



SECTION 404 PERMIT AND CONDITIONS

This project doesn't involve placing more than 0.1 acres of permanent fill into "Waters of the United States". Construct this project according to the requirements of U.S. Army Corps of Engineers Nationwide Permit 14, Fact Sheet No. 8(IA). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.

STORM WATER PERMIT

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.

IOWA DEPARTMENT OF TRANSPORTATION
Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE
FARM-TO-MARKET SYSTEM
MUSCATINE COUNTY
PCC PAVEMENT – GRADE AND REPLACE

On 230th Street G28
From Louisa County Line to Iowa 70

Scales: As Noted

Refer to the Proposal Form for list of Applicable Specifications.

Value Engineering Saves. Refer to Article 1105.13 of the Specifications.

For Tabulation of Standard Road Plans, Refer to Sheet No. C.6.

For List of Utilities, Refer to Sheet No. C.5.

Project No. FM-C070(78)--55-70

SHEET TOTAL 33

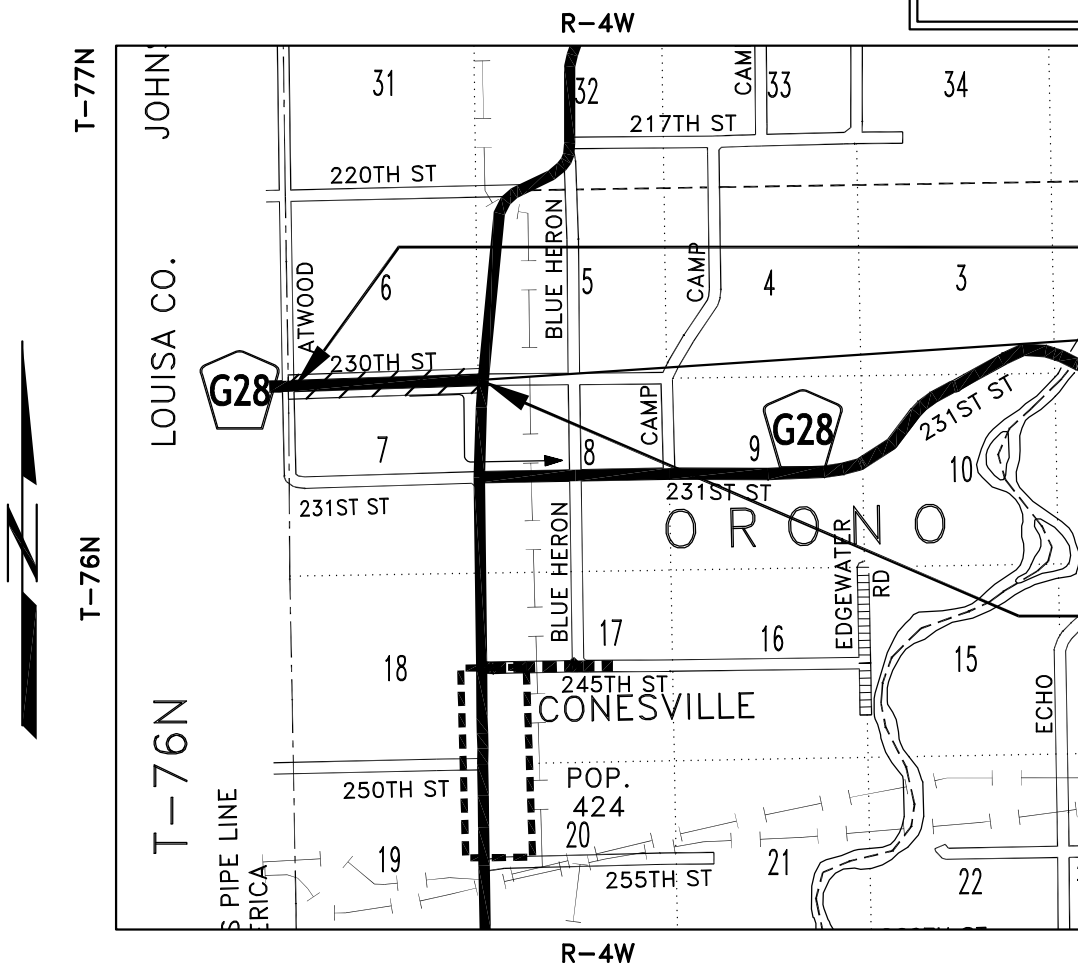
INDEX OF SHEETS

No.	Description
A.1	TITLE SHEET
B.1–B.3	TYPICAL CROSS SECTIONS AND DESIGN DETAILS
C.1–C.17	ESTIMATE OF QUANTITIES, REFERENCE INFORMATION, AND TABULATIONS
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MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
	STA -1+00 TO STA 54+44 (230th STREET G28)	5,544.00	1.031
	BRIDGE STA 31+52.17 TO STA 32+28.83	76.67	0.015
	TOTAL:	5467.33	1.017



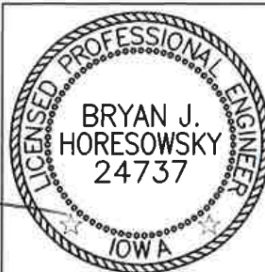
BEGIN PROJECT
STA -1+00

END PROJECT
STA 54+44

101-4 04-30-02			
DESIGN DATA RURAL			
2022	AADT	840	V.P.D.
2042	AADT	1008	V.P.D.
20	DHV		V.P.H.
TRUCKS		10	%
Total			
Design	ESALs		

Handwritten signatures and initials in blue ink.

Approved By:
The Muscatine County Board of Supervisors

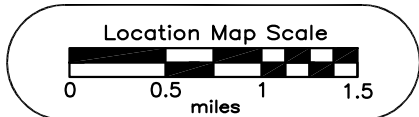
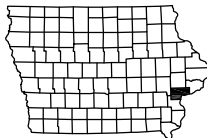


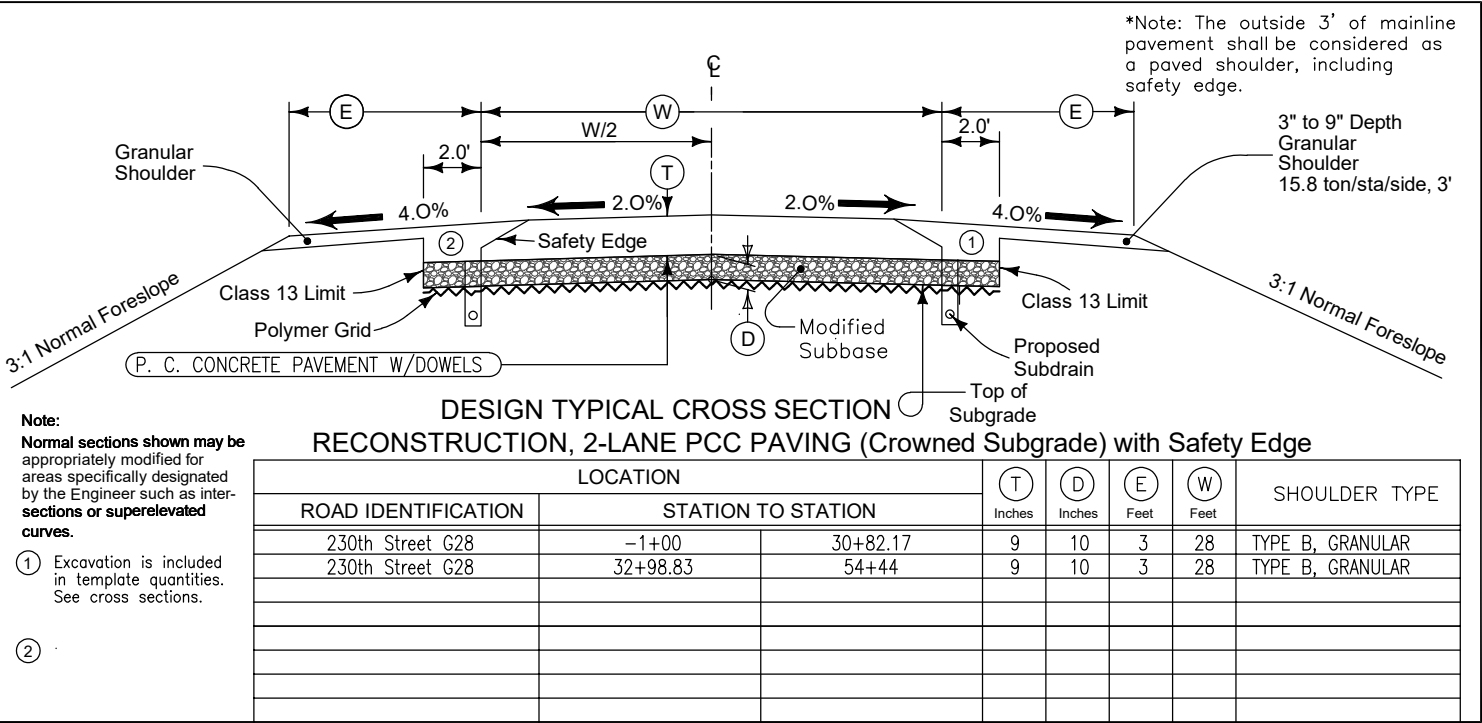
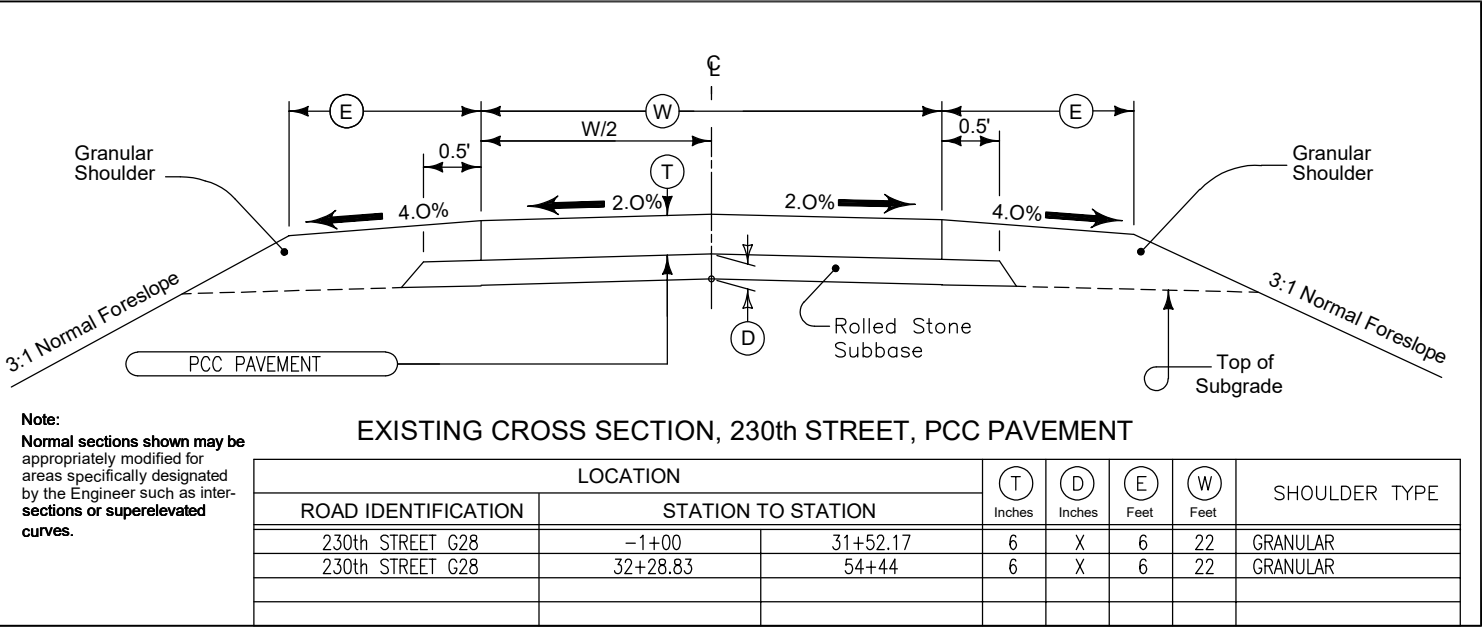
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

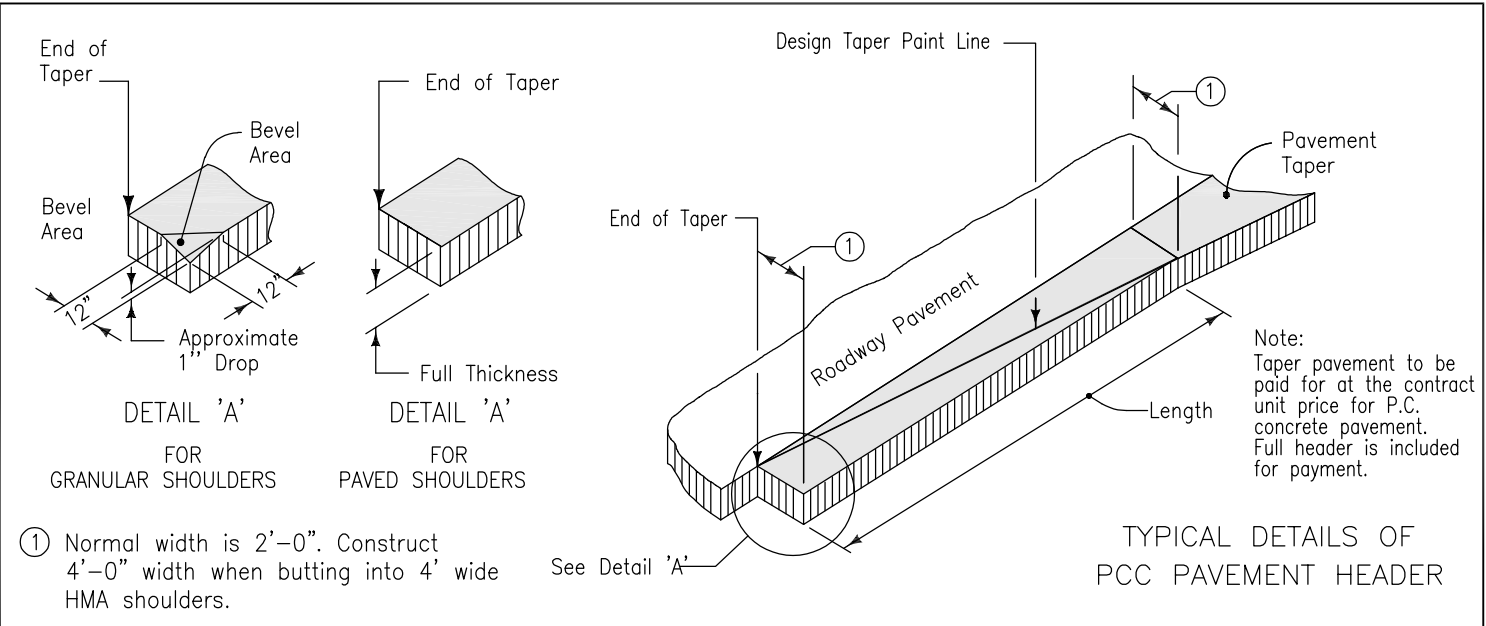
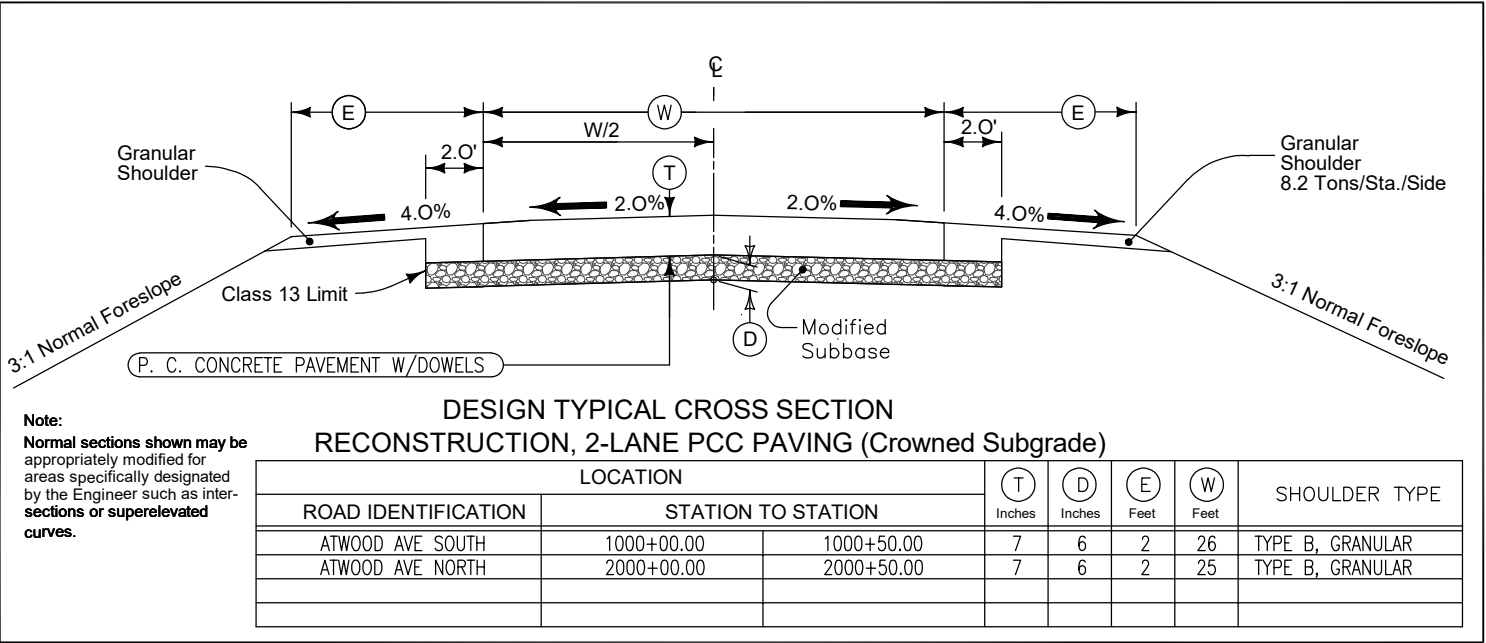
Signed: *Bryan J. Horesowsky* Date: 5/4/26
Printed or Typed Name: Bryan J. Horesowsky

My license renewal date is December 31, 2027.

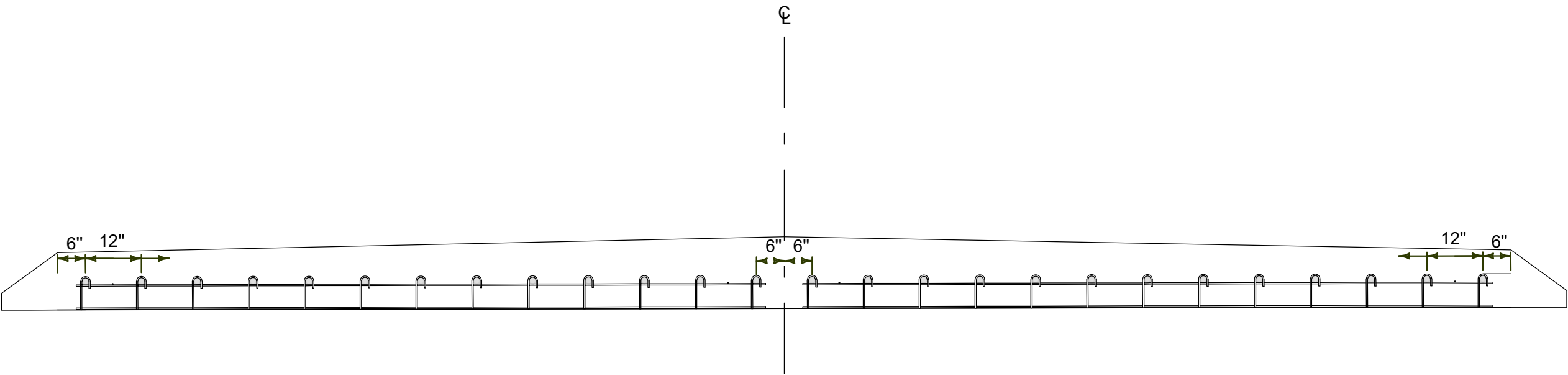
Pages or sheets covered by this seal: ALL PAGES



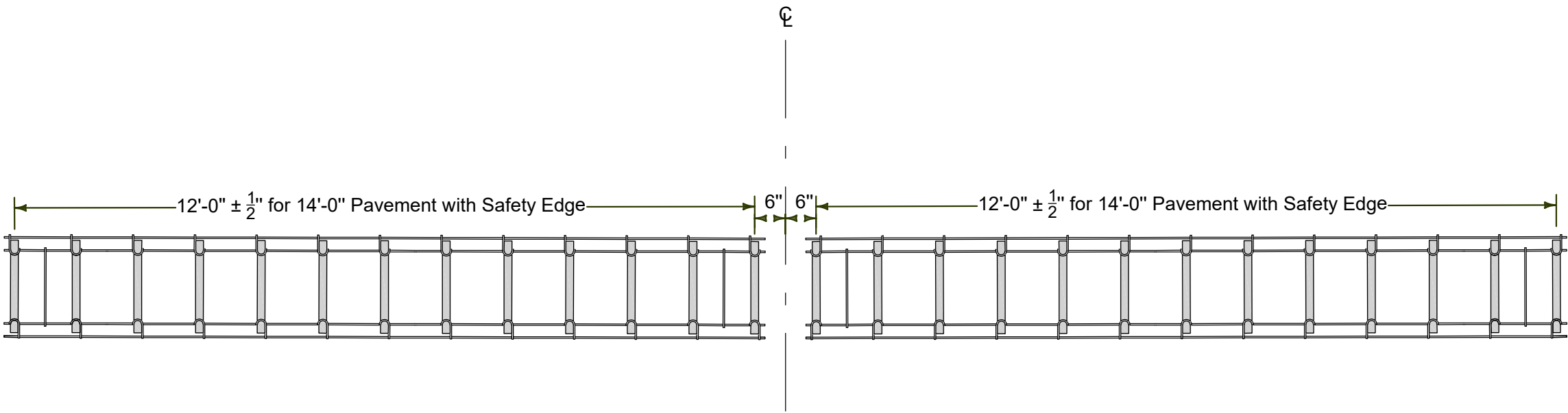




CONTRACTION JOINTS



ELEVATION



PLAN

TYPICAL DETAIL OF "CD" BASKETS
FOR CONTRACTION JOINTS

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Division 1	
1	2102-2625000	EMBANKMENT - IN-PLACE	CY	714	Type "A" compaction will be required on all embankments, unless specified otherwise. No payment for overhaul will be made on this project. Bid Item includes 424 CY for intersections.
2	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	8,400	See all sheets for details. Type "A" compaction will be required on all embankments. 4000 CY shall be hauled and stockpiled for county use to new Muscatine County out shed site at 2445 Independence Ave, Letts, Iowa 52754. Remaining material shall be hauled off site to a suitable location agreeable to the engineer. No payment for overhaul will be made on this project. This item shall be completed prior to paving. Bid Item includes 340 CY for intersections.
3	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	363	See tabulation on Sheet C.13. See "L" Sheets for locations and details. Bid Item includes 75 CY for intersection returns.
4	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID	SY	19,508.5	See "B" and "L" Sheets for locations and details. Bid Item includes 564 SY for intersection returns.
5	2115-0100000	MODIFIED SUBBASE	CY	3,113	See "B" and "L" Sheets for locations and details. Subgrade shall be cut to final grade elevation in accordance with Article 2109.03,A.10 of Section 2109. Profile and cross section tolerances for modified subbase are +0 to -0.05 foot. No heavy equipment will be allowed on the finish subbase, except for at time of paving operation. Bid Item includes 262 CY for intersection returns.
6	2115-0100200	MODIFIED SUBBASE, PLACE ONLY	CY	2,284	See "B" and "L" Sheets for locations and details. Subgrade shall be cut to final grade elevation in accordance with Article 2109.03,A.10 of Section 2109. Profile and cross section tolerances for modified subbase are +0 to -0.05 foot. No heavy equipment will be allowed on the finish subbase, except for at time of paving operation. This item is for placement of crushed pavement subbase, paid for under bid item #25.
7	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	2,010	See "B" and "L" Sheets for locations and details. Bid Item quantity based on a unit weight of 140 lbs/cu.ft. The contractor will be required to place and compact this material in a minimum of two equal lifts. The contractor may be required to pre-wet material to provide sufficient compaction. Pre-wetting of material shall be included in this bid item. Bid Item includes 65 tons for intersections.

8	2213-7100400	RELOCATION OF MAIL BOXES	EACH	5	The contractor shall be required, if necessary, to remove and replace mailboxes (including 911 address signs as necessary) along the route to accommodate construction equipment or increase mailbox height due to new construction. The contractor shall be required to furnish new 4"x4" treated wood posts if existing posts are damaged during relocation or do not meet break away standards. Method of measurement shall be for removal and replacement of each mailbox. Basis of payment for removal and replacement of each mailbox shall be full compensation for furnishing all materials, equipment, labor, and for performance of all work necessary. This bid item shall include the 911 address signs with no additional measurement or payment. This bid item shall also include all temporary mailboxes as necessary with no additional measurement or payment. This bid item shall also include the removal and disposal of any concrete mailbox footings discovered within the project limits with no additional measurement or payment. Contractor shall coordinate removals and temporary placements with the Post Office.
9	2301-0690201	BRIDGE APPROACH, BR-201	SY	435.4	See tabulation on Sheet C.12. P.C. concrete shall be a "C" mix with coarse aggregate of class 3 durability. No class "F" fly ash will be allowed. Longitudinal grooving will be required in accordance with Article 2301.03,H,3,c,3. Section 2521 certified plant inspection shall apply to this item. Section 2317 pavement smoothness shall apply to this item. The maturity method as described in materials I.M. 383 shall be used to determine time of opening.
10	2301-1033070	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 7 IN.	SY	635	See "B" and "L" Sheets for locations and details. P.C. concrete shall be a "C" mix with coarse aggregate of class 3 durability. No class "F" fly ash will be allowed. Longitudinal grooving will be required in accordance with Article 2301.03,H,3,c,3. All pavement transverse contraction joints shall be "C" as detailed on Standard Road Plan PV-101. All pavement longitudinal contraction joints shall be "L-1" as detailed on Standard Road Plan PV-101. Section 2521 certified plant inspection shall apply to this item. The maturity method as described in materials I.M. 383 shall be used to determine time of opening.
11	2301-1033090	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 9 IN.	SY	17,140	See "B" and "L" Sheets for locations and details. P.C. concrete shall be a "C" mix with coarse aggregate of class 3 durability. No class "F" fly ash will be allowed. Longitudinal grooving will be required in accordance with Article 2301.03,H,3,c,3. All pavement transverse contraction joints shall be "CD" placed on 15' spacing unless otherwise noted. All pavement transverse contraction joints shall be "CD" as detailed on Standard Road Plan PV-101. All pavement longitudinal contraction joints shall be "L-2" as detailed on Standard Road Plan PV-101. Section 2521 certified plant inspection shall apply to this item. The maturity method as described in materials I.M. 383 shall be used to determine time of opening. See Sheet B.3 for "CD" contraction joint basket details.
12	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1	
13	2301-9091000	RUMBLE STRIP PANEL (PCC SURFACE)	EACH	2	See tabulation on Sheet C.15.
14	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON	30	Material to be used on Atwood Ave. Surfacing shall be furnished and placed by the contractor in two equal lifts. The contractor shall compact each lift of material using a smooth drum roller.
15	2314-8257000	DUST CONTROL SURFACE TREATMENT	STA	79.2	This bid item is to be used on Atwood Ave and 231st Street when agreeable to the Engineer.

16	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE	TON	105	This bid item includes 7 private entrances at 15 tons each. Surfacing shall be furnished and placed by the contractor in two equal lifts. The contractor shall compact each lift of material using a smooth drum roller.
17	2317-7000110	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR PCC PAVEMENT SMOOTHNESS (BY SCHEDULE)	EACH	12,855	
18	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	11,400	See tabulation on Sheet CS.1. Material shall be hauled off site to a suitable location agreeable to the engineer. This item shall be completed after paving.
19	2502-8221306	SUBDRAIN OUTLET, DR-306	EACH	40	See tabulation on Sheet CS.1. Item shall include steel posts per Article 2050.03,C,17&18. This item shall be completed after paving.
20	2510-6750501	REMOVAL AND CRUSHING OF PAVEMENT	SY	13,587.3	See tabulation on Sheet C.11. The existing pavement is an estimated thickness of 6 inches. This bid item shall include saw cuts necessary for the removal of this pavement. This bid item shall include the entire pavement structure, regardless of thickness encountered. No payment for additional thickness, if encountered, will be made. The pavement shall be crushed to meet the requirements of gradation #14 and stockpiled in a location provided by the contractor that is agreeable to the engineer. The crushed pavement shall be used as modified subbase. Materials I.M. 210 shall apply.
21	2526-8285020	CONSTRUCTION SURVEY, CONTROL POINT SURVEY	LS	1	The contracting authority will be responsible for monument preservation on this project. The contractor will be responsible for all items under this section. See all sheets for details. Bid Item includes an independent check of existing control points prior to construction and provide a report to the Engineer. Bid Item also includes the establishment of additional control points if deemed necessary by the contractor.
22	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	1	The contracting authority will be responsible for monument preservation on this project. The contractor will be responsible for all items under this section. See all sheets for details. Bid Item includes providing staking location information for all items of the project.
23	2527-9263217	PAINTED PAVEMENT MARKINGS, DURABLE	STA	503.65	See tabulations on Sheets C.14 & G.1 for details.
24	2528-2518000	SAFETY CLOSURE	EACH	4	See tabulation on Sheet C.16. See "J" Sheets for locations and details.
25	2528-8445110	TRAFFIC CONTROL	LS	1	See Traffic Control Notes on Sheet J.1. For road closures refer to Standard Road Plan TC-252. See "J" Sheets for locations and details. All signs shall be in place prior to closing roadway sections. The contractor shall furnish all detour signing as designated on the "J" Sheets including hardware and posts necessary for erecting and maintaining for the duration of the detour. This bid item shall include the removal and stockpiling of existing signs and support posts within the construction limits.
26	2528-8445113	FLAGGERS	EACH	10	
27	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	28	This bid item includes the cost of furnishing, placing, and maintaining two portable message sign boards 14 days prior to road closure.

28	2533-4980005	MOBILIZATION	LS	1	
29	2601-2634100	MULCHING	ACRE	1	Perform mulching according to Article 2601.03, E, 2, of the Standard Specifications. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes. Item is included for areas requiring reshaping and seedbed preparation. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Associations. Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre.MULCHING Mulching shall be applied as described in standard speification section 2601. After seeding, mulch all areas disturbed by grading except where slope protection has been applied.
30	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	0.5	Seed and fertilize all areas 8 foot adjacent to the shoulder mainline, medians, and side according to Article 2601.03, C, 3, of the Standard Specifications. Use ground driven equipment.
31	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	0.5	Item is included for disturbed areas. Seed and fertilize all disturbed areas according to Article 2601.03, C, 1, of the Standard Specifications. If permanent seeding cannot be placed due to the restrictive planting dates, stabilizing crop will need to be placed on all disturbed areas as temporary erosion control. Preparation and seeding shall be performed in accordance with Section 2601. Stabilizing crop will not be used when the application dates in Section 2601 allows permanent seeding. If stabilizing crop must be used, place immediately following completions of finished grading. Reseeding of these areas will be required at contractors expense if damage occurs due to contractors negligence during the contract period. It is not necessary to place stabilizing crop in locations that have be covered by Wood Excelsior Mat.
32	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	1,950	See tabulation on Sheet C.10. Exact locations will be determined, as needed, in the field prior to, during, and after construction.
33	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	1,950	
34	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	2	
35	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	

PROJECT DESCRIPTION

THIS PROJECT IS A PCC RECONSTRUCTION OF AN EXISTING PCC PAVEMENT ALONG 230TH STREET (G28).

THIS PROJECT WILL BE COMPLETED WITH THE INTENT OF MAINTANING ACCESS TO RESIDENTS.

GENERAL NOTES:

ELECTRONIC DESIGN FILES ARE AVAILABE UPON REQUEST AND CAN BE PROVIDED IN CIVIL 3D OR LANDXML FORMAT. DESIGN ALIGNMENTS, PROFILES, AND SURFACES WERE CREATED AND ARE AVAILABLE FOR ALL SITES DETAILED ON "L" SHEETS.

THE CONTRACTOR SHALL NOT OPERATE ANY EQUIPMENT EXCEEDING LEGAL LOADS ON ANY AND ALL COUNTY ROADS. ALL CONSTRUCTION EQUIPMENT AND VEHICLES WILL OBEY TRAFFIC CONTROL REGULATIONS AT ALL TIMES. THIS INCLUDES ALL TRUCKS DELIVERING PCC MIX TO THE PAVING MACHINE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A WASTE AREA OR DISPOSAL SITES FOR ALL EXCESS MATERIAL WHICH IS NOT DESIREABLE TO BE INCORPORATED INTO THE PROJECT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE PROJECT FOR LOCATION OF UTILITIES, DRAINAGE, OR OTHER FACILITIES IN THE CONSTRUCTION AREA. ANY DAMAGE TO SUCH FACILITIES, DUE TO THE CONTRACTOR'S CARELESSNESS, SHALL BE CORRECTED AT HIS/HER EXPENSE WITHOUT COST TO MUSCATINE COUNTY. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY INTERFERENCE OR DELAY CAUSED BY CARELESSNESS. WORK DAYS WILL CONTINUE TO BE CHARGED DURING REPAIR OF DAMAGES.

UTILITY CONTACT INFORMATION:

(ASE) ALLIANT ENERGY
Contact Name: Alliant Energy Field Engineer
Contact Phone: 800-255-4268
Contact Email: locate_IPL@alliantenergy.com

(WINIA) WINDSTREAM COMMUNICATIONS
Contact Name: LOCATE DESK
Contact Phone: 800-289-1901
Contact Email: LOCATE.DESK@WINDSTREAM.COM

(ELP) EASTERN IOWA LIGHT & POWER
Contact Name: Mark Elder
Contact Phone: 563-732-7360
Contact Email: mark.elder@easterniowa.com

(TC9) MEDIACOM
Contact Name : Darrin Walker
Contact Phone: 319-759-3786
Contact Email: dwalker@mediacomcc.com

105_04 4/21/26 STANDARDS The following Standards apply to construction work on this project.		
Number	Date	Title
BR-201	04-21-26	Double Reinforced 10in Approach
BR-211	04-21-26	Bridge Approach (Abutting PCC or Composite Pavement)
DR-303	10-17-17	Subdrains (Longitudinal)
DR-306	10-17-23	Precast Concrete Headwall for Subdrain Outlets
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-502	04-21-15	Seeding in Rural Areas
PM-110	10-15-24	Line Types
PM-120	10-15-24	Stop Lines and Islands
PV-101	10-21-25	Joints
PV-3	10-15-24	Safety Edge
PV-10	04-21-20	Rumble Strip Panel for Intersection Approach
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-213	04-18-23	Lane Closure with Flaggers
TC-233	10-17-17	Pavement Marking Operations Two-Lane
TC-252	10-21-25	Routes Closed to Traffic

INDEX OF TABULATIONS				111_25 4/21/26
Line No.	Tabulation	Tabulation Title	Sheet No.	
1.0	100_01A	ESTIMATED PROJECT QUANTITIES	C.1	
2.0	100_04A	ESTIMATE REFERENCE INFORMATION	C.1	
3.0	100_01D	PROJECT DESCRIPTION	C.5	
4.0	105_04	STANDARD ROAD PLANS	C.6	
5.0	111_25	INDEX OF TABULATIONS	C.7	
6.0	110_12L	POLLUTION PREVENTION PLAN	C.8	
7.0	100_19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	C.10	
8.0	110_01	REMOVAL OF PAVEMENT	C.11	
9.0	112_06	BRIDGE APPROACH SECTION	C.12	
10.0	103_10	TOPSOIL STRIPPING AND PLACEMENT	C.13	
11.0	108_22	PAVEMENT MARKING LINE TYPES	C.14	
12.0	112_07	RUMBLE STRIP PANELS	C.15	
13.0	108_13A	SAFETY CLOSURES	C.16	
14.0	300_99	TABULATION OF EARTHWORK QUANTITIES	C.17	
15.0	104_09A	LONGITUDINAL SUBDRAIN SHOULDER	CS.1	
16.0	101_10	PAINTED ISLANDS	G.1	
17.0	108_23A	TRAFFIC CONTROL PLAN	J.1	

110_12L 8/23/22 POLLUTION PREVENTION PLAN 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 during construction, 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 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 RESPONSIBILITIES A. Designer: - Prepares Base PPP included in the project plan. - Prepares Notice of Intent (NOI) submitted to Iowa DNR. - Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required. B. Contractor: - 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. - Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications. - Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications. - Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231). - Supervises and implements good housekeeping practices according to Paragraph III, C, 2. - 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 during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports. - Complies with training and certification requirements of Section 2602 of the Standard Specifications. - Submits amended PPP site map according to Section 2602 of the Standard Specifications. C. Subcontractors: - Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). 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. - Implement good housekeeping practices according to Paragraph III, C, 2. D. RCE/Project Engineer: - Is Project Storm Water Manager. - 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. - 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. - Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors. - 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 requirements. - Is familiar with the Project PPP and storm water site map. - Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements. - Is signature authority on Notice of Discontinuation. - Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231). - Makes information to determine permit compliance available to the DNR upon their request. E. Inspector: - Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction,				110_12L 8/23/22 POLLUTION PREVENTION PLAN operation, or maintenance which has a significant effect on the discharge of pollutants from the project. - Makes information to determine permit compliance available to the DNR upon their request. - Conducts joint required inspections of the site with the contractor/subcontractor. - Completes an inspection report after each inspection. - 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 Reconstruction on 230th Street G28. B. This PPP covers approximately 5.7 acres with an estimated 5.7 acres being disturbed. The portion of the PPP covered by this contract has 5.7 acres disturbed. C. The PPP is located in an area of 2 soil associations (Sparta-Chelsea-Dickinson, Eolian Sands and Tama-Muscatine-Downs). The estimated weighted average runoff coefficient number for this PPP after completion will be 0.55. D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including: - Drainage Patterns - Plan and Profile sheets and Situation plans. - Proposed Slopes - Cross Sections. - Areas of Soil Disturbance - Construction limits shown on Plan and Profile sheets. - Location of Structural Controls - Tabulations in C sheets. - Locations of Non-structural Controls - Tabulations in C sheets. - Locations of Stabilization Practices - Generally within construction limits shown on Plan and Profile sheets. - Surface Waters (including wetlands) - Project Location Map and Plan and Profile sheets. - 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 and amended PPP site map. F. Runoff from this work will flow into road ditches, Honey Creek, and Iowa River. III. CONTROLS A. The Contractor’s ECIP specified in Article 2602.03 of the Standard Specifications 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, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site 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 of the Standard Specifications. 1. EROSION AND SEDIMENT CONTROLS a. Stabilization Practices - Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized. - Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have: - Permanently ceased on any portion of the site, or - Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. - 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. - 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 in the C sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets. - Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips. - 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 in the C sheets. Additional information may be found in Tabulations in the C or T sheets or is referenced in Section 2105 of Standard Specifications. b. 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. 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.				
FILE NO.	ENGLISH	DESIGN TEAM	H\M\M\V\B	MUSCATINE COUNTY	PROJECT NUMBER	FM-C070(78)--55-70	SHEET NUMBER	C.8

3/20/2026 11:08:42 AM

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110_12L 8/23/22			110_12L 8/23/22						
POLLUTION PREVENTION PLAN			POLLUTION PREVENTION PLAN						
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 in the C sheets, 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 B sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C sheets. c. 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. 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 in the C sheets, 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 (105-4) in the C sheets. The installation of these devices may be subject to Section 404 of the Clean Water Act. 2. 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 applicable laws, rules or regulations shall apply. a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways. b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use. c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving. d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit. e. 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. f. 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. g. 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. h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite 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. i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants. j. 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. V. INSPECTION REQUIREMENTS A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site 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 site 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 impracticable 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 - Base PPP amended during construcion. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request. C. Fieldbook Entries - 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.  Bryan J. Horesowsky. PE						
FILE NO.	ENGLISH	DESIGN TEAM	H\M\M\V\B	MUSCATINE COUNTY	PROJECT NUMBER	FM-C070(78)--55-70	SHEET NUMBER	C.9	

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PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE						100_19 10/15/24
Possible Standards: EC-204						
Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
1000+00.00	1000+50.00	Right	Perimeter and Slope	12 inch	100.00	Atwood Ave SW
1000+00.00	1000+50.00	Left	Perimeter and Slope	12 inch	110.00	Atwood Ave SE
2000+00.00	2000+50.00	Left	Perimeter and Slope	12 inch	100.00	Atwood Ave NW
2000+00.00	2000+50.00	Right	Perimeter and Slope	12 inch	100.00	Atwood Ave NE
16+50.00	17+00.00	Right	Perimeter and Slope	12 inch	50.00	
18+25.00	19+25.00	Right	Perimeter and Slope	12 inch	100.00	
19+75.00	20+50.00	Right	Perimeter and Slope	12 inch	80.00	
20+75.00	23+25.00	Right	Perimeter and Slope	12 inch	250.00	
22+50.00	24+25.00	Left	Perimeter and Slope	12 inch	180.00	
28+50.00	31+00.00	Right	Perimeter and Slope	12 inch	250.00	
30+75.00	31+25.00	Left	Perimeter and Slope	12 inch	50.00	
39+25.00	41+25.00	Left	Perimeter and Slope	12 inch	200.00	
52+90.60	54+44.50	Left	Perimeter and Slope	12 inch	180.00	RTE 70 NW Radius
53+45.00	54+44.50	Right	Perimeter and Slope	12 inch	200.00	RTE 70 SW Radius
Total:				1950		

REMOVAL OF PAVEMENT Refer to Tabulation 102-5.						110_01 4/5/24
* Not a bid item.						
Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
-1+00.00	31+52.00	Both	PCC	7949.7	22.0	
32+28.83	54+44.50	Both	PCC	5416.1	22.0	
53+74.50	54+44.50	Left	PCC	102.3	137.3	RTE 70 Radius
53+74.50	54+44.50	Right	PCC	119.2	164.4	RTE 70 Radius
Total:				13587.3		

BRIDGE APPROACH SECTION

Refer to the BR Series.

112_06
2/22/24

* Not a bid item

Line No.	Bridge Station	End	Skew Ahead Left (Degrees)	Skew Ahead Right (Degrees)	(T) Thickness (IN)	Pay Length (FT)	Non-Reinf. Area (SY)	Single-Reinf. Area (SY)	Double-Reinf. Area (SY)	SRP Approach	SRP Abutment Type	SRP Abutting Pavement	Perforated * 4" Subdrain (LF)	Subdrain * Outlet (STA)	Subdrain * Outlet Side	Porous * Backfill (CY)	Modified * Subbase (TON)	Polymer * Grid (SY)	Remarks
1.0	31+52.17	W			10.0	70.0	93.3	62.2	62.2	BR-201	Movable	BR-211	40.0	30+92.17	Right	1.0	137.000	217.8	
2.0	32+28.83	E			10.0	70.0	93.3	62.2	62.2	BR-201	Movable	BR-211	32.0	32+88.83	Right	1.0	137.000	217.8	
Total:							186.6	124.4	124.4				72			2	274	435.6	

TOPSOIL STRIPPING AND PLACEMENT						
Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks
ATWOOD AVE SOUTH	2-Lane	10+00.00	10+50.00	6.0	6.0	SEE SHEET L.1 FOR DETAILS
ATWOOD AVE NORTH	2-Lane	20+00.00	20+50.00	6.0	6.0	SEE SHEET L.2 FOR DETAILS
230TH STREET (G28)	EB	16+50.00	17+00.00	6.0	6.0	
230TH STREET (G28)	EB	18+25.00	19+25.00	6.0	6.0	
230TH STREET (G28)	EB	19+75.00	20+50.00	6.0	6.0	
230TH STREET (G28)	EB	20+75.00	23+25.00	6.0	6.0	
230TH STREET (G28)	WB	22+50.00	24+25.00	6.0	6.0	
230TH STREET (G28)	EB	28+50.00	31+00.00	6.0	6.0	
230TH STREET (G28)	WB	30+75.00	31+25.00	6.0	6.0	
230TH STREET (G28)	WB	39+25.00	41+25.00	6.0	6.0	
RTE 70 RADII	2-Lane	52+90.59	54+44.50	6.0	6.0	SEE SHEET L.3 FOR DETAILS

103_10
4/30/25

108_22

11/25/25

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.

**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.

***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17

CBW6: Crosswalk Bar (White) @ 10.00

CLW6: Crosswalk Line (White) @ 2.00

DLW4: Dotted Line (White) @ 0.22

ELW6: Edge Line Right (White) @ 1.00

MNY6: Median Nose (Yellow) @ 1.00

RLY4: Ramp Edge Line Left (Yellow) @ 0.67

SPW4: Sloped Curb 4" (White) @ 2.16

STY6: Standard Curb 6" (Yellow) @ 2.03

BCY6: Broken Centerline (Yellow) @ 0.25

CHW8: Channelizing Line (White) @ 1.33

DCY4: Double Centerline (Yellow) @ 1.34

DLW6: Dotted Line (White) @ 0.33

ELY4: Edge Line Left (Yellow) @ 0.67

NPY4: No Passing Zone Line (Yellow) @ 0.84

RLY6: Ramp Edge Line Left (Yellow) @ 1.00

SPW6: Sloped Curb 6" (White) @ 2.28

YLW2: Yield Line (White) @ 1.15

BLC6: Broken Line Contrast (White/Black) @ 0.50

CHW10: Channelizing Line (White) @ 1.67

DCY6: Double Centerline (Yellow) @ 2.00

DLY4: Dotted Line (Yellow) @ 0.22

ELY6: Edge Line Left (Yellow) @ 1.00

NPY6: No Passing Zone Line (Yellow) @ 1.25

SLW2: Stop Line (White) @ 4.00

SPY4: Sloped Curb 4" (Yellow) @ 2.16

BLW4: Broken Lane Line (White) @ 0.17

CHY8: Channelizing Line (Yellow) @ 1.33

DDY4: Double Dotted Line (Yellow) @ 0.44

DLY6: Dotted Line (Yellow) @ 0.33

LDW8: Lane Drop (White) @ 0.33

RLW4: Ramp Edge Line Right (White) @ 0.67

SLW4: Solid Lane Line (White) @ 0.67

SPY6: Sloped Curb 6" (Yellow) @ 2.28

BLW6: Broken Lane Line (White) @ 0.25

CHY10: Channelizing Line (Yellow) @ 1.67

DDY6: Double Dotted Line (Yellow) @ 0.67

ELW4: Edge Line Right (White) @ 0.67

LDW10: Lane Drop (White) @ 0.42

RLW6: Ramp Edge Line Right (White) @ 1.00

SLW6: Solid Lane Line (White) @ 1.00

STW6: Standard Curb 6" (Yellow) @ 2.03

Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	BCY4* (STA)	BCY4* Factored (STA)	CHW10 (STA)	CHW10 Factored (STA)	ELW6 (STA)	ELW6 Factored (STA)	NPY4** (STA)	NPY4** Factored (STA)	SLW2 (STA)	SLW2 Factored (STA)	Remarks
230th Street G28	-1+00.00	48+34.50	EB	Durable Paint		X		49.34	8.39									
230th Street G28	48+34.50	54+34.50	EB	Durable Paint		X								6.00	5.04			
230th Street G28	-1+00.00	54+34.50	WB	Durable Paint		X		55.34	9.41									
230th Street G28	1+00.00	53+46.00	EB	Durable Paint			X					52.46	52.46					
230th Street G28	53+46.00	54+44.50	EB	Durable Paint			X					200.00	200.00					
230th Street G28	1+00.00	52+90.60	WB	Durable Paint			X					51.91	51.91					
230th Street G28	52+90.60	54+44.50	WB	Durable Paint			X					172.00	172.00					
230th Street G28	54+34.50		EB	Durable Paint			X									0.85	3.40	
230th Street G28	54+13.00	54+35.00	EB	Durable Paint			X			0.62	1.04							Quantity for Painted Island
Total:								17.8		1.04		476.37		5.04		3.4		

112_07 8/15/22 RUMBLE STRIP PANELS Refer to Standard Road Plan PV-10.				
Roadway Identification	Station	Side	Pavement Type	Remarks
230th Street G28	47+39.50	Right	New	PCC Pavement
230th Street G28	50+63.25	Right	New	PCC Pavement

108_13A 3/27/25 SAFETY CLOSURES Refer to Section 2528 of the Standard Specifications			
Station	Road Closure Qty.	Hazard Closure Qty.	Remarks
-1+00.00	1		BOP
55+44.00	1		EOP
1000+00.00	1		Atwood Ave South
2000+00.00	1		Atwood Ave North

TABULATION OF EARTHWORK QUANTITIES						
COUNTY EARTHWORK						
Begin Station	End Station	Side	Class 13 Excavation	Embankment-In- Place	Waste	Remarks
-1+00	31+90.5	Both	4815	254	4561	See "B" Sheets
31+90.5	54+44	Both	3245	36	3209	See "B" Sheets
1000+00	1000+50	Both	104	23	81	See Sheet "L.1" Atwood Ave. South
2000+00	2000+50	Both	76	30	46	See Sheet "L.2" Atwood Ave. North
52+90.60	54+44	Both	160	371		See Sheet "L.3" Route 70 Intersection
Total:			8400	714	7897	

300_99
Modified

LONGITUDINAL SUBDRAIN SHOULDER										104_09A 5/6/24
* Not a bid item.										
Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
230th Street G28	1+00.00	6+00.00	Right	36.0	4.0	530.0	1+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	6+00.00	DR-306	2.3	
230th Street G28	6+00.00	11+00.00	Right	36.0	4.0	530.0	6+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	11+00.00	DR-306	2.3	
230th Street G28	11+00.00	16+00.00	Right	36.0	4.0	530.0	11+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	16+00.00	DR-306	2.3	
230th Street G28	16+00.00	21+00.00	Right	36.0	4.0	530.0	16+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	21+00.00	DR-306	2.3	
230th Street G2	21+00.00	26+00.00	Right	36.0	4.0	530.0	21+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	26+00.00	DR-306	2.3	
230th Street G28	26+00.00	31+50.00	Right	36.0	4.0	580.0	26+00.00	DR-306	44.8	
230th Street G28			Right	36.0	4.0	30.0	31+50.00	DR-306	2.3	
230th Street G28	32+50.00	38+00.00	Right	36.0	4.0	580.0	32+50.00	DR-306	44.8	
230th Street G28			Right	36.0	4.0	30.0	38+00.00	DR-306	2.3	
230th Street G28	38+00.00	43+00.00	Right	36.0	4.0	530.0	38+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	43+00.00	DR-306	2.3	
230th Street G28	43+00.00	48+00.00	Right	36.0	4.0	530.0	43+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	48+00.00	DR-306	2.3	
230th Street G28	48+00.00	53+00.00	Right	36.0	4.0	530.0	48+00.00	DR-306	40.9	
230th Street G28			Right	36.0	4.0	30.0	53+00.00	DR-306	2.3	
230th Street G28	1+00.00	6+00.00	Left	36.0	4.0	530.0	1+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	6+00.00	DR-306	2.3	
230th Street G28	6+00.00	11+00.00	Left	36.0	4.0	530.0	6+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	11+00.00	DR-306	2.3	
230th Street G28	11+00.00	16+00.00	Left	36.0	4.0	530.0	11+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	16+00.00	DR-306	2.3	
230th Street G28	16+00.00	21+00.00	Left	36.0	4.0	530.0	16+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	21+00.00	DR-306	2.3	
230th Street G28	21+00.00	26+00.00	Left	36.0	4.0	530.0	21+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	26+00.00	DR-306	2.3	
230th Street G28	26+00.00	31+50.00	Left	36.0	4.0	580.0	26+00.00	DR-306	44.8	
230th Street G28			Left	36.0	4.0	30.0	31+50.00	DR-306	2.3	
230th Street G28	32+50.00	38+00.00	Left	36.0	4.0	580.0	32+50.00	DR-306	44.8	
230th Street G28			Left	36.0	4.0	30.0	38+00.00	DR-306	2.3	
230th Street G28	38+00.00	43+00.00	Left	36.0	4.0	530.0	38+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	43+00.00	DR-306	2.3	
230th Street G28	43+00.00	48+00.00	Left	36.0	4.0	530.0	43+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	48+00.00	DR-306	2.3	
230th Street G28	48+00.00	53+00.00	Left	36.0	4.0	530.0	48+00.00	DR-306	40.9	
230th Street G28			Left	36.0	4.0	30.0	53+00.00	DR-306	2.3	
Total:						11400			879.6	

PAINTED ISLANDS Refer to PM-110, 560-5, and 108-22. Offsets are located from mainline.							101_10 1/17/24
Road Identification	Point A Station	Point A Offset (FT)	Point B Station	Point B Offset (FT)	Point C Station	Point C Offset (FT)	Remarks
230TH STREET G28	54+13.19	16.0	54+34.87	16.0	54+33.09	30.9	

MUSCATINE COUNTY GPS MONUMENTS FOR PROJECT CONTROL

PROJECT: FM-C070(78)--55-70

Coordinate System: Iowa Regional Coordinate System

Datum: NAD 83(NA2011)

Zone: IaRCS Zone 14 Burlington TM

Geoid: GEOID12A (Conus)

Vertical Datum: NAVD88

Point ID	Northing sft	Easting sft	Elevation sft	Latitude (Global)	Longitude (Global)	Height (Global)	Projection Scale Factor	Height Scale Factor	Combined Scale Factor	Meridian Convergence Angle
79	6627529.950	24467521.451	615.480	N41°25'24.08814"	W91°22'06.31362"	507.738	1.00001921	0.9999757722	0.9999949772	-0°04'42"
135	6619491.186	24467480.047	612.940	N41°24'04.66686"	W91°22'06.71269"	505.135	1.00001921	0.9999758964	0.9999951045	-0°04'42"
Average Combined Scale Factor									0.9999950409	

Tie sheets for GPS Monuments can be downloaded at:
https://magic-gis.com/SurveyControl_ver2.2/index.html

GENERAL NOTES:

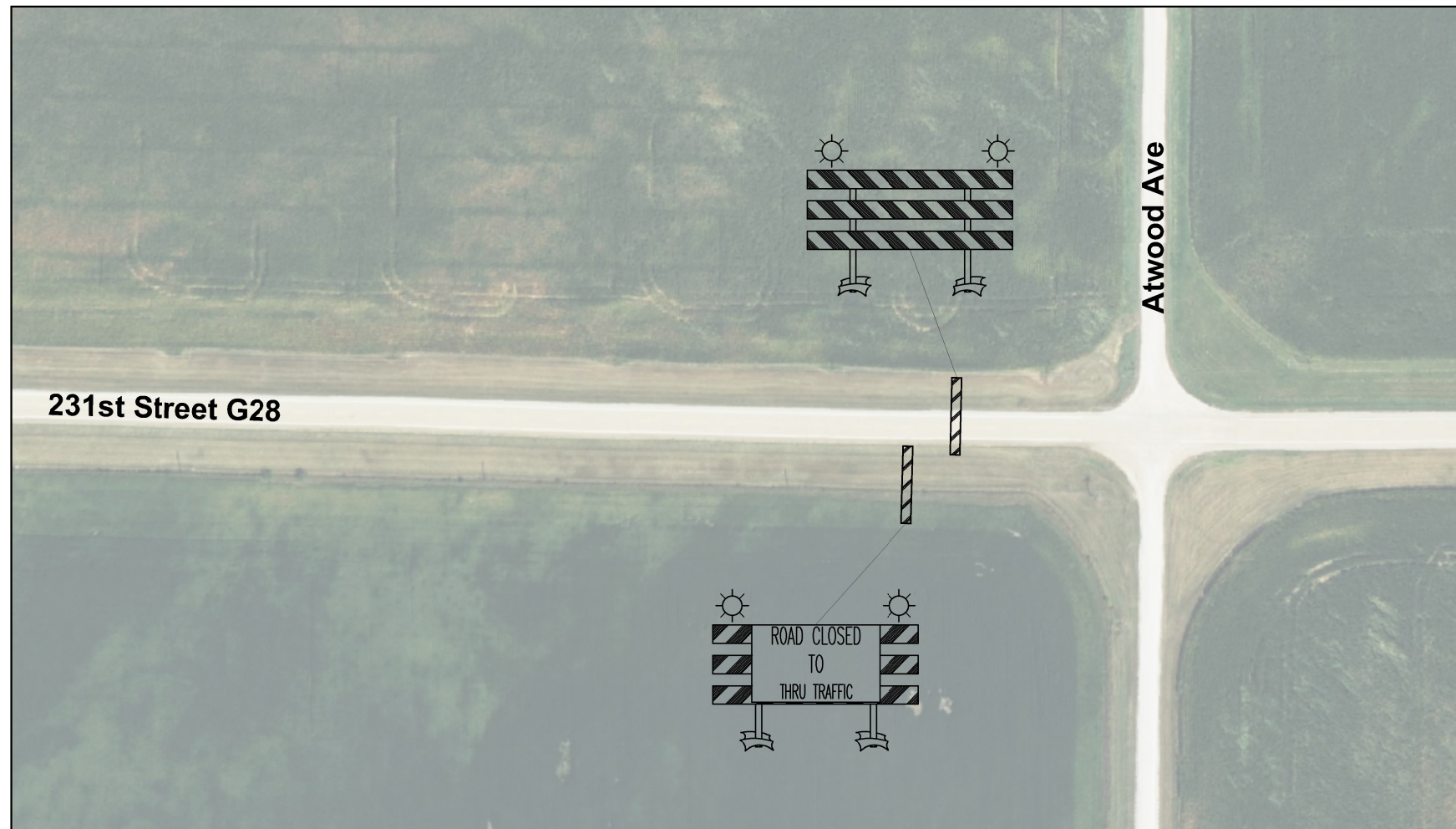
COORDINATE VALUES LISTED ON THESE SHEETS ARE IOWA REGIONAL COORDINATE SYSTEM GRID COORDINATES. THIS IS A LOW DISTORTION PROJECTION, SO GRID/GROUND DISTANCE DIFFERENCES SHOULD BE NEGLIGABLE. THE AVERAGE COMBINED SCALE FACTOR HAS BEEN PROVIDED IN THE TABLE ABOVE, IF NEEDED. SECTION CORNER TIE SHEETS ARE AVAILABLE UPON REQUEST FROM THE ENGINEER'S OFFICE. THE DESIGN ALIGNMENT AND PROFILE INFORMATION HAS BEEN PROVIDED FOR MAINLINE 230TH STREET G28. ALIGNMENT AND PROFILE DATA IS ALSO AVAILABLE FOR SIDEROADS UPON REQUEST. THE POINT, ALIGNMENT, AND PROFILE DATA CAN ALSO BE PROVIDED IN DIGITAL FORMAT UPON REQUEST (CIVIL 3D OR XML). PROJECT CONTROL POINTS ARE A SET 5/8"Øx30" REBAR WITH PINK CAP STAMPED "MUSCATINE CO CONTROL POINT". THEY WERE SET ALONG THE PROJECT ROUTE, ALTERNATING SIDES, APPROXIMATELY EVERY 400 FEET.

Paving Control Points				
Point #	Elevation	Northing	Easting	Description
1	615.64	6622230.68	24467583.21	RN=REBAR W/CAP
2	616.26	6622116.13	24467960.43	RN=REBAR W/CAP
3	616.38	6622239.31	24468320.98	RN=REBAR W/CAP
4	618.71	6622122.17	24468725.78	RN=REBAR W/CAP
5	616.43	6622239.78	24469119.16	RN=REBAR W/CAP
6	617.14	6622171.55	24469532.99	RN=REBAR W/CAP
7	617.81	6622216.14	24469921.26	RN=REBAR W/CAP
8	617.28	6622178.14	24470319.59	RN=REBAR W/CAP
9	617.53	6622223.57	24470718.74	RN=REBAR W/CAP
10	615.37	6622176.43	24471114.22	RN=REBAR W/CAP
11	616.41	6622227.77	24471527.76	RN=REBAR W/CAP
12	615.73	6622185.82	24471916.51	RN=REBAR W/CAP
13	616.33	6622236.15	24472312.28	RN=REBAR W/CAP
14	614.78	6622189.87	24472715.94	RN=REBAR W/CAP

230th Street G28 Design Profile									
PVI Index	PVI Station	PVI Elevation	Grade In	Grade Out	A (Grade Change)	Curve Type	Curve Length	K Value	Design Speed
1	−1+44.92	618.59		−0.04%					60.0
2	−0+69.45	618.56	−0.04%	−0.04%	0.00%				60.0
3	2+37.07	618.44	−0.04%	0.18%	0.22%	Sag	200.00	907.41	60.0
4	4+54.44	618.83	0.18%	0.02%	0.16%	Crest	70.00	428.48	60.0
5	18+04.21	619.06	0.02%	−0.15%	0.17%	Crest	295.00	1786.09	60.0
6	25+13.07	618.01	−0.15%	0.30%	0.45%	Sag	1086.00	2438.30	60.0
7	31+99.32	620.05	0.30%	−0.46%	0.76%	Crest	285.00	377.08	60.0
8	35+13.12	618.61	−0.46%	−0.06%	0.40%	Sag	286.00	718.36	60.0
9	39+43.46	618.35	−0.06%	−0.12%	0.05%	Crest	388.00	7088.50	60.0
10	48+73.60	617.28	−0.12%	−0.31%	0.19%	Crest	270.00	1412.44	60.0
11	51+41.30	616.46	−0.31%	0.29%	0.60%	Sag	241.00	403.13	60.0
12	54+05.44	617.23	0.29%	1.76%	1.47%	Sag	65.61	44.78	60.0
13	54+45.28	617.93	1.76%	2.03%	0.28%				60.0
14	54+57.03	618.17	2.03%						60.0

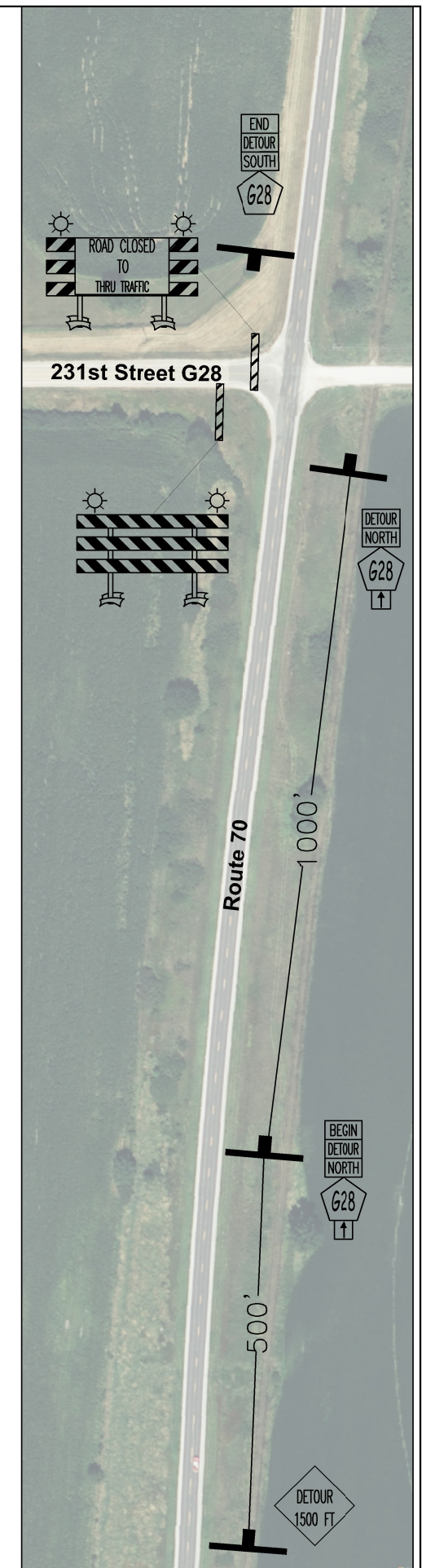
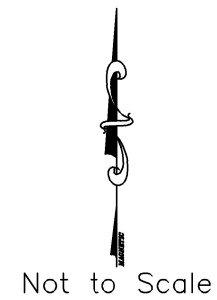
230th Street G28 Design Centerline												
PI Index	PI Type	Station	Northing	Easting	Delta Angle	Curve Radius	Curve Length	Chord Length	External Tangent	External Secant	Mid—Ordi nate	Design Speed
1	Curve PC Point	−3+06.60	6622173.865	24467113.626								60.0
2	Curve PI Point	0+00.00	6622166.535	24467420.173	2° 02′ 37.73”	17190.41	613.20	613.17	306.63	2.73	2.73	60.0
3	Curve PT Point	3+06.60	6622170.143	24467726.786								60.0
4	Turn Point	26+55.59	6622197.781	24470075.610								60.0
5	Turn Point	39+90.44	6622205.790	24471410.435								60.0
6	Turn Point	52+88.27	6622214.385	24472708.240								60.0
7	Turn Point	54+57.03	6622215.503	24472876.992								60.0

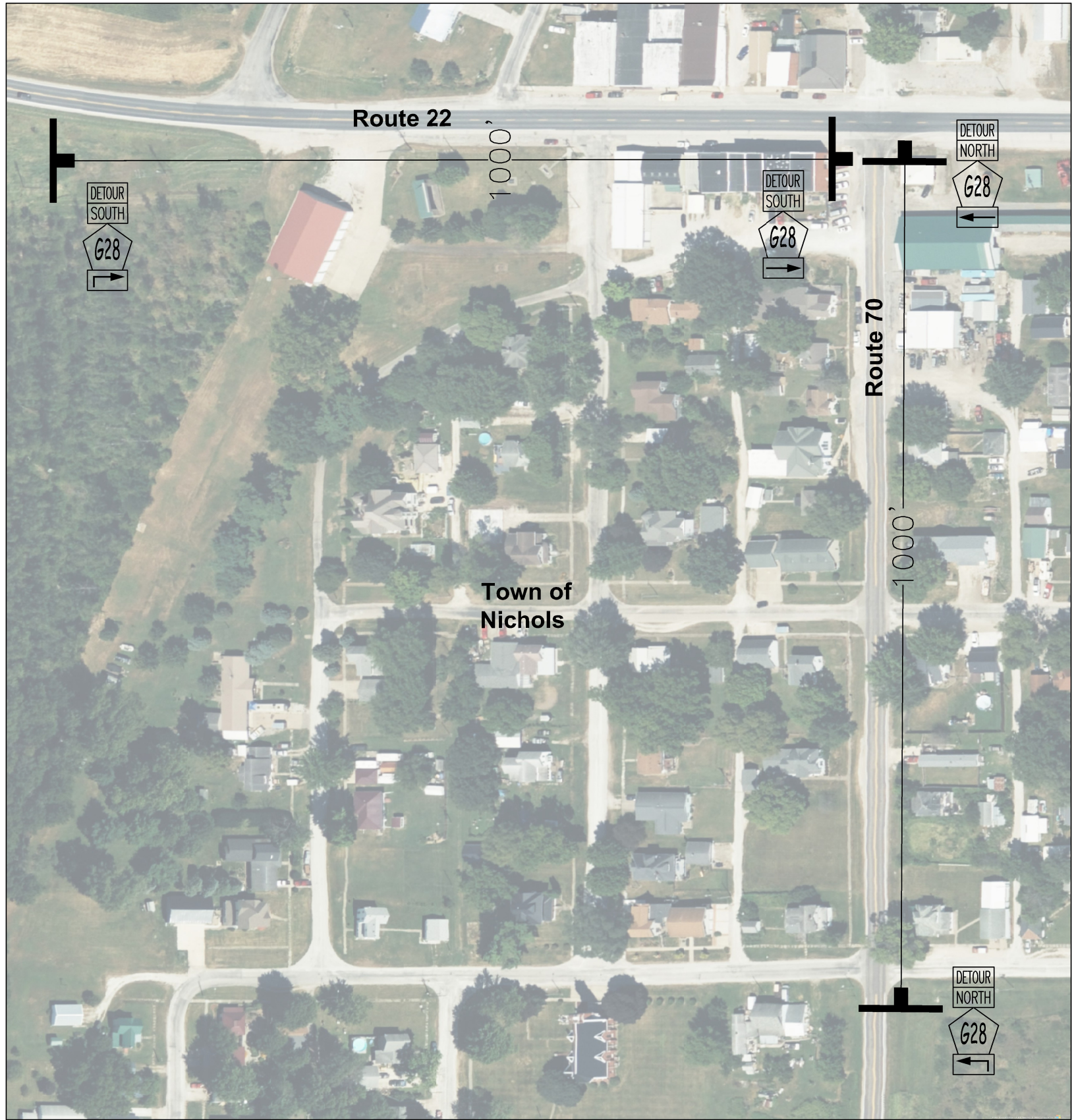
TRAFFIC CONTROL PLAN		108_23A 8/15/22
1. 14 days (two weeks) prior to beginning of work the contractor shall furnish, setup, and maintain two portable dynamic message sign boards, one at each end of the project limits, alerting all traffic to the upcoming construction start date. After construction begins, the dynamic message sign boards can be removed. 2. This project shall be "CLOSED" to through traffic during construction. Access to private property shall be maintained by the contractor during construction. 3. Traffic control devices, procedures, layouts, and signing installed as part of this project shall conform to the "Manual on Traffic Control Devices for Streets and Highways" as adopted by the Department per 761 of the Iowa Administrative Code (IAC) chapter 130. 4. Traffic Control on this project shall be in accordance with the TC-252 of Standard Road Plans "Situation 1 (Rural)". Traffic Control for the construction of Route 70 Intersection shall be in accordance with TC-202 and TC-213. 5. All traffic control devices shall be furnished, erected, maintained, and removed by the contractor. 6. Proposed sign spacing may be modified as approved by the engineer to meet existing field restrictions or to prevent obstructions of the motorist's view of permanent signing. 7. Proposed changes in the traffic control plan shall be reviewed and approved by the engineer before changes are made. 8. The bid item "Traffic Control" shall include the cost for all traffic control measures required of the contractor except for those which are separate bid items or are incidental to other bid items. 9. All detour signing as shown on the J-sheets shall be furnished, erected, maintained, and removed by the contractor. Install all detour signs per MUTCD guidelines. Place bottom of signs no less than 5' from top of pavement edge. Install all detour signs in line/offset from edge of pavement with existing signs, at least 6' from edge of shoulder, and at least 12' from edge of traveled way. 10. A Traffic Control Diary shall be maintained by the contractor or subcontractor on site and available to the engineer on a weekly basis as per Standard Specification 2528.01.C. 11. The contractor shall notify the Local IDOT Maintenance Shop prior to starting work. Contact phone number: (563) 263-6242. 12. The contractor shall remove and stockpile all existing signs and supports that impede construction activities after the road is closed. 13. Muscatine County Maintenance shall pick up stockpiled signs and remove them from project limits. TRAFFIC CONTROL NOTE - THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND REMOVE ALL TRAFFIC CONTROL DEVICES REQUIRED BY CURRENT SPECIFICATIONS AND CONFORM TO 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. ALL SIGNS SHALL BE MAINTAINED ON A 24-HOUR DAY, 7 DAY WEEK BASIS DURING CONSTRUCTION OF THIS PROJECT. CONSTRUCTION WILL BE SUSPENDED IN THE EVENT ANY OF THE REQUIRED LEGIBLE TRAFFIC CONTROL SIGNS ARE NOT IN PLACE AND WILL REMAIN SUSPENDED UNTIL THE DEFICIENCY IS CORRECTED. ALL INTERSECTIONS SHALL BE SIGNED WITH THE APPROPRIATE SITUATION AS SHOWN ON STANDARD TC-252. ALL TYPE 3 BARRICADES SHALL HAVE A MINIMUM OF 4 SANDBAGS. SIGN LOCATION NOTE - ALL SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR. EXACT LOCATIONS MAY BE FIELD ADJUSTED, PER MUSCATINE COUNTY ENGINEER'S APPROVAL TO FIT CONDITIONS. NO SIGNS SHALL BE LOCATED THAT WOULD CAUSE ANY RESTRICTION FOR THE MOTORISTS VIEW OF PERMANENT SIGNING, OR ANY VEHICLE TRAVELING, ENTERING, OR EXITING THE ROADWAY.		



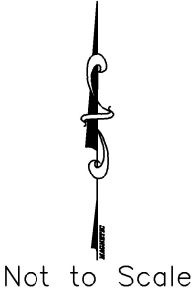
NOTE:

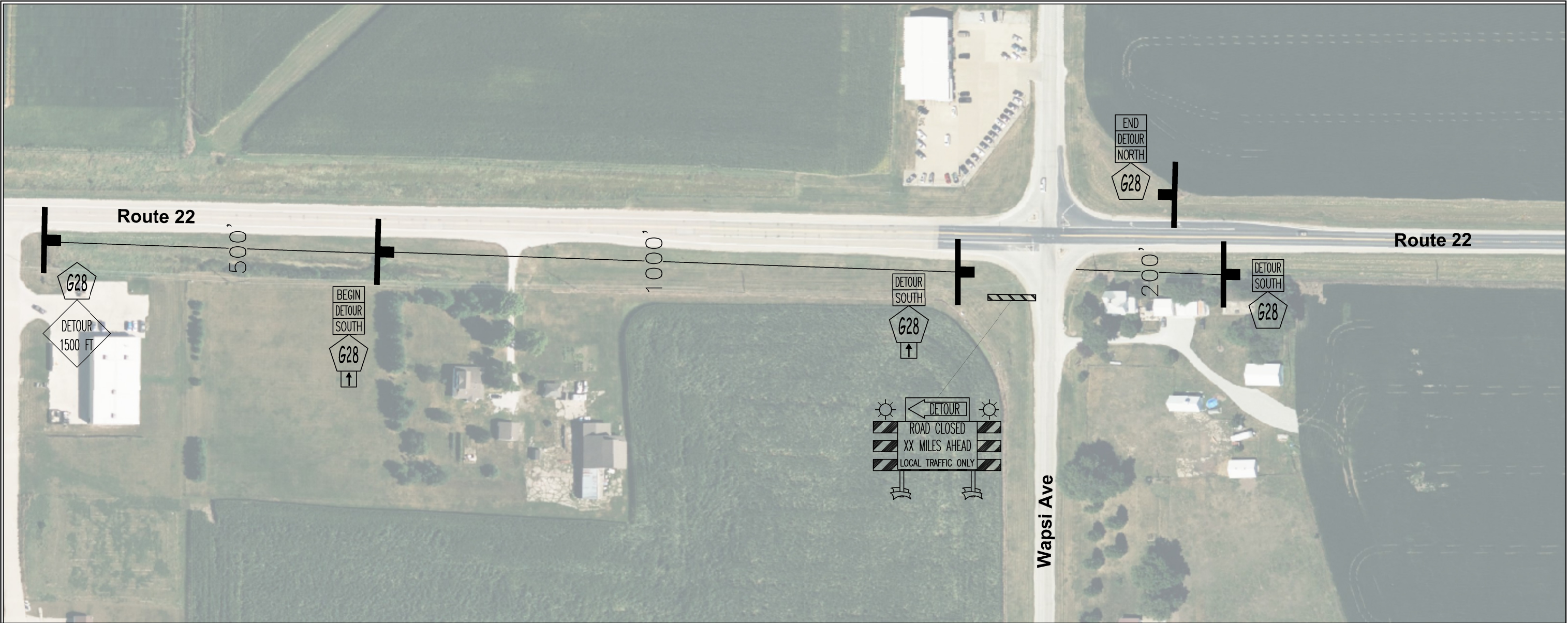
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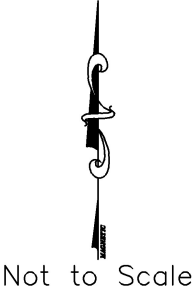


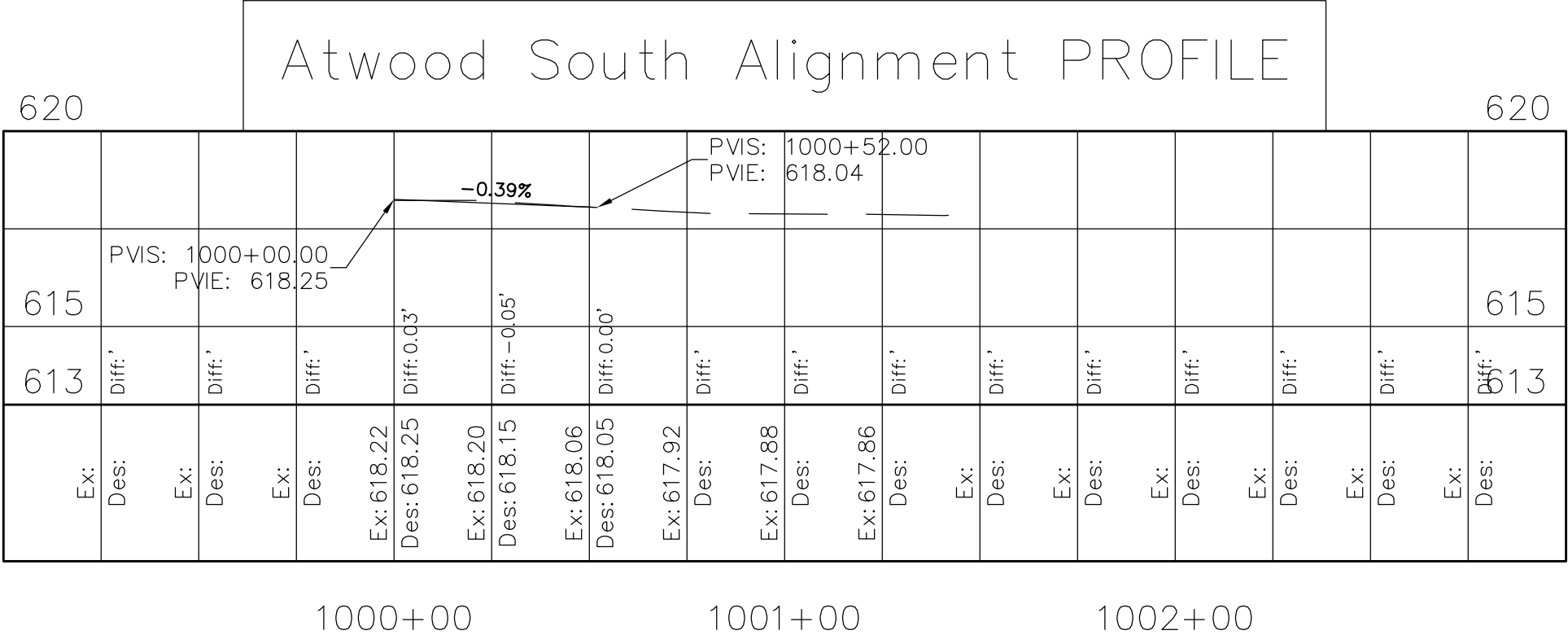
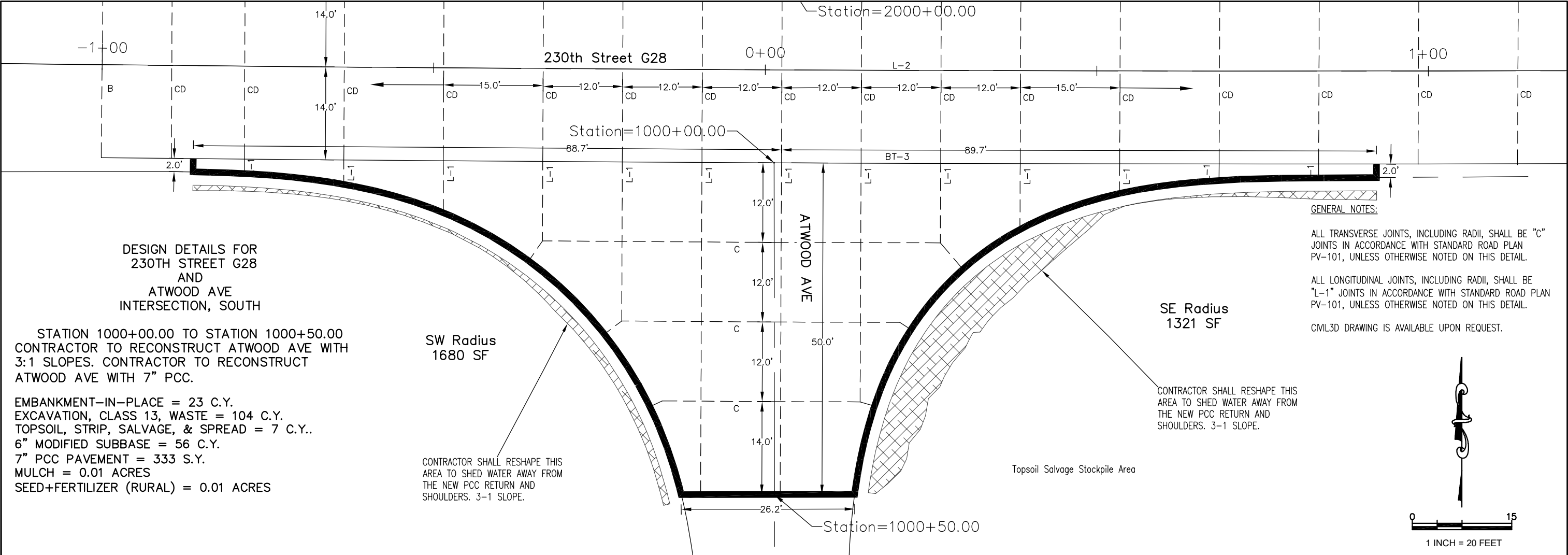
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620

612

2002+00

10

DESIGN DETAILS FOR
230TH STREET G28
AND
ROUTE 70
INTERSECTION

STATION 52+90.59 TO STATION 54+44.50
CONTRACTOR TO RECONSTRUCT INTERSECTION WITH
3:1 SLOPES. CONTRACTOR TO RECONSTRUCT
ROADWAY WITH 9" PCC WITH DOWELS.

EMBANKMENT-IN-PLACE = 371 C.Y.
EXCAVATION, CLASS 13, WASTE = 160 C.Y.
TOPSOIL, STRIP, SALVAGE, & SPREAD = 56 C.Y.
SUBGRADE STABIL MAT'L, POLYMER GRID = 564 S.Y.
10" MODIFIED SUBBASE = 156 C.Y.
9" PCC PAVEMENT = 564 S.Y.
MULCH = 0.07 ACRES
SEED+FERTILIZER (RURAL) = 0.07 ACRES

GENERAL NOTES:

ALL TRANSVERSE JOINTS, INCLUDING RADII, SHALL BE "CD"
JOINTS IN ACCORDANCE WITH STANDARD ROAD PLAN
PV-101, UNLESS OTHERWISE NOTED ON THIS DETAIL.

ALL LONGITUDINAL JOINTS, INCLUDING RADII, SHALL BE
"L-2" JOINTS IN ACCORDANCE WITH STANDARD ROAD PLAN
PV-101, UNLESS OTHERWISE NOTED ON THIS DETAIL.

CIVIL3D DRAWING IS AVAILABLE UPON REQUEST.

