

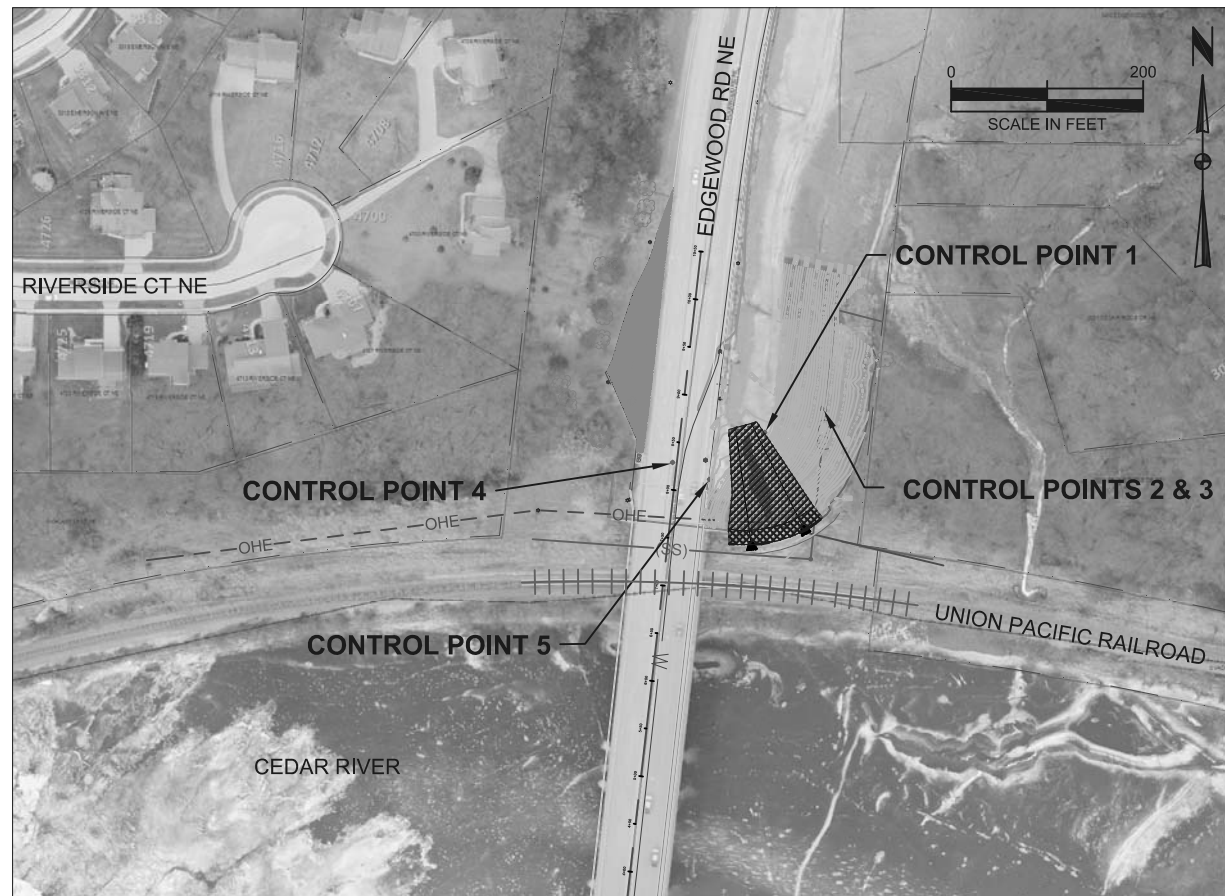


**LEGEND**

EXISTING		PROPOSED (AS-BUILT)	
	SANITARY SEWER		SS
	STORM SEWER		ST
	WATER		W
	ELECTRIC - OVERHEAD		OHE
	FIBER OPTIC - UNDERGROUND		FO
	FENCE LINE		X
	STREET LIGHT POLE		Star
	UTILITY POLE		Circle with slash
	GUY ANCHOR		Arrow
	TELEPHONE MANHOLE / VAULT		Square with X
	MANHOLE		Circle
	VALVE, WATER OR GAS		Circle with X

**UTILITY QUALITY SERVICE LEVELS:**  
UNLESS OTHERWISE NOTED, QUALITY LEVELS OF UTILITIES SHOWN ON THESE PLANS ARE LEVEL "C" (INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION).

THE QUALITY LEVELS ARE BASED ON THE CI/ASCE 38-02 STANDARD.



**GENERAL NOTES (ENTIRE PROJECT):**

- THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CEDAR RAPIDS METROPOLITAN AREA STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC IMPROVEMENTS, LATEST EDITIONS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES AND PAVED AREAS, INCLUDING ANY NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IF ANY CONFLICTS WITH THE DRAWINGS OCCUR. ANY DAMAGE TO EXISTING UTILITIES, SOD, LANDSCAPE AND/OR PAVED AREAS CAUSED BY TRENCHING, GRADING, AND PAVING OPERATIONS NOT IDENTIFIED FOR REPLACEMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE.
- PROVIDE POSITIVE DRAINAGE AT ALL TIMES WITHIN THE CONSTRUCTION AREAS. DO NOT ALLOW WATER TO DRAIN OR TO POND ONTO ADJOINING PROPERTY OR PUBLIC RIGHT-OF-WAY.
- ALL DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE PROPERLY DISPOSED OF OFF-SITE.
- ALL WORK TO BE COMPLETED WITHIN EASEMENTS AND PUBLIC R.O.W.
- WORK ITEMS NOT SPECIFICALLY CALLED OUT FOR PAYMENT SHALL BE INCIDENTAL TO CONTRACT ITEMS.
- UTILITY LOCATIONS AND DEPTHS WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES AND THE ACCURACY SHOULD BE CONSIDERED APPROXIMATE. NO RESPONSIBILITY IS ACCEPTED FOR THE LOCATIONS AS SHOWN OR THAT ALL UTILITY FACILITIES ARE SHOWN.

**CONTROL POINT DATA**

No.	NORTHING	EASTING	ELEV.
1	3472794.810	5409177.310	773.963
2	3472819.600	5409236.970	757.459
3	3472819.568	5409236.893	757.394
4	3472763.620	5409081.526	772.333
5	3472745.936	5409119.916	773.553

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UTILITIES - WATER ENGINEERING  
1111 SHAVER RD NE, CEDAR RAPIDS, IA 52402  
PHONE: 319-286-5950

No.	REVISION DESCRIPTION	APPROVED	DATE



Date: 7/17/17  
Drawn By: MDZ  
Approved By: KJR  
CIP No: 2016043-01

**EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
BRIDGE - EROSION REPAIR**

**GENERAL PLAN, LEGEND AND NOTES**

SHEET No.  
**A.2**

SUMMARY OF BID QUANTITIES					
No.	Item No.	Bid Item	Unit	QTY	
1	01100-01	Mobilization	LS	1	
2	01200-01	Traffic Control	LS	1	
3	01300-10	Silt Fence	LF	129	
4	01400-01	Clearing and Grubbing	LS	1	
5	02000-01	Unclassified Excavation and Embankment	CY	55	*
6	02000-30	Borrow	CY	282	**
7	02000-40	Dispose Unclassified Excavation Off-site	CY	55	*
8	02600-01	Revetment, Class "E" Rip-Rap	TON	12	*
9	02600-30	Non-Perforated Agricultural Drain Tile, 8 inch, Standard Quality	LF	240	
10	02900-01	Imported Topsoil, 4 inch	CY	150	**
11	02900-12	Hydroseeding with Liquid Mulch Binder, Permanent Erosion Control Mix	SY	932	*
12	02900-13	Watering, Per Application, 4000-gallons	EA	10	
13	02900-40	Wood Excelsior Mat	SY	932	*

Includes 5% Contingency (Added to Plan Quantity) = \*  
Includes 45% Shrinkage Factor (Added to Plan Quantity) = \*\*

SILT FENCE REMOVAL					
FROM		TO		LENGTH (FT)	REMARKS
STATION	OFFSET	STATION	OFFSET		
7+51.06	63.90 R	7+97.98	163.99 R	129.0	
TOTAL				129.0	

SLOPE DRAIN INSTALLATION					
FROM		TO		LENGTH (FT)	REMARKS
STATION	OFFSET	STATION	OFFSET		
7+55.46	85.52 R	8+71.85	56.52 R	120.0	
7+77.42	137.73 R	8+78.09	72.45 R	120.0	
TOTAL				240.0	

SILT FENCE INSTALLATION					
FROM		TO		LENGTH (FT)	REMARKS
STATION	OFFSET	STATION	OFFSET		
7+40.93	64.27 R	7+96.04	174.39 R	129.0	
TOTAL				129.0	

ESTIMATE REFERENCE INFORMATION			
No.	Item No.	Bid Item	
1	01100-01	<b>Mobilization</b> A. Access construction site from Edgewood Rd NE - furnishing, placing and removing temporary access if needed is incidental. Restore and seed all areas disturbed during construction.	
2	01200-01	<b>Traffic Control</b> A. See J Sheets for locations. B. Traffic Control is provided for safe Contractor access to the construction site and loading/dumping of material on the construction site.	
3	01300-10	<b>Silt Fence</b> A. See Sheet C.04 for locations. B. Refer to Standard Detail 1300-20.	
4	01400-01	<b>Clearing and Grubbing</b> A. See Sheet C.04 for locations. B. Item includes removal of failed erosion control mat and removal of existing silt fence.	
5	02000-01	<b>Unclassified Excavation and Embankment</b> A. All waste shall become property of the Contractor and disposed of properly and/or re-used as warranted.	*
6	02000-30	<b>Borrow</b> A. Item includes material, hauling, placing and grading of material to restore NE bridge embankment slope to match existing conditions prior to water main break and soil erosion.	**
7	02000-40	<b>Dispose Unclassified Excavation Off-site</b>	*
8	02600-01	<b>Revetment, Class "E" Rip-Rap</b> A. See Sheet D.01 for locations.	*
9	02600-30	<b>Non-Perforated Agricultural Drain Tile, 8-inch, Standard Quality</b> A. See Sheet D.01 for locations. B. Anchors, non-woven geotextile fabric, and rodent/trash guard are incidental.	
10	02900-01	<b>Imported Topsoil, 4-inch</b> A. Contractor to provide one (1) cubic yard of topsoil per nine (9) square yards of hydroseeding.	**
11	02900-12	<b>Hydroseeding with Liquid Mulch Binder, Permanent Erosion Control Mix</b> A. See Sheet D.01 for locations. B. Seed mixture to include full rate application of both Cedar Rapids Metropolitan Area Standard Specification Type 3 Erosion Control Mixture and Type 5 Stabilizing Crop.	*
12	02900-13	<b>Watering, Per Application</b> A. Each watering shall consist of 4,000-gallons.	
13	02900-40	<b>Wood Excelsior Mat</b> A. See Sheet D.01 for locations. B. Refer to Standard Detail 1300-030.	*

Includes 5% Contingency (Added to Plan Quantity) = \*

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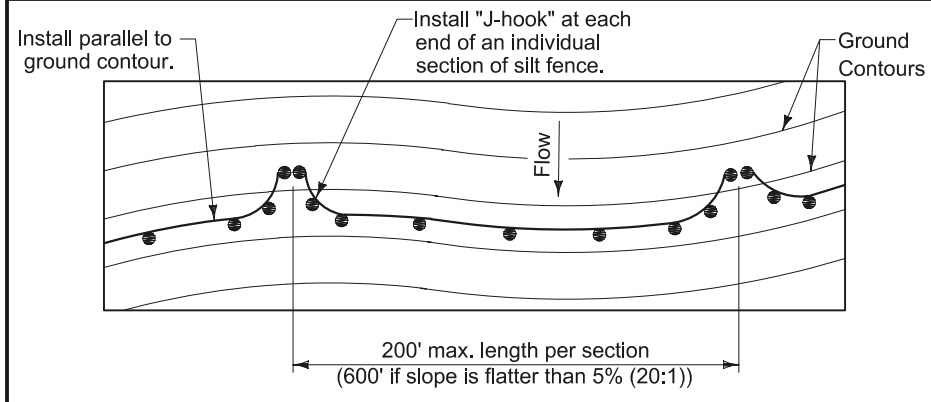
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EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
BRIDGE - EROSION REPAIR

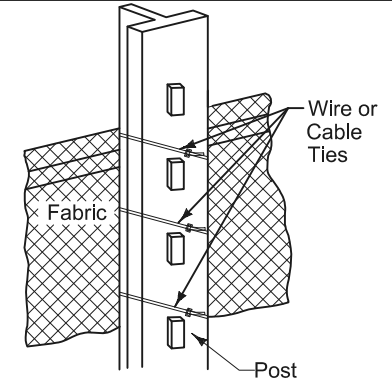
QUANTITY TABULATIONS AND ESTIMATE  
REFERENCE INFORMATION

SHEET No.  
C.1

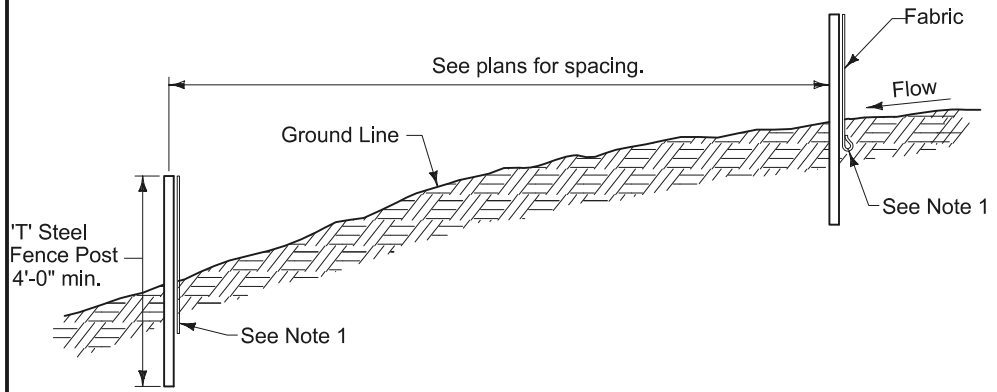




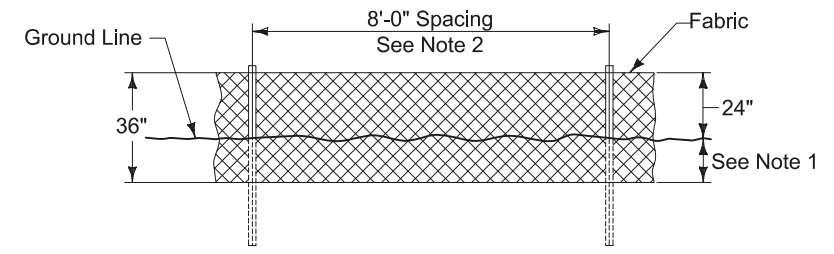
**TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES**  
(Plan View)



**ATTACHMENT TO POST**



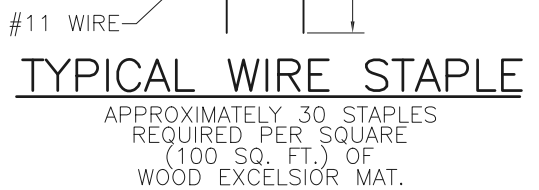
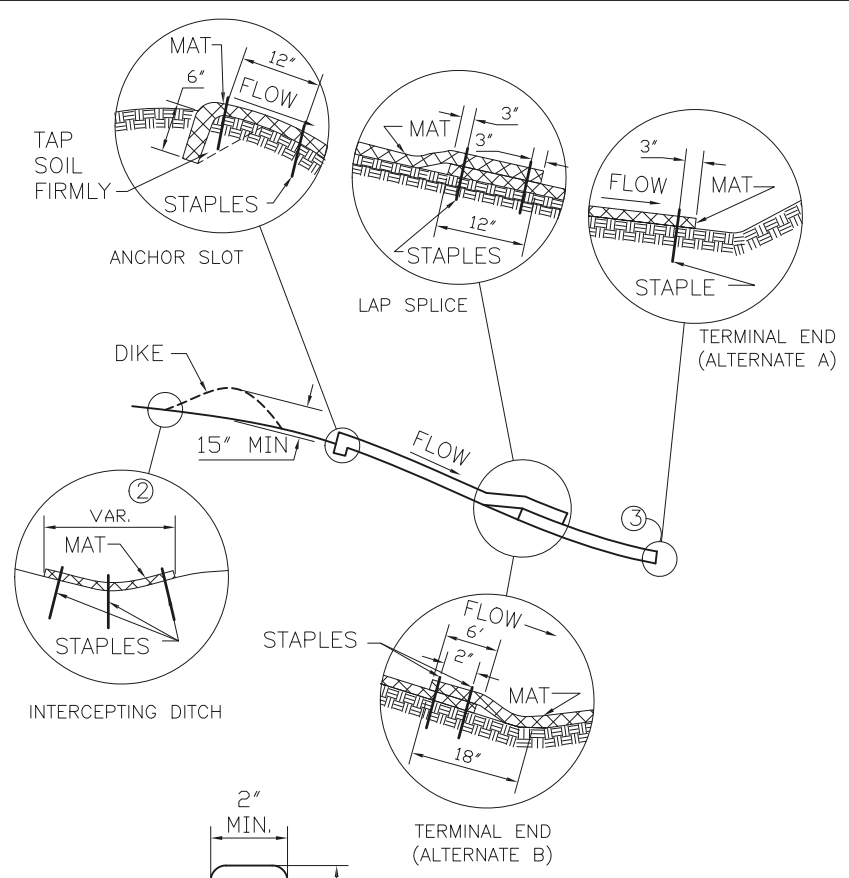
**TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES**  
(Profile View)



**DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES**

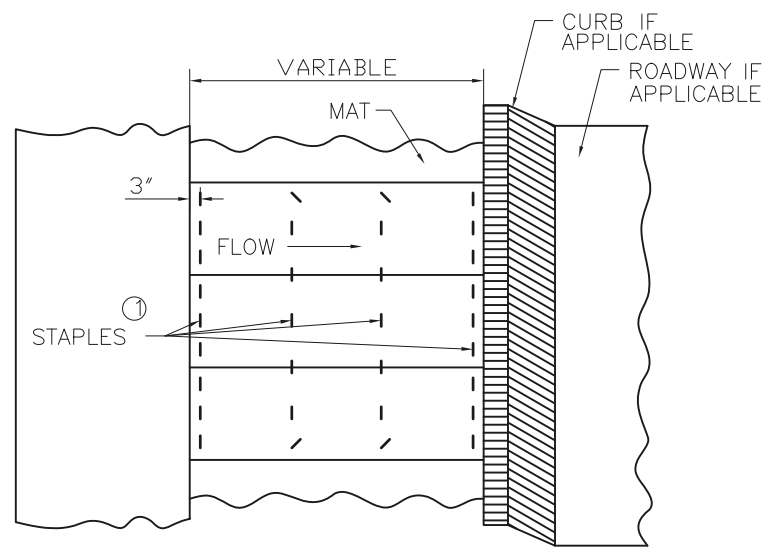
**Notes:**

1. Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line). Compact backfill.
2. Reduce post spacing to 5'-0" at water concentration areas, such as ditch checks, or as required to adequately support fence.
3. See plans for spacing of ditch checks. Use only for ditch flows less than 1 cfs.



**TYPICAL PLAN**

**SECTION A-A**



- ① SPACE TOP ROW OF STAPLES AT 18" CENTERS, BOTTOM ROW AT 36" CENTERS AND ALL OTHERS STAPLES AT 24" CENTERS.
- ② WHERE EROSION GULLIES HAVE DEVELOPED IN BACKSLOPE THEY SHALL BE FILLED WITH SOIL AND COMPACTED PRIOR TO PLACEMENT OF MAT.
- ③ WHERE EXCELSIOR MAT IS TO BE PLACED ALONG A DITCH BOTTOM, THE SLOPE PROTECTION SHALL BE INSTALLED TO FACILITATE PLACEMENT AS INDICATED IN ALTERNATE B. OTHERWISE INSTALL SLOPE PROTECTION AS SHOWN IN ALTERNATE A.

**DETAILS OF SLOPE PROTECTION (WOOD EXCELSIOR MAT)**  
FOR ADDITIONAL INFORMATION REFERENCE CEDAR RAPIDS METROPOLITAN AREA  
STANDARD DETAILS FOR PUBLIC IMPROVEMENT NO. 1300-030

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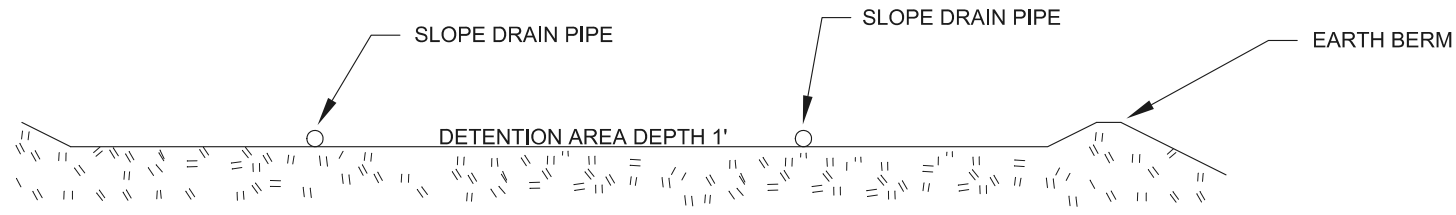
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**EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
BRIDGE - EROSION REPAIR**

**SPECIAL DETAILS**

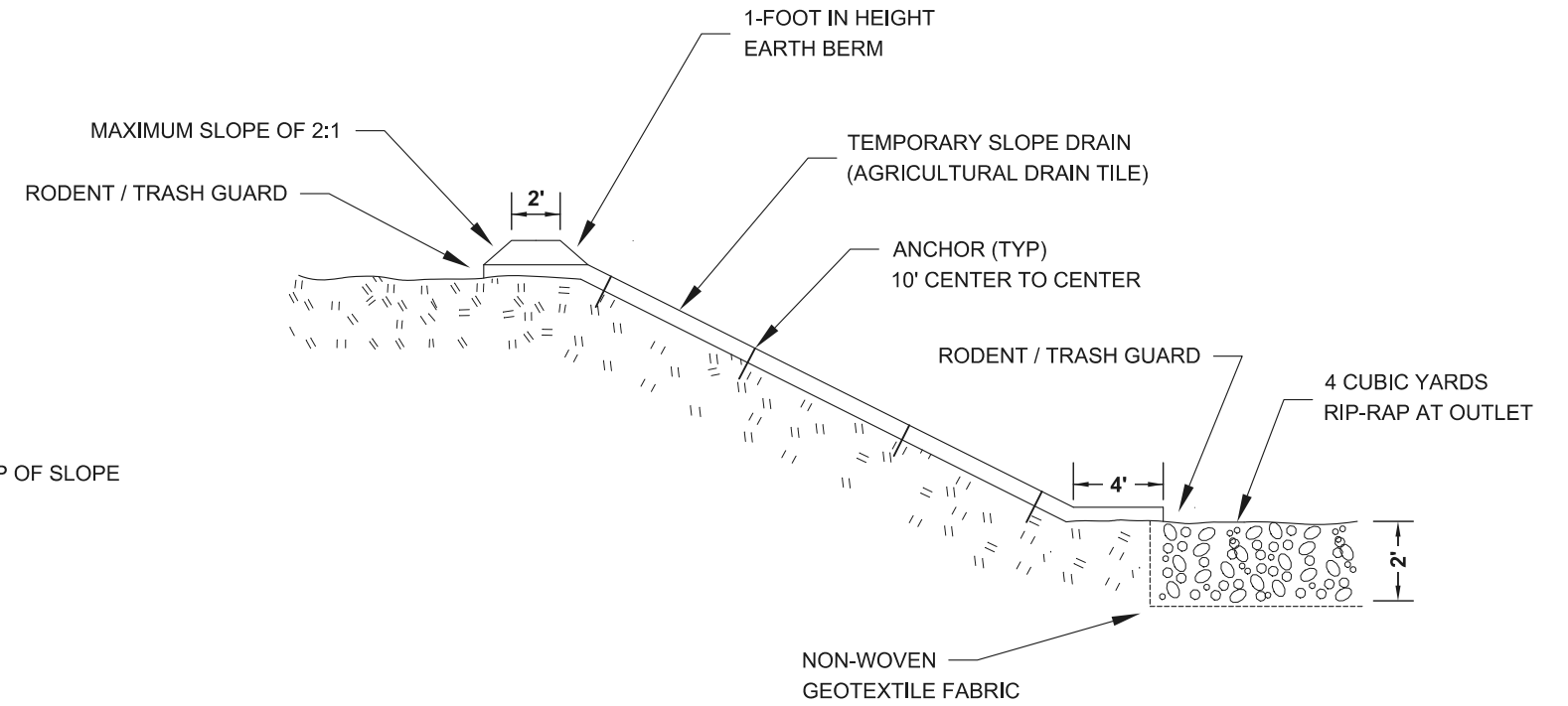
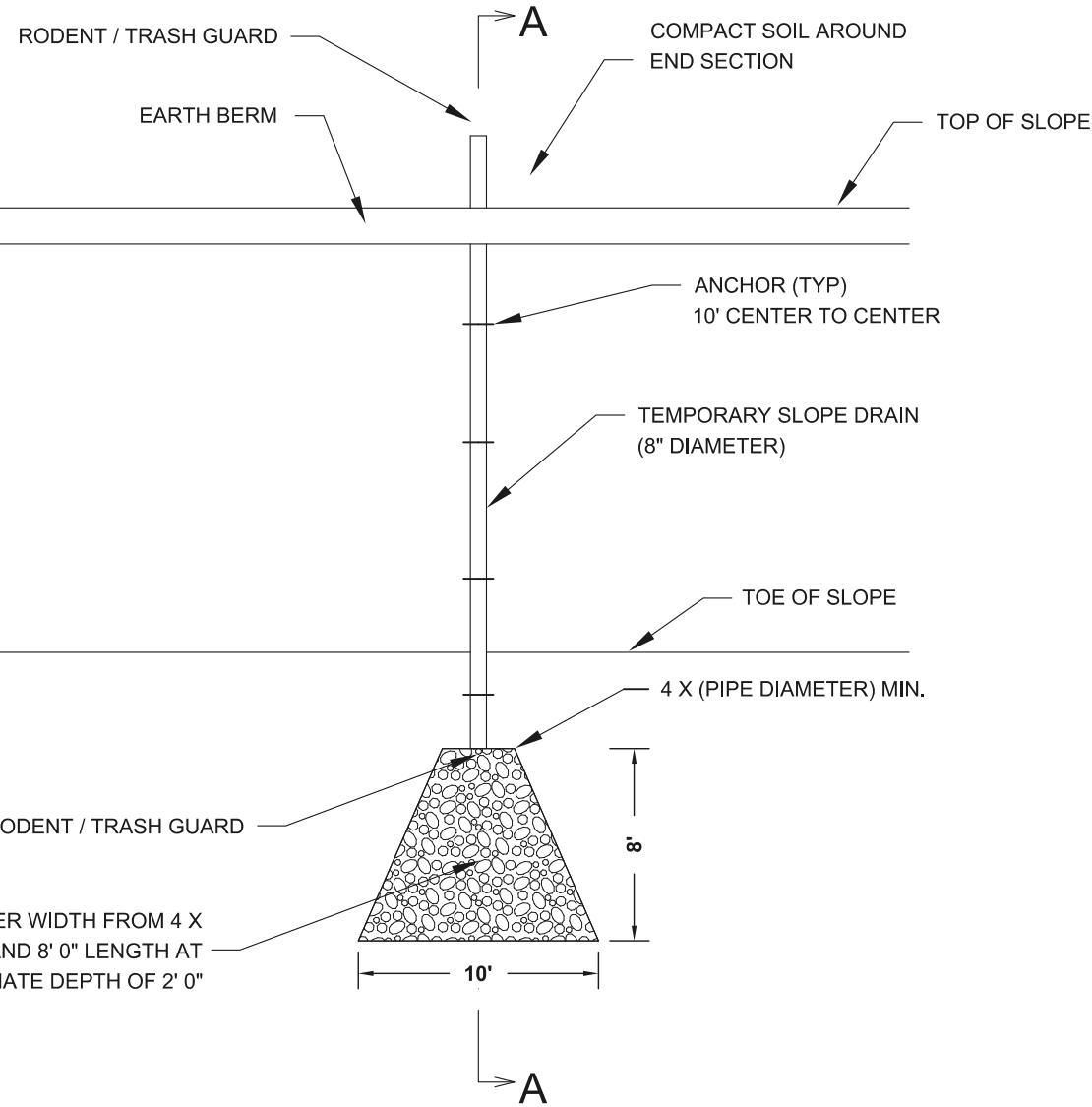
SHEET No.  
**C.2**

# UP SLOPE DETENTION AREA



## TEMPORARY SLOPE DRAIN

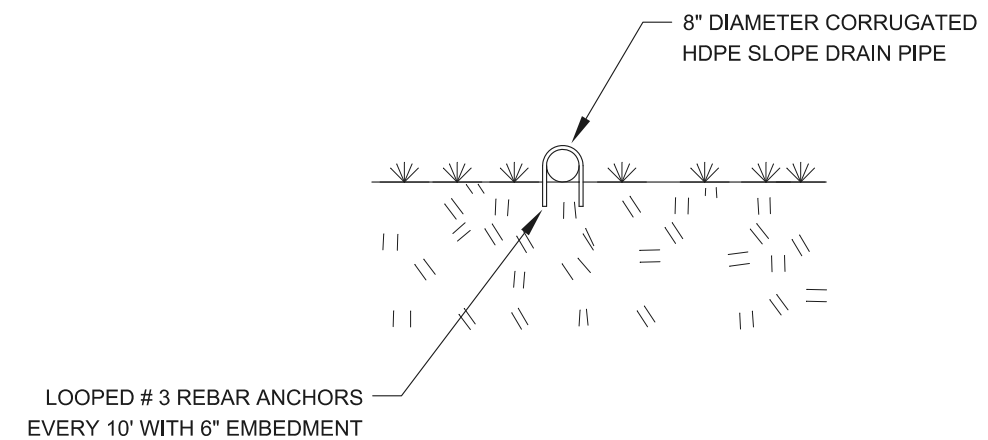
NOT DRAWN TO SCALE



## SECTION A - A

NOT DRAWN TO SCALE

## RECOMMENDED ANCHOR DETAIL



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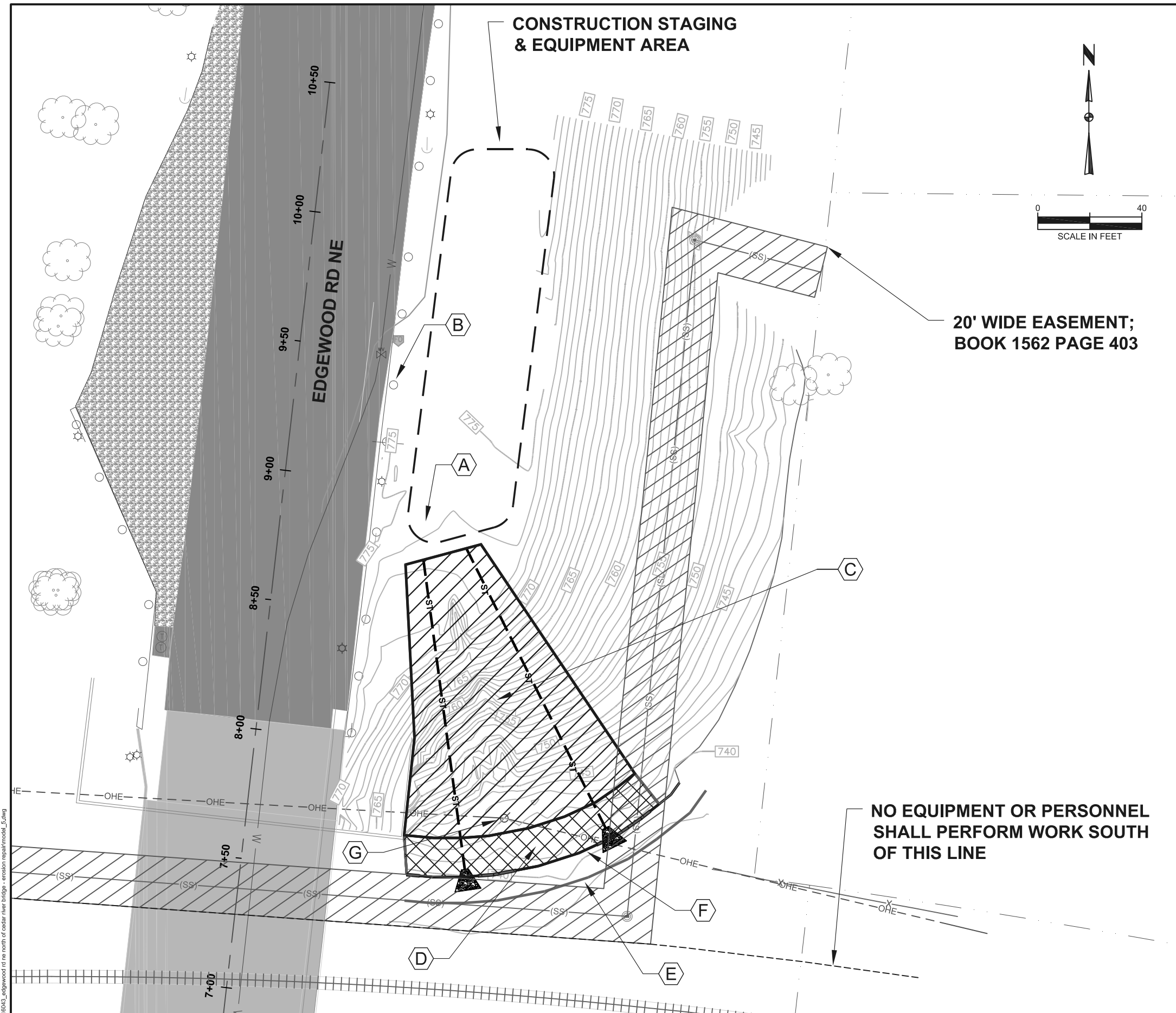


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EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
BRIDGE - EROSION REPAIR

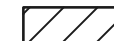

SPECIAL DETAILS

SHEET No.  
**C.3**



**EROSION CONTROL NOTES:**

1. THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE LATEST EDITION OF MUNICIPAL CODE CHAPTER 71 "EROSION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" AND CHAPTER 72 "STORM WATER MANAGEMENT".
2. THE EROSION AND SEDIMENT CONTROL MEASURES INDICATED ON THE PLAN ARE THE MINIMUM REQUIRED. ADDITIONAL OR CORRECTIVE MEASURES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITIES.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE CONTRACTOR WILL BE RESPONSIBLE FOR PERMITTING, INSPECTION, AND REPAIR OF EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
4. PRESERVE EXISTING VEGETATION WHEN POSSIBLE BY MINIMIZING THE DISTURBED AREA DURING CONSTRUCTION.
5. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND PROPERLY DISPOSED OF AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED ON UP-SLOPE AREAS.
6. RESTORE DISTURBED CONSTRUCTION STAGING & EQUIPMENT AREA TO ORIGINAL CONDITION UPON PROJECT COMPLETION.
7. ENSURE DEBRIS CAUSED BY CONSTRUCTION AND ANY UNCONTROLLABLE NATURAL ACT AS A RESULT OF CONSTRUCTION ARE CONTAINED WITHIN THE PROJECT BOUNDARY, AND WILL NOT OBSTRUCT RAILROAD TRANSPORTATION.

-  **CLEARING AND GRUBBING**
-  **UNCLASSIFIED EXCAVATION REMOVAL**

**LEGEND**

- (A) ACCESS CONSTRUCTION SITE FROM EDGEWOOD RD NE. FURNISHING, PLACING, AND REMOVING TEMPORARY ACCESS IF NEEDED SHALL BE INCIDENTAL. RESTORE AND SEED ALL AREAS DISTURBED THROUGHOUT CONSTRUCTION.
- (B) REMOVE GUARD RAIL AS NEEDED FOR SITE ACCESS. REPLACE UPON PROJECT COMPLETION.
- (C) CLEARING AND GRUBBING AREA. REMOVE FAILED EROSION MAT.
- (D) REMOVE 55 CUBIC YARDS OF UNCLASSIFIED EXCAVATION.
- (E) INSTALL 129 LF OF SILT FENCE OFFSET 10 FT SOUTH OF EXISTING.
- (F) REMOVE 129 LF OF EXISTING SILT FENCE.
- (G) PROTECT UTILITY POLE

TOTAL GRADING AREA: 8,000 SF (0.18 ACRES)

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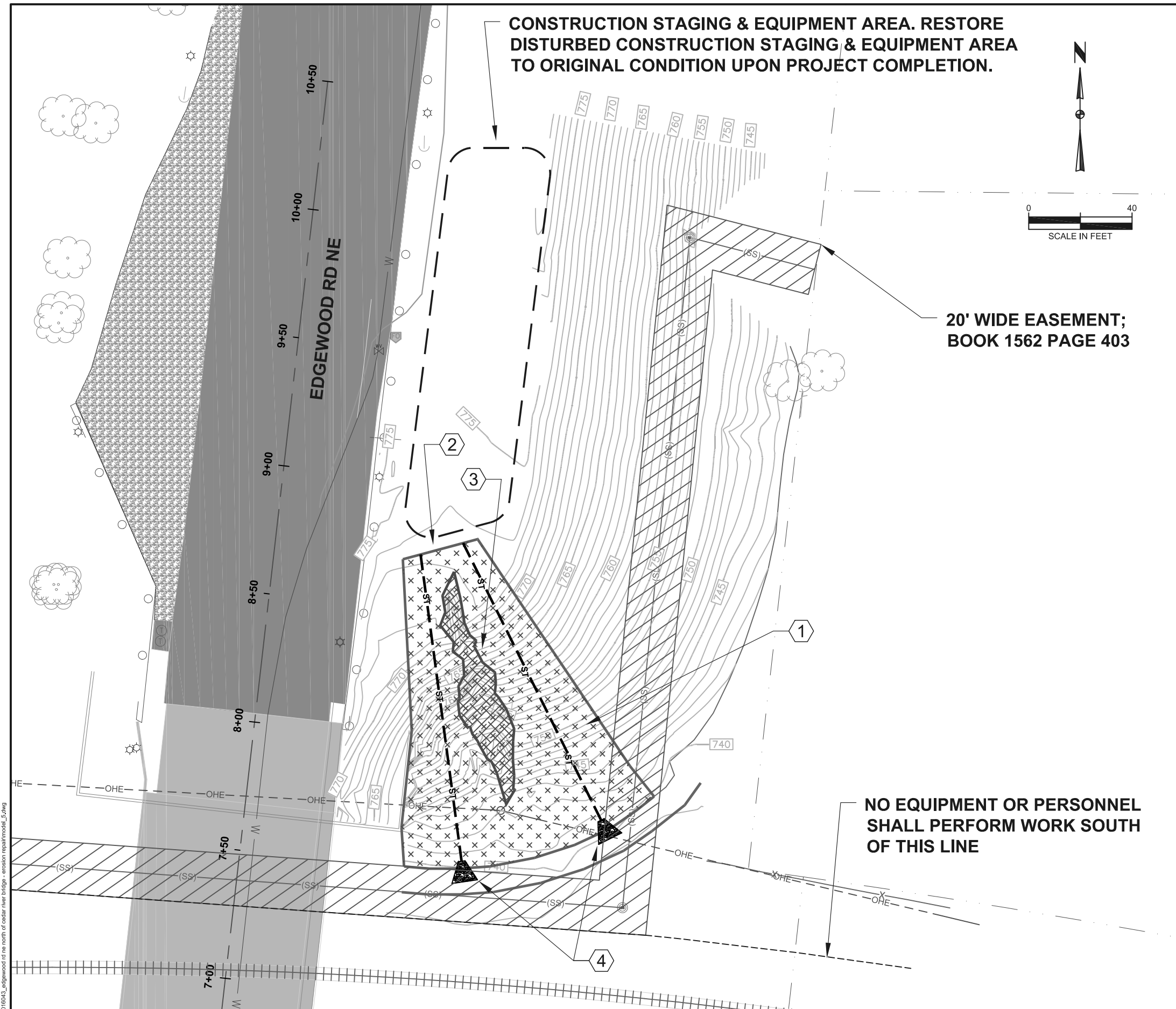
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**EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
 BRIDGE - EROSION REPAIR**

**EROSION CONTROL / REMOVAL PLAN**

SHEET No.  
**C.4**



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**CONSTRUCTION STAGING & EQUIPMENT AREA. RESTORE DISTURBED CONSTRUCTION STAGING & EQUIPMENT AREA TO ORIGINAL CONDITION UPON PROJECT COMPLETION.**

**20' WIDE EASEMENT;  
BOOK 1562 PAGE 403**

**NO EQUIPMENT OR PERSONNEL  
SHALL PERFORM WORK SOUTH  
OF THIS LINE**

-  GRADING, SEEDING, AND WOOD EXCELSIOR MAT
-  FILL MATERIAL

**LEGEND**

- ① INSTALL 932 SQUARE YARDS OF HYDROSEEDING WITH LIQUID MULCH BINDER (SEE SHEET C.1 FOR SEED MIXTURE). INSTALL 932 SQUARE YARDS OF WOOD EXCELSIOR MAT. SPREAD 150 CUBIC YARDS OF IMPORTED TOP SOIL.
- ② CONSTRUCT EARTH BERM WITH SELECT EXCAVATED MATERIAL FOR UP-SLOPE DETENTION AREA BASIN.
- ③ INSTALL 282 CUBIC YARDS OF FILL
- ④ CLASS "E" RIP-RAP END SECTION WITH RODENT/TRASH GUARD. INSTALL 4 CUBIC YARDS EACH.

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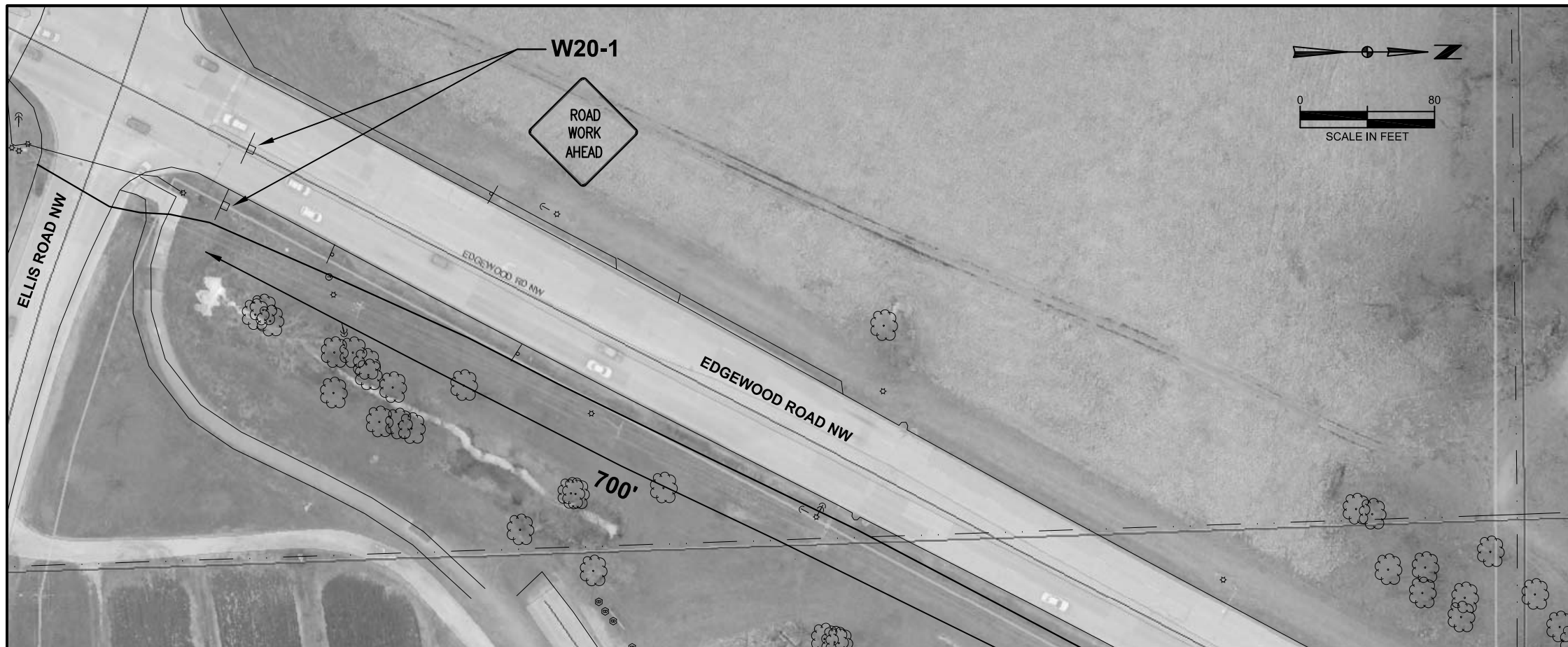


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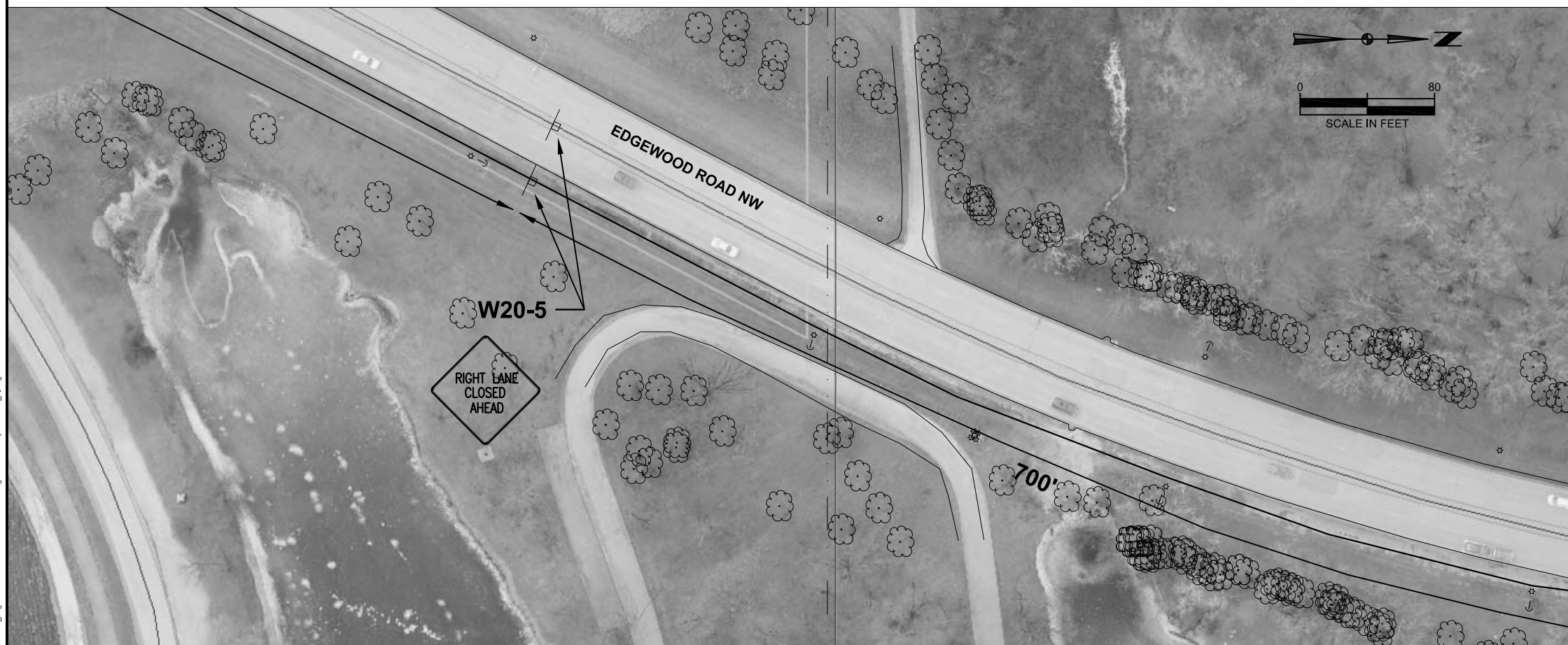
**EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
BRIDGE - EROSION REPAIR**

**PROPOSED IMPROVEMENT PLAN**

SHEET No.  
**D.1**



- TRAFFIC CONTROL NOTES:**
1. TRAFFIC CONTROL PROVIDED SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), IOWA DOT STANDARD ROAD PLANS AND/OR CEDAR RAPIDS METROPOLITAN AREA STANDARD DETAILS FOR PUBLIC IMPROVEMENTS.
  2. PROVIDE FLAGGERS IF OPERATIONS REQUIRE CONTRACTOR VEHICLES TO ENTER AND EXIT WORK ZONES.
  3. TRAFFIC CONTROL ITEMS SHALL BE FURNISHED, INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
  4. THE INFORMATION SHOWN ON THESE TRAFFIC CONTROL PLANS ARE FOR GENERAL INFORMATION AND GUIDANCE PURPOSES ONLY. THE TRAFFIC CONTROL FEATURES ARE NOT INTENDED TO BE COMPREHENSIVE OR TO DICTATE SEQUENCE OF OPERATIONS. ADJUSTMENTS TO ADVANCED SIGNAGE AND BARRICADING ARE SUBJECT TO ENGINEER APPROVAL AND ARE CONSIDERED INCIDENTAL.
  5. WHEN APPLICABLE TRAFFIC CONTROL MEASURES SHALL BE PULLED BACK AND ALL LANES SHALL REMAIN OPEN.
  6. ALL SIGN SPACING REQUIREMENTS ARE IN ACCORDANCE WITH IOWA DEPARTMENT OF TRANSPORTATION STANDARD ROAD PLAN - LANE CLOSURE ON DIVIDED HIGHWAY (TC-418).



LEGEND	
	TRAFFIC SIGN
	TYPE III BARRICADE
	SEQUENCING ARROW TYPE "A"
	CHANNELIZING DEVICE (VERTICAL PANEL, BARRELS, CONE, TYPE I OR TYPE II BARRICADE) (TO BE WEIGHTED)

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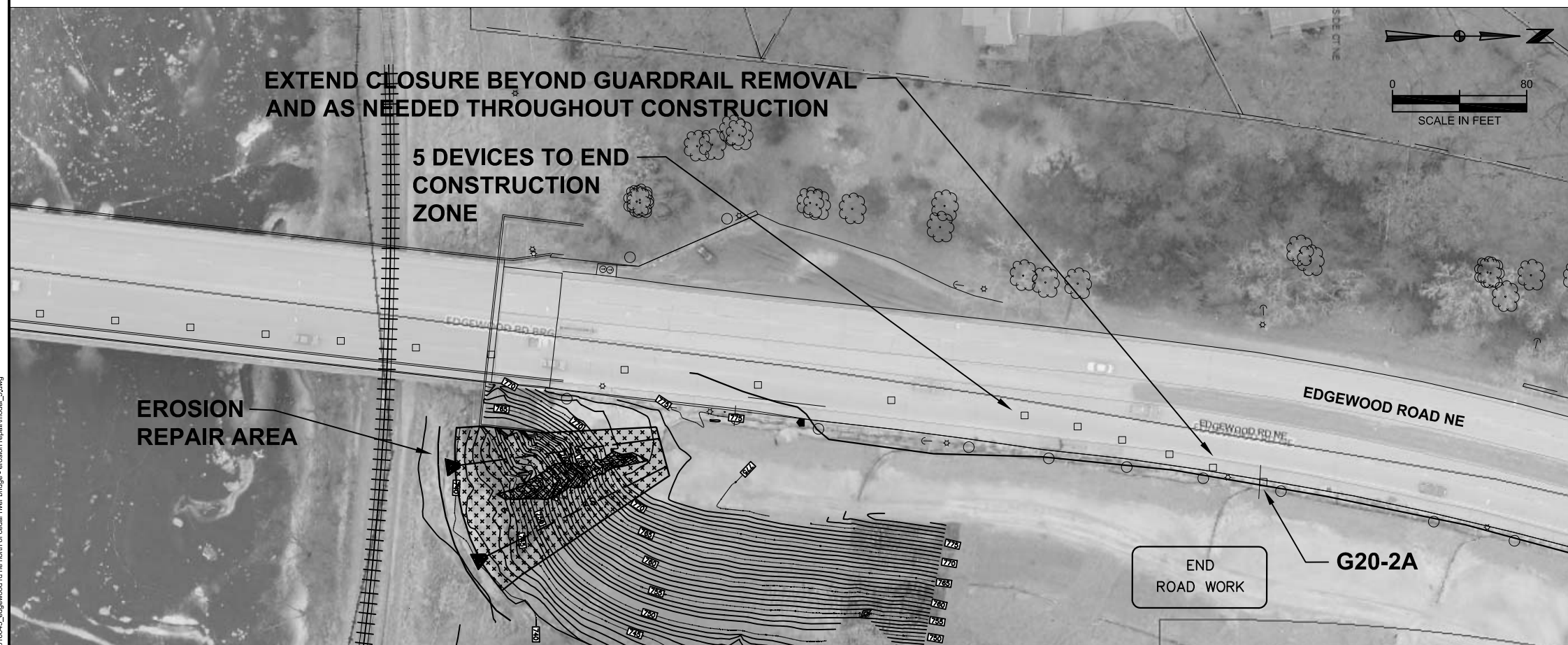
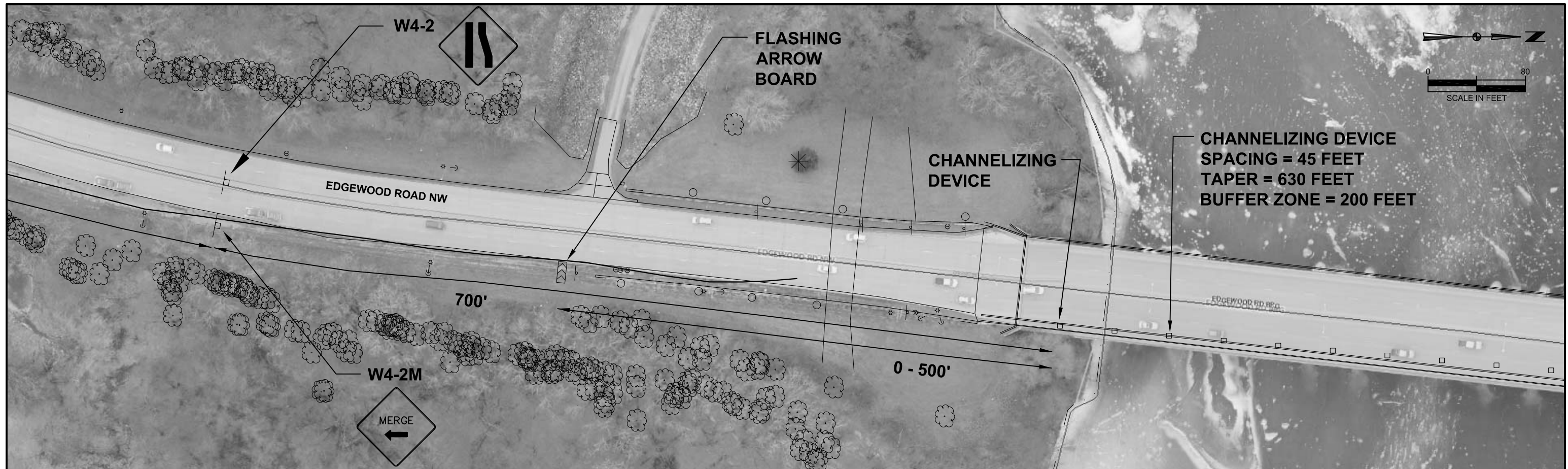
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**EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
 BRIDGE - EROSION REPAIR**

**TRAFFIC CONTROL PLAN**

SHEET No.  
**J.1**





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EDGEWOOD ROAD NE NORTH OF CEDAR RIVER  
 BRIDGE - EROSION REPAIR

TRAFFIC CONTROL PLAN

SHEET No.  
**J.2**

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