IOWADOT
Form 810025 (11-23)

APPLICATION AND AGREEMENT FOR USE OF HIGHWAY RIGHT-OF-WAY FOR UTILITIES ACCOMMODATION

FOR DEPARTMENT USE ONLY

Permit Number	Highway Number	County
77U-2024-018	US 6	Polk
DOT Project Number		**Expiration/Completion Date**
IM-080-3(264)124--13-77		2-8-25

APPLICANT (INDIVIDUAL OR COMPANY)

First Name	Middle Initial	Last Name	Phone Number	Ext.
Carla		Schumacher	515-323-6227	
Company Name			**Phone Number**	**Ext.**
Des Moines Water Works			515-283-8700	

Street Address	City/Town	State	ZIP Code
2201 George Flagg Parkway	Des Moines	IA	50321

e-Mail Address	Secondary e-Mail Address
cschumacher@dmww.com	

INSTALLATION TO BE ACCOMMODATED

Approval is hereby requested to enter within the state highway right-of-way for the accommodation of a utility installation as detailed on the attachments and further described as follows.

The installation shall consist of:
Relocation of 713 feet of 36-inch feeder main in conflict with the IDOT Polk 35/80 & Hickman Interchange IM-080-4(69)125--13-77 reconstruction project.

and shall be located as shown on the detailed plan attached hereto. **(See current Iowa Department of Transportation Utility Accommodation Policy for submittal of detailed plan requirements.** See Section 115.8 (3).) https://iowadot.gov/rightofway/pdfs/UtilityPolicy.pdf

WORK SITE LOCATION

The proposed work as described above is located in Section 29, Twp. 79, Range 25 on Highway No. 6 generally located 0.1 (miles) east (direction) from I35/I80 intersection with US Highway 6 (city, county line, or other landmark). Work proposed is more specifically located as being from 127.6 (Milepost #) and 559+70 (Highway Station) to 127.6 (Milepost #) and 571+20 (Highway Station) on the North side of highway.

Disclosure Statement: The information furnished on this form will be used by the Department of Transportation to determine approval or denial of the application. Failure to provide all pertinent information will result in denial of the application. Information furnished is public information and copies may be provided to the public upon request.

The utility company, corporation, applicant, permit holder or licensee, (hereinafter referred to as the Permit applicant) agrees with the Iowa Department of Transportation (hereafter referred to as the Department) that the following stipulations and those special requirements as listed on this document shall govern under this permit after it is approved by the Department.

A. General

1. The installation shall meet the requirements of local municipal, county, state, and federal franchise rules and regulations, regulations and directives of the Iowa State Commerce Commission; the Iowa Department of Natural Resources, all rules and regulations of the Department and any other laws or regulations applicable.
2. The Permit Holder shall be fully responsible for any future adjustments of the facilities within the established highway right-of-way caused by highway construction or maintenance operations.
3. As per Section 115.8(8) of the Utility Accommodation Policy, As-Built plans are due within 90 days after completion of construction, the utility owner shall submit to the district representative an as-built plan.
4. The work described in this permit shall be completed as proposed in compliance with the stipulations and special requirements within one year from the date Department approval is received for said request. Failure on the part of the Permit Holder to abide by the stipulations or in constructing the work described as stipulated and within the time frame stated shall render this agreement and request null and void. The Permit Holder also agrees to save the State of Iowa and the Department harmless of any damages or losses that may be sustained by any person, or persons, on account of the conditions and requirements of this agreement.
5. Non-compliance with any of the terms of the Department's policy, permit, or agreement, may be considered cause for shut-down of construction operations, revocation of the permit, or withholding of relocation reimbursement and/or withholding of future application approvals until compliance is confirmed. The cost of any work deemed necessary to be performed by the State in removal of non-complying construction will be assessed against the Permit Holder.

B. Construction and Maintenance

1. The location, construction and maintenance of the utility installation covered by this application shall be in accordance with the current Department's Utility Accommodation Policy. https://iowadot.gov/rightofway/pdfs/UtilityPolicy.pdf

2. Before beginning any work in the highway right-of-way, it is the responsibility of the Permit Holder to obtain an easement from the drainage district if necessary. The Department assumes no responsibility for advising the Permit Holder of each location of a drainage district crossing. It is the Permit Holder's responsibility to locate these crossings and obtain any necessary easements or permission from the drainage district. See Code of Iowa, Chapter 468 for additional information.

3. A copy of the approved permit shall be available on the job site at all times for examination by Department personnel.

4. Operations in the construction and maintenance of this utility installation shall be carried on in such a manner as to cause minimum interference to or distraction of traffic on said highway.

5. Traffic protection shall minimally be in accordance with Part VI of the current Manual on Uniform Traffic Control Devices for Streets and Highways. The applicant shall be responsible for correctly using traffic control devices including signs, warning lights, and channelizing devices as needed while work is in progress or the clear zone is impacted. Flagging operations are the responsibility of the applicant. The Department's TC XXX Series Standards are the preferred traffic control specification plans. http://www.iowadot.gov/design/stdplne_tc.htm

6. The applicant shall seed and mulch all disturbed areas within the highway right-of-way and shall be responsible for the vegetative cover until it becomes well established. Any surfaced areas such as driveways or shoulders and sodded waterways and plantings which are disturbed shall be restored to their original condition. Any damage to any other underground facilities during installation shall be repaired at the permit holder's expense.

7. All personnel in the highway right-of-way shall wear ANSI 107 Class 2 apparel at all times when exposed to traffic or construction equipment.

8. As per Policy Section 115.4(9) parking or storage in the clear zone is prohibited. When not in actual use, vehicles, equipment and materials shall not be parked or stored within the clear zone or median.

9. Unless specifically noted in Special Requirements section, all work performed within the right-of-way shall be restricted to 30 minutes after sunrise to 30 minutes before sunset.

10. Pedestals shall be placed within 12 inches of the right-of-way line.

11. All above and below ground appurtenances (pedestals, hydrants, drains, accesses, etc.) shall be marked with high visibility posts and signs. The minimum height requirement for the signs shall be 5 foot. Urban Roadway Sections may be exempted with department approval.

C. Liability

1. To the extent allowable by law, the Permit Holder agrees to indemnify, defend, and hold the Department harmless from any action or liability arising out of the design, construction, maintenance, placement of traffic control devices, inspection, or use of the Permit Holder's facilities. This agreement to indemnify, defend, and hold harmless applies to all aspects of the Department's application review and approval process, plan and construction reviews, and funding participation.

2. The Permit Holder shall indemnify and save harmless the State of Iowa, its agencies and employees, from any and all causes of action, suits at law or in equity, for losses, damages, claims or demands, and from any and all liability and expense of whatsoever nature, arising out of or in connection with the Permit Holder's use or occupancy of the public highway.

3. The State of Iowa and the Department assume no responsibility for damages to the Permit Holder's property occasioned by any construction or maintenance operations on said highway if the facilities are not located in accordance with this permit.

4. The State of Iowa, its agencies or employees, will be liable for expense incurred by the Permit Holder in its use and occupancy of the highway right-of-way only when negligence of the State, its agencies or employees, is the sole proximate cause of such expense. Whether in contract, tort or otherwise, the liability of the State, its agencies and employees, is limited to the reasonable, direct expense to repair damaged utilities, and in no event will such liability extend to loss of profits or business, indirect, special, consequential or incidental damages.

D. Notification

1. The Permit Holder is responsible for contacting **Iowa One-Call (1-800-292-8989)** and request the location of all underground utilities forty-eight (48) hours before excavation. Before beginning work in the highway right-of-way, the Permit Holder shall also contact any other known utility located in the area of the proposed work.

2. The Permit Holder agrees to give the Department forty-eight (48) hour notice of its intention to start construction or to perform routine maintenance on the highway right-of-way. Said notice shall be made to the local DOT contact person whose name is shown on Page 3.

3. **511 Notification** - The Permit Holder or their contractor **may not obstruct or close** primary highways or primary highway extensions (state highways within city limits) **without prior consent of the department**, except in emergency situations. Before setting up a lane closure or vertical/horizontal restriction of any kind on a primary highway, call the local DOT Maintenance Garage **AND** the Traffic Management Center per attached documents. Except in emergency situations, a 10-day advance notice is required. http://www.iowadot.gov/traffic/utility/pdfs/511UtilityNotification.pdf

E. Buy America

Buy America applies to relocations of utility facilities that must move due to highway projects under certain specific conditions that include reimbursable locations and relocations due to interstate projects.

Please contact the Department's District Engineering Operation Technician (EOT) for more information on Buy America requirements or visit the following link: https://iowadot.gov/rightofway/Utility-Accommodation-and-Coordination#533652456-buy-america

FOR DEPARTMENT USE ONLY

Special Requirements - in addition to the stipulations above, the following special requirements shall apply to this permit:

Traffic control is restricted to the hours of 7pm to 5am Sunday night through Friday morning.

North lane of Hickman Road Between interstate 80/35 entrance ramp and 111th St may be temporarily closed as required between 7pm to 5am Sunday night through Friday morning.TC-419 shall be required for Lane Closure.

Applicant Signature and Agreement

The undersigned have read the stipulations of this permit agreement as stated, as well as attachments which may be included, and by signing this application agree to abide by all stipulations and to complete the work as proposed in compliance with the stipulations and attachments within one year from the date Department approval is granted for said request. Failure on the part of the applicant to abide by the stipulations or to construct the work desired as stipulated and within the time frame stated shall render this agreement and request null and void. The undersigned also agrees to save harmless the State of Iowa and the Iowa Department of Transportation from any damage or losses that may be sustained by any person or persons on account of the conditions and requirements of this agreement.

Name of Agent *(Print or Type)*	Agent/Owner *(Signature)*	Title
Carla Schumacher	Carla Schumacher	Project Manager
Name of Owner *(Print or Type)*		Date
Des Moines Water Works		01/06/2024
e-Mail Address		
cschumacher@dmww.com		

CITY ACTION (IF PROPOSED WORK IS WITHIN AN INCORPORATED CITY, CITY ACTION IS REQUIRED)

"The undersigned city joins in the grants embodied in the above permit executed by the Iowa Department of Transportation on condition that all of the covenants and undertakings therein running to the Iowa Department of Transportation shall inure to the benefit of the undersigned city and recommends action on said permit application as noted below by the delegated city official".

☒ **Recommend Approval** ☐ **Do Not Recommend Approval** ☐ **None Required**

Signature	Title	Date
	City Engineer	2/6/24
Type or Print Name	Authorized Official for the City of	
John B. Larson	Urbandale	
e-Mail Address		
jlarson@urbandale.org		

COUNTY ACTION (IF PROPOSED WORK CROSSES COUNTY RIGHT-OF-WAY, COUNTY ACTION IS REQUIRED)

"The undersigned county joins in the grants embodied in the above permit executed by the Iowa Department of Transportation on condition that all of the covenants and undertakings therein running to the Iowa Department of Transportation shall inure to the benefit of the undersigned county and recommends action on said permit application as noted below by the delegated county official".

☐ **Recommend Approval** ☐ **Do Not Recommend Approval** ☒ **None Required**

Signature	Title	Date
Type or Print Name	Authorized Official for the County of	
e-Mail Address		

FEDERAL HIGHWAY ADMINISTRATION ACTION (WHEN REQUIRED)

☐ **Recommend Approval** ☐ **Do Not Recommend Approval** ☒ **None Required**

Authorized FHWA Representative Signature	Date

DEPARTMENT OF TRANSPORTATION FINAL ACTION

☒ **Application Approved** ☐ **Application Denied** Permit Number: 77U-2024-018

Authorized Highway District Representative	Signature	Date
Jeff Cunningham	Jeffrey Cunningham	2-8-24
e-Mail Address		
jeffrey.cunningham@iowadot.us		

Notice of intention to commence activities on the highway rights-of-way shall be submitted by the applicant a minimum of 48 hours prior to actually commencing the activities as herein granted by this approved application. Notice is to be given to the following Iowa Department of Transportation representative. Except in emergencies a 10 day advance notice is required for lane restrictions of any kind:

Local DOT Contact Person (Type or Print Name)			Phone Number
Brandon Lafrenz			515-986-5465
Street Address	City/Town	State	ZIP Code
2310 SE 17th St	Grimes	IA	50111
e-Mail Address		Permit Number:	
brandon.lafrenz@iowadot.us		77U-2024-018	

IOWA DOT
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Site Plan & Attachments Checklist for Utilities Accommodation Permit

Bid Plans and Technical Specifications were sent to Sean Passick by email on 12/12/2023

Last updated 10-30-2023

- [X] Plans showing highway centerline, route number, stationing and milepost.
- [X] Visible orientation (north arrow) and identifying landmarks.
- [X] Clearly identify right-of-way (ROW) lines and include with horizontal distance from highway centerline shown, including all breakpoints and changes in the ROW distances.
- [X] Provide Iowa One Call design request information (minimally the list of utility owners). Snyder provided for both IDOT & DMWW
- [X] List all the existing utilities in the installation area. Describe how your installation will address existing utilities that are in conflict, and show all observable existing features, such as power poles, pedestals, markers, handholes, trees, etc.

DMWW hired Snyder to design our project. Snyder is also the IDOT designer. Monthly coordination meetings where held for utility coordination.

- [X] Show all construction features/bore pits with the running line and horizontal distance from roadway edge or centerline (showing clear zone compliance). https://iowadot.gov/rightofway/pdfs/UtilityPolicy.pdf
- [X] Show the start/stop stationing and depths or elevations for all bores, longitudinal and transverse.
- [ ] Show the start/stop stationing and depths or elevations for all plowing locations. N/A
- [X] Show casing start/stop locations, lengths, diameter, and material if casings are used.
- [X] Show all facilities that are to be installed on the site plan including but not limited to pedestals, wire conduit, poles, guy anchors, junction boxes, handholes and manholes. ALL MUST BE REFERENCED BY highway stationing and distance from centerline.
- [X] Show where installation starts and stops, leave the ROW, stops at existing pedestal, pole, etc. Use highway stationing and distance from centerline of the start and stops.
- [X] Identify any physical focal points, posts, pedestals, shutoffs, overflow valves, hydrants, etc.
- [X] Describe any other work to accomplish installation before, during or after installation, including but not limited to removal of brush/trees, removal of underbuild, construction of access, fence removal, fence replacement, etc.
- [X] Identify unusual issues to be pointed out on the site plan. CLARITY IS THE KEY. It will not be assumed to be included in the permit or that the permit holder will perform certain work if it is not included in the plan.

Attachments

- [x] Proper Traffic Control Standards (Iowa DOT TCxxx Series Standard plans preferred) Available at: http://iowadot.gov/design/stdplne_tc.htm
- [x] Required Height / Depth Typical (supplied by the department)
- [x] Tile Repair Guide (rural locations) (supplied by the department)
- [x] Special Seeding Requirements and Erosion Control (supplied by the department)
- [x] 511 Lane Restriction Requirements (if any lane restriction is anticipated) (supplied by the department)

ALL ITEMS MUST BE LEGIBLE FOR REVIEW BY THE DEPARTMENT

Special Requirements:

All material or equipment shall be kept 10 feet off Right of Way during non-working hours.

No hole shall remain open within the Right of Way during non-working hours.

Right of Way shall be restored Immediately upon completion of project.

No parking on Shoulders.

No digging into side slopes of any road or highway shall be allowed.

Proper traffic control must be used at all times.

511 must be contacted 48 hours before any shoulder or lane closure.

Supervisor must be contacted 48 hours before work begins. See page 3 of the permit.

Acceptable Clear-zone Distances (feet).

		FORESLOPES			BACKSLOPES		
design speed	design ADT	6:1 or flatter	Steeper than 6:1, up to and including 4:1	Steeper than 4:1	Steeper than 4:1*	4:1 or flatter, up to 6:1	6:1 or flatter
40 mph or less	ADT < 750	7	7	**	7	7	7
	750 ≤ ADT < 1500	10	12	**	10	10	10
	1500 ≤ ADT < 6000	12	14	**	12	12	12
	ADT ≥ 6000	14	16	**	14	14	14
45 – 50 mph	ADT < 750	10	12	**	8	8	10
	750 ≤ ADT < 1500	14	16	**	10	12	14
	1500 ≤ ADT < 6000	16	20	**	12	14	16
	ADT ≥ 6000	20	24	**	14	18	20
55 mph	ADT < 750	12	14	**	8	10	10
	750 ≤ ADT < 1500	16	20	**	10	14	16
	1500 ≤ ADT < 6000	20	24	**	14	16	20
	ADT ≥ 6000	22	26	**	16	20	22
60 mph	ADT < 750	16	20	**	10	12	14
	750 ≤ ADT < 1500	20	26	**	12	16	20
	1500 ≤ ADT < 6000	26	30	**	14	18	24
	ADT ≥ 6000	30	30	**	20	24	26
65 – 70 mph	ADT < 750	18	20	**	10	14	14
	750 ≤ ADT < 1500	24	28	**	12	18	20
	1500 ≤ ADT < 6000	28	30	**	16	22	26
	ADT ≥ 6000	30	30	**	22	26	28

* Backslopes as steep as 2.5:1 can be considered as part of the clear zone, as long as they are relatively smooth and do not contain any fixed objects. Refer to Section 8A-4 of the Design Manual for information regarding backslopes steeper than 2.5:1.

** Since a vehicle traveling on a slope steeper than 4:1 is likely to be diverted to the bottom of the slope, the width of any slope steeper than 4:1 cannot be counted in the clear zone determination. Refer to Section 8A-2 of the Design Manual for information on providing clear recovery areas at the base of steep slopes.

Form 531051 (02-24)

511 Request Form

Email NEW 511 entries to IowaDOT.Traffic@iowadot.us. Updates and/or changes to the current 511 entries may be emailed or by calling 515-237-3300.

If you need a press release for this project please contact Keven Arrowsmith in the Office of Strategic Communications, by email (Keven.Arrowsmith@iowadot.us).

General Information

Requester: _____ E-mail address: _____

Does this project include Intelligent Work Zones? ☐ Yes ☐ No

Responsible RCE Office:

☐ Cedar Rapids	☐ Davenport	☐ Marshalltown
☐ Chariton	☐ Fairfield	☐ Mason City
☐ Cherokee	☐ Grimes	☐ New Hampton
☐ Council Bluffs	☐ Jefferson	☐ Sioux City
☐ Creston	☐ Manchester	☐ Other

Route and direction (N, S, E, W or Both) _____

DOT Project Number (if applicable) _____

DOT Permit Number, if issued (for contractors) _____

Project description (PCC/HMA resurfacing or overlay, bridge replacement, new bridge, etc.

_____

Project begin location (detailed description) (Do NOT use landmarks)

_____

Project end location (detailed description) (Do NOT use landmarks)

_____

County/Counties _____

24 hour project contact (for **after-hours** traffic control issues)

Name _____ Phone _____ (If none, please enter **none**)

Describe the impact on traffic

☐ Closed	☐ Left 3 lanes closed	☐ Ramp partially closed
☐ Closed intermittently	☐ Center lane closed	☐ Exit ramp partially closed
☐ Intermittent lane closure	☐ Center 2 lanes closed	☐ Entrance ramp partially closed
☐ Opposing traffic	☐ Center 3 lanes closed	☐ Ramp closed (systems interchange)
☐ Right lane closed	☐ Right shoulder closed	☐ Local road closures in area
☐ Right 2 lanes closed	☐ Left shoulder closed	☐ Single lane traffic alternating directions
☐ Right 3 lanes closed	☐ Both shoulders closed	☐ Slow moving maintenance vehicle
☐ Left lane closed	☐ Exit ramp closed	
☐ Left 2 lanes closed	☐ Entrance ramp closed	

Additional project information (pilot car, flagger, etc.)

Will there be temporary overhead signals? (15' standard height restriction) ☐ Yes ☐ No

If yes, please provide the location of the temporary overhead signals.

Project begin date and time: _____ Project end date and time: _____

Times of Closure ☐ Continuous ☐ Weekdays (Monday – Friday) ☐ Nights

Times of closure (Actual times required) _____

Restrictions (Need help deciding appropriate restrictions? Call Motor Carrier Services at 515-237-3264)

Are there restrictions? ☐ Yes ☐ No (If no, please skip ahead to the "**Detour information**" section.

Are there width restrictions? ☐ Yes ☐ No

Is the width restriction the entire length of the project? ☐ Yes ☐ No

If yes, what is the width restriction? _____

If no, do you have the Restriction Tabulation sheet? ☐ Yes ☐ No

If yes, please attach the Restriction Tabulation Sheet.

If no, how many width restricted areas and bridges are within the project? _____

If you do NOT have the Restriction Tabulation Sheet, please complete the relevant information for each restricted area or bridge.

1. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
2. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
3. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
4. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
5. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
6. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
7. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
8. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
9. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____
10. Area or bridge # _____ Travel direction ☐ N ☐ S ☐ E ☐ W Measured width minus (at least) 1 ft. _____

Are there height restrictions? ☐ Yes ☐ No (if no, please continue to next section)

If yes, do you have the Restriction Tabulation sheet? ☐ Yes ☐ No

If yes, please attach the Restriction Tabulation Sheet.

If no, how many overhead bridges are within the project? _____

If you do NOT have the Restriction Tabulation Sheet, please complete the relevant information for each overhead bridge

1. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
2. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
3. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
4. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
5. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
6. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
7. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
8. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
9. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____
10. Bridge # or location _____ Travel direction ☐ N ☐ S ☐ E ☐ W Estimated Vertical Clearance _____

Are there **weight** restrictions? ☐ Yes ☐ No ☐ Unknown

If yes, what is the weight restriction? _____

Are there **length** restrictions? ☐ Yes ☐ No ☐ Unknown

If yes, what is the length restriction? _____

Are these restrictions 24 hours per day? ☐ Yes ☐ No (If no, please enter the daily start / end times below.)

Enter the daily restriction START time _____ And daily restriction END time _____

Additional information pertaining to restrictions (shoulder type and width, TBR, channelizing devices, etc.)

Detour Information

Is there a marked detour? ☐ Yes ☐ No

If yes, are oversized loads allowed on the detour? ☐ Yes ☐ No

If yes, are there restrictions on the detour? (height, width, length, weight)

If no, what restriction prevents oversize / overweight loads? (height, width, weight, length)

Do you have a map of the detour? ☐ Yes ☐ No

If yes, please attach the map of the detour

If no, please describe the detour in detail in the space provided below.

District Traffic Tech (contact for all detour restriction info)

Name _____ Phone _____

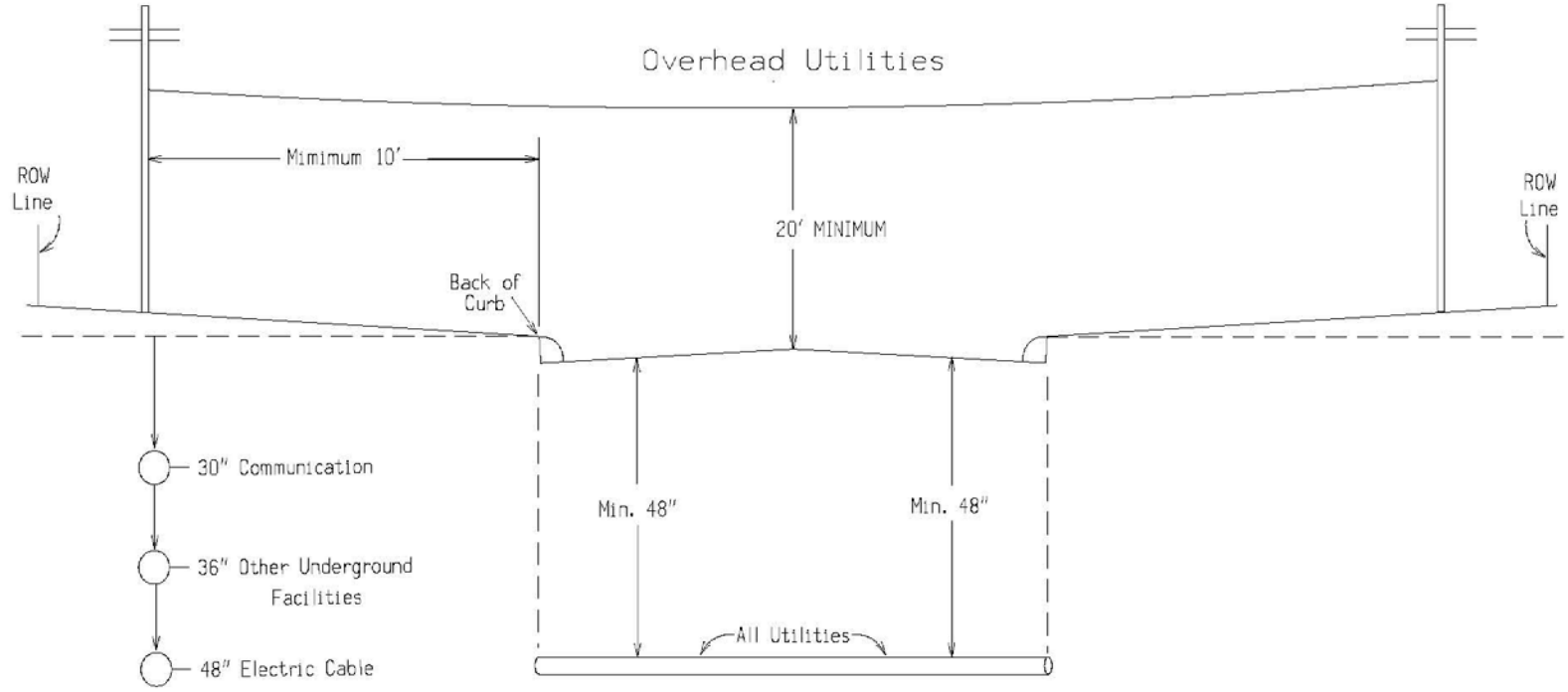
Maintenance Garage responsible for detour: _____

Dynamic Message Signs (DMS)

Request use of permanent DMS is area: ☐ Yes ☐ No

Will there be portable DMS tied to this project? ☐ Yes ☐ No

Minimum Policy Requirements
Urban Section
Non - Freeway Highway



Notes:
Utilities shall be located between back of curb and the highway row.
Utilities should be located as near to the highway row line as practical.
See Utility Policy, Section 115.13 for further details.

Erosion Control Detail

Table 2601.03.1 Rural Stabilizing Crop Seeding Rates and Schedule

March 1 through October 31

Oat	60 lbs. per acre (56 kg/ha)
Grain Rye	60 lbs. per acre (56 kg/ha)
Canada wild rye (Elymus Canadensis)	7 lbs. PLS per acre (8 kg/ha)

November 1 through February 28 (29)

Oat	62 lbs. per acre (69 kg/ha)
Grain Rye	62 lbs. per acre (69 kg/ha)
Canada Wild rye (Elymus Canadensis)	7 lbs. PLS per acre (8 kg/ha)

For stabilizing crop only, Canada wild rye (Elymus Canadensis) seed will not be required to be certified as Source Identified Class (Yellow Tag) Source G0-Iowa.

Canada wild rye (Elymus Canadensis) seed shall be debearded or equal to facilitate application of seed.

Table 2601.03-2: Urban Stabilizing Crop Seeding Rates

Bluegrass, Kentucky	122 lbs. per acre (187 kg/ha)
Ryegrass, Perennial (Fine leaf Variety)	35 lbs. per acre (39 kg/ha)
Fescue Creeping Red	18 lbs. per acre (20 kg/ha)

Table 2601.03-8 Permanent Seed Rates, Rural Areas

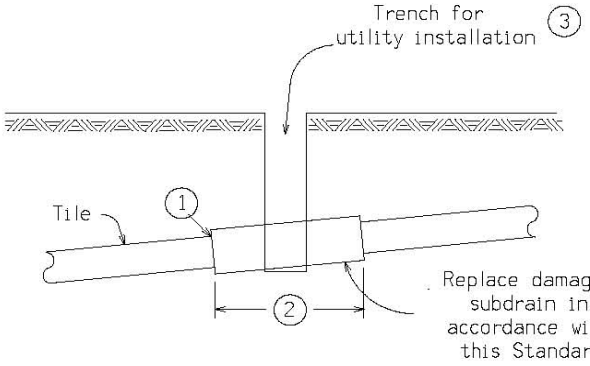
Fescue Tall (Fawn)	100 lbs. per acre (112 kg/ha)
Ryegrass, Perennial (Linn)	75 lbs. per acre (84 kg/ha)
Bluegrass, Kentucky	20 lbs. per acre (22 kg/ha)

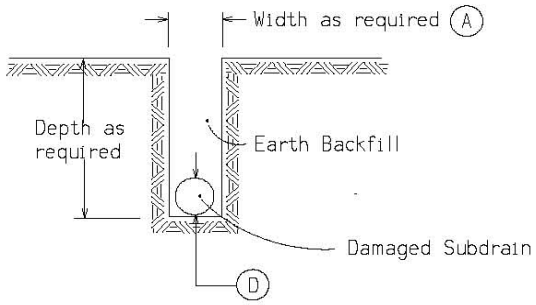
Permanent Seed Rates, Urban Area

Bluegrass, Kentucky	122 lbs. per acre (187 kg/ha)
Ryegrass, perennial (Fine leaf)	35 lbs. per acre (39 kg/ha)
Fescue, Creeping Red	18 lbs. per acre (20 kg/ha)

.

Tile Line Repair Guideline





Note:
Replacement of drainage tile shall be accomplished so as to cause the minimum of disturbance to existing field tile. The repaired drainage tile shall be left in a functional condition with special emphasis placed on maintaining existing flow line elevations.

(A) = A minimum of 24" shall be excavated outside the normal utility trench wall or such greater width as may be required to expose a minimum of 12" of undamaged drain tile.

REPLACEMENT SCHEDULE - CASE 'A'										
Existing Tile (D)	4	6	8	10	12	15	18	21	24	>24
Proposed Subdrain Size										
Concrete Pipe	-	-	12	15	15	18	21	24	30	D+6"
Coated C.M.P.	10	12	15	18	21	24	30	36	36	*

* Replacement sizes provide equivalent capacity based on 6" settlement assumming a 0.20% slope with n = 0.013 for concrete pipe and n = 0.025 for corrugated pipe (Manning Formula)

NOTES:

Tile lines disturbed within the right-of-way (outside the Roadway Embankment Area *) limits shall be repaired as follows:

May be repaired with schedule 40 PVC pipe of compatible size or in accordance with the replacement schedule-case 'A' as listed above. Replacement with schedule 40 PVC pipe shall require using a connecting device of a Femco plain and plain flexible pipe coupling or equal.

Tile lines disturbed within the "Roadway Embankment Area" shall be replaced in accordance with the replacement schedule - case 'A' stated above and as follows:

(1) Concrete collar to be placed around joint where existing tile line and corrugated aluminized metal pipe connect.

(2) Minimum length of corrugated metal pipe shall be 4 feet. Minimum length of 2 feet on each side of the tile line break location.

(3) Trench shall be backfilled with 8 inches loose material, compacted to 6 inches with a minimum of 95% compaction of natural density.

A. Backfill and compact area around drain tile to be completed by hand until new tile is completely covered. Remainder of the trench shall be backfilled by acceptable methods.

B. Area shall require inspection by the Iowa Department of Transportation inspectors or their designated personnel prior to backfilling of trench.

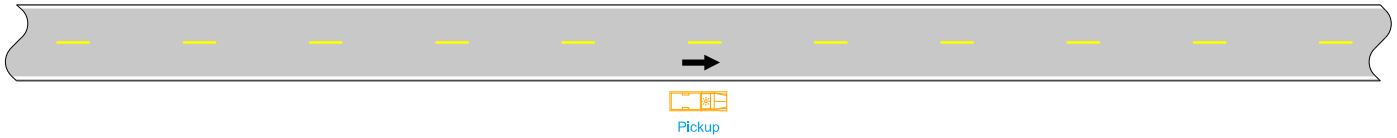
* "Roadway Embankment Area" is defined as the area lying between the foreslopes of a two-lane roadway and from near foreslope to far foreslope of a four lane roadway.

Do not allow work to interfere with the flow of traffic.

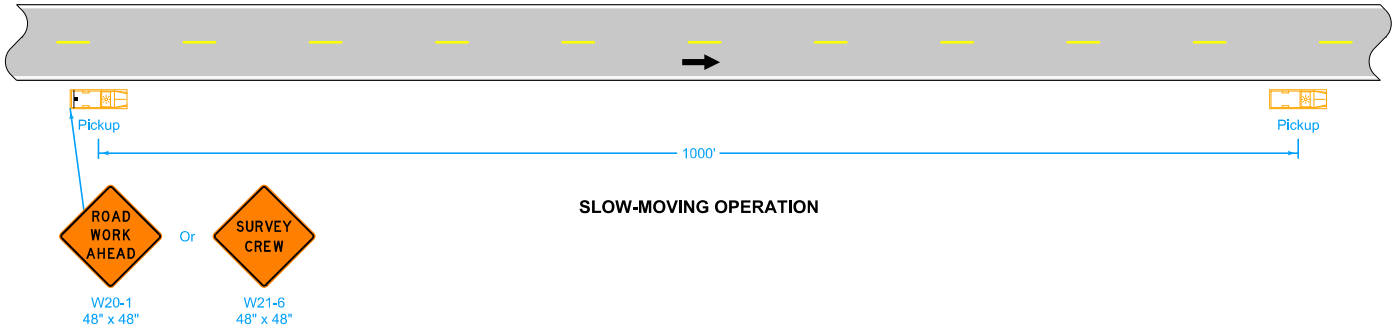
When parked, locate vehicles as far from the open traffic lane as possible. Entrances and driveways should be used whenever appropriate.

Equip all vehicles with an amber revolving light or amber strobe light.

(1) For work lasting longer than one hour, refer to TC-202 or TC-402.



VEHICLE STOPPED ON SHOULDER FOR LESS THAN ONE HOUR (1)



SLOW-MOVING OPERATION

LEGEND

- Traffic Sign
- Direction of Traffic

Possible Contract Item:
Traffic Control

IOWA DOT

REVISION
3 | 10-15-19

STANDARD ROAD PLAN

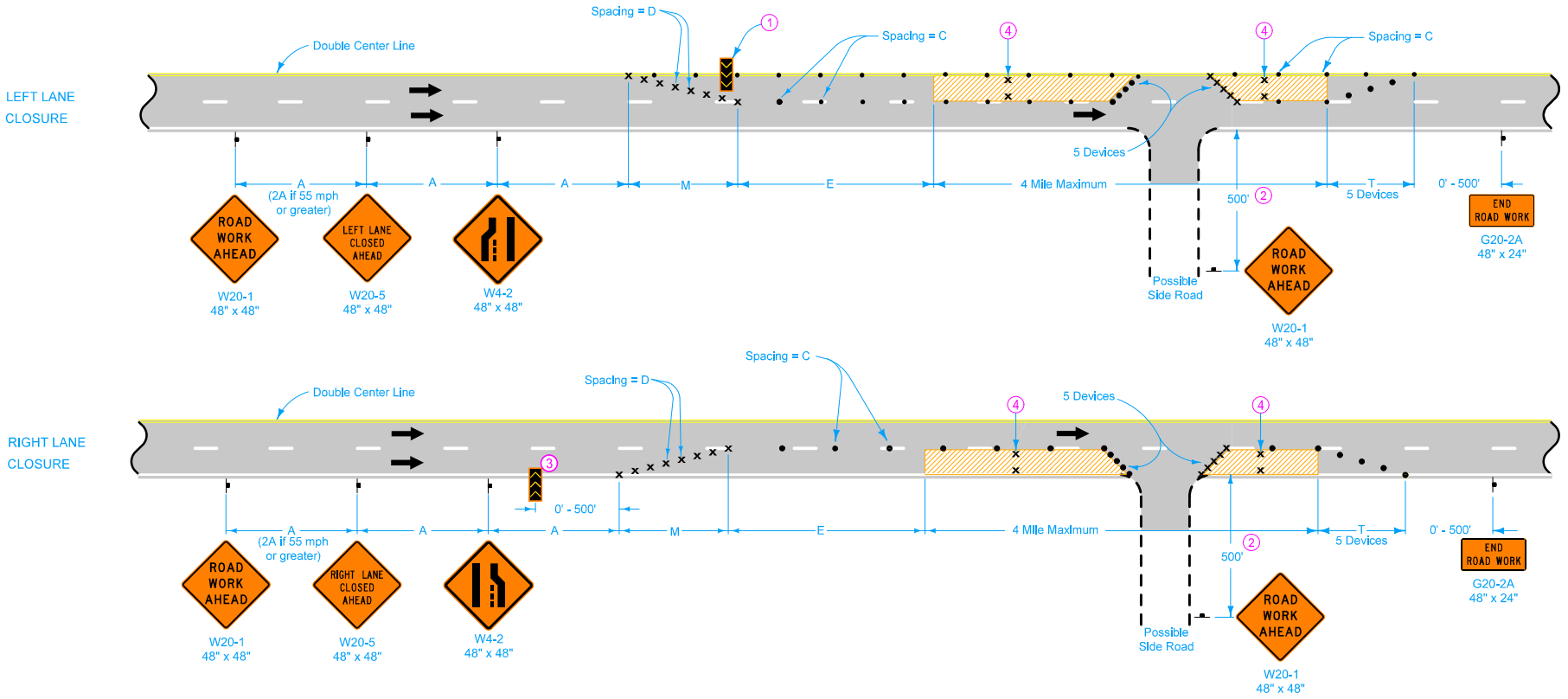
TC-1

SHEET 1 of 1

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

WORK NOT AFFECTING TRAFFIC (TWO-LANE OR MULTI-LANE)



LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Arrow Board
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)	A	C	D	E	M	T
35 or less	250'	40'	35'	0'-200'	245'	50'
40	500'	80'	40'	0'-300'	320'	50'
45	700'	80'	45'	0'-400'	630'	100'
50	700'	80'	45'	400'	630'	100'
55 - 60	1000'	100'	55'	600'	770'	100'

Where there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (W8-1) sign is placed.

Lane line drop-offs greater than a nominal 4 inches are not allowed during non-working hours.

(1) Place arrow board within the closed lane behind the drums and as close to the beginning of the taper as practical.

(2) Where side road speed limit is 40 mph or less, a distance of 200 feet is allowed.

(3) When there is no shoulder, place arrow board within the closed lane behind the drums and as close to the beginning of the taper as practical.

(4) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations, in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:

Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 8 10-16-18

TC-419

SHEET 1 of 1

REVISIONS: Added circle note 4 and drums in the work area.

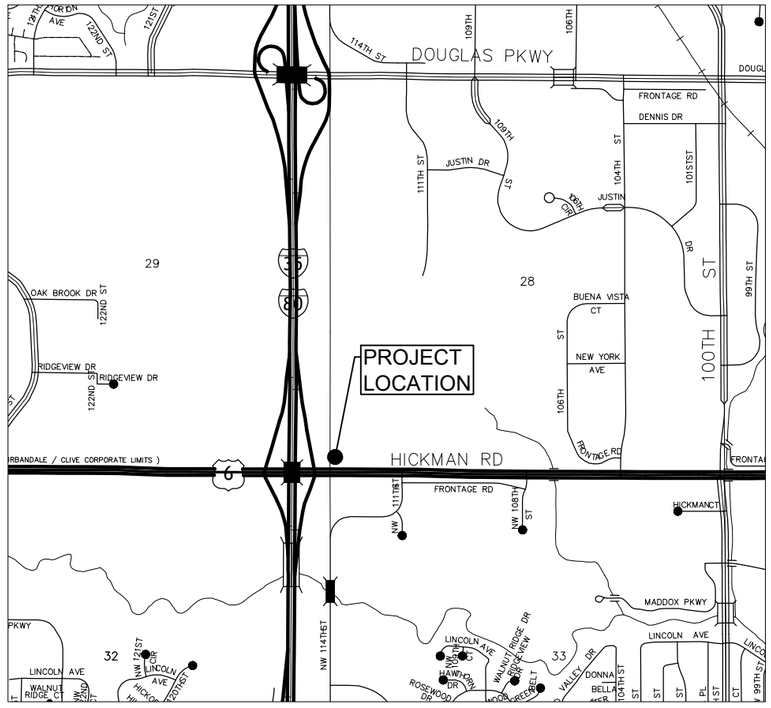
APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE ON UNDIVIDED HIGHWAY

CONSTRUCTION PLANS FOR

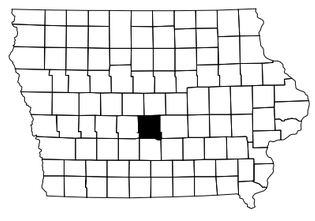
IDOT POLK 35-80 HICKMAN INTERCHANGE FEEDER MAIN RELOCATION

URBANDALE, POLK COUNTY, IOWA



VICINITY MAP

NOT TO SCALE



POLK COUNTY, IOWA

Des Moines Water Works
Water You Can Trust for Life
ENGINEERING DEPARTMENT
Des Moines, Iowa

INDEX OF SHEETS

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.

Wesley C. Farrand — 10/19/2023

Wesley C. Farrand — Date

License Number P18175

My License Renewal Date is December 31, 2024

Pages or sheets covered by this seal:
ALL SHEETS

LICENSED PROFESSIONAL ENGINEER
WESLEY C. FARRAND
P18175
IOWA

MARK	REVISION	DATE	BY
Engineer: WCF	Checked By: CHKD	Scale: 1" =	
Technician:LM	Date: 10-19-2023	T-R-S: ---	

DMWW Project No. 548-872-9010
S&A Project No. 123.0213

Sheet 1

DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

URBANDALE, IOWA

TITLE SHEET

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

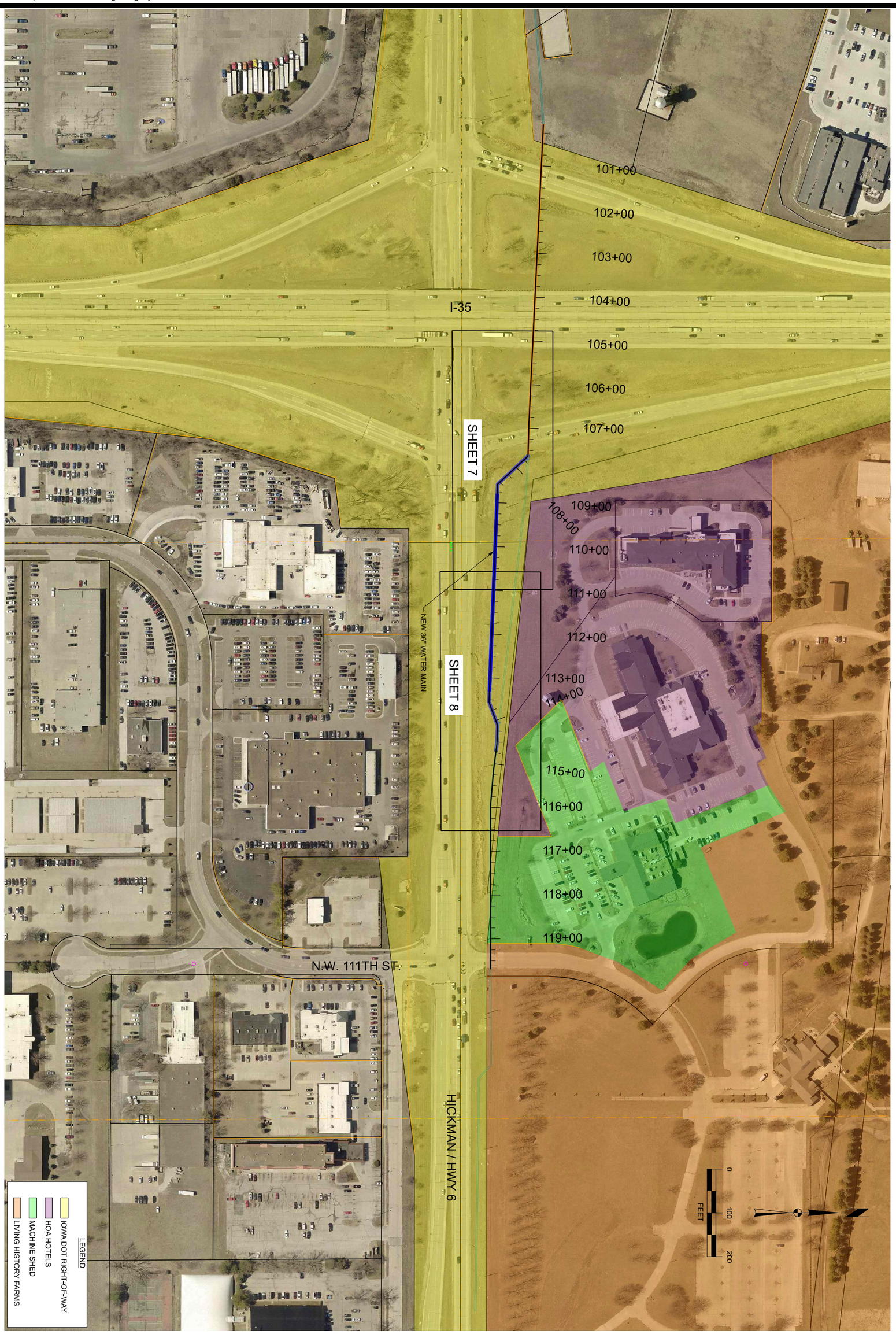
SNYDER & ASSOCIATES

Project No: 123.0213.01

File No. 3131

Sheet 1

V:\Projects\2023\123.0213\CADD\CD_123023_A_SHTS.dwg LORNA MILLER, TITLE SHEET, 2023/10/19, 12:43 PM, ANSI FULL BLEED B (17.00 X 11.00 INCHES)



Sheet 2 | File No: 3131

SNYDER & ASSOCIATES

DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

OVERALL PROJECT MAP

URBANDALE, IOWA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

DOT	IM-080-3(264)124-13-77		
MARK	REVISION	DATE	BY
Engineer: WCF	Checked By: WCF	Scale:	1"= 100'
Technician: JDS	Date: 10/17/2023	Field Bk:	Pg:

DMWW Project No: 548-872-9010
S&A Project No: 123.0213.01

Sheet 2

BASE MAP SURVEY INFORMATION

POLK COUNTY
IM-080-4(69)125—13-77
I-35/80 & US HWY 6/HICKMAN ROAD INTERCHANGE
PIN 13770804069
SAP#04129

Party Personnel

Eric Miller- Survey Manager/PLS
Jeff Pavelka- Survey Party Chief
Brian Leonard- Survey Party Chief
Adam Catrenich- Survey Party Chief
Jacob Hennick- Field Technician
Sam Blaisdell- Survey Office Technician

Date(s) of Survey
Begin Date 01/25/2021
End Date 4/30/2021

General Information

Measurement units for this survey are US survey feet. This survey is Preliminary Engineering Survey for the proposed Hickman Interchange project. This project is a Partial DTM survey. Traditional survey was performed within the project limits, with the exception of interstate pavement. For efficiency and safety, UAS was utilized to collect photo generated point cloud data on the interstate. The point cloud data was used to generate 3D line in the SUR file.

Vertical Control

Vertical datum for this survey is relative to NAVD88 Geoid 12b. Vertical datum originated from Hickman Road and 128th intersection, NHSX-006-4(189)—77, SAP 07011. Vertical positions originated from City of Urbandale published city benchmark report. BM #55 was used as the primary vertical control and is an IHC brass marker located at NE corner of northbound I-35 bridge over U.S. Highway 6.
This survey observed three City of Urbandale Benchmark Monuments with published NAVD88 elevations:

City of Urbandale Benchmark #55 has a published Elev. of 929.83
Survey Elev. = 929.83

City of Urbandale Benchmark #45 has a published Elev. of 908.05
IR-35-2(204)73--12-77 published Elev. of 907.82
Survey Elev. = 908.05

BM #38B Project STP-6-49119)—2C-77 published Elev. of 889.17 (271.021m)
Survey Elev.= 889.46

City of Urbandale Benchmark #57 has a published Elev. of 899.61
Survey Elev. = 899.61

IDOT performed a 2018 survey of the SB University exit ramp, Project IMN-080-3(235)124—OE-77, SAP 0412.8. A difference of 0.07' was found. Vertical difference between this current survey and the SB University exit ramp project are shown below.

Horizontal Control

The project coordinate system is the Iowa Regional Coordinate System, Zone 8. Horizontal datum is NAD83 (2011) for Epoch 2010.00. The projection parameters for Zone 8 of the IaRCS is defined below:

Traverse Mercator Projection North American Datum of 1983
Origin Lat: 40°15'00"N
Origin Central Meridian: 093°43'00"W
Central Meridian Scale: 1.000033
False Northing: 7,000,000
False Easting: 18,500,000

Coordinates were determined by averaging a minimum of three IaRTN observations with appropriate time spans between. The horizontal standard deviation of these observations was less than 0.05' at 95% confidence level.

Alignment Information

The horizontal alignments for I-35 was a retrace of as-built pacing plans for project IR-35-2(204)73—12-77. Stationing was held at POT Station 419+51.50 and ran ahead and back without equation.

P.C. 363+05.61 (plan) = P.C. 363+00.68 (this survey)

P.T. 370+45.61 (plan) = P.C. 370+40.61 (this survey)

Plan Equation
P.O.T. 388+16.72 (plan back) = P.O.T. 388+17.60 (plan ahead) = P.C. 388+21.85 (this survey)
P.O.T. 419+51.50 (plan) = P.O.T 419+51.50 (this survey)

P.C. 437+32.9 (plan) = P.C. 437+32.9 (this survey)

P.T. 443+32.9 (plan) = P.T. 443+32.89 (this survey)

P.C. 469+65.5 (plan) = P.C. 469+65.5 (this survey)

Alignment Information (Continued)
P.T. 475+65.5 (plan) = P.T. 475+64.91 (this survey)

P.C. 522+83.36 (plan) = P.C. 522+84.09 (this survey)

The horizontal alignments for U.S. Highway 6 and 128th Street was provided by Iowa DOT District 1 Office. Description of alignment as received described below.

The horizontal alignment for U.S. 6 (Hickman Road) is a retrace of as-built paving plan for project STP-6-4(119)--2C-77. Plan stationing is in metric and was converted to U.S. survey foot for this survey. Stationing was held at P.I. 186+92.513m (converted to station 613+27.02 in U.S. survey foot) and ran ahead without equation.

P.I. 186+92.513m (613+27.02 U.S. survey foot) = P.I. 186+92.513m (613+27.02 U.S. survey foot) (this survey)
Found "P-K" nail in conc. crossover

P.C. 198+53.721m (651+36.75 U.S. survey foot) = P.C. 198+53.757 (651+36.87 U.S. survey foot) (this survey)
Found 5/8" re-rod (flush)

Utilizing the provided alignment and the same as-built paving plans for project STP-6-4(119)--2C-77, Snyder & Associates extended alignment east from 651+36.75 to 673+00.

Utility Information

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

Remark abbreviations
QLA Quality Level A Highest guideline quality level
QLD Quality Level D Lowest guideline quality level

Two One-call utility locate request (Ticket# 552100568 and 552100570) were made Feb. 1, 2021. The following Companies were listed:

Line	Description
E1	EL1D MidAmerican Energy Electric - Quality D
E2	EL2D City of Urbandale Traffic Electric - Quality D
E3	EL3D City of Clive Traffic Electric - Quality D
E4	EL4D IDOT Iowa Department of Transportation Electric - Quality D
E5	EL5D GPRS/No Name Electric - Quality D
FO	FO1D Zayo Fiber Optic - Quality D
FO2	FO2D CenturyLink Fiber Optic - Quality D
FO3	FO3D MCI/Verizon Fiber Optic - Quality D
FO4	FO4D Iowa Communications Network Fiber Optic - Quality D
FO5	FO5D Windstream Fiber Optic - Quality D
FO6	FO6D UPN - Unite Private Network Fiber Optic - Quality D
FO7	FO7D Clive Traffic Fiber Optic - Quality D
FO8	FO8D Consolidated Fiber Optic - Quality D
FO9	FO9D Verizon Fiber Optic - Quality D
FO10	FO10D Aureon Fiber Optic - Quality D
FO11	FO11D Mediacom Fiber Optic - Quality D
FO12	FO12D Next Level Fiber Optic - Quality D
FO13	FO13D Metronet Fiber Optic - Quality D
G	GL1D MidAmerican Energy Gas Line - Quality D
G2	GL2D Unknown Gas Line - Quality D
GHP	GH1D MidAmerican Energy Gas Line - Quality D
	PR MidAmerican Energy Riser Pole
	PPA Power Pole MidAmerican Energy
SAN.	SA1D City of Clive Sanitary Sewer - Quality D
SAN.2	SA2D Des Moines Metro Waste Water Sanitary Sewer - Quality D
SAN.3	SA3D City of Urbandale Sanitary Sewer - Quality D
ST S	ST1D Storm Sewer Co. 1 - Quality D
T1	TL1D CenturyLink Telephone Line - Quality D
T2	TL2D Comm Data Link Telephone Line - Quality D
TV	TV1D Mediacom TV Cable - Quality D
TV2	TV2D Proposed Route TDI Cable TV Cable - Quality D
W	WL1D Clive Public Water Works Water Line - Quality D
W2	WL2D Urbandale Water Water Line - Quality D
W3	WL3D Des Moines Water Works Water Line - Quality D

Following are the list of contacts made in the order they were received:

4.01.21 Converted a small area into 2 locate tickets 552101832 and 552101833; University heading north along the south bound off ramp of I-80 to University, along buildings.

4.27.21 JDP converted I-35/Hickman Intersection into three locate tickets 552102448, 552102449 and 552102450. Areas of tickets extend to limits of on/off ramps of interchange.

4.28.21 EJM Received call from DMWW (Chan 515-208-1878). He noted large 36"PCCP feeder on north side of Hickman crossing interstate. Noted outside diameter of pipe around 42". Could also be encased under the interstate. He has located west side and will located east side today or tomorrow.

Control Points

Control Pt. No.	Northing	Easting	Elevation	Description
CP1000	7502552.37	18483969.64	999.20	FENO-SET MONUMENT
+/- 25' SOUTH OF DOUGLAS AVE, +/-25' OFF RAMP				
CP1001	7497688.97	18486259.21	876.70	FENO-SET MONUMENT
NORTH SIDE NW 11TH ST, 8' NORTH OF BACK OF CURB, 40' SW OF LIGHT POLE				
CP1002	7500968.72	18485389.65	935.99	FENO-SET MONUMENT
EAST SIDE OF 11TH ST, +/- 7' EAST OF 1ST HYDRANT SOUTH OF JOHNSTON SUPPLY				
FENO1	7494509.38	18483375.02	915.02	FENO-FOUND MONUMENT
WEST SIDE OF I-35 AT START OF UNIVERSITY OFF RAMP				
FENO2	7496684.19	18483459.91	895.21	FENO-FOUND MONUMENT
WEST SIDE I-35 AND EAST OF SB ON RAMP OF HICKMAN ROAD				
G032	7491564.87	18483573.86	937.63	FENO-FOUND MONUMENT
+/- 5' EAST OF EAST SHOULDER NB I-35, 500' SOUTH OF UNIVERSITY AVE.				
BM55	7497393.85	18481482.57	929.83	BM-URBANDALE
FOUND BRASS PLUG IN CONCRETE/NORTH SIDE OF HICKMAN ROAD				

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 552100568.

(M52G) MIDAMER-GAS
Contact Name : Craig Ranfeld
Contact Phone: 5152526632
Contact Email: MECDSMDesignLocates@midamerican.com

(ADB) ADB COMPANIES
Contact Name : ANGIE BACH
Contact Phone: 6365849702
Contact Email: abach@adb-us.com

(CLV) CLIVE, CITY OF
Contact Name : Jared Acheson
Contact Phone: 5152236231
Contact Email: rowpermits@cityofclive.com

(CTLIA01) CENTURYLINK
Contact Name : Tom Sturmer
Contact Phone: 3034539927
Contact Email: Thomas.sturmer@centurylink.com

(DWR) DES MOINES METRO WASTEWATER
Contact Name : Melissa Schlickbernd
Contact Phone: 5153238038
Contact Email: mschlickbernd@dmww.org

(DWW) DES MOINES WATER WORKS
Contact Name : Ed Clark
Contact Phone: 5152838784
Contact Email: eclark@dmww.com

(ENV) CONSOLIDATED COMMUNICATIONS
Contact Name : Justin Grev
Contact Phone: 5073863606
Contact Email: Justin.grev@consolidated.com

(ICN) IOWA COMMUNICATIONS NETWORK
Contact Name : Shannon Marlow
Contact Phone: 8005723940
Contact Email: icnoutsideplantiowaonecall@iowa.gov

(IDT) IOWA DOT
Contact Name : Jason Dale
Contact Phone: 5152391995
Contact Email: DOT-IOC-Traffic@iowadot.us

(INS) AUREON NETWORK SERVICES
Contact Name : Jeff Klocko
Contact Phone: 5158300445
Contact Email: jeff.klocko@aureon.com

(M52E) MIDAMER-ELEC
Contact Name : Craig Ranfeld
Contact Phone: 5152526632
Contact Email: MECDSMDesignLocates@midamerican.com

(MC1) VERIZON
Contact Name : John Bachelder
Contact Phone: 9727297000
Contact Email: john.bachelder@verizon.com

(T15) MEDIACOM COMMUNICATIONS CORP
Contact Name : Paul May
Contact Phone: 5152462252
Contact Email: pmay@mediacomcc.com

(UPN) UNITE PRIVATE NETWORKS, LLC
Contact Name : Joe Kilzer
Contact Phone: 8164253556
Contact Email: upngis@upnfiber.com

(URB) CITY OF URBANDALE
Contact Name : Tyler Casey
Contact Phone: 5152783950
Contact Email: tcasey@urbandale.org

(UWD) URBANDALE WATER UTILITY
Contact Name : Dale Acheson
Contact Phone: 5152783940
Contact Email: dacheson@urbandalewater.org

(W16) IOWA DOT
Contact Name : Scott Smyth
Contact Phone: 5152505290
Contact Email: scott.smyth@iowadot.us

(WDM) WEST DES MOINES WATER WORKS
Contact Name : William Mabuce
Contact Phone: 5152223510
Contact Email: design_locates@wdmww.com

(WDT) WEST DES MOINES TRAFFIC
Contact Name : Jim Dickinson
Contact Phone: 5152223482
Contact Email: Jim.Dickinson@wdm.iowa.gov

(WINIA) WINDSTREAM COMMUNICATIONS
Contact Name : LOCATE DESK
Contact Phone: 8002891901
Contact Email: LOCATE.DESK@WINDSTREAM.COM

(ZAY) ZAYO GROUP LLC
Contact Name : George Huss
Contact Phone: 4434032023
Contact Email: venus.minucciani@zayo.com

SURVEY SYMBOLS

AST, Above Ground Storage Tank
BB, Billboard
BBB, Bottom of Bridge Beam
BCL, Bridge Centerline
BD, Bridge Deck
BIN, Grain Bin
BL, Topo Breakline
BLD, Building or Foundation
BLS, Bridge Low Steel
BM, Bench Mark
BNK, Stream Bank
BRG, Bridge
C, Centerline BL of Road -ML or SR
CAV, Cave
CEL, Cell Phone Tower
CIS, Cistern
CON, Concrete or A/C Slab
CP, Control Point
CRP, Corporation Line
CS, Curve Point
CU, Back of Curb
CUL, Culvert
D, Centerline Draw or Stream -Down
DAB, Drainage Area Boundary
DIK, Centerline of Dike or Dam
DTM, Photogrammetry Elv Control Check
DU, Centerline Draw or Stream -Up
EB, Electrical Box
EG, Edge of Gravel Road
ENP, Edge Paved Entrance and Park Lot
ENT, Centerline BL of Entrance
ENU, Edge Unpaved Entrance and Parking
EP, Edge of Paved Roads -ML or SR
EW, Edge of Water
FCL, Chain Link and Security Fence
FENO, FENO Monument
FHD, Fire Hydrants
FLG, Flag Poles
FP, Filler Pipe
FW, Wire Fence
FWD, Wood Fence
GDC, Guard Rail Cable
GDL, Guard Rail Steel
GP, Guard Post -Less Than 4 Posts
GPR, Guard Post -4 or More Posts
GR, Ground Shot
GRV, Grave
GU, Gutter In Front of Curb
GV, Gas Valve
HDG, Hedge Row
HS, Hydric Soil -Wetlands
HT, Electrical Highline Tower
IN, Storm Sewer Intake
INB, Storm Sewer Beehive Intake
LC, Lot Corner
LIN, Miscellaneous Line
LP, L.P. Tank
LUM, Luminaire
MH, Utility Access -Manhole
MIS, Miscellaneous
MM, Mile Marker Post
OUT, Tile Outlet
PC, Curve Point
PCP, Photo Control Point
PCT, Photo Control Target
PI, Tangent Point
PIP, Pipe Culvert
PL, Location of Photo -Wetlands
PLG, Location of General Photo
POC, Curve Point
POST, Spiral Point
PR, Electic Riser Pole
PRO, Profile Shot
PT, Curve Point
REF, Reference Tie Point
RET, Retaining Walls
RIP, Rip-Rap
ROC, Rock Outcropping
ROW, Right of Way Mark
RR, Centerline of Railroad Tracks
RRB, Railroad Signal Box
RRF, Railroad Frog
RRR, Railroad Rail
RRS, Railroad Signal
RRW, Railroad Switch
RT, Radio Tower
S, Soil Sampling Site -Wetlands
SBR, Size of Bridge
SC, Spiral Point
SCR, Section Corner
SEP, Septic Tank
SF, Silt Fence -Wetlands
SG, Staff Gauge -Wetlands
SH, Paved Shoulder
SHR, Shrub
SI, Sign
SL, Speed Limit Sign
SLN, Section Line
SLO, Silo
SNK, Sink Hole
SNP, Unpaved Shoulder
SP, Stream Profile
STP, Stump
SWK, Sidewalk
SWP, Swamp or Marsh
TA, Tower Anchor
TBO, Telephone Booth
TCB, Traffic Signal Box
TDC, Tree Deciduous
TDL, Trafic Detection Loop
TER, Terrace
TEV, Evergeen Tree
TFR, Tree Fruit
TGP, Telegraph Pole
TIL, Tile Line
TLNL, Tree Line Left
TLNR, Tree Line Right
TOP, Top of Bridge Pier
TPA, Telephone Pole Co. 1
TPB, Telephone Pole Co. 2
TPC, Telephone Pole Co. 3
TR, Telephone Riser Pole
TRL, Trail
TS, Spiral Point
TSB, Telephone Switch Box
TSG, Traffic Signal
TSL, Traffic Signal and Luminare
TV, Satelite TV Dish
TVP, TV Pedestal
TW, Top of Water
UB, Utility Box
UE, Utility Elevation
UPH, Utility Pot Hole - Quality A
UST, Underground Tank
UV, Underground Utility Vault
VS, Channel Cross Section
WC, Wild Card -Misc. Field Shot
WEL, Well
WHD, Water Hydrant
WHU, RV Water Hook Up
WM, Wind Mill
WND, Wind Turbine
WV, Water Valve

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

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI / ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

DOT	IM-080-3(264)124-13-77		
MARK	REVISION	DATE	BY
Engineer: WCF	Checked By: WCF	Scale: NO SCALE	
Technician: JDS	Date: 10/17/2023	Field Bk:	Pg:

DMWW Project No: 548-872-9010
S&A Project No: 123.0213.01
Sheet 3

DMWW HICKMAN ROAD FEEDER MAIN RELOCATION
URBANDALE, IOWA
LEGEND

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM
SNYDER & ASSOCIATES

File No: 3131
Sheet 3

DES MOINES WATER WORKS (DMWW) GENERAL NOTES:

1. SHOP DRAWING SUBMITTAL REVIEW

a. ENGINEER WILL REVIEW SHOP DRAWING SUBMITTALS FOR ALL MATERIAL RELATED TO WATER MAIN WORK AS SOON AS PRACTICAL AFTER NOTICE TO PROCEED AND PRIOR TO PURCHASE OF MATERIALS. ENGINEER REQUIRES A MINIMUM OF TWO (2) WEEKS FOR REVIEW CONTRACTOR TO SUBMIT SHOP DRAWINGS ELECTRONICALLY TO:

CARLA SCHUMACHER
CSCHUMACHER@DMWW.COM
(515) 323-6227

2. INSPECTION

a. A DMWW ENGINEERING TECHNICIAN WILL BE APPOINTED AS AN INSPECTOR FOR THIS PROJECT TO INSPECT MATERIAL AND WORK FOR CONFORMANCE TO PLANS AND SPECIAL PROVISIONS.

b. ASSIST ENGINEERING TECHNICIAN WITH DAILY RECORD KEEPING INCLUDING ALL NECESSARY FIELD LOCATIONS AND MEASUREMENTS. CONTRACTOR REQUIRED TO ATTEND FINAL AND INTERMEDIATE INSPECTIONS OF PROJECT.

3. PAYMENT:

a. DMWW ENGINEERING TECHNICIAN TO REVIEW AND APPROVE ALL INSTALLED QUANTITIES FOR PAY APPLICATIONS ON A DAILY BASIS, AND PRIOR TO PAYMENT.

b. LUMP SUM BID ITEMS WILL NOT BE MEASURED.

c. ITEMS NOT LISTED AS SPECIFIC BID ITEMS FOR WATER MAIN WORK WILL NOT BE MEASURED AND WILL BE CONSIDERED AS INCIDENTAL ITEMS. PAY FOR INCIDENTAL BID ITEMS TO BE INCLUDED IN UNIT BID PAYMENTS UNDER BID ITEMS.

4. CHANGE ORDERS:

a. CONTRACTOR AND ENGINEER TO AGREE ON COMPENSATION PRIOR TO COMMENCING ANY WORK THAT IS NOT COVERED BY THE CONTRACT, WORK PERFORMED PRIOR TO AN AGREEMENT WILL NOT BE CONSIDERED FOR COMPENSATION.

5. START OF WORK NOTIFICATION:

a. CONTRACTOR TO NOTIFY DMWW ENGINEERING TECHNICIAN A MINIMUM OF 48 HOURS PRIOR TO START OF WATER MAIN RELATED TO CONSTRUCTION ACTIVITY FOR EACH STAGE OF CONSTRUCTION.

6. EXISTING UTILITY NOTES:

a. SEVERAL UTILITIES EXIST IN THE VICINITY OF THE WORK AREA. COORDINATE WITH OWNER, AND OTHER UTILITY PROVIDERS, TO LOCATE EXISTING UTILITIES AROUND WORK AREAS PRIOR TO EXCAVATING, NO WORK SHALL BE PERFORMED UNTIL PROPER LOCATES ARE COMPLETE.

b. LOCATION OF UTILITIES SHOWN ARE DETERMINED FROM BEST AVAILABLE DATA AND AREA INFORMATION ONLY.

c. CONFIRM LOCATION AND DEPTH OF EXISTING UTILITIES, AS REQUIRED, TO ELIMINATE CONFLICTS PRIOR TO CONSTRUCTION. COORDINATE WITH DMWW STAFF AND OTHER UTILITY COMPANIES WHERE CONFLICTS OCCUR.

d. PROTECT EXISTING UTILITIES DURING CONSTRUCTION. DO NOT INTERRUPT EXISTING UTILITIES UNLESS AUTHORIZED BY UTILITY OWNER.

e. CONTRACTOR TO NOTIFY THE DMWW ENGINEERING TECHNICIAN IMMEDIATELY REGARDING CONFLICTS WITH OTHER UTILITIES.

f. NOTIFY UTILITY COMPANIES PRIOR TO COMMENCING WORK. AVOID DAMAGE TO UTILITIES AND UNDERGROUND FEATURES DURING CONSTRUCTION. REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OPERATIONS AT CONTRACTOR'S EXPENSE.

7. VALVE AND HYDRANT OPERATION:

a. ALL VALVES AND HYDRANTS TO BE OPERATED BY DMWW PERSONNEL ONLY. CONTRACTOR TO COORDINATE WITH ENGINEERING TECHNICIAN 72 HOURS IN ADVANCE OF REQUIRED OPERATION..

8. WATER MAIN SHUTDOWNS:

a. WATER MAIN SHUTDOWNS MAY NEED TO BE COMPLETED OUTSIDE OF NORMAL WORKING HOURS TO MINIMIZE IMPACT ON AFFECTED CUSTOMERS. NO ADDITIONAL COMPENSATION WILL BE PAID FOR WORK OUTSIDE OF DMWW NORMAL WORKING HOURS (8:00 A.M. TO 4:30 P.M.).

b. CONTRACTOR TO NOTIFY DMWW A MINIMUM OF 5 DAYS IN ADVANCE OF WATER MAIN SHUTDOWNS. DMWW WILL PROVIDE DOOR TAGS TO CONTRACTOR. DMWW TECHNICIAN TO ASSIST CONTRACTOR IN IDENTIFICATION OF SERVICES REQUIRING CUSTOMER NOTIFICATIONS.

c. DMWW TO NOTIFY BUSINESS CUSTOMERS A MINIMUM OF 72 HOURS IN ADVANCE OF WATER MAIN SHUTDOWNS. COORDINATE WITH DMWW TECHNICIAN FOR SCHEDULING AND NOTIFICATIONS.

9. CONNECTION TO EXISTING WATER MAINS:

a. CONTRACTOR TO NOTIFY DMWW ENGINEERING TECHNICIAN A MINIMUM OF 72 HOURS BEFORE BEGINNING WORK THAT REQUIRES ISOLATION OF A PORTION OF THE DISTRIBUTION SYSTEM.

b. NOTIFY ENGINEER IMMEDIATELY IF CONNECTIONS TO EXISTING SYSTEM CANNOT BE COMPLETED AS SHOWN OR IF MODIFICATIONS ARE REQUIRED.

c. CONNECTIONS TO EXISTING FEEDER MAIN WILL ONLY BE ALLOWED DURING LOW DEMAND PERIOD AS DETERMINED BY DMWW, TYPICALLY BETWEEN OCTOBER TO MARCH.

10. FLUSHING, TESTING, AND DISINFECTION:

a. CONTRACTOR REQUIRED TO SWAB AND DISINFECT NEW WATER MAIN, PER AWWA C651, PRIOR TO CONNECTION TO EXISTING WATER MAIN AND IN PRESENCE OF DMWW ENGINEERING TECHNICIAN.

b. COORDINATE AND SCHEDULE FLUSHING AND CHLORINATION PROCEDURES WITH DMWW, GIVE 72 HOURS NOTICE. FLUSHING SCHEDULE TO BE DICTATED BY DAILY DEMAND APPROVED BY DMWW. CHLORINATION BY TABLET METHOD IS NOT ALLOWED. DECHLORINATION IS REQUIRED.

c. CONTRACTOR SHALL COMPLETE WATER MAIN TESTING AND DISINFECTION IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. TESTING IS INCIDENTAL TO THE PROJECT.

d. AFTER FAILING TWO CONSECUTIVE SERIES OF BACTERIALOGICAL TESTING, DMWW MAY METER THE WATER USED FOR ADDITIONAL FLUSHING AND CHARGE SAMPLING COSTS BACK TO THE CONTRACTOR.

e. CORPORATION STOP FOR SAMPLING AND THE CHLORINATION TAP IS TO BE REMOVED AND PLUGGED AFTER CHLORINATION AND TESTING IS COMPLETE.

f. IF TEST RESULTS DO NOT MEET THOSE SPECIFIED, THE CONTRACTOR WILL MAKE NECESSARY CORRECTIONS AND REPEAT TESTING TO DEMONSTRATE COMPLIANCE WITH THE SPECIFICATIONS. CONTRACTOR SHALL PAY FOR ALL COSTS ASSOCIATED WITH RETESTING AT ITS OWN EXPENSE.

g. FLUSHING WILL ONLY BE ALLOWED DURING LOW DEMAND PERIODS, AS DETERMINED BY DMWW.

11. STAGING:

a. CONTRACTOR TO COORDINATE ACTUAL SCHEDULE AND SEQUENCE WITH DMWW ENGINEERING TECHNICIAN THROUGHOUT THE PROJECT.

b. INSTALL WATER MAIN IN ACCORDANCE WITH PROJECT STAGING REQUIREMENTS.

c. REFER TO SECTION 01 00 00 PARAGRAPH 1.12 CONSTRUCTION SEQUENCE FOR DETAILS SEQUENCING INFORMATION.

MARK	REVISION	DATE	BY
Engineer: WCF	Checked By: CHKD	Scale: 1"=NONE	
Technician: LM	Date: 10-19-2023	T-R-S: ----	

Sheet 4

DMWW Project No. 548-872-9010
S&A Project No. 123.0213

DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

URBANDALE, IOWA

DMWW GENERAL NOTES

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER & ASSOCIATES

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Sheet 4

POLLUTION PREVENTION AND EROSION PROTECTION

1.1. CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.

1.2. DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT / ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.

1. STORM WATER DISCHARGE PERMIT

1.1. THIS PROJECT REQUIRES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR, AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH AND FULFILLMENT OF ALL REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 AS SPECIFIED IN THE CONTRACT DOCUMENTS.

1.2. ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING, BUT NOT LIMITED TO, THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO ANY JURISDICTIONAL AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.

1.3. A "NOTICE OF DISCONTINUATION" MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION OF THE DISTURBED SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD COPY AND PROVIDE THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE AND/OR SUBMITTAL OF THE NOTICE OF DISCONTINUATION.

2. POLLUTION PREVENTION PLAN

2.1. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN ADDITION TO THESE PLAN DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE DURING CONSTRUCTION.

2.2. THE SWPPP ILLUSTRATES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR COMPLIANCE WITH THE PROJECT'S NPDES PERMIT COVERAGE. ALL BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S FROM THOSE SHOWN ON THE PLAN MAY BE REQUIRED.

2.3. THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.

2.4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT AND SWPPP, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:

2.4.1. UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN DISCHARGING FROM BASINS, PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORM WATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORM WATER INFILTRATION, AND MINIMIZE SOIL COMPACTION.

2.4.2. INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.

2.4.3. PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.

2.4.4. MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACEMENT, AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.

2.4.5. INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS OF THESE INSPECTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 7 DAYS.

2.4.6. PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.

2.4.7. INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.

2.4.8. RESPREAD A MINIMUM OF 4 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOD) ON ALL DISTURBED AREAS, EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.

2.4.9. STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, SOD, OR PAVEMENT IMMEDIATELY AS SOON AS POSSIBLE UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES IMMEDIATELY AFTER CONSTRUCTION ACTIVITY IS FINALLY COMPLETED OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WHICH WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.

2.4.10. COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER AND RECORD IN THE SWPPP. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING / VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE, AND CONCRETE WASHOUT FACILITY. CONTROL RUNOFF FROM STAGING AREAS WITH DIVERSION BERMS AND/OR SILT BARRIERS AND DIRECT TO A SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.

2.4.11. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

2.4.12. POLLUTION PREVENTION RESPONSIBILITIES FOR THE SITE WILL BE TRANSFERRED TO THE IOWA DOT AS PART OF THE HICKMAN ROAD INTERCHANGE PROJECT STARTING JANUARY 31,2025.

POLLUTION PREVENTION RESPONSIBILITIES

	TASK	OWNER	ENGINEER	CONTRACTOR
1	CREATE THE INITIAL SWPPP.			X
2	PUBLISH THE PUBLIC NOTICE OF STORM WATER DISCHARGE.			X
3	FILE THE PUBLIC NOTICE OF INTENT WITH APPLICATION FEE FOR NPDES GENERAL PERMIT NO. 2 COVERAGE.			X
4	SIGN NPDES CERTIFICATION STATEMENT AS PERMITTEE OR CO-PERMITTEE.			X
5	COORDINATE CERTIFICATION OF SUBCONTRACTOR CO-PERMITTEES.			X
6	COMPLY WITH THE REQUIREMENTS OF THE GENERAL PERMIT NO.2 AND THE SWPPP.			X
7	INSTALL, MAINTAIN AND REMOVE EROSION CONTROL AND POLLUTION PREVENTION MEASURES.			X
8	WEEKLY INSPECTIONS AND CORRESPONDING RECORDS.			X
9	UPDATE AND MAINTAIN THE ONSITE SWPPP.			X
10	COOPERATE TO PROVIDE INFORMATION UNDER THE RESPONSIBILITY OF OTHERS.			X
11	SUBMIT THE NOTICE OF DISCONTINUATION.			X
12	ALL REQUIREMENTS NOT ASSIGNED TO OTHERS.			X

WATER MAIN CONSTRUCTION NOTES

1. GENERAL CONSTRUCTION

a. COORDINATE THE CONSTRUCTION TO MINIMIZE THE DISRUPTIONS TO THE ADJACENT PROPERTIES. ANY AREAS DISTURBED BY CONSTRUCTION OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE REPAIRED AND RESTORED AT THE CONTRACTOR'S EXPENSE.

b. DO NOT RESTRICT DRAINAGE CHANNELS AND PROTECT ALL EXISTING DRAINAGE STRUCTURES. CONTRACTOR FULLY LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN THE HANDLING OF STORM WATER FLOWS DURING CONSTRUCTION. ANY EXTRA GRADING WORK NEEDED TO MAINTAIN POSITIVE DRAINAGE WITHIN THE CONSTRUCTION LIMITS IS INCIDENTAL TO CONSTRUCTION.

c. REPAIR ALL FIELD/DRAIN TILES THAT ARE ENCOUNTERED DURING CONSTRUCTION AS SPECIFIED. RECORD THE EXISTING TYPE, SIZE, LOCATION AND DEPTH OF ALL FIELD/DRAIN TILES ENCOUNTERED AND REPAIRED DURING CONSTRUCTION. PROVIDE DATA TO THE ENGINEER FOR INCORPORATION INTO THE RECORD DRAWINGS.

d. PROTECT AND KEEP DEBRIS DEPOSITED BY THE CONSTRUCTION OFF OF ADJACENT PROPERTIES OUTSIDE THE EASEMENT AREA AND STREETS. REMOVE AND REPAIR ANY DAMAGE WITHOUT ADDITIONAL COMPENSATION.

e. CONTRACTORS SHALL SATISFY THEMSELVES PRIOR TO SUBMISSION OF BIDS AS TO THE SOIL CONDITIONS.

f. PROTECT AND SAVE ALL PROPERTY CORNER MONUMENTS. REPLACE IF REMOVED OR DAMAGED.

g. DIMENSIONS, STREET LOCATIONS, UTILITIES, AND GRADING ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. DEVIATIONS MAY BE NECESSARY IN THE FIELD. REPORT ANY SUCH CHANGES OR CONFLICTS BETWEEN THE PLAN AND FIELD CONDITIONS TO ENGINEER IMMEDIATELY.

h. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.

i. MAINTAIN EMERGENCY ACCESS ON ALL STREETS AND ALL AFFECTED PROPERTIES AT ALL TIMES.

2. SITE PREPARATION

a. PROVIDE EROSION CONTROL MEASURES NECESSARY TO PROTECT AGAINST SILTATION, EROSION AND DUST POLLUTION WITHIN CONSTRUCTION LIMITS AND ANY OFF-SITE AREAS USED FOR THIS PROJECT. COMPLY WITH SOIL EROSION CONTROL REQUIREMENTS OF IOWA CODE AND LOCAL ORDINANCES.

b. REMOVE ONLY TREES NOTED FOR REMOVAL ON PLANS. PRESERVE AS MUCH BRUSHY VEGETATION AS POSSIBLE, ONLY CLEAR THE MINIMUM REQUIRED TO COMPLETE THE CONSTRUCTION.

c. CONTRACTOR RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING ALL ACCESSES TO THE CONSTRUCTION LIMITS. THE ACCESSES MUST BE ADEQUATELY SIZED AND PROPERLY SURFACED FOR UTILIZATION BY CONSTRUCTION VEHICLES AND INCLUDE PROVISIONS TO MAINTAIN POSITIVE DRAINAGE. WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, UNLESS NOTED OTHERWISE.

d. CONTRACTOR SHALL REMOVE AND REPLACE, OR TEMPORARILY COVER, ALL EXISTING PERMANENT TRAFFIC SIGNS THAT ARE IN CONFLICT WITH THE CONSTRUCTION. NOTIFY THE OWNER 5 DAYS BEFORE CONSTRUCTION BEGINS. PROVIDE TEMPORARY SIGNS IF TRAFFIC IS MAINTAINED. PROTECT ALL CITY SIGNS AND POST NOT REMOVED.

e. BLADING, SHAPING OR MAINTENANCE OF TEMPORARY CONNECTIONS, CROSSINGS DETOURS OR TEMPORARY ACCESSES SHALL BE INCIDENTAL TO THE PROJECT.

f. OWNER HAS FIRST RIGHT OF REFUSAL TO RETAIN ANY MATERIAL REMOVED FROM THE PROJECT AREA. IF DIRECTED, DELIVER ITEMS OR MATERIALS TO OWNER AT LOCATION DESIGNATED BY THE OWNER. DISPOSE OF NON-SALVAGEABLE MATERIALS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

g. PROVIDE WASTE AREAS OR DISPOSAL SITES FOR WASTE MATERIAL (ASPHALTIC CONCRETE, STEEL OR BROKEN CONCRETE). NO EXTRA PAYMENTS WILL BE MADE FOR MATERIAL HAULED TO THESE SITES. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. DO NOT PLACE WASTE MATERIAL WITHIN THE RIGHT-OF-WAY. KEEP CONSTRUCTION DEBRIS AND DIRT OFF OF THE ADJACENT PROPERTIES AND STREETS.

h. STRIP, SALVAGE AND RESPREAD TOP 6 INCHES OF TOPSOIL IN ALL AREAS WITHIN THE CONSTRUCTION LIMITS, EXCEPT AREAS NOT DISTURBED BY CONSTRUCTION.

3. TRENCHED CONSTRUCTION

a. INSTALL WATER MAIN AT A MINIMUM DEPTH OF 5.5' OR AS SHOWN ON PLANS. DO NOT INSTALL THE WATER MAIN WITH ANY ARTIFICIAL HIGH POINTS. IMMEDIATELY NOTIFY THE ENGINEER IF THERE ARE ANY DEVIATIONS TO THE ELEVATION OF THE INSTALLED WATER MAIN.

b. INSTALL WATER MAIN IN DRY TRENCH CONDITIONS. DO NOT ALLOW WATER TO RISE IN THE TRENCH AROUND THE PIPE. INSTALL DEWATERING SYSTEM AS REQUIRED. NO COMPENSATION WILL BE MADE DUE TO HIGH GROUND WATER CONDITIONS.

c. PRIOR TO OPEN TRENCH OR TRENCHLESS METHOD INSTALLATION OF THE WATER MAIN, EXPOSE ALL EXISTING UTILITIES IN THE PROPOSED PATHWAY. NOTIFY ENGINEER OF ANY CONFLICTS.

d. INSTALL AND MAINTAIN TEMPORARY CONSTRUCTION FENCE AROUND ALL OPEN TRENCHES OR EXCAVATIONS WHEN LEFT UNATTENDED.

e. WATER MAIN SHALL BE PRE-STRESSED CONCRETE CYLINDER PIPE (PCCP) OR DUCTILE IRON PIPE (DIP) AS SPECIFIED. PIPE TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

f. INSERT PUSH-ON PIPE INTO BELL END PER MANUFACTURER'S RECOMMENDATION. DO NOT OVER-SEAT PIPE.

g. PREVENT ANY DIRT OR FOREIGN MATERIAL FROM ENTERING PIPE BY INSTALLING TEMPORARY PLUG OR CAP ON PIPE END DURING ANY STOPPAGE OF INSTALLATION.

h. INSTALL POLYETHYLENE ENCASEMENT PER AWWA C105 ON ALL DUCTILE IRON PIPE, FITTINGS, AND VALVES.

i. COMPACT ALL TRENCH BACKFILL, UNDER PAVED SURFACES, AND WITHIN RIGHT-OF-WAY TO 95% STANDARD PROCTOR DENSITY, OR AS SPECIFIED.

4. TRACER WIRE SYSTEM

a. ALL ACCESS STATIONS FOR THE TRACER WIRE MUST BE PROPERLY INSTALLED BEFORE THE WATER MAIN IS PUT IN SERVICE.

b. INSTALL TRACER WIRE WITH ALL WATER MAIN INCLUDING TERMINATIONS AS SPECIFIED.

c. INSTALL PROTECTIVE FENCING AROUND ALL TEST STATIONS CONSISTING OF FOUR (4) STEEL T-POSTS (6 FT LENGTH) SPACED 24" APART. WRAP POSTS WITH ORANGE SAFETY CONSTRUCTION FENCE AND WIRE TO POSTS WITH A MINIMUM OF FOUR (4) WIRE TIES.

5. SURFACE RESTORATION

a. NEW PRIMARY CONSTRUCTION ACCESS CONSTRUCTED FOR PROJECT WILL REMAIN IN PLACE AT END OF DMWW PROJECT.

b. ALTERNATE CONSTRUCTION ACCESS IMPROVEMENTS WILL REMAIN IN PLACE AT END OF DMWW PROJECT.

c. SURFACE RESTORATION INCLUDES THE REMOVAL OF ALL GRANULAR MATERIAL FROM THE TOP 6 INCHES OF TOPSOIL. THIS WORK IS INCIDENTAL TO CONSTRUCTION.

d. MULCH ALL DISTURBED AREAS WITH HYDROMULCH IN ACCORDANCE WITH IOWA DOT STANDARD SPECIFICATION SECTION 2601.

MARK	REVISION	DATE	BY
Engineer: WCF	Checked By: CHKD	Scale: 1" =	
Technician:LM	Date: 10-19-2023	T-R-S: ---	

Sheet 5

DMWW Project No. 548-872-9010
S&A Project No. 123.0213

DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

URBANDALE, IOWA

GENERAL NOTES

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER & ASSOCIATES

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File No. 3131

Sheet 5

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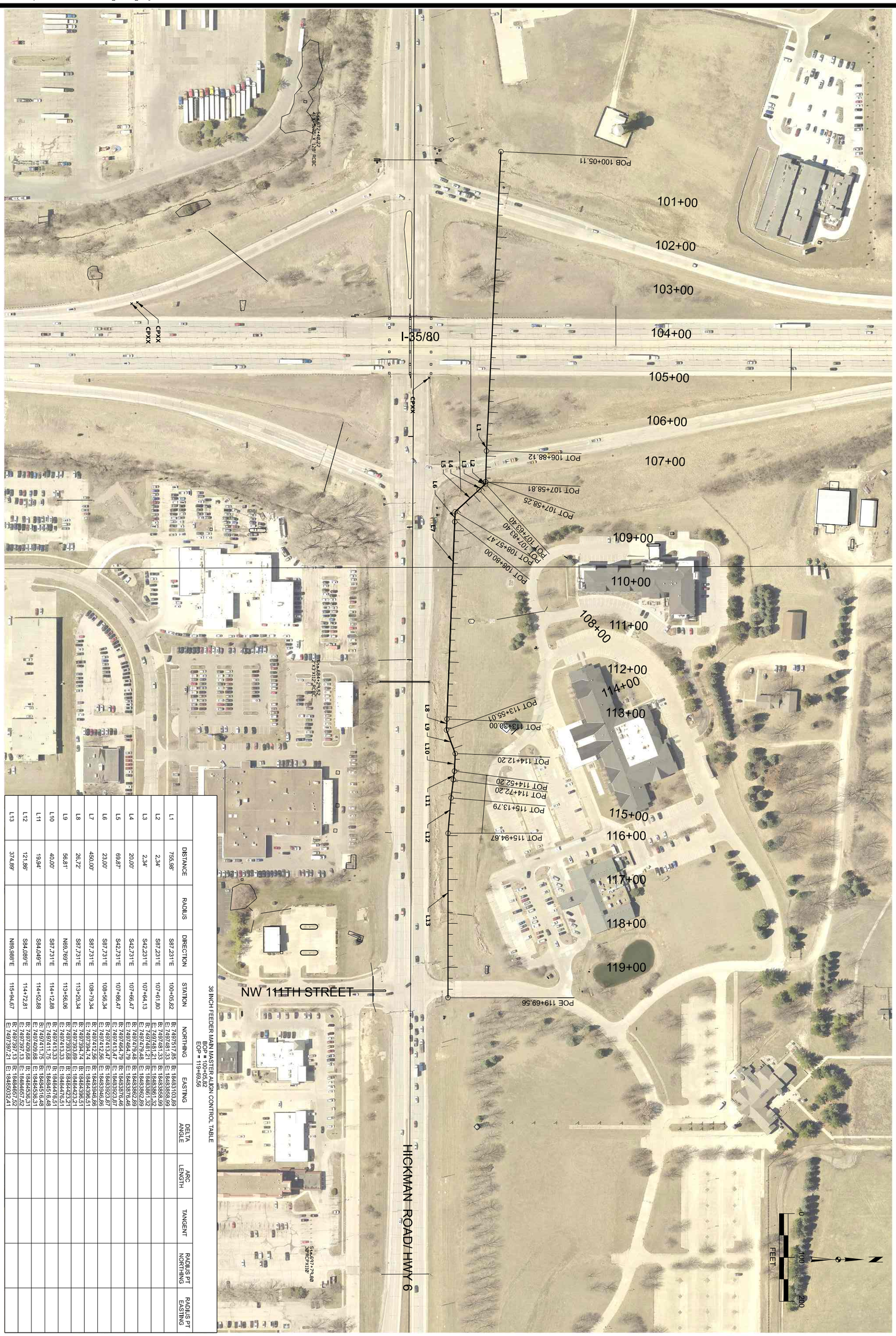


36 INCH FEEDER MAIN MASTER ALIGN CONTROL TABLE
BOP = 100+05.82
EOP = 119+69.56

	DISTANCE	RADIUS	DIRECTION	STATION	NORTHING	EASTING	DELTA ANGLE	ARC LENGTH	TANGENT	RADIUS PT NORTHING	RADIUS PT EASTING
L1	755.98'		S87.231'E	100+05.82	E: 7497517.85	E: 1846831103.89					
L2	2.34'		S87.231'E	107+61.80	E: 7497481.21	E: 1846838861.32					
L3	2.34'		S42.231'E	107+64.13	E: 7497481.21	E: 1846838861.32					
L4	20.00'		S42.731'E	107+86.47	E: 7497479.48	E: 1846838862.89					
L5	69.87'		S42.731'E	107+86.47	E: 7497464.79	E: 1846838876.46					
L6	23.00'		S87.731'E	108+56.34	E: 7497413.47	E: 1846839024.87					
L7	450.00'		S87.731'E	108+79.34	E: 7497412.56	E: 1846839046.86					
L8	26.72'		S87.731'E	113+29.34	E: 7497394.74	E: 1846839561.51					
L9	56.81'		N89.769'E	113+56.06	E: 7497393.68	E: 1846844423.21					
L10	40.00'		S87.731'E	114+12.88	E: 7497411.75	E: 1846845516.48					
L11	19.84'		S84.049'E	114+52.88	E: 7497411.75	E: 1846845516.48					
L12	121.86'		S84.089'E	114+72.81	E: 7497409.88	E: 1846845536.31					
L13	374.89'		N89.888'E	115+94.67	E: 7497397.13	E: 1846846657.52					

SNYDER & ASSOCIATES

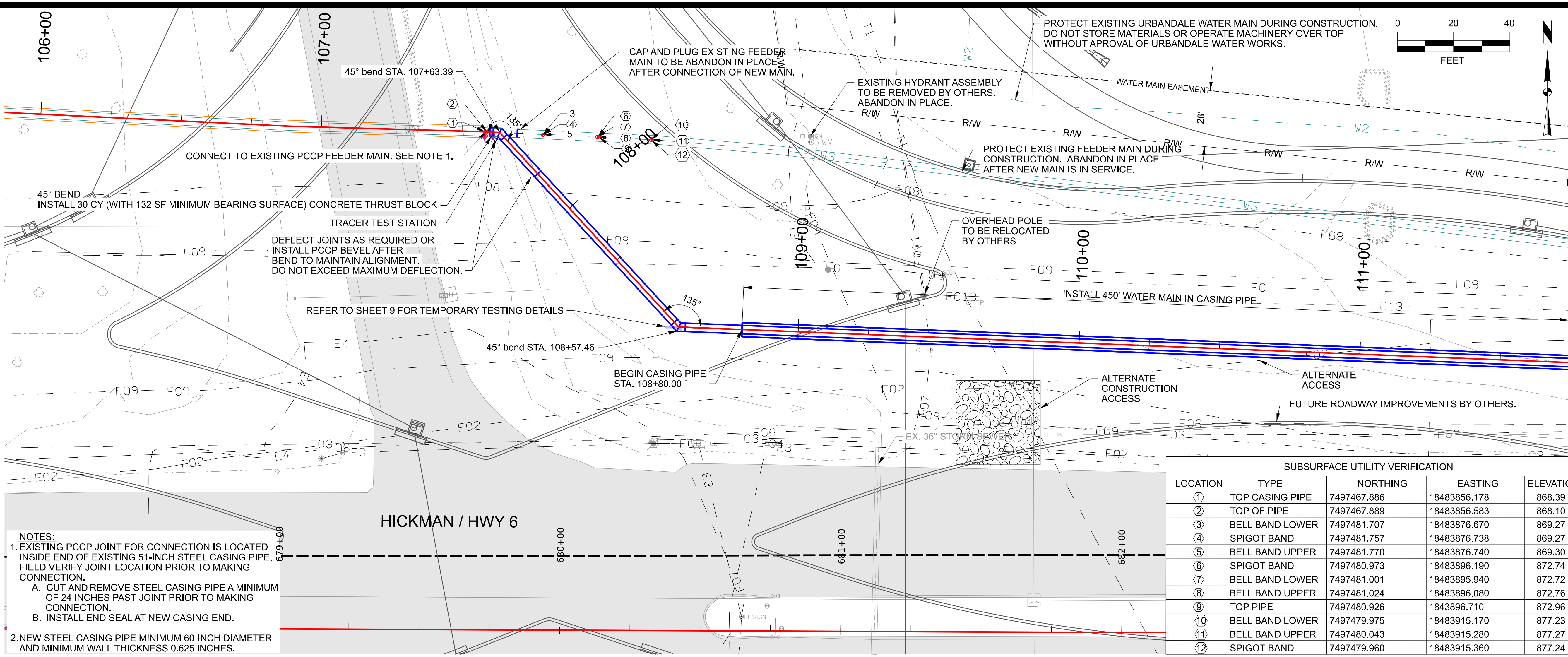
DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

SURVEY SHEET — URBANDALE, IOWA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

DOT	IM-080-3(264)124-13-77		
MARK	REVISION	DATE	BY
Engineer: WCF	Checked By: WCF	Scale: 1"= 100'	
Technician: JDS	Date: 02/21/2023	Field Bk:	Pg:
DMWW Project No: 548-872-9010 S&A Project No: 123.0213.01		Sheet 6	

Sheet 6 | File No: 3131



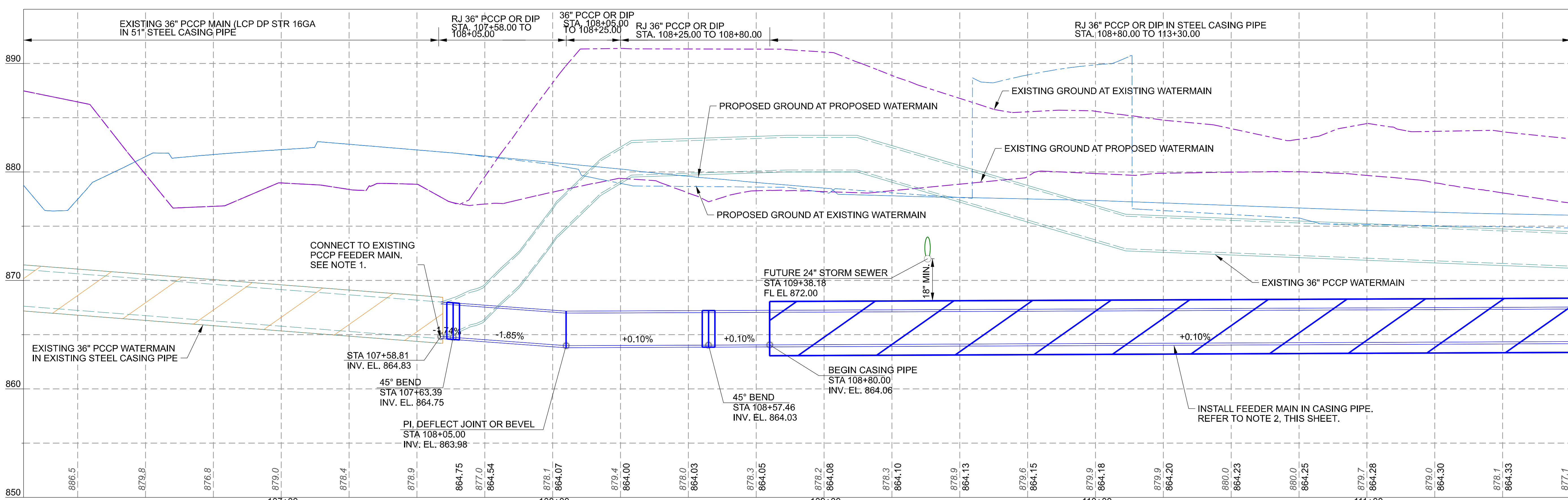
106+00
107+00
108+00
109+00
110+00
111+00
45° bend STA. 107+63.39
CAP AND PLUG EXISTING FEEDER MAIN TO BE ABANDON IN PLACE AFTER CONNECTION OF NEW MAIN.
PROTECT EXISTING URBANDALE WATER MAIN DURING CONSTRUCTION. DO NOT STORE MATERIALS OR OPERATE MACHINERY OVER TOP WITHOUT APROVAL OF URBANDALE WATER WORKS.
0
20
40
FEET
WATER MAIN EASEMENT
20'
EXISTING HYDRANT ASSEMBLY TO BE REMOVED BY OTHERS. ABANDON IN PLACE.
R/W
CONNECT TO EXISTING PCCP FEEDER MAIN. SEE NOTE 1.
PROTECT EXISTING FEEDER MAIN DURING CONSTRUCTION. ABANDON IN PLACE AFTER NEW MAIN IS IN SERVICE.
45° BEND
INSTALL 30 CY (WITH 132 SF MINIMUM BEARING SURFACE) CONCRETE THRUST BLOCK
TRACER TEST STATION
DEFLECT JOINTS AS REQUIRED OR INSTALL PCCP BEVEL AFTER BEND TO MAINTAIN ALIGNMENT. DO NOT EXCEED MAXIMUM DEFLECTION.
OVERHEAD POLE TO BE RELOCATED BY OTHERS
135°
INSTALL 450' WATER MAIN IN CASING PIPE.
REFER TO SHEET 9 FOR TEMPORARY TESTING DETAILS
45° bend STA. 108+57.46
BEGIN CASING PIPE STA. 108+80.00
ALTERNATE CONSTRUCTION ACCESS
ALTERNATE ACCESS
FUTURE ROADWAY IMPROVEMENTS BY OTHERS.
EX. 36" STORM SEWER
HICKMAN / HWY 6
679+00
680+00
681+00
682+00

NOTES:

1. EXISTING PCCP JOINT FOR CONNECTION IS LOCATED INSIDE END OF EXISTING 51-INCH STEEL CASING PIPE. FIELD VERIFY JOINT LOCATION PRIOR TO MAKING CONNECTION.
   A. CUT AND REMOVE STEEL CASING PIPE A MINIMUM OF 24 INCHES PAST JOINT PRIOR TO MAKING CONNECTION.
   B. INSTALL END SEAL AT NEW CASING END.
2. NEW STEEL CASING PIPE MINIMUM 60-INCH DIAMETER AND MINIMUM WALL THICKNESS 0.625 INCHES.

SUBSURFACE UTILITY VERIFICATION

LOCATION	TYPE	NORTHING	EASTING	ELEVATION
1	TOP CASING PIPE	7497467.886	18483856.178	868.39
2	TOP OF PIPE	7497467.889	18483856.583	868.10
3	BELL BAND LOWER	7497481.707	18483876.670	869.27
4	SPIGOT BAND	7497481.757	18483876.738	869.27
5	BELL BAND UPPER	7497481.770	18483876.740	869.30
6	SPIGOT BAND	7497480.973	18483896.190	872.74
7	BELL BAND LOWER	7497481.001	18483895.940	872.72
8	BELL BAND UPPER	7497481.024	18483896.080	872.76
9	TOP PIPE	7497480.926	1843896.710	872.96
10	BELL BAND LOWER	7497479.975	18483915.170	877.23
11	BELL BAND UPPER	7497480.043	18483915.280	877.27
12	SPIGOT BAND	7497479.960	18483915.360	877.24



EXISTING 36" PCCP MAIN (LCP DP STR 16GA IN 51" STEEL CASING PIPE
RJ 36" PCCP OR DIP STA. 107+58.00 TO 108+05.00
36" PCCP OR DIP STA. 108+05.00 TO 108+25.00
RJ 36" PCCP OR DIP STA. 108+25.00 TO 108+80.00
RJ 36" PCCP OR DIP IN STEEL CASING PIPE STA. 108+80.00 TO 113+30.00
890
880
870
860
850
EXISTING GROUND AT EXISTING WATERMAIN
PROPOSED GROUND AT PROPOSED WATERMAIN
EXISTING GROUND AT PROPOSED WATERMAIN
PROPOSED GROUND AT EXISTING WATERMAIN
CONNECT TO EXISTING PCCP FEEDER MAIN. SEE NOTE 1.
FUTURE 24" STORM SEWER STA 109+38.18 FL EL 872.00
18" MIN.
EXISTING 36" PCCP WATERMAIN
EXISTING 36" PCCP WATERMAIN IN EXISTING STEEL CASING PIPE
-1.74%
-1.85%
+0.10%
STA 107+58.81 INV. EL. 864.83
45° BEND STA 107+63.39 INV. EL. 864.75
PI, DEFLECT JOINT OR BEVEL STA 108+05.00 INV. EL. 863.98
45° BEND STA 108+57.46 INV. EL. 864.03
BEGIN CASING PIPE STA 108+80.00 INV. EL. 864.06
INSTALL FEEDER MAIN IN CASING PIPE. REFER TO NOTE 2, THIS SHEET.
886.5
879.8
876.8
879.0
878.4
878.9
864.75
877.0
864.54
878.1
864.07
879.4
864.00
878.0
864.03
878.3
864.05
878.2
864.08
878.3
864.10
878.9
864.13
879.6
864.15
879.9
864.18
879.9
864.20
880.0
864.23
880.0
864.25
879.7
864.28
879.0
864.30
878.1
864.33
877.1
864.36
107+00
108+00
109+00
110+00
111+00

MARK	REVISION	DATE	BY

DOT IM-080-3(284)124--13-77

Engineer: WCF | Checked By: WCF | Scale: 1"= 20'
Technician: JDS | Date: 10/17/2023 | Field Bk: | Pg:

DMWW Project No: 548-872-9010
S&A Project No: 123.0213.01

Sheet 7

DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

URBANDALE, IOWA

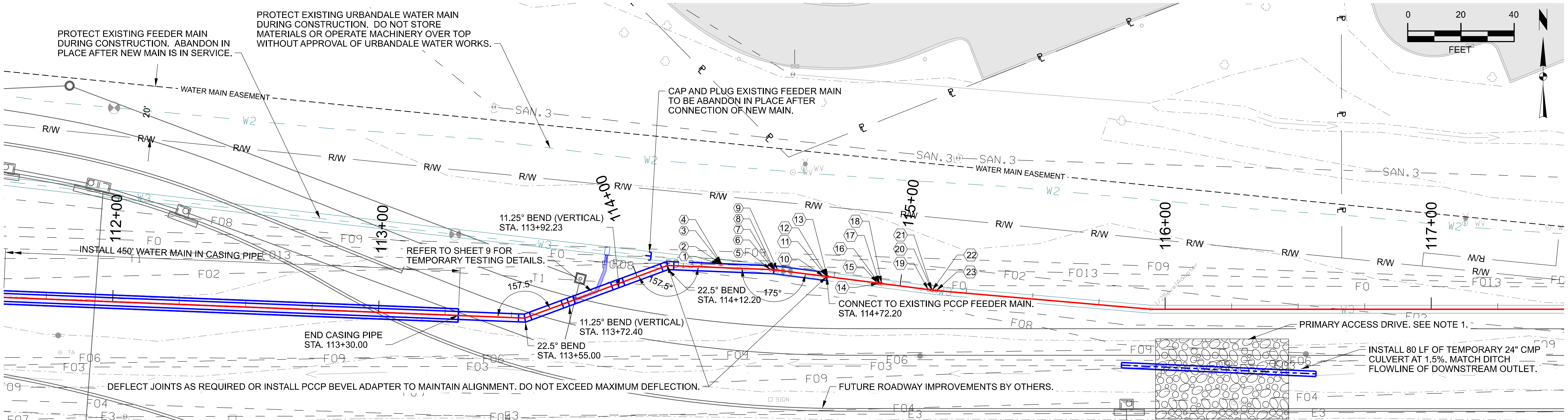
PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

File No: 3131

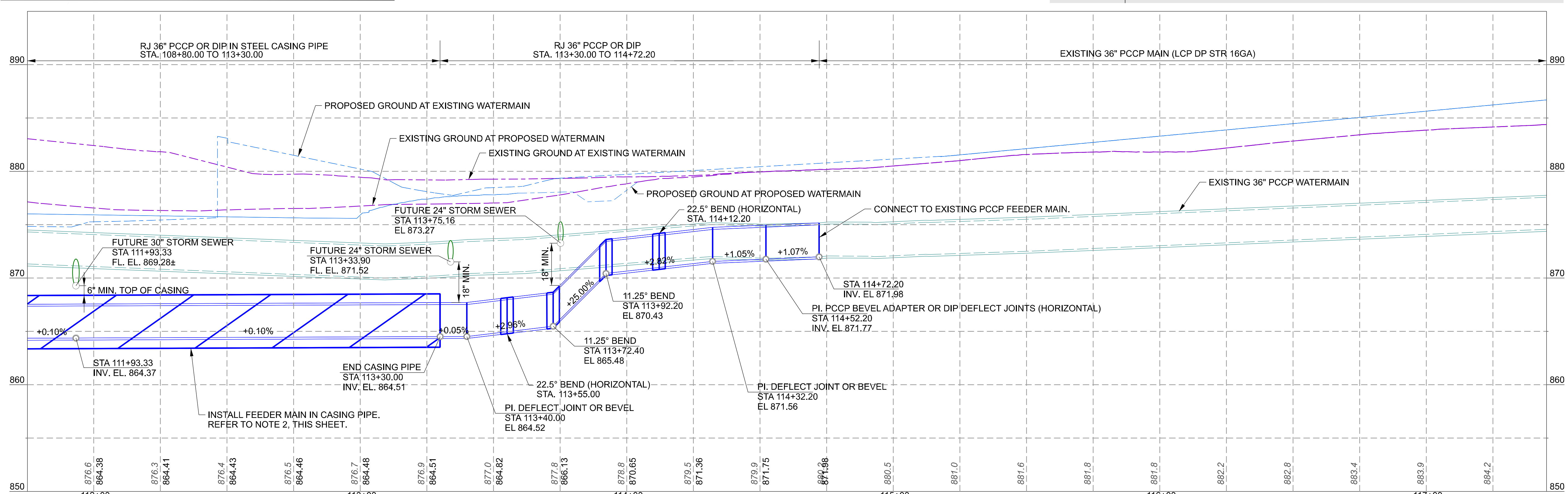
Sheet 7



SUBSURFACE UTILITY VERIFICATION				
LOCATION	TYPE	NORTHING	EASTING	ELEVATION
1	TOP PIPE	7497414.075	18484495.500	875.20
2	BELL BAND LOWER	7497413.974	18484496.080	875.04
3	BELL BAND UPPER	7497413.967	18484496.150	875.11
4	SPIGOT BAND	7497413.951	18484496.210	875.06
5	TOP PIPE	7497411.932	18484514.630	875.05
6	BELL BAND LOWER	7497411.821	18484515.900	874.98
7	BELL BAND UPPER	7497411.799	18484515.980	875.01
8	SPIGOT BAND	7497411.773	18484516.030	874.94
9	TOP PIPE	7497411.658	18484517.320	875.05
10	TOP PIPE	7497409.449	18484534.760	875.31
11	BELL BAND LOWER	7497409.316	18484535.680	875.17
12	BELL BAND UPPER	7497409.306	18484535.770	875.18

SUBSURFACE UTILITY VERIFICATION				
LOCATION	TYPE	NORTHING	EASTING	ELEVATION
13	SPIGOT BAND	7497409.306	18484535.890	875.15
14	TOP PIPE	7497406.92	18484554.990	875.24
15	BELL BAND LOWER	7497406.807	18484555.420	875.15
16	BELL BAND UPPER	7497406.792	18484555.500	875.19
17	SPIGOT BAND	7497406.803	18484555.540	875.13
18	TOP PIPE	7497406.632	18484556.340	875.19
19	TOP PIPE	7497404.38	18484573.900	875.42
20	BELL BAND LOWER	7497404.242	18484575.190	875.32
21	BELL BAND UPPER	7497404.242	18484575.190	875.32
22	SPIGOT BAND	7497404.197	18484575.320	875.34
23	TOP PIPE	7497404.091	18484576.940	875.40

NOTES:
1. FILL DRAINAGE SWALE AND INSTALL TEMPORARY CONSTRUCTION ACCESS. SHEET SHEET 11 FOR ADDITIONAL INFORMATION. GRADE SWALE TO POSITIVELY DRAIN TO AND FROM CULVERT, GRADE ACCESS WITH OVERTOP ELEVATION LOW POINT OF 1 FOOT BELOW EDGE OF ROADWAY ELEVATION.
2. NEW STEEL CASING PIPE MINIMUM 60-INCH DIAMETER AND MINIMUM WALL THICKNESS 0.625 INCHES.



DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

URBANDALE, IOWA

PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

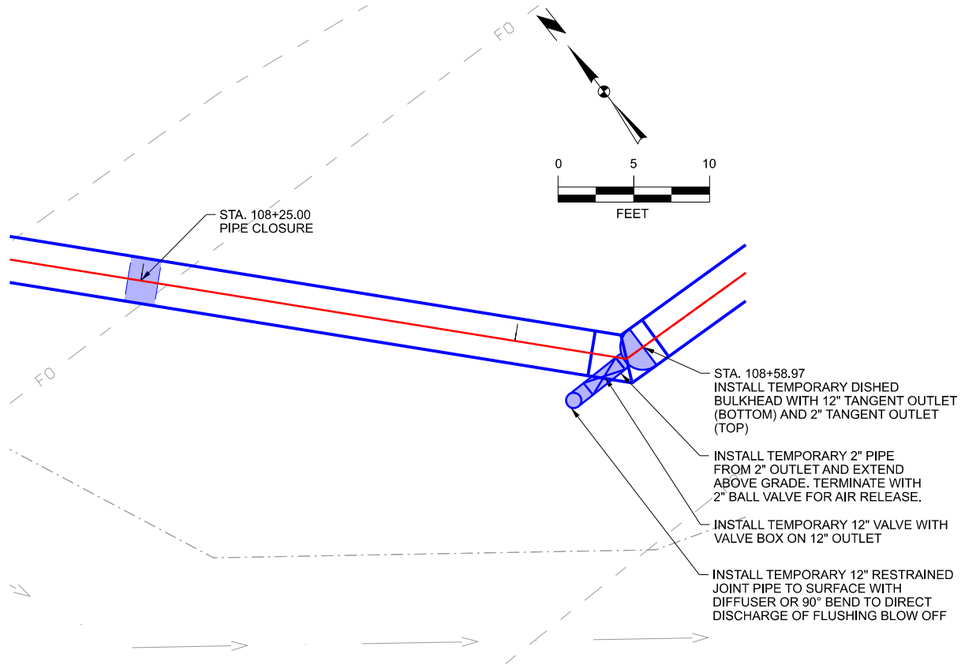
MARK	REVISION	DATE	BY

Engineer: WCF | Checked By: WCF | Scale: 1"= 20'
Technician: JDS | Date: 10/17/2023 | Field Bk: | Pg:
DMWW Project No: 548-872-9010
S&A Project No: 123.0213.01
Sheet 8

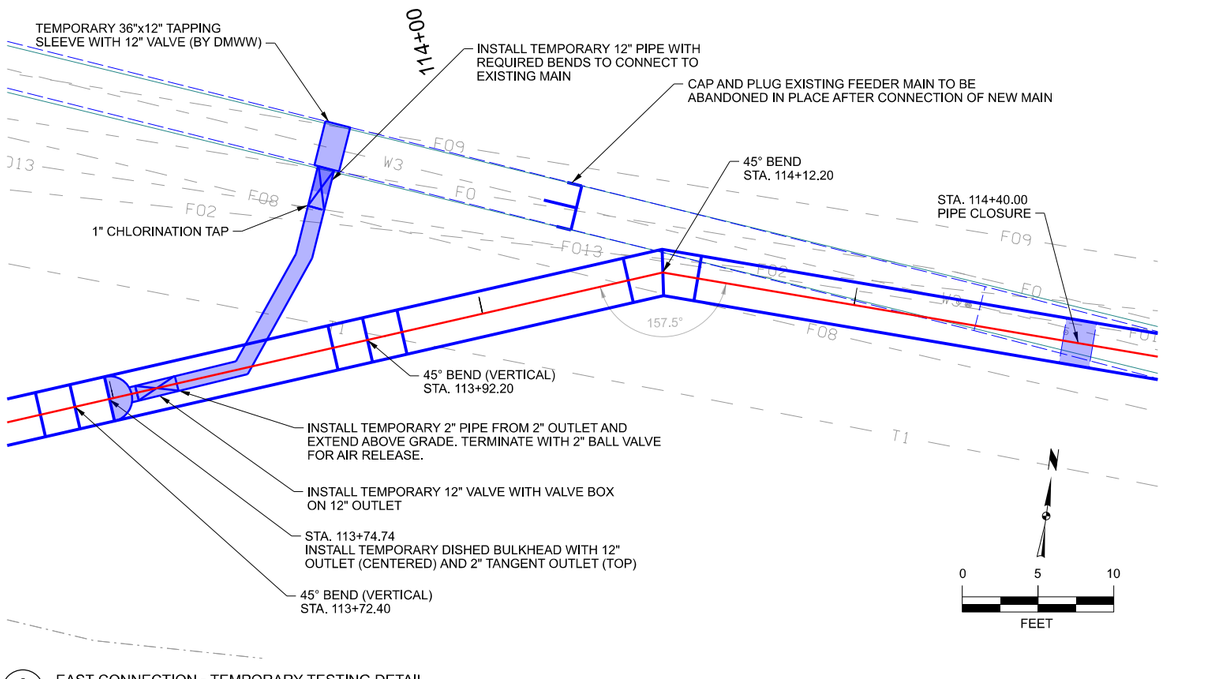
SNYDER & ASSOCIATES

File No: 3131

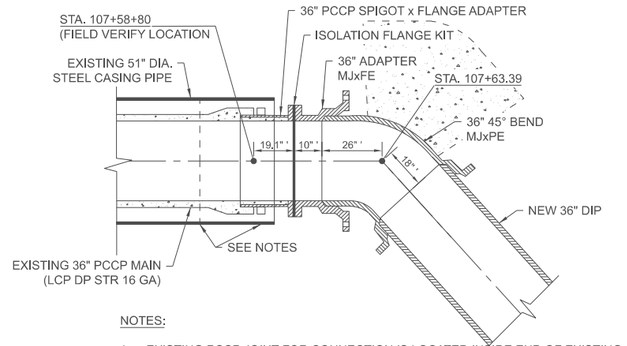
Sheet 8



1/9 WEST CONNECTION - TEMPORARY TESTING DETAIL
1" = 5'



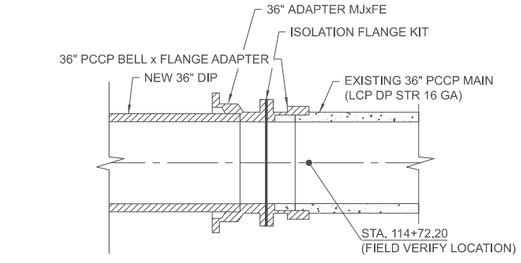
2/9 EAST CONNECTION - TEMPORARY TESTING DETAIL
1" = 5'



NOTES:

1. EXISTING PCCP JOINT FOR CONNECTION IS LOCATED INSIDE END OF EXISTING 51-INCH STEEL CASING PIPE. FIELD VERIFY JOINT LOCATION PRIOR TO MAKING CONNECTION.
2. CUT AND REMOVE STEEL CASING PIPE A MINIMUM OF 24 INCHES PAST JOINT PRIOR TO MAKING CONNECTION.
3. INSTALL END SEAL AT NEW CASING END.

3/9 WEST CONNECTION FOR DIP - STA. 107+58
NO SCALE



4/9 EAST CONNECTION FOR DIP - STA. 114+72
NO SCALE

NOTES
1. TEMPORARY PIPING FOR TESTING TO BE RESTRAINED JOINT C900 PVC OR CL 52 DIP.
2. ALL TEMPORARY PIPE AND FITTINGS TO BE REMOVED AND SALVAGED TO THE CONTRACTOR.
3. REFER TO STAGING NOTES FOR ADDITIONAL TESTING INFORMATION.
4. REFER TO PROJECT SPECIFICATIONS FOR DURATION OF CLOSURE ALLOWED FOR EXISTING MAIN.

MARK	REVISION	DATE	BY
Engineer: WCF	Checked By: WCF	Scale: 1"= 5'	
Technician: HMF	Date: 10/17/2023	Field Bk.:	Pg:

DMWW Project No: 548-872-9010
S&A Project No: 123.0213.01

Sheet 9

DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

URBANDALE, IOWA

DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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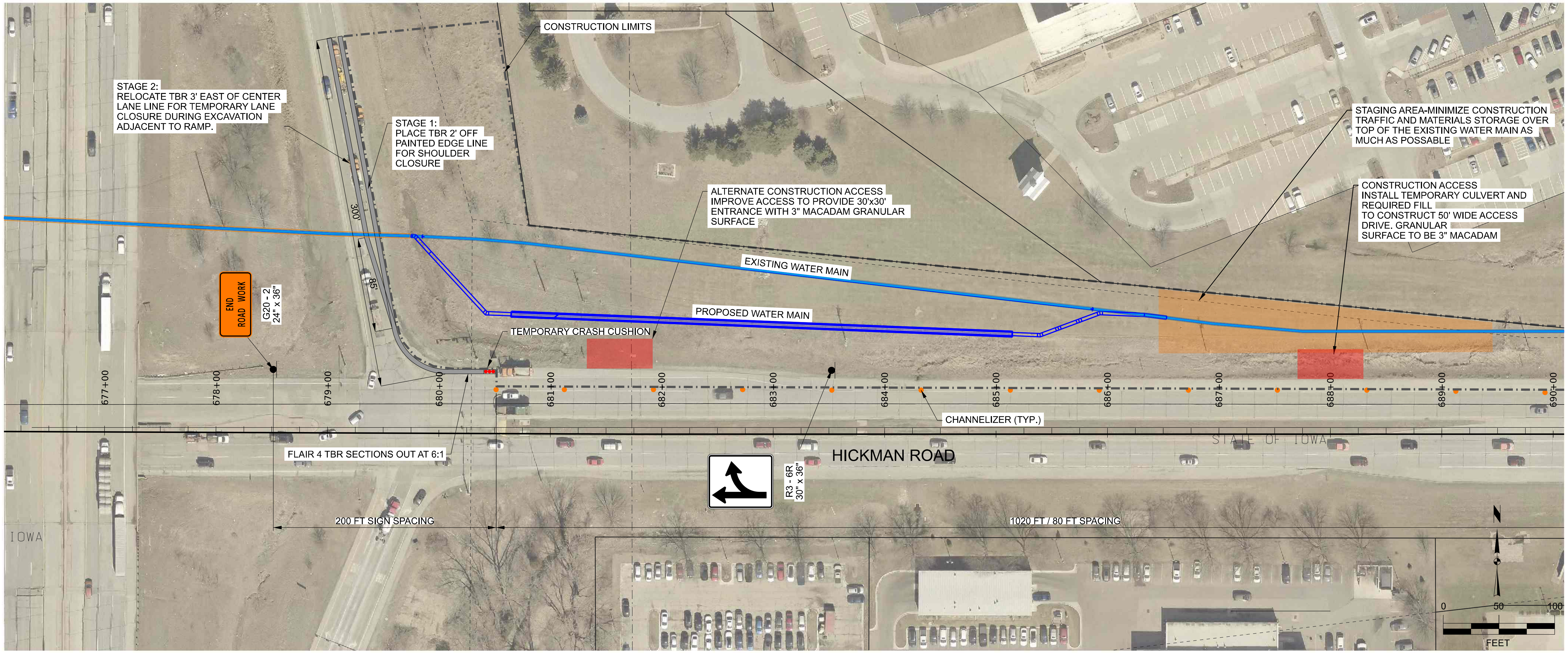
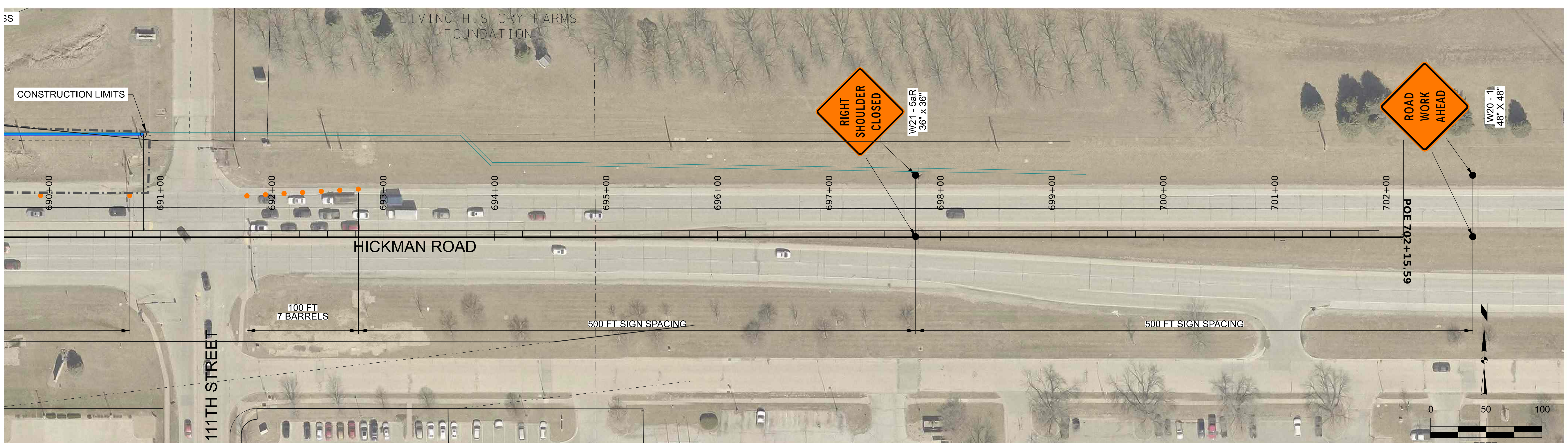
File No: 3131

Sheet 9





DMWW HICKMAN ROAD FEEDER MAIN RELOCATION

URBANDALE, IOWA

TRAFFIC CONTROL AND STAGING

MARK	REVISION	DATE	BY

Engineer: WCF
Checked By: WCF
Scale: 1"= 50'
Technician: HMF
Date: 10/17/2023
Field Bk:
Pg:
Sheet 10

DMWW Project No: 548-872-9010
S&A Project No: 123.0213.01

SNYDER & ASSOCIATES, INC.

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ANKENY, IOWA 50023
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Sheet 10

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