PCC TRAIL

TAP-U-1187(797)--8I-57

CEDAR RAPIDS, IOWA

LETTING DATE
NOVEMBER 19, 2019

THIS PROJECT IS COVERED BY CEDAR RAPIDS FLOODWAY DEVELOPMENT PERMIT NUMBER FWDV-006067-2018

IOWADOT

Planning, Programming and Modal Division

PLANS OF PROPOSED IMPROVEMENT ON THE

URBAN ROAD SYSTEM
LINN COUNTY
CITY OF CEDAR RAPIDS
PCC TRAIL

EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD
TAP-U-1187(797)--8I-57
CITY CONTRACT NO. 325036-03

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

REVISIONS

	TOTAL
	30
PROJECT IDENTIFICATION NUMBER	
NA	
PROJECT NUMBER	
TAP-U-1187(797)--8I-57	
R.O.W. PROJECT NUMBER	
NA	

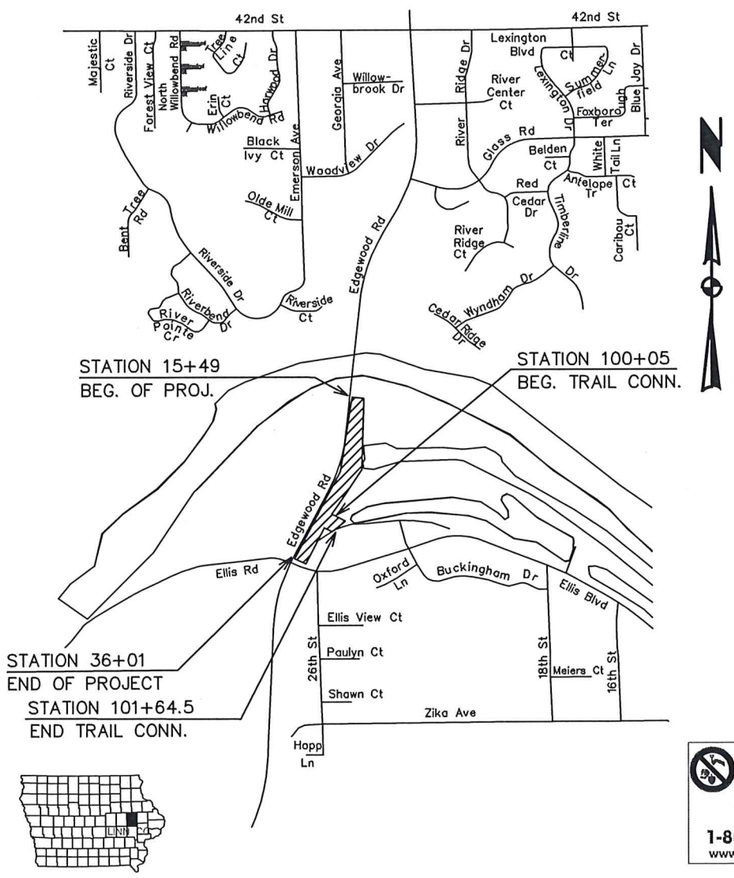
SECTION 404 PERMIT AND CONDITIONS

281-1
10-18-16

CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF THE US ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT NO. 42, PERMIT NO. CEMVR-OD-P-2018-0970. A COPY OF THIS PERMIT IS AVAILABLE FROM THE IOWA DOT WEBSITE (http://www.envpermits.iowadot.gov/). THE US ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VISIT THE SITE WITHOUT PRIOR NOTICE.

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.

VICINITY MAP NOT TO SCALE



INDEX OF SHEETS

105-3
10-18-05

NO.	DESCRIPTION
A.01	TITLE SHEET
B.01-B.03	TYPICAL CROSS SECTIONS
B.04-B.05	DETAIL SHEETS
C.01-C.03	ESTIMATED PROJECT QUANTITIES AND ESTIMATE REFERENCE
C.04	GENERAL NOTES AND TABULATIONS
D.01-D.04	TRAIL PLAN AND PROFILE SHEETS
E.01	TRAIL CONNECTION PLAN AND PROFILE SHEET
J.01-J.03	TRAFFIC CONTROL PLAN
RC.01	POLLUTION PREVENTION PLAN
RR.01-RR.04	EROSION CONTROL PLAN SHEETS
V.01	RETAINING WALL DETAILS
W.01-W.06	MAINLINE CROSS SECTIONS

STANDARD ROAD PLANS

105-4
12-03-96

The following Standard Road Plans shall be considered applicable to construction work on this project.

NUMBER	DATE	NUMBER	DATE	NUMBER	DATE
BA-200	04-16-19	EC-103	04-21-15	PV-101	04-16-19
BA-202	10-20-15	EC-201	10-15-19	PV-102	10-18-16
BA-221	04-18-17	EC-204	04-18-17	SI-131	10-18-16
BA-225	10-17-17	EC-303	04-16-19	SI-173	04-19-16
BA-260	10-18-16	EW-102	10-20-15	SI-211	10-18-16
DR-101	04-18-17	EW-301	10-20-15	SI-881	04-16-19
DR-121	10-17-17	EW-403	04-18-17	TC-402	04-21-15
DR-201	10-16-18	MI-221	10-20-15	TC-418	10-15-19

MILEAGE SUMMARY

105-1
09-27-94

LOCATION	LIN. FT.	MILES
Sta. 15+49 to Sta. 36+01	2052	0.39
Sta. 100+05 to Sta. 101+64.5	159.5	0.01
Total	2211.5	0.40

CITY OF CEDAR RAPIDS

Accepted for Letting

City Engineer or Designee	Date 8-13-2019
Utilities Engineer or Designee	Date 8.15.2019
City Traffic Engineer or Designee	Date 8/13/2019
Parks and Recreation Director or Designee	Date 8/14/19

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811

CEDAR RAPIDS
City of Five Seasons

CITY COUNCIL:

MAYOR: BRADLEY G. HART
AT LARGE: ANN POE
AT LARGE: TYLER OLSON
AT LARGE: SUSIE WEINACHT
DISTRICT 1: MARTY HOEGER
DISTRICT 2: SCOTT OVERLAND
DISTRICT 3: DALE TODD
DISTRICT 4: SCOTT OLSON
DISTRICT 5: ASHLEY VANORNY

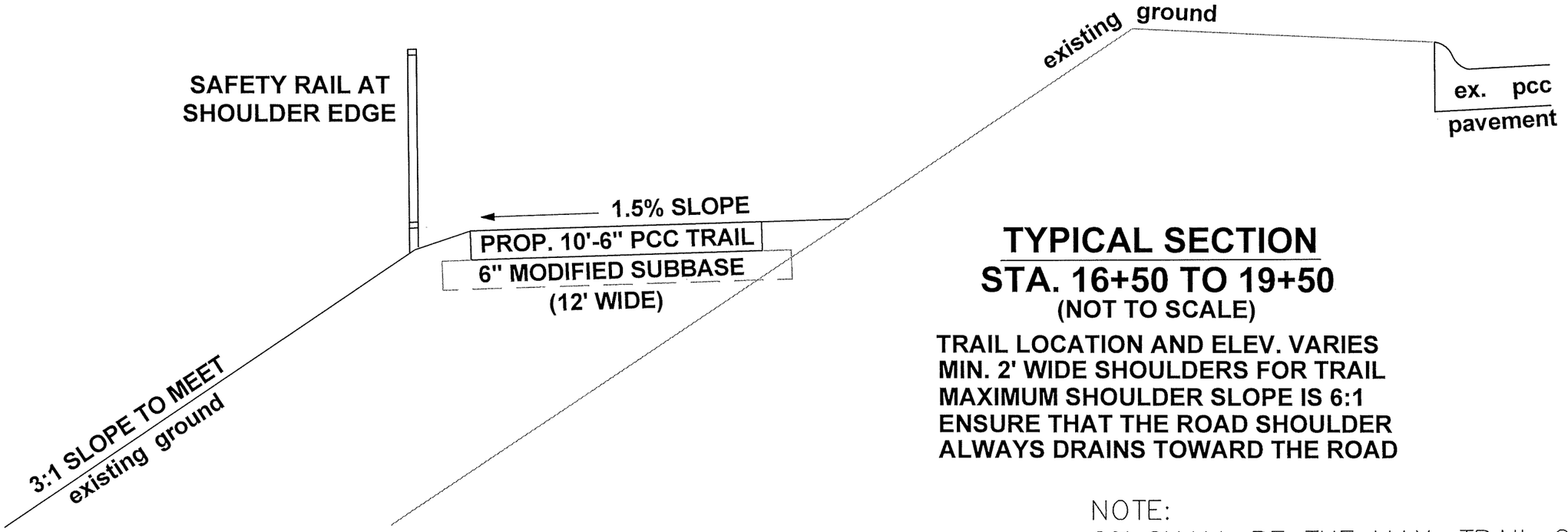
LICENSED PROFESSIONAL ENGINEER
GLENN VOSATKA
9950
IOWA

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.

Signature Glenn Vosatka Date 8/13/19
Glenn Vosatka, P.E.
License Number 9950
My license renewal date is December 31, 2019

Pages or sheets covered by this seal: ALL

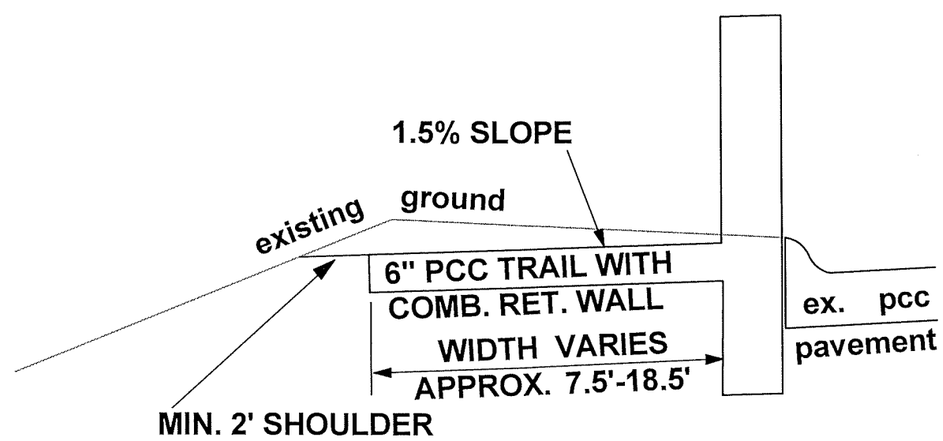
FILE NO.	ENGLISH	DESIGN TEAM	LINN COUNTY	PROJECT NUMBER TAP-U-1187(797)--8I-57	SHEET NUMBER A.1	REVISED X



TYPICAL SECTION
STA. 16+50 TO 19+50
(NOT TO SCALE)

TRAIL LOCATION AND ELEV. VARIES
MIN. 2' WIDE SHOULDERS FOR TRAIL
MAXIMUM SHOULDER SLOPE IS 6:1
ENSURE THAT THE ROAD SHOULDER ALWAYS DRAINS TOWARD THE ROAD

NOTE:
2% SHALL BE THE MAX. TRAIL CROSS SLOPE; 1.5% SHALL BE THE TARGET.

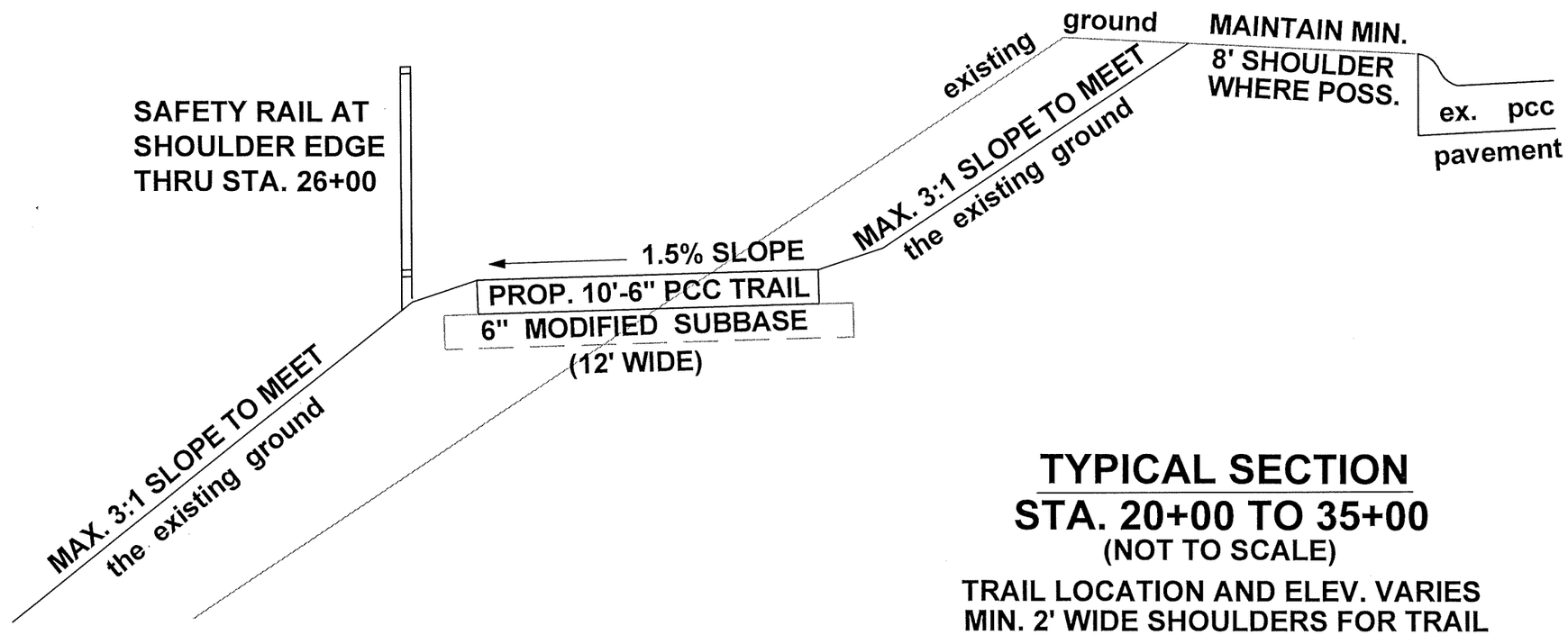


TYPICAL SECTION
STA. 15+49 TO 15+82
(NOT TO SCALE)

Plot Date: 9/14/2018 11:57 AM
File Name: W:\projects\cip\325\325036\325036-03\design\edgetrail.dwg

PREPARED BY: CITY OF CEDAR RAPIDS, PUBLIC WORKS, 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404, PHONE: 319-286-5802	No.	REVISION DESCRIPTION	APPROVED	DATE	CEDAR RAPIDS City of Five Seasons	Date: 10/8/19; Drawn By: GV; Approved By: BLF; CIP No: 325036-03	EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL FROM THE CEDAR RIVER TO ELLIS ROAD	TYPICAL CROSS SECTIONS; TAP-U-1187(797)--8I-57	SHEET No. B.01

NOTE:
2% SHALL BE THE MAX. TRAIL CROSS SLOPE; 1.5% SHALL BE THE TARGET.

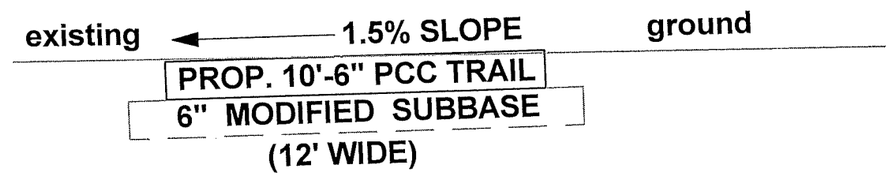


TYPICAL SECTION
STA. 20+00 TO 35+00
(NOT TO SCALE)

TRAIL LOCATION AND ELEV. VARIES
MIN. 2' WIDE SHOULDERS FOR TRAIL
MAXIMUM SHOULDER SLOPE IS 6:1
ENSURE THAT THE ROAD SHOULDER ALWAYS DRAINS TOWARD THE ROAD

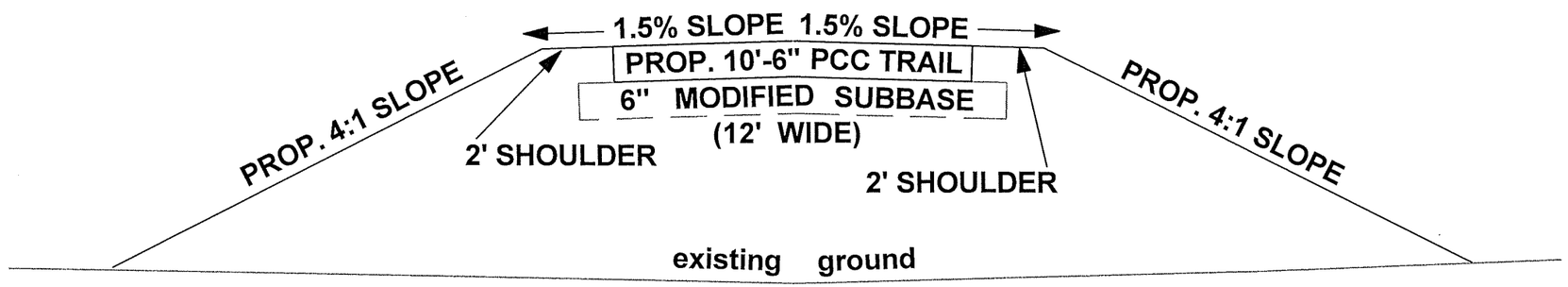
Plot Date: 8/14/2019 11:53 AM
File Name: w:\projects\cip\325\325036\325036-03\design\edgetrail.dwg

PREPARED BY:	No.	REVISION DESCRIPTION	APPROVED	DATE				
CITY OF CEDAR RAPIDS, PUBLIC WORKS 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404 PHONE: 319-286-5802					CEDAR RAPIDS City of Five Seasons	Date: 10/8/19 Drawn By: GV Approved By: BLF CIP No: 325036-03	EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL FROM THE CEDAR RIVER TO ELLIS ROAD	TYPICAL CROSS SECTION TAP-U-1187(797)--8I-57	SHEET No. B.02



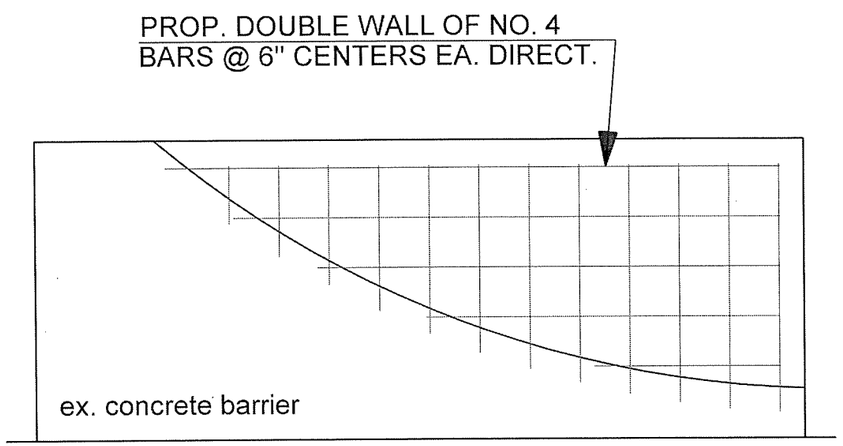
TYPICAL SECTION
STA. 100+80 TO 101+15
(NOT TO SCALE)

NOTE:
2% SHALL BE THE MAX. TRAIL CROSS SLOPE; 1.5% SHALL BE THE TARGET.



TYPICAL SECTION
STA. 100+18 TO 100+50
AND
STA. 101+25 TO 101+50
(NOT TO SCALE)

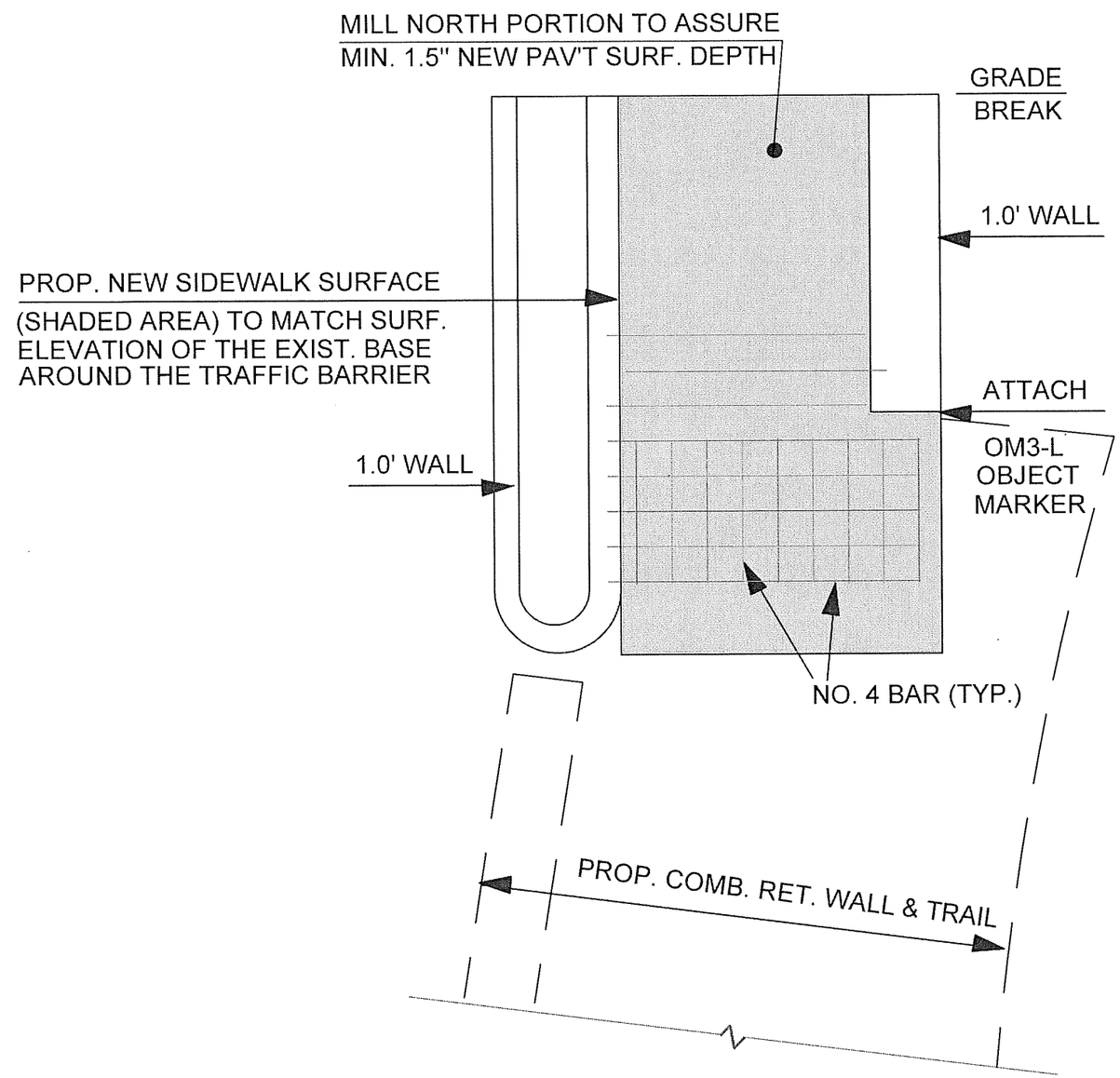
PREPARED BY:								
CITY OF CEDAR RAPIDS, PUBLIC WORKS 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404 PHONE: 319-286-5802	No.	REVISION DESCRIPTION	APPROVED	DATE	CEDAR RAPIDS City of Five Seasons	Date: 10/8/19 Drawn By: GV Approved By: BLF CIP No: 325036-03	EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL FROM THE CEDAR RIVER TO ELLIS ROAD	TYPICAL CROSS SECTIONS TAP-U-1187(797)--8I-57	SHEET No. B.03



CONCRETE BARRIER MODIFICATION

NO SCALE

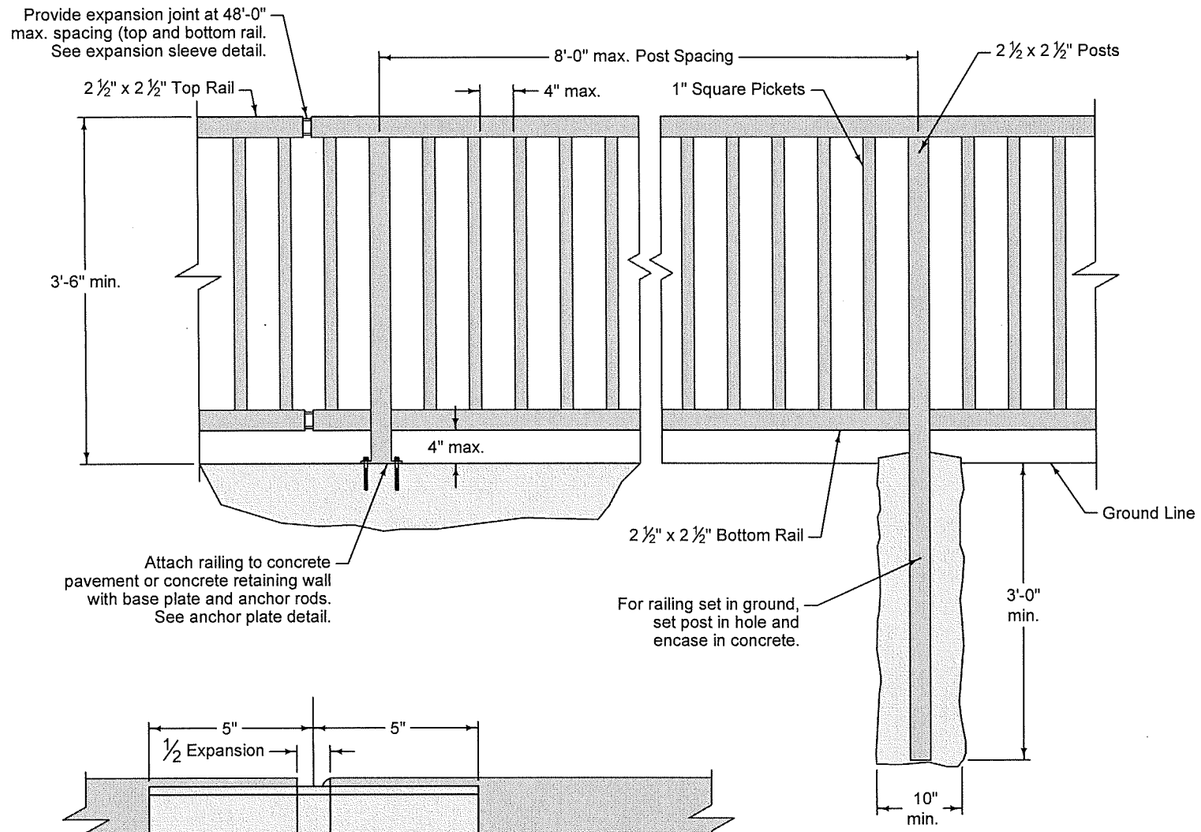
1. GROUT BARS AT LEAST 3" INTO EXISTING CONCRETE
2. MAINTAIN MIN. 3" CLEARANCE TO NEW CONCRETE SURFACE
3. BEVEL CORNERS TO MATCH EXISTING CONC. BARRIER
4. THE THICKNESS OF THE WALL IS ONE FOOT



SIDEWALK ENTRANCE MODIFICATION

NO SCALE

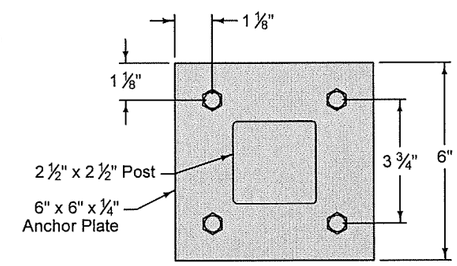
GROUT NO. 4 BARS ON 6" CENTERS AT LEAST 2" INTO EXISTING CONCRETE
ALTERNATE THE ENDS OF THE BARS TO BE EMBEDDED WHERE APPLICABLE
INSTALL WHERE THERE'S MIN. 2" CLEARANCE TO NEW CONCRETE SURFACE
INSTALL PERP. BARS WHERE THERE'S MIN. 2" CLEAR. TO NEW CONC. SURF.



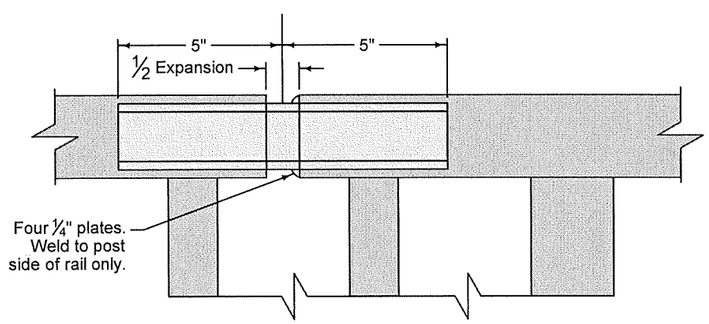
Weld all components with 1/4 inch fillet welds. Grind welds and connections as requried to provide a smooth surface, free of burrs.

Powder coat all posts, rails and connections prior to installation. Field paint safety rail after installation as specified in the contract documents.

(1) Detail shown is for top rail. Expansion joint for bottom rail is similar.



ANCHOR PLATE DETAIL



EXPANSION SLEEVE DETAIL (1)

Plot Date: 7/12/2019 3:35 PM
File Name: w:\projects\cip\325\325036\325036-03\design\details.dwg

PREPARED BY:							
CITY OF CEDAR RAPIDS, PUBLIC WORKS 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404 PHONE: 319-286-5802	No.	REVISION DESCRIPTION	APPROVED	DATE	CEDAR RAPIDS City of Five Seasons	Date: 10/8/19 Drawn By: GV Approved By: BLF CIP No: 325036-03	EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL FROM THE CEDAR RIVER TO ELLIS ROAD	SAFETY RAIL DETAILS TAP-U-1187(797)--8I-57	SHEET No. B.05

ESTIMATE REFERENCE INFORMATION

100-4
10-29-02

Item No.	Item Code	Description

Project Summary:

This project involves grading for and paving a new PCC trail along the easterly side of Edgewood Road NW from the Cedar River to Ellis Road in Cedar Rapids, including:

- Excavation
- Embankment
- PCC Trail
- Safety Rail
- Urban Seeding, Fertilizing and Mulching

1. 2102-2625000 — Embankment-in-Place
Overhaul shall be incidental for the location as noted on the plans; embankment shall be furnished by the Contractor. Topsoil, paid for and in accordance with the associated bid item, shall be spread on all embankment material that is left exposed. Estimated quantities are 430 CY cut and 3,480 CY fill with no shrinkage.

2. 2102-2710070 — Excavation, Class 10, Roadway and Borrow
This item includes finish grading as shown on the drawings and as described in Section 2102. Item also includes preparing disturbed areas for seeding, hauling and disposal of all excess soil and debris as well as removal of the parking surface around Sta. 101+40.

3. 2105-8425005 — Topsoil, Furnish and Spread
Topsoil shall be furnished where needed throughout the project to achieve an eight inch profile depth, consisting of four inches of topsoil and four inches of tillage. Refer to Table 4 in the Iowa Stormwater Management Manual, Chapter 2E-6; this work shall follow soil management and restoration method no. 5.
This topsoil shall be of uniform quality, free from hard clods, roots, stiff clay, hard pan, stones larger than 1/2 inch, lime cement, ash, slag, concrete, tar residue, tarred paper, boards, chips, sticks or any undesirable material.
Topsoil shall contain at least 3% organic matter, according to ASTM D 2974, have a high degree of fertility, be free of herbicides that prohibit plant growth, have a pH level between 6.0 and 8.0 and meet the following mechanical analysis requirements:

Sieve	Percent Passing
1"	100
1/2"	100
1/4"	40-60
No. 100	40-60
No. 200	10-30

The topsoil source shall be approved by the Engineer. Source soils from ditch bottoms, drained ponds and eroded areas, or soils that are supporting growth of noxious weeds or other undesirable vegetation, will not be accepted.
The Engineer will determine if testing is necessary. The Contractor will pay for the testing if the topsoil does not meet the above requirements. If the testing verifies the topsoil does meet the above requirements, the Jurisdiction will pay for the testing.
Topsoil shall be fine graded and raked to a smooth, uniform surface and compacted with an approved roller weighing approx. 500 pounds.

ESTIMATE REFERENCE INFORMATION

100-4
10-29-02

Item No.	Item Code	Description

Regrade and reroll until eight inches are in place. Payment for the material shall be based on measuring the truckloads and converting the amount to cubic yards. The cost of all necessary labor, materials and equipment shall be included in the price, as well as the removal and disposal of undesirable material.

4. 2105-8425015 — Topsoil, Strip, Salvage and Spread
Quantity is based on an assumed depth of 0.3 feet over the disturbed area; shrinkage is assumed to be 35 percent. Topsoil to be respread shall be free of rock and other debris and shall be suitable for growing grass.

5. 2115-0100000 — Modified Subbase
Thickness shall be 6 in. under trail pavement

7. 2210-0475105 — Choke Stone Base
8. 2210-0475290 — Macadam Stone Base
Both stone base items are for relocating the park road shown on the plans; thickness shall be 6 inches for each. Stone (Macadam) to support the concrete apron shall be measured and paid for through this item.

9. 2301-6911722 — Portland Cement Concrete Pavement Samples
Work shall be in accordance with I.M. 346

10. 2307-0025005 — Aggregate, Roadway Cover, ½ in.
11. 2307-0600456 — Binder Bitumen, CRS-2P
These items are both for seal coating the relocated park road as shown on the plans. Quantities are for a double seal.

12. 2403-0100000 — Structural Concrete (Miscellaneous)
This is for work on the entrance to the bridge, at the north end of the project, in accordance with detail drawings for modifying the concrete barrier and sidewalk entrance.
The price shall be for completely constructing the modifications and include the cost of supplying and installing all reinforcing steel. All related costs for P. C. Certified plant inspection shall be incidental to this item.

13. 2416-0100042 — Aprons, Concrete, 42 in. Dia.
The complete cost of installing connected pipe joints shall be included in the bid price.

14. 2502-6745952 — Removal of Subdrain
The quantity shall be determined by measuring the footage of the subdrain removed. Payment shall be for the complete removal and disposal of the subdrain so indicated on the plans.

15. 2502-8212404 — Subdrain, Standard, Non-perf., 4 in., as per plan
Quantity for this item is as measured and shown on the plan sheets

16. 2505-4008120 — Steel Beam Guardrail
17. 2505-4008300 — Removal of Steel Beam Guardrail
The complete removal and disposal of the wood barrier at Sta. 32+50 shall be measured and paid for through this bid item

18. 2505-4008420 — Steel Beam Guardrail Barrier Transition Section, BA-221

19. 2505-4021010 — Steel Beam Guardrail End Anchor, Bolted

20. 2505-4021722 — Steel Beam Guardrail Tangent End Term., BA-225
Refer to Tabulation 108-8A for more information about the guardrail bid items

ESTIMATED PROJECT QUANTITIES

100-1A
07-15-97

Item No.	Item Code	Item	Total	Unit	As Built Quan.
1	2102-2625000	Embankment-In-Place	3,480	CY	
2	2102-2710070	Excavation, Class 10 Roadway and Borrow	475	CY	
3	2105-8425005	Topsoil, Furnish and Spread	830	CY	
4	2105-8425015	Topsoil, Strip, Salvage and Spread	1,130	CY	
5	2115-0100000	Modified Subbase	980	CY	
6	2123-7450020	Shoulder Finishing, Earth	42.5	STA	
7	2210-0475105	Choke Stone Base	210	TON	
8	2210-0475290	Macadam Stone Base	190	TON	
9	2301-6911722	Portland Cement Concrete Pavement Samples	1	LS	
10	2307-0025005	Aggregate, Roadway Cover, 1/2 in.	20	TON	
11	2307-0600456	Binder Bitumen, CRS-2P	400	GAL	
12	2403-0100000	Structural Concrete (Miscellaneous)	1.5	CY	
13	2416-0100042	Aprons, Concrete, 42 In. Dia.	1	EA	
14	2502-6745952	Removal of Subdrain	10	LF	
15	2502-8212404	Subdrain, Standard, Non-perforated, 4 in., as per plan	20	LF	
16	2505-4008120	Removal of Steel Beam Guardrail	360	LF	
17	2505-4008300	Steel Beam Guardrail	175	LF	
18	2505-4008420	Steel Beam Guardrail Barrier Transition Section, BA-221	1	EACH	
19	2505-4021010	Steel Beam Guardrail End Anchor, Bolted	1	EACH	
20	2505-4021722	Steel Beam Guardrail Tangent End Terminal, BA-225	1	EACH	
21	2511-0300000	Removal of Recreational Trail	70	SY	
22	2511-0302600	Recreational Trail, Portland Cement Concrete, 6 In.	2,500	SY	
23	2512-1725156	Curb and Gutter, P. C. Concrete, 1.5'	110	LF	

ESTIMATE REFERENCE INFORMATION

100-4
10-29-02

Item No.	Item Code	Description

21. 2511-0300000 — Removal of Recreational Trail
The price shall include saw cutting the HMA pavement which should be 5 inches thick

22. 2511-0302600 — Recreational Trail, Portland Cement Concrete, 6 In.
Refer to B Sheets for typical sections. Class C Portland Cement concrete shall be the required mix. P.C. Certified plant inspection shall be required for this item but additional payment shall not be made.

23. 2512-1725156 — Curb and Gutter, P. C. Concrete, 1.5'
All related costs for removal of the existing pavement shall be incidental; pavement thickness is assumed to be approximately nine inches. Costs for P.C. Certified plant inspection shall also be incidental to this item. Up to an additional amount of 50 feet will be paid for if needed because the Contractor changes the access point for hauling materials into and out of the construction site.

ESTIMATE REFERENCE INFORMATION

100-4
10-29-02

Item No.	Item Code	Description
24.	2516-8625000	Combined Concrete Sidewalk and Retaining Wall Refer to B Sheets for additional information as the wall is at the back of curb. Class C Portland Cement concrete shall be the required mix. Additional payment will not be made for P.C. Certified plant inspection.
25.	2516-8725000	P. C. Concrete Retaining Wall This item is for the wall at the storm sewer outlets. Class C Portland Cement concrete shall be the required mix. Additional payment will not be made for P.C. Certified plant inspection.
26.	2524-9100020	Object Marker, Type 2 These markers shall be white and evenly spaced between the warning sign and the north end of the safety rail at the north end of the project. See the note on Sheet J.01 and refer to Standard Road Plan SI-173.
27.	2524-9100030	Object Marker, Type 3 This is for the OM3-L object marker to be attached to the concrete bridge entrance wall in accordance with the "Bridge Entrance Details" (Sheet B.04). The price shall cover the complete cost of supplying and attaching the object marker.
28.	2524-9276010	Perforated Square Steel Tube Post This is for mounting and completely installing the special Type A sign (per Sheet J.01) and is based on a 3.5 foot embedment depth.
29.	2524-9325001	Type A Signs, Sheet Aluminum This is for the special Type A sign as specified on sheet J.01.
30.	2526-8285000	Construction Survey Prior to the preconstruction meeting, the Contractor shall locate and examine the survey control points noted in the contract documents. The Contractor shall provide a signed statement to the Engineer regarding the sufficiency of the control points for construction survey. Also prior to the preconstruction meeting, the Contractor shall locate and determine conditions where new construction will match existing features and determine the location and elevation of said features. The Contractor shall provide a signed statement to the Engineer regarding the accuracy and sufficiency of locations and elevations of existing features as noted in the contract documents for use in construction survey. Failure to provide these statements may result in delays in the commencement of construction. The Contractor will have no claim for damages or extension of time for these delays. See Sheet C.03 for survey reference information.
31.	2528-8445110	Traffic Control If the Contractor changes the construction access to Edgewood Road, this price shall include all related traffic control, including using flaggers
32.	2533-4980005	Mobilization Before any work commences, the Contractor shall obtain an Application for Public Right-of-Way Permit from the Engineering Division of the Cedar Rapids Public Works Department; permit fees do not apply to work under this contract. The Contractor shall be responsible for all activities associated with this permit, including but not limited to obtaining it, bonding, posting the permit, maintaining permit documentation, scheduling inspections and closing out the permit.

ESTIMATE REFERENCE INFORMATION

100-4
10-29-02

Item No.	Item Code	Description
33.	2599-9999009	('Linear Feet' Item) Safety Rail Submit color samples and product literature for the primer, paint and powder coating. Provide one gallon of color matched exterior grade polyurethane paint for future maintenance use. Label the container with the manufacturer's name, product number and color number. Rails and posts shall be 2-1/2 in by 2-1/2 in tubular high strength steel with $\frac{1}{4}$ in minimum wall thickness; comply with ASTM 500, Grade B. Pickets shall be 1 in by 1 in tubular high strength steel with $\frac{1}{8}$ in minimum wall thickness; comply with ASTM A 500, Grade B. Paint and primer shall be factory-mixed. The primer shall be single component, water-based rust and corrosion resistant primer specifically designed for use on steel surfaces. The paint shall be water-based and abrasion-resistant, specifically designed for steel surfaces. All posts, rails and connections shall be powder coated prior to installation. Comply with the manufacturer's recommendations for surface preparation, application of primer and application of the powder coating. Prepare for the powder coating by removing oils and surface contamination by solvent cleaning. Comply with the requirements of SSPC-1. Rinse thoroughly with hot water or water pressure and dry completely. Remove rust, loose mill scale and other foreign substances by hand or power tool cleaning. Comply with SSPC-SP 2 or 3. Remove all dirt, grease, rust scale, mill scale, paint, slag andother foreign substances by blast cleaning. Comply with SSPC-SP 6. Remove all blast cleaning products by means of vacuuming or compressed air. Chemically clean the surface to removed residual contamination, apply conversion coating and apply sealing agent to prepare the surface for powder coating. Begin powder coating as soon as possible after surface preparation to prevent the development of iron oxide on the surface of the steel. Apply the primer as recommended by the coating manufacturer for specific substrate to all surfaces, unless specifically not required by the coating manufacturer. Provide complete multi-coat systems formulated and recommended by the manufacturer for the application indicated. Provide urethane, TGIC polyester wrinkle or non-TGIC polyester based powder coatings as recommended by the powder coating manufacturer to provide long term exterior durability. Apply the coating to the thickness specified by the coating manufacturer. Comply with the coating manufacturer's recommendations for applying the powder coating. Apply it in uniform thickness coats without runs, drips, pinholes, brush marks or variations in color, texture or finish. Finish edges, crevices, corners and other changes in dimension with full coating thickness.

ESTIMATED PROJECT QUANTITIES

100-1A
07-15-97

Item No.	Item Code	Item	Total	Unit	As Built Quan.
24	2516-8625000	Combined Concrete Sidewalk and Retaining Wall	14	CY	
25	2516-8725000	P. C. Concrete Retaining Wall	11	CY	
26	2524-9100020	Object Marker, Type 2	2	EA	
27	2524-9100030	Object Marker, Type 3	1	EA	
28	2524-9276010	Perforated Square Steel Tube Post	12	LF	
29	2524-9325001	Type A Sign, Sheet Aluminum	4	SF	
30	2526-8285000	Construction Survey	1	LS	
31	2528-8445110	Traffic Control	1	LS	
32	2533-4980005	Mobilization	1	LS	
33	2599-9999009	('Linear Feet' Item) Safety Rail	1000	LF	

ESTIMATE REFERENCE INFORMATION

100-4
10-29-02

Item No.	Item Code	Description
33.	2599-9999009	('Linear Feet' Item) Safety Rail (continued) Cure the powder coating at the temperature and for the time recommended by the powder coating manufacturer. The anchor plate must have a 46,000 psi yield strength; paint it to match the safety rail. Provide $\frac{3}{8}$ in galvanized anchor bolts or threaded rod to provide a 3 in embedment; comply with ASTM A 36. Epoxy must comply with ASTM C 881, Type IV. Provide appropriate epoxy class based upon concrete temperature at the time of installation. Grout must be on the approved products list in Iowa DOT Materials I.M. 491.11, Appendix C. Install the rail continuously with no gaps or breaks throughout its length. Use welded connections between the rail components. Grind connections to remove sharp or abrasive edges and to remove other irregularities. Install the top rail a minimum of 42 inches above the finished grade. Install the bottom rail a maximum of four inches above finished grade. Locate pickets in the center of the top and bottom rails and space them evenly between the posts. Provide a maximum clear opening between the pickets of four inches. Install posts at a maximum spacing of eight feet. Layout location and drill four $\frac{7}{16}$ in holes for anchor bolts at each post attachment point. Drill holes with a carbide drill bit; do not core drill anchor bolt holes. Apply adhesive anchoring material according to the manufacturer's published recommendations and install threaded rod or anchor bolts. Mix paint and/or primer for painting to correct consistency in accordance with manufacturer's instructions before applying. Do not reduce, thin or dilute coatings or add materials to paint unless such procedure is specifically described in the manufacturer's product instructions. Shop coat handrail, safety rail, posts, pickets and anchor plates with primer following fabrication. Apply two field coats of paint upon completion of installation. Measurement and payment will be for linear feet of safety rail installed where shown on the plans, measured along the top of the rail from end post to end post. Item includes all labor, materials and equipment necessary to install it, including the safety rail posts, pickets, mounting hardware, post foundations, epoxy grout and finishing (powder coating and painting). Any additional grading to install safety rail is considered incidental to this item. Refer to the B Sheet for additional information.

108-8A
10-16-18

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

(1) Lane(s) to which the obstacle is adjacent.
(2) Not a bid item. Incidental to guardrail installation.

Location					Layout Lengths				Long-Span System		Delineators and Object Markers (2)					Bid Items										Remarks
					BA-250, BA-260, LS-630, or LS-635														BA-250 or LS-630				BA-260 or LS-635			
																			End Terminal							
No.	Direction of Traffic (1)	Side O = Outside M = Median	Station	Offset	VT1	VF	VT2	ET			SI-211	Delineator SI-172 Type 1	Object Marker SI-173 Type 2	Object Marker SI-173 Type 3		Bolted End Anchor	Post Adapter	Steel Beam Guardrail	Barrier Transition Section	Tangent	Flared	Tangent	Flared	Barrier Transition Section	End Terminal Tangent	
									BA-211							BA-202	BA-210	BA-200	BA-201	BA-205	BA-206	LS-625	LS-626	BA-221	BA-225	
				FT	LF	LF	LF	LF	STATION	TYPE	TYPE	White EACH	OM2-2 EACH	OM3-L EACH	OM3-R EACH	TYPE EACH	EACH	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1	North	O	15+83.5	12.5' R							OM3-R	0	0	0	1	A 1	0	175						1	1	

PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

ESTIMATED PROJECT QUANTITIES

TAP-U-1187(797)--8I-57

SHEET No.
C.02

Plot Date: 8/14/2019 12:11 PM
File Name: w:\projects\pc\325036\325036-03\design\edgetrail.dwg

ESTIMATE REFERENCE INFORMATION

100-4
10-29-02

Item No.	Item Code	Description
34.	2601-2634100	Mulching This item is for mulching all disturbed areas after the seeding has been completed as per Section 2601.
35.	2601-2636044	Seeding and Fertilizing (Urban) This item is for seeding and fertilizing of all disturbed areas in accordance with Section 2601 Seed mix shall be as follows: Type of Seed — Application Rate (lb/acre) Kentucky Bluegrass Cultivar — 35 Kentucky Bluegrass Cultivar — 35 (not same variety as previous) Creeping Red Fescue — 105 Cert. Fine-leafed Perennial Rye Grass — 25 Cert. Fine-leafed perennial Rye Grass — 25 (not same variety as previous) TOTAL — 225 lb Purity / Germination Bluegrass — 95 / 85 Perennial Rye Grass — 95 / 90 Seed shall be applied at a rate of 5.2 lbs. per 1,000 SF in a split application, min. of 2 passes Spring seeding may take place until June 10th The min. ground temp. shall be 45 degrees. Areas that settle and require additional topsoil to meet the final established grade, or areas that fail to germinate, shall be reseeded at the expense of the Contractor.
36.	2601-2638352	Slope Protection, Wood Excelsior Mat This item is for supplying and installing the mat in accordance with Section 2601. The material is intended for slopes to be seeded, fertilized and mulched which are steeper than 4:1.
37.	2601-2643300	Mobilization for Watering For this bid item, the Contractor shall provide the water to completely water all seeded areas; the Contractor shall pay for water obtained from Cedar Rapids hydrants. The Contractor shall be paid for each watering application of the entire seeded area. Watering shall occur every two days for the first three weeks, thence every three days for weeks four through six. A time period can be skipped if 0.25 of an inch or more of rainfall occurs after the previous watering. Each watering shall be sufficient to thoroughly saturate the seedbed and adjacent disturbed area to a depth of approximately three inches without runoff. Each watering requires an average of 50 gallons per 100 square feet, subject to current weather conditions as judged by the Engineer. Water shall be applied uniformly and consistently using a spray or other approved technique to prevent erosion, runoff or damage to the seedbed. The Contractor shall be prepared to continue watering for three weeks after germination.

ESTIMATED PROJECT QUANTITIES

100-1A
07-15-97

Item No.	Item Code	Item	Total	Unit	As Built Quan.
34	2601-2634100	Mulching	2.00	AC	
35	2601-2636044	Seeding and Fertilizing (Urban)	2.00	AC	
36	2601-2638352	Slope Protection, Wood Excelsior Mat	500	SQ	
37	2601-2643300	Mobilization for Watering	10	EA	
38	2602-0000020	Silt Fence	2,250	LF	
39	2602-0000071	Removal of Silt Fence or Silt Fence for Ditch Checks	2,250	LF	
40	2602-0000101	Maintenance of Silt Fence or Silt Fence for Ditch Check	2,250	LF	
41	2602-0000150	Stabilized Construction Entrance, EC-303	30	LF	
42	2602-0000312	Perimeter and Slope Sediment Control Device, 12 In. Dia.	2,000	LF	
43	2602-0000350	Removal of Perimeter and Slope Sediment Control Device	2,000	LF	
44	2602-0010010	Mobilizations, Erosion Control	5	EA	
45	2602-0010020	Mobilizations, Emergency Erosion Control	2	EA	

UTILITY LIST

NAME	PHONE	CONTACT
City of CR Traffic Engr. Division	(319) 286-5802	John Witt
City of Cedar Rapids Water	(319) 286-5960	Randy Hansel
City of Cedar Rapids Sewer Maint.	(319) 286-5826	Jeff Oberthein
City of Cedar Rapids Joint Comm.	(319) 286-5027	Sean Hanna
MidAmerican Energy	(319) 298-5162	Greg Wildebour
Century Link	(515) 829-5403	Dan Shea
Alliant Energy	(319) 786-1908	Dustin Hawkins
Mediacom	(319) 395-9699	Joe Ernster
ImOn Communications	(319) 261-4689	John Lockhart
Aureon Network Services	(515) 830-0445	Jeff Klocko
Windstream	(319) 538-1985	Stephen Kness

COORDINATE TABLE

DESCRIPTION	NORTHING	EASTING	ELEVATION
CP 1, CUT "X" IN SIDEWALK AT SOUTH END OF THE BRIDGE	3472010.66	5409032.87	749.54
CP 2, 5/8" IR NEAR WESTERLY CURB, SOUTHBOUND LANES OF EDGEWOOD RD	3471352.96	5408883.02	730.78
CP 3, 5/8" IR NEAR WESTERLY CURB, SOUTHBOUND LANES OF EDGEWOOD RD	3470751.63	5408638.94	729.71
CP 4, 5/8" IR NEAR NORTHWEST CORNER OF EDGEWOOD RD AND ELLIS ROAD	3470131.27	5408267.29	731.73
CP 5, 1/2" IR SOUTH AND WEST OF EDGEWOOD RD AND ELLIS ROAD	3470007.92	5408220.16	733.27

01-20-84 261-2
Before performing earthwork, tiling or excavation within three hundred feet of an existing pipeline, the contractor shall notify the pipeline company and the pipeline company shall mark the location of the pipeline as required by Section 479.47 of the Code of Iowa.

The contractor shall exercise all due caution when working in the vicinity of pipelines carrying combustible or toxic materials which are present on this project. Pipeline location shown on the plans represents the best information available at the time of plan preparation.

01-20-84 203-1
Plan and Profile sheets included in the project are for the purpose of alignment, location and specific directions for the work to be performed under this contract. Irrelevant data on these sheets is not to be considered a part of this contract.

10-29-02 213-1
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. These areas shall not impact wetlands or "Waters of the U.S." 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.

01-20-84 221-4
In order to avoid any unnecessary surface breaks or premature spalling, the contractor is cautioned to exercise extreme care when performing any of the necessary saw cutting operations for the proposed pavement removal.

01-20-84 232-5
The contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service area(s) will be subject to the approval of the Engineer.

06-07-94 232-8
The top eight (8) inches of the disturbed areas shall be free of rock and debris and shall be suitable for the establishment of vegetation, subject to the approval of the Engineer.

10-21-14 232-10
Dispose of all wood material generated as a result of clearing and/or grubbing according to the Iowa Department of Agriculture and Land Stewardship's Emerald Ash Borer (EAB) Quarantine Order.
For more information refer to
http://www/iowatreepests.com/eab_regulations.html

CURVE DATA

CURVE NO.	PI STATION	BEGIN CURVE STATION	BEGIN CURVE Coordinates Y (Northing)	BEGIN CURVE Coordinates X (Easting)	Δ	T	L	R	END CURVE STATION	END CURVE Coordinates Y (Northing)	END CURVE Coordinates X (Easting)
1	15+66.91	15+49.14	3472001.95	5409034.50	28° 30' 00"	17.77	34.82	70.00	15+83.96	3471967.50	5409035.19
1L	15+63.40	15+46.39	3472004.20	5409039.26	34° 22' 14"	17.01	32.99	55.00	15+79.38	3471971.70	5409039.15
1R	15+69.53	15+49.57	3472002.22	5409031.41	29° 03' 37"	19.96	39.05	77.00	15+88.62	3471963.58	5409031.06
2	15+98.95	15+83.96	3471967.50	5409035.19	18° 54' 36"	14.99	29.70	90.00	16+13.66	3471938.11	5409038.45
3	18+04.12	16+13.66	3471938.11	5409038.45	06° 05' 24"	190.46	380.53	3580.46	19+94.19	3471559.94	5408997.80
4	23+22.78	21+34.19	3471421.72	5408975.53	11° 36' 36"	188.59	376.02	1855.00	25+10.21	3471059.08	5408878.59
5	25+32.26	25+10.21	3471059.08	5408878.59	21° 03' 00"	22.05	43.66	118.81	25+53.87	3471022.03	5408855.97
6	25+69.00	25+53.87	3471022.03	5408855.97	14° 36' 36"	15.13	30.10	118.00	25+83.97	3470997.34	5408838.90
7	26+05.98	25+83.97	3470997.34	5408838.90	24° 35' 24"	22.01	43.35	101.00	26+27.32	3470955.75	5408827.89
8	26+49.46	26+27.32	3470955.75	5408827.89	24° 43' 48"	22.14	43.60	101.00	26+70.92	3470913.98	5408816.65
9	31+52.32	31+37.88	3470499.54	5408601.49	16° 25' 48"	14.44	28.67	100.00	31+66.55	3470476.18	5408585.04
10	31+82.41	31+66.55	3470476.18	5408585.04	16° 24' 36"	15.86	31.50	110.00	31+98.05	3470450.61	5408566.83
11	35+39.46	35+23.94	3470161.29	5408416.82	17° 38' 24"	15.52	30.79	100.00	35+54.73	3470132.41	5408406.52
12	35+71.88	35+54.73	3470132.41	5408406.52	19° 27' 36"	17.15	33.96	100.00	35+88.68	3470100.78	5408394.68
13	101+01.71	100+68.58	3470395.02	5408615.26	30° 52' 12"	33.13	64.66	120.00	101+33.24	3470351.56	5408662.07

16+00 BEGIN PROP SAFETY RAIL
AT THE EDGE OF THE SHOULDER

MODIFY BRIDGE SIDEWALK
IN ACCORDANCE WITH THE "BRIDGE ENTR DET." SHEET FURNISH AND INSTALL SIGN SEE DETAILS – SHEET J.01 SIGN IS 12.5' FROM BRIDGE

15+49 BEGIN TYPE A COMB. RET. WALL–SIDEWALK AT S. END BRIDGE R & R CURB AS NEEDED (SEE ENTR. DET. PLAN)

SHADING REP. AREAS OF EX. PAVEMENT REPL.

PROPOSED GRADING BOUNDARY

PROPERTY OWNER:
CITY OF CEDAR RAPIDS

PROP. SAFETY RAIL

tree line (typ.)

Alliant elec.

PROP. 10' PCC TRAIL

REMOVE guardrail

MidAm. gas

CR water

pp

curb line

Alliant elec.

MidAm. gas

telecom (JCN)

telecom

15+83.5 END TYPE A COMB. RETAINING WALL–SIDEWALK BEGIN MASH TL–2 GUARD.

17+79.5 REM. AND REPL. EX. CURB BEGIN TRANS. TO 4" SLOPED CURB

GUARDRAIL END OFFSET = 6"

JCN telecom

telecom

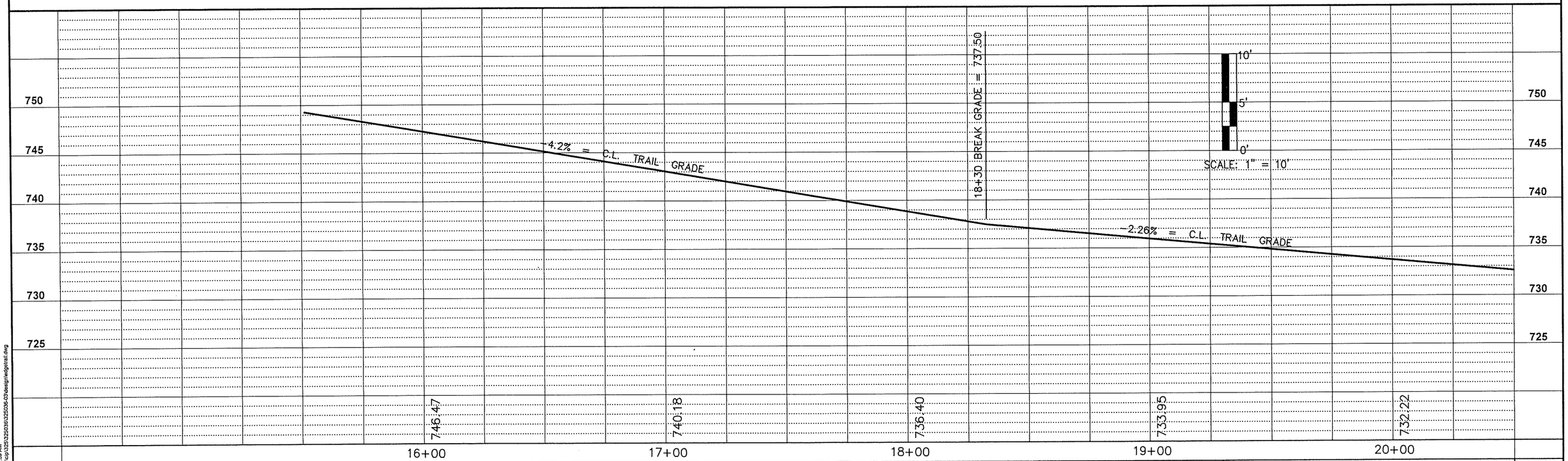
MidAm. gas

EDGEWOOD ROAD

18+79 END TRANS. FROM 4" SLOPED CURB

TYPE A COMB. RET. WALL–SIDEWALK NOTES:
THE WALL HEIGHT SHALL BE 3.0'
THE MIN. WALL THICK. TO BE 10"
MIN. 12" WALL THICKNESS AT END TO ACCOMODATE THE OM–3R SIGN
HORIZONTAL WIDTH AT BRIDGE=7.25'
HORIZONTAL WIDTH AT S. END=18'
EXT. VERT. WALL 18" BELOW TRAIL (IN ACCORD. WITH TYPE B DETAIL)
ADD 4w3 BARS FROM THE REIN. BAR LIST. DO NOT INCLUDE WEEP HOLES

0 40
SCALE IN FEET



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

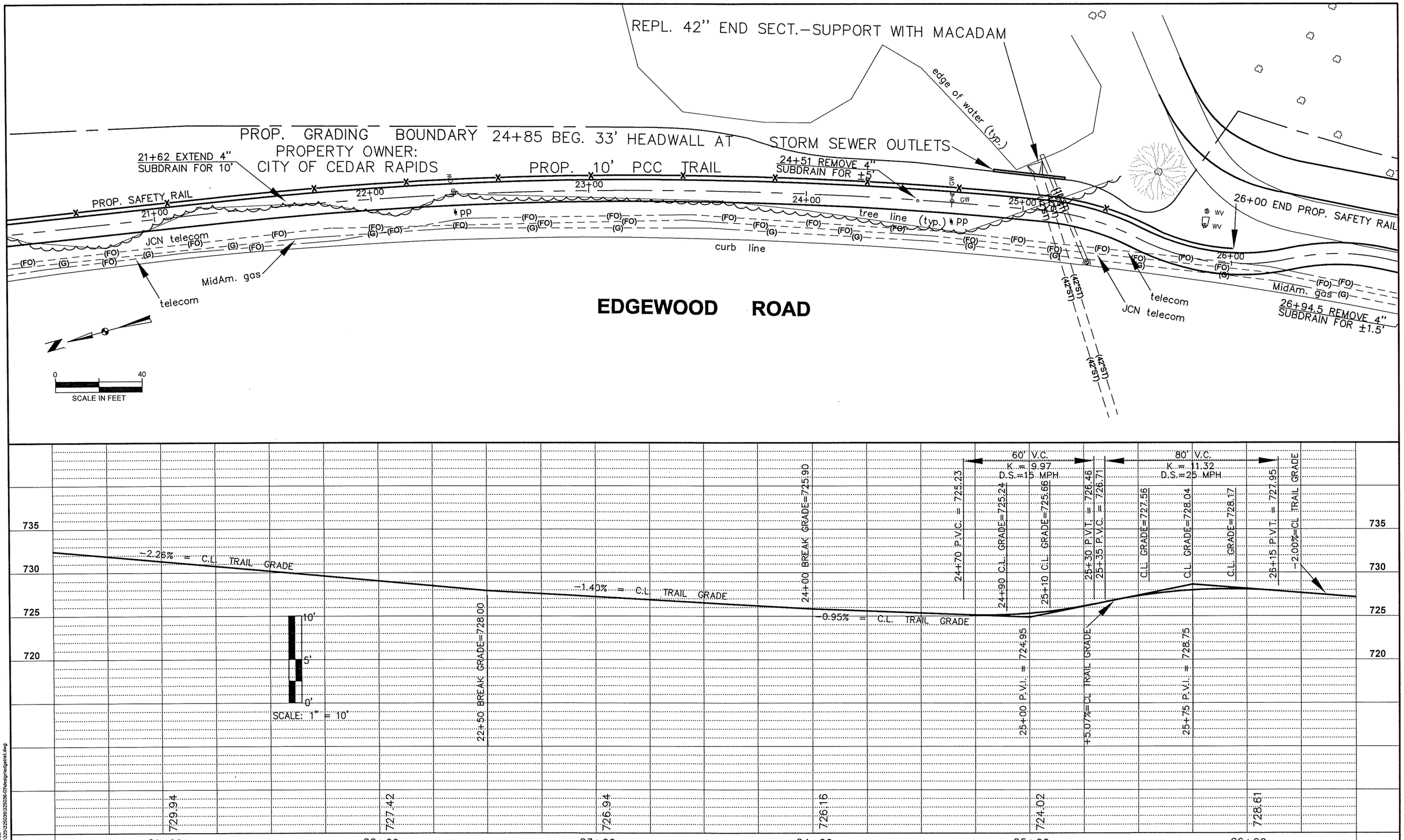
EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

PLAN AND PROFILE

TAP-U-1187(797)--8I-57

SHEET No.
D.01

Plot Date: 9/27/2019 7:59 AM
File Name: w:\projects\cip\325\325036\325036-03\design\edgeinal.dwg



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

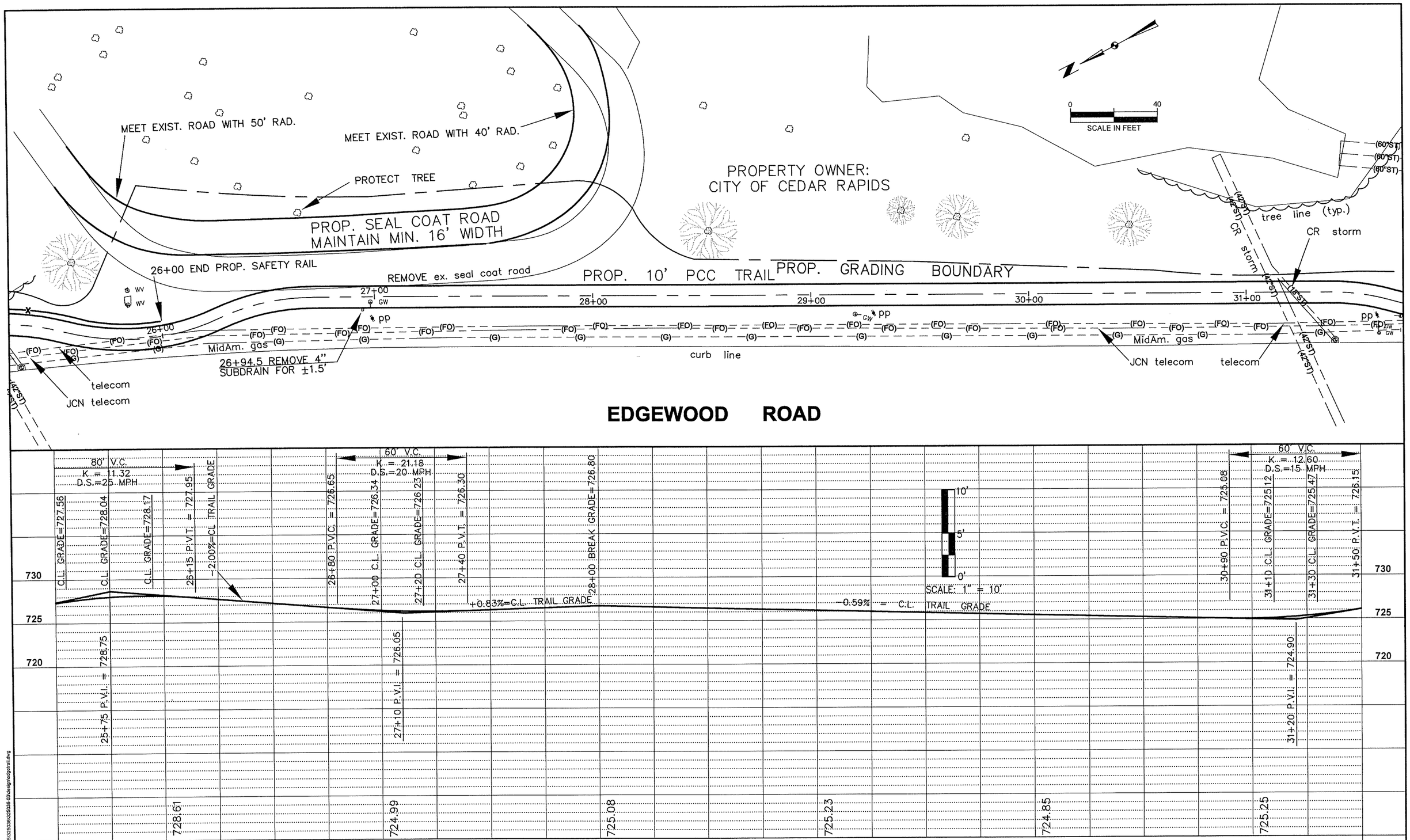
EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

PLAN AND PROFILE

TAP-U-1187(797)--8I-57

SHEET No.
D.02

Plot Date: 8/27/2019 8:00 AM
File Name: w:\projects\cip\325\325036\325036-03\design\widgetrail.dwg



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

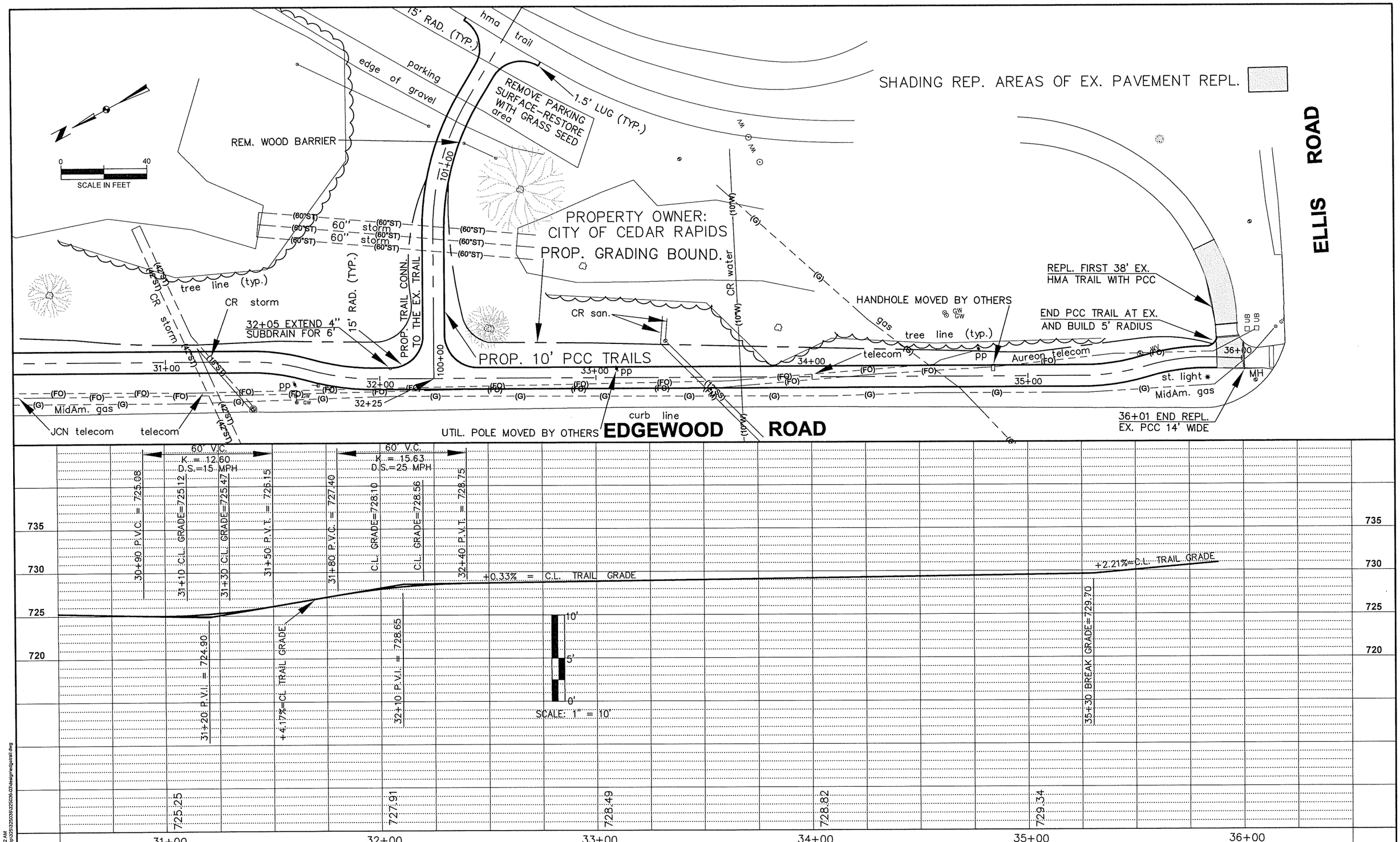
EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

PLAN AND PROFILE

TAP-U-1187(797)--8I-57

SHEET No.
D.03

Plot Date: 8/27/2019 8:01 AM
File Name: w:\projects\cip\325\325036\325036-03\design\edgeplan.dwg



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

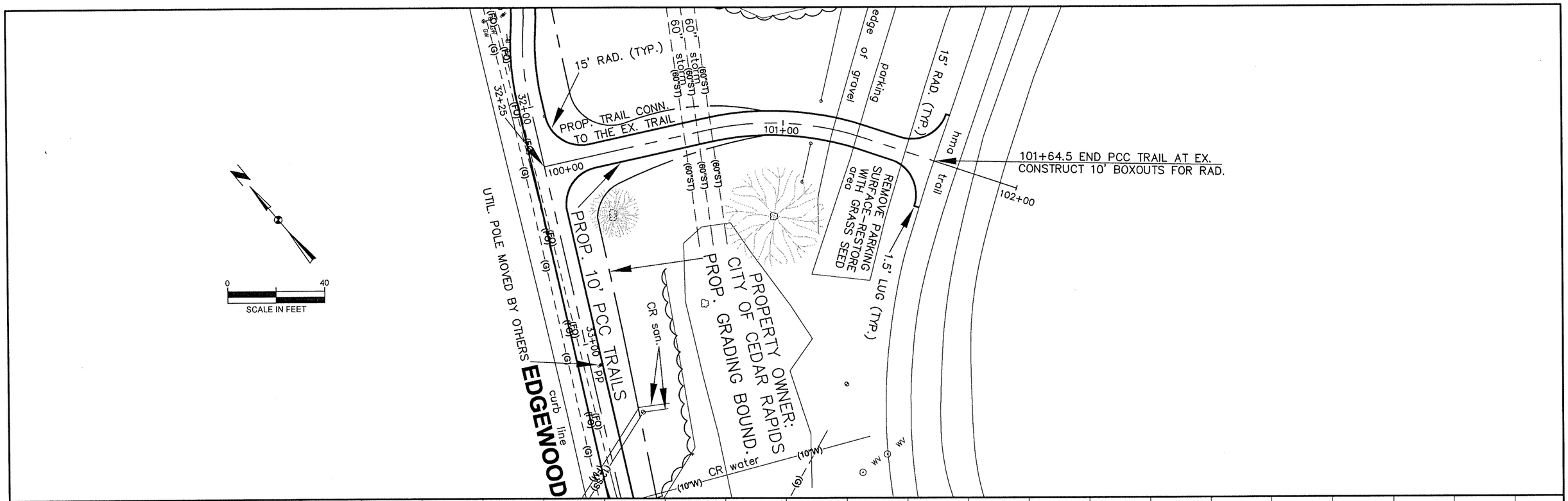
EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

PLAN AND PROFILE

TAP-U-1187(797)--8I-57

SHEET No.
D.04

Plot Date: 8/27/2019 8:02 AM
File Name: w:\projects\p325\325036\325036-03\design\edgptrail.dwg



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

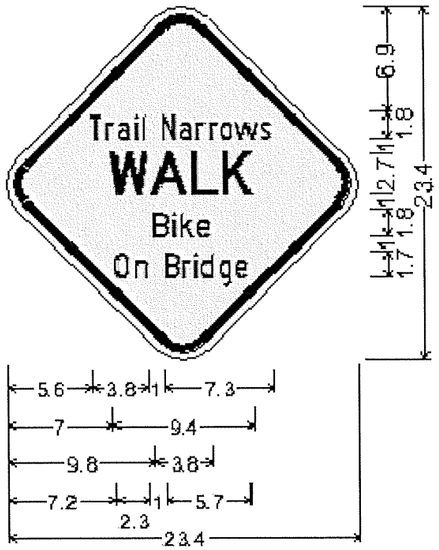
EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

PLAN AND PROFILE

TAP-U-1187(797)--8I-57

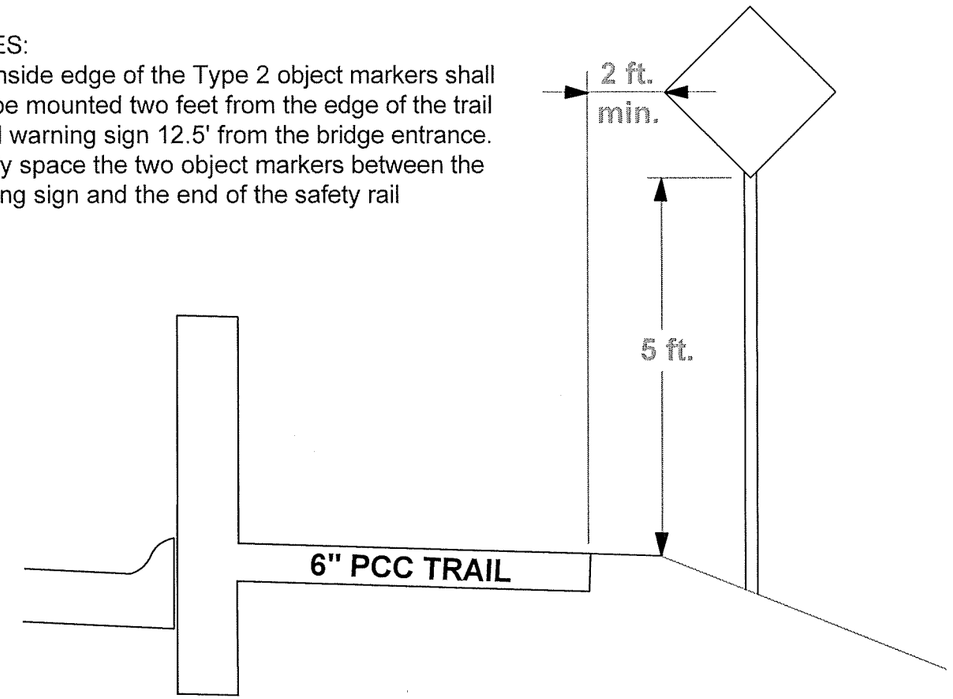
SHEET No.
E.01

Plot Date: 8/27/2019 8:02 AM
File Name: w:\projects\cip\325\325036\325036-03\design\edgetrail.dwg



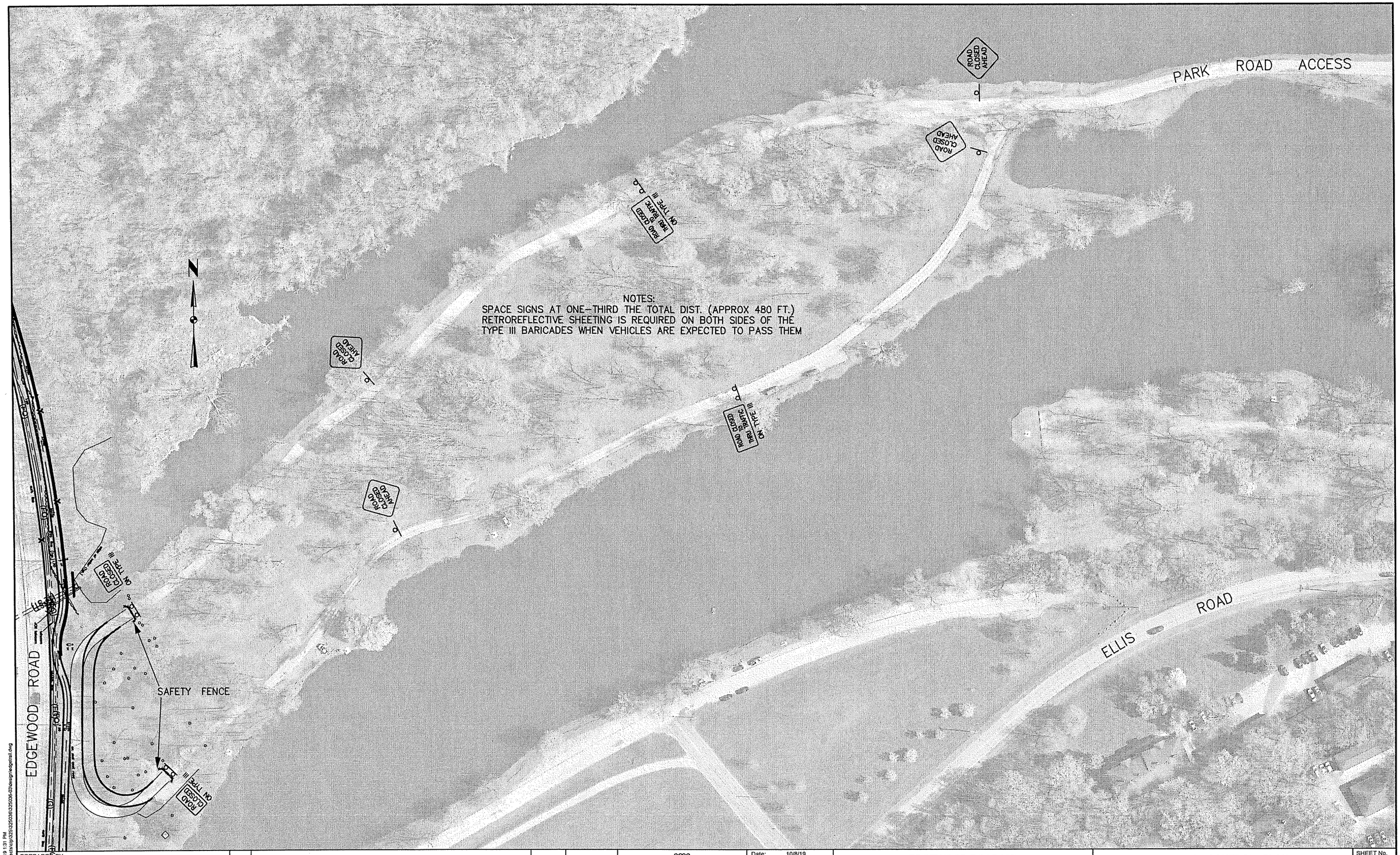
18.0" across sides 2.5" Radius, 0.5" Border, 0.5" Indent, Black on Yellow;
"Trail" C 2K; "Narrows" C 2K;
"WALK" D 2K; "Bike" C 2K;
"On" C 2K; "Bridge" C 2K;

NOTES:
The inside edge of the Type 2 object markers shall also be mounted two feet from the edge of the trail
Install warning sign 12.5' from the bridge entrance.
Evenly space the two object markers between the warning sign and the end of the safety rail



TRAFFIC CONTROL NOTES

1. Traffic control for maintaining traffic during construction shall conform to Standard Road Plans (listed on the Title Sheet) and Traffic Control Drawings.
2. Only major stages of construction are shown in the Staging and Traffic Control Plan. The contractor is responsible for providing detailed traffic control plans for any other stages that may be required. Changes to the staging plan must be approved by the engineer. Adjustment to advanced signage and barricading as required to combine stages are subject to Engineer approval and are considered incidental.
3. Traffic Control shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, as adopted by the Department per 761 of the Iowa Administrative Code (IAC), Chapter 130.
4. Furnish and install all traffic control devices and maintain in the correct position. Promptly clean and replace damaged traffic control devices.
5. Posted speed limits are as follow:
   · Edgewood Road - 45 mph
6. Contractor shall coordinate with other projects in the area.
7. Some construction may require temporary lane closures not shown in the plans.
   Refer to Part 6 of the MUTCD for standard lane closure signage.
8. The location for storage of equipment by the Contractor during non-working hours shall be as approved by the Engineer.
9. A lane closure may only take place on Edgewood Road (see Standard Road Plan TC-418) and can only be during the time concrete is being poured or work directly related to the guardrail or combination sidewalk and retaining wall is taking place. Contact City of Cedar Rapids Public Works at 286-5802 at least 72 hours before the lane closure occurs.
10. Proposed sign spacing may be modified as approved by the Engineer to meet existing field conditions or to prevent obstructing the view of motorists.
11. Proposed changes to the traffic control plan shall be reviewed by the Engineer in charge of construction before they are implemented.
12. All traffic control devices shall be furnished, erected, maintained and removed by the Contractor.
13. The trail may be closed a maximum of seven days for constructing the pavement depicted on Sheet J.03. Type III barricades, meeting the requirements of NCHRP Report 350, must be installed and extend the full width of the trail. The top rail of the barricade is to be 36 to 42 inches above the trail surface. It must also be parallel to the bottom rail and situated to allow pedestrians to use it as a guide for their hands. The toe rail on the barricades must have minimal sight distance restrictions for road users.
14. The Contractor must provide 10 calendar days advance notification of this trail path closure to:
    a. Iowa Dept. of the Blind: Director Office, phone 515-281-1336, website: www.blind.state.ia.us
    b. National Fed. of the Blind of Iowa: Pres., phone: 319-321-8769, e-mail: donna.prime@nfb.org
    c. Engineer



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

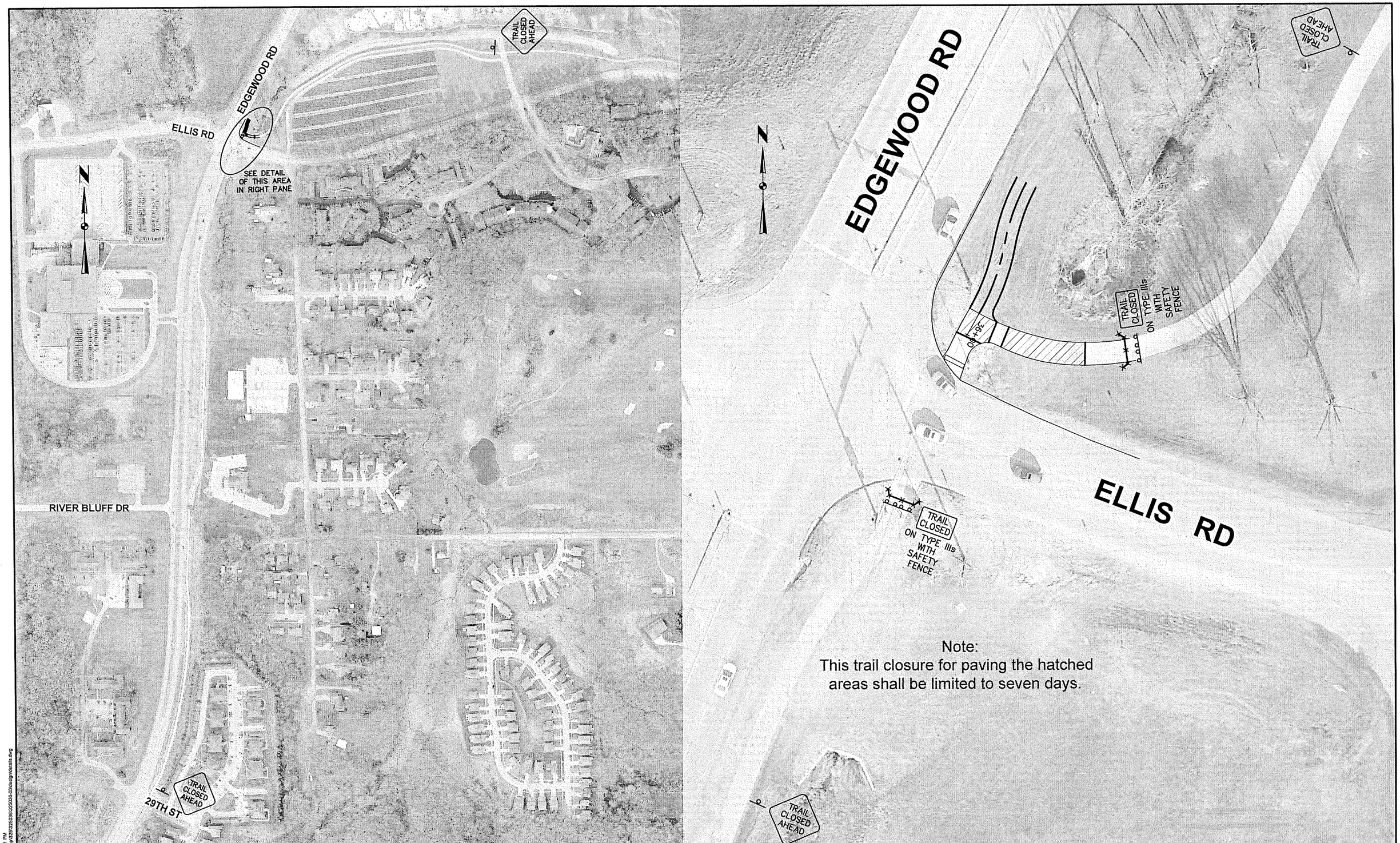
EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

TRAFFIC CONTROL PLAN

TAP-U-1187(797)--8I-57

SHEET No.
J.02

Plot Date: 8/14/2019 1:31 PM
File Name: w:\projects\cip\325\325036\325036-03\design\edgetrail.dwg



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

TRAFFIC CONTROL PLAN
TAP-U-1187(797)--8I-57

SHEET No.
J.03

Plot Date: 8/14/2019 2:31 PM
File Name: w:\projects\cip\325\325036\325036-03\design\details.dwg

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).

This Base 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.

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Is signature authority on the Base PPP.

B. Contractor:
1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. 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.
2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Specifications Section 2602.
3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Specifications Section 2602.
4. Installs and maintains appropriate controls. This work may be subcontracted.
5. Supervises and implements good housekeeping practices.
6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement durning winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
7. Complies with training and certification requirements of Specifications Section 2602.

C. Subcontractors:
1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if responsible for sediment or erosion controls or involved in land disturbing activities. 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.
2. Implement good housekeeping practices.

D. RCE/Project Engineer:
1. Is Project Storm Water Manager.
2. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
3. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
4. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
5. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirments.
6. Is familiar with the Project PPP and storm water site map.
7. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
8. Is signature authority on Notice of Discontinuation.

E. Inspector:
1. Updates 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.
2. Maintains an up-to-date record that identifies contractors and subcontractors as co-permittees.
3. Makes these plans available to the DNR upon their request.
4. Conducts joint required inspections of the site with the contractor/subcontractor.
5. Completes an inspection report after each inspection.
6. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of a PCC multiuse pathway.

B. This PPP covers approximately 2.75 acres with an estimated 2.6 acres being disturbed. The portion of the PPP covered by this contract has 2.6 acres disturbed.

C. The PPP is located in an area of 2 soil associations, being: Fayette and Colo-Chequest-Titus. The estimated weighted average runoff coefficient number for this PPP after completion will be 0.38.

D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
1. Drainage patterns – Plan and Profile sheets and Situation plans.
2. Proposed Slopes – Cross Sections.
3. Areas of Soil Disturbance – construction limits shown on Plan and Profile sheets.
4. Location of Structural Controls – Erosion Control Plan sheets.
5. Locations of Non-structural Controls – minimize land disturbance and maintain existing vegetation throughout the project in accordance with Plan and Profile sheets.
6. Locations of Stabilization Practices – generally within construction limits shown on Plan and Profile sheets.
7. Surface Waters (including wetlands) – Project Location Map and Plan and Profile sheets.
8. Locations where storm water is discharged – Plan and Profile sheets.

E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries.

POLLUTION PREVENTION PLAN
110–12L
10–16–18

F. Runoff from this work will flow into Manhattan Lake, Robbins Lake and the Cedar River.

III. CONTROLS

A. The contractor's ECIP 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.

B. Preserve vegetation in areas not needed for construction.

C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations 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.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices
1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
a) Permanently ceased on any portion of the site, or
b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
4) Permanent and Temporary Stabilization practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4).
5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional information may be found in Tabulations in the C or T sheets of the plans or is referenced in Standard Specifications Section 2105.

b. Structural Practices
1) 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. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
2) Structural practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of 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 on the B sheets of the plans or are referenced in the Standard Road Plans Tabulation (105-4).

c. Storm Water Management
1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS

a. 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 chemical spill and leak prevention and response 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 - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
7) Concrete Grooving/Grinding Slurry – Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
8) Vehicle and Equipment Storage and Maintenance Areas - 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. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
9) Litter Management - Ensure employees properly dispose of litter. Minimuze exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.
10) Dewatering – Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

3. 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.

IV. 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.

POLLUTION PREVENTION PLAN
110–12L
10–16–18

V. INSPECTION REQUIREMENTS

A. 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:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

B. 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 within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is imparacticable and indicate an estimated date by which the corrections will be made.

VI. 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 headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. 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.

VIII. DEFINITIONS

A. Base PPP - Initial Pollution Prevention Plan.
B. Amended PPP - May include Plan Revisions or Contract Modifications for new items, storm water monitoring inspection reports, and fieldbook entries made by the inspector.
C. IDR - Inspector's Daily Report – this contains the inspector's daily diary and bid item postings.
D. 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. Also called Best Management Practices (BMPs).
E. Signature Authority - Representative authorized to sign various storm water documents.

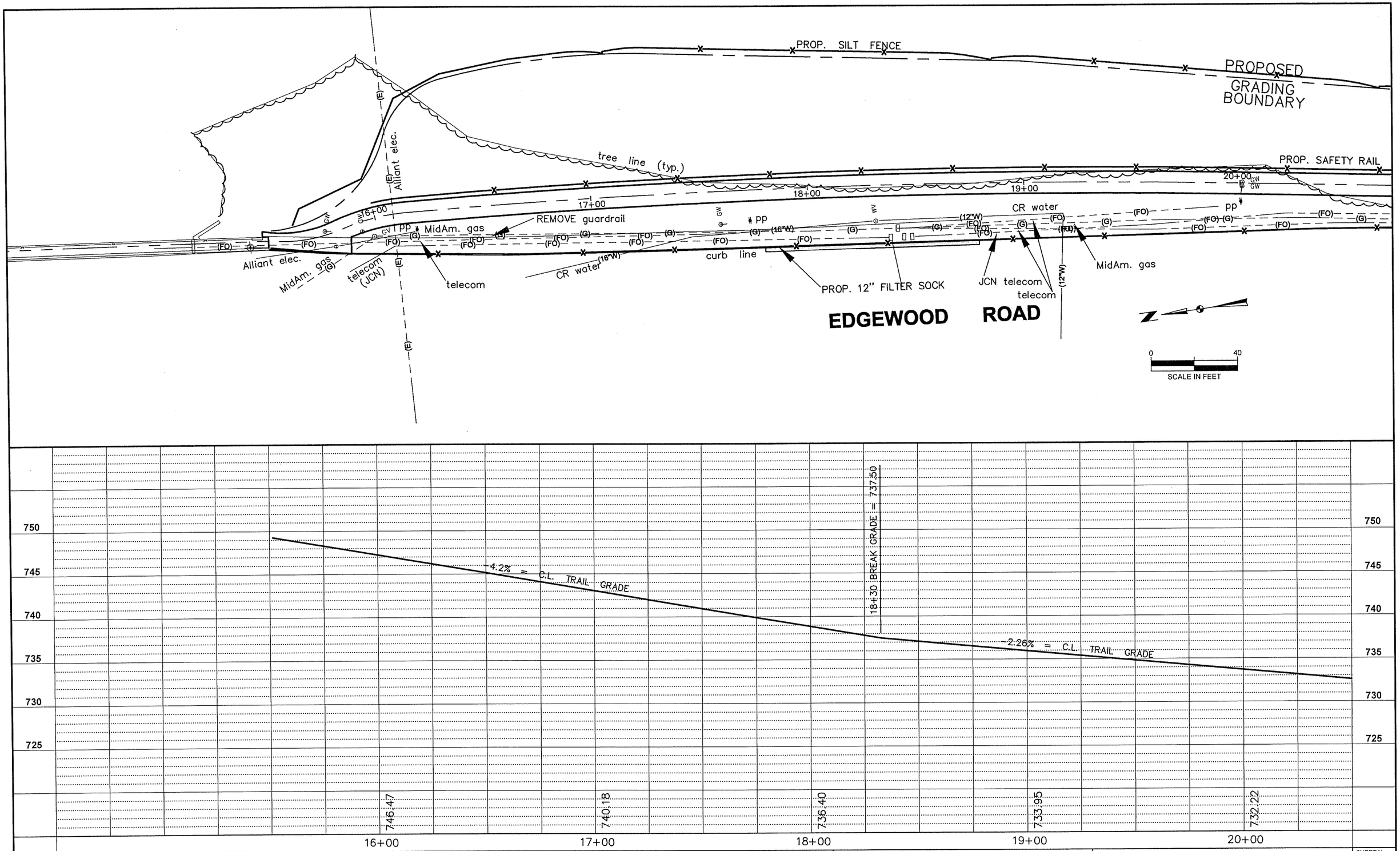
CERTIFICATION STATEMENT

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.

Glenn Vosatka
Signature
GLENN VOSATKA
Printed or Typed Name

Signature

Printed or Typed Name



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

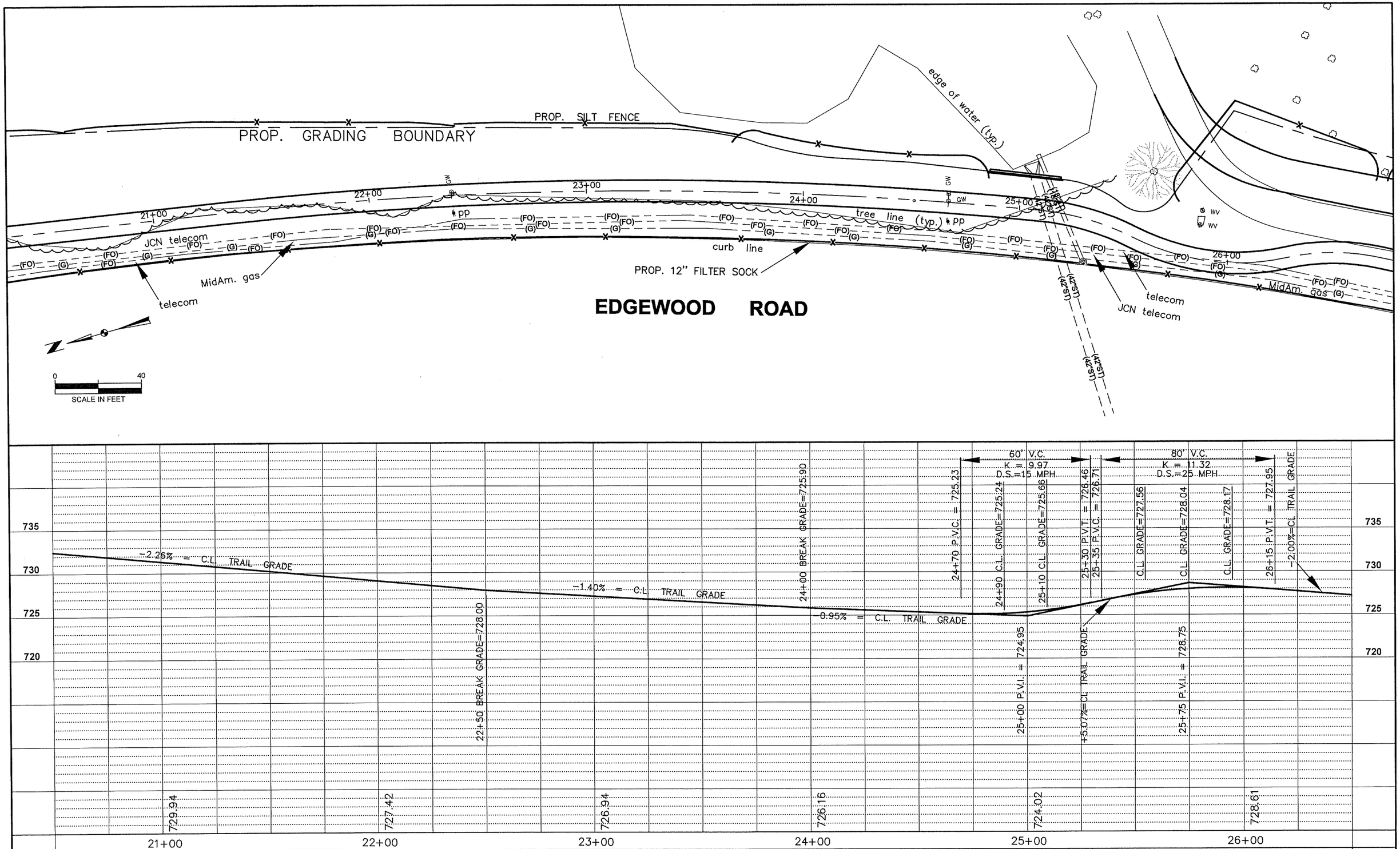
CEDAR RAPIDS
City of Five Seasons

Date: 10/88/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

EROSION CONTROL PLAN
TAP-U-1187(797)--8I-57

SHEET No.
RR.01



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

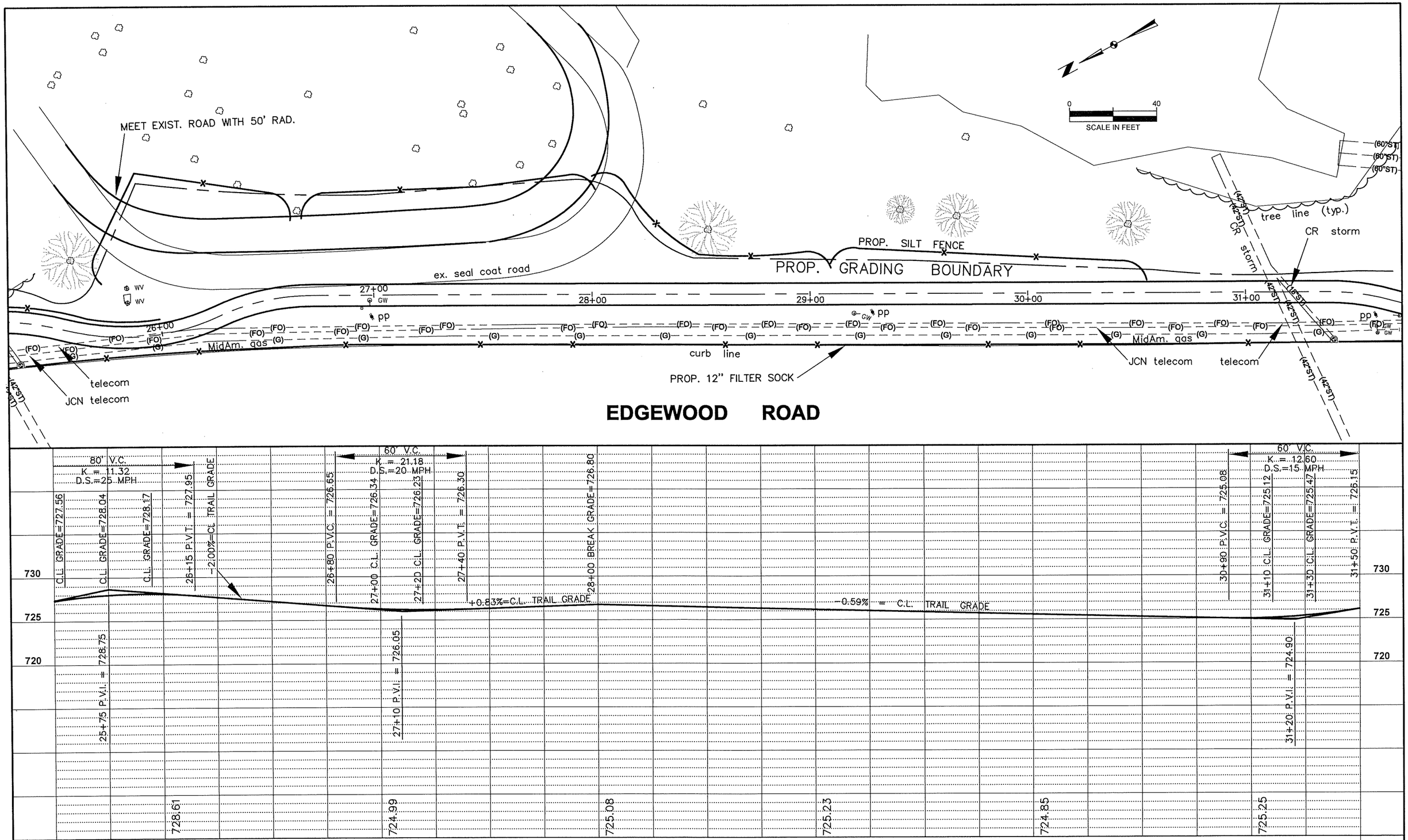
Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

EROSION CONTROL PLAN

TAP-U-1187(797)--8I-57

SHEET No.
RR.02



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

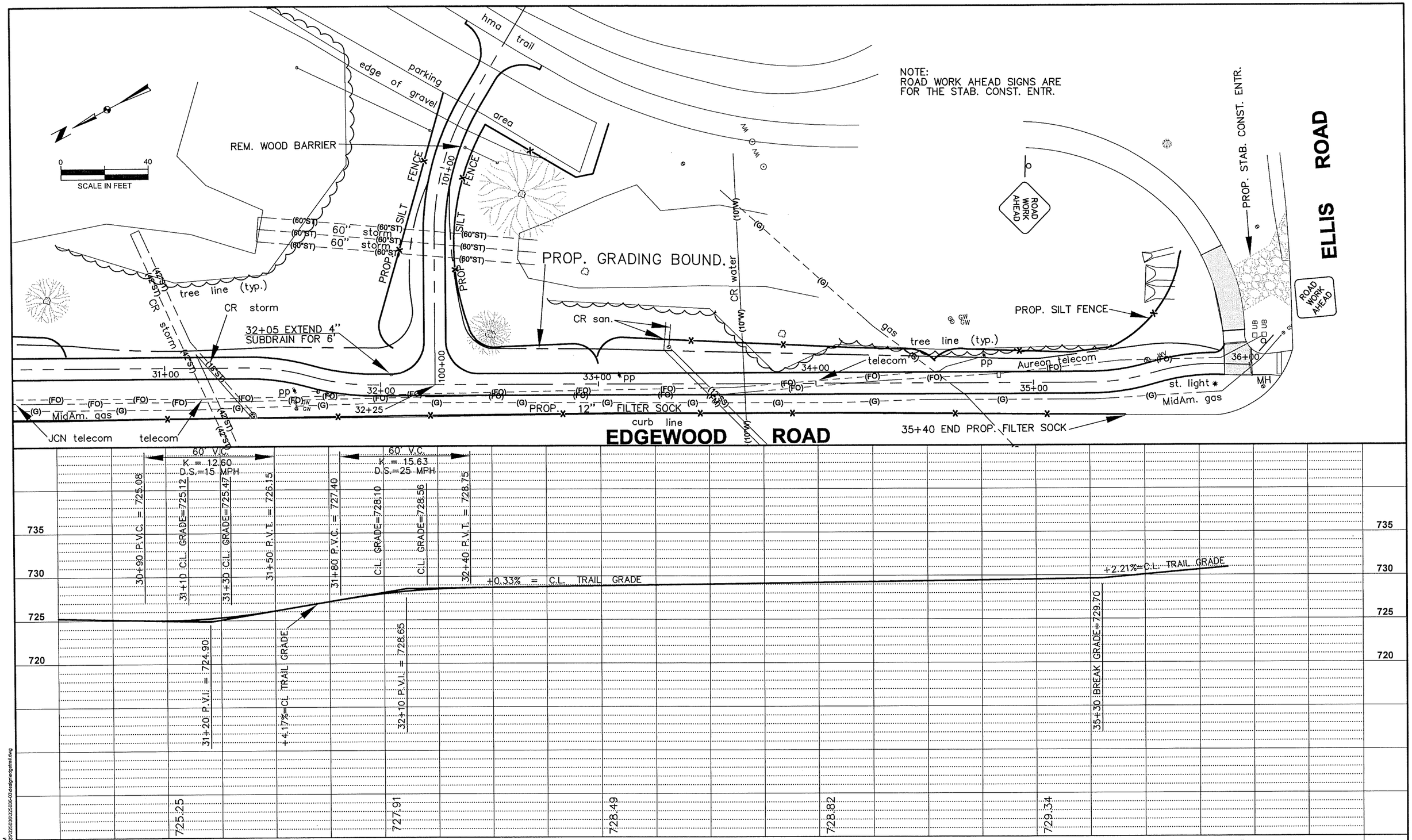
Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

EROSION CONTROL PLAN

TAP-U-1187(797)--8I-57

SHEET No.
RR.03



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

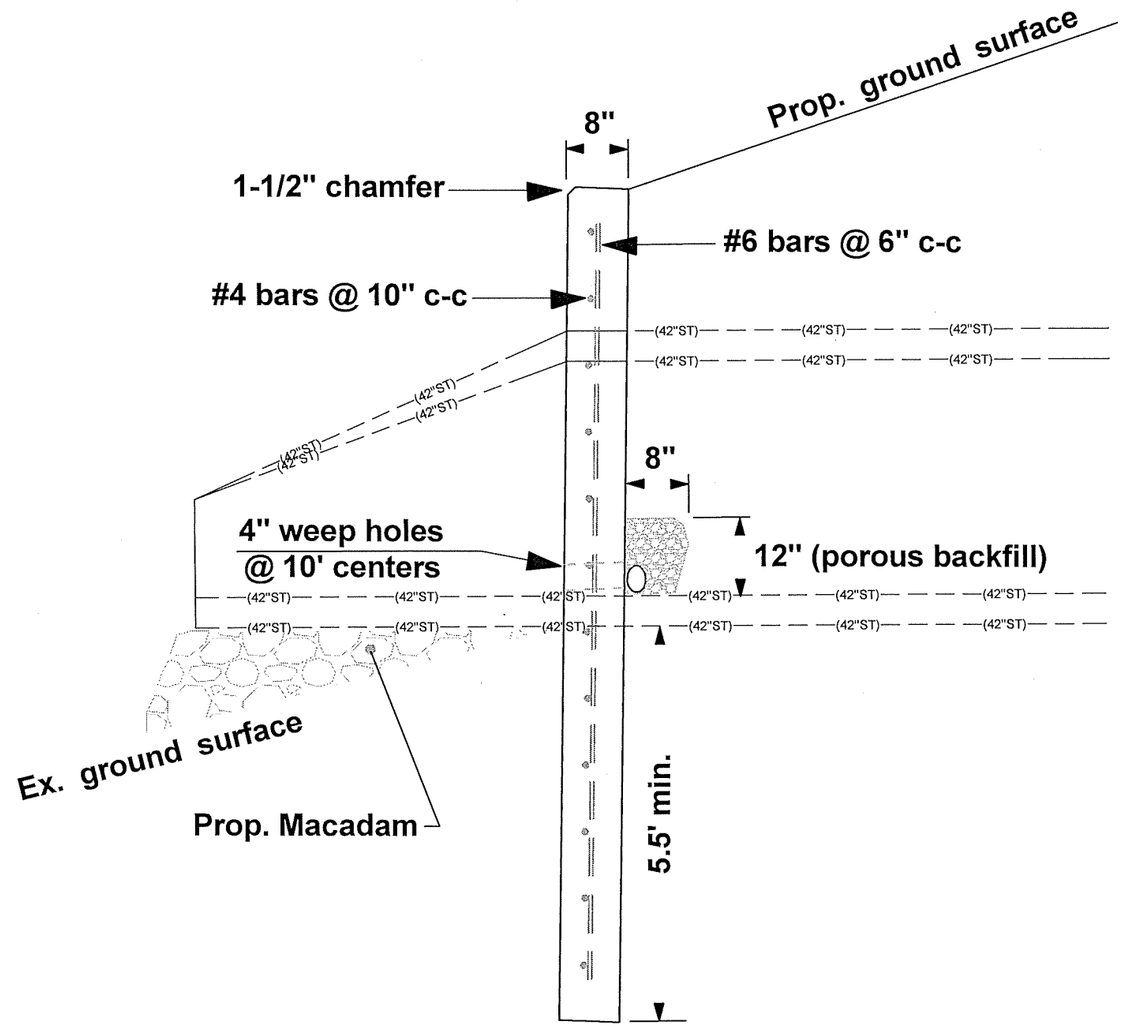
EDGEWOOD ROAD NW
PORTLAND CEMENT CONCRETE TRAIL
FROM THE CEDAR RIVER TO ELLIS ROAD

EROSION CONTROL PLAN

TAP-U-1187(797)--8I-57

SHEET No.
RR.04

Plot Date: 8/14/2019 1:36 PM
File Name: K:\projects\projects\325036\325036\325036-03\design\edgetrail.dwg

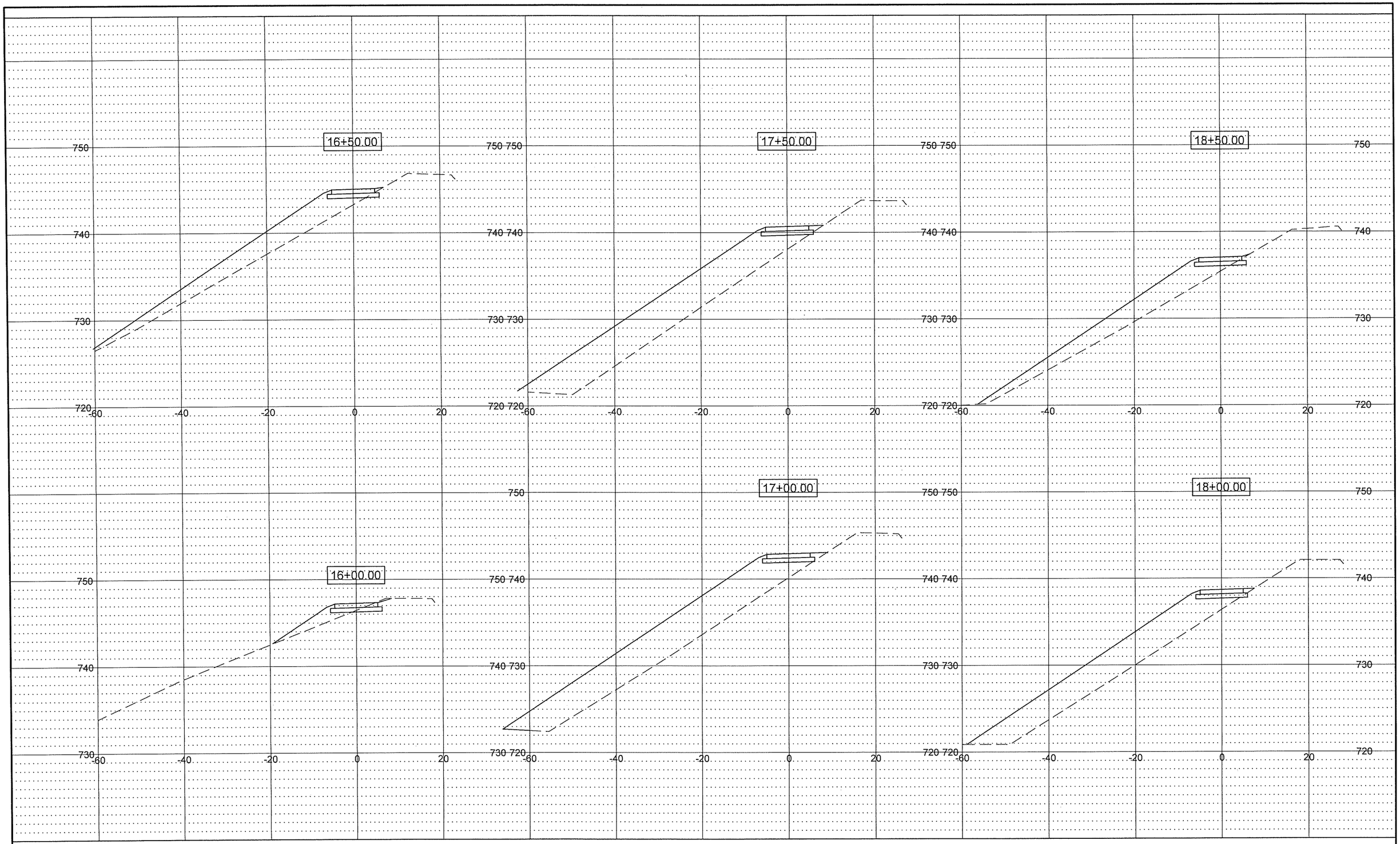


HEADWALL DETAIL

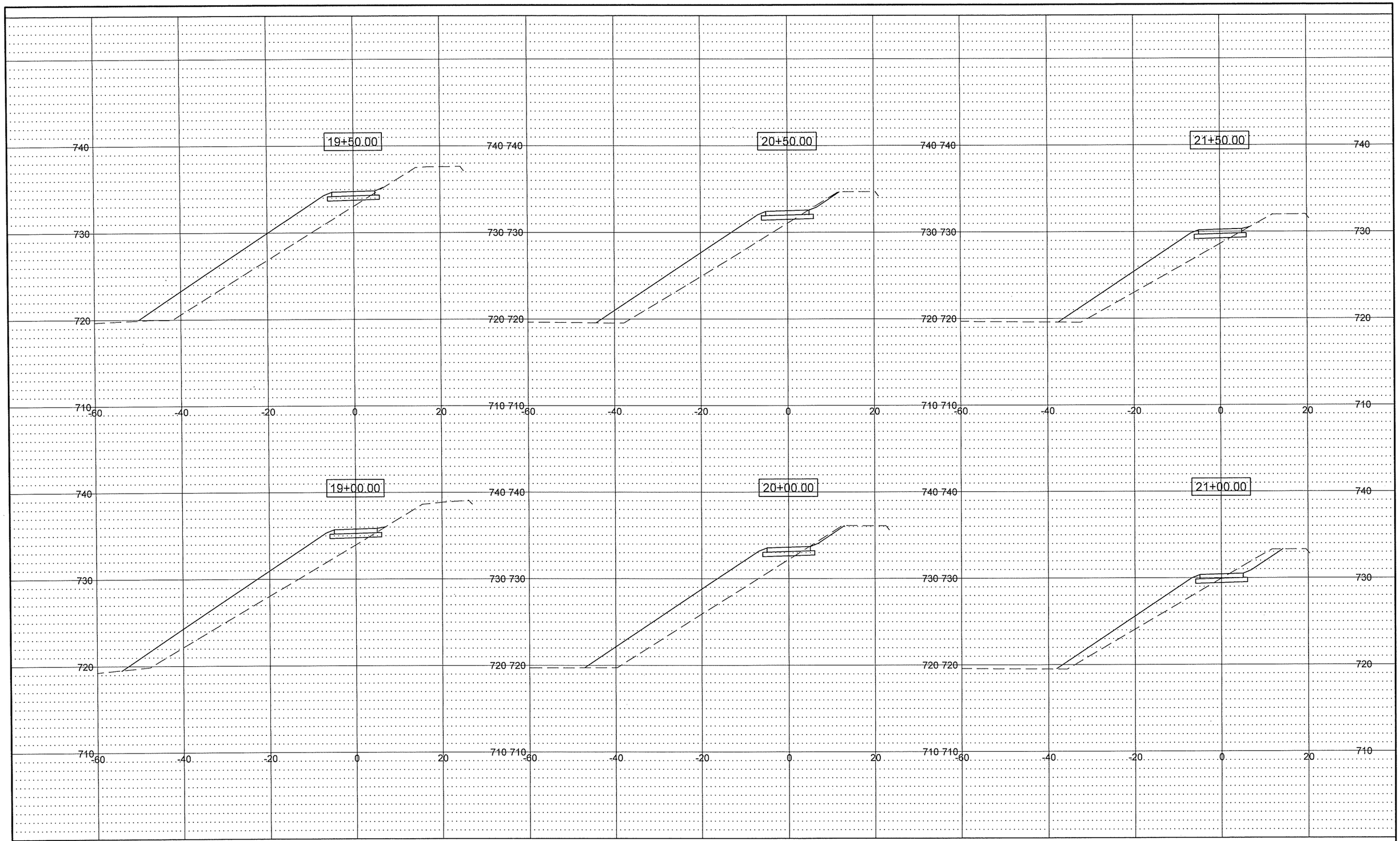
NO SCALE

NOTES:
INSTALL RODENT GUARDS IN WEEP HOLES
BATTER WALL $\frac{1}{4}''$ PER ONE FOOT

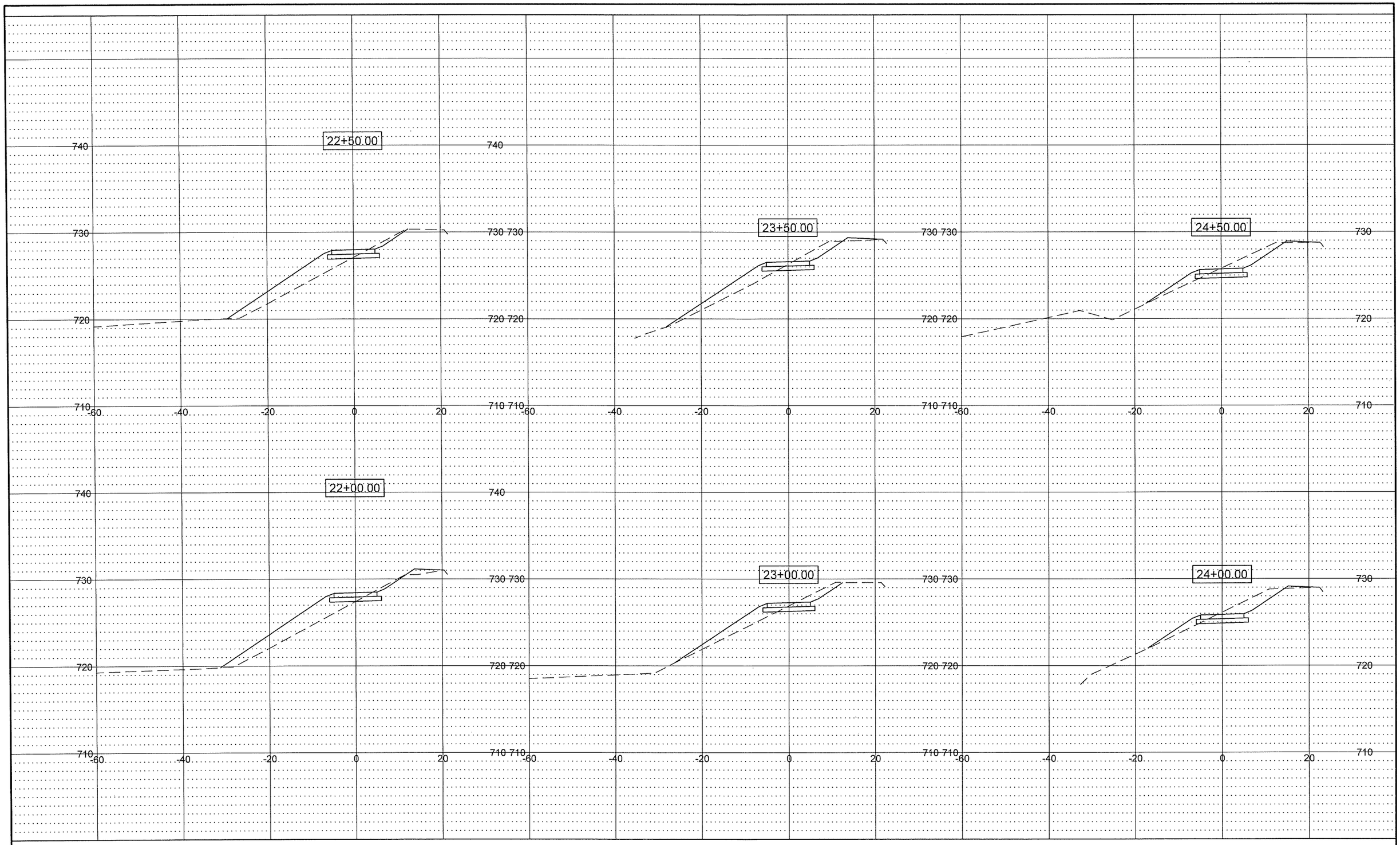
PREPARED BY:								
CITY OF CEDAR RAPIDS, PUBLIC WORKS 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404 PHONE: 319-286-5802	No.	REVISION DESCRIPTION	APPROVED	DATE	CEDAR RAPIDS City of Five Seasons	Date: 10/8/19 Drawn By: GV Approved By: BLF CIP No: 325036	EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL FROM THE CEDAR RIVER TO ELLIS ROAD	HEADWALL DETAILS TAP-U-1187(797)--8I-57	SHEET No. V.01



PREPARED BY: CITY OF CEDAR RAPIDS, PUBLIC WORKS 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404 PHONE: 319-286-5802	No.	REVISION DESCRIPTION	APPROVED	DATE	CEDAR RAPIDS City of Five Seasons	Date 10/8/19: Drawn By: GV Approved By: BLF CIP No: 325036-03	EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL FROM THE CEDAR RIVER TO ELLIS ROAD	CROSS-SECTIONS TAP-U-1187(797)--8I-57	SHEET No. W.01



PREPARED BY:							
CITY OF CEDAR RAPIDS, PUBLIC WORKS 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404 PHONE: 319-286-5802	No.	REVISION DESCRIPTION	APPROVED	DATE	CEDAR RAPIDS City of Five Seasons	Date: 10/8/19 Drawn By: GV Approved By: BLF CIP No: 325036-03	EDGEWOOD ROAD NW PORTLAND CEMENT CONCRETE TRAIL FROM THE CEDAR RIVER TO ELLIS ROAD	CROSS-SECTIONS TAP-U-1187(797)--8I-57	SHEET No. W.02



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

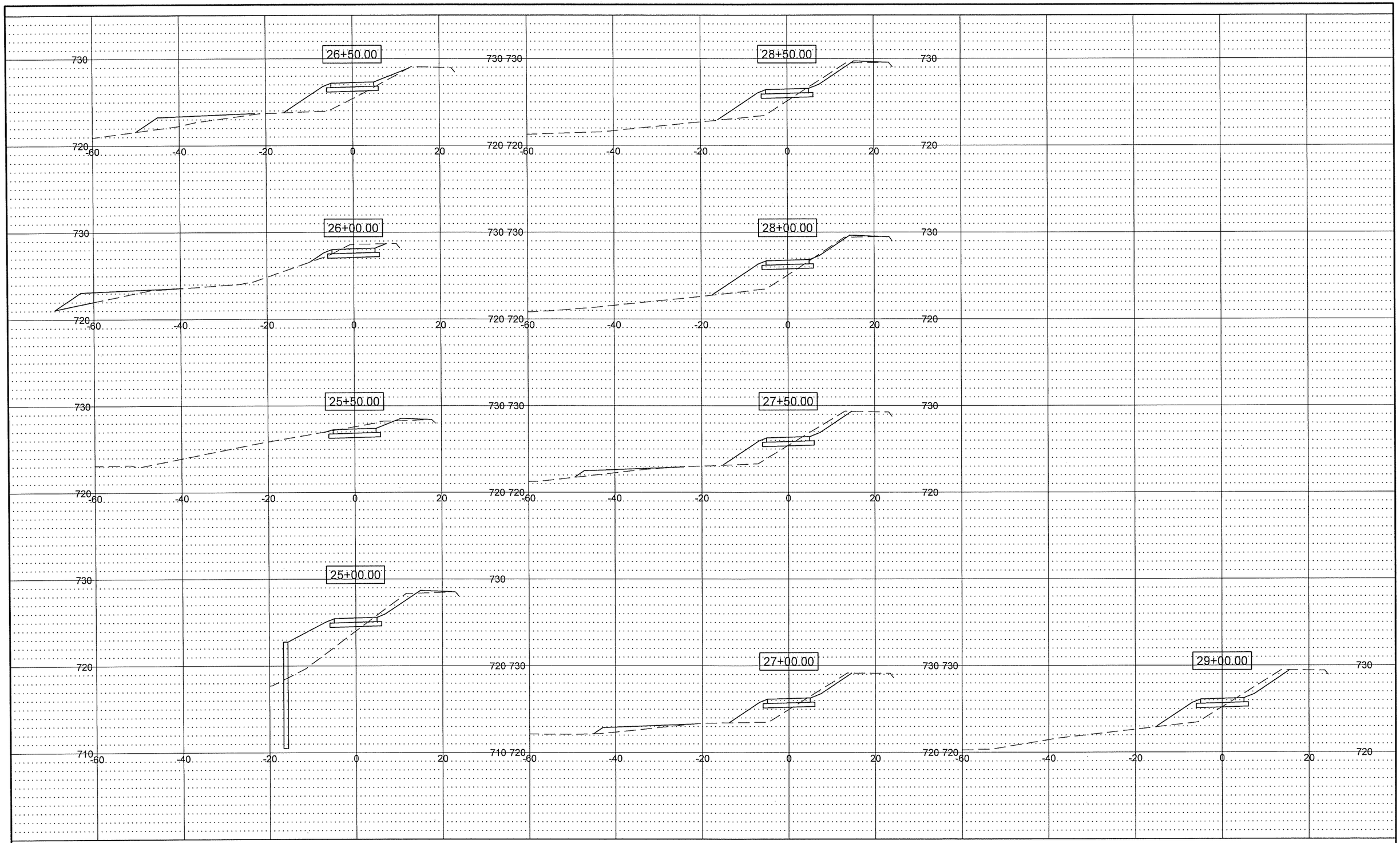
Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD FROM
GLASS ROAD NE TO ELLIS ROAD NW
PORTLAND CEMENT CONCRETE TRAIL

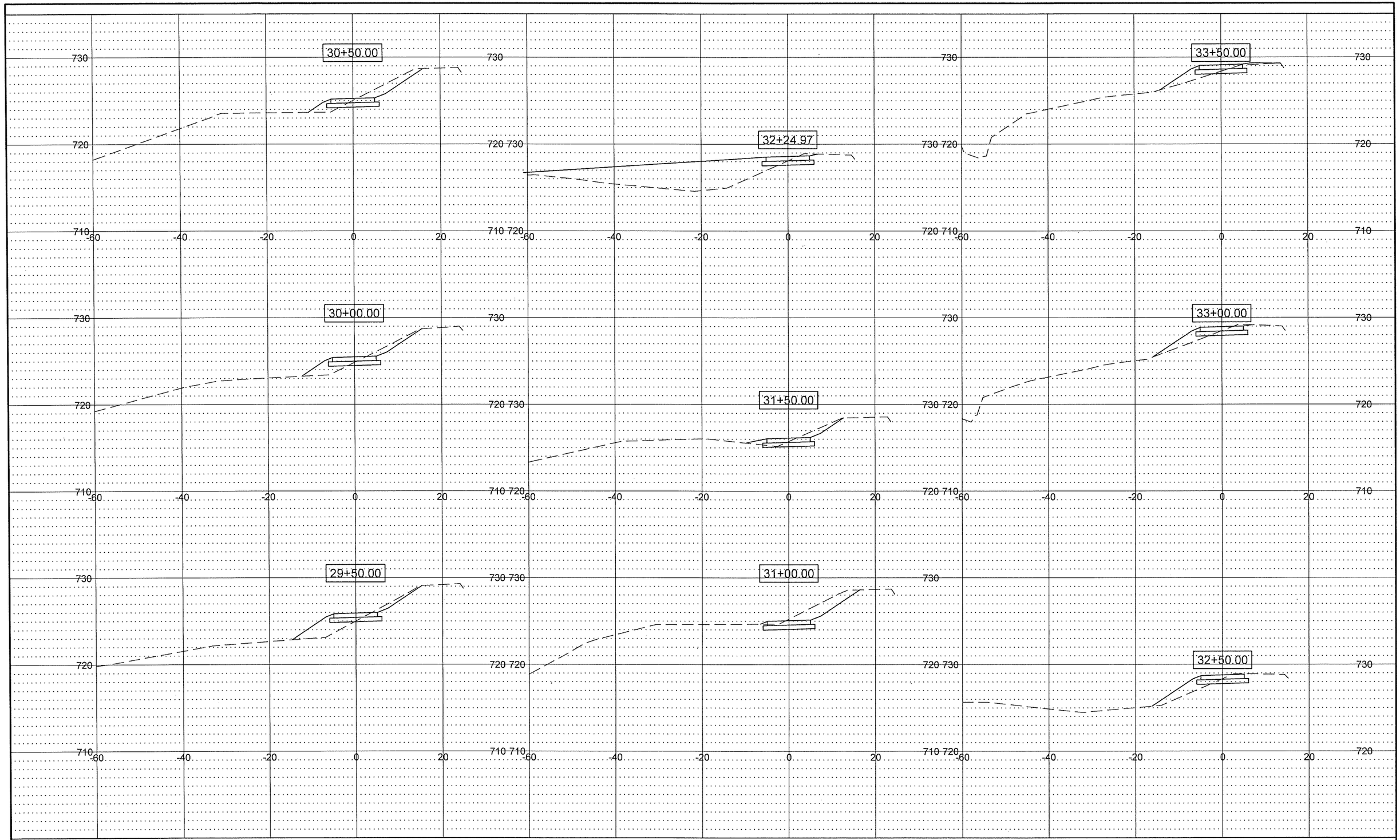
CROSS-SECTIONS

TAP-U-1187(797)--8I-57

SHEET No.
W.03



PREPARED BY: CITY OF CEDAR RAPIDS, PUBLIC WORKS 500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404 PHONE: 319-286-5802	No.	REVISION DESCRIPTION	APPROVED	DATE	CEDAR RAPIDS City of Five Seasons	Date: 10/8/19 Drawn By: GV Approved By: BLF CIP No: 325036-03	EDGEWOOD ROAD FROM GLASS ROAD NE TO ELLIS ROAD NW PORTLAND CEMENT CONCRETE TRAIL	CROSS-SECTIONS TAP-U-1187(797)--8I-57	SHEET No. W.04



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

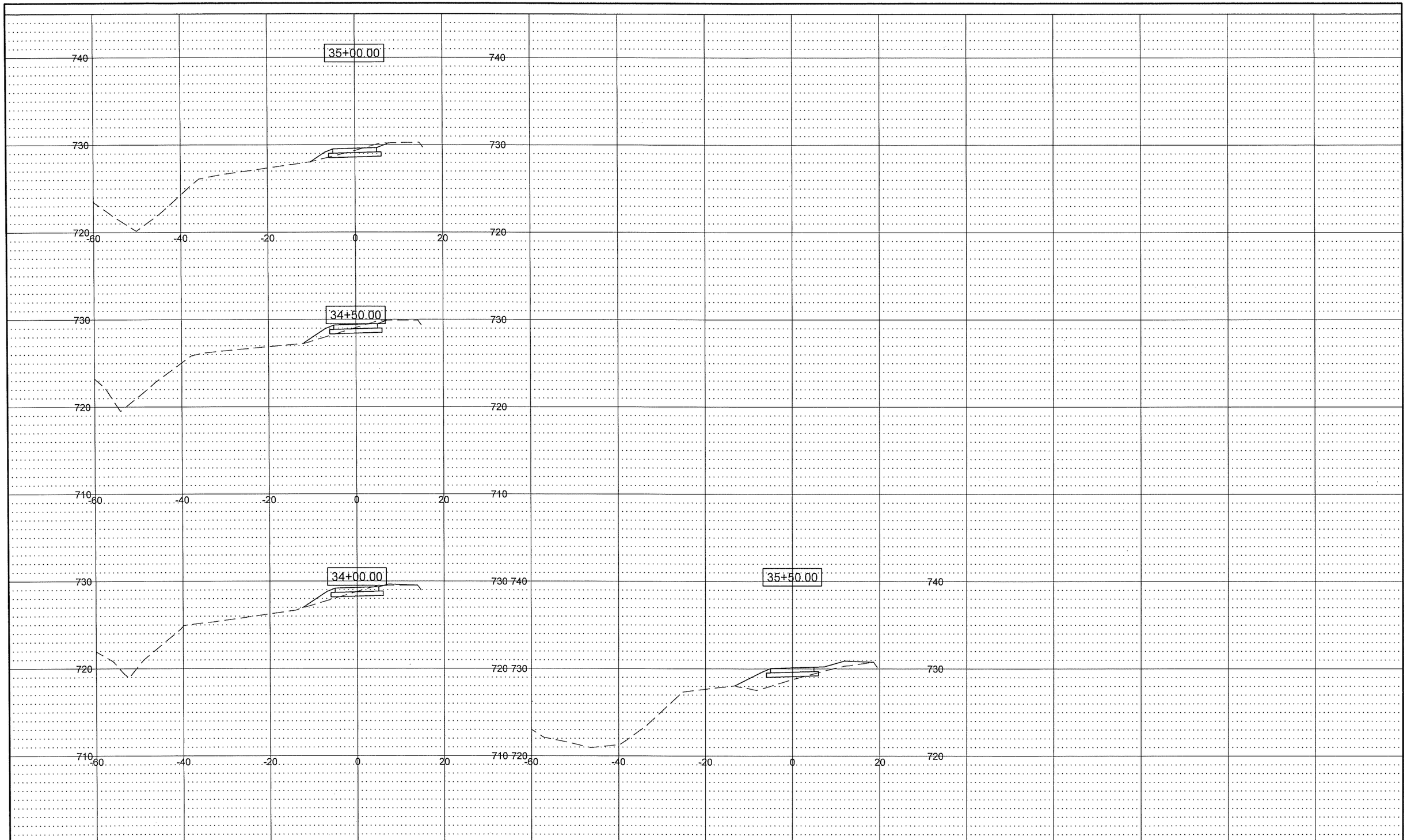
Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD FROM
GLASS ROAD NE TO ELLIS ROAD NW
PORTLAND CEMENT CONCRETE TRAIL

CROSS-SECTIONS

TAP-U-1187(797)--8I-57

SHEET No.
W.05



PREPARED BY:
CITY OF CEDAR RAPIDS, PUBLIC WORKS
500 15TH AVENUE SW, CEDAR RAPIDS, IA 52404
PHONE: 319-286-5802

No.	REVISION DESCRIPTION	APPROVED	DATE

CEDAR RAPIDS
City of Five Seasons

Date: 10/8/19
Drawn By: GV
Approved By: BLF
CIP No: 325036-03

EDGEWOOD ROAD FROM
GLASS ROAD NE TO ELLIS ROAD NW
PORTLAND CEMENT CONCRETE TRAIL

CROSS-SECTIONS

TAP-U-1187(797)--8I-57

SHEET No.
W.06