTS. REFER TO SECTION 2602 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PROJECT NO. BROS-C095(61)--8J-95
 FHWA NO. 345491
 COUNTY BRIDGE NO. A-28-W1

- INDEX OF SHEETS
1. TITLE SHEET
 2. QUANTITY SUMMARY
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 8. NORTH PIER DETAILS
 9. SUPERSTRUCTURE DETAILS
 10. TABULATIONS
 11. TABULATIONS AND TYPICAL SECTION
 - 12.-13. CROSS SECTIONS

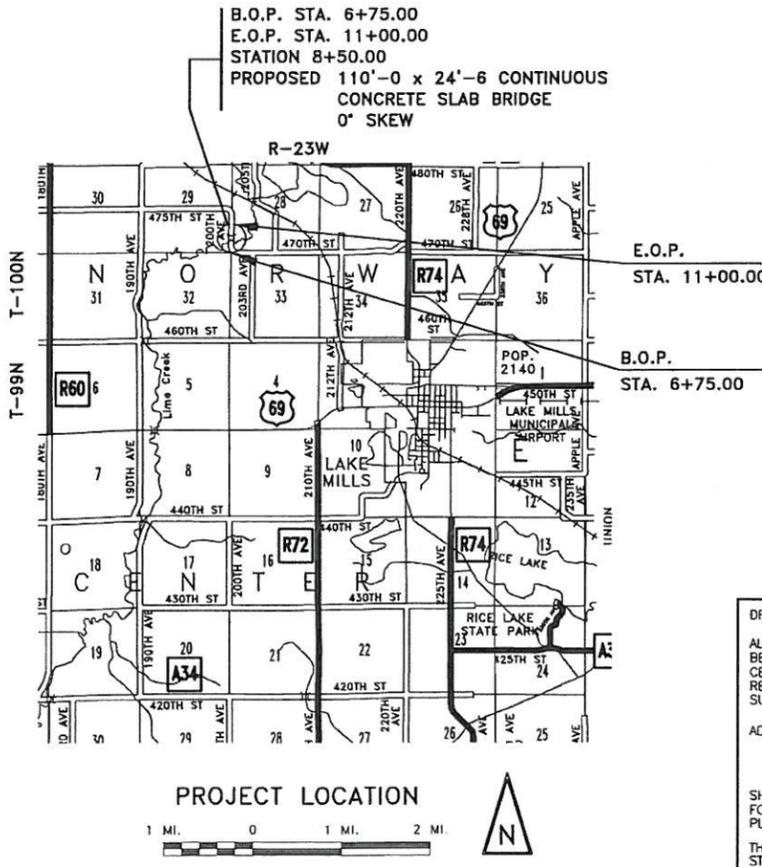
INDEX OF SEALS

SHEET NO.	NAME	TYPE
6	DAVID LOGEMANN, P.E.	SOILS

IOWA DEPARTMENT OF TRANSPORTATION STANDARDS REQUIRED

STANDARD	LATEST REVISION
J24-01-06	06-13
J24-10-06	06-12
J24-11-06	07-09
J24-20-06	06-12
J24-21-06	12-08
J24-34-06	06-13
J24-39-06	07-09
J24-40-06	12-08
J24-41-06	07-09
J24-43-06	07-09

THESE SHEETS MAY BE OBTAINED AT THE ELECTRONIC REFERENCE LIBRARY WEBSITE. <http://www.iowadot.gov/erl/index.html>



UTILITY CONTACTS

COMPANY	NAME	PHONE #
WINNEBAGO COOPERATIVE TELECOM ASSOCIATION	ROB RENNEKER	800-592-6105

MILEAGE SUMMARY:
 STA. 6+75.00 TO STA. 11+00.00 = 425.00 LIN.FT. = 0.0805 MILES
 2011, TRAFFIC COUNT = 45 V.P.D.

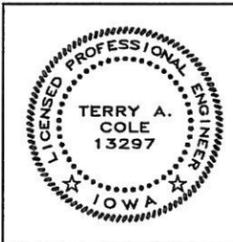
DRAWING APPROVAL

ALL SHOP DRAWINGS AND FALSEWORK DRAWINGS THAT REQUIRE APPROVAL SHALL BE SUBMITTED TO AND APPROVED BY THE CONTRACTOR, WHO SHALL STAMP, CERTIFY OR PROVIDE OTHER SUCH EVIDENCE ON THE DRAWINGS THAT THEY HAVE RECEIVED CONTRACTOR APPROVAL. THE APPROVED DRAWINGS SHALL THEN BE SUBMITTED TO CALHOUN-BURNS AND ASSOCIATES, INC., FOR REVIEW AND APPROVAL.

ADDRESS : 1500 30TH STREET
 WEST DES MOINES, IOWA 50266
 TELEPHONE : (515) 224-4344
 FAX : (515) 224-1385

SHOP DRAWINGS SHALL BE INDEPENDENT DRAWINGS WITH ADEQUATE DIMENSIONING FOR FABRICATION OF INDIVIDUAL PIECES OF EACH COMPONENT. PHOTOCOPIES OF PLAN DRAWINGS AND NON-CONTRACTOR APPROVED PLANS WILL BE REJECTED.

THESE DRAWINGS SHALL NOT BE SENT TO IOWA D.O.T. OFFICE OF BRIDGES AND STRUCTURES.



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

Terry A. Cole DATE: 07/18/14
 TERRY A. COLE, P.E.
 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2014.
 PAGES OR SHEETS COVERED BY THIS SEAL:
 1-5, 7-13 OF 13

APPROVED
Scott Philip 7/21/14
 WINNEBAGO COUNTY ENGINEER DATE

Warren Wubben
Tony Crow
Mike Stovner 7/21/14
 BOARD OF SUPERVISORS DATE

TOTAL ESTIMATED QUANTITIES: 110'-0 x 24'-6 C.C.S.

REF. NO.	CODE NO.	ITEM	UNIT	2 ABUTS	2 PIERS	SUPER	TOTAL
1	2102-2625000	EMBANKMENT-IN-PLACE	CY	-	-	-	1,400
2	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	-	-	-	350
3	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	-	-	-	575
4	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON	-	-	-	125
5	2401-6745625	REMOVAL OF EXISTING BRIDGE	LS	-	-	-	1
6	2402-2720000	EXCAVATION, CLASS 20	CY	114	-	-	114
7	2402-2721000	EXCAVATION, CLASS 21	CY	-	70	-	70
8	2403-0100010	STRUCTURAL CONCRETE (BRIDGE)	CY	18.2	62.6	188.1	268.9
9	2404-7775000	REINFORCING STEEL	LB	2,610	3,994	50,367	56,971
10	2414-6424124	CONCRETE OPEN RAILING, TL-4	LF	-	-	-	242.0
11	2417-0225018	APRONS, METAL, 18 IN. DIA.	EACH	-	-	-	2
12	2417-1040018	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 18 IN. DIA.	LF	-	-	-	28
13	2501-0201042	PILES, STEEL, HP 10 X 42	LF	600	-	-	600
14	2501-0201253	PILES, STEEL, HP 12 X 53	LF	-	1,200	-	1,200
15	2505-4008400	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION	EACH	-	-	-	4
16	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	-	-	-	4
17	2505-4021700	STEEL BEAM GUARDRAIL END TERMINAL	EACH	-	-	-	4
18	2507-3250005	ENGINEERING FABRIC	SY	-	-	-	710
19	2507-6800061	REVTMENT, CLASS E	TON	-	-	-	475
20	2518-6910000	SAFETY CLOSURE	EACH	-	-	-	2
21	2526-8285000	CONSTRUCTION SURVEY	LS	-	-	-	1
22	2528-8445110	TRAFFIC CONTROL	LS	-	-	-	1
23	2533-4980005	MOBILIZATION	LS	-	-	-	1
24	2536-6745045	REMOVAL OF ASBESTOS	LS	-	-	-	1
25	2601-2634100	MULCHING	ACRE	-	-	-	1.1
26	2601-2636041	SEEDING AND FERTILIZING	ACRE	-	-	-	1.1
27	2602-0000020	SILT FENCE	LF	-	-	-	840
28	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	-	-	-	76
29	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	-	-	-	916
30	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	-	-	-	320
31	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	-	-	-	1
32	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	-	-	-	1

5. THE EXISTING BRIDGE AT STATION 8+56 IS A 115' x 24' 5-SPAN TIMBER STRINGER BRIDGE WITH HIGH TIMBER ABUTMENTS AND TIMBER PIERS. THE STRUCTURE HAS A TIMBER DECK. REMNANTS OF OLD HIGH CONCRETE ABUTMENTS IN PLACE UNDER BRIDGE SHALL BE REMOVED AS NECESSARY TO FACILITATE CONSTRUCTION.
THE LUMP SUM BID FOR "REMOVAL OF EXISTING BRIDGE" SHALL INCLUDE REMOVAL AND DISPOSAL OF THE EXISTING STRUCTURE AS WELL AS THE OLD CONCRETE ABUTMENTS. ALL SALVAGEABLE MATERIAL AND UNSALVAGEABLE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. THE EXISTING STRUCTURE SHALL BE REMOVED TO AN ELEVATION AT LEAST 1 FOOT BELOW FINISHED GROUNDLINE AND TO THE EXTENT THAT IT WILL NOT INTERFERE WITH THE NEW CONSTRUCTION.
BROKEN CONCRETE FROM THE OLD ABUTMENT BACKWALLS WITH SIMILAR GRADATION TO CLASS 'E' REVETMENT MAY BE PLACED ON THE BANKS OUTSIDE THE LIMITS SHOWN FOR CLASS 'E' REVETMENT, AS DIRECTED BY THE ENGINEER. ALL REINFORCING SHALL BE CUT OFF FLUSH WITH THE CONCRETE. H.M.A. MATERIAL IS SPECIFICALLY EXCLUDED. ALTERNATELY, THE CONTRACTOR MAY DISPOSE OF THE BROKEN CONCRETE OFF SITE AT A LOCATION PROVIDED BY THE CONTRACTOR AND NOTED TO THE ENGINEER.
A SCRAPE SAMPLE OF THE EXISTING PAINT WAS TAKEN FROM AN AREA OF THIS BRIDGE TO GET AN INDICATION OF THE EXISTENCE AND OF THE LEVEL OF TOTAL CHROMIUM AND TOTAL LEAD. ANALYSIS OF TOTAL LEAD ON THIS SAMPLE WAS 4,300 PART PER MILLION (PPM). ANALYSIS TOTAL CHROMIUM ON THIS SAMPLE WAS 410 PPM. THESE ANALYSES SHOW THE EXISTENCE OF THESE TWO TOXIC CONSTITUENTS. LEVELS INDICATED BY THESE TESTS COULD CREATE CONDITIONS ABOVE REGULATORY LIMITS FOR HEALTH AND SAFETY REQUIREMENTS. NO OTHER CONSTITUENTS WERE ANALYZED. THE BIDDER SHOULD NOT RELY ON THE COUNTY'S TESTING AND ANALYSIS FOR ANY PURPOSE OTHER THAN AS AN INDICATION OF THE EXISTENCE OF THESE TWO TOXIC CONSTITUENTS.
6. UNSUITABLE OR EXCESS MATERIAL SHALL BE WASTED ON SITE. QUANTITY IS BASED ON THE ASSUMPTION THAT CHANNEL EXCAVATION AND NECESSARY BERM CONSTRUCTION HAVE BEEN COMPLETED.
7. QUANTITY IS BASED ON THE ASSUMPTION THAT CHANNEL EXCAVATION AND NECESSARY BERM CONSTRUCTION HAVE BEEN COMPLETED.
8. INCLUDES COST OF TAR PAPER AND PREFORMED JOINT MATERIAL.
INCLUDES COST OF FURNISHING AND PLACING MACADAM STONE, ENGINEERING FABRIC AND TIMBERS FOR WING PROTECTION AS DETAILED ON SHEET J24-43-06. THE SUBDRAIN SHOWN ON THE WING ARMORING DETAILS SHALL BE OMITTED.
NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR HEATING AND PROTECTION OF CONCRETE, IF NECESSARY.
CERTIFIED PLANT INSPECTION IS REQUIRED.
ARTICLE 2428 REGARDING BRIDGE DECK SMOOTHNESS DOES NOT APPLY TO THIS PROJECT.
9. ALL REINFORCING SHALL BE GRADE 60.
10. CERTIFIED PLANT INSPECTION IS REQUIRED.
ALL STRUCTURAL CONCRETE FOR THE RAIL IS TO BE CLASS C; SUBSTITUTION OF CLASS D CONCRETE IS NOT ALLOWED.
NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR HEATING AND PROTECTION OF CONCRETE, IF NECESSARY.
11. SEE TABULATION, SHEET 11.
12. SEE TABULATION, SHEET 11.
ALL PIPE SHALL BE STANDARD CORRUGATIONS, NO HELICALLY CORRUGATED PIPE WILL BE ALLOWED. ALL CONNECTING BANDS SHALL BE 24" WIDE.
- 13-14. SEE PILE NOTES, SHEET 4.
- 15-17. SEE TABULATIONS, SHEET 10 AND STANDARD ROAD PLANS.
18. SEE SITUATION PLAN, SHEET 3 FOR LIMITS.
IF THE ENGINEERING FABRIC IS LAPPED, THE LAPS SHALL BE A MINIMUM OF TWO FEET IN LENGTH, SHINGLE FASHION WITH UP SLOPE LAP PIECE ON TOP. THE CONTRACTOR SHALL PROVIDE A MEANS TO SECURE THE LAP DURING THE PLACEMENT OF THE REVETMENT.
19. REVETMENT IS TO BE PLACED AT A THICKNESS OF 1'-6". SEE SITUATION PLAN, SHEET 3 FOR LIMITS.
20. SEE TABULATION, SHEET 10.
21. THE CONTRACTOR IS RESPONSIBLE FOR CONDUCTING AN INDEPENDENT CHECK OF ALL CONSTRUCTION STAKES PLACED FOR THE PROJECT. THIS INDEPENDENT CHECK SHALL BE SUFFICIENT TO UNDERSTAND THE PLACEMENT AND INTENT OF THE STAKES.
SEE SHEET 11, FOR FIELD TIES TO THE SITE SURVEY.
22. SEE SHEET 10.
24. AN INSPECTION FOR THE PRESENCE OF ASBESTOS CONTAINING MATERIALS WAS COMPLETED. THE JOINT COMPOUND ON THE TIMBER PILE TOPS WAS FOUND TO CONTAIN ASBESTOS. THE LUMP SUM BID FOR "REMOVAL OF ASBESTOS" SHALL INCLUDE REMOVAL AND DISPOSAL OF THE ASBESTOS CONTAINING MATERIAL. THE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. A COMPLETE REPORT OF MATERIALS TESTED CAN BE OBTAINED FROM THE OFFICE OF CONTRACTS. IF ADDITIONAL MATERIALS SUSPECTED OF CONTAINING ASBESTOS ARE DISCOVERED DURING DEMOLITION OF THE BRIDGE, WORK SHALL BE STOPPED IMMEDIATELY AND THE ENGINEER NOTIFIED.
- 25-26. THE CONTRACTOR IS TO RESHAPE, FERTILIZE, SEED AND MULCH ANY AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION. THIS SHALL BE INCLUDED IN THE PRICES BID FOR "SEEDING AND FERTILIZING" AND "MULCHING."
SEEDING MIX SHALL BE AS SHOWN ON SHEET 11.
- 27-32. SEE TABULATIONS, SHEET 10 AND POLLUTION PREVENTION PLAN, SHEET 5.

REF. NO. ESTIMATE REFERENCE INFORMATION

1. ROADWAY CONSTRUCTION REQUIRES 1,160 C.Y. OF FILL MATERIAL AND APPROXIMATELY 240 C.Y. OF FILL IS REQUIRED TO SHAPE THE NORTH BANK OF THE CHANNEL. THIS MATERIAL IS TO BE FURNISHED AS BORROW. TYPE "A" COMPACTION WILL BE REQUIRED. QUANTITY INCLUDES MATERIAL FOR ROADWAY, ABUTMENT BERMS, GUARDRAIL BERMS AND FIELD ENTRANCE. THE QUANTITY INCLUDES AN ADDITIONAL 35% TO COMPENSATE FOR SHRINKAGE.
THE CONTRACTOR IS TO PROVIDE HIS OWN BORROW FOR "CLASS 10, ROADWAY AND BORROW, EXCAVATION". THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH PROVISIONS OF IOWA LAW AS IT APPLIES TO REMOVAL AND REPLACEMENT OF TOPSOIL ON BORROW AREAS.
NO PAYMENT FOR OVERHAUL SHALL BE MADE ON THIS PROJECT.
EXCEPT WHERE NOTED OTHERWISE ON THE PLANS, ALL ENTRANCE AND ROADWAY CULVERTS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AS PART OF "EXCAVATION, CLASS 10, ROADWAY AND BORROW".
MOISTURE SHALL BE APPLIED, AS NECESSARY, TO THE CONSTRUCTION AREA TO PREVENT THE SPREAD OF DUST NEAR RESIDENTIAL AREAS AND INDIVIDUAL HOMES. REFER TO ARTICLE 1107.07 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
2. INCLUDES COSTS TO CLEAR THE CHANNEL TO THE SHAPE, DEPTH, AND EXTENT SHOWN IN THE "LONGITUDINAL SECTION ALONG CENTERLINE OF ROADWAY" AND THE LIMITS SHOWN ON THE SITUATION PLAN. APPROXIMATELY 460 C.Y. OF SUITABLE MATERIAL IS NEEDED TO SHAPE THE NORTH BANK OF THE CHANNEL. OF THIS, APPROXIMATELY 220 C.Y. IS AVAILABLE FROM CHANNEL CUT. THE REMAINING 240 C.Y. SHALL BE FURNISHED AS BORROW. SUITABLE SOILS SHALL BE AS DEFINED BY ARTICLE 2102.02, D, 2 OF THE STANDARD SPECIFICATIONS. UNSUITABLE OR EXCESS MATERIAL SHALL BE WASTED ON SITE.
TYPE "A" COMPACTION IS REQUIRED WITHIN RIGHT-OF-WAY. FILL MATERIAL PLACED OUTSIDE OF THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN MAXIMUM OF 1'-0" LIFTS WITH A MINIMUM OF TWO PASSES WITH A COMPACTION ROLLER BETWEEN LIFTS.
3. IN ORDER TO MEET NPDES PERMIT REQUIREMENTS TOPSOIL STRIP, SALVAGE AND SPREAD SHALL BE REQUIRED ON THIS PROJECT. QUANTITY PERTAINS TO WORK WITHIN THE PROJECT LIMITS. TOPSOIL SHALL BE STRIPPED FROM WITHIN THE PROJECT LIMITS AND SPREAD UNIFORMLY (MIN. 4" DEPTH) OVER ALL AREAS THAT ARE NOT COVERED BY PAVEMENT OR GRANULAR MATERIAL. AREAS SHALL BE UNDERCUT PRIOR TO PLACING TOPSOIL. CROSS-SECTIONS SHOW FINISHED GRADELINE. THE CONTRACTOR IS TO FAMILIARIZE HIMSELF WITH IOWA LAW AS IT PERTAINS TO REMOVAL AND REPLACEMENT OF TOPSOIL WITHIN THE PROJECT AREA.

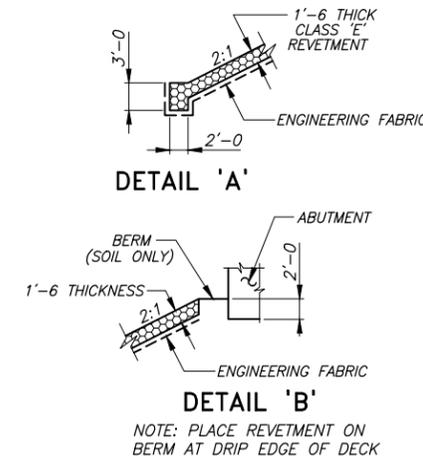
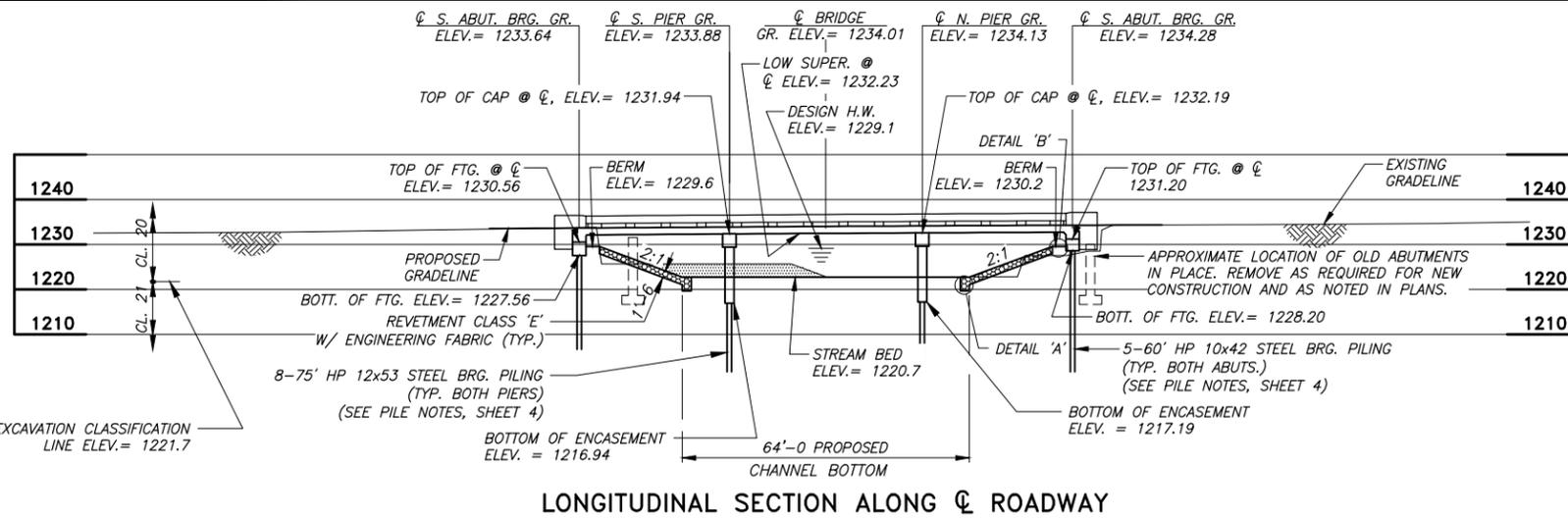
**110'-0 x 24'-6 CONTINUOUS CONCRETE
SLAB BRIDGE**

INTEGRAL ABUTMENTS SINGLE ROW ENCASED PIERS
33'-6 END SPANS 43'-0 INTERIOR SPAN

QUANTITY SUMMARY

STATION 8+50.00 0' SKEW
WINNEBAGO COUNTY, IOWA

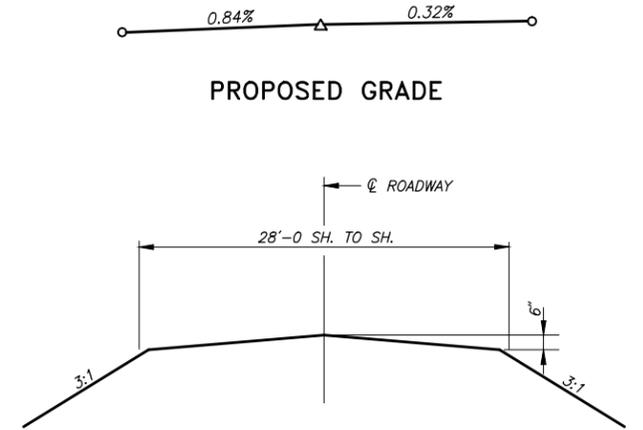
BENCH MARK: CP102 SET 5/8" REBAR ± 400' N. OF BRIDGE OFF WEST EDGE OF 200TH AVE., STA. 13+20, 16' LT., ELEV. = 1241.64



V.P.I. STA. 8+50
ELEV. = 1234.11
L.V.C. = 150'
M.O. = 0.0975'
K = 288.46
S.S.D. = 495'
55 MPH DESIGN

TIE-IN STA. 7+75.00 ELEV. = 1233.48

TIE-IN STA. 9+25.00 ELEV. = 1234.35



TYPICAL APPROACH SECTION

LOCATION

WINNEBAGO COUNTY
T-100N, R-23W
SECTION 28
NORWAY TOWNSHIP
OVER LIME CREEK

HYDRAULIC DATA

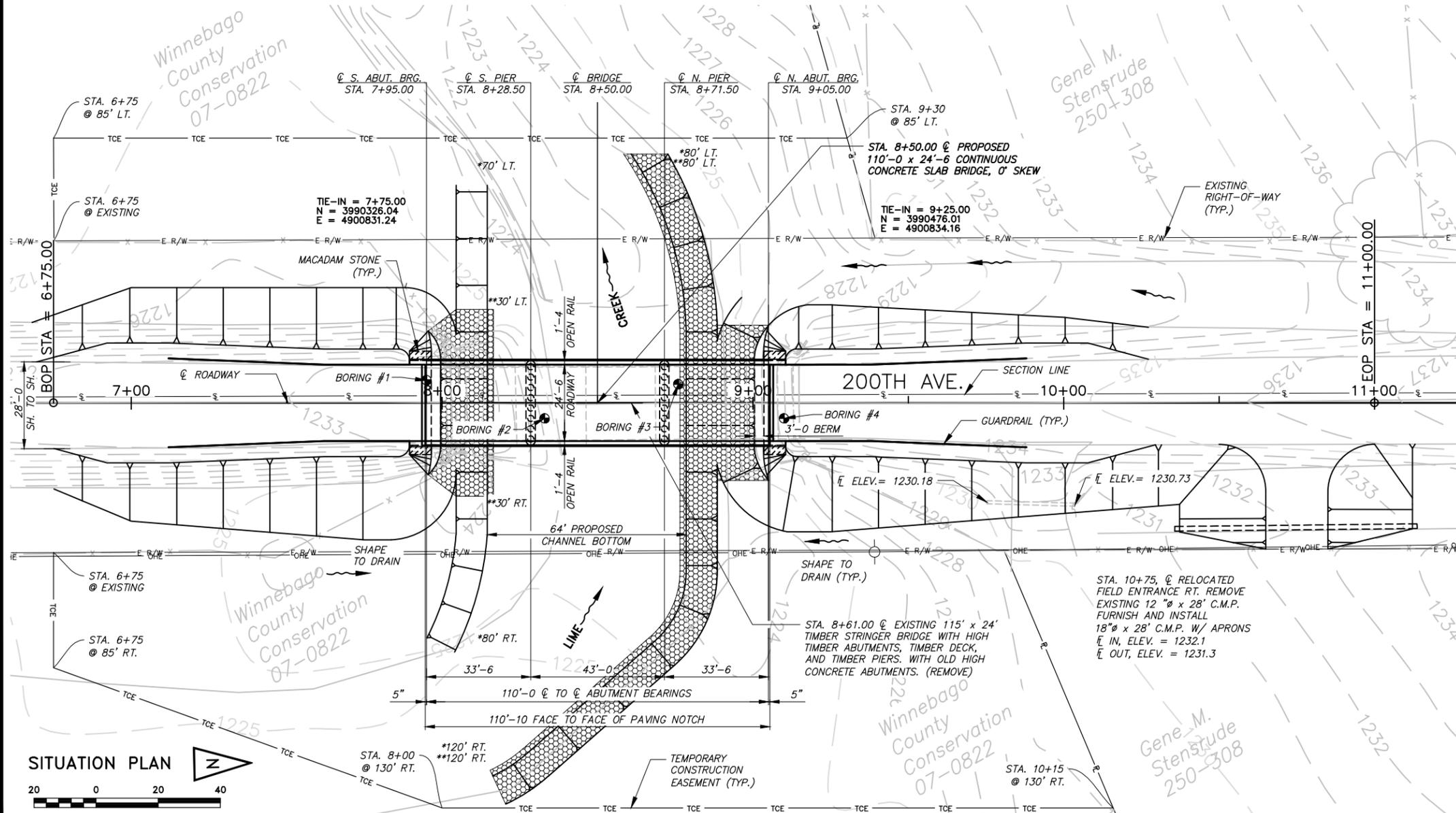
DRAINAGE AREA = 113.0 SQ. MI.
DESIGN DISCHARGE = 3,000 C.F.S.
DESIGN HIGH WATER ELEV. = 1229.1
MANNING SLOPE = 0.00027 FT./FT.
BRIDGE WATERWAY AREA = 648 SQ. FT.
DESIGN VELOCITY = 4.6 F.P.S.
Q25 = 2,400 C.F.S. STAGE ELEV. = 1228.5
Q50 = 3,000 C.F.S. STAGE ELEV. = 1229.1 (DESIGN)
Q100 = 3,300 C.F.S. STAGE ELEV. = 1229.4
Q200 = 3,800 C.F.S. STAGE ELEV. = 1229.8
Q500 = 4,500 C.F.S. STAGE ELEV. = 1230.3
EXT. H.W. ELEV. = UNKNOWN
ANTICIPATED Q200 SCOUR ELEV. = 1210.2
ANTICIPATED Q500 SCOUR ELEV. = 1208.0

110'-0 x 24'-6 CONTINUOUS CONCRETE SLAB BRIDGE

INTEGRAL ABUTMENTS 33'-6 END SPANS SINGLE ROW ENCASED PIERS 43'-0 INTERIOR SPAN

SITUATION PLAN

STATION 8+50.00 WINNEBAGO COUNTY, IOWA 0° SKEW



* DENOTES LIMITS OF CLASS 10 (CHANNEL) EXCAVATION.
** DENOTES LIMITS OF CLASS 'E' REVETMENT.

SPECIFICATIONS

DESIGN: AASHTO LRFD 3rd EDITION, SERIES OF 2004, WITH INTERIM 2005.
 CONSTRUCTION: THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2012, PLUS GENERAL SUPPLEMENTAL SPECIFICATIONS; AND APPLICABLE SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS, SHALL APPLY TO THE CONSTRUCTION ON THIS PROJECT.

DESIGN STRESSES

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 3rd EDITION, SERIES 2004, WITH INTERIM 2005.

REINFORCING STEEL IN ACCORDANCE WITH LRFD AASHTO SECTION 5, GRADE 60.
 CONCRETE IN ACCORDANCE WITH LRFD AASHTO SECTION 5, F'C=3,500 PSI.

GENERAL NOTES

THIS DESIGN IS FOR A 110'-0 x 24'-6 CONTINUOUS CONCRETE SLAB BRIDGE ON 200TH AVENUE OVER LIME CREEK IN WINNEBAGO COUNTY, IOWA.

THIS BRIDGE IS DESIGNED FOR HL-93 LOADING PLUS 20 LBS. PER SQ. FT. OF ROADWAY FOR FUTURE WEARING SURFACE.

ACCESS SHALL BE MAINTAINED TO INDIVIDUAL PROPERTIES DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

THE PRIME CONTRACTOR SHALL EMPLOY CONTROLS TO REDUCE THE EROSION OF LAND ADJACENT TO SURFACE WATERS AND WETLANDS, INCLUDING ESTABLISHMENT AND MAINTENANCE OF EROSION CONTROL DURING AND AFTER CONSTRUCTION AND REVEGETATION OF ALL DISTURBED AREAS UPON PROJECT COMPLETION. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ALL EROSION CONTROL MEASURES.

STANDARD ROAD PLANS ARE AVAILABLE FROM THE IOWA DEPARTMENT OF TRANSPORTATION WEBSITE: <http://www.iowadot.gov/erl/index.html>.

UTILITY NOTES

SEE SECTION 1107.15 OF THE STANDARD SPECIFICATION REGARDING UTILITY COORDINATION.

WASTE AND DISPOSAL NOTES

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL (EXCAVATED MATERIAL OR BROKEN CONCRETE) WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT AREAS (INCLUDING HAUL ROADS) SELECTED FOR WASTE OR DISPOSAL NOT IMPACT 1) CULTURALLY SENSITIVE SITES OR GRAVES OR 2) WETLANDS OR "WATERS OF THE U.S.", INCLUDING STREAMS OR STREAM BANKS BELOW THE "ORDINARY HIGH WATER MARK", WITHOUT AN APPROVED U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. NO MATERIAL SHALL BE PLACED WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY STATED IN THE PLANS OR APPROVED BY THE ENGINEER.

PILE NOTES

SOUNDING AND TEST BORING DATA SHOWN ON PLANS WERE ACCUMULATED FOR DESIGNING AND ESTIMATING PURPOSES. THEIR APPEARANCE ON THE PLAN DOES NOT CONSTITUTE A GUARANTEE THAT CONDITIONS OTHER THAN THOSE INDICATED WILL NOT BE ENCOUNTERED.

THIS PROJECT USES THE LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHODOLOGY FOR DETERMINING PILE CONTRACT LENGTH AND NOMINAL AXIAL BEARING RESISTANCE. NOMINAL AXIAL BEARING RESISTANCES WILL BE LARGER THAN BEARING VALUES IN THE PAST, BUT CONSTRUCTION CONTROL BLOW COUNTS WILL BE APPROXIMATELY THE SAME. A WEAP ANALYSIS AND BEARING GRAPH WILL BE PROVIDED BY THE ENGINEER THAT GIVES THE RELATIONSHIP BETWEEN REQUIRED NOMINAL AXIAL BEARING RESISTANCE AND BLOW COUNT.

FOR THE CONTRACTOR'S BIDDING PURPOSES, PARTICULARLY FOR THE SIZING OF THE PILE DRIVING HAMMER, THE APPROXIMATE PREVIOUS DESIGN METHODOLOGY BEARING VALUES AT END OF DRIVE (EOD) ARE GIVEN BELOW. THESE VALUES SHALL NOT BE USED FOR CONSTRUCTION CONTROL AND ARE GIVEN ONLY FOR COMPARATIVE PURPOSES.

THE PREVIOUS DESIGN BEARING FOR THE ABUTMENT PILES WOULD HAVE BEEN ABOUT 31 TONS.

THE PREVIOUS DESIGN BEARING FOR THE PIER PILES WOULD HAVE BEEN ABOUT 44 TONS.

THE CONTRACT LENGTH OF 60 FEET FOR THE ABUTMENT PILES IS BASED ON A COHESIVE SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 88 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A COHESIVE SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.78.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR THE ABUTMENT PILES IS 57 TONS AT END OF DRIVE (EOD). IF RETAPS ARE NECESSARY TO ACHIEVE BEARING, THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE IS 68 TONS AT ONE-DAY OR LATER RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. CONSTRUCTION CONTROL REQUIRES A WEAP ANALYSIS WITH BEARING GRAPH.

THE CONTRACT LENGTH OF 75 FEET FOR THE PIER PILES IS BASED ON A COHESIVE SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 126 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A COHESIVE SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.77. DESIGN SCOUR (200-YEAR) WAS ASSUMED TO AFFECT THE UPPER 7 FT OF EMBEDDED PILE LENGTH AND CAUSE 22 KIPS OF DRIVING RESISTANCE.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR THE PIER PILES IS 93 TONS AT END OF DRIVE (EOD). IF RETAPS ARE NECESSARY TO ACHIEVE BEARING, THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE IS 108 TONS AT ONE-DAY OR LATER REAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL.

PILE POINTS ARE NOT ALLOWED ON THIS PROJECT.

CONCRETE AND REINFORCING STEEL NOTES

ALL REINFORCING STEEL SHALL BE SECURELY WIRED IN PLACE BEFORE CONCRETE IS PLACED. BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS IN EITHER DIRECTION SHALL BE USED TO SUPPORT ALL REINFORCING IN ACCORDANCE WITH THE SECTION 2404 OF THE STANDARD SPECIFICATIONS.

TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED AS NOTED ON STANDARD J24-10-06.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

ALL EXPOSED CORNERS 90 DEGREES OR SHARPER ARE TO BE FILLETED WITH A 3/4" DRESSED AND BEVELED STRIP.

ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.

KEYWAY DIMENSIONS SHOWN ON THE PLANS ARE BASED ON NOMINAL DIMENSIONS UNLESS STATED OTHERWISE. IN ADDITION, THE BEVEL USED ON THE KEYWAY SHALL BE LIMITED TO A MAXIMUM OF 10 DEGREES FROM THE VERTICAL.

CONCRETE PAVING BLOCKS ARE REQUIRED AND ARE TO REMAIN IN PLACE AFTER CONSTRUCTION.

CONTRACTOR'S WORK AREA

THE CONTRACTOR'S WORK AND MATERIAL STORAGE AREA SHALL BE DEFINED BY THE CONTRACTOR AND NOTED TO THE ENGINEER. THE CONTRACTOR SHALL SHAPE, FERTILIZE, AND SEED THIS CONTRACTOR'S AREA IN ORDER TO RETURN IT TO ITS ORIGINAL CONDITION. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR "SEEDING AND FERTILIZING" AND "MULCHING" BID ITEMS. AREAS OUTSIDE THE CONTRACTOR'S AREA DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION, AS DETERMINED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE AUTHORIZED FOR THIS WORK.

110'-0 x 24'-6 CONTINUOUS CONCRETE
SLAB BRIDGE

INTEGRAL ABUTMENTS
33'-6 END SPANS

SINGLE ROW ENCASED PIERS
43'-0 INTERIOR SPAN

GENERAL NOTES

STATION 8+50.00
WINNEBAGO COUNTY,

0° SKEW
IOWA



POLLUTION PREVENTION PLAN

THIS BASE POLLUTION PREVENTION PLAN (PPP) INCLUDES INFORMATION ON ROLES AND RESPONSIBILITIES, PROJECT SITE DESCRIPTION, CONTROLS, MAINTENANCE PROCEDURES, INSPECTION REQUIREMENTS, NON-STORM WATER CONTROLS, POTENTIAL SOURCES OF OFF RIGHT-OF-WAY POLLUTION, AND DEFINITIONS. THIS PLAN REFERENCES OTHER DOCUMENTS RATHER THAN REPEATING THE INFORMATION CONTAINED IN THE DOCUMENTS. A COPY OF THIS BASE POLLUTION PREVENTION PLAN, AMENDED AS NEEDED PER PLAN REVISIONS OR BY CONTRACT MODIFICATION, WILL BE READILY AVAILABLE FOR REVIEW.

ALL CONTRACTORS SHALL CONDUCT THEIR OPERATIONS IN A MANNER THAT CONTROLS POLLUTANTS, MINIMIZES EROSION, AND PREVENTS SEDIMENTS FROM ENTERING WATERS OF THE STATE AND LEAVING THE HIGHWAY RIGHT-OF-WAY. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AND IMPLEMENTATION OF THE PPP FOR THEIR ENTIRE CONTRACT. THIS RESPONSIBILITY SHALL BE FURTHER SHARED WITH SUBCONTRACTORS WHOSE WORK IS A SOURCE OF POTENTIAL POLLUTION AS DEFINED IN THIS PPP.

1. ROLES AND RESPONSIBILITIES

- DESIGNER:
 - PREPARES BASE PPP INCLUDED IN THE PROJECT PLAN.
- OWNER
 - PREPARES NOTICE OF INTENT (NOI) SUBMITTED TO IOWA DNR.
 - SIGNATURE AUTHORITY ON THE BASE PPP AND NOI.
- CONTRACTOR/SUBCONTRACTOR:
 - AFFECTED CONTRACTORS/SUBCONTRACTORS ARE CO-PERMITTEES WITH THE OWNER AND WILL SIGN A CERTIFICATION STATEMENT ADHERING TO THE REQUIREMENTS OF THE NPDES PERMIT AND THIS PPP PLAN.
 - ALL CO-PERMITTEES ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE IOWA ADMINISTRATIVE CODE TO ENSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PPP.
 - SUBMIT A DETAILED SCHEDULE ACCORDING TO ARTICLE 2602 OF THE SPECIFICATIONS AND ANY ADDITIONAL PLAN NOTES.
 - INSTALL AND MAINTAIN APPROPRIATE CONTROLS.
 - SUPERVISE AND IMPLEMENT GOOD HOUSEKEEPING PRACTICES.
 - CONDUCT JOINT REQUIRED INSPECTIONS OF THE SITE WITH INSPECTION STAFF.
 - SIGNATURE AUTHORITY ON CO-PERMITTEE CERTIFICATION STATEMENTS AND STORM WATER INSPECTION REPORTS.
- RCE/INSPECTOR:
 - UPDATE PPP WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS FROM THE PROJECT.
 - MAINTAIN AN UP-TO-DATE LIST THAT IDENTIFIES CONTRACTORS AND SUBCONTRACTORS AS CO-PERMITTEES.
 - MAKE THESE PLANS AVAILABLE TO THE DNR UPON THEIR REQUEST.
 - CONDUCT JOINT REQUIRED INSPECTIONS OF THE SITE WITH THE CONTRACTOR/SUBCONTRACTOR.
 - COMPLETE AN INSPECTION REPORT AFTER EACH INSPECTION.
 - SIGNATURE AUTHORITY ON STORM WATER INSPECTION REPORTS AND NOTICE OF DISCONTINUATION (NOD).

2. PROJECT SITE DESCRIPTION

THIS POLLUTION PREVENTION PLAN (PPP) IS FOR THE CONSTRUCTION OF A 110'-0" X 24'-6" CONTINUOUS CONCRETE SLAB BRIDGE ON 200TH AVE OVER LIME CREEK IN WINNEBAGO COUNTY, IA.

THIS PPP COVERS APPROXIMATELY 1.70 ACRES WITH AN ESTIMATED 1.35 ACRES BEING DISTURBED. THE PORTION OF THE PPP COVERED BY THIS CONTRACT HAS 1.35 ACRES DISTURBED.

THE PPP IS LOCATED IN AN AREA OF ONE SOIL ASSOCIATION (MARNA-KOSSUTH-BODE). THE ESTIMATED AVERAGE SCS RUNOFF CURVE NUMBER FOR THIS PPP AFTER COMPLETION WILL BE 81.

STORM WATER SITE MAP - MULTIPLE SOURCES OF INFORMATION COMPRISE THE BASE STORM WATER SITE MAP INCLUDING:

- DRAINAGE PATTERNS - SITUATION PLAN.
- PROPOSED SLOPES - CROSS SECTIONS.
- AREAS OF SOIL DISTURBANCE - CONSTRUCTION LIMITS SHOWN SITUATION PLAN.
- LOCATION OF STRUCTURAL CONTROLS - TABULATIONS.
- LOCATIONS OF NON-STRUCTURAL CONTROLS - TABULATIONS.
- LOCATIONS OF STABILIZATION PRACTICES - GENERALLY WITHIN CONSTRUCTION LIMITS SHOWN ON SITUATION PLAN.
- SURFACE WATERS (INCLUDING WETLANDS) - SITUATION PLAN.
- LOCATIONS WHERE STORM WATER IS DISCHARGED - SITUATION PLAN.

THE BASE SITE MAP IS AMENDED BY CONTRACT MODIFICATIONS AND PROGRESS PAYMENTS OF COMPLETED EROSION CONTROL WORK.

RUNOFF FROM THIS WORK WILL FLOW INTO LIME CREEK.

3. CONTROLS

THE CONTRACTOR'S WORK PLAN AND SEQUENCE OF OPERATIONS SPECIFIED IN ARTICLE 2602.03 FOR ACCOMPLISHMENT OF STORM WATER CONTROLS SHOULD CLEARLY DESCRIBE THE INTENDED SEQUENCE OF MAJOR ACTIVITIES AND FOR EACH ACTIVITY DEFINE THE CONTROL MEASURE AND THE TIMING DURING THE CONSTRUCTION PROCESS THAT THE MEASURE WILL BE IMPLEMENTED.

PRESERVE VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION.

SECTION 2601 AND 2602 OF THE STANDARD SPECIFICATIONS DEFINE REQUIREMENTS TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES. ACTUAL QUANTITIES USED MAY VARY FROM THE BASE PPP AND AMENDMENT OF THE PLAN WILL BE DOCUMENTED VIA FIELDBOOK ENTRIES OR BY CONTRACT MODIFICATION. ADDITIONAL EROSION AND SEDIMENT CONTROL ITEMS MAY BE REQUIRED AS DETERMINED BY THE INSPECTOR AND/OR CONTRACTOR DURING STORM WATER MONITORING INSPECTIONS. IF THE WORK INVOLVED IS NOT APPLICABLE TO ANY CONTRACT ITEMS, THE WORK WILL BE PAID FOR ACCORDING TO ARTICLE 1109.03 PARAGRAPH B.

A. EROSION AND SEDIMENT CONTROLS

1. STABILIZATION PRACTICES - SITE PLANS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.

TEMPORARY STABILIZING SEEDING SHALL BE COMPLETED AS THE DISTURBED AREAS ARE CONSTRUCTED. IF CONSTRUCTION ACTIVITY IS NOT PLANNED TO OCCUR IN A DISTURBED AREA FOR AT LEAST 21 DAYS, THE AREA SHALL BE STABILIZED BY TEMPORARY SEEDING OR MULCHING WITHIN 14 DAYS. OTHER STABILIZING METHODS SHALL BE USED OUTSIDE THE SEEDING TIME PERIOD.

STABILIZATION MEASURES TO BE USED FOR THIS PROJECT ARE LOCATED IN THE ESTIMATED PROJECT QUANTITIES AND ESTIMATE REFERENCE INFORMATION LOCATED IN THE PLAN. ADDITIONAL ITEMS MAY BE FOUND IN THE INSPECTOR'S DAILY REPORTS (IDR) OR CONTRACT MODIFICATIONS.

2. STRUCTURAL PRACTICES - STRUCTURAL PRACTICES WILL BE IMPLEMENTED TO DIVERT FLOWS FROM EXPOSED SOILS AND DETAIN OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE.

STRUCTURAL ITEMS TO BE USED FOR THIS PROJECT ARE LOCATED IN THE ESTIMATED PROJECT QUANTITIES AND ESTIMATE REFERENCE INFORMATION LOCATED IN THE PLAN, AS WELL AS ALL OTHER ITEM SPECIFIC TABULATIONS. TYPICAL DRAWINGS DETAILING CONSTRUCTION OF THE DEVICES TO BE USED ON THIS PROJECT CAN BE FOUND IN THE PLAN OR ARE REFERENCED IN THE STANDARD ROAD PLANS TABULATION.

3. STORM WATER MANAGEMENT - MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

B. OTHER CONTROLS

CONTRACTOR DISPOSAL OF UNUSED CONSTRUCTION MATERIALS AND CONSTRUCTION MATERIAL WASTES SHALL COMPLY WITH APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEM REGULATIONS. IN THE EVENT OF A CONFLICT WITH OTHER GOVERNMENTAL LAWS, RULES AND REGULATIONS, THE MORE RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.

1. VEHICLE ENTRANCES AND EXITS - CONSTRUCT AND MAINTAIN ENTRANCES AND EXITS TO PREVENT TRACKING OF SEDIMENTS ONTO ROADWAYS.

2. MATERIAL DELIVERY, STORAGE AND USE - IMPLEMENT PRACTICES TO PREVENT DISCHARGE OF CONSTRUCTION MATERIALS DURING DELIVERY, STORAGE, AND USE.

3. STOCKPILE MANAGEMENT - INSTALL CONTROLS TO REDUCE OR ELIMINATE POLLUTION OF STORM WATER FROM STOCKPILES OF SOIL AND PAVING.

4. WASTE DISPOSAL - DO NOT DISCHARGE ANY MATERIALS, INCLUDING BUILDING MATERIALS, INTO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

5. SPILL PREVENTION AND CONTROL - IMPLEMENT PROCEDURES TO CONTAIN AND CLEAN-UP SPILLS AND PREVENT MATERIAL DISCHARGES TO THE STORM DRAIN SYSTEM AND WATERS OF THE STATE.

6. CONCRETE RESIDUALS AND WASHOUT WASTES - DESIGNATE TEMPORARY CONCRETE WASHOUT FACILITIES FOR RINSING OUT CONCRETE TRUCKS. PROVIDE

DIRECTIONS TO TRUCK DRIVERS WHERE DESIGNATED WASHOUT FACILITIES ARE LOCATED.

7. VEHICLE AND EQUIPMENT CLEANING - EMPLOY WASHING PRACTICES THAT PREVENT CONTAMINATION OF SURFACE AND GROUND WATER FROM WASH WATER.

8. VEHICLE AND EQUIPMENT FUELING AND MAINTENANCE - PERFORM ON SITE FUELING AND MAINTENANCE IN ACCORDANCE WITH ALL ENVIRONMENT LAWS SUCH AS PROPER STORAGE OF ONSIDE FUELS AND PROPER DISPOSAL OF USED ENGINE OIL OR OTHER FLUIDS ON SITE.

9. LITTER MANAGEMENT - ENSURE EMPLOYEES PROPERLY DISPOSE OF LITTER.

C. APPROVED STATE OR LOCAL PLANS

DURING THE COURSE OF THIS CONSTRUCTION, IT IS POSSIBLE THAT SITUATIONS WILL ARISE WHERE UNKNOWN MATERIALS WILL BE ENCOUNTERED. WHEN SUCH SITUATIONS ARE ENCOUNTERED, THEY WILL BE HANDLED ACCORDING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS IN EFFECT AT THE TIME.

4. MAINTENANCE PROCEDURES

THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN PROPER WORKING ORDER, INCLUDING CLEANING, REPAIRING, OR REPLACING THEM THROUGHOUT THE CONTRACT PERIOD. THIS SHALL BEGIN WHEN THE FEATURES HAVE LOST 50% OF THEIR CAPACITY.

5. INSPECTION REQUIREMENTS

INSPECTIONS SHALL BE MADE JOINTLY BY THE CONTRACTOR AND THE CONTRACTING AUTHORITY AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. STORM WATER MONITORING INSPECTIONS WILL INCLUDE:

- DATE OF THE INSPECTION.
- SUMMARY OF THE SCOPE OF THE INSPECTION.
- NAME AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION.
- RAINFALL AMOUNT.
- REVIEW EROSION AND SEDIMENT CONTROL MEASURES WITHIN DISTURBED AREAS FOR THE EFFECTIVENESS IN PREVENTING IMPACTS TO RECEIVING WATERS.
- MAJOR OBSERVATIONS RELATED TO THE IMPLEMENTATION OF THE PPP.
- IDENTIFY CORRECTIVE ACTIONS REQUIRED TO MAINTAIN OR MODIFY EROSION AND SEDIMENT CONTROL MEASURES.

INCLUDE STORM WATER MONITORING INSPECTION REPORTS IN THE AMENDED PPP. INCORPORATE ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DETERMINED AS A RESULT OF THE INSPECTION. IMMEDIATELY BEGIN CORRECTIVE ACTIONS ON ALL DEFICIENCIES FOUND AND COMPLETE ALL ACTIONS WITHIN 3 CALENDAR DAYS OF THE INSPECTION.

6. NON-STORM WATER DISCHARGES

THIS INCLUDES SUBSURFACE DRAINS (I.E. LONGITUDINAL AND STANDARD SUBDRAINS) AND SLOPE DRAINS. THE VELOCITY OF THE DISCHARGE FROM THESE FEATURES MAY BE CONTROLLED BY THE USE OF PATIO BLOCKS, CLASS A STONE, EROSION STONE OR OTHER APPROPRIATE MATERIALS.

7. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

SILTS, SEDIMENT, AND OTHER FORMS OF POLLUTION MAY BE TRANSPORTED ONTO HIGHWAY RIGHT-OF-WAY (ROW) AS A RESULT OF A STORM EVENT. POTENTIAL SOURCES OF POLLUTION LOCATED OUTSIDE HIGHWAY ROW ARE BEYOND THE CONTROL OF THIS PPP. POLLUTION WITHIN HIGHWAY ROW WILL BE CONVEYED AND CONTROLLED PER THIS PPP.

8. DEFINITIONS

BASE PPP - INITIAL POLLUTION PREVENTION PLAN.
 AMENDED PPP - MAY INCLUDE PLAN REVISIONS OR CONTRACT MODIFICATIONS FOR NEW ITEMS AND FIELDBOOK ENTRIES MADE BY THE INSPECTOR.
 IDR - INSPECTOR'S DAILY REPORT - THIS CONTAINS THE INSPECTOR'S DAILY DIARY AND ITEM POSTINGS.
 CONTROLS - METHODS, PRACTICES, OR MEASURES TO MINIMIZE OR PREVENT EROSION, CONTROL SEDIMENTATION, CONTROL STORM WATER, OR MINIMIZE CONTAMINANTS FROM OTHER TYPES OF WASTE OR MATERIALS.
 SIGNATURE AUTHORITY - REPRESENTATIVE FROM OWNER, CONTRACTOR/SUBCONTRACTOR, OR RCE/INSPECTOR AUTHORIZED TO SIGN VARIOUS STORM WATER DOCUMENTS.

110'-0" x 24'-6" CONTINUOUS CONCRETE
SLAB BRIDGE

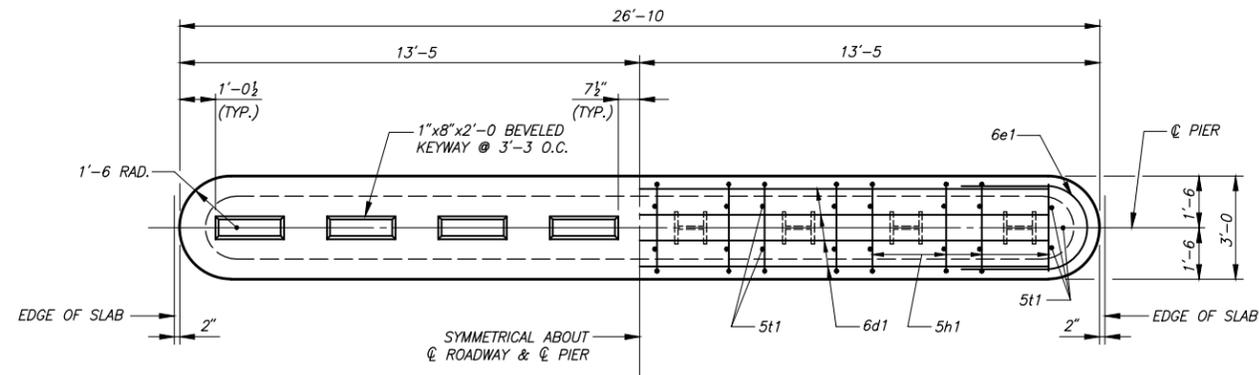
INTEGRAL ABUTMENTS
33'-6" END SPANS

SINGLE ROW ENCASED PIERS
43'-0" INTERIOR SPAN

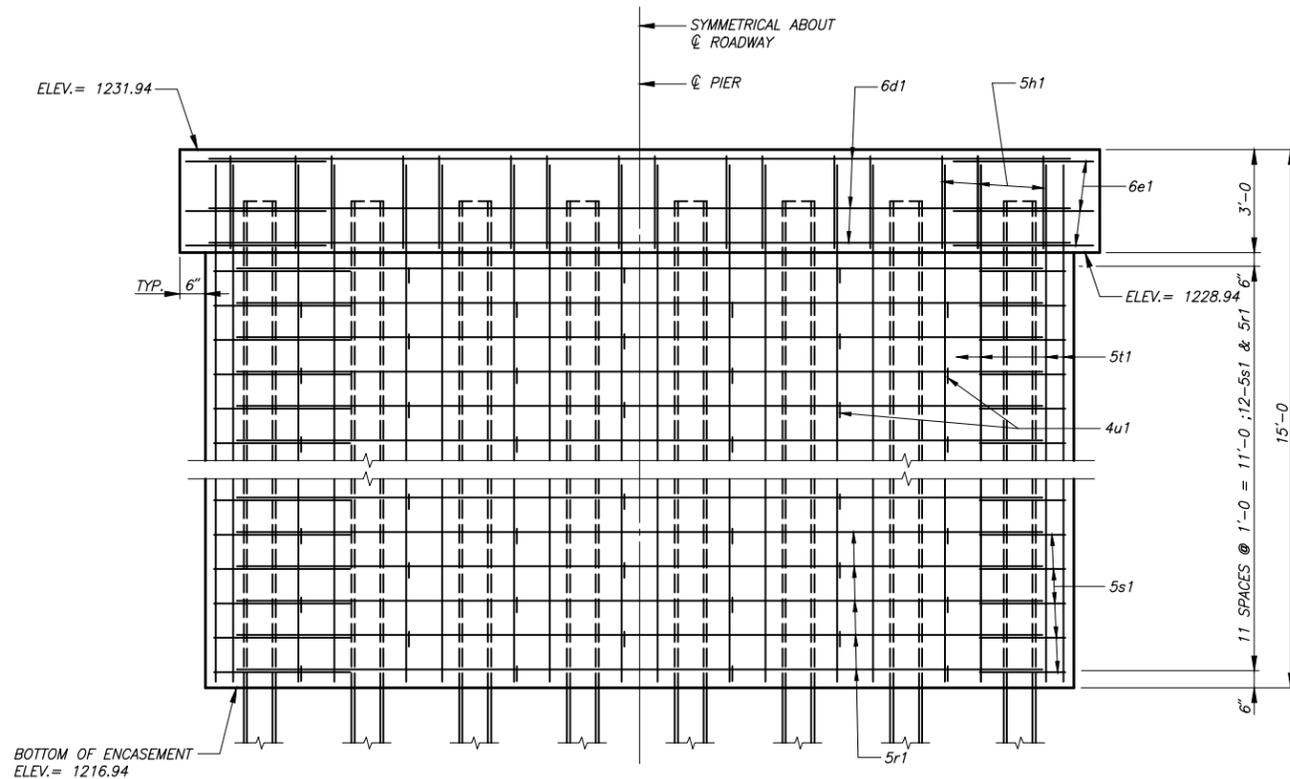
POLLUTION PREVENTION PLAN

STATION 8+50.00
WINNEBAGO COUNTY,

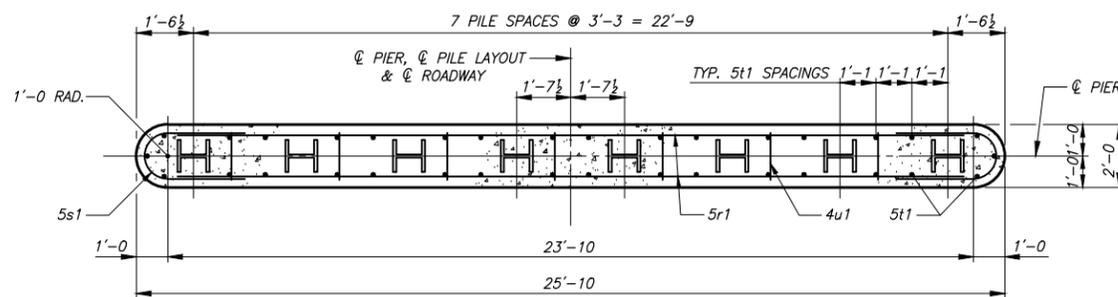
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IOWA



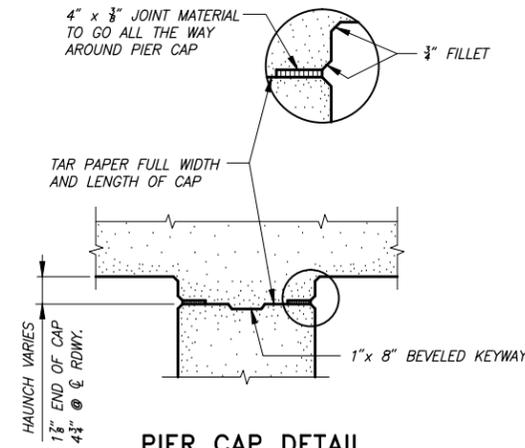
PLAN



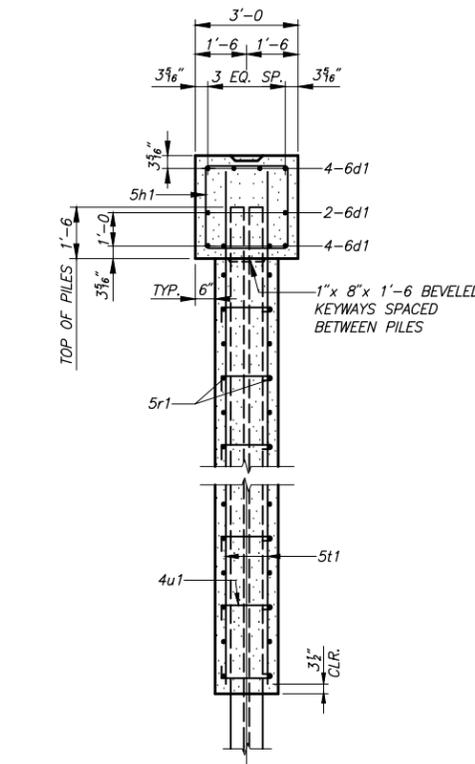
ELEVATION
(LOOKING NORTH)



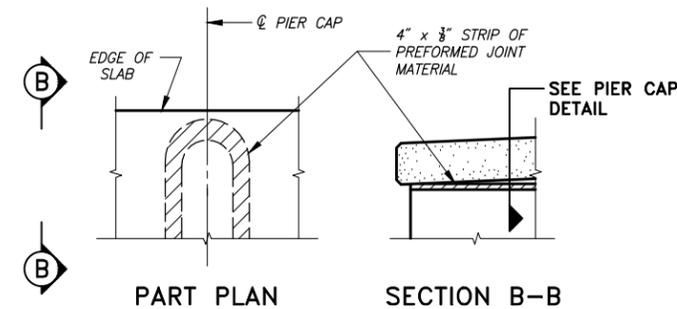
HORIZONTAL SECTION



PIER CAP DETAIL



VERTICAL SECTION

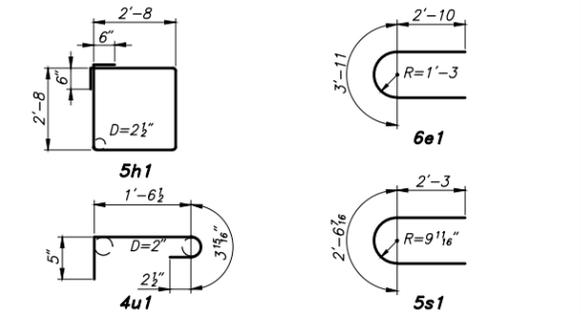


PART PLAN SECTION B-B

SHOWING TREATMENT OF 4" x 3/8" STRIP OF PREFORMED JOINT MATERIAL AT ENDS OF PIER CAP. NOTE THAT JOINT MATERIAL IS TO GO ALL THE WAY AROUND PIER CAP.

REINFORCING BAR LIST - SOUTH PIER					
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6d1	PIER CAP, LONGITUDINAL	—	10	23'-10	358
6e1	PIER CAP, ENDS	U	6	9'-7	86
5h1	PIER CAP, HOOPS	□	16	11'-8	195
5r1	PIER WALL, HORIZONTAL	—	24	23'-10	597
5s1	PIER WALL, ENDS	U	24	7'-1	177
5t1	PIER WALL, VERTICAL	—	34	14'-6	514
4u1	PIER WALL, TIES	□	42	2'-6	70
TOTAL (LBS.)					1,997

BENT BAR DETAILS



ALL BAR DIMENSIONS ARE OUT TO OUT. D = PIN DIAMETER. RADII TO C/BAR

CONCRETE PLACEMENT QUANT. - S. PIER

LOCATION	UNIT	QUANTITY
PIER CAP	CU.YDS.	8.7
PIER WALL	CU.YDS.	22.6
TOTAL	CU.YDS.	31.3

ESTIMATED QUANTITIES - SOUTH PIER

ITEM	UNIT	QUANTITY
STRUCTURAL CONCRETE (BRIDGE)	CU.YDS.	31.3
REINFORCING STEEL	LBS.	1,997
HP 12x53 STEEL BEARING PILES	L.F.	600
CLASS 21 EXCAVATION	CU.YDS.	36

SOUTH PIER NOTES

ALL EXPOSED CORNERS 90 DEGREES OR SHARPER ARE TO BE FILLETED WITH 3/4 INCH DRESSED AND BEVELED STRIP.

REINFORCING STEEL IS TO BE SECURELY WIRED IN PLACE BEFORE CONCRETE IS PLACED.

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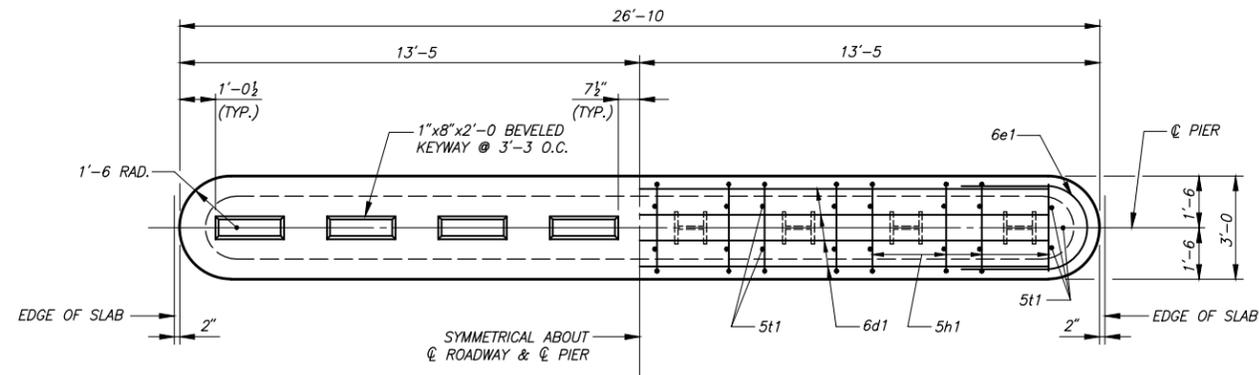
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110'-0 x 24'-6 CONTINUOUS CONCRETE SLAB BRIDGE

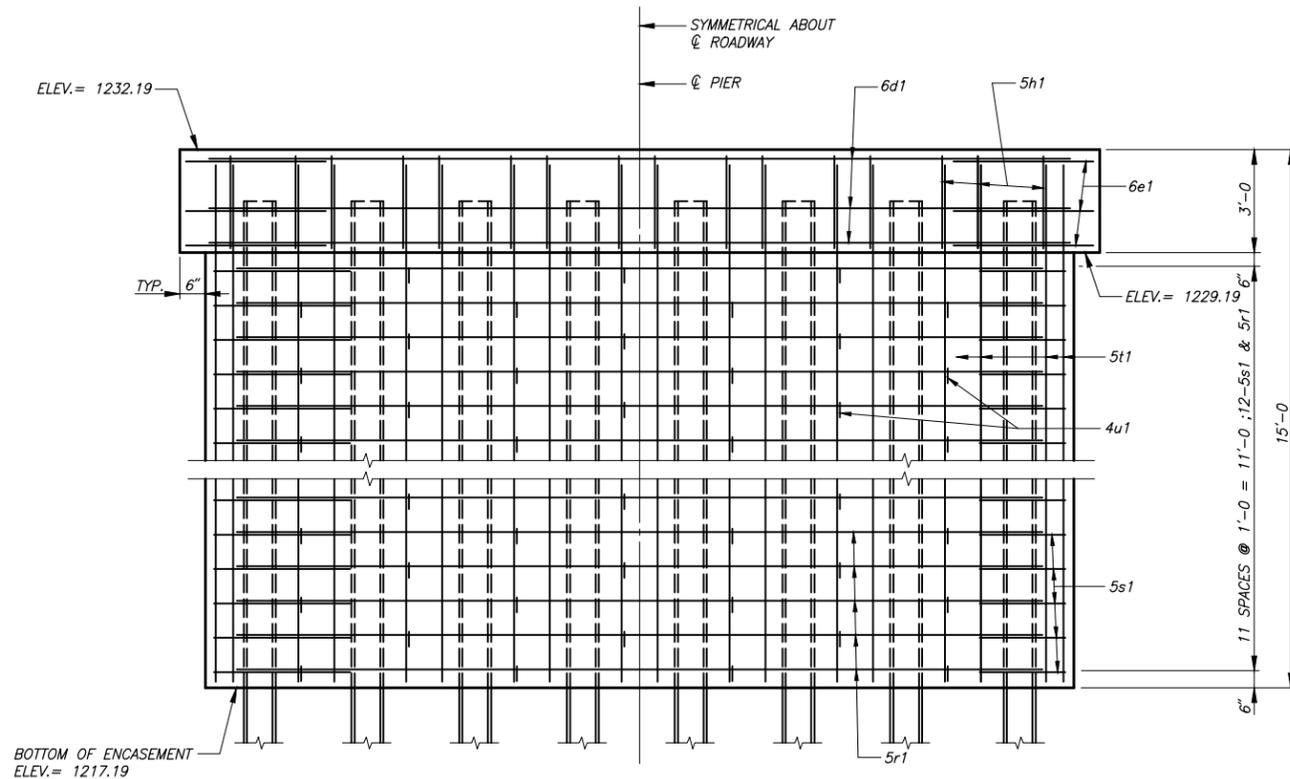
INTEGRAL ABUTMENTS 33'-6 END SPANS SINGLE ROW ENCASED PIERS 43'-0 INTERIOR SPAN

SOUTH PIER DETAILS

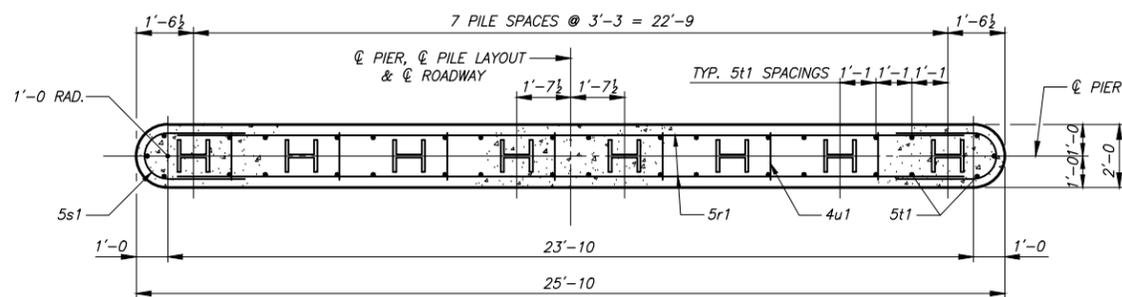
STATION 8+50.00 WINNEBAGO COUNTY, IOWA 0° SKEW



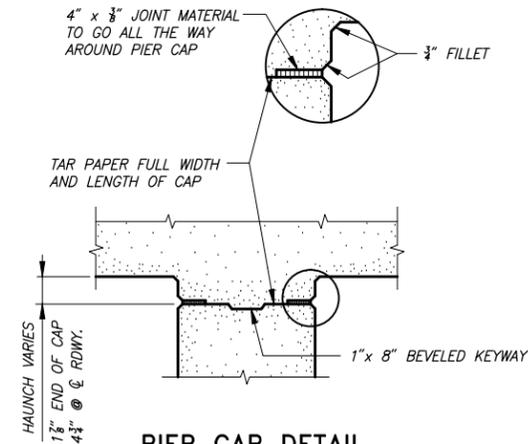
PLAN



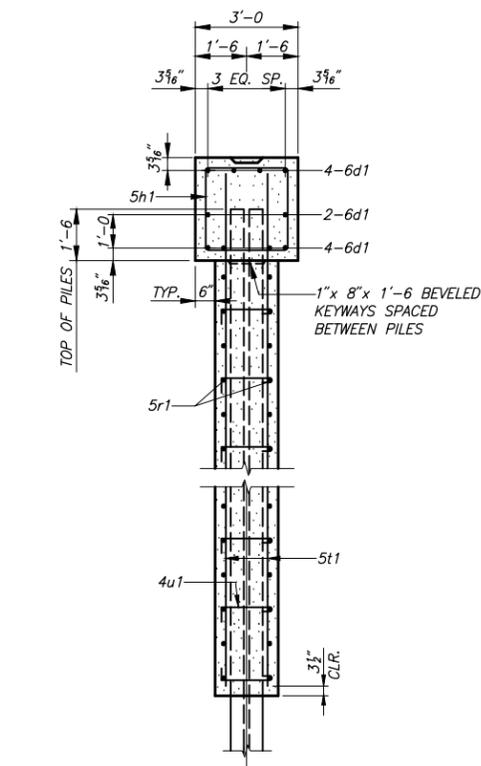
ELEVATION
(LOOKING NORTH)



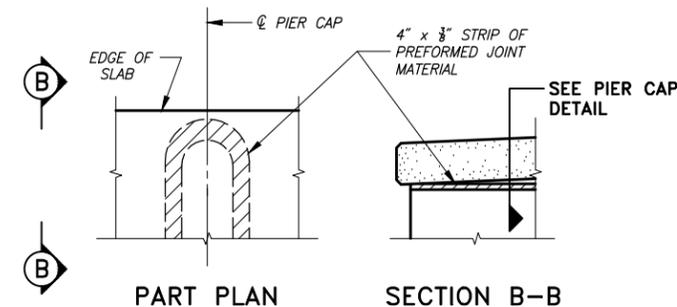
HORIZONTAL SECTION



PIER CAP DETAIL



VERTICAL SECTION

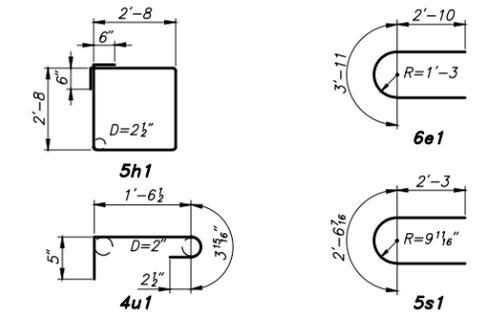


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ESTIMATED QUANTITIES - NORTH PIER

ITEM	UNIT	QUANTITY
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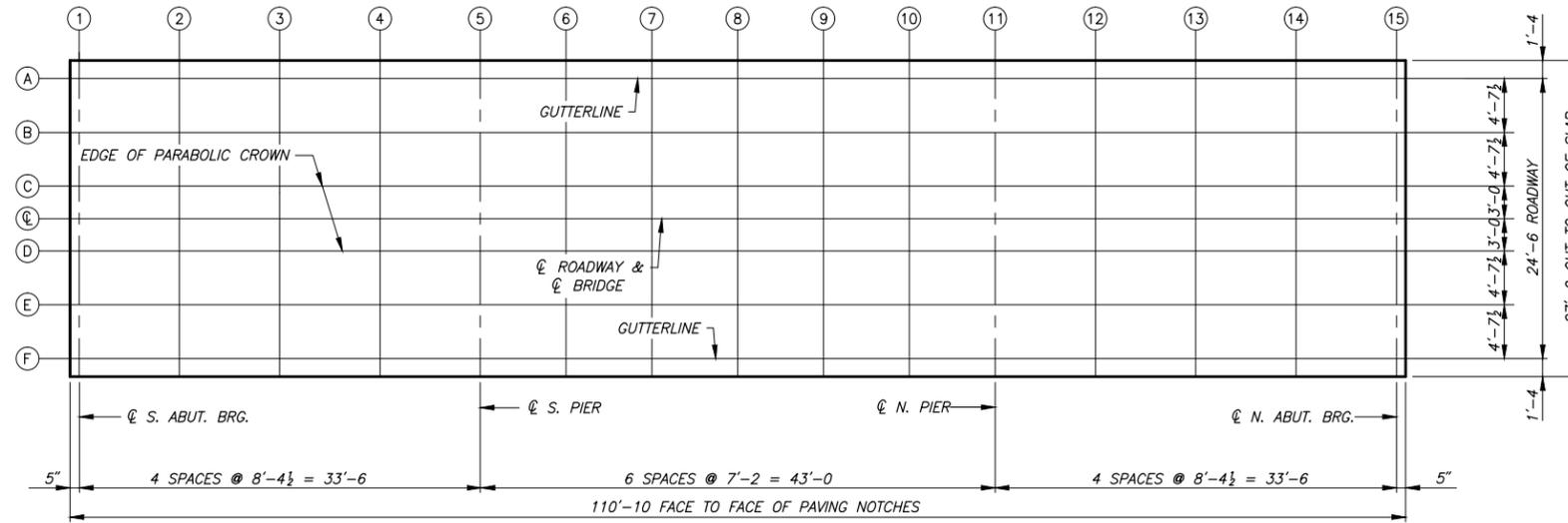
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110'-0 x 24'-6 CONTINUOUS CONCRETE SLAB BRIDGE

INTEGRAL ABUTMENTS 33'-6 END SPANS SINGLE ROW ENCASED PIERS 43'-0 INTERIOR SPAN

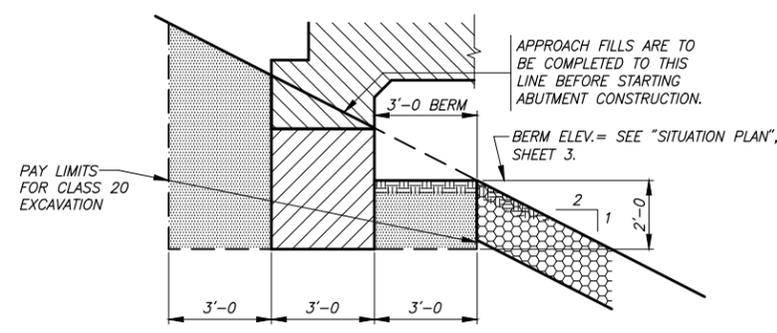
NORTH PIER DETAILS

STATION 8+50.00 WINNEBAGO COUNTY, IOWA 0° SKEW



TOP OF SLAB ELEVATIONS

	S. ABUT. BRG.				BEARING S. PIER						BEARING N. PIER						N. ABUT. BRG.		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	LOCATION			
A	1233.42	1233.48	1233.55	1233.60	1233.66	1233.71	1233.75	1233.79	1233.83	1233.87	1233.91	1233.95	1233.99	1234.03	1234.06	A			
B	1233.52	1233.58	1233.65	1233.70	1233.76	1233.81	1233.85	1233.89	1233.93	1233.97	1234.01	1234.05	1234.09	1234.13	1234.16	B			
C	1233.61	1233.67	1233.74	1233.79	1233.85	1233.90	1233.94	1233.98	1234.02	1234.06	1234.10	1234.14	1234.18	1234.22	1234.25	C			
CL	1233.64	1233.70	1233.77	1233.82	1233.88	1233.93	1233.97	1234.01	1234.05	1234.09	1234.13	1234.17	1234.21	1234.25	1234.28	CL			
D	1233.61	1233.67	1233.74	1233.79	1233.85	1233.90	1233.94	1233.98	1234.02	1234.06	1234.10	1234.14	1234.18	1234.22	1234.25	D			
E	1233.52	1233.58	1233.65	1233.70	1233.76	1233.81	1233.85	1233.89	1233.93	1233.97	1234.01	1234.05	1234.09	1234.13	1234.16	E			
F	1233.42	1233.48	1233.55	1233.60	1233.66	1233.71	1233.75	1233.79	1233.83	1233.87	1233.91	1233.95	1233.99	1234.03	1234.06	F			



ABUTMENT EXCAVATION DETAIL

	ITEM	UNITS	QUANTITY
1	DECK LENGTH	LIN.FT.	110.83
2	MINIMUM DECK WIDTH	LIN.FT.	27.17
3	MAXIMUM DECK WIDTH	LIN.FT.	27.17
4	DECK AREA	SQ.FT.	3,011

110'-0" x 24'-6" CONTINUOUS CONCRETE SLAB BRIDGE

INTEGRAL ABUTMENTS 33'-6" END SPANS SINGLE ROW ENCASED PIERS 43'-0" INTERIOR SPAN

SUPERSTRUCTURE DETAILS

STATION 8+50.00 0° SKEW
WINNEBAGO COUNTY, IOWA

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE END POST																
Refer to BA-200, BA-201, BA-202, BA-205, BA-250, SI-172, SI-173 and SI-211														108-8A 10-19-10		
Location Station	Layout Lengths				Delineators and Object Markers				Bid Items ①							Remarks
	VT1	VF	VT2	ET Terminal	Type	Delineator			End Anchor Bolted	Barrier Transition Section	Steel Beam Guardrail	End Terminal		Adapter		
						Type 1	Type 2	Type 3				Standard	Flared for Cable Connection			
						White No.	No.	No.							BA-205	
No.	Station	Offset	LF	LF	LF	LF	No.	No.	No.	Type	No.	LF	No.	No.		
1	7+89.50	12.79'	28.13	-	-	50.0	1	-	2	1	-	A	1	-	-	SOUTH END, LT.
2	7+89.50	12.79'	28.13	-	-	50.0	1	-	2	-	1	A	1	-	-	SOUTH END, RT.
3	9+10.50	12.79'	28.13	-	-	50.0	1	-	2	-	1	A	1	-	-	NORTH END, LT.
4	9+10.50	12.79'	28.13	-	-	50.0	1	-	2	1	-	A	1	-	-	NORTH END, RT.

TRAFFIC CONTROL PLAN	
1.	ROUTE WILL BE CLOSED TO VEHICULAR AND PEDESTRIAN TRAFFIC DURING CONSTRUCTION.
2.	TRAFFIC CONTROL ON THE PROJECT SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLAN TC-252.
3.	A DETOUR ROUTE WILL NOT BE ESTABLISHED FOR THIS PROJECT.
4.	WINNEBAGO COUNTY MAINTENANCE SHALL SALVAGE EXISTING ROAD MARKERS AFTER THE ROAD IS CLOSED.

GRADING FOR GUARDRAIL INSTALLATIONS																		
Refer to EW-301														107-23 10-18-11				
No.	Direction of Traffic	Location			Foreslope at Guardrail	Dimensions (Feet)								Earthwork		Remarks		
		Station	Side	Z		X1	Y1	X2	Y2	X3	Y3	X4	Y4	Excavation Class 10 4	Embankment in Place			
																	CY	CY
1	SB	7+89.50	LT	3:1	27.5	3.3	-	-	-	-	77.5	5.3	39.9	139		SOUTH END, LT.		
2	NB	7+89.50	RT	3:1	27.5	3.3	-	-	-	-	77.5	5.3	39.9	151		SOUTH END, RT.		
3	SB	9+10.50	LT	3:1	27.5	3.3	-	-	-	-	77.5	5.3	39.9	77		NORTH END, LT.		
4	NB	9+10.50	RT	3:1	27.5	3.3	-	-	-	-	77.5	5.3	39.9	89		NORTH END, RT.		

SAFETY CLOSURES			
Refer to Section 2518 of the Standard Specifications			
Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
6+00	1	-	SOUTH END
12+00	1	-	NORTH END

STANDARD ROAD PLANS		
The following Standard Road Plans apply to construction work on this project		
Number	Date	Title
BA-200	10-18-11	STEEL BEAM GUARDRAIL COMPONENTS
BA-201	10-19-10	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION
BA-202	10-18-11	STEEL BEAM GUARDRAIL BOLTED END ANCHOR
BA-205	10-18-11	STEEL BEAM GUARDRAIL END TERMINAL
BA-250	10-18-11	STEEL BEAM GUARDRAIL INSTALLATION AT CONCRETE BARRIER OR BRIDGE END POST
EC-201	04-20-10	SILT FENCE
EC-204	10-16-12	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICES
EW-301	04-19-11	GUARDRAIL GRADING
EW-501	10-15-13	RURAL ENTRANCE
RF-32	10-19-10	DEPTH OF COVER TABLES FOR CORRUGATED PIPE
RF-5	04-16-13	METAL PIPE APRONS AND BEVELED ENDS
SI-172	10-18-11	DELINEATORS
SI-173	04-20-10	OBJECT MARKERS
SI-211	10-19-10	OBJECT MARKER AND DELINEATOR PLACEMENT WITH GUARDRAIL
TC-252	04-17-12	ROUTES CLOSED TO TRAFFIC

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE							
Refer to EC-204							
Location			Length of Installation				Remarks
Begin Station	End Station	Side	6 inch Dia. LF	9 inch Dia. LF	12 inch Dia. LF	20 inch Dia. LF	
8+00, 30' LT.	8+00, 30' RT.	LT./RT.	-	-	60	-	S. BANK, ALONG REVETMENT LIMITS
8+60, 80' LT.	8+10, 120' RT.	LT./RT.	-	-	260	-	N. BANK, ALONG REVETMENT LIMITS
			TOTAL				320

TABULATION OF SILT FENCES			
Refer to EC-201			
LOCATION		LENGTH (Lin.Ft.)	REMARKS
STATION TO STATION	SIDE		
6+75	8+00	LT	125 TOE OF FORESLOPE
6+75	8+00	RT	125 TOE OF FORESLOPE
8+00	8+00	RT	50 TOP OF BANK
8+00	8+00	LT	35 TOP OF BANK
8+25	9+05	RT	140 TOP OF BANK
8+70	9+05	LT	75 TOP OF BANK
9+05	10+50	LT	145 TOE OF FORESLOPE
9+05	10+50	RT	145 TOE OF FORESLOPE
TOTAL			840

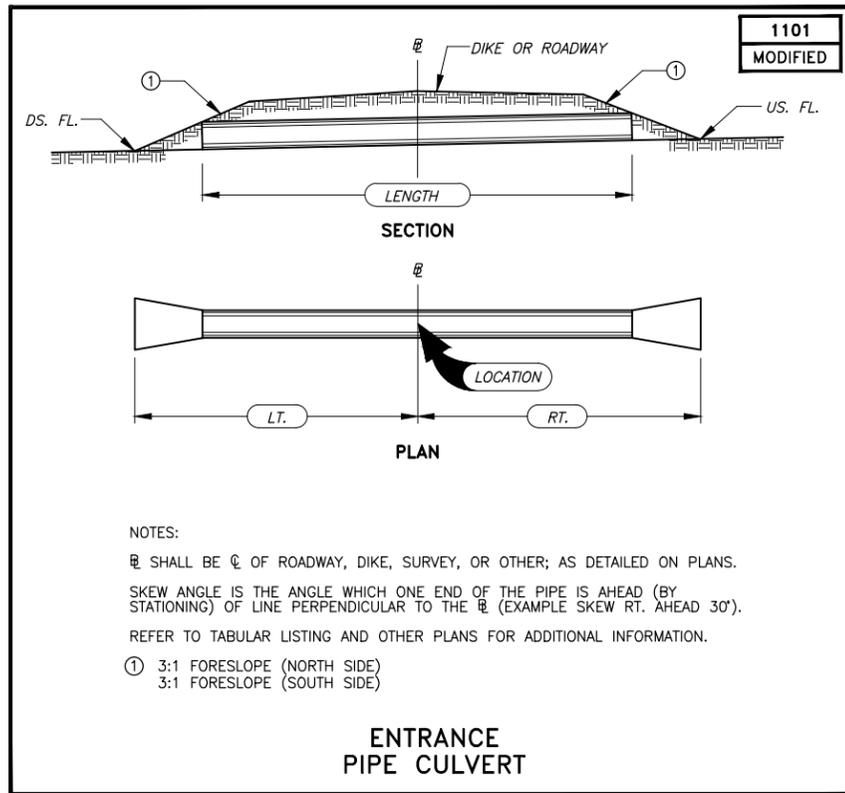
TABULATION OF SILT FENCES FOR DITCH CHECKS			
Refer to EC-201			
LOCATION STATION	SIDE	LIN. FT.	REMARKS
9+00	LT.	32	-
9+00	RT.	22	-
11+20	RT.	22	-
TOTAL		76	

110'-0 x 24'-6 CONTINUOUS CONCRETE SLAB BRIDGE

INTEGRAL ABUTMENTS 33'-6 END SPANS SINGLE ROW ENCASED PIERS 43'-0 INTERIOR SPAN

TABULATIONS

STATION 8+50.00 WINNEBAGO COUNTY, IOWA 0° SKEW



SEEDING MIX SUMMARY

Grasses	Scientific Name	Common Name	PLS Lbs/Acre
1	Calamagrostis canadensis	Bluejoint	0.019
2	Carex atherodes	Wheat Sedge	0.023
3	Carex bebbii	Bebb's Sedge	0.12
4	Carex trichocarpa	Hairyfruit Sedge	0.0076
5	Carex pellita	Woolly Sedge	0.019
6	Carex scoparia	Broom Sedge	0.049
7	Carex vulpinoidea	Fox Sedge	0.041
8	Juncus arcticus ssp. littoralis	Baltic Rush	0.022
9	Juncus tenuis	Poverty Rush	0.0041
10	Juncus torreyi	Torrey's Rush	0.0026
11	Leersia oryzoides	Rice Cutgrass	0.064
12	Panicum virgatum	Switchgrass	0.16
13	Sorghastrum nutans	Indiangrass	0.16
14	Spartina pectinata	Prairie Cordgrass	0.17
15	Glyceria striata	Fowl Mannagrass	0.024
16	Carex bicknellii	Bicknell's Sedge	0.080
17	Carex vesicaria	Blister Sedge	0.034
18	Carex tribuloides	Blunt Broom Sedge	0.023
19	Eleocharis obtusa	Blunt Spikerush	0.039
20	Carex stricta	Upright Sedge	0.015
21	Andropogon gerardii	Big Bluestem	0.27

SEEDING MIX SUMMARY

Forbs/Legumes	Scientific Name	Common Name	PLS Lbs/Acre
1	Agalinis tenuifolia	Slenderleaf False Foxglove	0.0034
2	Asclepias incarnata	Swamp Milkweed	0.057
3	Eupatorium perfoliatum	Boneset	0.017
4	Baptisia alba	White Wild Indigo	0.016
5	Bidens cernua	Nodding Beggartick	0.065
6	Chelone glabra	White Turtlehead	0.030
7	Eryngium yuccifolium	Rattlesnake Master	0.18
8	Galium boreale	Northern Bedstraw	0.00097
9	Helianthus grosseserratus	Saw-tooth Sunflower	0.018
10	Iris shrevei	Blue Flag	0.068
11	Liatris pycnostachya	Prairie Blazing Star	0.12
12	Lilium philadelphicum	Wood Lily	0.0036
13	Lythrum alatum	Winged Loosestrife	0.00091
14	Oxypolis rigidior	Cowbane	0.0019
15	Rudbeckia hirta	Black-eyed Susan	0.088
16	Solidago gigantea	Smooth Goldenrod	0.011
17	Stachys palustris	Woundwort	0.017
18	Symphotrichum ericoides	White Heath Aster	0.0068
19	Symphotrichum novae-angliae	New England Aster	0.041
20	Thalictrum dasycarpum	Purple Meadow-rue	0.037
21	Veronicastrum virginicum	Culver's Root	0.0034
22	Gentiana andrewsii	Bottle Gentian, Closed Gentian	0.0097
23	Anemone canadensis	Canadian Anemone	0.034
24	Pycnanthemum virginianum	Common Mountain Mint	0.012
25	Silphium perfoliatum	Cup Plant	0.083
26	Hypericum ascyron	Giant St. Johnswort	0.014
27	Zizia aurea	Golden Alexander's	0.12
28	Lobelia siphilitica	Great Lobelia	0.0054
29	Vernonia fasciculata	Ironweed	0.045
30	Lilium michiganense	Michigan Lily	0.0027
31	Mimulus ringens	Monkey Flower	0.0012
32	Teucrium canadense	American Germander	0.048
33	Lobelia cardinalis	Cardinal Flower	0.0068
34	Physostegia virginiana	False Dragonhead	0.017
35	Helenium autumnale	Sneezeweed	0.021
36	Pedicularis lanceolata	Swamp Lousewort	0.062

ACCESS POINTS AND SAFETY RAMPS

Length of unclassified pipe calculated is based on using reinforced concrete pipe. Refer to Cross-Sections

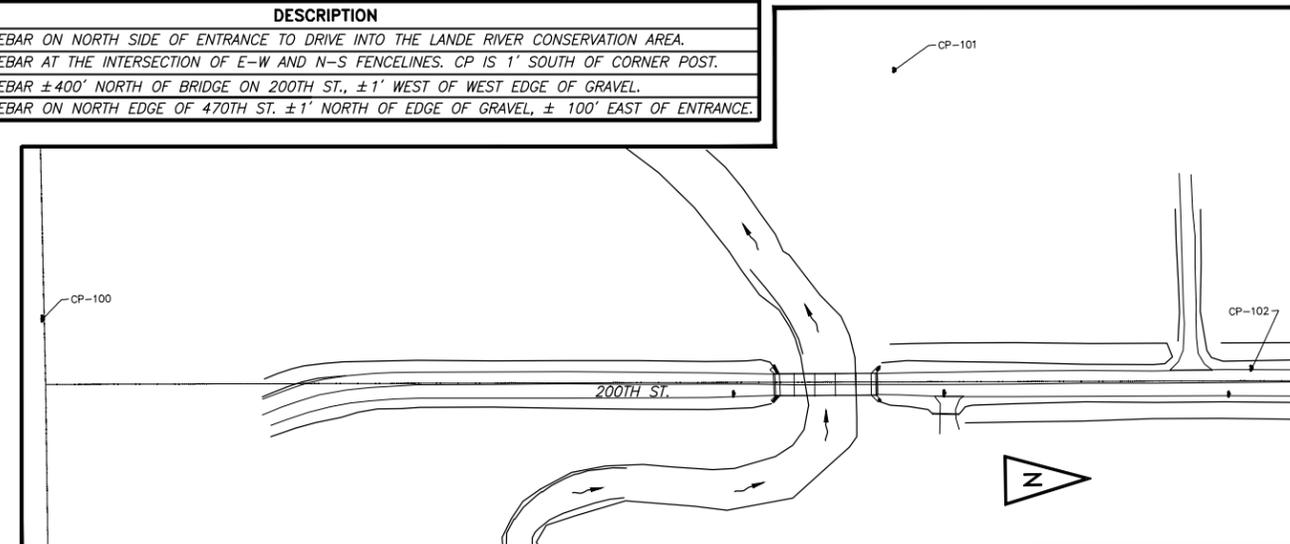
102-3
10-15-13

① Refer to MI-210. ② Refer to EW-501. ③ Refer to EW-501 or EW-502. * Predetermined for access point not constructed with this project.

Location	Station	Side	A, B, C, Safety Ramp, or Predetermined*	Length of Opening ①			Pipe Culvert ③			Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks					
				Case	1 1/2" Dropped Curb	3" Dropped Curb	W	PR	SR		H	Size			Pipe Length	Lt.	Rt.	HMA	PCC
				1 or 2	LF	LF	FT	FT	FT	FT	IN	LF	LF	LF	No.	SY	SY	TON	
10+75		RT.	C	-	-	-	20	-	15	1.1	18	28	14.6	18.6	2	-	-	-	3:1 SLOPES

SURVEY CONTROL POINTS

	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP100	-	-	3989554.93	4900744.37	1241.15	SET 3/8" REBAR ON NORTH SIDE OF ENTRANCE TO DRIVE INTO THE LANDE RIVER CONSERVATION AREA.
CP101	9+34	34.3' LT.	3990491.57	4900491.30	1233.64	SET 3/8" REBAR AT THE INTERSECTION OF E-W AND N-S FENCELINES. CP IS 1' SOUTH OF CORNER POST.
CP102/BM2	13+25	18' LT.	3990875.91	4900824.17	1241.63	SET 3/8" REBAR ±400' NORTH OF BRIDGE ON 200TH ST., ±1' WEST OF WEST EDGE OF GRAVEL.
CP103/BM1	-	-	3989566.52	4901669.17	1245.95	SET 3/8" REBAR ON NORTH EDGE OF 470TH ST. ±1' NORTH OF EDGE OF GRAVEL, ±100' EAST OF ENTRANCE.



SEEDING MIX SUMMARY

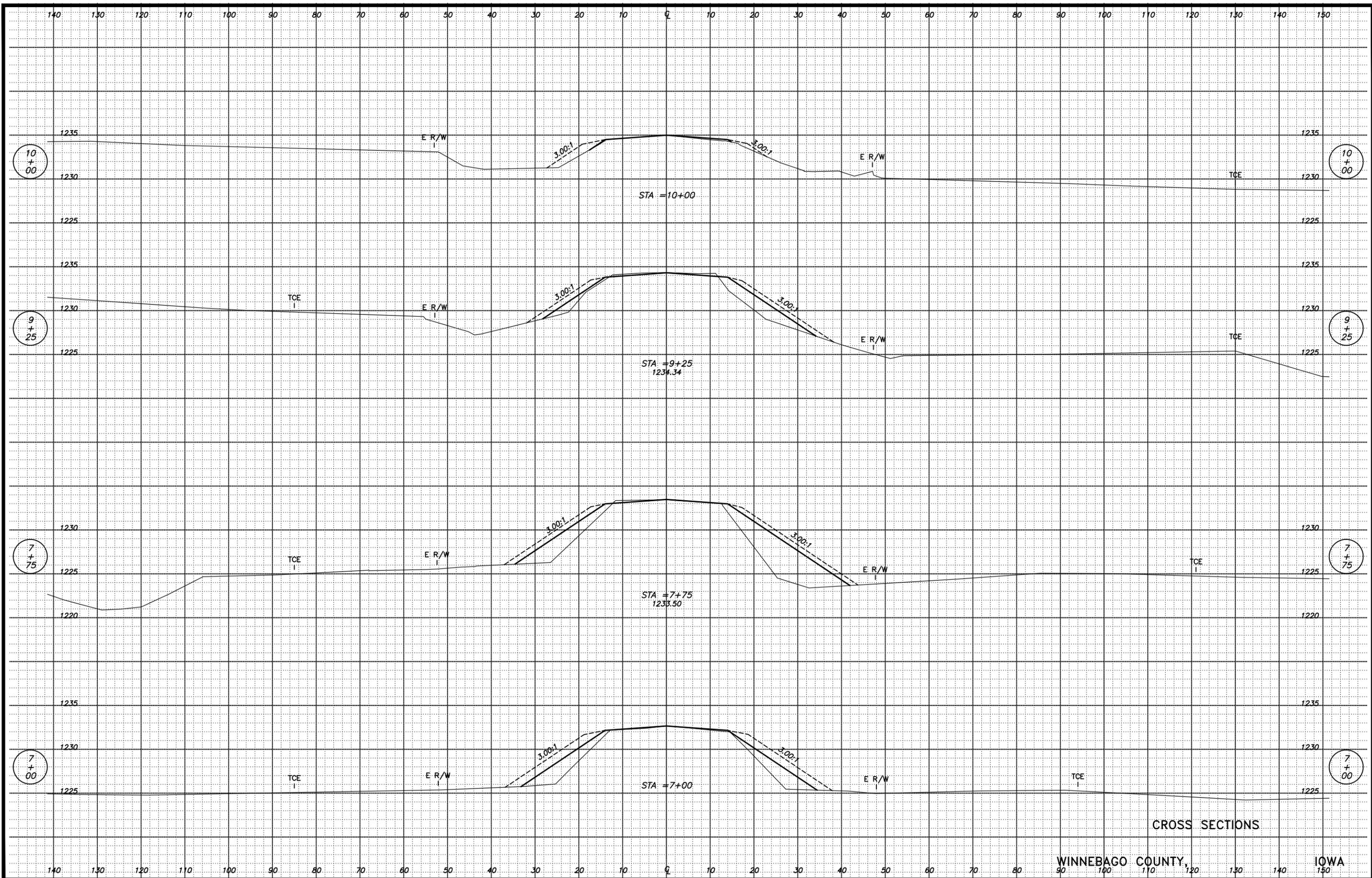
Woody	Scientific Name	Common Name	PLS Lbs / Acre
1	Amorpha fruticosa	False Indigo	0.0074

110'-0 x 24'-6 CONTINUOUS CONCRETE SLAB BRIDGE

INTEGRAL ABUTMENTS SINGLE ROW ENCASED PIERS
 33'-6 END SPANS 43'-0 INTERIOR SPAN

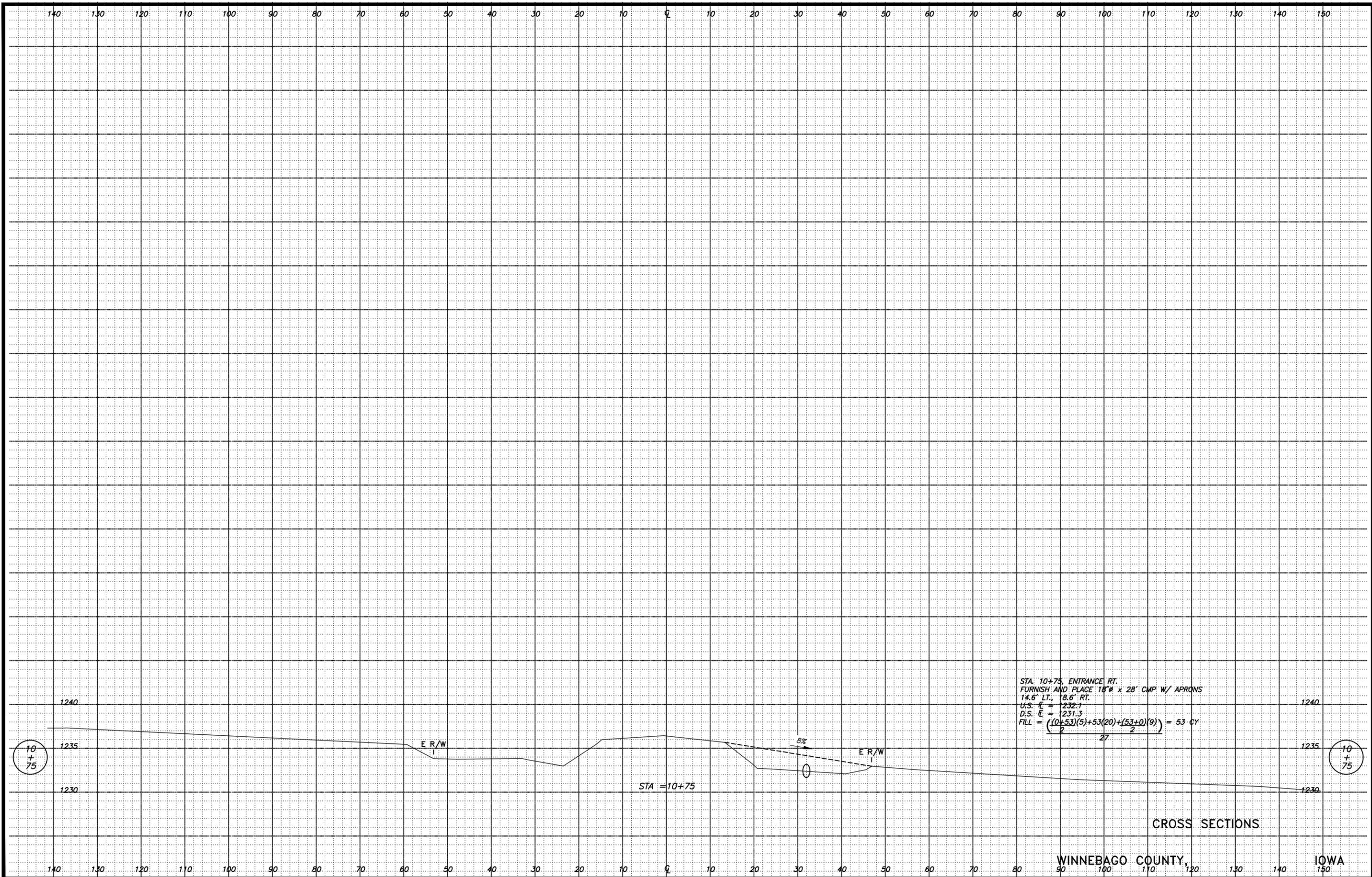
TABULATIONS AND TYPICAL SECTION

STATION 8+50.00 0° SKEW
 WINNEBAGO COUNTY, IOWA



CROSS SECTIONS

WINNEBAGO COUNTY, IOWA



CROSS SECTIONS

WINNEBAGO COUNTY, IOWA