

NOTICE OF A REGULAR MEETING BONDURANT CITY COUNCIL OCTOBER 16, 2023

NOTICE IS HEREBY GIVEN that a Regular Meeting of the City Council will be held at 6:00 PM on October 16, 2023, in the Bondurant City Center, 200 Second Street, Northeast, Bondurant, Polk County, Iowa. Said meeting is open and the public is encouraged to attend.

AGENDA

1. Roll Call
2. Call to Order and Declaring a Quorum
3. Abstentions declared
4. Perfecting and Approval of the Agenda
5. Guests requesting to address the City Council
 - a. Supervisor Bob Brownell
6. Consent Agenda:

All items listed below are considered routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Council Member or citizen so requests, in which event the item will be removed from the Consent Agenda and considered separately.

 - a. Approval of October 2, 2023 City Council Meeting Minutes
 - b. Claims List
 - c. Applications for Council Approval
 - d. R-231016-205- Resolution approving pay request no. 5 to KLC Construction LLC. for the 15th Street and NE 88th Street/32nd St SE and Jorie Way Water Main Project in the amount of \$272,325.07
 - e. R-231016-206- Resolution approving final pay request no. 5 to include release of retainage to Sandstone Management LTD for the BRSC Parking Lot Project in the amount of \$48,234.84
 - f. R-231016-207- Resolution selecting the Commonstudio wayfinding design concept for incorporation into the Art, Culture & Wayfinding Master Plan
 - g. R-231016-208- Resolution approving payment of the Petocka Run Plat 1 sanitary sewer upsizing invoice in the amount of \$69,465.60
 - h. R-231016-209- Resolution adopting the Grant Street South School Zone Corridor Study
 - i. R-231016-210- Resolution considering approval of Harvest Meadows Commercial Plat 1 Preliminary Plat

The Bondurant City Council maintains the right to waive the first and second readings of ordinances presented and may pass the third and final reading of the same ordinance within the same council meeting.

Any person with a disability who requires a modification or accommodation in order to participate in the meeting, or any person with limited English proficiency (LEP) who requires language assistance to communicate with the City Council during the meeting, should contact the City Clerk, (515) 967-2418 or shagan@cityofbondurant.com, no fewer than two business days prior to the meeting to enable the City of Bondurant to make reasonable arrangements to assure accessibility or language assistance for the meeting.

- j. R-231016-211- Resolution authorizing the selection and purchase of playground equipment for the City Park renovation in an amount not to exceed \$725,000
 - k. R-231016-212- Resolution setting the date for public hearing and additional action on proposal to enter into a Trail Improvements Loan Agreement and to borrow money thereunder in a principal amount not to exceed \$375,000
 - l. R-231016-213- Resolution authorizing the Mayor to execute a real estate purchase agreement for land needed for street and trail construction, authorizing payment for the acquisition of property interests, and authorizing the taking of necessary steps for the closing of the property acquisition transaction in the amount of \$638,374.50
7. **Public Hearing**
- a. Public hearing on Section 177.07 Text Amendments regarding setback requirements for public parks
 - b. Public hearing on proposal to enter into an Emergency Services Loan Agreement (2023B additional)
 - c. Public Hearing regarding Urban Renewal Loan Agreement (Repurposing Bond proceeds - 2022A)
8. **Action Items**
- a. O-231017-223 - (First Reading) Ordinance amending the City Code of Bondurant, Iowa, by amending the following Section 177.07 of the Zoning Code regarding Setback Requirements for Public Parks
 - b. R-231016-214- Resolution taking additional action on proposal to enter into Emergency Services Loan Agreement, Combining Loan Agreements, setting the date for the sale of General Obligation Urban Renewal Bonds, Series 2023B and authorizing the use of a Preliminary Official Statement in connection therewith
 - c. R-231016-215- Resolution taking additional action on proposal to enter an Urban Renewal Loan Agreement and repurposing bond proceeds
 - d. R-231016-216- Resolution considering approval of Casey's Site Plan
 - e. R-231016-217- Resolution considering approval of Skol Trucking Site Plan
9. **Discussion Items**
- a. **Booster Station and Pipeline Project**

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**A virtual meeting is being offered. Participants wishing to speak on a topic should message the meeting moderator. All participants are asked to mute their individual computers at times when they are not speaking to minimize background noise. Join: <https://us02web.zoom.us/j/84425411499>*

- b. Draft IISC Arboretum Trail Concepts
10. Reports / Comments and appropriate action thereon:
 - a. Mayor
 - b. Council Members
 - c. Administrator
 - d. Directors
11. **Closed Session**- Pursuant to Iowa Code 21.5.1(j) to discuss property acquisition and 21.5.1(c) potential or pending litigation
12. Adjournment

The Bondurant City Council maintains the right to waive the first and second readings of ordinances presented and may pass the third and final reading of the same ordinance within the same council meeting.

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BONDURANT CITY COUNCIL

Minutes

October 2, 2023

Bondurant City Council

1. Roll Call

Present: Mayor Doug Elrod, Council Member Tara Cox,
Council Member Bob Pepper, Council Member
Chad Driscoll

Absent: Council Member Angela McKenzie, Council
Member Matt Sillanpaa

City Officials
Present: City Administrator Marketa Oliver, Planning &
Community Development Director Maggie
Murray, Public Works Director John Horton,
Fire Chief Aaron Kreuder, Library Director Jill
Sanders

2. Call to Order and Declaring a Quorum

Mayor Elrod called the meeting to order at 06:05 PM and declared a
quorum.

3. Abstentions declared

None.

4. Perfecting and Approval of the Agenda

Motion by Cox, seconded by Pepper, to approve the agenda. Vote on
Motion 3-0. Motion carried.

5. Guests requesting to address the City Council

None.

6. Consent Agenda:

*All items listed below are considered routine by the City Council and will be enacted by one motion. There will be no
separate discussion of these items unless a Council Member or citizen so requests, in which event the item will be
removed from the Consent Agenda and considered separately.*

a. Approval of September 18, 2023 City Council Meeting Minutes

b. Claims List

c. Applications for Council Approval

d. R-231002-195- Resolution approving proposal to replace overhead
electricity around City Park to underground to Mid-American Energy in
the amount of \$405,000.00

- e. R-231002-196- Resolution setting the date for public hearing and additional action on proposal to enter into an Emergency Services Loan Agreement and to borrow money thereunder (2023B additional)
- f. R-231002-197- Resolution approving pay request no. 4 to KLC Construction LLC for the 15th Street and NE 88th Street/32nd Street, SE and Jorie Way Water Main Project in the amount of \$129,750.79
- g. R-231002-198- Resolution approving change order no. 9 for the change in plan quantities to zero out plan quantity units for project audit for the Hwy 65 Underpass Project TAP-T-0747(613)—8V-77
- h. R-231002-199- Resolution approving change order no. 10 for contract reduction for Liquidated Damages for the Hwy 65 Underpass Project TAP-T-0747(613)—8V-77
- i. R-231002-200- Resolution affixing a date for a public hearing to consider text amendments to Section 177.07 of the Zoning Code regarding setback requirements for public parks
- j. R-231002-201- Resolution approving pay application no. 12 to Jenco Construction Inc. For the Highway 65 Underpass Public Improvement Project TAP-T-0747(613)-8V-77 in the amount of \$89,677.41
Motion by Pepper, seconded by Cox, to Approve the Consent Agenda.
Roll Call: Ayes: Cox, Pepper, Driscoll. Nays: None. Absent: McKenzie, Sillanpaa. Motion carried 3-0.

7. **Public Hearing**

- a. Public Hearing Regarding Plans and Specifications for Bid Package #1 of the City Park Project, Phase 1
Mayor Elrod opened the public hearing at 06:10 PM.

Mayor Elrod summarized the project.

Mayor Elrod closed the public hearing at 06:11 PM.
- b. Public hearing on proposal to enter into an Essential Purpose Loan Agreement (2023A EMS vehicles & Streets)
Mayor Elrod opened the public hearing at 06:11 PM.

Mayor Elrod summarized the project.

Mayor Elrod closed the public hearing at 06:12 PM.

- c. Public hearing on proposal to enter into a General Purpose Loan Agreement #1 (2023A Sports Courts)

Mayor Elrod opened the public hearing at 06:13 PM.

Mayor Elrod summarized the project. Council Member Pepper noted it's great to see this collaboration between the School District and the City. Mayor Elrod acknowledged recent commercial and industrial growth.

Mayor Elrod closed the public hearing at 06:15 PM.

- d. Public hearing on proposal to enter into a General Purpose Loan Agreement #2 (2023A Park Side Trail Connection)

Mayor Elrod opened the public hearing at 06:15 PM.

Mayor Elrod summarized the project.

Mayor Elrod closed the public hearing at 06:16 PM.

- e. Public hearing on proposal to enter into an Essential Purpose Loan Agreement (2023B-Streets & City Park)

Mayor Elrod opened the public hearing at 06:16 PM.

Mayor Elrod summarized the project.

Mayor Elrod closed the public hearing at 06:17 PM.

- f. Public hearing on proposal to enter into an Urban Renewal Loan Agreement (2023B-EMS facility)

Mayor Elrod opened the public hearing at 06:17 PM.

Mayor Elrod summarized the project.

Mayor Elrod closed the public hearing at 06:18 PM.

8. Action Items

- a. R-231002-202- Resolution approving action to order construction and set date of public hearing and letting for Bid Package #1 of the City Park Project, Phase 1

Motion by Pepper, seconded by Driscoll, to Approve R-231002-202. Roll Call: Ayes: Cox, Pepper, Driscoll. Nays: None. Absent: McKenzie, Sillanpaa. Motion carried 3-0.

- b. R-231002-203- Resolution taking additional action on proposals to enter into General Obligation Loan Agreements and combining Loan Agreements (2023A)

Motion by Cox, seconded by Pepper, to Approve R-231002-203. Roll Call:
Ayes: Cox, Pepper, Driscoll. Nays: None. Absent: McKenzie, Sillanpaa.
Motion carried 3-0.

- c. R-231002-204- Resolution taking additional action on proposals to enter into General Obligation Loan Agreements and combining Loan Agreements (2023B)

Motion by Cox, seconded by Driscoll, to Approve R-231002-204. Roll Call:
Ayes: Cox, Pepper, Driscoll. Nays: None. Absent: McKenzie, Sillanpaa.
Motion carried 3-0.

9. Reports / Comments and appropriate action thereon:

- a. Mayor

Noted he issued a statement to the Des Moines Register regarding the Central Iowa Water Works topic.

- b. Council Members

Pepper - noted the Highway 65 Underpass Ribbon Cutting event was well attended.

Driscoll - provided BRAVO committee updates.

Cox - provided DART committee updates.

- c. Administrator

Noted the BRSC Parking Lot Ribbon Cutting will take place Monday, October 9th at 5:15 p.m.

- d. Directors

Murray - noted the Parks & Recreation Board approved the IISC mural design concept for the Emergency Services Building. Noted the City is currently seeking female applicants for the Planning & Zoning Commission.

Horton - noted the trail loop around Lake Petocka will be resurfaced beginning October 9th. This project will cause the park to be closed for several days.

Sanders - noted the Library Board meets on Wednesday. Indicated that Mondays are very busy now that the school year has started. Noted the Tree Board sold approximately 45 trees during the tree sale.

10. Adjournment

Motion by Pepper, seconded by Cox, to adjourn at 06:48 PM. Vote on Motion 3-0. Motion carried.

Maggie Murray, Planning & Community Development Director

ATTEST:

**Due to the COVID-19 concerns and social distancing recommendations, a virtual meeting was offered.*

Doug Elrod, Mayor

I, the understated Mayor of the City of Bondurant, Polk County, Iowa, hereby certify that the foregoing is a true and accurate copy of proceedings had and done by the City Council on October 2, 2023, that all the subjects included in the foregoing proceedings were contained in the agenda for the meeting kept continually current and readily available for the public inspection at the Office of the City Clerk; that such subject were contained in said agenda for at least twenty-four hours prior to said meeting and the said minutes from which the foregoing proceedings have been extracted were in written form and available for public inspection within ten business days and prior to the next convened meeting of said body.

Doug Elrod, Mayor



Check Register

Packet: APPKT00843 - 10/11/23 FOR MEETING ON 10/16/23

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: AP Bank Code-AP Bank						
2274	CRAIG MARSHMAN	10/11/2023	Regular	0.00	171.86	62696
1588	SHELBY HAGAN	10/11/2023	Regular	0.00	849.53	62697
2233	JENE JESS	10/11/2023	Regular	0.00	2,778.06	62698
1995	MICHELL KLINKER-FELD	10/11/2023	Regular	0.00	525.31	62699
2031	MARKETA OLIVER	10/11/2023	Regular	0.00	613.99	62700
1134	PETTY CASH	10/11/2023	Regular	0.00	127.28	62701
1701	JILL SANDERS	10/11/2023	Regular	0.00	28.17	62702
2676	TIFFANY LUING	10/11/2023	Regular	0.00	263.74	62703
1989	NICOLE VAN HOUTEN	10/11/2023	Regular	0.00	167.41	62704

Bank Code AP Bank Code Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	9	9	0.00	5,525.35
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	9	9	0.00	5,525.35

Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	10/2023	5,525.35
			5,525.35



Check Register

Packet: APPKT00840 - 10/5/23 FOR MEETING ON 10/16/23

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: AP Bank Code-AP Bank						
2758	BYRON JONES	10/05/2023	Regular	0.00	400.00	62692
2759	GLOBAL RENTAL CO., INC.	10/05/2023	Regular	0.00	118,200.00	62693
0223	IOWA DEPT OF NATURAL RESOURCE	10/05/2023	Regular	0.00	115.00	62694
0342	POLK COUNTY PUBLIC WORKS	10/05/2023	Regular	0.00	68.00	62695
1069	FIRST NATIONAL BANK OMAHA	09/29/2023	Bank Draft	0.00	2,034.12	DFT0002602
2254	TCM BANK NA	09/18/2023	Bank Draft	0.00	2,448.55	DFT0002603
2093	KLC CONSTRUCTION	09/22/2023	Bank Draft	0.00	57,887.93	DFT0002604
0387	TREASURER - STATE OF IOWA	09/26/2023	Bank Draft	0.00	10,499.28	DFT0002606
0387	TREASURER - STATE OF IOWA	09/26/2023	Bank Draft	0.00	2,051.00	DFT0002607
2757	GOOGLE LLC	09/25/2023	Bank Draft	0.00	19.08	DFT0002608
2757	GOOGLE LLC	09/21/2023	Bank Draft	0.00	31.80	DFT0002609
2254	TCM BANK NA	09/18/2023	Bank Draft	0.00	2,397.67	DFT0002610
2254	TCM BANK NA	09/29/2023	Bank Draft	0.00	2,151.82	DFT0002611

Bank Code AP Bank Code Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	4	4	0.00	118,783.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	9	9	0.00	79,521.25
EFT's	0	0	0.00	0.00
	13	13	0.00	198,304.25

Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	9/2023	79,521.25
999	POOLED CASH	10/2023	118,783.00
			198,304.25



Refund Check Register

Refund Check Detail

UBPKT04476 - Refunds 01 UBPKT04474 Regular

Account	Name	Date	Check #	Amount	Code	Receipt	Amount	Type
01-01752-06	NIELSEN, TROY V	10/4/2023	62676	107.27			107.27	Generated From Billing
01-01914-02	BLAKE KLINEFELTER	10/4/2023	62677	44.17			44.17	Generated From Billing
01-02151-02	MICHAEL BENNETT	10/4/2023	62678	73.72			73.72	Generated From Billing
01-02672-03	JANJAY MASON	10/4/2023	62679	115.06			115.06	Generated From Billing
01-03260-02	ALVARADO, BRENDA	10/4/2023	62680	92.25			92.25	Generated From Billing
01-03371-01	RODRICK OSBORN	10/4/2023	62681	83.10			83.10	Generated From Billing
01-11990-03	KELSEY, CLINT	10/4/2023	62682	115.93			115.93	Generated From Billing
02-01401-14	PARLEE, PAMELA L	10/4/2023	62683	113.33			113.33	Generated From Billing
03-02135-16	SCHRECK, NICO R	10/4/2023	62684	123.72			123.72	Generated From Billing
05-02104-01	DAWN LARUE	10/4/2023	62685	23.84			23.84	Generated From Billing
05-22461-02	CHERI ALANE RICE	10/4/2023	62686	44.17			44.17	Generated From Billing
16-01313-03	ZUMBRUNN, MEGAN R	10/4/2023	62687	123.72			123.72	Generated From Billing
16-01484-01	WRIGHT, DEREK M	10/4/2023	62688	1,738.68			1738.68	Deposit
16-01517-00	ORTON HOMES LLC	10/4/2023	62689	88.06			88.06	Generated From Billing
16-01918-00	JERRY'S HOMES INC	10/4/2023	62690	123.72			123.72	Generated From Billing
16-01936-00	D R HORTON - IOWA, LLC	10/4/2023	62691	123.42			123.42	Generated From Billing
Total Refunds: 16			Total Refunded Amount:	3,134.16				

Revenue Code Summary

Revenue Code	Amount
996 - UNAPPLIED CREDITS	3134.16
Revenue Total:	3134.16

General Ledger Distribution

Posting Date: 10/04/2023

Account Number	Account Name	Posting Amount	IFT
Fund: 600 - WATER			
600-000-1101	CLAIM ON POOLED CASH	-3,134.16	Yes
600-050-2141	APPLIED CREDITS	3,134.16	
600 Total:		0.00	
Fund: 999 - POOLED CASH			
999-000-1100	POOLED CASH	-3,134.16	

General Ledger Distribution

Posting Date: 10/04/2023

Account Number	Account Name	Posting Amount	IFT
999-050-2300	DUE TO OTHER FUNDS	3,134.16	Yes
999 Total:		0.00	
Distribution Total:		0.00	



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.c.
For Meeting of 10/16/2023
Motion

TITLE: Applications for Council Approval

CONTACT PERSON:

Nicole Van Houten, Events & Communication Coordinator

BRIEF HISTORY & ANALYSIS: I would like to emphasize the significance of submitting Special Event Packets with a minimum lead time of 30 days before the scheduled event date. Furthermore, it is essential for event planners to furnish comprehensive information, encompassing details such as the placement of trash receptacles and specifications concerning barricade styles and types within their site maps. Failure to do so has resulted in increased demands on staff resources to gather these event-related particulars. Additionally, it is imperative that all affected residents provide their signature as an acknowledgment of the street closure. If the closure encompasses their property's driveway or approach, their signature is mandatory.

The Special Event Packet attached was submitted on October 9, 2023. A few property owner signatures are not present and will be added at a later date. City Council packet deadline is October 11, 2023.

The last City Council meeting included a Special Event Packet submitted on September 21, 2023. City Council packet deadline was September 27, 2023. Parades and street closures necessitate the implementation of specific safety features and precautionary measures.

FUNDING SOURCE:

STAFF RECOMMENDATION: Motion to approve this Consent item

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. Special Event Site Map
2. 2023 Buisness Safe Trick Or Treat
3. Tax Abatement Applications



Special Event Packet



Bondurant

Special Event Permit—Guidelines and Requirements

As an individual or organization requesting use of City of Bondurant public property or right-of-way for a special event, you have basic responsibilities to fulfill in order to conduct your event with the approval of the City of Bondurant. The public property may include the use of the streets, trail system, or parkland. Receiving approval from the City of Bondurant does not preclude responsibility for any additional permits or approvals by the City or related to state and federal regulations. The City reserves the right to impose special guidelines and restrictions based on the nature of the proposed event and its attendant circumstances.

The City of Bondurant will determine whether an event is classified as a Special Event if outside of the description stated. The following general guidelines and responsibilities apply to activities such as parades, runs/walks, athletic events, street fairs, outdoor concerts, block parties, bicycling events, and/or fundraisers.

- A. Upon issuance of the Special Events Permit, the applicant must comply with insurance provisions requiring a certificate of Insurance naming the City of Bondurant and its officials, agents, employees, and board members as a co-insured in the following amounts: General Liability and Dram Shop Insurance (if serving alcohol) coverage in an amount not less than \$1,000,000 per occurrence. Please note that insurance requirements are waived for neighborhood-based block parties.
- B. The application must include a **map of the specific area** to be used or route to travel. The map must delineate the City property to be used (Streets/Sidewalks/Trails/Parks, etc.) start and finish points and direction of flow, if applicable, as well as location(s) of **outdoor toilet, trash receptacles, street barricades, and liquor dispensing area(s), if any.**
- C. The applicant must comply with all federal, state, county, and city laws; ordinances and regulations including all regulations adopted and established by the city.
- D. The applicant must assume extra costs, if applicable, associated with public safety and sanitation at the level of service required by the City of Bondurant. This includes the number and type of barricades, number of portable toilets and trash receptacles, and the number and hours of police/security officers or other city staff as required.
- E. If alcoholic beverages are to be sold or an entrance or admission is charged for an event at which alcoholic beverages will be served, a Liquor Permit and Dram Shop Insurance will be required. This permit, which is not included in the application for the Special Event Permit, requires consideration and approval by the Bondurant City Council and, in most instances, requires approval by the State of Iowa.
- F. If the event is held in a secured area, allowance must be made for access for fire emergencies including a minimum of two (2) exits. Events held on public streets must include an allowance for a continuous, through traffic lane for use by public safety personnel in an emergency. Council approval and type III barricades are always required for any street closure. The barricades must be sufficient as to completely close the street or roadway but yet be easily and quickly removable solely for emergency vehicle access.
- G. The use of a tent more than 200 square feet (enclosed) or canopy style (open on three sides) of more than 400 square feet require proof of the retardancy from the manufacturer or supplier as well as the proposed location and intended use of the tent.
- H. Signage for the event must adhere to the City's Sign Ordinance. Compliance may require a sign permit, issued by the Planning and Development Department.

- I. City Code section 53.03 for commercially zoned areas states the music end time is 12:00 midnight Sunday-Thursday and 2:00 AM Friday and Saturday. For residentially zoned areas the music end time is 10:00 PM Sunday-Thursday and 12:00 midnight Friday and Saturday. If the event will utilize amplified sound a noise permit will be needed. As indicated above, the cost of the permit, issued by the City Clerk must be included in the application fee for the Special Event Permit.
- J. Any valid complaint of disturbance of the peace will result in a warning and if it continues, it shall be reason to terminate the event/block party.
- K. The following number of portable toilets is required in accordance with estimated event attendance: For events with alcohol, one portable toilet for every 150 people and for events without alcohol, or one portable toilet for every 250 people. *Must have 7*
- L. The applicant must utilize police/security officers if recommended by the City or Polk County Sherriff Office. When alcohol is available at the event, the applicant must comply with the recommendations. In some instances off-duty officers may be hired; contact the Polk County Sherriff's office for details.
- M. The applicant must propose a plan to address sanitation/garbage collection for the event.
- N. If the event requires the closure of public streets, a separate page will need to list all property owners impacted by the street closure with their printed name, signature, and address. All property owners in the immediate affected area to be blocked off shall be notified in advance of the street closure.
- O. Depending on the estimated event attendance consider contracting emergency medical services to be prepared in case of a medical emergency.

Special Event Application

Please complete this form and submit along with applicable fees to the City Clerk's Office, 200 2nd St NE, Bondurant, IA 50035 at least 30 days prior to proposed event. If you need additional space to describe your event, please attach additional pages to this application. Advertising your event prior to receiving a signed Special Event Application is discouraged.

(Please Print)

Event Name Business Safe Trick or Treat Date(s) of Event 10/24/23

Location City Park - Bondurant

(Applicants must attach a map of the event layout that includes details like tent locations, portable restroom locations, sound stage, etc.)

Setup Time 4:30 Starting Time 5:00 Ending Time 6:30

(Please Print)

Organization Hosting Event Bondurant Chamber

Contact Person Kaylin Van Ahnen Day Phone 515-443-6746

Email director@bondurantchamber.com

Addl. Contact _____ Day Phone _____

Email _____

Type of Event:

Check all that apply.

- | | | |
|--|--|---|
| ☐ Parade | ☐ Fundraiser | ☐ Walk/Run Event |
| ☐ Fair/Festival | ☐ Outdoor Concert | ☐ Block Party |
| ☐ Bicycle Event | | |
| ☒ Other (please explain) <u>Trick or Treat</u> | | |

Describe the Event (please attach additional pages if necessary): Businesses of

the Chamber are invited to set up a table to hand out
Candy.

City Properties: Trailhead/The Depot | Lake Petocka | City Park | BRSC

Event Details:

(provide estimated counts)

Estimated Attendance 400
 Trash Containers 0
 Portable Toilets 0

(circle what applies)

Open to the general public? YES / NO
 Tents YES / NO
 Inflatable Houses/Toys YES / NO
 Amplified Music YES / NO
 Alcoholic Beverages YES / NO
 Banners/Signs YES / NO

Vendors:

(provide estimated counts)

Individual food and beverage vendors must obtain a *Temporary Event License* from the Iowa Department of Inspections and Appeals. The Event organizer will be responsible for this information. Failure to do so may result in fines or closing of the vendor.

- Number of Vendors 25
- List of Vendors and/or Type of Vendor

Business setting up booths
to hand out candy

- Permits for *Mobile Food Vendors* are required for food truck vendors per City Ordinance (Chapter 125). Current application and license must be on display in the Mobile Food Unit.
- Banners/Signs may be placed along roadways to guide people to your event, but in no way may be affixed to trees, street signs, park signs or City buildings. Signs are to be removed immediately following event. Grounds markings are allowed, however spray paint is prohibited—chalk or signage would be more appropriate. Failure to do so will result in maintenance fees and/or fines according to littering ordinances.
- Trash and debris cleanup: depending on the event attendance, a dumpster may be required. Park trash cans are for daily park users. Event attendance over 75 will require additional trash cans. Metro Waste Authority offers Event Recycling Stands that should be considered.

Special Provisions: (city provided—for example: trash containers, barricades, etc.)**Is there any special assistance that you will need the City to provide?**

☒ Yes ☐ No

Will you need to borrow barricades from the City? ☒ Yes ☐ No

(This is available for not-for-profit organizations and residents. Businesses must provide their own barricades. **If yes, indicate on your event layout map the location of the barricades.** Barricades will be dropped onsite during business hours and picked up at the same location after the event. The street shall be opened for vehicular traffic no later than the concluding time of the event. The Special Event applicant is responsible and will be billed for all damages or lost barricades. The fee for damaged or lost barricades may be up to \$300.)

Will you need to close the street for your event? ☒ Yes ☐ No

(Closure of all streets require City Council approval. If yes, indicate on your event layout map the location of the street closures and obtain signature from all property owner impacted by the street closure.)

Will you need portable restrooms? ☐ Yes ☒ No

(See required amount enclosed in the application guidelines on pg. 2. If yes, they are at your expense.)

Provide details about the event garbage collection plans: _____

Will you charge admission / registration fees: ☐ Yes ☒ No

If yes, is this for profit or not for profit? _____ A special event application fee may apply.

Will there be product for sale on site? ☐ Yes ☒ No

(If yes, product liability insurance may be required for sales of food and drinks. Please contact the Polk County Health Department for details.)

Will alcohol be served or sold? ☐ Yes ☒ No

A liquor permit and Dram Shop Insurance are required for the sale of alcohol to the public during any event (required whether an admission fee is charged or not). City Council approval is required for the sale or service of alcohol. If alcohol is served, additional security may be required. Off-duty Polk County Sheriff deputies may be hired to provide additional security. Contact Polk County Sheriff Office at 515-286-3333.

Will you be using outdoor tents great than 200 square feet? ☐ Yes ☒ No

Will you be using an outdoor canopy greater than 400 square feet? ☐ Yes ☒ No

Will you be using inflatable rides or devices? ☐ Yes ☒ No

(If yes, location of the inflatable must be shown on the event layout map that must be submitted with this application.)

Will your event interfere with vehicle traffic? ☒ Yes ☐ No

(If yes, provide a map of the route and how traffic control will be administered. Contact Polk County Sheriff Office for traffic/crowd safety 515-286-3333)

Will your event require a first aid booth, fire/rescue units present during the event?

☐ Yes ☒ No

Will you be shooting off fireworks? ☐ Yes ☒ No

(If yes, a fireworks permit is required. Contact the City Clerk's office at 515-630-6983)

Will you be posting temporary signage? ☐ Yes ☒ No

(If yes, a temporary sign permit and fee may be required. Contact the Planning and Development Department at 515-630-6985. Also, please indicate on your event layout map the location of the signs.)

Will you need access to a water source? ☐ Yes ☒ No

(Additional charges may apply. If yes, what is the water to be used for?) _____

Will you be using amplified sound? ☐ Yes ☒ No

(If yes, a \$20 fee for a day or less or \$40 for more than a day is required at the time this application is submitted in order to obtain a noise permit)

Provide a description of the sound equipment that will be used during the event: _____

Will you need access to electricity? ☐ Yes ☒ No

(If yes, please explain. Additional fees may apply) _____

Electricity is limited and in most cases will need to be provided by the applicant.

I hereby certify the included statements are true and correct, to the best of my knowledge, and that false statement(s) may be grounds for denial of this application. It is understood that activities at all times during the event shall comply with all applicable City ordinances. It is further understood the individual and the organization or association will be responsible for any and all damages arising as a result of this event, and, if this application is approved by the City, the applicant shall be required to execute a Special Event Permit—Hold Harmless Agreement waiving any and all claims which the applicant may have as a result of this event against the City of Bondurant, Iowa, its officials, agents, employees, or board members. It is further understood a certificate of public liability insurance will be required before conducting the proposed event.

An event for which a Permit has either not been obtained or which is in violation occurs will be subject to a municipal infraction up to \$750.

I have read the Special Event Application guidelines and requirement for issuance of the permit. I understand the conditions under which it is issued and agree to comply with these conditions for this event. I, or the organization I represent, have met or will meet all requirements established by the City. Further, I understand that if all requirements are not met, the Special Event Permit can be canceled by the City at any time including at the state of or during the event. If this event is sponsored by an organization, I hereby certify I have the legal authority to represent the applicant and/or the participants. It is further understood the City of Bondurant has the authority to grant or deny permission for this event.

Signature Kaylin Van Ahnen

Date 10/05/2023

Printed Name Kaylin Van Ahnen

City Official Signature _____ Date _____

The Privacy Act of 1974 requires that each individual asked or required to furnish personal information be advised of the following: Authority: 5 P.L. 93-579

Purpose: To provide a contact in connection with permit activities.

Routine Uses: Permit is issued under the direction of the City Administrator. The names and address of those who obtain the permit are not reported, but are kept on file at the City of Bondurant to provide point of contact in case of emergency.

Check List and Fee Table to Calculate your application fee:

(no charge for not for profits, schools, and/or school organizations and city/county and/or city/county organizations)

☐ Noise Permit Fee	\$20/a day or less \$40/more than a day		Please make check payable to The City of Bondurant.
☐ Temporary Sign Permit Fee	\$10/ 30 days		
☐ Certificate of Insurance with City names as additional insured		n/c	
☒ Map of event area layout			
☒ List of signatures and addresses of the impacted households by a street closure			
TOTAL DUE WITH APPLICATION			

Bondurant Business Safe Trick or Treat Night - Road Closure

Name: Voice mail + Event Detail Sheet

Address: 201 Lincoln St Notice of Closure: _____

Name: Sandy Forns Address: 203 Lincoln St Notice of Closure: _____

Name: Marsha Davis Address: 205 Lincoln St Notice of Closure: _____

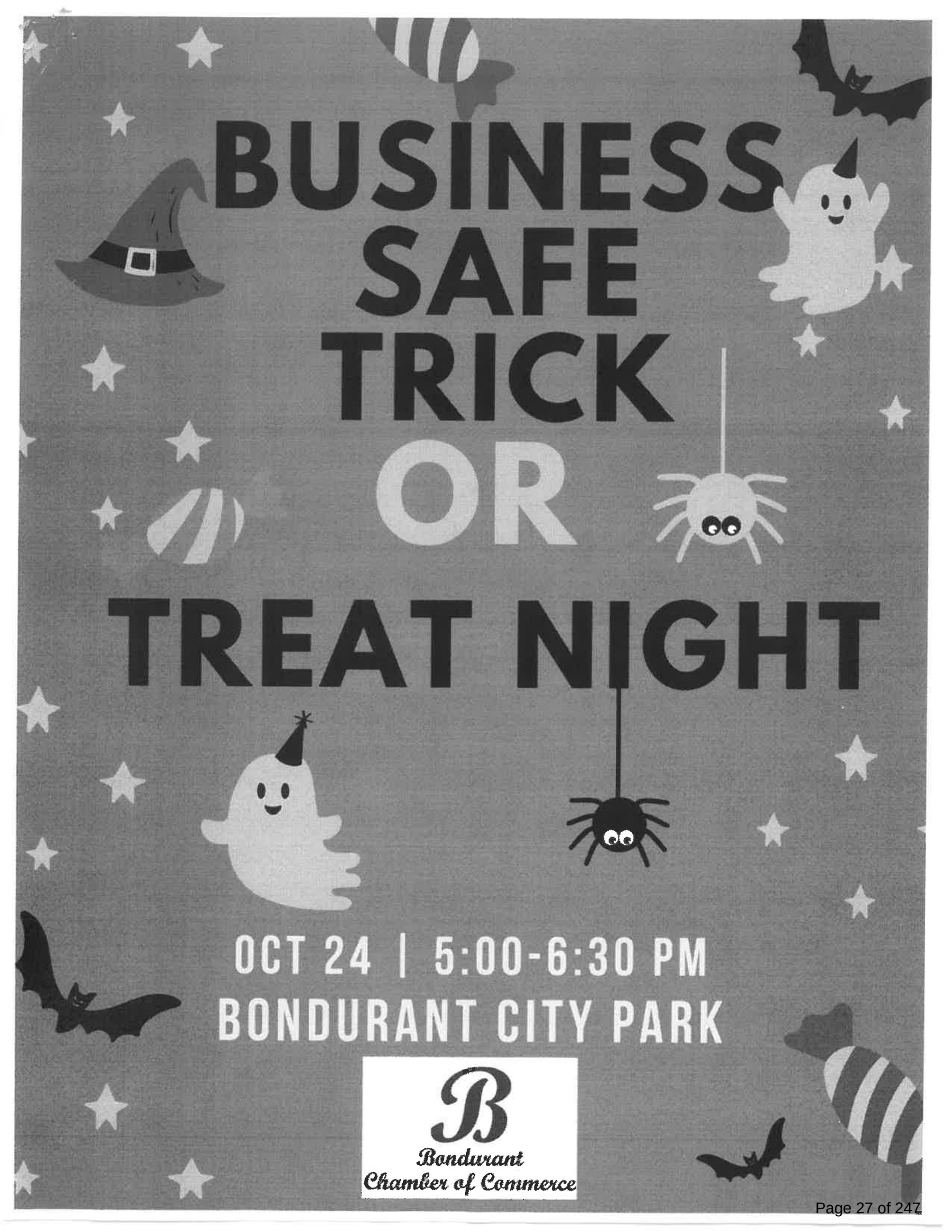
Name: Voice mail + Event Detail Sheet Address: 207 Lincoln St Notice of Closure: _____

Name: Voice mail + Event Detail Sheet Address: 2nd St Notice of Closure: _____

Name: _____ Address: _____ Notice of Closure: _____

Name: _____ Address: _____ Notice of Closure: _____





BUSINESS SAFE TRICK OR TREAT NIGHT

**OCT 24 | 5:00-6:30 PM
BONDURANT CITY PARK**



Tax Abatement Applications
October 16, 2023
City of Bondurant

Name	Address	Closing Date	Cost
David & Rebecca Fazio	201 12 th Court, NW	7/25/2022	\$472,117



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.d.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution approving pay request no. 5 to KLC Construction LLC. for the 15th Street and NE 88th Street/32nd St SE and Jorie Way Water Main Project in the amount of \$272,325.07

CONTACT PERSON:

John Horton, Public Works Director

BRIEF HISTORY & ANALYSIS: Staff recommend the attached resolution to approve pay app #5 in the amount of \$272,325.07 related to the 15th Street and NE 88th Street/32nd St SE and Jorie Way Water Main Project.

This pay application has been reviewed by City Staff and Engineers from Veenstra & Kim for accuracy and is for work completed from September 22nd through October 4th, 2023. As a reminder, this is the water main project that will serve the new water tower once constructed.

FUNDING SOURCE: SRF Funds/Water Utility Revenue

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-205
2. Pay Request No. 5

CITY OF BONDURANT
RESOLUTION NO. 231016-205

RESOLUTION APPROVING PAY REQUEST NO. 5 TO KLC CONSTRUCTION LLC.
FOR THE 15th STREET and NE 88th STREET/32nd ST SE and JORIE WAY WATER
MAIN PROJECT IN THE AMOUNT OF \$272,325.07

WHEREAS, the 15th Street and NE 88th Street/32nd St SE and Jorie Way Water Main Project Pay Request No. 5 was submitted on October 6th, 2023; AND

WHEREAS, the pay request no. 5 is for work completed from September 22nd thru October 4th, 2023 on the 15th Street and NE 88th Street/32nd St SE and Jorie Way Water Main Project; AND

WHEREAS, City Staff and engineers from Veenstra & Kimm have reviewed the pay application for accuracy; AND

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Bondurant, Iowa, that the pay request no. 5 to KLC Construction LLC. in the amount of \$272,325.07 hereby approved.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Name	Yay	Nay	Abstain	Absent
Cox				
Peffer				
Driscoll				
McKenzie				
Sillanpaa				



VEENSTRA & KIMM INC.

3000 Westown Parkway
West Des Moines, Iowa 50266

515.225.8000 // 800.241.8000
www.v-k.net

October 6, 2023

Marketa Oliver
City Administrator
City of Bondurant
200 Second Street NE
P.O. Box 37
Bondurant, Iowa 50035

BONDURANT, IOWA
15TH STREET SE & NE 88TH STREET WATER MAIN
32ND STREET SE & JORIE WAY WATER MAIN
PARTIAL PAYMENT ESTIMATE NO. 5

Enclosed is a copy of Partial Payment Estimate No. 5 for the 15th Street SE & NE 88th Street Water Main and 32nd Street SE & Jorie Way Water Main project under the contract between the City of Bondurant and KLC Construction, LLC. Partial Pay Estimate No. 5 is for the pay period ending October 4th and is in the amount of \$272,325.07.

If you have any questions or comments concerning the project, please contact the writer at 515-669-7768.

VEENSTRA & KIMM, INC.

A handwritten signature in blue ink, appearing to read 'Callin Hornsby'.

Callin Hornsby

CRH
428109

cc: Megan Loynachan – KLC Construction (electronic)

515.225.8000 // 800.241.8000
www.v-k.net

Date: October 5, 2023

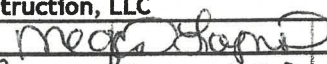
PAY ESTIMATE NO. 5

Project Title	15th Street SE & NE 88th Street Water Main 32nd Street SE & Jorie Way Water Main		Contractor	KLC Construction 2235 Payton Road Corydon, IA 50060
Original Contract Amount & Date	\$1,995,059.00	May 22, 2023	Pay Period	September 22,2023 to October 4,2023

BID ITEMS

[illegible]

[illegible]

SUMMARY				
			Contract Price	Value Completed
Original Contract Price			\$1,995,059.00	\$ 789,472.85
Approved Change Orders (list each)				
TOTAL ALL CHANGE ORDERS			\$ -00.	\$ -00.
Revised Contract Price			\$ 1,995,059.00	\$ 789,472.85
			Materials Stored	\$ -00.
Value of Completed Work and Materials Stored			\$	789,472.85
			Less Retained Percentage (5%)	\$ 39,473.64
			Net Amount Due This Estimate	\$ 749,999.21
Less Estimate(s) Previously Approved	No.1	\$	237,508.32	
	No.2	\$	52,527.10	
	No.3	\$	57,887.93	
	No.4	\$	129,750.79	
	No.5			
	No.6			
	No.7			
	No.8			
	No.9			
	No.10			
	No.11			
	No.12			
Less Total Pay Estimates Previously Approved			\$	477,674.14
Amount Due This Estimate			\$	272,325.07
The amount \$ 272,325.07 is recommended for approval for payment in accordance with the terms of the contract.				
Quantities Complete Submitted By:		Recommended By:		Approved By:
KLC Construction, LLC		Veenstra & Kimm, Inc.		City of Bondurant
Signature: 		Signature: 		Signature:
Name: Megan Parnachan		Name: Callin Hornsby		Name:
Title: owner		Title: Project Manager		Title:
Date: 10-5-2023		Date: 10/6/2023		Date:



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.e.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution approving final pay request no. 5 to include release of retainage to Sandstone Management LTD for the BRSC Parking Lot Project in the amount of \$48,234.84

CONTACT PERSON:

John Horton, Public Works Director

BRIEF HISTORY & ANALYSIS: Staff recommend the attached resolution to approve final pay app #5 in the amount of \$48,234.84 related to the BRSC Parking Lot Expansion Project. This represents the pay out of final work completed and release of retainage for contract.

As a reminder, the BRSC Parking Lot project is a parking lot expansion between the soccer fields and the little league ball fields at the BRSC north of Lake Petocka. This parking area will include a paved parking lot with 135 parking stalls.

This pay application has been reviewed by the City Staff and Engineering Department at Polk County Public Works for accuracy and is for work completed from August 15th, 2023, through October 2nd, 2023. All work has been completed and inspected by both city staff and engineers from Polk County Public Works and has been approved for final payment.

FUNDING SOURCE: Grant Funding/Budgeted Park Expenses

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-206
2. Pay Request No. 5

CITY OF BONDURANT
RESOLUTION NO. 231016-206

RESOLUTION APPROVING FINAL PAY REQUEST NO. 5 AND RELEASE OF
RETAINAGE TO SANDSTONE MANAGEMENT LTD FOR THE BRSC PARKING LOT
PROJECT IN THE AMOUNT OF \$48,234.84

WHEREAS, the BRSC Parking Lot Project Pay Request No. 5 was submitted on October 9th, 2023; AND

WHEREAS, the pay request no. 5 is for work completed on BRSC Parking Lot Project from August 15th thru October 2nd, 2023; AND

WHEREAS, City Staff and Engineers from Polk County Public Works have reviewed the pay application for accuracy; AND

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Bondurant, Iowa, that the final pay request no. 5 to Sandstone Management LTD in the amount of \$48,234.84 hereby approved.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Name	Yay	Nay	Abstain	Absent
Cox				
Peffer				
Driscoll				
McKenzie				
Sillanpaa				



Polk County - Iowa

Detailed Payment

BRSC Parking Expansion

Description

Payment Number	5
Pay Period	08/15/2023 to 10/02/2023
Prime Contractor	SANDSTONE MANAGEMENT LTD., INC.
Payment Status	Approved
Awarded Project Amount	\$487,367.50
Authorized Amount	\$499,281.00

Line Number	Item ID	Unit	Unit Price	Authorized Quantity	Current Paid Quantity	Previous Paid Quantity	Total Quantity Paid To Date	Total Quantity Placed To Date	Current Payment Amount	Total Amount Paid To Date
Section: 1 - Description										
0010	2105-8425015	CY	\$7.900	2,435.000	608.750	1,826.250	2,435.000	2,435.000	\$4,809.12	\$19,236.50
TOPSOIL, STRIP, SALVAGE+SPREAD										
0020	2102-2710070	CY	\$5.190	5,460.000	850.000	4,610.000	5,460.000	5,460.000	\$4,411.50	\$28,337.40
EXCAVATION, CL 10, RDWY+BORROW										
0030	2010-108-G-0	SY	\$3.400	955.000	0.000	955.000	955.000	955.000	\$0.00	\$3,247.00
Subgrade Preparation										

Line Number	Item ID	Unit	Unit Price	Authorized Quantity	Current Paid Quantity	Previous Paid Quantity	Total Quantity Paid To Date	Total Quantity Placed To Date	Current Payment Amount	Total Amount Paid To Date
0030BA-28	2010-108-G-0	SY	\$2.970	5,470.000	0.000	5,470.000	5,470.000	5,470.000	\$0.00	\$16,245.90
Subgrade Preparation										
0040	2115-0100000	CY	\$6.960	955.000	0.000	955.000	955.000	955.000	\$0.00	\$6,646.80
MODIFIED SUBBASE										
0040BA-29	2115-0100000	CY	\$6.910	5,470.000	0.000	5,470.000	5,470.000	5,470.000	\$0.00	\$37,797.70
MODIFIED SUBBASE										
0050	2503-0114215	LF	\$62.360	184.000	8.000	176.000	184.000	184.000	\$498.88	\$11,474.24
STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE										
0060	2503-0114218	LF	\$131.750	73.000	0.000	73.000	73.000	73.000	\$0.00	\$9,617.75
STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE										
0070	2416-0100015	EACH	\$2,976.000	2.000	1.000	1.000	2.000	2.000	\$2,976.00	\$5,952.00
APRONS, CONCRETE, 15 IN. DIA.										
0080	2416-0102029	EACH	\$3,335.000	4.000	0.000	4.000	4.000	4.000	\$0.00	\$13,340.00
APRONS, CONCRETE ARCH, 29 IN. X 18 IN.										
0090	2201-0505060	SY	\$54.010	730.000	0.000	730.000	730.000	730.000	\$0.00	\$39,427.30
BASE, STANDARD OR SLIP FORM P.C. CONCRETE, 6 IN.										
0090BA-30	2201-0505060	SY	\$46.480	4,950.000	0.000	4,950.000	4,950.000	4,950.000	\$0.00	\$230,076.00
BASE, STANDARD OR SLIP FORM P.C. CONCRETE, 6 IN.										
0100	2511-0300000	SY	\$117.020	90.000	0.000	90.000	90.000	90.000	\$0.00	\$10,531.80
RMVL OF RECREATIONAL TRAIL										

Line Number	Item ID	Unit	Unit Price	Authorized Quantity	Current Paid Quantity	Previous Paid Quantity	Total Quantity Paid To Date	Total Quantity Placed To Date	Current Payment Amount	Total Amount Paid To Date
0110	7030-108-C-0	SY	\$82.870	154.000	0.000	154.000	154.000	154.000	\$0.00	\$12,761.98
Shared Use Path: 6" PCC										
0120	2511-7528101	SF	\$31.340	60.000	60.000	0.000	60.000	60.000	\$1,880.40	\$1,880.40
DETECTABLE WARNINGS										
0130	2312-8260051	TON	\$36.640	200.000	71.020	134.780	205.800	205.800	\$2,602.17	\$7,540.51
GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE										
0140	8020-108-B-0	STA	\$173.000	2.500	2.500	0.000	2.500	2.500	\$432.50	\$432.50
Painted Pavement Markings, Solvent/Waterborne										
0140BA-32	8020-108-B-0	STA	\$137.000	23.600	23.600	0.000	23.600	23.600	\$3,233.20	\$3,233.20
Painted Pavement Markings, Solvent/Waterborne										
0150	2527-9263146	EACH	\$89.500	5.000	5.000	0.000	5.000	5.000	\$447.50	\$447.50
PAINTED SYMBOLS AND LEGENDS,										
0160	2599-9999005	EACH	\$365.000	5.000	5.000	0.000	5.000	5.000	\$1,825.00	\$1,825.00
('EACH' ITEM): Handicap Parking Signage										
0170	9010-108-B-0	AC	\$5,881.000	1.000	1.000	0.000	1.000	1.000	\$5,881.00	\$5,881.00
Hydraulic Seeding, Seeding, Fertilizing, and Mulching										
0180	9040-108-A-1	LS	\$2,678.000	1.000	0.000	1.000	1.000	1.000	\$0.00	\$2,678.00
SWPPP Preparation										
0190	9040-108-A-2	LS	\$2,993.000	1.000	0.750	0.250	1.000	1.000	\$2,244.75	\$2,993.00
SWPPP Management										

Line Number	Item ID	Unit	Unit Price	Authorized Quantity	Current Paid Quantity	Previous Paid Quantity	Total Quantity Paid To Date	Total Quantity Placed To Date	Current Payment Amount	Total Amount Paid To Date
0200	9040-108-D-1	LF	\$2.100	620.000	225.000	868.000	1,093.000	1,093.000	\$472.50	\$2,295.30
Filter Sock										
0210	9040-108-D-2	LF	\$0.540	620.000	538.000	0.000	538.000	538.000	\$290.52	\$290.52
Filter Socks, Removal										
0220	2507-6800042	TON	\$102.000	9.000	9.000	0.000	9.000	9.000	\$918.00	\$918.00
REVETMENT, CLASS D										
0230	2507-8029000	TON	\$102.000	6.000	6.000	0.000	6.000	6.000	\$612.00	\$612.00
EROSION STONE										
0240	2526-8285000	LS	\$5,856.000	1.000	0.000	1.000	1.000	1.000	\$0.00	\$5,856.00
CONSTRUCTION SURVEY										
0250	2533-4980005	LS	\$9,671.230	1.000	0.000	1.000	1.000	1.000	\$0.00	\$9,671.23
MOBILIZATION										
0260	11050-108-A-0	LS	\$316.500	1.000	0.000	1.000	1.000	1.000	\$0.00	\$316.50
Concrete Washout										
0260BA-34	11050-108-A-0	LS	\$663.500	1.000	0.000	1.000	1.000	1.000	\$0.00	\$663.50
Concrete Washout										
0270	2599-9999018	SY	\$119.000	6.000	6.000	0.000	6.000	6.000	\$714.00	\$714.00
('SQUARE YARDS' ITEM): Concrete Flume at Curb Drop, 6in.										
0280	2599-9999010	LS	\$7,502.000	1.000	0.000	1.000	1.000	1.000	\$0.00	\$7,502.00
('LUMP SUM' ITEM)										
Section Totals:									\$34,249.04	\$500,442.53

Line Number	Item ID	Unit	Unit Price	Authorized Quantity	Current Paid Quantity	Previous Paid Quantity	Total Quantity Paid To Date	Total Quantity Placed To Date	Current Payment Amount	Total Amount Paid To Date
Total Payments:									\$34,249.04	\$500,442.53

Summary

Current Approved Work:	\$34,249.04
Current Stockpile Advancement:	\$0.00
Current Stockpile Recovery:	\$0.00
Current Retainage:	-\$13,985.80
Current Retainage Released:	\$0.00
Current Liquidated Damages:	\$0.00
Current Adjustment:	\$0.00
Current Payment:	\$48,234.84
Previous Payment:	\$12,067.13

Approved Work To Date:	\$500,442.53
Stockpile Advancement To Date:	\$0.00
Stockpile Recovery To Date:	\$0.00
Retainage To Date:	\$0.00
Retainage Released To Date:	\$0.00
Liquidated Damages To Date:	\$0.00
Adjustments To Date:	\$0.00
Payments To Date:	\$500,442.53
Previous Payments To Date:	\$452,207.69



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.f.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution selecting the Commonstudio wayfinding design concept for incorporation into the Art, Culture & Wayfinding Master Plan

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The consultant team of Group Creative Services and Confluence were hired by the Bondurant City Council in April 2023 to lead the planning process for the community's Art, Culture & Wayfinding Master Plan. The purpose of the Art, Culture & Wayfinding Master Plan is to identify opportunities to integrate art, culture, and wayfinding projects into all aspects of the community in a way that rings true to the character and hometown feel of Bondurant. As part of this master planning process, in August 2023 the consultant team released a Wayfinding Request for Proposals with the following opportunity description: Design distinct public wayfinding engaging residents and visitors in the City of Bondurant, Iowa, a fast-growing community at the edge of metropolitan Des Moines.

During their October 2023 meeting, the Parks & Recreation Board reviewed the three artist wayfinding design concept submittals. The Parks & Recreation Board has recommended the attached wayfinding concept created by Commonstudio and titled Planting Bondurant. City staff supports the Parks & Recreation Board's recommendation. Commonstudio describes their concept as: *that every new sign in the city be placed in tandem with the sapling of an ecologically resilient and culturally resonant tree. This vision animates our interpretation of wayfinding in this as a colorful, monolithic custom tree grate that incorporates both vertical surfaces for signage elements as well as horizontal surfaces for public seating elements. Planting a tree is always a hopeful act, and one that can easily activate local communities. Not only will this project function as a marker for public orientation, but will also actively build cultural identity while pointing to the future growth and vibrancy of the place itself.*

The resolution being considered this evening is approving the general design concept only. The consultant team will then plug this Commonstudio design concept into the overall Art, Culture & Wayfinding Master Plan document which is slated for January 2024 adoption. It should be noted there will be some further refining of the suggested types of trees that were included in the attached concept. Further refining is needed to

make sure the types of trees are resilient and diverse. The Art, Culture & Wayfinding Master Plan will include suggested locations and prioritization for such wayfinding signage.

FUNDING SOURCE: N/A for design concept selection

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-207
2. Commonstudio

CITY OF BONDURANT
RESOLUTION NO. 231016-207

RESOLUTION SELECTING THE COMMONSTUDIO WAYFINDING
DESIGN CONCEPT FOR INCORPORATION INTO THE ART, CULTURE
& WAYFINDING MASTER PLAN

WHEREAS, as part of the current Art, Culture & Wayfinding Master Plan process, a wayfinding concept request for proposals was released by the planning consultants in August 2023; AND

WHEREAS, the Parks & Recreation Board considered all responses received during their October 2023 meeting and has voted on recommended selection of the Commonstudio wayfinding concept; AND

WHEREAS, the Commonstudio concept is titled Planting Bondurant; AND

WHEREAS, the Planting Bondurant wayfinding design concept will be incorporated into the Art, Culture & Wayfinding Master Plan which is slated for January 2024 City Council consideration.

WHEREAS, the adoption of an Art, Culture & Wayfinding Master Plan is consistent with Chapter 7 of the Building Bondurant Comprehensive Plan.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Bondurant, Iowa, that the Commonstudio wayfinding design concept is selected for incorporation into the Art, Culture & Wayfinding Master Plan.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Name	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				

ARTIST STATEMENT

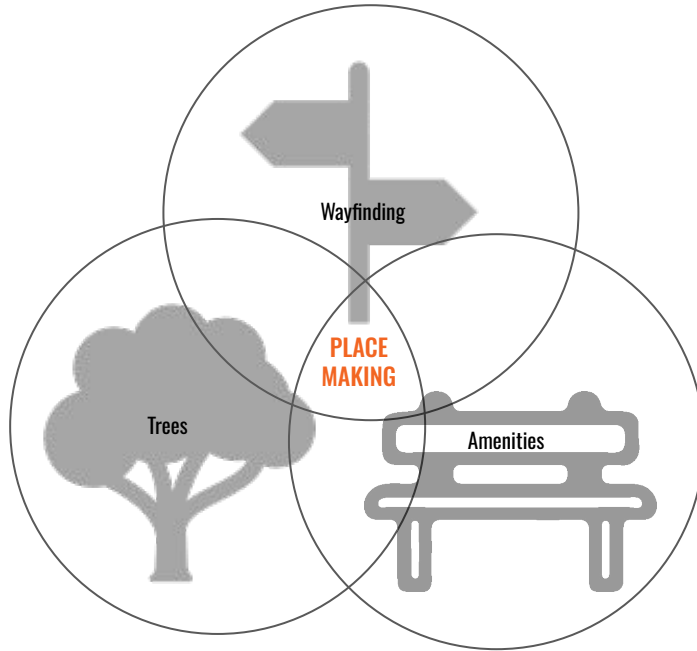
Commonstudio is a collaboration of Daniel Phillips and Kim Karlsrud. We create site-based interventions and multi-media installations exploring intersections between art, design, and science.



Using vernacular landscape materials as both medium and subject, our work examines the dynamics of urban ecosystems at multiple spatial and temporal scales. This work intends to register overlooked social and ecological processes, while inviting new modes of understanding and interaction between them. The current proposal, entitled *“Planting Bondurant”* will provide a unique opportunity to continue examining the nature of place, and the place of nature in a rapidly changing world.

CONCEPT STATEMENT

Locals know Bondurant is a vibrant place with a promising future. It deserves a unique wayfinding strategy that honors that reality.

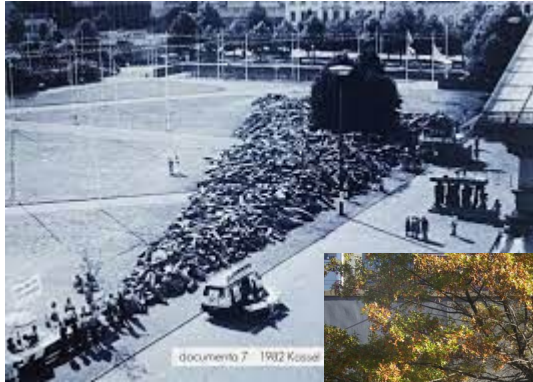


The compound word *Bondurant* roughly translated into its constituent parts means Bon (“the delightful”) and Durant (“underneath”). In this proposal, we aim to uplift the delight which lies underneath and throughout this place via a catalyzing botanical gesture which fuels the future of the city’s cultural identity.

We envision *Planting Bondurant* as a wayfinding strategy that doubles as an urban afforestation project, and triples as a mode of public placemaking. At its heart, the approach is simple: That every new sign in the city be placed in tandem with the sapling of an ecologically resilient and culturally resonant tree. This vision animates our interpretation of wayfinding in this case as a colorful, monolithic custom tree grate that incorporates both vertical surfaces for signage elements as well as horizontal surfaces for public seating elements. Planting a tree is always a hopeful act, and one that can easily activate local communities. Not only will this project function as a marker for public orientation, but will also actively build cultural identity while pointing to the future growth and vibrancy of the place itself.

ART PRECEDENT

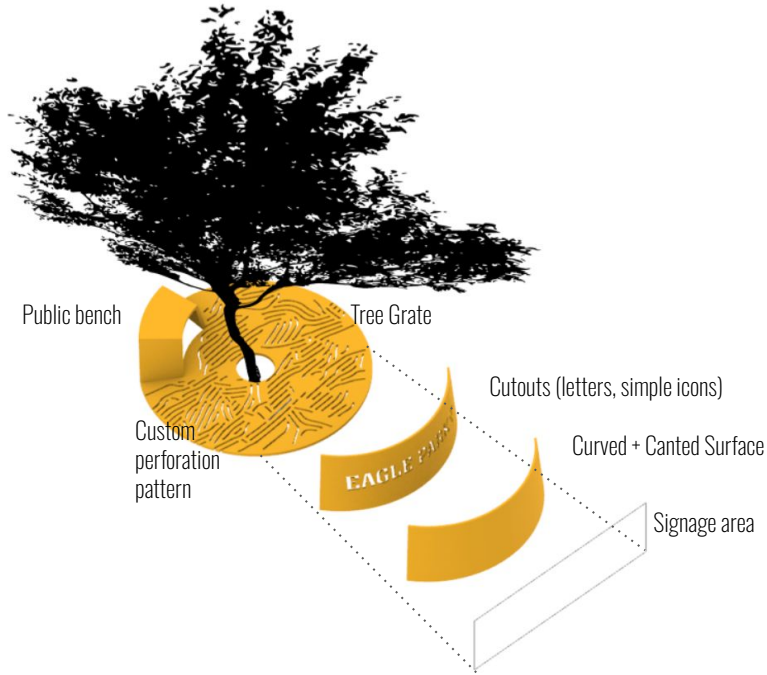
It is often said that societies grow great when folks plant trees in whose shade they may never stand.



This proposal draws upon an artistic placemaking project known as “7000 Oaks”, a collaboration between the Artist Joseph Beuys, the Fridericianum Museum, and the city of Kassel, Germany. At the start of the work in 1982, Beuys conspicuously piled 7000 basalt pillars in the square outside the museum. Every pillar that was removed was to be subsequently planted with an Oak sapling (a notoriously slow growing tree). Planting both elements together (one static, one alive), provided a unique way to mark the passage of time, and the spread of the artistic intervention into the fabric of space. It took over 5 years to get them all planted, and this project has since been replicated at smaller scales in other major cities in Europe and America. Inspired by works like this, we see the same sense of poetic potential in the project we propose.

PROPOSED WORK

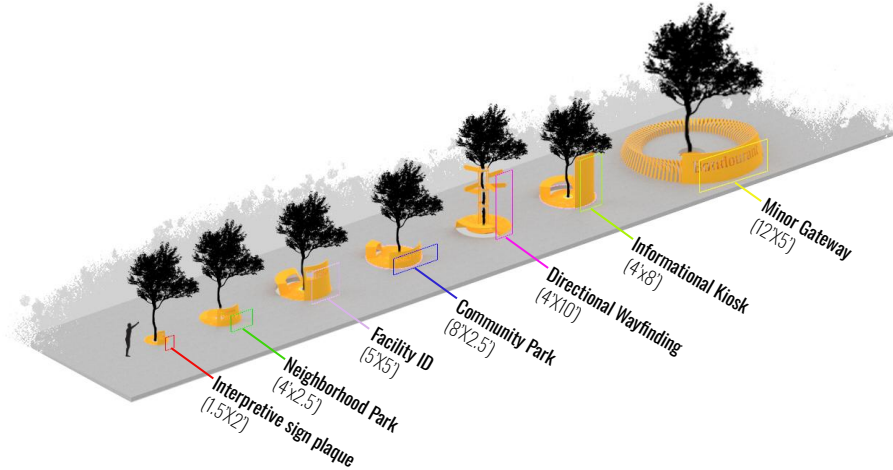
Materiality + Colorways



Each sign element is to be fully incorporated into a custom designed tree grate, constructed from cast aluminum, custom branded elements (text and iconography expressed as negative space), with a powder coated with a vibrant semi-gloss finish that is a yellow-orange color (Hex# **FFB81C** per the Bondurant branding guide).

PROPOSED WORK

DeSign + Hierarchy



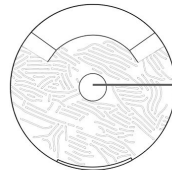
3' grate



6' grate



8' grate, single bench



8' grate, double bench

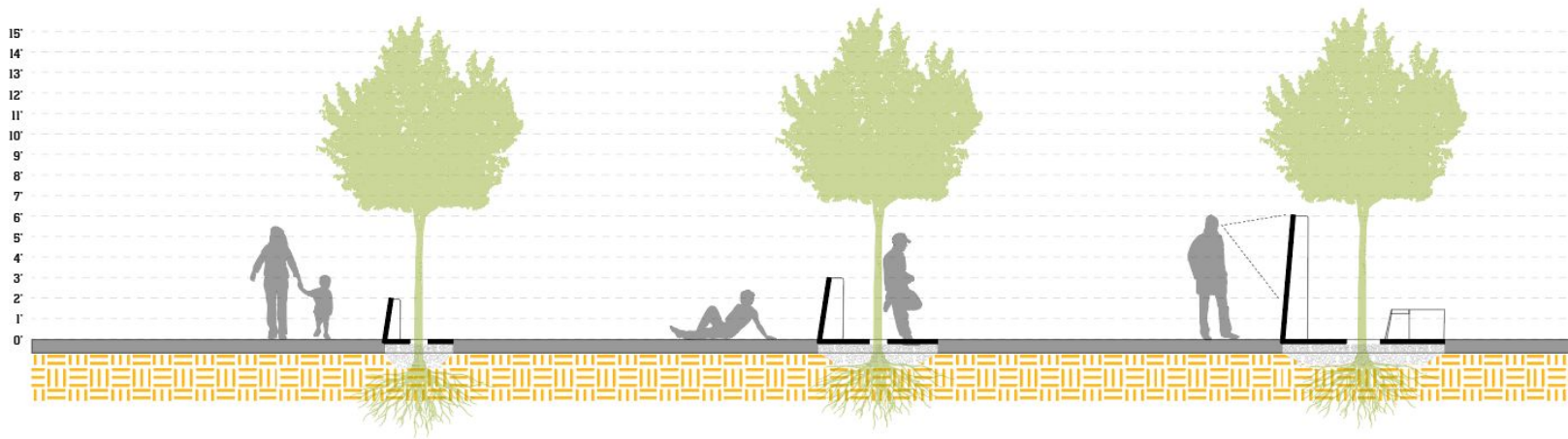
16" hole

The proposed hierarchy interprets the dimensions provided by the RFP, but are arranged along a curved and slightly tilted surface (10-15 degrees) to maximize public viewability from both a pedestrian and vehicular perspective. Modified tree grates will include a single (or series of) custom pattern of perforations (TBD) subject to further design development in consultation with stakeholders (pattern shown in renderings is for illustrative purposes only). Public seating elements present themselves as “ribbons” of material uplifted from the grates themselves.

Depending on the size of the underlying unit, dimensions of the bench seating can accommodate 1, 2, or 3 people. The outermost dimensions of the grates themselves range from 3' in diameter (for smaller sign types such as interpretive sign plaques) to 6' and 8' diameter for larger signs such as neighborhood and community parks. Finally, a concept for a larger public sculpture for minor and major gateways is proposed, which is the largest diameter intervention (15-20' diameter), conceived as a more ample gathering place situated below a larger tree. This type consists of custom trex slats mounted to pre-fabricated steel framing. Trees of different maturity stages (IE sizes) can optionally be paired with different sizes in the proposed hierarchy. Provided examples are intended to be demonstrative of potential treatments, and not definitive or exhaustive.

PROPOSED WORK

Schematic sections



VISUAL INTEREST ACROSS ALL SEASONS

Planting Bondurant will provide a dynamic and vibrant beacon that shines across all seasons.



The proposed grates can be incorporated into paved surfaces such as concrete, asphalt or cobbles, as well as into existing unpaved surfaces such as decomposed granite paths or open parkspace as each site may necessitate. Specific methods of installation and site prep will be developed accordingly.

It's important to recognize the role that seasonality may play in the public's experience of wayfinding elements in Bondurant. Planting Bondurant will help the public to register not only where they are, but when they are, as the trees respond to the ebbs and flows of the seasons. Springtime brings blossoming flowers, fragrances, and buzzing pollinators. Summer brings edible fruits and lush greenery. Fall brings the shedding of leaves, the dropping of seeds and the winnowing of fecundity. Whereas winter brings an icy blanket of white and gray for months on end. The color and design of the signage elements in concert with (and contrast to) adjacent vegetation ensures that even when the planted tree is bare, the signage still provides a brightly colored beacon that contrasts sharply with its surroundings and gets people where they need to go.

PROPOSED WORK

SELECTED RENDERINGS



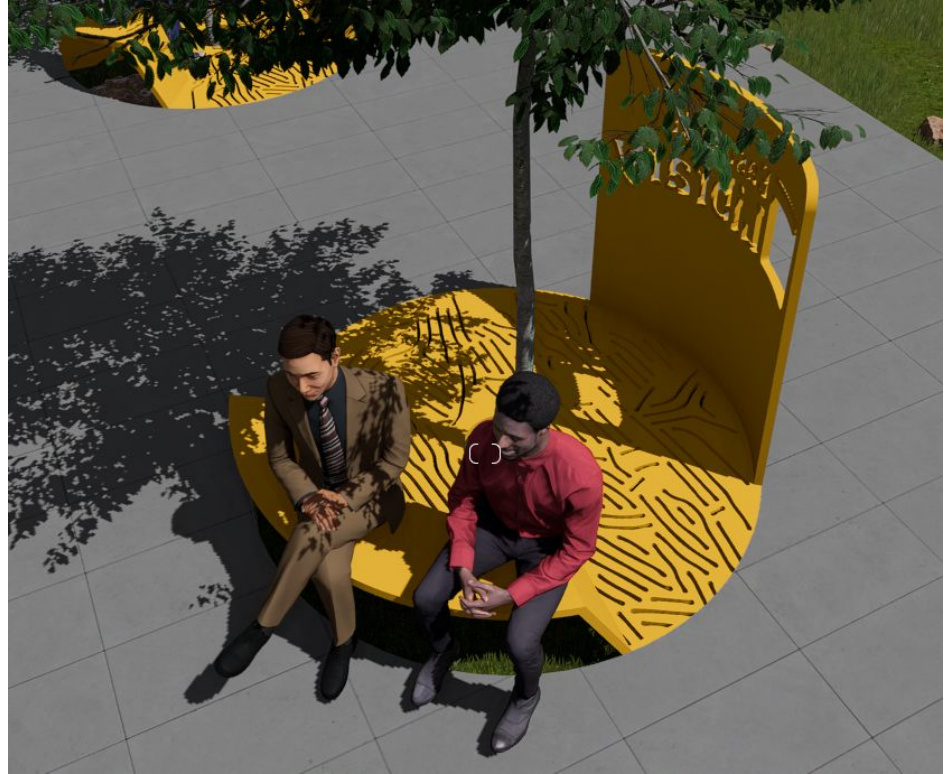
Small signs can be either CNC cut (as shown) or engraved/decaled with more detailed imagery/text



Iconography can be developed to accentuate the character and identity of specific sites

PROPOSED WORK

SELECTED RENDERINGS



PROPOSED WORK

SELECTED RENDERINGS



Note the area underneath bench is considered a drop inlet for stormwater flow and is to be filled with smooth river stone or equivalent aggregate material.

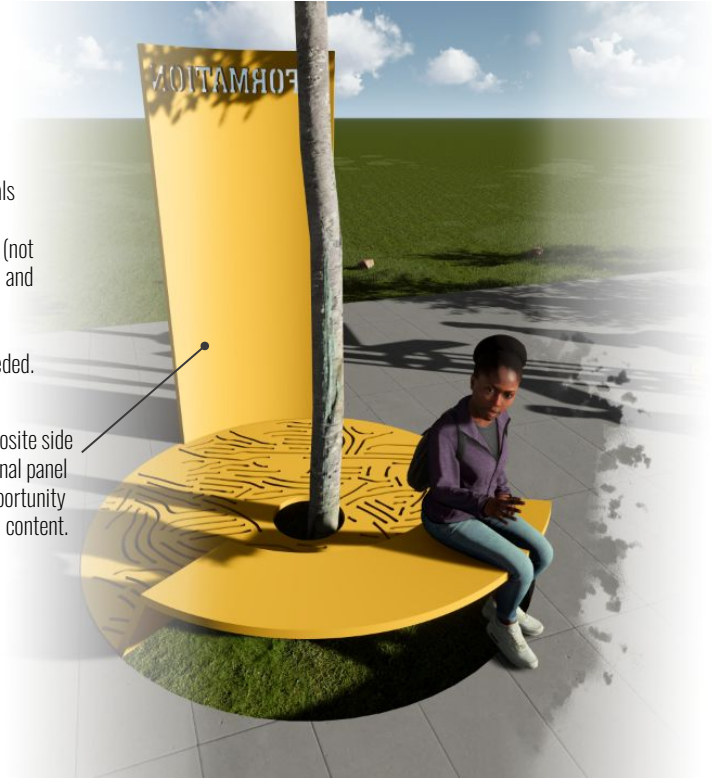
PROPOSED WORK

SELECTED RENDERINGS



Informational decals are shown as a surface treatment (not cut into the metal) and can be removed/replaced periodically as needed.

Note the opposite side of informational panel is also an opportunity for additional content.



PROPOSED WORK

SELECTED RENDERINGS



Wayfinding “leaflets” can be applied graphics to maximize expandability. Will attach with hardware that allows for repositionability

We are beginning to experiment with how the approach can be scaled up to minor and major gateways with even more significant public seating structures organized around a single large tree.



TREE SELECTION

Choosing the right tree species (or palette), is a vital consideration. Options include:



American Plum (*Prunus americana*):

- **Cultural Significance:** American Plum trees are associated with resilience and adaptation, as they can thrive in various soil types and conditions.
- **Growth Habit:** They are small to medium-sized trees with a rounded crown. Heights range from 10 to 20 feet.
- **Maintenance:** Pruning for shape and removing dead wood is typically sufficient. They are hardy and require minimal maintenance once established.



Magnolia (*Magnolia* spp.):

- **Cultural Significance:** Magnolia trees are admired for their large, fragrant blossoms, representing beauty, nobility, and dignity.
- **Growth Habit:** Magnolias vary in size and shape depending on the species or cultivar. They can range from small shrubs to large trees.
- **Maintenance:** They thrive in well-drained, slightly acidic soil. Pruning is generally minimal, but dead or damaged branches should be removed.



Serviceberry (*Amelanchier* spp.):

- **Cultural Significance:** Serviceberry trees are appreciated for their spring flowers and edible berries, symbolizing nourishment and sustenance.
- **Growth Habit:** They range from small trees to large shrubs, with an upright growth habit.
- **Maintenance:** Pruning helps maintain shape and remove dead wood. They are adaptable and require moderate maintenance.



Thank you for your consideration

Paul Davis *Suzanne*



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.g.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution approving payment of the Petocka Run Plat 1 sanitary sewer upsizing invoice in the amount of \$69,465.60

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The attached resolution approves payment of the also attached invoice in the amount of \$69,465.60 for costs related to sanitary sewer upsizing in the Petocka Run Plat 1 development area. In September 2023 the Bondurant City Council approved the Petocka Run Plat 1 Final Plat. Petocka Run Plat 1 is comprised of 30 single-family detached lots just north of the Bondurant Recreational Sports Complex. The developer of Petocka Run Plat 1 was requested by the City to upsize their sanitary sewer from an 8" to a 12" to accommodate for potential future additional sanitary sewer servicing needs. The City agreed to pay for this sanitary sewer upsizing cost in 2022 due to additional unique costs incurred by the developer for brining sanitary sewer from Park Side Plat 2 under Santiago Creek to service Petocka Run Plat 1 and potential future undeveloped area. Bob Veenstra, City Engineer, reviewed the attached developer invoice and has confirmed the upsizing reimbursement request is not unreasonable.

FUNDING SOURCE: Sanitary Sewer Fund

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-208
2. Upsizing Invoice

CITY OF BONDURANT
RESOLUTION NO. 231016-208

RESOLUTION APPROVING PAYMENT OF THE PETOCKA RUN PLAT 1
SANITARY SEWER UPSIZING INVOICE IN THE AMOUNT OF
\$69,465.60

WHEREAS, as Berkey Home Builders Inc. has constructed Petocka Run Plat 1 in Bondurant; AND

WHEREAS, Berkey Home Builders Inc. incurred costs related to upsizing their sanitary sewer from an 8" to a 12" to accommodate potential future additional sanitary sewer servicing needs; AND

WHEREAS, Berkey Home Builders Inc. incurred unique costs related to bringing sanitary sewer from Park Side Plat 2 under Santiago Creek to service this Petocka Run Plat 1 area and also potential future undeveloped lands; AND

WHEREAS, the City agreed to reimburse the developer for the sanitary sewer upsizing costs between an 8" and a 12" main; AND

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Bondurant, Iowa, that payment of the Berkey Home Builders invoice in the amount of \$69,465.60 is authorized.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Name	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				



Invoice

Date	Invoice
9/29/2023	7930

Bill To

City of Bondurant.
200 2nd St NE
Box 37
Bondurant, IA 50035

Terms	Due Date
	9/30/2023

Description	Amount
RE: Petocka Run Plat 1	
Sanitary Sewer Upcharge - 8" to 12"	69,465.60
Total	\$69,465.60

A service charge of 1.5% will be charged on all past due invoices.



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.h.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution adopting the Grant Street South School Zone Corridor Study

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The City of Bondurant was selected by the Iowa DOT to have a Grant Street South Corridor Study completed through their Traffic Engineering Assistance Program. The need for a Grant Street South Corridor Study was identified by the Bondurant City Council in January 2023 during the Council's annual strategic planning session. As part of the City's original Traffic Engineering Assistance Program application, we described the following: The City is in need of engineering solutions to help mitigate traffic concerns along the Grant Street South corridor near the Bondurant-Farrar Community School District schools. Such solutions could include identifying an area or areas for potential turn lane construction. Also included as part of the City's request is the need for designing engineering solutions for establishing missing pedestrian sidewalk/trail connections within close proximity to the schools.

Snyder & Associates was selected by the Iowa DOT to create this Grant Street South Corridor Study. Snyder & Associates, the City of Bondurant, and the Bondurant-Farrar Community School District hosted a corridor study kickoff meeting in May 2023. Following this kickoff meeting, Snyder & Associates performed the following work: performed a field review of existing condition and collected traffic counts; reviewed relevant crash history, traffic data, and traffic operations modeling; performed turn lane analysis; developed a concept plan in addition to general recommendations and cost opinions.

The attached Grant Street South Corridor Study includes the following recommendations:

1. Signing modifications as described in the study.
2. Continue to maintain the enhanced crosswalk markings for the school crosswalks.
3. Improve the sidewalks and curb ramps at Grant Street crossings.

4. Construct sidewalks along ideal school routes at the following locations: both sides of Main Street SE between 3rd Street SW and 5th Street SE; both sides of 2nd Street SE east of Lincoln Street SE; south side of 2nd Street SE between Grant Street South and Lincoln Street SE; and these south side of 3rd STreet SE east of Grant Street South.
5. Install northbound 150' left turn lane, eastbound 80' left turn lane, and southbound 150' right turn lane at the 2nd Street intersection. The left turn lane warrant was not met for the eastbound direction, however, it is recommended due to operational analysis and field observations.
6. Install northbound and eastbound 150' left turn lanes and southbound 150' right turn lanes at the North School Drive intersection. The left turn lane warrant was not met for the eastbound direction, however, it is recommended due to operational analysis and field observations.
7. Install a northbound 150' left turn lane on Grant Street South at the South School Drive intersection.
8. Construct a 10' paved shoulder southbound on Grant Street South from 5th Street to the South School Drive. The paved shoulder could be used for vehicles to get out of the thru lane while waiting for school dismissal.
9. During the construction of the proposed turn lanes and paved shoulders for the 2nd Street intersection and the section of Grant Street South south of 5th Street, the City could "urbanize" the corridor with the construction of curb and gutter and storm sewer system in the area of the improvements.
10. Current traffic volumes and traffic operations do not currently warrant modifications to the existing traffic control at the Grant Street South intersections with 2nd Street and 4th Street. However, the traffic analysis indicates poor operations in 2043 with the estimated future traffic volumes. Traffic operations and safety should be monitored at these intersections and as conditions warrant, consider modifications to the existing traffic control, i.e. traffic signalers or pedestrian hybrid beacons.

Upon adoption of this resolution approving the Grant Street South Corridor Study, the City will utilize this study when planning for and prioritizing potential future improvements along this stretch of Grant Street South.

FUNDING SOURCE: N/A for plan adoption.

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-209
2. FINAL Grant Street South Corridor Study

CITY OF BONDURANT
RESOLUTION NO. 231016-209

RESOLUTION ADOPTING THE GRANT STREET SOUTH SCHOOL ZONE
CORRIDOR STUDY

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BONDURANT, IOWA:

WHEREAS, in January 2023 the Bondurant City Council held its annual strategic planning session, and the topic of Grant Street South vehicular and pedestrian traffic, specifically along stretches of this street corridor near the elementary schools, was identified as one of the top priorities that must be addressed within the community; AND

WHEREAS, in April 2023 the City of Bondurant was selected as a Traffic Engineering and Assistance community partner where the Iowa DOT funded the creation of a Grant Street South Corridor Study written by Snyder & Associates; AND

WHEREAS, the Grant Street South Corridor Study contains a list of project recommendations; AND

WHEREAS, the City of Bondurant should utilize this Grant Street South Corridor Study when planning for and prioritizing potential future improvements along this stretch of Grant Street South.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Bondurant hereby adopts the Building Bondurant Comprehensive Plan.

Passed and approved by the City Council of the City of Bondurant, Iowa, this 16th day of October 2023.

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Name	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				

TRAFFIC ENGINEERING ASSISTANCE PROGRAM

Grant Street South Corridor Study



Prepared for:
City of Bondurant

In Cooperation With:
Iowa Department of Transportation &
Iowa Department of Public Safety
Governor's Traffic Safety Bureau

September 28, 2023



September 28, 2023

Marketa Oliver
City Administrator
City of Bondurant
200 2nd St NE
Bondurant, Iowa 50035

RE: GRANT STREET SOUTH CORRIDOR STUDY
TRAFFIC ENGINEERING ASSISTANCE PROGRAM
S&A PROJECT NO.: 122.1000.01J

Dear Ms. Oliver:

Snyder & Associates has completed the Grant Street South Corridor Study. The study was requested by the City of Bondurant and completed as part of Iowa's Traffic Engineering Assistance Program (TEAP). TEAP is managed by the Iowa Department of Transportation and is partially funded through the Iowa Governor's Traffic Safety Bureau, as provided by the U.S. Department of Transportation, in accordance with the provisions of Section 402, Title 23, United States Code. The opinions, findings and conclusions expressed in this report are those of Snyder & Associates, Inc.

We are pleased to provide assistance to City of Bondurant through the completion of this study. Should you have any questions regarding this study, please contact us.

Sincerely,

SNYDER & ASSOCIATES, INC.



Timothy D. Crouch, P.E., PTOE
Project Manager

Enclosures

CC: Chris Poole, P.E., Iowa DOT, Traffic & Safety Bureau
Allison Smyth, P.E., Iowa DOT District 1
Ben Adey, P.E., Iowa DOT District 1
Brian Catus, P.E., Iowa DOT Local Systems

V:\Projects\2022\122.1000.01\Deliverables\Ltr_2023-09-18_TEAPTransmittal.docx

INFORMATION SHEET
IOWA DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING ASSISTANCE PROGRAM

Grant Street South Corridor Study
September 28, 2023

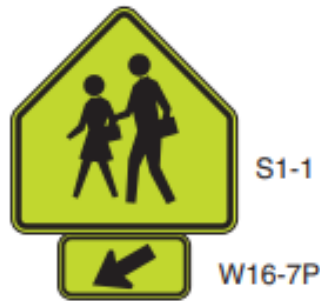
1. Local Jurisdiction: City of Bondurant

2. Reason TEAP Study Originated: The City is in need of engineering solutions to help mitigate traffic concerns along the Grant Street South corridor. Such solutions could include identifying an area or areas for potential turn lane construction. Also included as part of the City of Bondurant's TEAP request is the need for designing out engineering solutions for establishing missing pedestrian sidewalk/trail connections within close proximity to the schools.

3. Scope of Services Provided: Performed field review of existing condition & collected traffic counts; reviewed relevant crash history, traffic data and traffic operations modeling; performed turn lane analysis; developed a concept plan in addition to general recommendations and cost opinions.

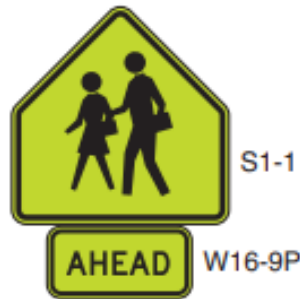
4. The Engineer, Snyder & Associates, submitted a final report dated September 28, 2023 with the following recommendations:

- Signing modifications –
 - Update the school crossing warning signs to current Manual on Uniform Traffic Control Devices (MUTCD) standards as shown in the figure below.



School Crossing Signs

- Relocate the existing northbound school warning sign, shown in Figure 6, to a location in advance of the school speed limit sign assembly, and install a school ahead warning sign in advance of the southbound school speed limit sign assembly.



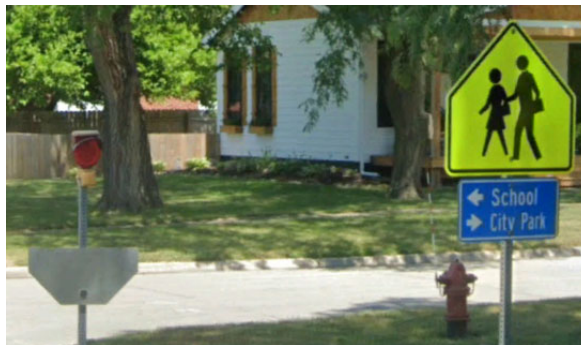
School Advance Warning Signs

- Install an END SCHOOL SPEED LIMIT, S5-3, sign on both northbound and southbound Grant St where the school speed limit ends.



End School Speed Limit Sign

- Relocate the guide sign installed below the school crossing warning sign on the south leg of the 3rd St intersection, shown in the photo below, to a separate installation in advance of the intersection.



School crossing sign at 3rd St.

- For the southbound school crossing warning signs at 2nd St, 3rd St, and 4th St, consider relocating them to the south side of the intersection at the marked crosswalk. The existing signs are either installed in front of the temporary stop signs or too far in advance of the crossing location. In the northbound direction, the school crossing warning signs are installed in front of the temporary stop signs. Consider relocating the crossing sign on a separate post next to the temporary stop signs.
- Consider modifications to the existing temporary stop signs to install them at the MUTCD standard height of 7' above the road surface. Also, consider changing to a rotating sign that can be turned towards the side street when not in use. This

would eliminate the half stop sign shape visible to Grant St traffic that exists today with the folding stop signs.



Temporary Folding Stop Sign and School Crossing Warning Sign

- Continue to maintain the enhanced crosswalk markings for the school crosswalks.
- Improve the sidewalks and curb ramps at Grant St crossings.
- Construct sidewalks along ideal school routes at the following locations:
 - Both sides of Main St SE between 3rd St SW and 5th St SE
 - Both sides of 2nd St SE east of Lincoln St SE
 - South side of 2nd St SE in between Grant St S & Lincoln St SE
 - South side of 3rd St SE east of Grant St S
- Install northbound 150' left turn lane, eastbound 80' left turn lane, and southbound 150' right turn lane at the 2nd St intersection. The left turn lane warrant was not met for the eastbound direction, however, it is recommended due to operational analysis and field observations. See Exhibit 1 at the end of the report.
- Install northbound and eastbound 150' left turn lanes and a southbound 150' right turn lanes at the North School Drive intersection. The left turn lane warrant was not met for the eastbound direction, however, it is recommended due to operational analysis and field observations. See Exhibit 2 for the proposed improvements on Grant St south of 5th St.
- Install a northbound 150' left turn lane on Grant St S at the South School Drive intersection.
- Construct a 10' paved shoulder southbound on Grant St from 5th St to the South School Drive. The paved shoulder could be used for vehicles to get out of the thru lane while waiting for school dismissal.
- During construction of the proposed turn lanes and paved shoulders for the 2nd St intersection and the section of Grant St S south of 5th St, the city could "urbanize" the corridor with the construction of curb and gutter and storm sewer system in the area of the improvements.

- Current traffic volumes and traffic operations do not currently warrant modifications to the existing traffic control at the Grant St S intersections with 2nd St and 4th St. However, the traffic analysis indicates poor traffic operations in 2043 with the estimated future traffic volumes. Traffic operations and safety should be monitored at these intersections and as conditions warrant, consider modifications to the existing traffic control, i.e. traffic signals or pedestrian hybrid beacons.

5. The order of magnitude construction cost opinion for proposed improvements is as follows:

Recommendations	Cost Estimate	Notes
Turn Lanes on Grant St and 2 nd St	\$140,000	Total Construction
Northbound Left Turn Lanes on Grant St for North & South School Drives	\$310,000	Total Construction
Southbound Shoulder on Grant St for North & South School Drives	\$200,000	Total Construction
Eastbound Left Turn Lane on North School Drive	\$50,000	Total Construction
Sidewalk Construction	\$286,000	Total Construction
Signing Modifications	\$15,000	-

Notes:

1. This opinion represents approximate construction costs only and does not provide a detailed list of project pay items. This opinion is to be used to as a planning number only.
2. Costs represent current dollars as of report date.
3. The cost opinions for the turn lanes and shoulder paving do not include costs for curb and gutter, and storm sewer.

6. Potential funding sources are as follows:

Funding for traffic safety improvements on public roads under county, city, or state jurisdiction may be available through the Traffic Safety Improvement Program (TSIP). The application deadline for TSIP funding is August 15th of each year. “Site specific” funding is eligible for up to \$500,000 with no local match required. Application forms are available from the Iowa DOT, and the application is submitted to the Iowa DOT Traffic and Safety Bureau. More information can be found at: <https://iowadot.gov/traffic/traffic-and-safety-programs/tsip/tsip-program>

The Transportation Alternatives Program (TAP) is a grant program administered by the Iowa DOT and Iowa’s Transportation Management Areas (TMA), Metropolitan Planning Organizations (MPO), and Regional Planning Affiliations (RPA). The TAP provides funding grants for the following categories of activities: Transportation Alternatives, infrastructure-related or non-infrastructure-related projects formally eligible through the Safe Routes to School program, and projects eligible through the Recreational Trails Program. For further information on eligible activities refer to the TAP program guidance - https://iowadot.gov/systems_planning/pdf/Iowa-TAP-Guidance.pdf Statewide and multi-regional projects should apply directly to the Iowa DOT

by October 1 annually for consideration in the Statewide TAP program. Access to funding for smaller, local projects is dependent on geographic location. The MPO will select projects for funding and distribute the funding within the planning area. Each planning agency establishes the application deadlines. Additional information is available on the Iowa DOT web site at https://iowadot.gov/systems_planning/Grant-Programs/Transportation-Alternatives

The Federal-aid Surface Transportation Block Grant (STBG) Program is another potential funding source. The intent of the program is to aid public road jurisdictions with funding for roads on federal-aid routes. This program requires a minimum of 20 percent non-federal funding match. The STBG program is administered by the MPO

TRAFFIC ENGINEERING ASSISTANCE PROGRAM

GRANT STREET SOUTH CORRIDOR STUDY BONDURANT, IOWA

Prepared by:

Snyder & Associates, Inc.

Prepared for:

City of Bondurant

In Cooperation with:

Iowa Department of Transportation &
Iowa Department of Public Safety
Governor's Traffic Safety Bureau

September 28, 2023

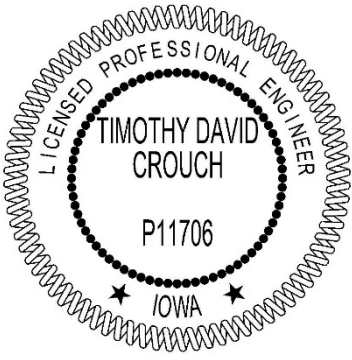
	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. <u>Timothy D. Crouch</u> <u>9/28/2023</u> Timothy D. Crouch, P.E. Date License Number P11706 My License Renewal Date is December 31, 2023 Pages or sheets covered by this seal: _____ _____
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LIST OF EXHIBITS (FOLLOWING REPORT)

Exhibit 1: Intersection of Grant St & 2nd St

Exhibit 2: Grant St & North/South School Drives

LIST OF FIGURES

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APPENDIX

- Intersection Traffic Counts
- Iowa DOT ICAT Crash Data
- Turn lane warrant worksheets
- Capacity Analysis Reports

1. BACKGROUND

At the request of the City of Bondurant and the Iowa DOT, this study reviewed the current intersection operations and evaluated possible safety improvements along Grant Street South at the intersections with 2nd Street SW/SE, 4th Street SW/SE, North School Drive, and South School Drive. The City has traffic operations concerns along the Grant St S corridor in the peak traffic times for school activity. They are interested in identification of the need for potential turn lane construction. Also included as part of the City of Bondurant's TEAP request is the need to identify missing pedestrian sidewalk/trail connections within the area near the schools and the neighborhood east of Grant St S between 1st St SE and 5th St SE.

The Grant St N/S corridor is the community's main north/south arterial street corridor. The Bondurant-Farrar Community School District has several schools just west of Grant St S and all rely on access to Grant St S:

- *Morris Elementary at 700 Garfield St SW* - This school serves grades pre-kindergarten through second grade and has an enrollment of 622 students and has 88 staff members.
- *Anderson Elementary at 400 Garfield St SW* - This school serves grades second through fourth and has an enrollment of 534 students and has 72 staff members.
- *Bondurant-Farrar Intermediate School at 300 Garfield St SW* - This school serves grades 5 & 6 and has an enrollment of 385 students and has 98 staff members.

Within the study area Grant St S is a mix of urban and rural cross section with two lanes that sees 5,100 vehicles per day per the IDOT's 2016 AADT data. The city feels this 2016 AADT data is outdated for the following reasons:

1.) Between 2010 and 2020, Bondurant saw a 91% increase in population, which was the second highest percent change in Iowa during this timeframe; and 2.) Over 3,300 jobs have been created in Bondurant since 2017.

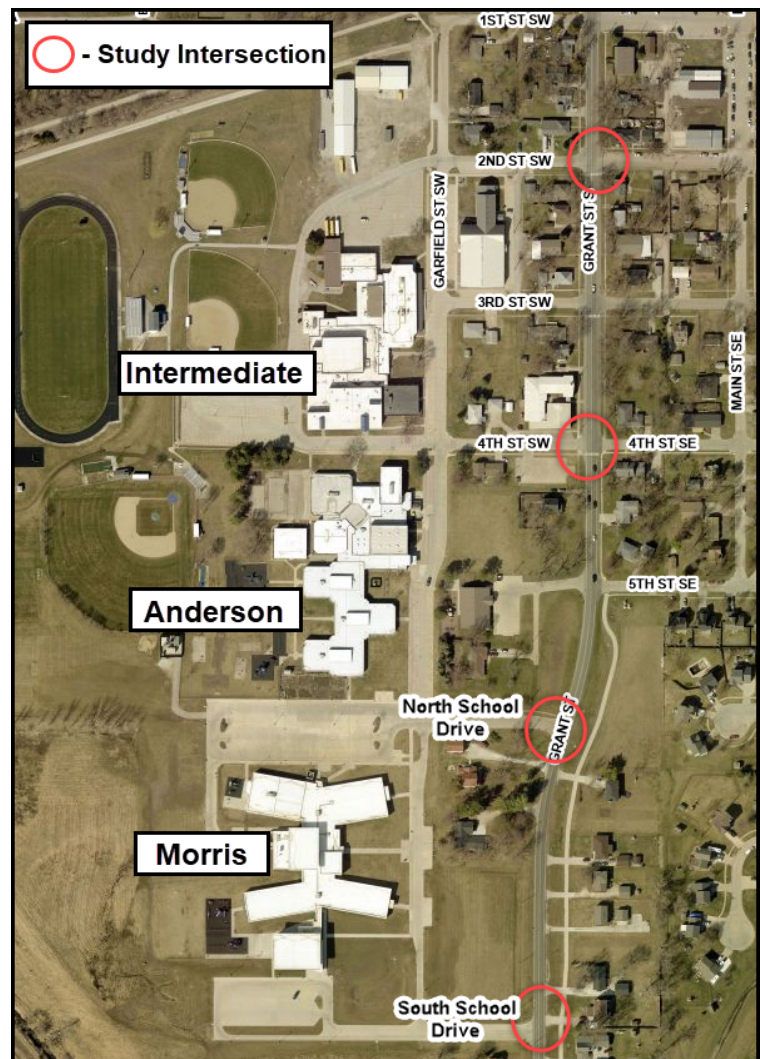


Figure 1: Study Area

2. EXISTING CONDITIONS

The speed limit on Grant St S is 30 mph throughout most of the study area, with a 25 mph speed limit during school arrival and dismissal hours. The speed limit changes to 35 mph about 250' south of the North School Drive.

The intersection of Grant St and 2nd St SW/SE is a two-way stop-controlled intersection with 2nd St stopping. The north leg of the intersection is a 24' width two-lane cross section. The south leg of the intersection widens to 40' with parking permitted on either side. The east leg of the intersection is a two-lane 40' wide curbed cross section with parking permitted on the south side. The west leg is a two-lane 24' wide curbed cross section that serves as a main access and exit point for *Bondurant-Farrar Intermediate School*. There is a painted crosswalk on the south leg of the intersection with school crosswalk warning signs. There are no existing turn lanes at the intersection.

The Grant St and 3rd St intersection is a two-way stop-controlled intersection with 3rd St stopping. A part-time fold-out all-way stop control is used for school arrival and dismissal times. The fold-out stop signs have flashing red beacons above the signs. During school arrival and dismissal times 3rd St is restricted to eastbound traffic only, no westbound to the schools. A pedestrian crosswalk is painted across the south leg and school crossing signs are installed. Grant St is 40' wide, with curbing and parking allowed on both sides. The 3rd St cross section is 24' wide with curbs. There are no existing turn lanes at the intersection.

The intersection of Grant St and 4th St SW/SE is a two-way stop-controlled intersection with 4th St stopping. This intersection utilizes temporary fold-out stop signs with flashing beacons above in the northbound and southbound directions along Grant St during school arrival and dismissal times. There is also an accompanying crossing guard at this intersection who both assists students in crossing Grant St as well as deploying the fold-out stop signs at the start of school arrival/dismissal times and closing them at the end of those times. There is a painted crosswalk on the south leg of the intersection with school crossing warning signs installed. The north leg of Grant St at this location is a 40' wide two-lane rural cross section with parking permitted on either side. The south approach to the intersection narrows to 28' wide with no parking permitted on either side. The west leg is a 24' wide roadway and is utilized as a main access and exit road for *Bondurant-Farrar Intermediate School* and *Anderson Elementary School*. There are no existing turn lanes at the intersection.

The intersection of Grant St and the north school drive is a three leg stop controlled intersection with the north school drive stopping. There are no existing turn lanes at the intersection. There are signs posted in the northbound and eastbound directions alerting traffic that the northbound left turn and eastbound left turn movements are restricted from 1:00 – 4:00 PM on weekdays. It was mentioned by city staff that these signs are meant to help bus traffic leave school grounds as well as general traffic along Grant St to continue moving smoothly. However, traffic does not adhere to these signs unless a deputy is present in the area enforcing the signs. The traffic



Photo 1: No Left Turn Sign.

counts collected at the intersection, shown in Figure 2, counted a significant number of northbound and eastbound left turns being made at the intersection.

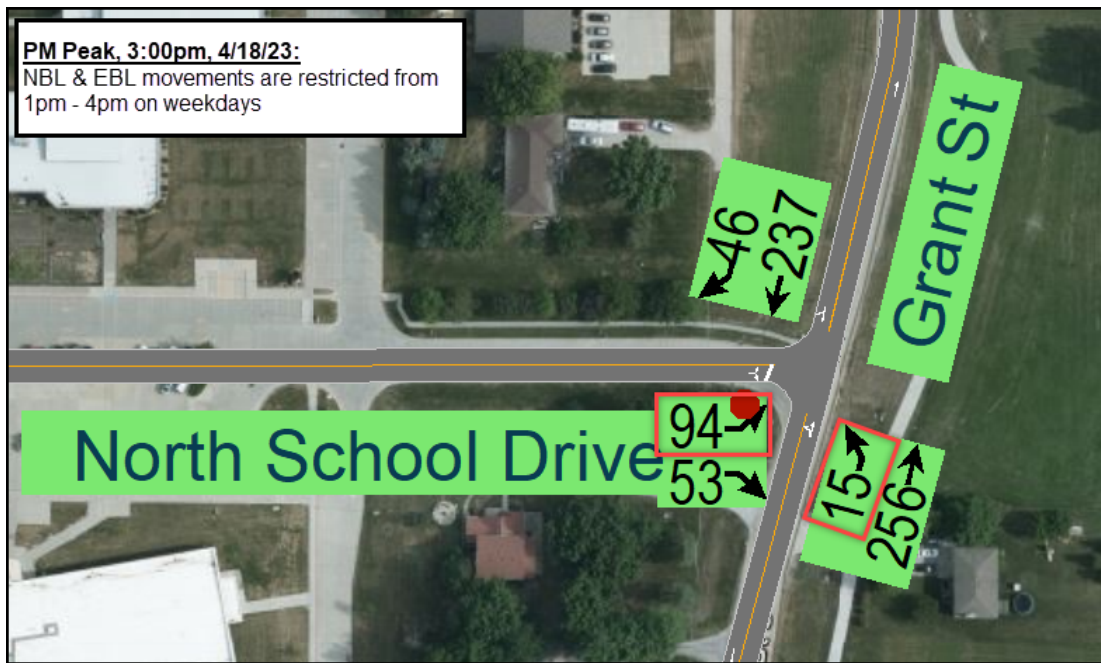


Figure 2: Restricted Left Turn Movements at the North School Drive

The intersection of Grant St and the south school drive is a three leg stop controlled intersection with the south school drive stopping. The north and south legs of the intersection both have a 24' width two-lane cross section. The west leg is a three-lane (two lanes eastbound, one lane westbound) 40' wide curbed cross section that serves as a main access and exit point for *Morris Elementary School*. There are designated eastbound left and right turn lanes at the intersection.

Corridor Observations (2nd St SW – South School Drive)

Observations from a field visit by Snyder & Associates are listed below:

- The speed limit along Grant St is 30 mph traveling southbound from NE 78th Ave. The school speed limit of 25 mph begins southbound at the intersection of Grant St N & Grain St NE. The southbound speed limit rises to 35 mph approximately 250' south of the North School Drive intersection.
- In the northbound direction, the 25 mph school speed limit begins approximately 170' north of the 10th St SE intersection (640' south of the south school driveway). A non-school speed limit of 30 mph begins approximately 250' south of the north school drive intersection and continues as such throughout the remainder of the study corridor.
- There are no "End School Speed Limit" (S5-3) or "End School Zone" (S5-2) signs included along Grant St to designate the end of the school speed limit.
- There is some inconsistency along the study corridor with varying types of school crossing signs.
- The city currently utilizes temporary fold-out stop signs in the northbound and southbound directions at the Grant St intersections with 3rd St SE and 4th St SE, as well as a city-

employed crossing guard positioned at Grant St and 4th St SE during the AM school arrival and PM school dismissal periods.



Photo 2: Crossing Guard at 4th St SE.

- Traffic queues occurred at the 4th St SE all-way stop intersection, the north school driveway and the south school driveway.



Photo 3: 4th St PM traffic queue - looking south to 5th St.



Photo 4: North school drive PM traffic queue.



Photo 5: South school drive PM traffic queue.

Consultation with the city staff provided the following comments and observations of the study corridor:

- The school system utilizes staggered dismissal times to assist the traffic flow during the PM dismissal peak hour.
- Backups are frequently noticed at the south school drive intersection during both AM drop off and PM dismissal times, as well as at the north school drive during dismissal times.
 - Many left turns are made to and from the north school driveway even though there is signing in place prohibiting eastbound left turn and northbound left turn movements from 1-4 pm.
- Pedestrians typically utilize the 4th St crossing with the crossing guard. There is some pedestrian traffic at 3rd St, and very little at 2nd St.
- A pedestrian underpass has been constructed under US 65 north of Grant St, which could lead to more pedestrians/bikes along the Grant St corridor from the south and east of the schools.
- Traffic volumes along Grant St are rising significantly.
- Student enrollment for the school district is increasing.

3. EXISTING TRAFFIC DATA AND AADT HISTORY

The 2016 traffic counts for the City of Bondurant provided by the Iowa DOT show an annual average daily traffic (AADT) of 4860 vehicles per day (vpd) on Grant St between 2nd St SE and 4th St SE, and an AADT of 5100 vpd south of 4th St SE. As stated previously, the city feels the 2016 AADT data is outdated due to the increase in population and increase in jobs within the city.

Intersection traffic counts were collected by Snyder & Associates at the following intersections with Grant St:

- 2nd St SW/SE
- 4th St SW/SE
- North School Drive
- South School Drive

The 2023 counts were expanded to AADT using the Iowa DOT 2022 expansion factors for municipal streets. The estimated AADT on Grant St at the 2nd St intersection is 6710 vpd, at 4th St it is 5860 vpd, the north school drive is 5820 vpd and at the south school drive, 5580 vpd. The intersection traffic counts are included in the Appendix.

Historical traffic volumes from the Iowa DOT are shown in Figure 3.

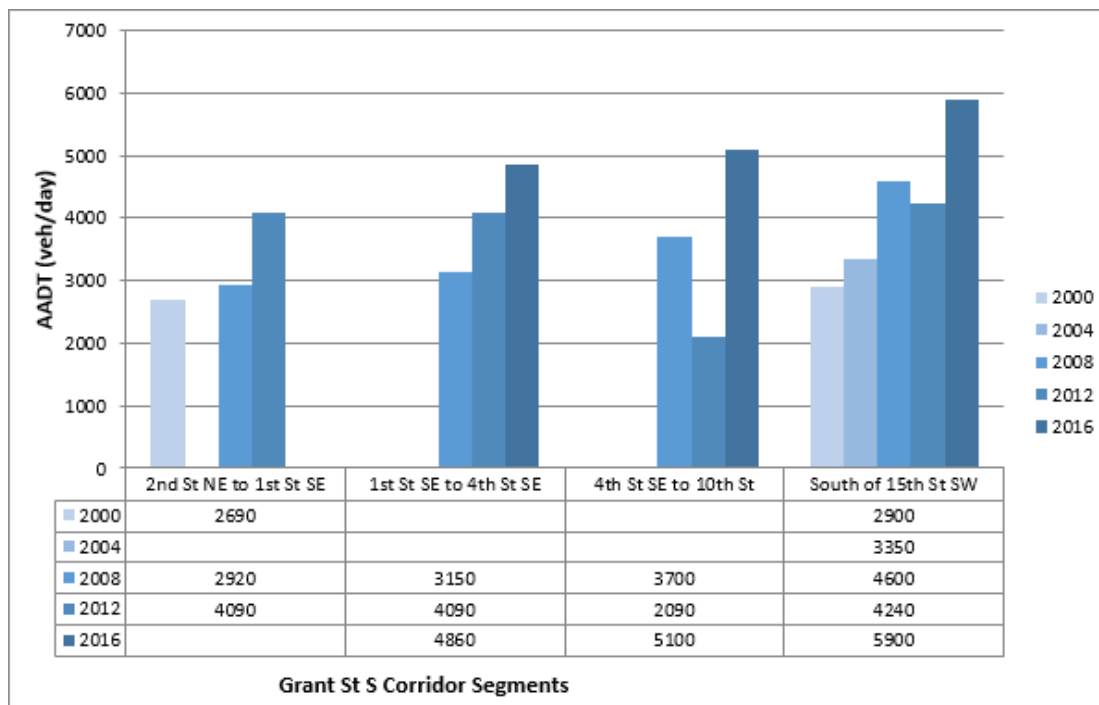


Figure 3. Historic Traffic Volumes

4. CRASH HISTORY

The crash history from 2018 through 2022 for the Grant St study intersections & study corridor was reviewed using reported crash data obtained from Iowa DOT's Iowa Crash Analysis Tool (ICAT). The review included the crash severity, crash type, major causes, driver demographics, time of day distribution, and the potential for crash reduction (PCR) number from the Iowa DOT.

Table 1 summarizes all the crashes for the study intersections & study corridor. Refer to the Appendix for additional crash data and intersection collision diagrams.

Table 1: Study Intersection Crash Summary on Grant St (2018-2022)

Intersection or Corridor	Crashes (Injuries)	Crash Severity	Predominant Crash Types (Crashes)	Predominant Major Causes (Crashes)
Grant St Corridor (N 2 nd St to the South School Drive)	20 (7)	1 Minor 6 Possible 14 PDO	• Broadside, front to side (8) • Rear-end (7)	• Followed too close (4) • FTYROW: From stop sign (4) • Ran stop sign (3)
Grant St & 2 nd St SW	1 (1)	1 Minor	• Non-collision (1)	• Unknown (1)
Grant St & 4 th St SW	2 (0)	2 PDO	• Rear-end (1) • Broadside, front to side (1)	• FTYROW: From stop sign (1) • Followed too close (1)
Grant St & North School Drive	1 (0)	1 PDO	• Rear-end (1)	• Other (1)
Grant St & South School Drive	0 (0)	N/A	• N/A	• N/A

PDO = Property Damage Only, FTYROW = Failure to Yield Right of Way

The Iowa DOT uses a safety performance functions (SPF) methodology to prioritize high crash intersections in Iowa. “A safety performance function (SPF) is an equation used to predict the average number of crashes per year at a location as a function of exposure and, in some cases, roadway or intersection characteristics. Generally, SPFs more realistically demonstrate the relationship between crashes and traffic volume.”¹

Table 2 summarizes the intersection information/rankings from the Iowa DOT “Potential for Crash Reduction (PCR) of Intersections” web page. The intersections of Grant St with the north school drive and the south school drive were not included within the Iowa DOT “Potential for Crash Reduction (PCR) of Intersections” map, so they were not included within the analysis. The PCR information is based on the 2016-2020 crash data, as compared to the crash history review which is based on 2018-2022 crash data.

¹ Iowa DOT. Potential for Crash Reduction (PCR) of Intersections Study. Online available at: <https://iowadot.maps.arcgis.com/apps/MapSeries/index.html?appid=6920b9b36fa54caa90c25bd6dcd0c7e>

Table 2. Potential for Crash Reduction (PCR) 2016-2020

Intersection	PCR Level	Ranking (All Crashes)	Ranking (Severe Crashes)
2 nd St SE	Negligible (All Crashes & Severe Crashes)	19,191 out of 21,195	17,897 out of 21,195
4 th St SE	Negligible (All Crashes & Severe Crashes)	1,679 out of 21,195	15,161 out of 21,195

Both intersections are currently classified in the Negligible PCR level for all crashes and for severe crashes (intersections are performing better than expected for all crashes & severe crashes). Both intersections are included in the category of Undivided Low Speed Partial Stop.

At the 2nd St SE intersection, the PCR level is “Negligible” indicating the safety performance is better than expected when compared to similar intersections across the state in the category of “Undivided Low Speed Partial Stop”. This intersection ranks in the top 10% for the all crashes data within this category, or 90% of this type of intersection has a worse performance. There was one crash reported involving one minor injury in 2020. This cause of the crash was listed as unknown and was a non-collision (single vehicle) crash. There were zero crashes at this intersection involving pedestrians or bicycles.

At the 4th St SE intersection, the PCR level is “Negligible” indicating the safety performance is better than expected when compared to similar intersections across the state in the category of “Undivided Low Speed Partial Stop”. This intersection ranks in the bottom 8% for the all crashes data within this category, or 92% of this type of intersection has a better performance. However, with the minimal number of crashes and minor severity of the crashes, the intersection is still performing better than expected. There were two crashes reported from 2018-2022 with zero involving any possible injuries and two property damage only. There were no common occurrences or causes, other than both crashes occurred in 2019. There were no crashes involving pedestrians or bicycles.

5. TURN LANE WARRANT ANALYSIS

The potential need for northbound and southbound right turn lanes on Grant St at the study intersections were evaluated. *NCHRP Report 457, Evaluating Intersection Improvements: An Engineering Study Guide*, was used to evaluate the need for right turn lanes at the four intersections based on existing traffic volumes and estimated 2043 traffic volumes. Traffic volumes for 2043 were estimated using a growth factor of 3% per year, based on historic count data, applied to the 2023 traffic volumes along Grant St to estimate the design year 2043 volumes. A growth factor of 1% per year was applied to the school related traffic along the west side of 2nd St, 4th St, North School Drive, and South School Drive to estimate the design year 2043 side street and turning volumes from Grant St. The side street growth rate is estimated based on information provided by the school district for future enrollment. The enrollment forecast is projected to 2028, a 5-year estimate. The side street traffic growth estimate of 1% was based on school enrollment forecasts as well as engineering judgment.

Per NCHRP Report 457 criteria, right turn lanes are not warranted at any intersection using the 2023 traffic volumes. The intersections of Grant St with 2nd St and the north school drive warrant a right turn lane in the southbound direction based on 2043 AM Peak traffic estimations. A southbound right turn lane at the south school drive is not warranted according to existing traffic volumes or future estimated traffic volumes, however, a southbound right turn lane would be warranted based on the field observation of traffic queues during the school arrival and dismissal times.

The potential need for northbound and southbound left turn lanes on Grant St at the study intersections were also evaluated. *NCHRP Report 745, Left-Turn Accommodations at Unsignalized Intersections*, was used to evaluate the need for left turn lanes at the four intersections. The Iowa DOT revised calibration constants were used in the evaluation.

Per NCHRP Report 745 criteria, a northbound left turn lane is warranted at 2nd St, the north school drive, and the south school drive using the 2023 AM peak traffic volumes. No additional left turn lanes are warranted on Grant St based on the estimated 2043 traffic volumes. Southbound left turn lanes are not warranted at any intersection for either existing 2023 or future 2043 estimated traffic volumes. An eastbound left turn lane is recommended based on intersection operational analysis and field observations at both 2nd St and the north school drive.

Table 3 provides a summary of the turn lane warrants. The turn lane warrant worksheets are provided in the Appendix.

Table 3: Turn Lane Warrant Analysis Summary

Intersection	Lane	Warranted / Recommended
Grant St S & 2 nd St	NB Left	Warranted
	SB Right	Warranted
	EB Left	Recommended
Grant St S & 4 th St	-	-
Grant St S & North School Drive	NB Left	Warranted
	SB Right	Recommended
	EB Left	Recommended
Grant St S & South School Drive	NB Left	Warranted
	EB Left	Existing

6. CAPACITY ANALYSIS

Intersection capacity analysis was completed following the methods outlined in the Highway Capacity Manual, 6th Edition (HCM), incorporated into the traffic analysis software Synchro 11. Intersection delay is a function of traffic factors such as traffic volume, turning vehicles, vehicle types and arrival patterns as well as geometric factors such as number of lanes and type of traffic control. Intersection operations are categorized by equating ranges of average vehicular delay in seconds per vehicle (sec/veh) to level of service (LOS) criteria.

LOS A is considered the most desirable level, with the least delay, while LOS F experiences the most delay. LOS C is often considered the acceptable goal for intersection delay, while urban side street approaches often experience LOS D due to two-way stop operation or signal priority to the mainline approaches, and LOS E or F is operating over capacity. Table 4 below shows LOS criteria as defined by the HCM for unsignalized intersections.

Table 4: Level of Service (LOS) Definition

LOS	Average Delay per Vehicle (sec/vehicle)
	Unsignalized Intersection
A	Less than 10
B	10-15
C	15-25
D	25-35
E	35-50
F	Greater than 50

Capacity analysis was completed for existing conditions with existing traffic and roadway geometry and for the proposed scenarios with additional turn lanes. For simulation and analysis, the estimated 2043 traffic volumes were determined as described in Section 5.

Two scenarios were analyzed:

- Existing Geometry
- Proposed Geometry - northbound left turn lanes at 2nd St, North School Drive, and South School Drive, southbound right turn lanes at 2nd St, North School Drive, and South School Drive, and eastbound left turn lanes on 2nd St and North School Drive.

Results of AM and PM peak hour capacity analyses for the study scenarios (existing geometry with existing and estimated future traffic, proposed geometry with existing and estimated future traffic) are summarized in Tables 5-8. The associated capacity analysis reports are included in the Appendix.

Table 5 Existing Geometry Capacity Analysis – 2023

Intersection	Control	Delay (sec/veh) / LOS	
		AM Peak	PM Peak
Grant St & 2 nd St	TWSC* (EB/WB)	EB: 27 / D WB: 17 / C	EB: 18 / C WB: 15 / B
Grant St & 4 th St	Stop (Temporary All Way)	EB: 13 / B WB: 09 / A NB: 13 / B SB: 13 / B	EB: 10 / A WB: 09 / A NB: 12 / B SB: 11 / B
Grant St & North School Drive	Stop (EB)	40 / E	20 / C
Grant St & South School Drive	Stop (EB)	19 / C	15 / B

*TWSC = Two Way Stop Control

Table 6: Existing Geometry Capacity Analysis - 2043

Intersection	Control	Delay (sec/veh) / LOS	
		AM Peak	PM Peak
Grant St & 2 nd St	TWSC* (EB/WB)	EB: 100+ / F WB: 117 / F	EB: 100+ / F WB: 36 / D
Grant St & 4 th St	Stop (Temporary All Way)	EB: 20 / C WB: 13 / B NB: 100+ / F SB: 100+ / F	EB: 14 / B WB: 11 / B NB: 100+ / F SB: 40 / E
Grant St & North School Drive	Stop (EB)	100+ / F	100+ / F
Grant St & South School Drive	Stop (EB)	100+ / F	33 / D

*TWSC = Two Way Stop Control

Table 7: Proposed Geometry Capacity Analysis - 2023

Intersection	Control	Delay (sec/veh) / LOS	
		AM Peak	PM Peak
Grant St & 2 nd St	TWSC* (EB/WB)	EB: 21 / C WB: 16 / C	EB: 16 / C WB: 15 / B
Grant St & 4 th St	Stop (Temporary All Way)	EB: 13 / B WB: 09 / A NB: 13 / B SB: 13 / B	EB: 10 / A WB: 09 / A NB: 12 / B SB: 11 / B
Grant St & North School Drive	Stop (EB)	17 / C	16 / C
Grant St & South School Drive3	Stop (EB)	19 / C	15 / B

*TWSC = Two Way Stop Control

Table 8: Proposed Geometry Capacity Analysis – 2043

Intersection	Control	Delay (sec/veh) / LOS	
		AM Peak	PM Peak
Grant St & 2 nd St	TWSC* (EB/WB)	EB: 100+ / F WB: 49 / E	EB: 50 / E WB: 30 / D
Grant St & 4 th St	Stop (Temporary All Way)	EB: 20 / C WB: 13 / B NB: 100+ / F SB: 100+ / F	EB: 14 / B WB: 11 / B NB: 100+ / F SB: 40 / E
Grant St & North School Drive	Stop (EB)	78 / F	100+ / F
Grant St & South School Drive	Stop (EB)	100+ / F	12 / B

*TWSC = Two Way Stop Control

The capacity analysis with existing geometry 2023 shows a poor LOS during the AM Peak at the intersection with the north school drive in the eastbound direction. All other intersections in both

AM Peak and PM Peak scenarios show satisfactory LOS and delay with existing geometry. When looking at proposed 2043 traffic, there are poor levels of service at all four intersections.

The capacity analysis with the additional turn lanes along Grant St at the study intersections show satisfactory levels of delay at all intersections for the 2023 traffic levels, a noticeable decrease at all locations with the additional turn lanes. In the 2043 proposed geometry scenario, there is some improvement in average delay as compared to the 2043 existing geometry scenario while the level of service remains near the same with poor level of service at all the study intersection in either the AM or PM Peak hours. However, it is not uncommon to experience level of service E or F at stop-controlled approaches on the minor streets, especially during school related peak hour traffic.

It should be noted that the AM and PM peak hours coincide with the school arrival and dismissal times. The AM and PM peak hours are typically less than an hour and based on the 2023 traffic counts, the peak traffic occurs within a half hour during both peak hours. Likewise, the poor level of service occurs during that same 30 minute peak period. The level of service is significantly better outside of the two 30 minute peaks in the morning and afternoon, and outside of the school year.

7. SIDEWALKS

There are streets near the schools or located along ideal routes within the city that are lacking sidewalks. Construction of sidewalks is recommended for the locations listed below. These locations are also shown in Figure 4 below.

- Both sides of Main St SE between 3rd St SW and 5th St SE.
- Both sides of 2nd St SE east of Lincoln St SE.
- South side of 2nd St SE in between Grant St S & Lincoln St SE.
- South side of 3rd St SE east of Grant St S.

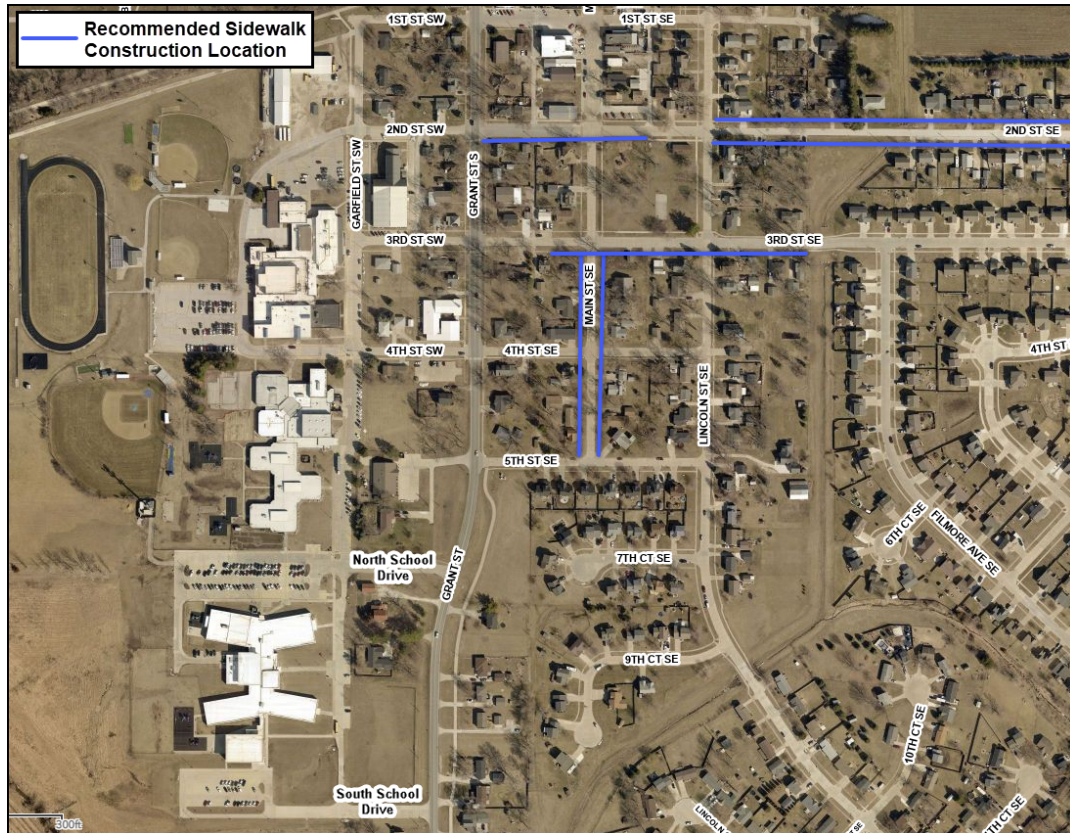


Figure 4: Recommended Sidewalk Construction

It is also recommended that the city continue to develop a plan to support construction of sidewalks along all public streets within the City. The previously mentioned locations should be priority as they are for predominant school pedestrian routes. The remaining sidewalks could be constructed with development or redevelopment of properties or as any potential street reconstruction occurs.

Some of these recommended sidewalk locations have constructability issues along a segment or the entire length of the recommended location. Some of the issues include existing grade behind the curb, trees/landscaping, and utility equipment. To resolve these issues, trees/landscaping will need to be trimmed/relocated/removed, and sidewalks or utility equipment may need to be relocated.

The current ADA requirements specify that sidewalks constructed less than five feet wide must be constructed with wheelchair passing areas every 200 feet (a five-foot by five-foot area). Sidewalks constructed at least five feet wide do not need these passing areas. For a shared-use trail (both biking and walking activity), the width has increased to a minimum of eight feet, with 10 feet being recommended. Therefore, it is recommended to construct five-foot wide sidewalks at the recommended locations. Curb ramps should be constructed to also meet ADA requirements. Where painted crosswalks are provided, curb ramps should be provided on both sides of the crosswalk, with detectable warnings within the crosswalk area. The Iowa DOT Standard Road Plan for Detectable Warnings and Pedestrian Ramp (MI-220) is included in the appendix.

8. CONCLUSIONS/RECOMMENDATIONS

Recommendations and cost opinions for the recommendations are described below.

- Signing modifications –
 - Update the school crossing warning signs to current Manual on Uniform Traffic Control Devices (MUTCD) standards as shown in the figure below.

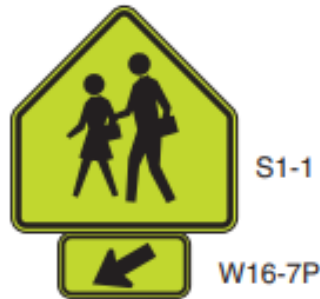


Figure 5: School Crossing Signs

- Relocate the existing northbound school warning sign, shown in Figure 6, to a location in advance of the school speed limit sign assembly, and install a school ahead warning sign in advance of the southbound school speed limit sign assembly.

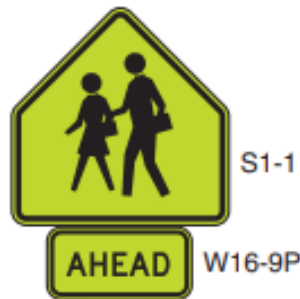


Figure 6: School Advance Warning Signs

- Install an END SCHOOL SPEED LIMIT, S5-3, sign on both northbound and southbound Grant St where the school speed limit ends.



Figure 7: End School Speed Limit Sign

- Relocate the guide sign installed below the school crossing warning sign on the south leg of the 3rd St intersection, shown in the photo below, to a separate installation in advance of the intersection.



Photo 6. School crossing sign at 3rd St.

- For the southbound school crossing warning signs at 2nd St, 3rd St, and 4th St, consider relocating them to the south side of the intersection at the marked crosswalk. The existing signs are either installed in front of the temporary stop signs or too far in advance of the crossing location. In the northbound direction, the school crossing warning signs are installed in front of the temporary stop signs. Consider relocating the crossing sign on a separate post next to the temporary stop signs.
- Consider modifications to the existing temporary stop signs to install them at the MUTCD standard height of 7' above the road surface. Also, consider changing to a rotating sign that can be turned towards the side street when not in use. This would eliminate the half stop sign shape visible to Grant St traffic that exists today with the folding stop signs.



Photo 7. Temporary Folding Stop Sign and School Crossing Warning Sign

- Continue to maintain the enhanced crosswalk markings for the school crosswalks.
- Improve the sidewalks and curb ramps at Grant St crossings.
- Construct sidewalks along ideal school routes at the following locations:
 - Both sides of Main St SE between 3rd St SW and 5th St SE
 - Both sides of 2nd St SE east of Lincoln St SE

- South side of 2nd St SE in between Grant St S & Lincoln St SE
- South side of 3rd St SE east of Grant St S
- Install northbound 150' left turn lane, eastbound 80' left turn lane, and southbound 150' right turn lane at the 2nd St intersection. The left turn lane warrant was not met for the eastbound direction, however, it is recommended due to operational analysis and field observations. See Exhibit 1 at the end of the report.
- Install northbound and eastbound 150' left turn lanes and a southbound 150' right turn lanes at the North School Drive intersection. The left turn lane warrant was not met for the eastbound direction, however, it is recommended due to operational analysis and field observations. See Exhibit 2 for the proposed improvements on Grant St south of 5th St.
- Install a northbound 150' left turn lane on Grant St S at the South School Drive intersection.

Table 9: Turn Lane Length Summary (in feet)

Intersection	Lane	Existing	Recommended
Grant St S & 2 nd St	NB Left	-	150
	SB Right	-	150
	EB Left	-	150
Grant St S & 4 th St	-	-	-
Grant St S & North School Drive	NB Left	-	150
	SB Right	-	150
	EB Left	-	150
Grant St S & South School Drive	NB Left	-	150
	EB Left	220	220

- Construct a 10' paved shoulder southbound on Grant St from 5th St to the South School Drive. The paved shoulder could be used for vehicles to get out of the thru lane while waiting for school dismissal.
- During construction of the proposed turn lanes and paved shoulders for the 2nd St intersection and the section of Grant St S south of 5th St, the city could “urbanize” the corridor with the construction of curb and gutter and storm sewer system in the area of the improvements.
- Current traffic volumes and traffic operations do not currently warrant modifications to the existing traffic control at the Grant St S intersections with 2nd St and 4th St. However, the traffic analysis indicates poor traffic operations in 2043 with the estimated future traffic volumes. Traffic operations and safety should be monitored at these intersections and as conditions warrant, consider modifications to the existing traffic control, i.e. traffic signals or pedestrian hybrid beacons.

9. OPINION OF PROBABLE COSTS

Planning level probable costs for the recommendations found in this study are included below.

Table 10: Opinion of Probable Project Costs (Planning Level)

Recommendations	Cost Estimate	Notes
Turn Lanes on Grant St and 2 nd St	\$145,000	Total Construction
Northbound Left Turn Lanes on Grant St for North & South School Drives	\$310,000	Total Construction
Southbound Shoulder on Grant St for North & South School Drives	\$200,000	Total Construction
Eastbound Left Turn Lane on North School Drive	\$50,000	Total Construction
Sidewalk Construction	\$290,000	Total Construction
Signing Modifications	\$15,000	-

Notes:

1. This opinion represents approximate construction costs only and does not provide a detailed list of project pay items. This opinion is to be used to as a planning number only.
2. Costs represent current dollars as of report date.
3. The cost opinions for the turn lanes and shoulder paving do not include costs for curb and gutter, and storm sewer.

10. POTENTIAL FUNDING SOURCES

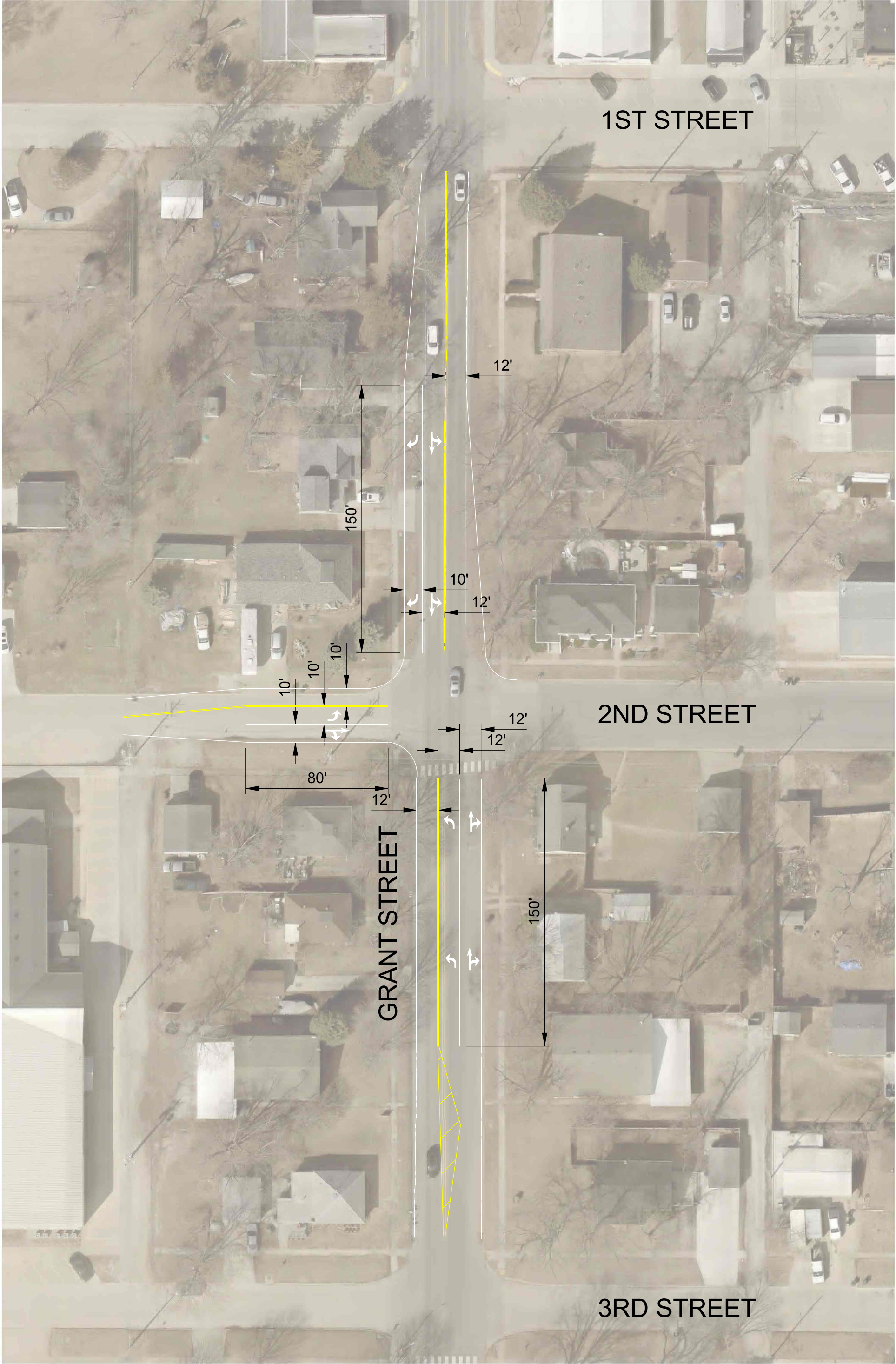
Funding for traffic safety improvements on public roads under county, city, or state jurisdiction may be available through the Traffic Safety Improvement Program (TSIP). The application deadline for TSIP funding is August 15th of each year. “Site specific” funding is eligible for up to \$500,000 with no local match required. Application forms are available from the Iowa DOT, and the application is submitted to the Iowa DOT Traffic and Safety Bureau. More information can be found at: <https://iowadot.gov/traffic/traffic-and-safety-programs/tsip/tsip-program>

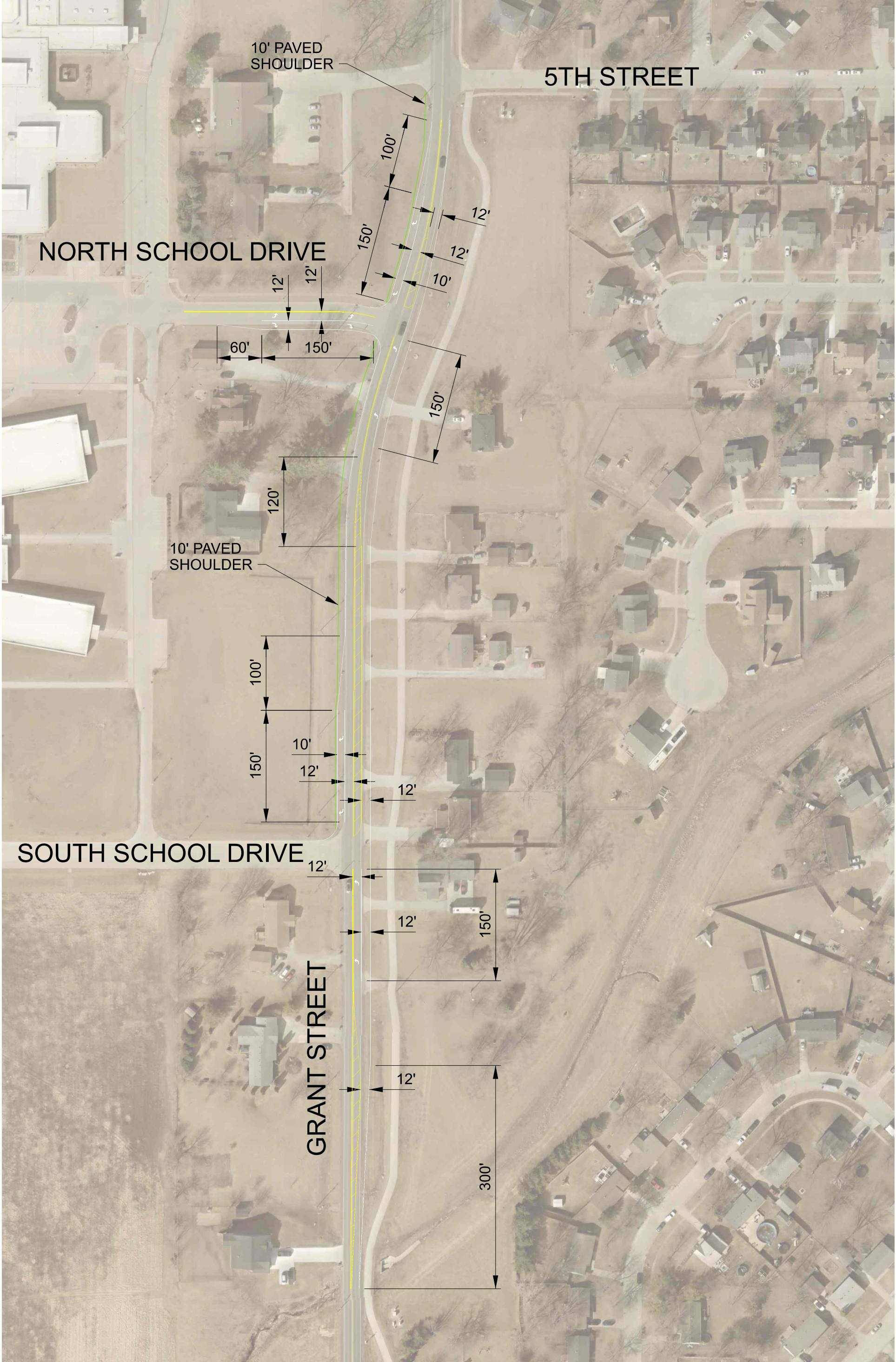
The Transportation Alternatives Program (TAP) is a grant program administered by the Iowa DOT and Iowa’s Transportation Management Areas (TMA), Metropolitan Planning Organizations (MPO), and Regional Planning Affiliations (RPA). The TAP provides funding grants for the following categories of activities: Transportation Alternatives, infrastructure-related or non-infrastructure-related projects formally eligible through the Safe Routes to School program, and projects eligible through the Recreational Trails Program. For further information on eligible activities refer to the TAP program guidance - https://iowadot.gov/systems_planning/pdf/Iowa-TAP-Guidance.pdf Statewide and multi-regional projects should apply directly to the Iowa DOT by October 1 annually for consideration in the Statewide TAP program. Access to funding for smaller, local projects is dependent on geographic location. The MPO will select projects for funding and distribute the funding within the planning area. Each planning agency establishes the application deadlines. Additional information is available on the Iowa DOT web site at https://iowadot.gov/systems_planning/Grant-Programs/Transportation-Alternatives

The Federal-aid Surface Transportation Block Grant (STBG) Program is another potential funding source. The intent of the program is to aid public road jurisdictions with funding for roads on federal-aid routes. This program requires a minimum of 20 percent non-federal funding match. The STBG program is administered by the MPO.

Further information on potential funding sources is available on the Iowa DOT website at: https://iowadot.gov/pol_leg_services/Funding-Guide.pdf

Appendix







Snyder & Associates

2727 SW Snyder Blvd

Ankeny, IA 50023

Grant St & 2nd St
Bondurant TEAP Study
Bondurant, IA
122.1000.01J

File Name : TMC_GrantSt-2ndSt_2023-04-18
Site Code :
Start Date : 4/18/2023
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Grant St From North					2nd St SE From East					Grant St From South					2nd St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:00 AM	0	18	0	0	18	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	27
06:15 AM	0	24	1	0	25	2	0	1	0	3	0	11	0	0	11	1	0	0	0	1	40
06:30 AM	0	51	0	0	51	3	0	2	0	5	0	30	1	0	31	2	0	0	0	2	89
06:45 AM	0	47	9	0	56	0	0	1	0	1	3	41	0	0	44	1	1	2	0	4	105
Total	0	140	10	0	150	5	0	4	0	9	3	91	1	0	95	4	1	2	0	7	261
07:00 AM	0	59	7	0	66	0	0	1	0	1	5	43	0	0	48	4	0	4	0	8	123
07:15 AM	1	70	18	0	89	1	0	1	0	2	17	55	1	0	73	1	0	1	0	2	166
07:30 AM	1	74	53	0	128	0	0	4	0	4	29	81	1	0	111	8	0	2	0	10	253
07:45 AM	2	79	58	0	139	1	2	7	0	10	39	91	1	0	131	4	1	10	0	15	295
Total	4	282	136	0	422	2	2	13	0	17	90	270	3	0	363	17	1	17	0	35	837
08:00 AM	1	77	46	0	124	0	1	3	0	4	31	83	3	0	117	6	0	6	0	12	257
08:15 AM	2	29	0	0	31	2	0	3	0	5	2	64	6	0	72	5	0	3	0	8	116
08:30 AM	1	32	1	0	34	1	1	2	0	4	1	27	1	0	29	1	0	2	0	3	70
08:45 AM	1	42	2	0	45	3	0	1	0	4	0	32	2	0	34	2	0	1	0	3	86
Total	5	180	49	0	234	6	2	9	0	17	34	206	12	0	252	14	0	12	0	26	529
09:00 AM	2	26	0	0	28	1	0	1	0	2	1	31	1	0	33	1	0	0	0	1	64
09:15 AM	0	21	3	0	24	1	0	2	0	3	0	25	1	0	26	1	0	0	0	1	54
09:30 AM	1	28	1	0	30	3	0	0	0	3	2	25	1	0	28	1	0	0	0	1	62
09:45 AM	2	32	1	0	35	0	0	0	0	0	1	26	3	0	30	4	0	2	0	6	71
Total	5	107	5	0	117	5	0	3	0	8	4	107	6	0	117	7	0	2	0	9	251
10:00 AM	0	33	1	0	34	5	0	4	0	9	0	23	0	0	23	1	0	0	0	1	67
10:15 AM	0	31	1	0	32	0	0	2	0	2	5	23	1	0	29	3	0	0	0	3	66
10:30 AM	1	31	4	0	36	1	1	4	0	6	0	23	0	0	23	0	1	0	0	1	66
10:45 AM	0	38	1	0	39	1	0	0	0	1	0	35	1	0	36	1	0	1	0	2	78
Total	1	133	7	0	141	7	1	10	0	18	5	104	2	0	111	5	1	1	0	7	277
11:00 AM	1	49	1	0	51	5	1	1	0	7	0	63	2	0	65	0	0	0	0	0	123
11:15 AM	2	41	2	0	45	1	0	4	0	5	4	34	3	0	41	2	0	0	0	2	93
11:30 AM	0	40	3	0	43	2	0	2	0	4	1	42	1	0	44	2	0	2	0	4	95
11:45 AM	2	34	4	0	40	5	0	2	0	7	0	33	3	0	36	1	0	0	0	1	84
Total	5	164	10	0	179	13	1	9	0	23	5	172	9	0	186	5	0	2	0	7	395
12:00 PM	1	37	1	0	39	3	0	1	0	4	1	28	3	0	32	1	1	1	0	3	78
12:15 PM	1	45	1	0	47	3	0	3	0	6	2	50	1	0	53	1	0	0	0	1	107
12:30 PM	0	30	0	0	30	4	1	2	0	7	2	36	0	0	38	0	0	2	0	2	77
12:45 PM	1	34	1	0	36	1	0	0	0	1	0	33	1	0	34	2	0	1	0	3	74
Total	3	146	3	0	152	11	1	6	0	18	5	147	5	0	157	4	1	4	0	9	336
01:00 PM	1	25	1	0	27	1	0	1	0	2	2	45	1	0	48	1	0	0	0	1	78
01:15 PM	2	22	2	0	26	1	1	6	0	8	4	40	3	0	47	3	0	2	0	5	86
01:30 PM	0	30	0	0	30	1	0	4	0	5	0	30	1	0	31	0	0	0	0	0	66
01:45 PM	3	42	1	0	46	2	0	2	0	4	2	27	0	0	29	1	1	0	0	2	81
Total	6	119	4	0	129	5	1	13	0	19	8	142	5	0	155	5	1	2	0	8	311
02:00 PM	0	26	1	0	27	0	1	1	0	2	2	25	1	0	28	3	0	1	0	4	61
02:15 PM	0	26	2	0	28	2	0	0	0	2	0	32	1	0	33	2	0	1	0	3	66
02:30 PM	1	56	5	0	62	1	0	3	0	4	3	36	2	0	41	3	0	0	0	3	110
02:45 PM	3	77	3	0	83	4	1	2	0	7	6	37	2	0	45	12	0	0	0	12	147
Total	4	185	11	0	200	7	2	6	0	15	11	130	6	0	147	20	0	2	0	22	384
03:00 PM	5	47	9	0	61	4	2	4	0	10	9	51	2	0	62	1	0	2	0	3	136



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Grant St & 2nd St
Bondurant TEAP Study
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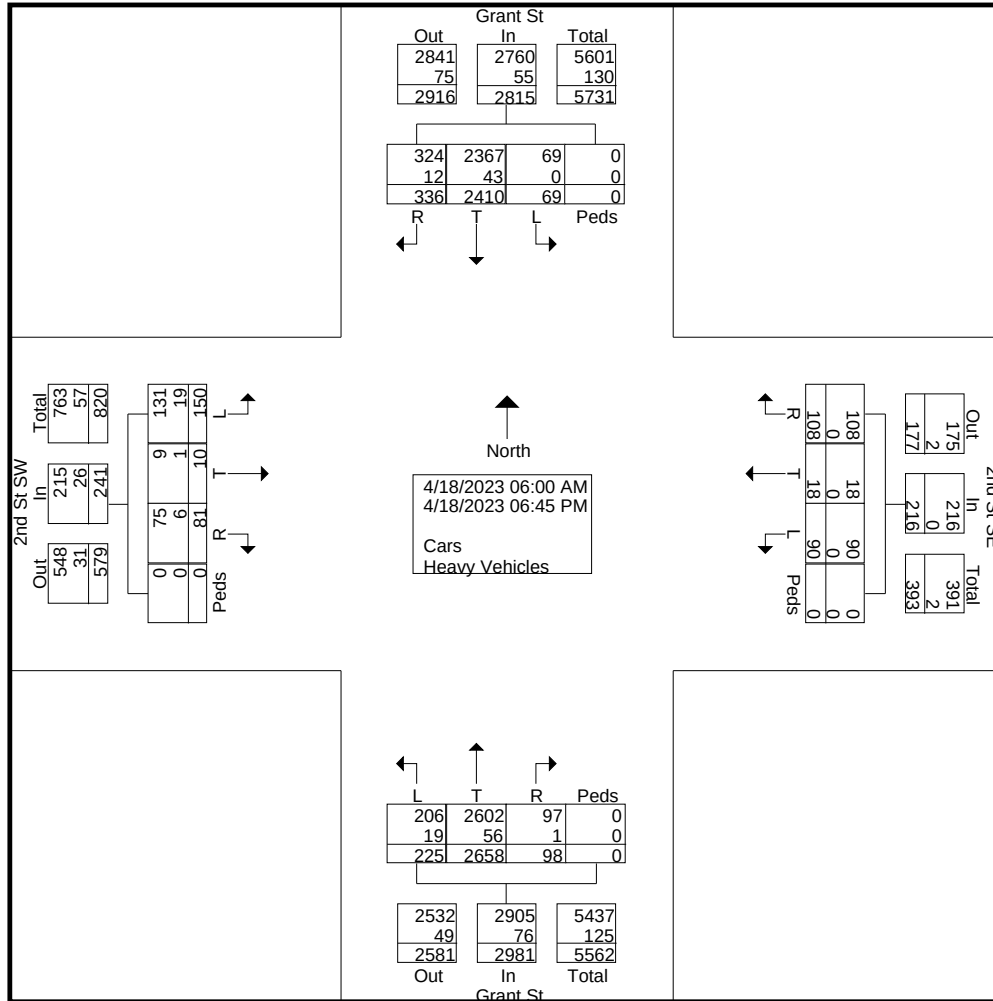
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Site Code :
Start Date : 4/18/2023
Page No : 2

Groups Printed- Cars - Heavy Vehicles

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Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:15 PM	2	78	17	0	97	2	0	2	0	4	8	89	4	0	101	13	1	8	0	22	224
03:30 PM	3	50	13	0	66	0	0	3	0	3	4	99	3	0	106	11	0	4	0	15	190
03:45 PM	1	65	2	0	68	1	0	0	0	1	1	97	4	0	102	11	2	4	0	17	188
Total	11	240	41	0	292	7	2	9	0	18	22	336	13	0	371	36	3	18	0	57	738
04:00 PM	1	59	6	0	66	2	1	2	0	5	3	72	1	0	76	5	0	4	0	9	156
04:15 PM	3	58	10	0	71	1	0	3	0	4	7	80	1	0	88	6	0	6	0	12	175
04:30 PM	2	76	14	0	92	2	3	5	0	10	8	95	5	0	108	4	1	1	0	6	216
04:45 PM	2	73	1	0	76	3	1	1	0	5	2	91	5	0	98	5	0	2	0	7	186
Total	8	266	31	0	305	8	5	11	0	24	20	338	12	0	370	20	1	13	0	34	733
05:00 PM	3	73	2	0	78	4	0	2	0	6	4	83	5	0	92	2	0	0	0	2	178
05:15 PM	1	61	8	0	70	0	0	2	0	2	4	109	6	0	119	0	0	2	0	2	193
05:30 PM	3	62	2	0	67	0	0	5	0	5	0	86	4	0	90	0	0	2	0	2	164
05:45 PM	4	48	0	0	52	3	0	1	0	4	0	63	1	0	64	0	0	0	0	0	120
Total	11	244	12	0	267	7	0	10	0	17	8	341	16	0	365	2	0	4	0	6	655
06:00 PM	1	33	7	0	41	2	1	0	0	3	3	56	2	0	61	0	0	0	0	0	105
06:15 PM	0	42	4	0	46	1	0	1	0	2	5	94	2	0	101	7	1	1	0	9	158
06:30 PM	5	78	6	0	89	1	0	4	0	5	2	71	2	0	75	1	0	1	0	2	171
06:45 PM	0	51	0	0	51	3	0	0	0	3	0	53	2	0	55	3	0	0	0	3	112
Total	6	204	17	0	227	7	1	5	0	13	10	274	8	0	292	11	1	2	0	14	546
Grand Total	69	2410	336	0	2815	90	18	108	0	216	225	2658	98	0	2981	150	10	81	0	241	6253
Apprch %	2.5	85.6	11.9	0		41.7	8.3	50	0		7.5	89.2	3.3	0		62.2	4.1	33.6	0		
Total %	1.1	38.5	5.4	0	45	1.4	0.3	1.7	0	3.5	3.6	42.5	1.6	0	47.7	2.4	0.2	1.3	0	3.9	
Cars	69	2367	324	0	2760	90	18	108	0	216	206	2602	97	0	2905	131	9	75	0	215	6096
% Cars	100	98.2	96.4	0	98	100	100	100	0	100	91.6	97.9	99	0	97.5	87.3	90	92.6	0	89.2	97.5
Heavy Vehicles	0	43	12	0	55	0	0	0	0	0	19	56	1	0	76	19	1	6	0	26	157
% Heavy Vehicles																					

Grant St & 2nd St
Bondurant TEAP Study
Bondurant, IA
122.1000.01J

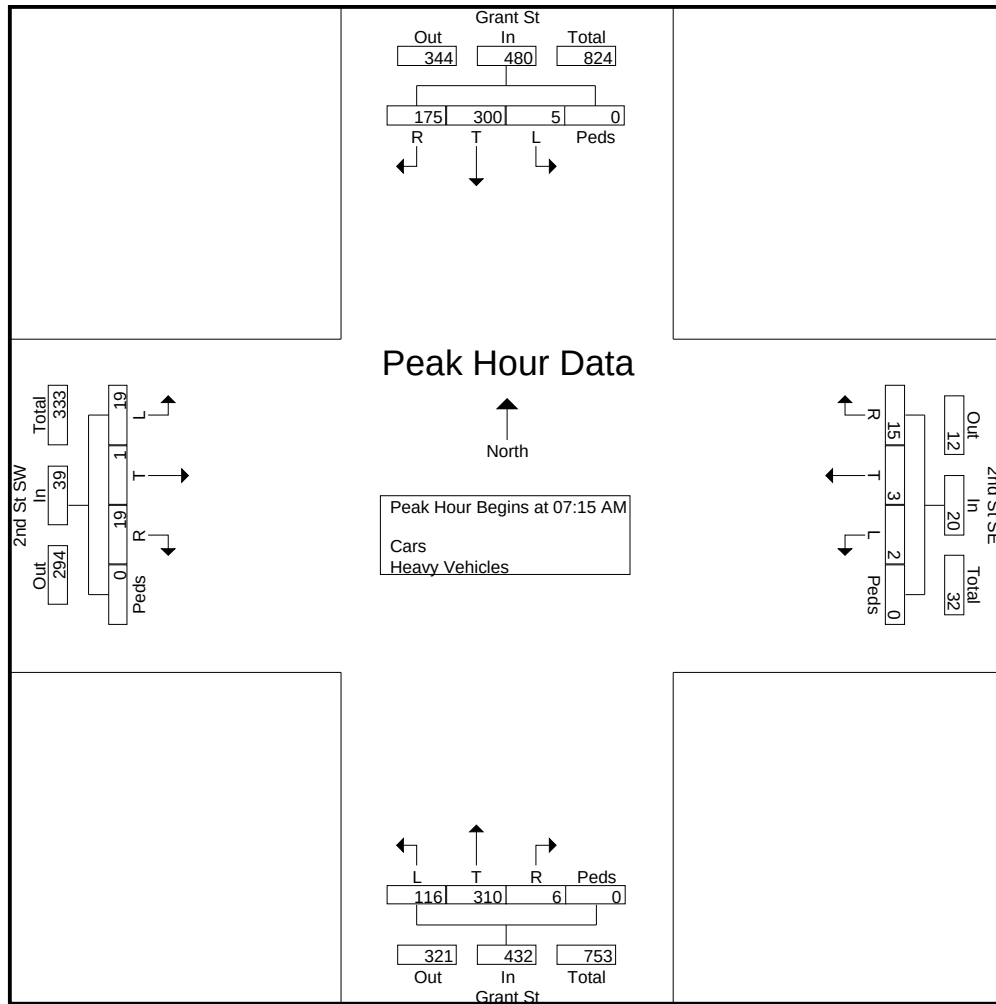
File Name : TMC_GrantSt-2ndSt_2023-04-18
Site Code :
Start Date : 4/18/2023
Page No : 3



Grant St & 2nd St
Bondurant TEAP Study
Bondurant, IA
122.1000.01J

File Name : TMC_GrantSt-2ndSt_2023-04-18
Site Code :
Start Date : 4/18/2023
Page No : 4

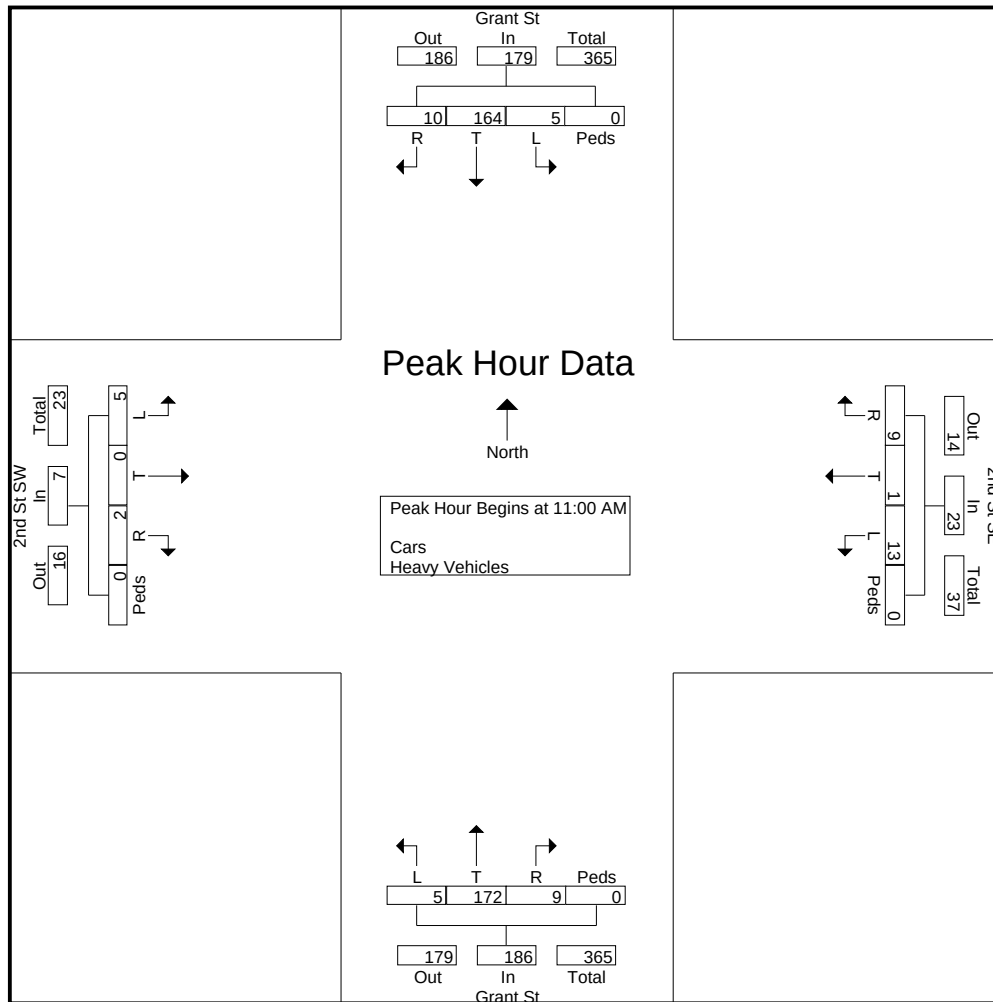
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Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	70	18	0	89	1	0	1	0	2	17	55	1	0	73	1	0	1	0	2	166
07:30 AM	1	74	53	0	128	0	0	4	0	4	29	81	1	0	111	8	0	2	0	10	253
07:45 AM	2	79	58	0	139	1	2	7	0	10	39	91	1	0	131	4	1	10	0	15	295
08:00 AM	1	77	46	0	124	0	1	3	0	4	31	83	3	0	117	6	0	6	0	12	257
Total Volume	5	300	175	0	480	2	3	15	0	20	116	310	6	0	432	19	1	19	0	39	971
% App. Total																					
PHF	.625	.949	.754	.000	.863	.500	.375	.536	.000	.500	.744	.852	.500	.000	.824	.594	.250	.475	.000	.650	.823



Grant St & 2nd St
Bondurant TEAP Study
Bondurant, IA
122.1000.01J

File Name : TMC_GrantSt-2ndSt_2023-04-18
Site Code :
Start Date : 4/18/2023
Page No : 5

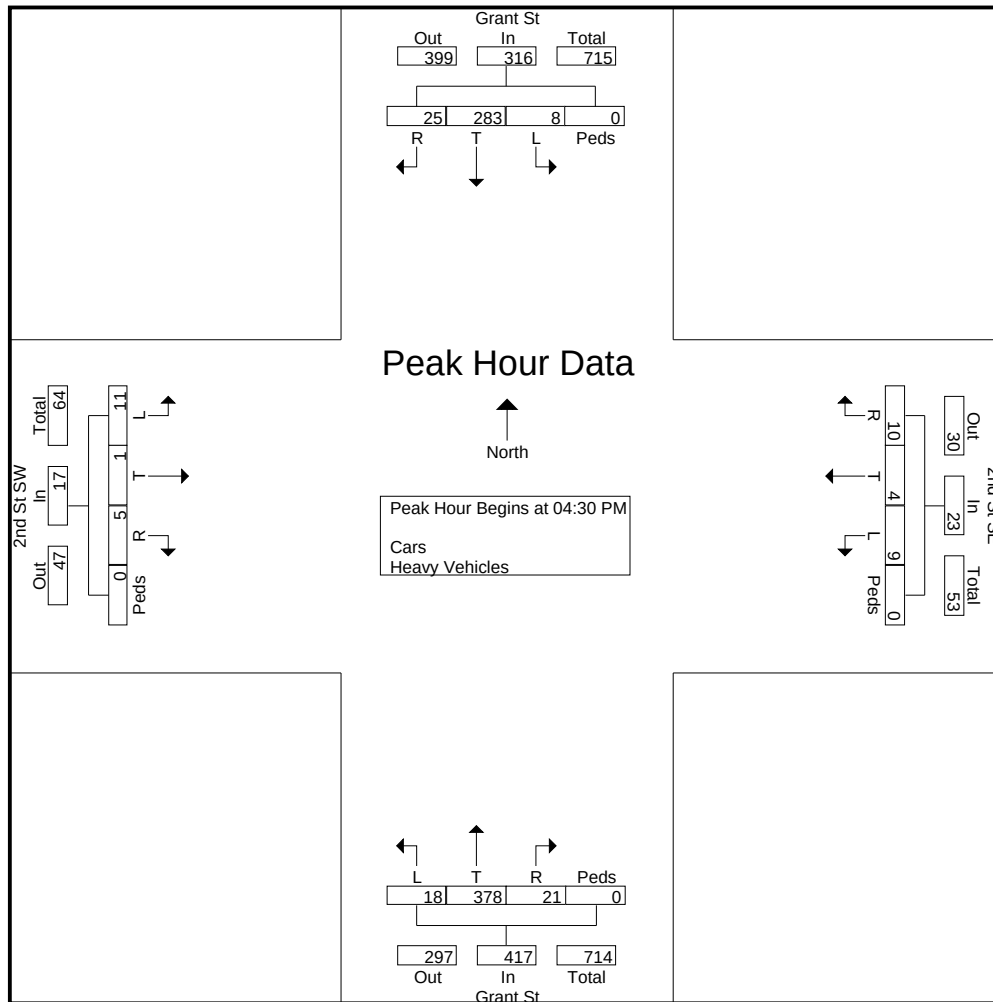
	Grant St From North					2nd St SE From East					Grant St From South					2nd St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	1	49	1	0	51	5	1	1	0	7	0	63	2	0	65	0	0	0	0	0	123
11:15 AM	2	41	2	0	45	1	0	4	0	5	4	34	3	0	41	2	0	0	0	2	93
11:30 AM	0	40	3	0	43	2	0	2	0	4	1	42	1	0	44	2	0	2	0	4	95
11:45 AM	2	34	4	0	40	5	0	2	0	7	0	33	3	0	36	1	0	0	0	1	84
Total Volume	5	164	10	0	179	13	1	9	0	23	5	172	9	0	186	5	0	2	0	7	395
% App. Total																					
PHF	.625	.837	.625	.000	.877	.650	.250	.563	.000	.821	.313	.683	.750	.000	.715	.625	.000	.250	.000	.438	.803



Grant St & 2nd St
Bondurant TEAP Study
Bondurant, IA
122.1000.01J

File Name : TMC_GrantSt-2ndSt_2023-04-18
Site Code :
Start Date : 4/18/2023
Page No : 6

	Grant St From North					2nd St SE From East					Grant St From South					2nd St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	2	76	14	0	92	2	3	5	0	10	8	95	5	0	108	4	1	1	0	6	216
04:45 PM	2	73	1	0	76	3	1	1	0	5	2	91	5	0	98	5	0	2	0	7	186
05:00 PM	3	73	2	0	78	4	0	2	0	6	4	83	5	0	92	2	0	0	0	2	178
05:15 PM	1	61	8	0	70	0	0	2	0	2	4	109	6	0	119	0	0	2	0	2	193
Total Volume	8	283	25	0	316	9	4	10	0	23	18	378	21	0	417	11	1	5	0	17	773
% App. Total																					
PHF	.667	.931	.446	.000	.859	.563	.333	.500	.000	.575	.563	.867	.875	.000	.876	.550	.250	.625	.000	.607	.895





Snyder & Associates

2727 SW Snyder Blvd

Ankeny, IA 50023

Grant St & 4th St
Bondurant TEAP Study
Bondurant, IA
122.1000.01J

File Name : TMC_GrantSt-4thSt_2023-04-18
Site Code :
Start Date : 4/18/2023
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Grant St From North					4th St SE From East					Grant St From South					4th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:00 AM	0	17	0	0	17	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	25
06:15 AM	0	28	0	0	28	0	0	0	0	0	0	9	0	0	9	0	0	1	0	1	38
06:30 AM	0	55	0	0	55	0	0	1	0	1	1	27	0	0	28	0	0	0	0	0	84
06:45 AM	0	49	0	0	49	0	0	1	0	1	0	36	0	0	36	1	0	0	0	1	87
Total	0	149	0	0	149	0	0	2	0	2	1	80	0	0	81	1	0	1	0	2	234
07:00 AM	0	65	1	0	66	1	1	1	0	3	2	30	0	0	32	2	0	0	0	2	103
07:15 AM	0	74	0	0	74	1	0	1	0	2	1	61	1	0	63	4	0	3	0	7	146
07:30 AM	0	73	4	0	77	0	1	3	0	4	0	71	0	0	71	12	2	20	0	34	186
07:45 AM	0	79	1	0	80	1	2	1	0	4	1	78	0	0	79	31	10	26	0	67	230
Total	0	291	6	0	297	3	4	6	0	13	4	240	1	0	245	49	12	49	0	110	665
08:00 AM	0	82	0	0	82	2	0	0	0	2	3	69	1	0	73	29	5	44	0	78	235
08:15 AM	1	31	2	0	34	0	0	1	0	1	1	64	0	0	65	1	1	0	0	2	102
08:30 AM	0	35	2	0	37	1	0	0	0	1	2	24	0	0	26	0	0	0	0	0	64
08:45 AM	5	39	3	0	47	0	0	1	0	1	5	31	0	0	36	4	0	0	0	4	88
Total	6	187	7	0	200	3	0	2	0	5	11	188	1	0	200	34	6	44	0	84	489
09:00 AM	0	26	0	0	26	0	0	1	0	1	0	28	1	0	29	1	1	0	0	2	58
09:15 AM	1	19	0	0	20	0	0	0	0	0	0	25	0	0	25	2	1	0	0	3	48
09:30 AM	0	29	1	0	30	0	0	1	0	1	3	23	0	0	26	0	0	1	0	1	58
09:45 AM	0	27	3	0	30	0	0	0	0	0	4	28	0	0	32	0	0	2	0	2	64
Total	1	101	4	0	106	0	0	2	0	2	7	104	1	0	112	3	2	3	0	8	228
10:00 AM	2	30	5	0	37	1	0	0	0	1	2	21	1	0	24	0	0	1	0	1	63
10:15 AM	0	31	1	0	32	0	0	0	0	0	2	29	1	0	32	0	0	0	0	0	64
10:30 AM	0	36	0	0	36	0	0	0	0	0	0	24	1	0	25	0	0	0	0	0	61
10:45 AM	1	39	0	0	40	0	0	1	0	1	2	33	0	0	35	1	0	0	0	1	77
Total	3	136	6	0	145	1	0	1	0	2	6	107	3	0	116	1	0	1	0	2	265
11:00 AM	2	50	0	0	52	0	0	0	0	0	3	65	2	0	70	1	0	1	0	2	124
11:15 AM	4	26	8	0	38	1	0	0	0	1	1	40	0	0	41	2	1	1	0	4	84
11:30 AM	4	40	4	0	48	0	0	0	0	0	0	34	0	0	34	3	0	3	0	6	88
11:45 AM	0	40	1	0	41	0	1	0	0	1	3	33	0	0	36	2	0	1	0	3	81
Total	10	156	13	0	179	1	1	0	0	2	7	172	2	0	181	8	1	6	0	15	377
12:00 PM	0	41	0	0	41	0	0	0	0	0	0	27	0	0	27	4	0	2	0	6	74
12:15 PM	6	40	4	0	50	0	0	0	0	0	3	48	2	0	53	4	0	1	0	5	108
12:30 PM	6	32	2	0	40	1	0	0	0	1	0	31	0	0	31	2	0	0	0	2	74
12:45 PM	1	32	1	0	34	0	0	1	0	1	2	31	0	0	33	1	0	2	0	3	71
Total	13	145	7	0	165	1	0	1	0	2	5	137	2	0	144	11	0	5	0	16	327
01:00 PM	0	26	0	0	26	0	0	0	0	0	3	45	0	0	48	3	1	2	0	6	80
01:15 PM	0	24	0	0	24	0	0	0	0	0	0	45	0	0	45	1	0	1	0	2	71
01:30 PM	0	28	0	0	28	0	1	0	0	1	2	28	0	0	30	2	1	1	0	4	63
01:45 PM	0	43	3	0	46	0	1	0	0	1	0	27	0	0	27	0	0	1	0	1	75
Total	0	121	3	0	124	0	2	0	0	2	5	145	0	0	150	6	2	5	0	13	289
02:00 PM	0	26	0	0	26	0	0	0	0	0	1	23	0	0	24	1	1	0	0	2	52
02:15 PM	0	26	0	0	26	0	0	0	0	0	0	31	1	0	32	0	0	0	0	0	58
02:30 PM	2	52	0	0	54	1	0	0	0	1	1	37	0	0	38	3	0	1	0	4	97
02:45 PM	0	64	4	0	68	0	2	0	0	2	0	41	0	0	41	1	1	0	0	2	113
Total	2	168	4	0	174	1	2	0	0	3	2	132	1	0	135	5	2	1	0	8	320
03:00 PM	11	54	5	0	70	1	0	0	0	1	1	54	1	0	56	5	1	1	0	7	134



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Ankeny, IA 50023

Grant St & 4th St
Bondurant TEAP Study
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122.1000.01J

File Name : TMC_GrantSt-4thSt_2023-04-18
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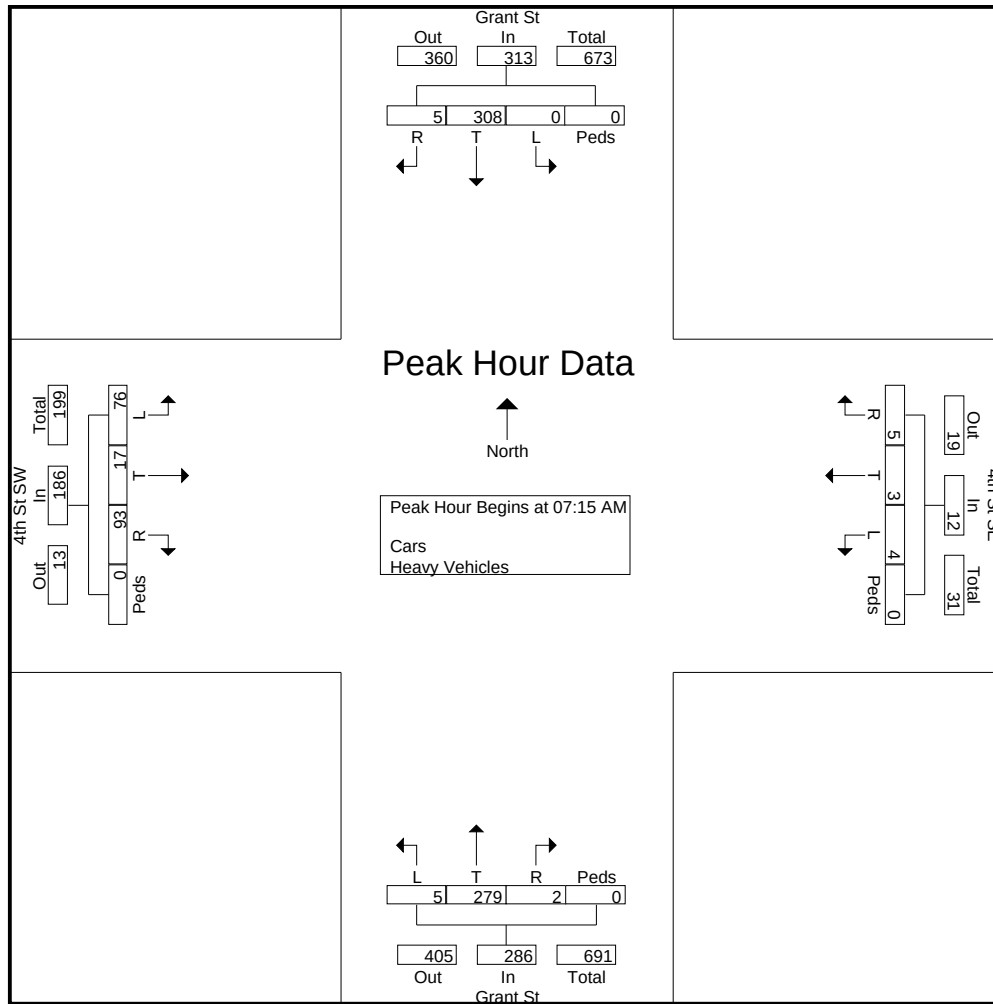
Groups Printed- Cars - Heavy Vehicles

	Grant St From North					4th St SE From East					Grant St From South					4th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:15 PM	0	58	3	0	61	2	0	3	0	5	6	77	0	0	83	13	1	4	0	18	167
03:30 PM	1	57	0	0	58	0	0	2	0	2	1	77	2	0	80	26	14	26	0	66	206
03:45 PM	1	63	0	0	64	0	0	0	0	0	1	94	1	0	96	12	1	9	0	22	182
Total	13	232	8	0	253	3	0	5	0	8	9	302	4	0	315	56	17	40	0	113	689
04:00 PM	0	56	0	0	56	0	0	1	0	1	0	64	1	0	65	2	2	3	0	7	129
04:15 PM	0	59	0	0	59	0	0	0	0	0	0	75	0	0	75	2	0	2	0	4	138
04:30 PM	2	70	0	0	72	2	0	0	0	2	1	97	1	0	99	4	0	1	0	5	178
04:45 PM	2	70	1	0	73	0	0	1	0	1	1	83	1	0	85	12	1	3	0	16	175
Total	4	255	1	0	260	2	0	2	0	4	2	319	3	0	324	20	3	9	0	32	620
05:00 PM	1	66	0	0	67	2	0	0	0	2	1	88	1	0	90	0	0	0	0	0	159
05:15 PM	0	55	0	0	55	0	0	1	0	1	1	106	0	0	107	5	1	4	0	10	173
05:30 PM	0	51	0	0	51	1	0	0	0	1	1	74	0	0	75	5	0	1	0	6	133
05:45 PM	0	43	1	0	44	0	0	0	0	0	0	61	0	0	61	3	0	0	0	3	108
Total	1	215	1	0	217	3	0	1	0	4	3	329	1	0	333	13	1	5	0	19	573
06:00 PM	0	35	1	0	36	0	0	0	0	0	1	54	1	0	56	2	0	0	0	2	94
06:15 PM	1	39	0	0	40	0	0	0	0	0	3	75	0	0	78	6	3	10	0	19	137
06:30 PM	0	73	0	0	73	0	0	0	0	0	4	66	1	0	71	1	0	3	0	4	148
06:45 PM	0	49	1	0	50	1	0	0	0	1	2	51	3	0	56	1	0	1	0	2	109
Total	1	196	2	0	199	1	0	0	0	1	10	246	5	0	261	10	3	14	0	27	488
Grand Total	54	2352	62	0	2468	19	9	22	0	50	72	2501	24	0	2597	217	49	183	0	449	5564
Apprch %	2.2	95.3	2.5	0		38	18	44	0		2.8	96.3	0.9	0		48.3	10.9	40.8	0		
Total %	1	42.3	1.1	0	44.4	0.3	0.2	0.4	0	0.9	1.3	44.9	0.4	0	46.7	3.9	0.9	3.3	0	8.1	
Cars	54	2306	60	0	2420	19	9	22	0	50	71	2415	24	0	2510	215	49	183	0	447	5427
% Cars	100	98	96.8	0	98.1	100	100	100	0	100	98.6	96.6	100	0	96.6	99.1	100	100	0	99.6	97.5
Heavy Vehicles	0	46	2	0	48	0	0	0	0	0	1	86	0	0	87	2	0	0	0	2	137
% Heavy Vehicles																					

Grant St & 4th St
Bondurant TEAP Study
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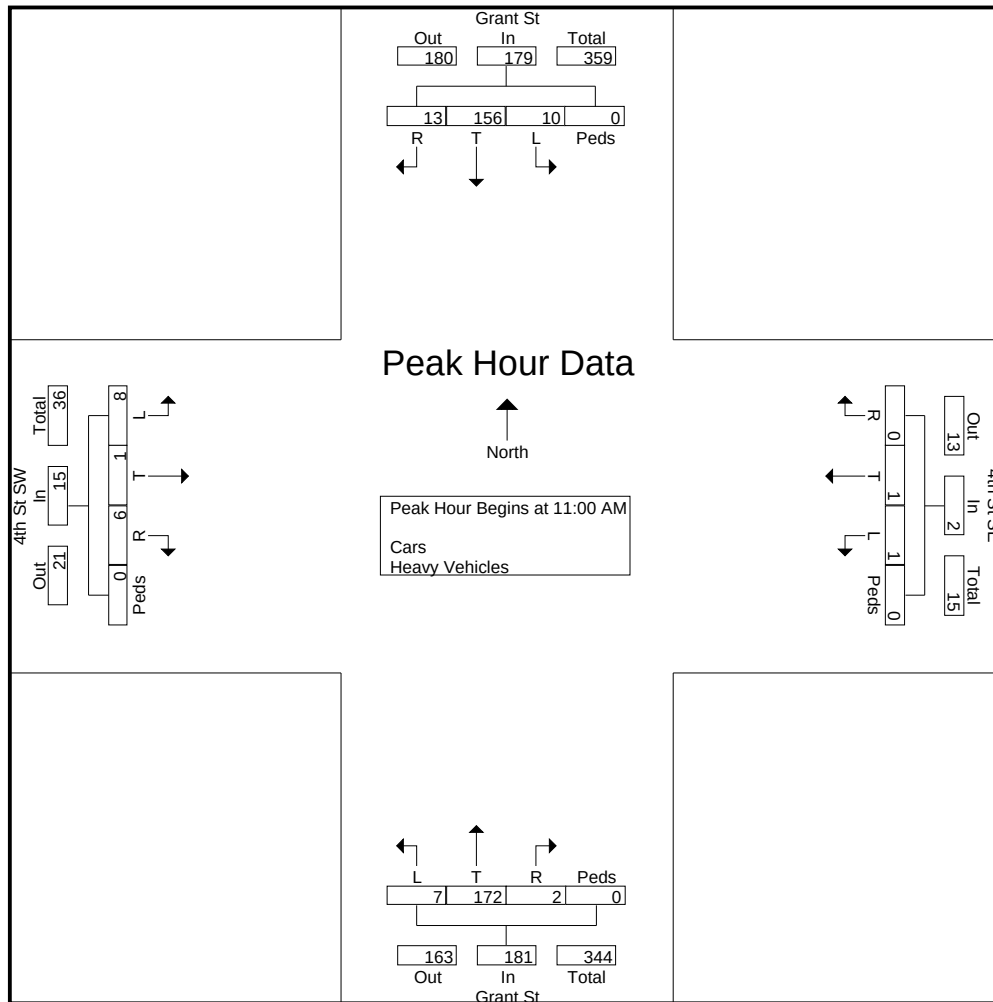
	Grant St From North					4th St SE From East					Grant St From South					4th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	74	0	0	74	1	0	1	0	2	1	61	1	0	63	4	0	3	0	7	146
07:30 AM	0	73	4	0	77	0	1	3	0	4	0	71	0	0	71	12	2	20	0	34	186
07:45 AM	0	79	1	0	80	1	2	1	0	4	1	78	0	0	79	31	10	26	0	67	230
08:00 AM	0	82	0	0	82	2	0	0	0	2	3	69	1	0	73	29	5	44	0	78	235
Total Volume	0	308	5	0	313	4	3	5	0	12	5	279	2	0	286	76	17	93	0	186	797
% App. Total																					
PHF	.000	.939	.313	.000	.954	.500	.375	.417	.000	.750	.417	.894	.500	.000	.905	.613	.425	.528	.000	.596	.848



Grant St & 4th St
Bondurant TEAP Study
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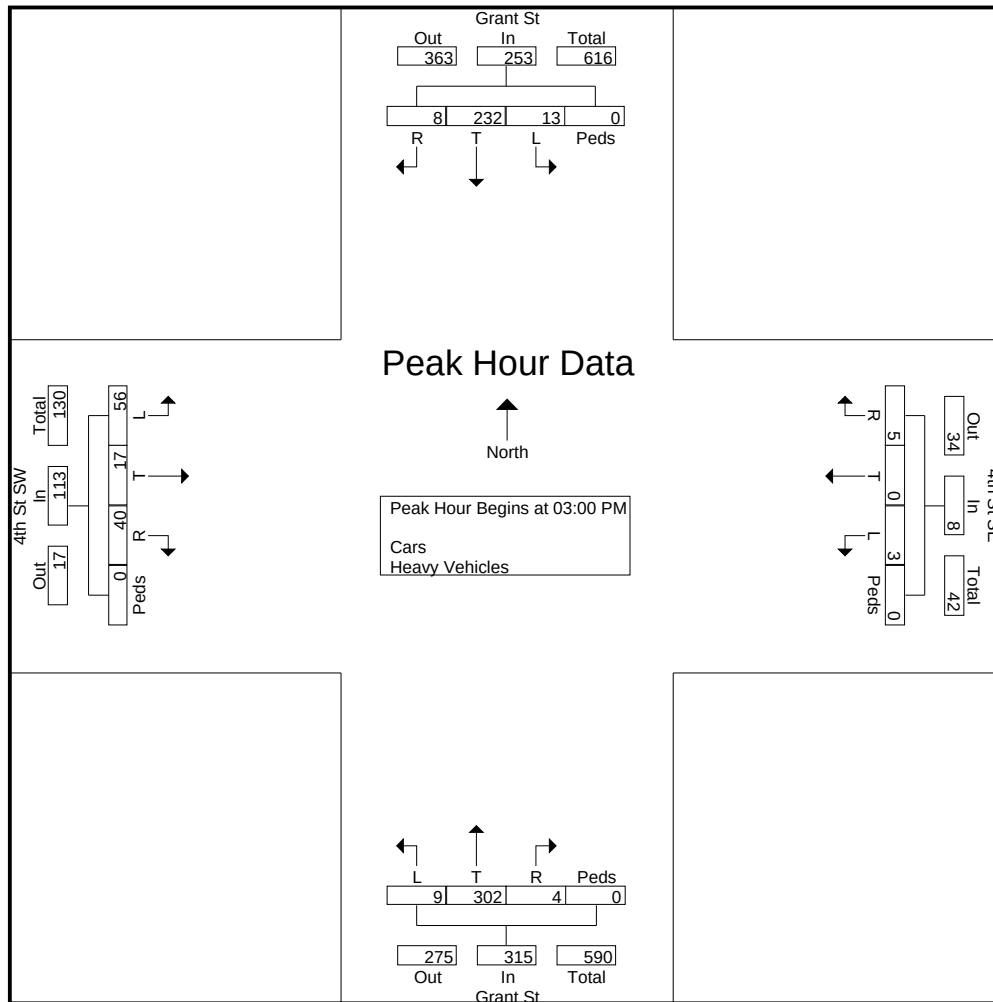
	Grant St From North					4th St SE From East					Grant St From South					4th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	2	50	0	0	52	0	0	0	0	0	3	65	2	0	70	1	0	1	0	2	124
11:15 AM	4	26	8	0	38	1	0	0	0	1	1	40	0	0	41	2	1	1	0	4	84
11:30 AM	4	40	4	0	48	0	0	0	0	0	0	34	0	0	34	3	0	3	0	6	88
11:45 AM	0	40	1	0	41	0	1	0	0	1	3	33	0	0	36	2	0	1	0	3	81
Total Volume	10	156	13	0	179	1	1	0	0	2	7	172	2	0	181	8	1	6	0	15	377
% App. Total																					
PHF	.625	.780	.406	.000	.861	.250	.250	.000	.000	.500	.583	.662	.250	.000	.646	.667	.250	.500	.000	.625	.760



Grant St & 4th St
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	Grant St From North					4th St SE From East					Grant St From South					4th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	11	54	5	0	70	1	0	0	0	1	1	54	1	0	56	5	1	1	0	7	134
03:15 PM	0	58	3	0	61	2	0	3	0	5	6	77	0	0	83	13	1	4	0	18	167
03:30 PM	1	57	0	0	58	0	0	2	0	2	1	77	2	0	80	26	14	26	0	66	206
03:45 PM	1	63	0	0	64	0	0	0	0	0	1	94	1	0	96	12	1	9	0	22	182
Total Volume	13	232	8	0	253	3	0	5	0	8	9	302	4	0	315	56	17	40	0	113	689
% App. Total																					
PHF	.295	.921	.400	.000	.904	.375	.000	.417	.000	.400	.375	.803	.500	.000	.820	.538	.304	.385	.000	.428	.836





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Grant St & 6th St
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Groups Printed- Cars - Heavy Vehicles

	Grant St From North					From East					Grant St From South					6th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:00 AM	0	16	0	0	16	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	23
06:15 AM	0	28	0	0	28	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	34
06:30 AM	0	57	0	0	57	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	81
06:45 AM	0	46	0	0	46	0	0	0	0	0	2	37	0	0	39	0	0	0	0	0	85
Total	0	147	0	0	147	0	0	0	0	0	2	74	0	0	76	0	0	0	0	0	223
07:00 AM	0	70	2	0	72	0	0	0	0	0	5	33	0	0	38	1	0	0	0	1	111
07:15 AM	0	57	15	0	72	0	0	0	0	0	11	57	0	0	68	1	0	1	0	2	142
07:30 AM	0	68	40	0	108	0	0	0	0	0	20	63	0	0	83	5	0	12	0	17	208
07:45 AM	0	79	41	0	120	0	0	0	0	0	21	70	0	0	91	13	0	15	0	28	239
Total	0	274	98	0	372	0	0	0	0	0	57	223	0	0	280	20	0	28	0	48	700
08:00 AM	0	89	78	0	167	0	0	0	0	0	25	52	0	0	77	21	0	53	0	74	318
08:15 AM	0	26	7	0	33	0	0	0	0	0	7	38	0	0	45	25	0	21	0	46	124
08:30 AM	0	33	1	0	34	0	0	0	0	0	2	22	0	0	24	1	0	0	0	1	59
08:45 AM	0	41	0	0	41	0	0	0	0	0	1	31	0	0	32	4	0	4	0	8	81
Total	0	189	86	0	275	0	0	0	0	0	35	143	0	0	178	51	0	78	0	129	582
09:00 AM	0	25	0	0	25	0	0	0	0	0	0	27	0	0	27	1	0	0	0	1	53
09:15 AM	0	19	1	0	20	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	44
09:30 AM	0	30	0	0	30	0	0	0	0	0	2	22	0	0	24	2	0	1	0	3	57
09:45 AM	0	29	1	0	30	0	0	0	0	0	1	28	0	0	29	2	0	2	0	4	63
Total	0	103	2	0	105	0	0	0	0	0	3	101	0	0	104	5	0	3	0	8	217
10:00 AM	0	35	1	0	36	0	0	0	0	0	1	23	0	0	24	1	0	0	0	1	61
10:15 AM	0	27	4	0	31	0	0	0	0	0	0	28	0	0	28	3	0	1	0	4	63
10:30 AM	0	30	5	0	35	0	0	0	0	0	3	23	0	0	26	2	0	3	0	5	66
10:45 AM	0	19	19	0	38	0	0	0	0	0	6	32	0	0	38	1	0	2	0	3	79
Total	0	111	29	0	140	0	0	0	0	0	10	106	0	0	116	7	0	6	0	13	269
11:00 AM	0	38	12	0	50	0	0	0	0	0	3	36	0	0	39	33	0	9	0	42	131
11:15 AM	0	28	1	0	29	0	0	0	0	0	1	36	0	0	37	4	0	4	0	8	74
11:30 AM	0	41	3	0	44	0	0	0	0	0	5	29	0	0	34	3	0	2	0	5	83
11:45 AM	0	34	4	0	38	0	0	0	0	0	2	33	0	0	35	2	0	0	0	2	75
Total	0	141	20	0	161	0	0	0	0	0	11	134	0	0	145	42	0	15	0	57	363
12:00 PM	0	31	9	0	40	0	0	0	0	0	6	24	0	0	30	3	0	2	0	5	75
12:15 PM	0	29	19	0	48	0	0	0	0	0	8	34	0	0	42	24	0	16	0	40	130
12:30 PM	0	26	3	0	29	0	0	0	0	0	4	20	0	0	24	8	0	3	0	11	64
12:45 PM	0	29	4	0	33	0	0	0	0	0	2	30	0	0	32	2	0	1	0	3	68
Total	0	115	35	0	150	0	0	0	0	0	20	108	0	0	128	37	0	22	0	59	337
01:00 PM	0	26	0	0	26	0	0	0	0	0	0	44	0	0	44	1	0	2	0	3	73
01:15 PM	0	25	1	0	26	0	0	0	0	0	0	41	0	0	41	1	0	2	0	3	70
01:30 PM	0	29	1	0	30	0	0	0	0	0	0	33	0	0	33	2	0	3	0	5	68
01:45 PM	0	39	1	0	40	0	0	0	0	0	0	25	0	0	25	1	0	1	0	2	67
Total	0	119	3	0	122	0	0	0	0	0	0	143	0	0	143	5	0	8	0	13	278
02:00 PM	0	26	1	0	27	0	0	0	0	0	1	20	0	0	21	1	0	0	0	1	49
02:15 PM	0	25	1	0	26	0	0	0	0	0	1	32	0	0	33	2	0	1	0	3	62
02:30 PM	0	47	7	0	54	0	0	0	0	0	6	36	0	0	42	2	0	0	0	2	98
02:45 PM	0	43	26	0	69	0	0	0	0	0	9	38	0	0	47	0	0	1	0	1	117
Total	0	141	35	0	176	0	0	0	0	0	17	126	0	0	143	5	0	2	0	7	326
03:00 PM	0	42	22	0	64	0	0	0	0	0	9	49	0	0	58	16	0	6	0	22	144



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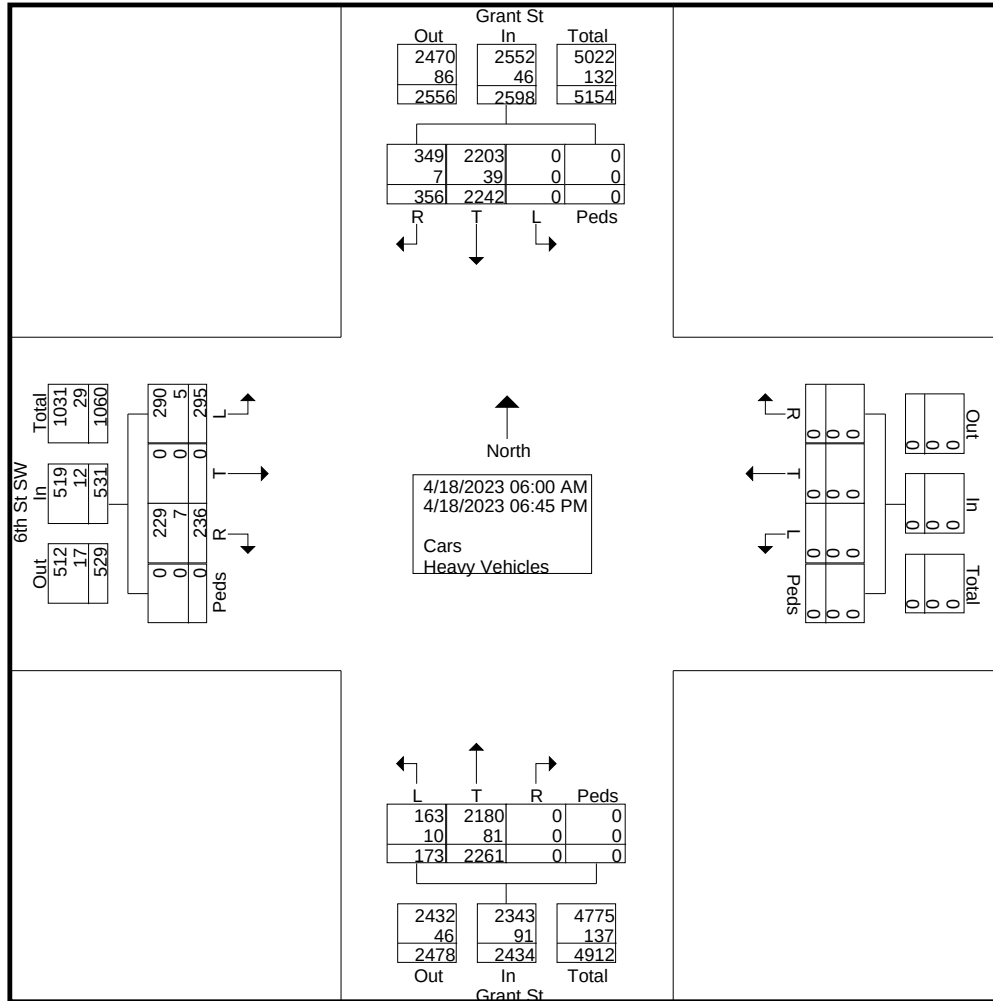
File Name : TMC_GrantSt-6thSt_2023-04-18
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Groups Printed- Cars - Heavy Vehicles

	Grant St From North					From East					Grant St From South					6th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:15 PM	0	44	18	0	62	0	0	0	0	0	6	81	0	0	87	23	0	14	0	37	186
03:30 PM	0	85	4	0	89	0	0	0	0	0	0	49	0	0	49	35	0	24	0	59	197
03:45 PM	0	66	2	0	68	0	0	0	0	0	0	77	0	0	77	20	0	9	0	29	174
Total	0	237	46	0	283	0	0	0	0	0	15	256	0	0	271	94	0	53	0	147	701
04:00 PM	0	53	0	0	53	0	0	0	0	0	0	58	0	0	58	8	0	8	0	16	127
04:15 PM	0	55	0	0	55	0	0	0	0	0	2	66	0	0	68	5	0	6	0	11	134
04:30 PM	0	68	0	0	68	0	0	0	0	0	1	96	0	0	97	5	0	3	0	8	173
04:45 PM	0	71	0	0	71	0	0	0	0	0	0	74	0	0	74	4	0	0	0	4	149
Total	0	247	0	0	247	0	0	0	0	0	3	294	0	0	297	22	0	17	0	39	583
05:00 PM	0	64	0	0	64	0	0	0	0	0	0	83	0	0	83	2	0	3	0	5	152
05:15 PM	0	56	0	0	56	0	0	0	0	0	0	96	0	0	96	2	0	0	0	2	154
05:30 PM	0	49	0	0	49	0	0	0	0	0	0	74	0	0	74	0	0	0	0	0	123
05:45 PM	0	40	0	0	40	0	0	0	0	0	0	57	0	0	57	0	0	0	0	0	97
Total	0	209	0	0	209	0	0	0	0	0	0	310	0	0	310	4	0	3	0	7	526
06:00 PM	0	36	0	0	36	0	0	0	0	0	0	51	0	0	51	1	0	0	0	1	88
06:15 PM	0	48	1	0	49	0	0	0	0	0	0	74	0	0	74	1	0	1	0	2	125
06:30 PM	0	77	0	0	77	0	0	0	0	0	0	65	0	0	65	0	0	0	0	0	142
06:45 PM	0	48	1	0	49	0	0	0	0	0	0	53	0	0	53	1	0	0	0	1	103
Total	0	209	2	0	211	0	0	0	0	0	0	243	0	0	243	3	0	1	0	4	458
Grand Total	0	2242	356	0	2598	0	0	0	0	0	173	2261	0	0	2434	295	0	236	0	531	5563
Apprch %	0	86.3	13.7	0		0	0	0	0	0	7.1	92.9	0	0		55.6	0	44.4	0		
Total %	0	40.3	6.4	0	46.7	0	0	0	0	0	3.1	40.6	0	0	43.8	5.3	0	4.2	0	9.5	
Cars	0	2203	349	0	2552	0	0	0	0	0	163	2180	0	0	2343	290	0	229	0	519	5414
% Cars	0	98.3	98	0	98.2	0	0	0	0	0	94.2	96.4	0	0	96.3	98.3	0	97	0	97.7	97.3
Heavy Vehicles	0	39	7	0	46	0	0	0	0	0	10	81	0	0	91	5	0	7	0	12	149
% Heavy Vehicles																					

Grant St & 6th St
Bondurant TEAP Study
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122.1000.01J

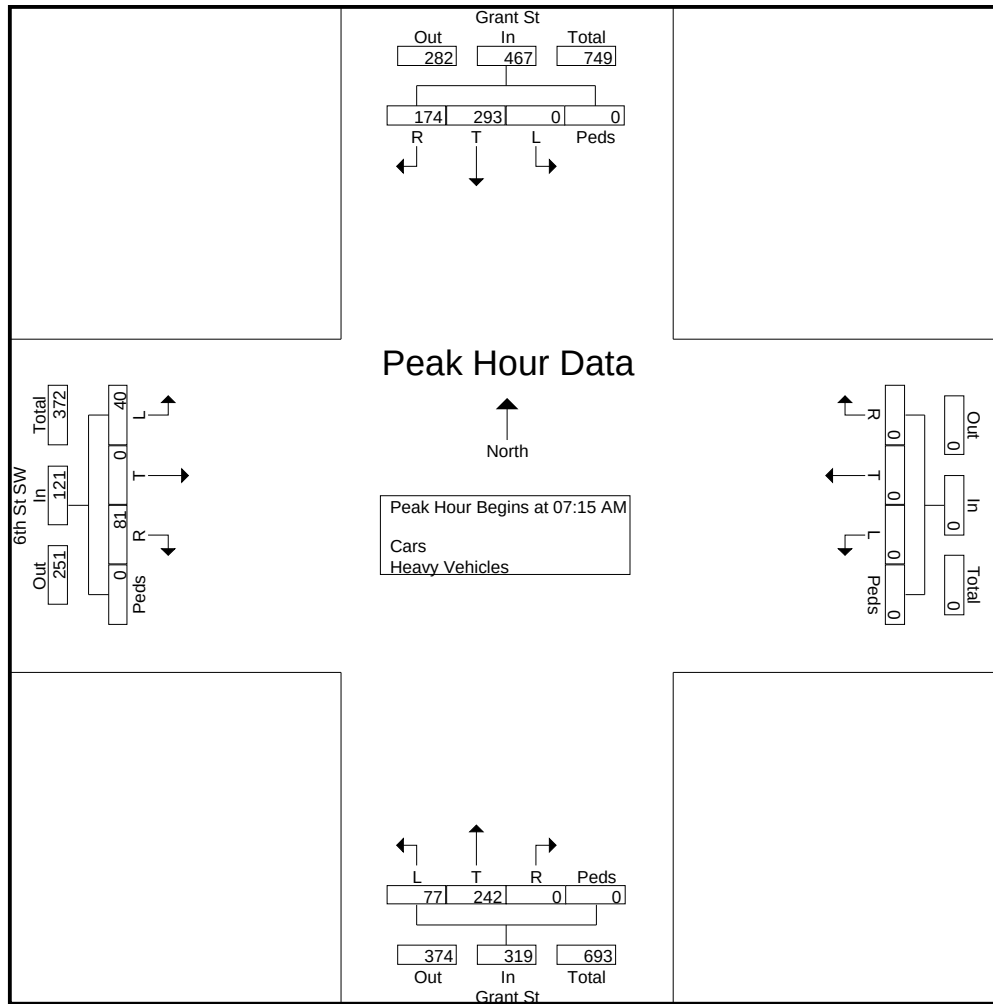
File Name : TMC_GrantSt-6thSt_2023-04-18
Site Code :
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Grant St & 6th St
Bondurant TEAP Study
Bondurant, IA
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File Name : TMC_GrantSt-6thSt_2023-04-18
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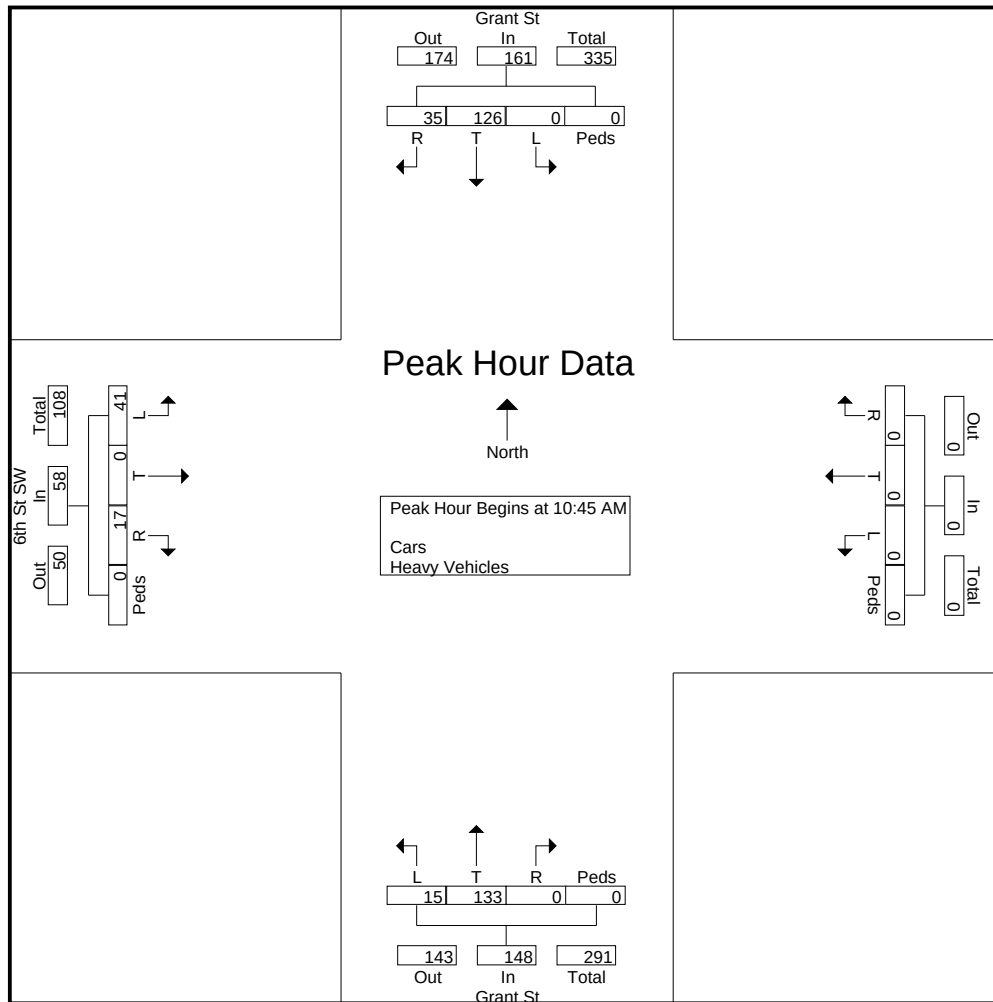
	Grant St From North					From East					Grant St From South					6th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	57	15	0	72	0	0	0	0	0	11	57	0	0	68	1	0	1	0	2	142
07:30 AM	0	68	40	0	108	0	0	0	0	0	20	63	0	0	83	5	0	12	0	17	208
07:45 AM	0	79	41	0	120	0	0	0	0	0	21	70	0	0	91	13	0	15	0	28	239
08:00 AM	0	89	78	0	167	0	0	0	0	0	25	52	0	0	77	21	0	53	0	74	318
Total Volume	0	293	174	0	467	0	0	0	0	0	77	242	0	0	319	40	0	81	0	121	907
% App. Total																					
PHF	.000	.823	.558	.000	.699	.000	.000	.000	.000	.000	.770	.864	.000	.000	.876	.476	.000	.382	.000	.409	.713



Grant St & 6th St
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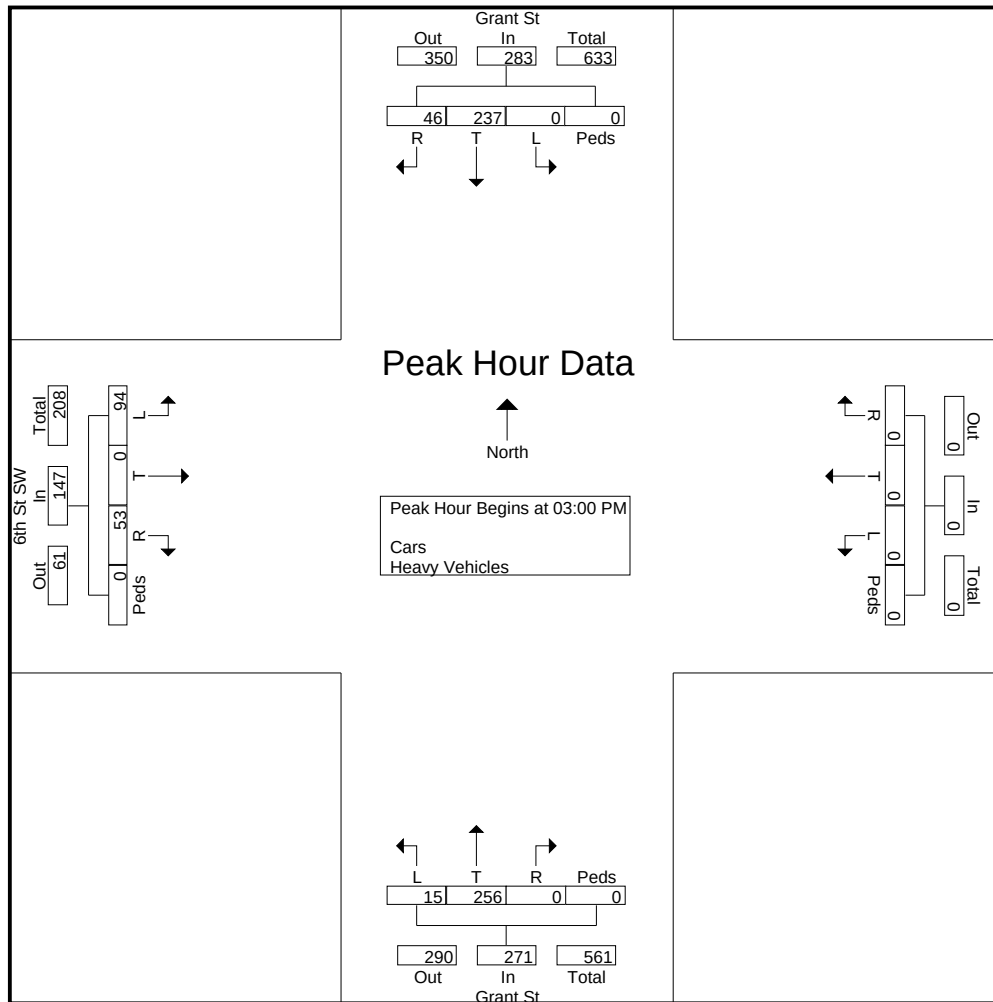
	Grant St From North					From East					Grant St From South					6th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 10:45 AM																					
10:45 AM	0	19	19	0	38	0	0	0	0	0	6	32	0	0	38	1	0	2	0	3	79
11:00 AM	0	38	12	0	50	0	0	0	0	0	3	36	0	0	39	33	0	9	0	42	131
11:15 AM	0	28	1	0	29	0	0	0	0	0	1	36	0	0	37	4	0	4	0	8	74
11:30 AM	0	41	3	0	44	0	0	0	0	0	5	29	0	0	34	3	0	2	0	5	83
Total Volume	0	126	35	0	161	0	0	0	0	0	15	133	0	0	148	41	0	17	0	58	367
% App. Total																					
PHF	.000	.768	.461	.000	.805	.000	.000	.000	.000	.000	.625	.924	.000	.000	.949	.311	.000	.472	.000	.345	.700



Grant St & 6th St
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	Grant St From North					From East					Grant St From South					6th St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	42	22	0	64	0	0	0	0	0	9	49	0	0	58	16	0	6	0	22	144
03:15 PM	0	44	18	0	62	0	0	0	0	0	6	81	0	0	87	23	0	14	0	37	186
03:30 PM	0	85	4	0	89	0	0	0	0	0	0	49	0	0	49	35	0	24	0	59	197
03:45 PM	0	66	2	0	68	0	0	0	0	0	0	77	0	0	77	20	0	9	0	29	174
Total Volume	0	237	46	0	283	0	0	0	0	0	15	256	0	0	271	94	0	53	0	147	701
% App. Total																					
PHF	.000	.697	.523	.000	.795	.000	.000	.000	.000	.000	.417	.790	.000	.000	.779	.671	.000	.552	.000	.623	.890





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Grant St & 9th St
Bondurant TEAP Study
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122.1000.01J

File Name : TMC_GrantSt-9thSt_2023-04-18
Site Code :
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Groups Printed- Cars - Heavy Vehicles

	Grant St From North					From East					Grant St From South					9th St / Garfield St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:00 AM	0	15	0	0	15	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	22
06:15 AM	0	29	0	0	29	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	35
06:30 AM	0	59	0	0	59	0	0	0	0	0	0	26	0	0	26	0	0	0	0	0	85
06:45 AM	0	47	0	0	47	0	0	0	0	0	0	37	0	0	37	0	0	0	0	0	84
Total	0	150	0	0	150	0	0	0	0	0	0	76	0	0	76	0	0	0	0	0	226
07:00 AM	0	68	0	0	68	0	0	0	0	0	0	37	0	0	37	0	0	1	0	1	106
07:15 AM	0	55	1	0	56	0	0	0	0	0	5	71	0	0	76	0	0	1	0	1	133
07:30 AM	0	75	5	0	80	0	0	0	0	0	12	68	0	0	80	9	0	7	0	16	176
07:45 AM	0	75	16	0	91	0	0	0	0	0	17	72	0	0	89	19	0	14	0	33	213
Total	0	273	22	0	295	0	0	0	0	0	34	248	0	0	282	28	0	23	0	51	628
08:00 AM	0	112	31	0	143	0	0	0	0	0	17	56	0	0	73	22	0	30	0	52	268
08:15 AM	0	48	2	0	50	0	0	0	0	0	2	32	0	0	34	8	0	13	0	21	105
08:30 AM	0	33	0	0	33	0	0	0	0	0	0	22	0	0	22	2	0	0	0	2	57
08:45 AM	0	45	0	0	45	0	0	0	0	0	0	31	0	0	31	0	0	1	0	1	77
Total	0	238	33	0	271	0	0	0	0	0	19	141	0	0	160	32	0	44	0	76	507
09:00 AM	0	24	0	0	24	0	0	0	0	0	0	25	0	0	25	2	0	0	0	2	51
09:15 AM	0	20	0	0	20	0	0	0	0	0	0	24	0	0	24	0	0	2	0	2	46
09:30 AM	0	31	0	0	31	0	0	0	0	0	0	24	0	0	24	1	0	1	0	2	57
09:45 AM	0	32	1	0	33	0	0	0	0	0	0	32	0	0	32	0	0	0	0	0	65
Total	0	107	1	0	108	0	0	0	0	0	0	105	0	0	105	3	0	3	0	6	219
10:00 AM	0	32	0	0	32	0	0	0	0	0	0	21	0	0	21	1	0	1	0	2	55
10:15 AM	0	28	0	0	28	0	0	0	0	0	0	25	0	0	25	4	0	0	0	4	57
10:30 AM	0	34	0	0	34	0	0	0	0	0	0	26	0	0	26	1	0	1	0	2	62
10:45 AM	0	20	0	0	20	0	0	0	0	0	0	39	0	0	39	1	0	0	0	1	60
Total	0	114	0	0	114	0	0	0	0	0	0	111	0	0	111	7	0	2	0	9	234
11:00 AM	0	45	0	0	45	0	0	0	0	0	0	33	0	0	33	5	0	2	0	7	85
11:15 AM	0	32	0	0	32	0	0	0	0	0	0	34	0	0	34	1	0	1	0	2	68
11:30 AM	0	43	0	0	43	0	0	0	0	0	0	33	0	0	33	1	0	1	0	2	78
11:45 AM	0	34	0	0	34	0	0	0	0	0	0	36	0	0	36	0	0	2	0	2	72
Total	0	154	0	0	154	0	0	0	0	0	0	136	0	0	136	7	0	6	0	13	303
12:00 PM	0	35	0	0	35	0	0	0	0	0	0	34	0	0	34	2	0	0	0	2	71
12:15 PM	0	43	1	0	44	0	0	0	0	0	0	34	0	0	34	2	0	1	0	3	81
12:30 PM	0	29	0	0	29	0	0	0	0	0	0	24	0	0	24	1	0	0	0	1	54
12:45 PM	0	30	0	0	30	0	0	0	0	0	0	33	0	0	33	0	0	2	0	2	65
Total	0	137	1	0	138	0	0	0	0	0	0	125	0	0	125	5	0	3	0	8	271
01:00 PM	0	27	0	0	27	0	0	0	0	0	0	39	0	0	39	5	0	3	0	8	74
01:15 PM	0	28	0	0	28	0	0	0	0	0	0	37	0	0	37	3	0	0	0	3	68
01:30 PM	0	32	0	0	32	0	0	0	0	0	0	32	0	0	32	2	0	0	0	2	66
01:45 PM	0	41	0	0	41	0	0	0	0	0	1	26	0	0	27	0	0	0	0	0	68
Total	0	128	0	0	128	0	0	0	0	0	1	134	0	0	135	10	0	3	0	13	276
02:00 PM	0	25	1	0	26	0	0	0	0	0	0	19	0	0	19	1	0	0	0	1	46
02:15 PM	0	24	1	0	25	0	0	0	0	0	3	33	0	0	36	1	0	0	0	1	62
02:30 PM	0	40	6	0	46	0	0	0	0	0	6	38	0	0	44	2	0	2	0	4	94
02:45 PM	0	27	15	0	42	0	0	0	0	0	10	46	0	0	56	1	0	0	0	1	99
Total	0	116	23	0	139	0	0	0	0	0	19	136	0	0	155	5	0	2	0	7	301
03:00 PM	0	35	2	0	37	0	0	0	0	0	0	58	0	0	58	4	0	2	0	6	101



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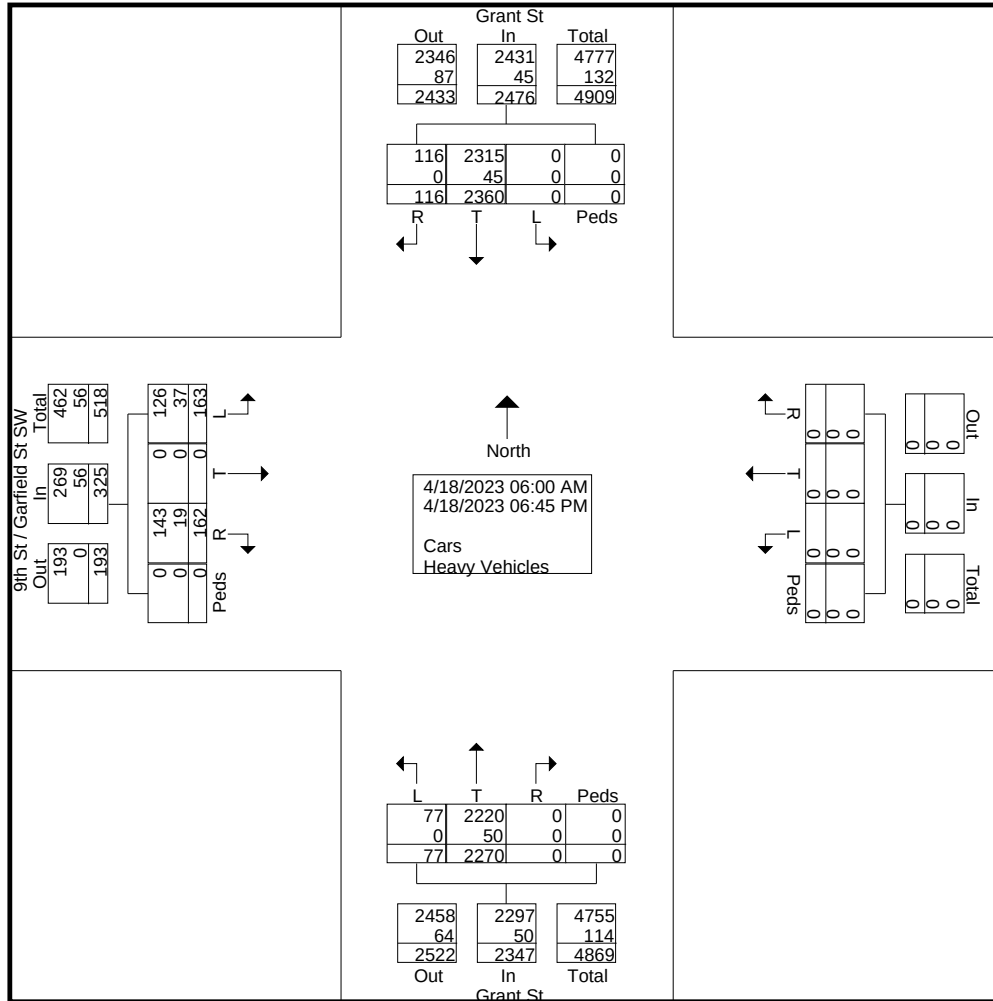
File Name : TMC_GrantSt-9thSt_2023-04-18
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Groups Printed- Cars - Heavy Vehicles

	Grant St From North					From East					Grant St From South					9th St / Garfield St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:15 PM	0	49	24	0	73	0	0	0	0	0	4	54	0	0	58	34	0	43	0	77	208
03:30 PM	0	107	2	0	109	0	0	0	0	0	0	44	0	0	44	3	0	15	0	18	171
03:45 PM	0	74	0	0	74	0	0	0	0	0	0	61	0	0	61	12	0	8	0	20	155
Total	0	265	28	0	293	0	0	0	0	0	4	217	0	0	221	53	0	68	0	121	635
04:00 PM	0	61	0	0	61	0	0	0	0	0	0	56	0	0	56	2	0	4	0	6	123
04:15 PM	0	64	0	0	64	0	0	0	0	0	0	69	0	0	69	0	0	2	0	2	135
04:30 PM	0	70	0	0	70	0	0	0	0	0	0	99	0	0	99	2	0	2	0	4	173
04:45 PM	0	68	5	0	73	0	0	0	0	0	0	71	0	0	71	2	0	0	0	2	146
Total	0	263	5	0	268	0	0	0	0	0	0	295	0	0	295	6	0	8	0	14	577
05:00 PM	0	65	0	0	65	0	0	0	0	0	0	80	0	0	80	2	0	0	0	2	147
05:15 PM	0	57	0	0	57	0	0	0	0	0	0	101	0	0	101	0	0	0	0	0	158
05:30 PM	0	46	0	0	46	0	0	0	0	0	0	72	0	0	72	0	0	0	0	0	118
05:45 PM	0	43	0	0	43	0	0	0	0	0	0	54	0	0	54	0	0	0	0	0	97
Total	0	211	0	0	211	0	0	0	0	0	0	307	0	0	307	2	0	0	0	2	520
06:00 PM	0	37	0	0	37	0	0	0	0	0	0	55	0	0	55	0	0	0	0	0	92
06:15 PM	0	41	3	0	44	0	0	0	0	0	0	71	0	0	71	3	0	0	0	3	118
06:30 PM	0	77	0	0	77	0	0	0	0	0	0	62	0	0	62	2	0	0	0	2	141
06:45 PM	0	49	0	0	49	0	0	0	0	0	0	51	0	0	51	0	0	0	0	0	100
Total	0	204	3	0	207	0	0	0	0	0	0	239	0	0	239	5	0	0	0	5	451
Grand Total	0	2360	116	0	2476	0	0	0	0	0	77	2270	0	0	2347	163	0	162	0	325	5148
Apprch %	0	95.3	4.7	0		0	0	0	0		3.3	96.7	0	0		50.2	0	49.8	0		
Total %	0	45.8	2.3	0	48.1	0	0	0	0	0	1.5	44.1	0	0	45.6	3.2	0	3.1	0	6.3	
Cars	0	2315	116	0	2431	0	0	0	0	0	77	2220	0	0	2297	126	0	143	0	269	4997
% Cars	0	98.1	100	0	98.2	0	0	0	0	0	100	97.8	0	0	97.9	77.3	0	88.3	0	82.8	97.1
Heavy Vehicles	0	45	0	0	45	0	0	0	0	0	0	50	0	0	50	37	0	19	0	56	151
% Heavy Vehicles																					

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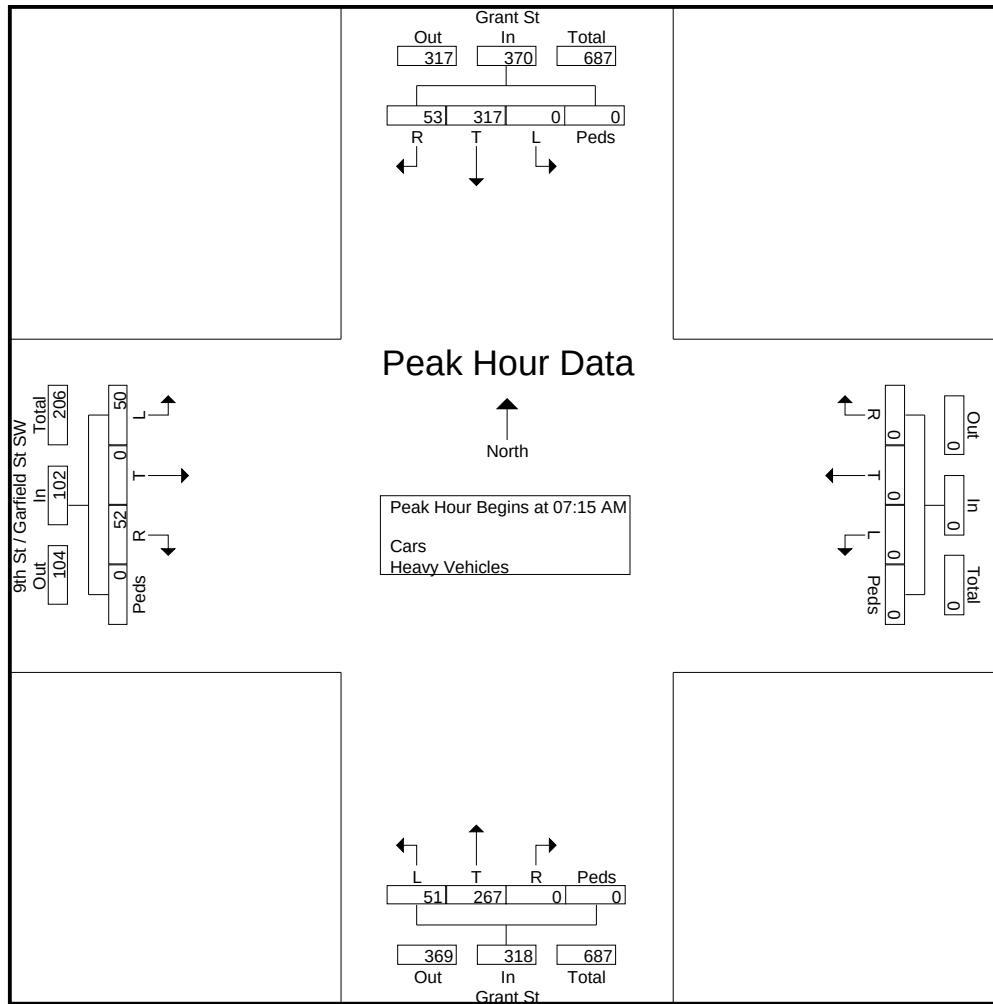
File Name : TMC_GrantSt-9thSt_2023-04-18
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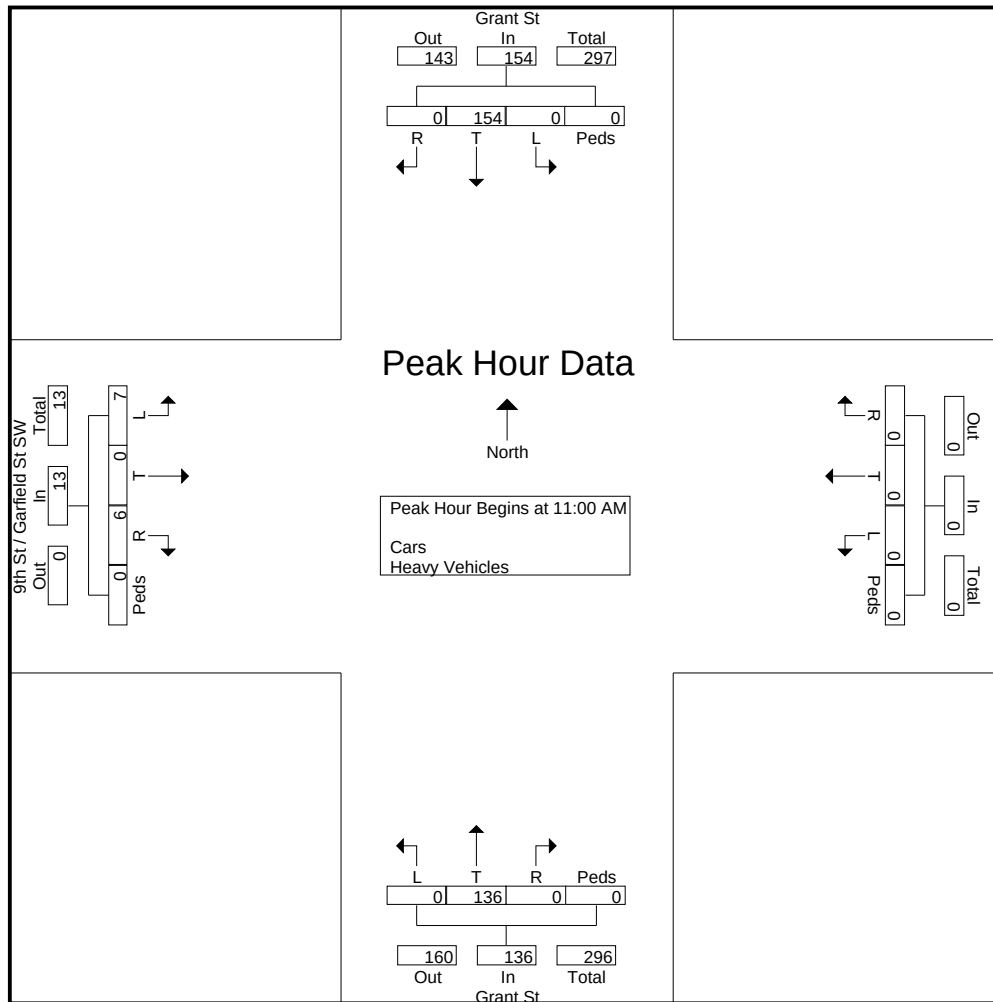
	Grant St From North					From East					Grant St From South					9th St / Garfield St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	55	1	0	56	0	0	0	0	0	5	71	0	0	76	0	0	1	0	1	133
07:30 AM	0	75	5	0	80	0	0	0	0	0	12	68	0	0	80	9	0	7	0	16	176
07:45 AM	0	75	16	0	91	0	0	0	0	0	17	72	0	0	89	19	0	14	0	33	213
08:00 AM	0	112	31	0	143	0	0	0	0	0	17	56	0	0	73	22	0	30	0	52	268
Total Volume	0	317	53	0	370	0	0	0	0	0	51	267	0	0	318	50	0	52	0	102	790
% App. Total																					
PHF	.000	.708	.427	.000	.647	.000	.000	.000	.000	.000	.750	.927	.000	.000	.893	.568	.000	.433	.000	.490	.737



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File Name : TMC_GrantSt-9thSt_2023-04-18
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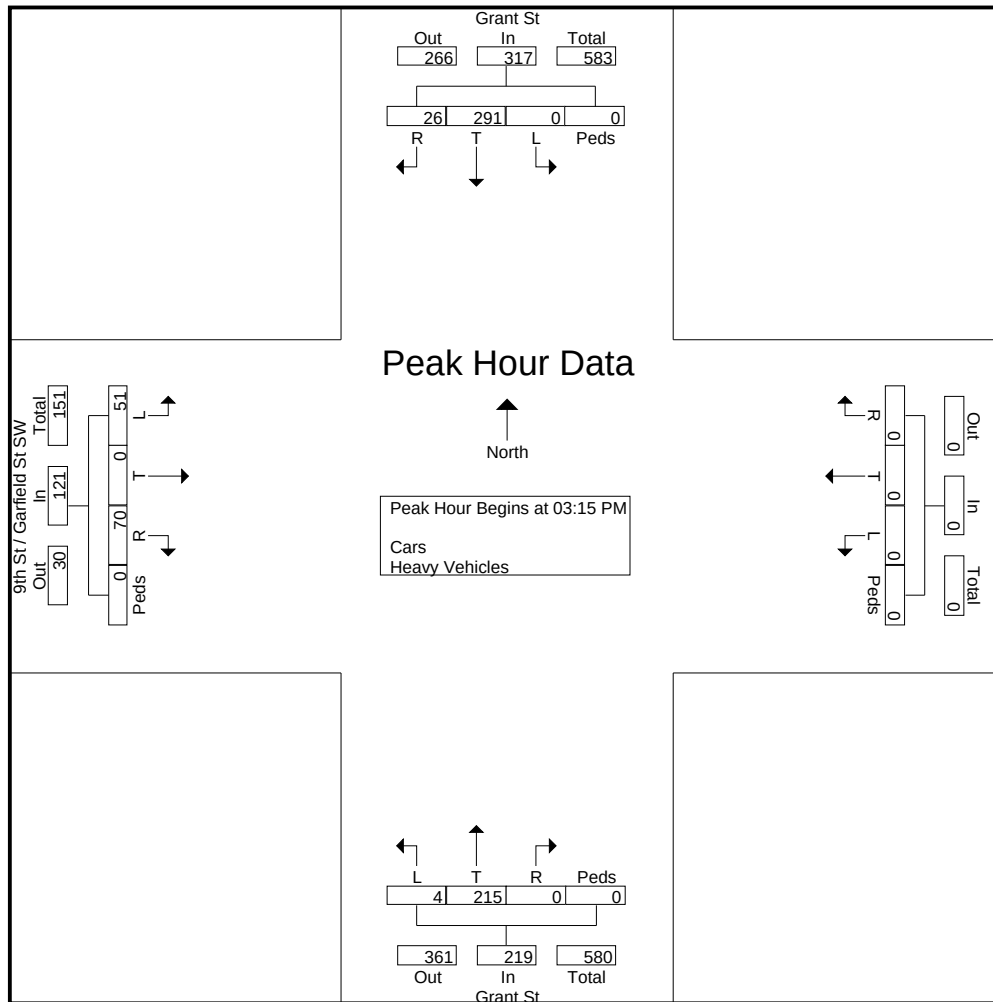
	Grant St From North					From East					Grant St From South					9th St / Garfield St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	45	0	0	45	0	0	0	0	0	0	33	0	0	33	5	0	2	0	7	85
11:15 AM	0	32	0	0	32	0	0	0	0	0	0	34	0	0	34	1	0	1	0	2	68
11:30 AM	0	43	0	0	43	0	0	0	0	0	0	33	0	0	33	1	0	1	0	2	78
11:45 AM	0	34	0	0	34	0	0	0	0	0	0	36	0	0	36	0	0	2	0	2	72
Total Volume	0	154	0	0	154	0	0	0	0	0	0	136	0	0	136	7	0	6	0	13	303
% App. Total																					
PHF	.000	.856	.000	.000	.856	.000	.000	.000	.000	.000	.000	.944	.000	.000	.944	.350	.000	.750	.000	.464	.891



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	Grant St From North					From East					Grant St From South					9th St / Garfield St SW From West					
Start Time	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	L	T	R	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	0	49	24	0	73	0	0	0	0	0	4	54	0	0	58	34	0	43	0	77	208
03:30 PM	0	107	2	0	109	0	0	0	0	0	0	44	0	0	44	3	0	15	0	18	171
03:45 PM	0	74	0	0	74	0	0	0	0	0	0	61	0	0	61	12	0	8	0	20	155
04:00 PM	0	61	0	0	61	0	0	0	0	0	0	56	0	0	56	2	0	4	0	6	123
Total Volume	0	291	26	0	317	0	0	0	0	0	4	215	0	0	219	51	0	70	0	121	657
% App. Total																					
PHF	.000	.680	.271	.000	.727	.000	.000	.000	.000	.000	.250	.881	.000	.000	.898	.375	.000	.407	.000	.393	.790





Crash Detail Report

20201193810

10/08/2020 19:03

2ND ST SE AND GRANT STREET S

County: Polk

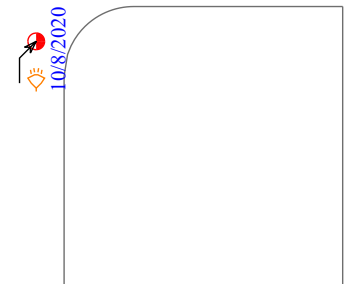
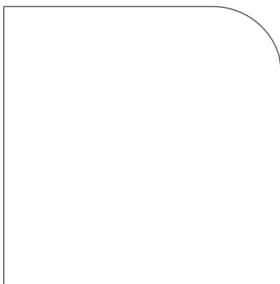
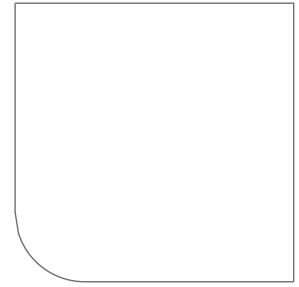
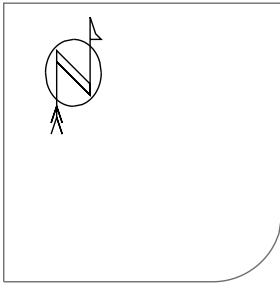
City: Bondurant

Major Cause: Unknown**Roadway Type:** Feature: Non-junction/no special feature**Severity::** Suspected Minor Injury**Manner of Crash:** Non-collision (single vehicle)**Fatalities:** 0**Surface Conditions:** Sand**Major Injuries:** 0**Light Conditions:** Dark - roadway lighted**Minor Injuries:** 1**Weather Conditions:** Clear**Possible Injuries:** 0**Drug/Alc Involved:** None Indicated**Severity::** Suspected Minor Injury**Property Damage:** \$3,000**Number of Vehicles:** 1

	Unit 1	Unit	Unit
Init Trav Dir:	North		
Veh Action:	Turning right		
Configuration:	Motorcycle		
Driver Age:	31		
Driver Gender:	M		
Driver Cond:	Apparently normal		
Driver Contr 1:	Unknown		
Driver Contr 2:	Not reported		
Fixed Object:	None (no fixed object struck)		

1 Crashes

Clear



Straight
 Stopped
 Unknown
 Backing
 Overtaking
 Sideswipe

Parked
 Erratic
 Out of control
 Right turn
 Left turn
 U-turn

Fatal
 Major
 Minor
 Injury
 Pedestrian
 Bicycle

Fixed objects:

General
 Signal
 Tree
 Pole
 Curb
 Animal
 DUI
 3rd vehicle
 Nighttime

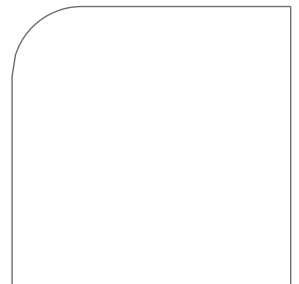
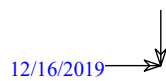
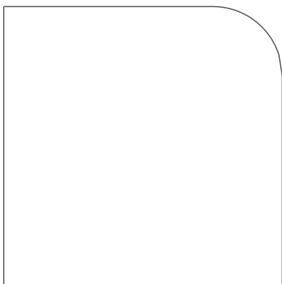
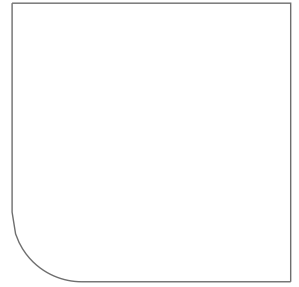
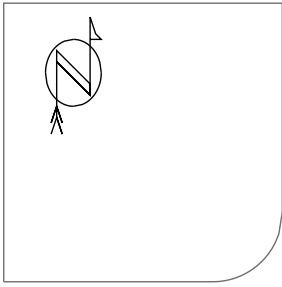
Crash Detail Report

20191149880		12/06/2019 8:21		GRANT ST S AND 4TH ST SW AND 4TH ST SE	
County: Polk		City: Bondurant			
Major Cause: Followed too close Roadway Type: Intersection: Four-way intersection Severity:: Property Damage Only Manner of Crash: Rear-end (front to rear) Fatalities: 0 Surface Conditions: Dry Major Injuries: 0 Light Conditions: Daylight Minor Injuries: 0 Weather Conditions: Cloudy Possible Injuries: 0 Drug/Alc Involved: None Indicated Severity:: Property Damage Only Property Damage: \$2,800 Number of Vehicles: 2					
	Unit 1	Unit 2	Unit		
Init Trav Dir:	South	South			
Veh Action:	Movement essentially straight	Stopped in traffic			
Configuration:	Sport utility vehicle	Sport utility vehicle			
Driver Age:	40	47			
Driver Gender:	M	F			
Driver Cond:	Apparently normal	Apparently normal			
Driver Contr 1:	Followed too close	No improper action			
Driver Contr 2:	Not reported	Not reported			
Fixed Object:	None (no fixed object struck)	None (no fixed object struck)			

20191151753		12/16/2019 8:08		GRANT ST S AND 4TH ST SW AND 4TH ST SE	
County: Polk		City: Bondurant			
Major Cause: FTYROW: From stop sign Roadway Type: Intersection: Four-way intersection Severity:: Property Damage Only Manner of Crash: Broadside (front to side) Fatalities: 0 Surface Conditions: Snow Major Injuries: 0 Light Conditions: Daylight Minor Injuries: 0 Weather Conditions: Clear Possible Injuries: 0 Drug/Alc Involved: None Indicated Severity:: Property Damage Only Property Damage: \$7,000 Number of Vehicles: 2					
	Unit 1	Unit 2	Unit		
Init Trav Dir:	South	East			
Veh Action:	Movement essentially straight	Movement essentially straight			
Configuration:	Sport utility vehicle	Sport utility vehicle			
Driver Age:	53	40			
Driver Gender:	F	F			
Driver Cond:	Apparently normal	Apparently normal			
Driver Contr 1:	Driving too fast for conditions	No improper action			
Driver Contr 2:	FTYROW: From stop sign	Not reported			
Fixed Object:	None (no fixed object struck)	None (no fixed object struck)			

2 Crashes

Clear



- ← Straight
- ←+ Stopped
- ← Unknown
- ↔ Backing
- ↔ Overtaking
- ↔ Sideswipe

- ▭ Parked
- ↗ Erratic
- ↘ Out of control
- ↘ Right turn
- ↘ Left turn
- ↘ U-turn

- ★ Fatal
- Major
- ◐ Minor
- Injury
- × Pedestrian
- ⌵ Bicycle

Fixed objects:

- General
- ▣ Signal
- ⊠ Tree
- ▣ Pole
- ▣ Curb
- ⌵ Animal
- ⚡ DUI
- ◀ 3rd vehicle
- ⚡ Nighttime

Crash Detail Report

20191102184

03/04/2019 8:15

6TH ST SW/ GRANT ST S BONDURANT

County: Polk

City: Bondurant

Major Cause: Other

Roadway Type: Intersection: T-intersection

Severity:: Property Damage Only

Manner of Crash: Rear-end (front to rear)

Fatalities: 0

Surface Conditions: Dry

Major Injuries: 0

Light Conditions: Daylight

Minor Injuries: 0

Weather Conditions: Clear

Possible Injuries: 0

Drug/Alc Involved: None Indicated

Severity:: Property Damage Only

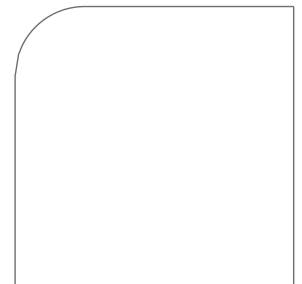
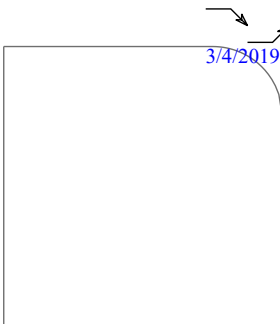
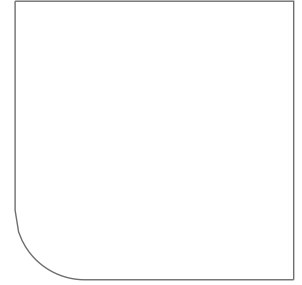
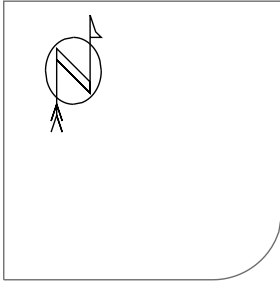
Property Damage: \$2,000

Number of Vehicles: 2

	Unit 1	Unit 2	Unit
Init Trav Dir:	East	East	
Veh Action:	Turning left	Turning right	
Configuration:	Sport utility vehicle	Sport utility vehicle	
Driver Age:	36	39	
Driver Gender:	M	F	
Driver Cond:	Apparently normal	Apparently normal	
Driver Contr 1:	Other	No improper action	
Driver Contr 2:	Not reported	Not reported	
Fixed Object:	None (no fixed object struck)	None (no fixed object struck)	

1 Crashes

Clear



← Straight
 ←+ Stopped
 ← Unknown
 ↔ Backing
 ↔ Overtaking
 ← Sideswipe

Parked
 Erratic
 Out of control
 Right turn
 Left turn
 U-turn

★ Fatal
 ● Major
 ◐ Minor
 ○ Injury
 × Pedestrian
 ✂ Bicycle

Fixed objects:

☐ General ☐ Pole
☐ Signal ☐ Curb
☐ Tree ☐ Animal
 DUI
 3rd vehicle
 Nighttime

Crash Magic Online 4/10/2023

Crash Detail Report

20201164354	02/26/2020 16:03	GARFIELD ST SW AND 2ND ST SW	
County: Polk	City: Bondurant		
Major Cause: Improper backing			
Roadway Type: Intersection: Four-way intersection			
Severity:: Property Damage Only		Manner of Crash: Rear-end (front to rear)	
Fatalities: 0		Surface Conditions: Dry	
Major Injuries: 0		Light Conditions: Daylight	
Minor Injuries: 0		Weather Conditions: Cloudy	
Possible Injuries: 0		Drug/Alc Involved: None Indicated	
Severity:: Property Damage Only		Property Damage: \$1,700	Number of Vehicles: 2
	Unit 1	Unit 2	Unit
Init Trav Dir:	West	East	
Veh Action:	Backing	Stopped in traffic	
Configuration:	Four-tire light truck (pick-up)	Passenger car	
Driver Age:	61	58	
Driver Gender:	M	F	
Driver Cond:	Apparently normal	Apparently normal	
Driver Contr 1:	Starting or backing improperly	No improper action	
Driver Contr 2:	Not reported	Not reported	
Fixed Object:	None (no fixed object struck)	None (no fixed object struck)	



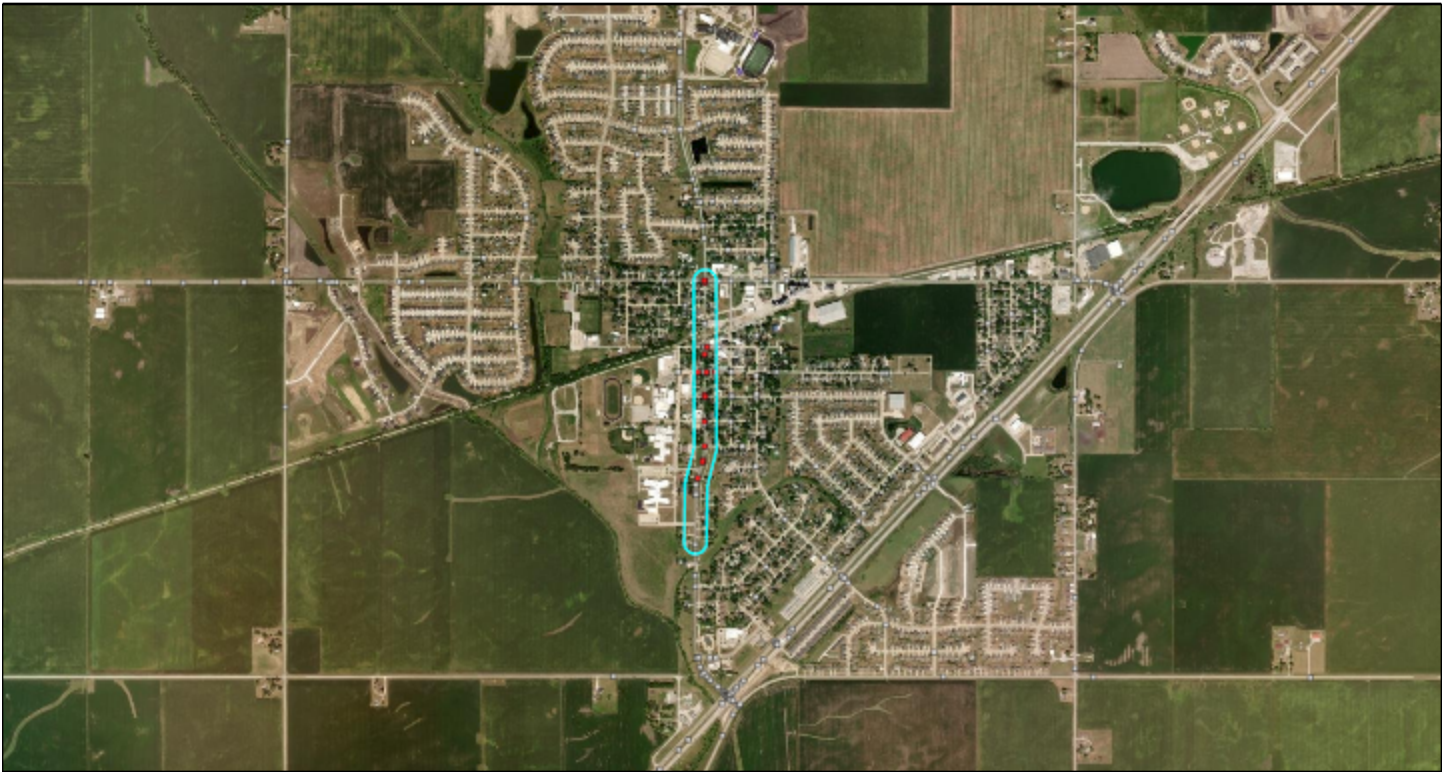
Iowa Crash Analysis Tool
Quick Report
2018-2022

Crash Severity	20
Fatal Crash	0
Suspected Serious Injury Crash	0
Suspected Minor Injury Crash	1
Possible/Unknown Injury Crash	5
Property Damage Only	14

Injury Status Summary	7
Fatalities	0
Suspected serious/incapacitating	0
Suspected minor/non-incapacitating	1
Possible (complaint of pain/injury)	6
Unknown	0

Property/Vehicles/Occupants	
Property Damage Total (dollars):	116,250.00
Average (per crash dollars):	5,812.50
Total Vehicles:	39.00
Average (per crash):	1.95
Total Occupants:	56.00
Average (per crash):	2.80

Average Severity	
Fatalities/Fatal Crash:	0.00
Fatalities/Crash:	0.00
Injuries/Crash:	0.35
Major Injuries/Crash:	0.00
Minor Injuries/Crash:	0.05
Possible/Unknown Injuries/Crash:	0.30





Iowa Crash Analysis Tool
Quick Report
2018-2022

Major Cause		20
Animal	0	0
Ran stop sign	3	0
FTYROW: At uncontrolled intersection	0	0
FTYROW: From stop sign	4	0
FTYROW: Making left turn	0	0
FTYROW: From parked position	0	0
FTYROW: Other	1	0
Disregarded RR Signal	0	0
Crossed median (divided)	0	0
Aggressive driving/road rage	0	0
Exceeded authorized speed	0	0
Operating vehicle in an reckless, erratic, ca...	0	4
Passing: On wrong side	0	0
Passing: With insufficient distance/inadequa...	0	0
Passing: Other passing	0	0
Driver Distraction: Manual operation of an e...	0	0
Driver Distraction: Talking on a hands free ...	0	0
Driver Distraction: Other electronic device ...	0	0
Driver Distraction: Unrestrained animal	0	0
Driver Distraction: Inattentive/lost in thou...	0	1
Driver Distraction: Exterior distraction	1	0
Ran off road - straight	0	0
Lost control	0	0
Over correcting/over steering	0	0
Failure to signal intentions	0	0
Vehicle stopped on railroad tracks	0	0
Other: Improper operation	0	0
Other: Disregarded signs/road markings	0	0
Downhill runaway	0	0
Towing improperly	0	0
Equipment failure	0	0
Other: Getting off/out of vehicle	0	0
Improper backing	1	0
Illegally parked/unattended	0	0
Operator inexperience	0	3
Unknown	1	0
Other: No improper action	1	



**Iowa Crash Analysis Tool
Quick Report
2018-2022**

Time of Day/Day of Week														
Day of Week	12 AM to 2 AM	2 AM to 4 AM	4 AM to 6 AM	6 AM to 8 AM	8 AM to 10 AM	10 AM to Noon	Noon to 2 PM	2 PM to 4 PM	4 PM to 6 PM	6 PM to 8 PM	8 PM to 10 PM	10 PM to 12 AM	Not reported	Total
Sunday	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Monday	0	0	0	1	3	0	0	2	0	0	0	0	0	6
Tuesday	0	0	0	0	1	0	0	0	0	0	1	1	0	3
Wednesday	0	1	0	0	1	0	0	0	0	0	1	0	0	3
Thursday	0	0	0	0	1	0	0	0	0	1	0	0	0	2
Friday	0	0	0	0	1	1	0	2	0	0	0	0	0	4
Saturday	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	1	0	1	7	1	0	4	1	1	2	1	0	20

Manner of Crash Collision	20	Surface Conditions	20
Non-collision (single vehicle)	1	Dry	15
Head-on (front to front)	0	Wet	1
Rear-end (front to rear)	7	Ice/frost	1
Angle, oncoming left turn	1	Snow	2
Broadside (front to side)	8	Slush	0
Sideswipe, same direction	0	Mud, dirt	0
Sideswipe, opposite direction	1	Water (standing or moving)	0
Rear to rear	0	Sand	1
Rear to side	2	Oil	0
Not reported	0	Gravel	0
Other	0	Not reported	0
Unknown	0	Other	0
		Unknown	0

Fixed Object Struck	39
Bridge overhead structure	0
Bridge/bridge rail parapet	0
Ditch	0
Ground	0
Guardrail - face	0
Concrete traffic barrier (median or right sid...	0
Cable barrier	0
Utility pole/light support	0
Traffic signal support	0
Fire hydrant	0
Tree	0
Snow bank	0
Wall	0
Other fixed object	0
Bridge pier or support	0
Curb/island/raised median	0
Embankment	0
Culvert/pipe opening	0
Guardrail - end	0
Other traffic barrier	0
Impact attenuator/crash cushion	0
Traffic sign support	0
Other post/pole/support	0
Mailbox	0
Landscape/shrubbery	0
Fence	0
Building	0
None (no fixed object struck)	39



Iowa Crash Analysis Tool
Quick Report
2018-2022

Driver Age/Driver Gender					
Driver Age - 5 year Bins	Female	Male	Not reported	Unknown	Total
< 14	0	0	0	0	0
= 14	0	0	0	0	0
= 15	0	0	0	0	0
= 16	4	0	0	0	4
= 17	0	0	0	0	0
= 18	0	0	0	0	0
= 19	0	0	0	0	0
= 20	1	0	0	0	1
>= 21 and <= 24	3	0	0	0	3
>= 25 and <= 29	1	1	0	0	2
>= 30 and <= 34	3	2	0	0	5
>= 35 and <= 39	2	3	0	0	5
>= 40 and <= 44	4	1	0	0	5
>= 45 and <= 49	1	0	0	0	1
>= 50 and <= 54	3	0	0	0	3
>= 55 and <= 59	1	1	0	0	2
>= 60 and <= 64	2	0	0	0	2
>= 65 and <= 69	1	0	0	0	1
>= 70 and <= 74	0	1	0	0	1
>= 75 and <= 79	0	0	0	0	0
>= 80 and <= 84	1	0	0	0	1
>= 85 and <= 89	0	0	0	0	0
>= 90 and <= 94	0	1	0	0	1
>= 95	0	0	0	0	0
Not reported	0	0	0	0	0
Unknown	0	0	2	0	2
Total	27	10	2	0	39

Alcohol Test Given	39
None	36
Blood	0
Urine	0
Breath	1
Vitreous	0
Refused	0
Not reported	2

Drug Test Given	39
None	37
Blood	0
Urine	0
Breath	0
Vitreous	0
Refused	0
Not reported	2

Drug Test Result	39
Negative	0
Cannabis	0
Central Nervous System depressants	0
Central Nervous System stimulants	0
Hallucinogens	0
Inhalants	0
Narcotic Analgesics	0
Dissociative Anesthetic (PCP)	0
Prescription Drug	0
Not reported	39
Other	0

Drug/Alcohol Related	20
Drug	0
Alcohol (< Statutory)	0
Alcohol (Statutory)	1
Drug and Alcohol (< Statutory)	0
Drug and Alcohol (Statutory)	0
Refused	0
Under Influence of Alcohol/Drugs/Medications	0
None Indicated	19

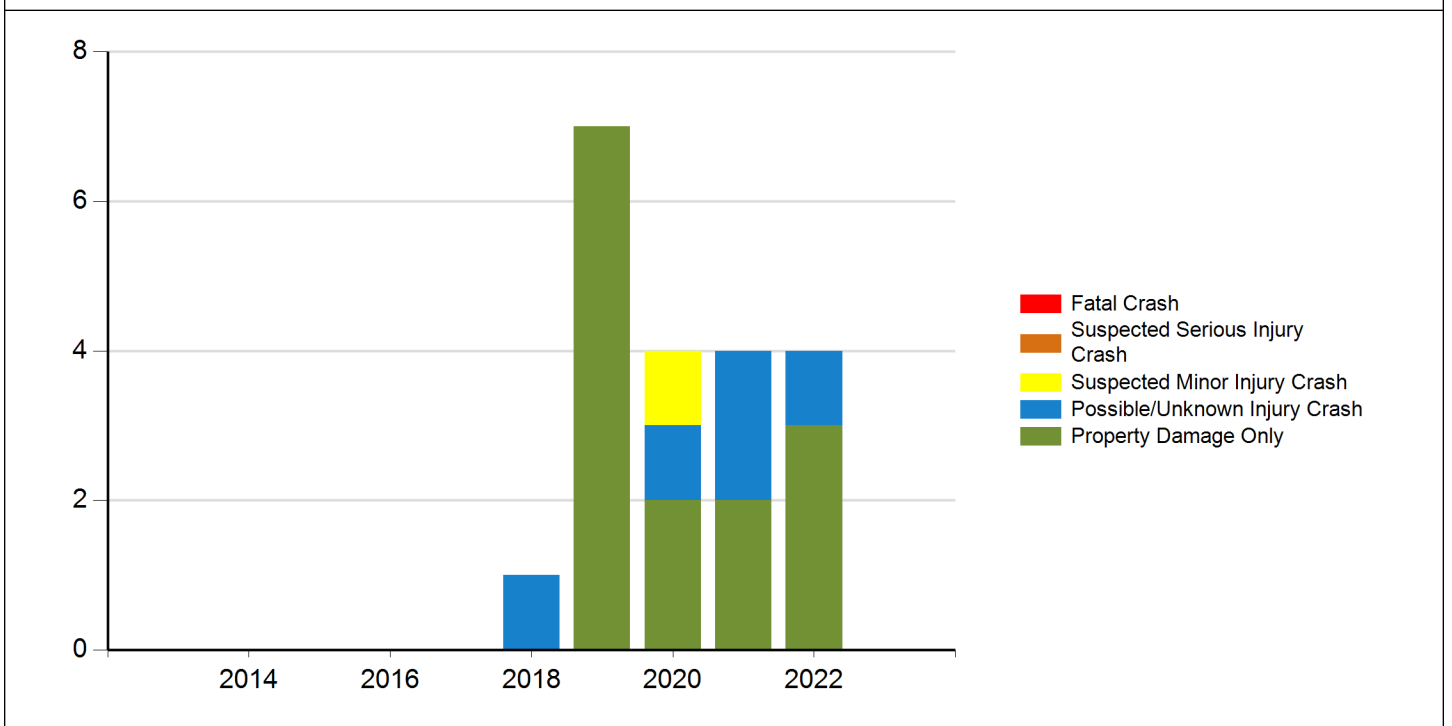


Iowa Crash Analysis Tool
Quick Report
2018-2022

Crash Severity - Annual

Crash Year	Fatal Crash	Suspected Serious Injury Crash	Suspected Minor Injury Crash	Possible/Unknown Injury Crash	Property Damage Only	Total
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	1	0	1
2019	0	0	0	0	7	7
2020	0	0	1	1	2	4
2021	0	0	0	2	2	4
2022	0	0	0	1	3	4
2023	0	0	0	0	0	0
Total	0	0	1	5	14	20

Severity/Year



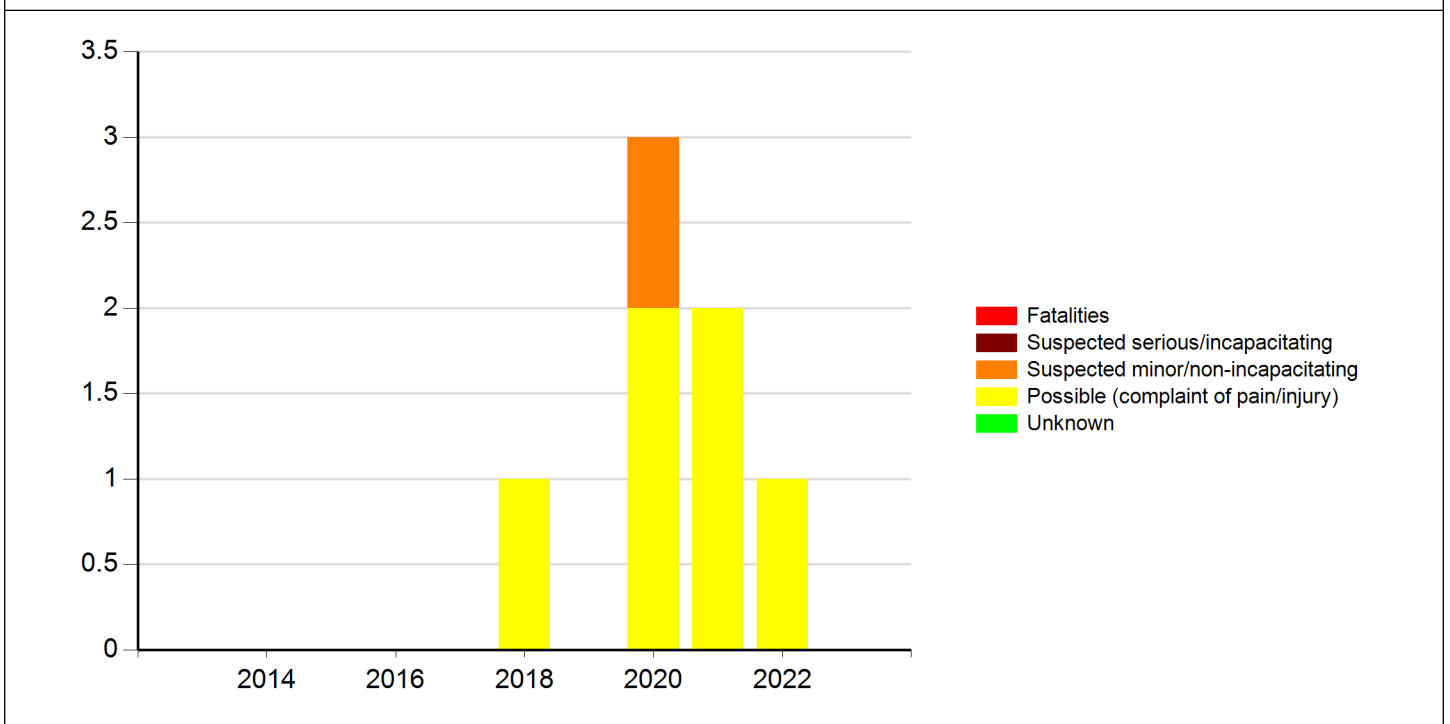


Iowa Crash Analysis Tool
Quick Report
2018-2022

Injury Status - Annual

Crash Year	Fatalities	Suspected serious/incapacitating	Suspected minor/non-incapacitating	Possible (complaint of pain/injury)	Unknown	Total
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	1	0	1
2019	0	0	0	0	0	0
2020	0	0	1	2	0	3
2021	0	0	0	2	0	2
2022	0	0	0	1	0	1
2023	0	0	0	0	0	0
Total	0	0	1	6	0	7

Injury Status/Year





Meeting the following criteria
Jurisdiction: Statewide Year: 2018, 2019, 2020, 2021, 2022 Map Selection: Yes Filter: None

Analyst Information

Left Turn Lane Warrants

Northbound Left at 2nd St, 2023 AM

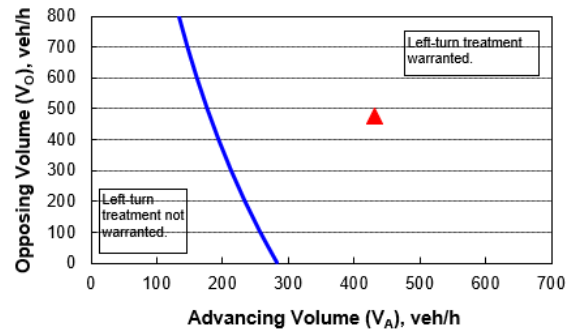
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	27%
Advancing volume (V_A), veh/h:	432
Opposing volume (V_O), veh/h:	475

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	181
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



Northbound Left at 2nd St, 2023 PM

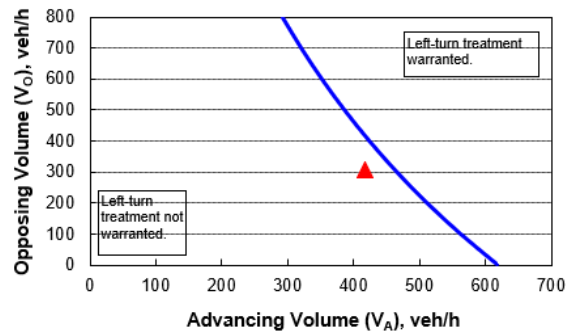
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	417
Opposing volume (V_O), veh/h:	308

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	462
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



Northbound Left at North School Drive, 2023 AM

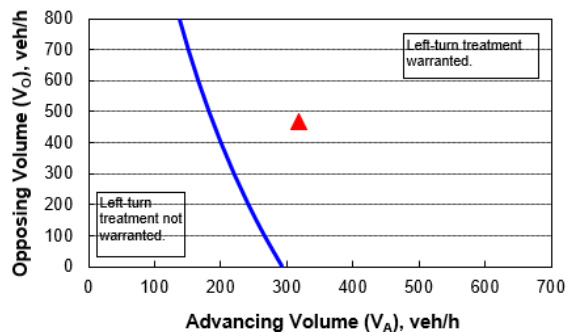
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	24%
Advancing volume (V_A), veh/h:	319
Opposing volume (V_O), veh/h:	467

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	189
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



Northbound Left at North School Drive, 2023 PM

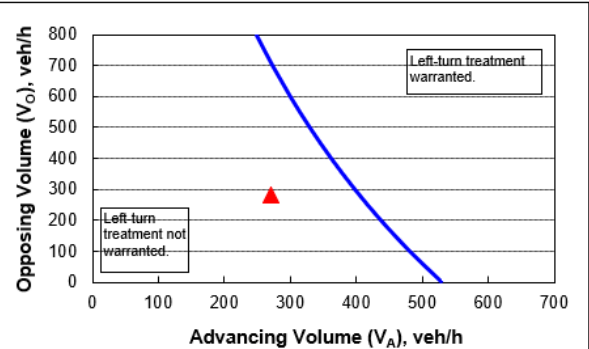
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	271
Opposing volume (V_O), veh/h:	283

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	404
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



Northbound Left at South School Drive, 2023 AM

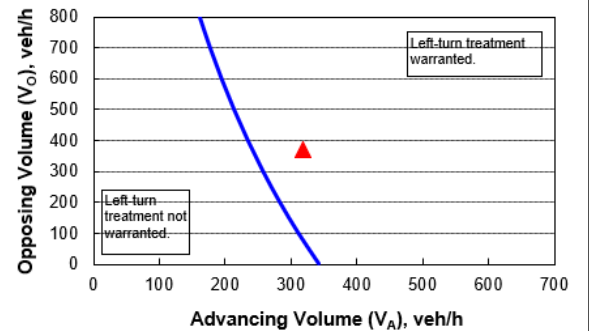
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	16%
Advancing volume (V_A), veh/h:	318
Opposing volume (V_O), veh/h:	370

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	241
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



Northbound Left at South School Drive, 2023 PM

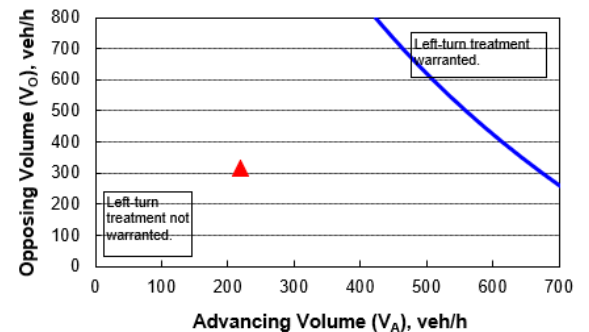
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	219
Opposing volume (V_O), veh/h:	316

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	664
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



Right Turn Lane Warrants

Southbound Right at 2nd St, 2023 AM

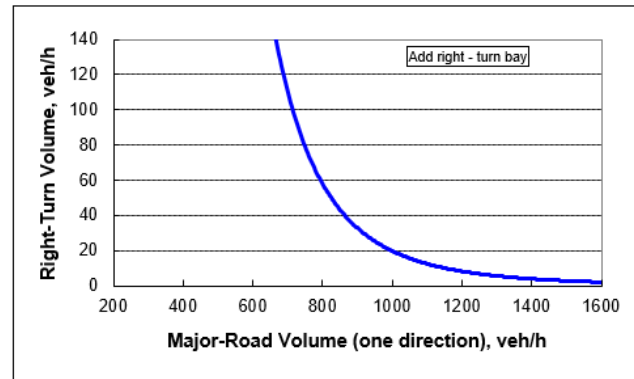
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	480
Right-turn volume, veh/h:	175

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	671
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Southbound Right at 2nd St, 2023 PM

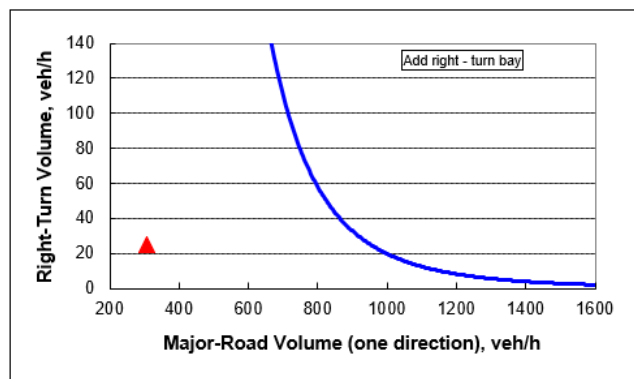
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	308
Right-turn volume, veh/h:	25

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	5696
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Southbound Right at 2nd St, 2043 AM

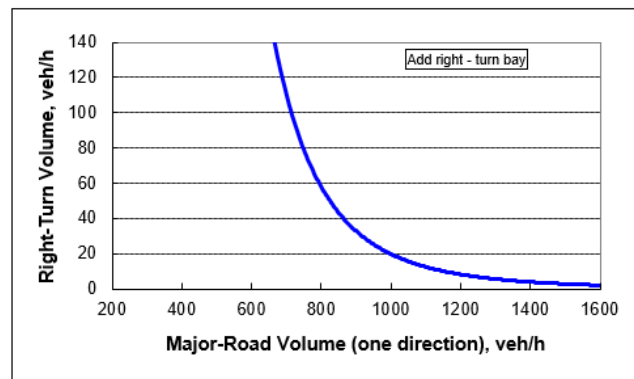
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	761
Right-turn volume, veh/h:	214

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	73
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



Southbound Right at 2nd St, 2043 AM

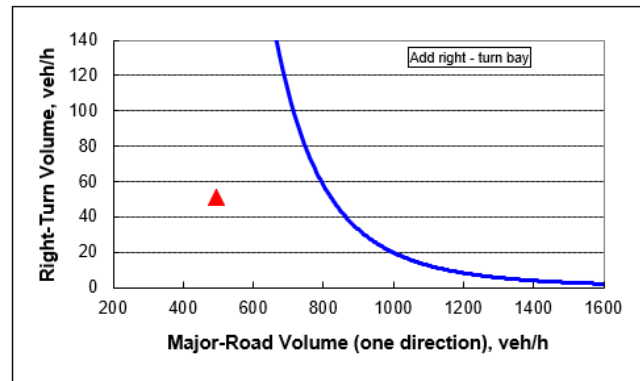
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	496
Right-turn volume, veh/h:	51

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	573
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	1	19	2	3	15	116	310	6	5	300	175
Future Vol, veh/h	19	1	19	2	3	15	116	310	6	5	300	175
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	50	50	50	82	82	82	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	2	29	4	6	30	141	378	7	6	349	203

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1145	1130	451	1142	1228	382	552	0	0	385	0	0
Stage 1	463	463	-	664	664	-	-	-	-	-	-	-
Stage 2	682	667	-	478	564	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	177	204	608	177	178	665	1018	-	-	1173	-	-
Stage 1	579	564	-	450	458	-	-	-	-	-	-	-
Stage 2	440	457	-	568	508	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	141	167	608	144	145	665	1018	-	-	1173	-	-
Mov Cap-2 Maneuver	141	167	-	144	145	-	-	-	-	-	-	-
Stage 1	477	559	-	371	377	-	-	-	-	-	-	-
Stage 2	341	377	-	535	504	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	26.5		16.6		2.4		0.1	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1018	-	-	227 350	1173	-	-
HCM Lane V/C Ratio	0.139	-	-	0.264 0.114	0.005	-	-
HCM Control Delay (s)	9.1	0	-	26.5 16.6	8.1	0	-
HCM Lane LOS	A	A	-	D C	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	1 0.4	0	-	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	3	18	7	2	9	22	326	13	11	240	41
Future Vol, veh/h	36	3	18	7	2	9	22	326	13	11	240	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	58	58	58	88	88	88	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	5	30	12	3	16	25	370	15	13	279	48

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	766	764	303	775	781	378	327	0	0	385	0	0
Stage 1	329	329	-	428	428	-	-	-	-	-	-	-
Stage 2	437	435	-	347	353	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	320	334	737	315	326	669	1233	-	-	1173	-	-
Stage 1	684	646	-	605	585	-	-	-	-	-	-	-
Stage 2	598	580	-	669	631	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	300	321	737	290	313	669	1233	-	-	1173	-	-
Mov Cap-2 Maneuver	300	321	-	290	313	-	-	-	-	-	-	-
Stage 1	666	637	-	589	570	-	-	-	-	-	-	-
Stage 2	566	565	-	628	622	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	17.9		14.5		0.5		0.3	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1233	-	-	371	409	1173	-
HCM Lane V/C Ratio	0.02	-	-	0.252	0.076	0.011	-
HCM Control Delay (s)	8	0	-	17.9	14.5	8.1	0
HCM Lane LOS	A	A	-	C	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	1	0.2	0	-

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	76	17	93	4	3	5	5	279	2	0	308	5
Future Vol, veh/h	76	17	93	4	3	5	5	279	2	0	308	5
Peak Hour Factor	0.60	0.60	0.60	0.75	0.75	0.75	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	127	28	155	5	4	7	5	307	2	0	324	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.2	9.3	13.1	13.4
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	41%	33%	0%
Vol Thru, %	98%	9%	25%	98%
Vol Right, %	1%	50%	42%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	286	186	12	313
LT Vol	5	76	4	0
Through Vol	279	17	3	308
RT Vol	2	93	5	5
Lane Flow Rate	314	310	16	329
Geometry Grp	1	1	1	1
Degree of Util (X)	0.469	0.467	0.027	0.489
Departure Headway (Hd)	5.372	5.429	6.086	5.343
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	669	663	585	675
Service Time	3.412	3.472	4.153	3.382
HCM Lane V/C Ratio	0.469	0.468	0.027	0.487
HCM Control Delay	13.1	13.2	9.3	13.4
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	2.5	2.5	0.1	2.7

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	56	17	40	3	0	5	9	302	4	13	232	8
Future Vol, veh/h	56	17	40	3	0	5	9	302	4	13	232	8
Peak Hour Factor	0.84	0.84	0.84	0.40	0.40	0.40	0.82	0.82	0.82	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	20	48	8	0	13	11	368	5	14	258	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	8.7	12.3	10.7
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	50%	38%	5%
Vol Thru, %	96%	15%	0%	92%
Vol Right, %	1%	35%	62%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	315	113	8	253
LT Vol	9	56	3	13
Through Vol	302	17	0	232
RT Vol	4	40	5	8
Lane Flow Rate	384	135	20	281
Geometry Grp	1	1	1	1
Degree of Util (X)	0.498	0.2	0.03	0.373
Departure Headway (Hd)	4.671	5.355	5.486	4.776
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	768	663	657	748
Service Time	2.729	3.44	3.486	2.84
HCM Lane V/C Ratio	0.5	0.204	0.03	0.376
HCM Control Delay	12.3	9.8	8.7	10.7
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.8	0.7	0.1	1.7

Intersection						
Int Delay, s/veh	9.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	81	77	242	293	174
Future Vol, veh/h	40	81	77	242	293	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	41	41	88	88	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	198	88	275	419	249

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	995	544	668	0	-	0
Stage 1	544	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	271	539	922	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	240	539	922	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	642	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40	2.2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	922	-	382	-	-
HCM Lane V/C Ratio	0.095	-	0.773	-	-
HCM Control Delay (s)	9.3	0	40	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.3	-	6.4	-	-

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	53	15	256	237	46
Future Vol, veh/h	94	53	15	256	237	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	78	78	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	85	19	328	296	58

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	691	325	354	0	-	0
Stage 1	325	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	410	716	1205	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	402	716	1205	-	-	-
Mov Cap-2 Maneuver	402	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1205	-	478	-	-
HCM Lane V/C Ratio	0.016	-	0.496	-	-
HCM Control Delay (s)	8	0	19.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	2.7	-	-

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	52	51	267	317	53
Future Vol, veh/h	50	52	51	267	317	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	49	49	89	89	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	106	57	300	488	82

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	943	529	570	0	-	0
Stage 1	529	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	291	550	1002	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	271	550	1002	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.5	1.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1002	-	271	550	-	-
HCM Lane V/C Ratio	0.057	-	0.377	0.193	-	-
HCM Control Delay (s)	8.8	0	26.1	13.1	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.7	0.7	-	-

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	51	70	4	215	291	25
Future Vol, veh/h	51	70	4	215	291	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	40	40	90	90	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	175	4	239	399	34

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	663	416	433	0	-	0
Stage 1	416	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	426	637	1127	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	424	637	1127	-	-	-
Mov Cap-2 Maneuver	424	-	-	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	794	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1127	-	424	637	-	-
HCM Lane V/C Ratio	0.004	-	0.301	0.275	-	-
HCM Control Delay (s)	8.2	0	17.1	12.8	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0	-	1.2	1.1	-	-

Intersection												
Int Delay, s/veh	35.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	24	1	24	2	3	15	173	461	6	5	542	214
Future Vol, veh/h	24	1	24	2	3	15	173	461	6	5	542	214
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	1	34	3	4	21	247	659	9	7	774	306

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2111	2103	927	2117	2252	664	1080	0	0	668	0	0
Stage 1	941	941	-	1158	1158	-	-	-	-	-	-	-
Stage 2	1170	1162	-	959	1094	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	37	52	325	37	41	461	646	-	-	922	-	-
Stage 1	316	342	-	239	270	-	-	-	-	-	-	-
Stage 2	235	269	-	309	290	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 15	20	325	16	16	461	646	-	-	922	-	-
Mov Cap-2 Maneuver	~ 15	20	-	16	16	-	-	-	-	-	-	-
Stage 1	124	335	-	94	106	-	-	-	-	-	-	-
Stage 2	84	105	-	269	284	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	979.5	116.6	3.8	0.1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	646	-	-	28 58	922	-	-
HCM Lane V/C Ratio	0.383	-	-	2.5 0.493	0.008	-	-
HCM Control Delay (s)	14	0	-	979.5 116.6	8.9	0	-
HCM Lane LOS	B	A	-	F F	A A	-	-
HCM 95th %tile Q(veh)	1.8	-	-	8.4 1.9	0	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	44	3	22	7	2	9	33	500	13	11	434	51
Future Vol, veh/h	44	3	22	7	2	9	33	500	13	11	434	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	4	31	10	3	13	47	714	19	16	620	73

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1515	1516	657	1524	1543	724	693	0	0	733	0	0
Stage 1	689	689	-	818	818	-	-	-	-	-	-	-
Stage 2	826	827	-	706	725	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	98	119	465	97	115	426	902	-	-	872	-	-
Stage 1	436	446	-	370	390	-	-	-	-	-	-	-
Stage 2	366	386	-	427	430	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	85	105	465	80	102	426	902	-	-	872	-	-
Mov Cap-2 Maneuver	85	105	-	80	102	-	-	-	-	-	-	-
Stage 1	398	433	-	337	356	-	-	-	-	-	-	-
Stage 2	321	352	-	382	417	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	116.3		36.4		0.6		0.2	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	902	-	-	116	140	872	-
HCM Lane V/C Ratio	0.052	-	-	0.85	0.184	0.018	-
HCM Control Delay (s)	9.2	0	-	116.3	36.4	9.2	0
HCM Lane LOS	A	A	-	F	E	A	A
HCM 95th %tile Q(veh)	0.2	-	-	5.1	0.6	0.1	-

Intersection												
Intersection Delay, s/veh	117.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	93	17	114	4	3	5	7	504	2	0	557	7
Future Vol, veh/h	93	17	114	4	3	5	7	504	2	0	557	7
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	124	23	152	5	4	7	9	672	3	0	743	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.1	12.8	116	159.5
HCM LOS	C	B	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	42%	33%	0%
Vol Thru, %	98%	8%	25%	99%
Vol Right, %	0%	51%	42%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	513	224	12	564
LT Vol	7	93	4	0
Through Vol	504	17	3	557
RT Vol	2	114	5	7
Lane Flow Rate	684	299	16	752
Geometry Grp	1	1	1	1
Degree of Util (X)	1.165	0.568	0.037	1.279
Departure Headway (Hd)	6.536	7.589	9.393	6.4
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	561	478	384	572
Service Time	4.536	5.589	7.393	4.4
HCM Lane V/C Ratio	1.219	0.626	0.042	1.315
HCM Control Delay	116	20.1	12.8	159.5
HCM Lane LOS	F	C	B	F
HCM 95th-tile Q	22.2	3.5	0.1	28.9

Intersection	
Intersection Delay, s/veh	68.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	69	17	49	3	0	5	11	546	4	13	420	10
Future Vol, veh/h	69	17	49	3	0	5	11	546	4	13	420	10
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	92	23	65	4	0	7	15	728	5	17	560	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.8	11	105.9	39.9
HCM LOS	B	B	F	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	51%	38%	3%
Vol Thru, %	97%	13%	0%	95%
Vol Right, %	1%	36%	62%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	561	135	8	443
LT Vol	11	69	3	13
Through Vol	546	17	0	420
RT Vol	4	49	5	10
Lane Flow Rate	748	180	11	591
Geometry Grp	1	1	1	1
Degree of Util (X)	1.151	0.34	0.022	0.902
Departure Headway (Hd)	5.539	7.183	7.856	5.78
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	658	504	458	632
Service Time	3.539	5.183	5.856	3.78
HCM Lane V/C Ratio	1.137	0.357	0.024	0.935
HCM Control Delay	105.9	13.8	11	39.9
HCM Lane LOS	F	B	B	E
HCM 95th-tile Q	24	1.5	0.1	11.2

Intersection						
Int Delay, s/veh	55.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	99	94	438	530	213
Future Vol, veh/h	49	99	94	438	530	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	152	145	674	757	304
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1873	909	1061	0	-	0
Stage 1	909	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	79	333	657	-	-	-
Stage 1	393	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 51	333	657	-	-	-
Mov Cap-2 Maneuver	~ 51	-	-	-	-	-
Stage 1	254	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s\$	509.7	2.1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	657	-	118	-	-	
HCM Lane V/C Ratio	0.22	-	1.93	-	-	
HCM Control Delay (s)	12		509.7	-	-	
HCM Lane LOS	B	A	F	-	-	
HCM 95th %tile Q(veh)	0.8	-	18.4	-	-	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Intersection						
Int Delay, s/veh	45.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	115	65	19	463	429	57
Future Vol, veh/h	115	65	19	463	429	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	100	29	712	613	81
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1424	654	694	0	-	0
Stage 1	654	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 150	467	901	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 142	467	901	-	-	-
Mov Cap-2 Maneuver	~ 142	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	278.6	0.4		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	901	-	190	-	-	
HCM Lane V/C Ratio	0.032	-	1.457	-	-	
HCM Control Delay (s)	9.1	0	278.6	-	-	
HCM Lane LOS	A	A	F	-	-	
HCM 95th %tile Q(veh)	0.1	-	17	-	-	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Intersection						
Int Delay, s/veh	15.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	62	64	63	483	573	65
Future Vol, veh/h	62	64	63	483	573	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	95	98	90	690	819	93
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1736	866	912	0	-	0
Stage 1	866	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	96	353	747	-	-	-
Stage 1	412	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 77	353	747	-	-	-
Mov Cap-2 Maneuver	~ 77	-	-	-	-	-
Stage 1	332	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	145.3	1.2		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	747	-	77	353	-	-
HCM Lane V/C Ratio	0.12	-	1.239	0.279	-	-
HCM Control Delay (s)	10.5	0	275.6	19.1	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	7.2	1.1	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	86	5	389	526	31
Future Vol, veh/h	63	86	5	389	526	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	97	132	7	556	751	44
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1343	773	795	0	-	0
Stage 1	773	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	168	399	826	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	166	399	826	-	-	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	33.2	0.1		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	826	-	166	399	-	-
HCM Lane V/C Ratio	0.009	-	0.584	0.332	-	-
HCM Control Delay (s)	9.4	0	53.3	18.4	-	-
HCM Lane LOS	A	A	F	C	-	-
HCM 95th %tile Q(veh)	0	-	3.1	1.4	-	-

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	1	19	2	3	15	116	310	6	5	300	175
Future Vol, veh/h	19	1	19	2	3	15	116	310	6	5	300	175
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	150	-	-	-	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	50	50	50	82	82	82	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	2	29	4	6	30	141	378	7	6	349	203

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1043	1028	349	1142	1228	382	552	0	0	385	0	0
Stage 1	361	361	-	664	664	-	-	-	-	-	-	-
Stage 2	682	667	-	478	564	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	207	234	694	177	178	665	1018	-	-	1173	-	-
Stage 1	657	626	-	450	458	-	-	-	-	-	-	-
Stage 2	440	457	-	568	508	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	170	200	694	150	152	665	1018	-	-	1173	-	-
Mov Cap-2 Maneuver	170	200	-	150	152	-	-	-	-	-	-	-
Stage 1	566	621	-	387	394	-	-	-	-	-	-	-
Stage 2	356	393	-	538	504	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.6		16.2		2.4		0.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1018	-	-	170	618	360	1173	-	-
HCM Lane V/C Ratio	0.139	-	-	0.172	0.05	0.111	0.005	-	-
HCM Control Delay (s)	9.1	-	-	30.5	11.1	16.2	8.1	0	-
HCM Lane LOS	A	-	-	D	B	C	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.6	0.2	0.4	0	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	3	18	7	2	9	22	326	13	11	240	41
Future Vol, veh/h	36	3	18	7	2	9	22	326	13	11	240	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	150	-	-	-	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	58	58	58	88	88	88	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	5	30	12	3	16	25	370	15	13	279	48

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	742	740	279	775	781	378	327	0	0	385	0	0
Stage 1	305	305	-	428	428	-	-	-	-	-	-	-
Stage 2	437	435	-	347	353	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	332	345	760	315	326	669	1233	-	-	1173	-	-
Stage 1	705	662	-	605	585	-	-	-	-	-	-	-
Stage 2	598	580	-	669	631	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	313	333	760	292	315	669	1233	-	-	1173	-	-
Mov Cap-2 Maneuver	313	333	-	292	315	-	-	-	-	-	-	-
Stage 1	691	653	-	593	573	-	-	-	-	-	-	-
Stage 2	569	568	-	629	622	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	16.1		14.5		0.5		0.3	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1233	-	-	313	642	411	1173	-	-
HCM Lane V/C Ratio	0.02	-	-	0.189	0.054	0.076	0.011	-	-
HCM Control Delay (s)	8	-	-	19.2	10.9	14.5	8.1	0	-
HCM Lane LOS	A	-	-	C	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.2	0.2	0	-	-

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	76	17	93	4	3	5	5	279	2	0	308	5
Future Vol, veh/h	76	17	93	4	3	5	5	279	2	0	308	5
Peak Hour Factor	0.60	0.60	0.60	0.75	0.75	0.75	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	127	28	155	5	4	7	5	307	2	0	324	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.2	9.3	13.1	13.4
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	41%	33%	0%
Vol Thru, %	98%	9%	25%	98%
Vol Right, %	1%	50%	42%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	286	186	12	313
LT Vol	5	76	4	0
Through Vol	279	17	3	308
RT Vol	2	93	5	5
Lane Flow Rate	314	310	16	329
Geometry Grp	1	1	1	1
Degree of Util (X)	0.469	0.467	0.027	0.489
Departure Headway (Hd)	5.372	5.429	6.086	5.343
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	669	663	585	675
Service Time	3.412	3.472	4.153	3.382
HCM Lane V/C Ratio	0.469	0.468	0.027	0.487
HCM Control Delay	13.1	13.2	9.3	13.4
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	2.5	2.5	0.1	2.7

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	56	17	40	3	0	5	9	302	4	13	232	8
Future Vol, veh/h	56	17	40	3	0	5	9	302	4	13	232	8
Peak Hour Factor	0.84	0.84	0.84	0.40	0.40	0.40	0.82	0.82	0.82	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	20	48	8	0	13	11	368	5	14	258	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	8.7	12.3	10.7
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	50%	38%	5%
Vol Thru, %	96%	15%	0%	92%
Vol Right, %	1%	35%	62%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	315	113	8	253
LT Vol	9	56	3	13
Through Vol	302	17	0	232
RT Vol	4	40	5	8
Lane Flow Rate	384	135	20	281
Geometry Grp	1	1	1	1
Degree of Util (X)	0.498	0.2	0.03	0.373
Departure Headway (Hd)	4.671	5.355	5.486	4.776
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	768	663	657	748
Service Time	2.729	3.44	3.486	2.84
HCM Lane V/C Ratio	0.5	0.204	0.03	0.376
HCM Control Delay	12.3	9.8	8.7	10.7
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.8	0.7	0.1	1.7

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	81	77	242	293	174
Future Vol, veh/h	40	81	77	242	293	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	41	41	88	88	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	198	88	275	419	249
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	870	419	668	0	-	0
Stage 1	419	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	322	634	922	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	291	634	922	-	-	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	16.6	2.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	922	-	291	634	-	-
HCM Lane V/C Ratio	0.095	-	0.335	0.312	-	-
HCM Control Delay (s)	9.3	-	23.5	13.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.4	1.3	-	-

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	53	15	256	237	46
Future Vol, veh/h	94	53	15	256	237	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	78	78	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	85	19	328	296	58

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	662	296	354	0	-	0
Stage 1	296	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	427	743	1205	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	420	743	1205	-	-	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1205	-	420	743	-	-
HCM Lane V/C Ratio	0.016	-	0.361	0.115	-	-
HCM Control Delay (s)	8	-	18.3	10.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	1.6	0.4	-	-

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	52	51	267	317	53
Future Vol, veh/h	50	52	51	267	317	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	49	49	89	89	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	106	57	300	488	82
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	943	529	570	0	-	0
Stage 1	529	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	291	550	1002	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	274	550	1002	-	-	-
Mov Cap-2 Maneuver	274	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	19.3	1.4		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1002	-	274	550	-	-
HCM Lane V/C Ratio	0.057	-	0.372	0.193	-	-
HCM Control Delay (s)	8.8	-	25.7	13.1	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.7	0.7	-	-

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	51	70	4	215	291	25
Future Vol, veh/h	51	70	4	215	291	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	40	40	90	90	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	175	4	239	399	34
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	663	416	433	0	-	0
Stage 1	416	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	426	637	1127	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	424	637	1127	-	-	-
Mov Cap-2 Maneuver	424	-	-	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14.6	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1127	-	424	637	-	-
HCM Lane V/C Ratio	0.004	-	0.301	0.275	-	-
HCM Control Delay (s)	8.2	-	17.1	12.8	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	1.2	1.1	-	-

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	1	24	2	3	15	173	461	6	5	542	214
Future Vol, veh/h	24	1	24	2	3	15	173	461	6	5	542	214
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	150	-	-	-	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	1	32	3	4	20	231	615	8	7	723	285

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1830	1822	723	1977	2103	619	1008	0	0	623	0	0
Stage 1	737	737	-	1081	1081	-	-	-	-	-	-	-
Stage 2	1093	1085	-	896	1022	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	59	77	426	46	52	489	687	-	-	958	-	-
Stage 1	410	425	-	264	294	-	-	-	-	-	-	-
Stage 2	260	293	-	335	313	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	38	50	426	30	34	489	687	-	-	958	-	-
Mov Cap-2 Maneuver	38	50	-	30	34	-	-	-	-	-	-	-
Stage 1	272	417	-	175	195	-	-	-	-	-	-	-
Stage 2	162	195	-	303	307	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	134.7		48.9		3.5		0.1	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	687	-	-	38	327	108	958	-	-
HCM Lane V/C Ratio	0.336	-	-	0.842	0.102	0.247	0.007	-	-
HCM Control Delay (s)	12.9	-	-	257	17.3	48.9	8.8	0	-
HCM Lane LOS	B	-	-	F	C	E	A	A	-
HCM 95th %tile Q(veh)	1.5	-	-	3.1	0.3	0.9	0	-	-

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	3	22	7	2	9	33	500	13	11	434	51
Future Vol, veh/h	44	3	22	7	2	9	33	500	13	11	434	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	150	-	-	-	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	4	29	9	3	12	44	667	17	15	579	68

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1380	1381	579	1424	1441	676	647	0	0	684	0	0
Stage 1	609	609	-	764	764	-	-	-	-	-	-	-
Stage 2	771	772	-	660	677	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	122	144	515	113	133	453	939	-	-	909	-	-
Stage 1	482	485	-	396	413	-	-	-	-	-	-	-
Stage 2	393	409	-	452	452	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	110	134	515	98	123	453	939	-	-	909	-	-
Mov Cap-2 Maneuver	110	134	-	98	123	-	-	-	-	-	-	-
Stage 1	459	472	-	377	394	-	-	-	-	-	-	-
Stage 2	362	390	-	412	440	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	50.2		30.1		0.5		0.2	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	939	-	-	110	384	167	909	-	-
HCM Lane V/C Ratio	0.047	-	-	0.533	0.087	0.144	0.016	-	-
HCM Control Delay (s)	9	-	-	70.1	15.3	30.1	9	0	-
HCM Lane LOS	A	-	-	F	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.5	0.3	0.5	0	-	-

Intersection												
Intersection Delay, s/veh	117.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	93	17	114	4	3	5	7	504	2	0	557	7
Future Vol, veh/h	93	17	114	4	3	5	7	504	2	0	557	7
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	124	23	152	5	4	7	9	672	3	0	743	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.1	12.8	116	159.5
HCM LOS	C	B	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	42%	33%	0%
Vol Thru, %	98%	8%	25%	99%
Vol Right, %	0%	51%	42%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	513	224	12	564
LT Vol	7	93	4	0
Through Vol	504	17	3	557
RT Vol	2	114	5	7
Lane Flow Rate	684	299	16	752
Geometry Grp	1	1	1	1
Degree of Util (X)	1.165	0.568	0.037	1.279
Departure Headway (Hd)	6.536	7.589	9.393	6.4
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	561	478	384	572
Service Time	4.536	5.589	7.393	4.4
HCM Lane V/C Ratio	1.219	0.626	0.042	1.315
HCM Control Delay	116	20.1	12.8	159.5
HCM Lane LOS	F	C	B	F
HCM 95th-tile Q	22.2	3.5	0.1	28.9

Intersection	
Intersection Delay, s/veh	68.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	69	17	49	3	0	5	11	546	4	13	420	10
Future Vol, veh/h	69	17	49	3	0	5	11	546	4	13	420	10
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	92	23	65	4	0	7	15	728	5	17	560	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.8	11	105.9	39.9
HCM LOS	B	B	F	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	51%	38%	3%
Vol Thru, %	97%	13%	0%	95%
Vol Right, %	1%	36%	62%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	561	135	8	443
LT Vol	11	69	3	13
Through Vol	546	17	0	420
RT Vol	4	49	5	10
Lane Flow Rate	748	180	11	591
Geometry Grp	1	1	1	1
Degree of Util (X)	1.151	0.34	0.022	0.902
Departure Headway (Hd)	5.539	7.183	7.856	5.78
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	658	504	458	632
Service Time	3.539	5.183	5.856	3.78
HCM Lane V/C Ratio	1.137	0.357	0.024	0.935
HCM Control Delay	105.9	13.8	11	39.9
HCM Lane LOS	F	B	B	E
HCM 95th-tile Q	24	1.5	0.1	11.2

Intersection						
Int Delay, s/veh	9.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	99	94	438	530	213
Future Vol, veh/h	49	99	94	438	530	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	152	145	674	757	304
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1721	757	1061	0	-	0
Stage 1	757	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	98	408	657	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	76	408	657	-	-	-
Mov Cap-2 Maneuver	76	-	-	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	77.6	2.1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	657	-	76	408	-	-
HCM Lane V/C Ratio	0.22	-	0.992	0.373	-	-
HCM Control Delay (s)	12	-	196	19	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.8	-	5.3	1.7	-	-

Intersection						
Int Delay, s/veh	17.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	115	65	19	463	429	57
Future Vol, veh/h	115	65	19	463	429	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	100	29	712	572	76
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1342	572	648	0	-	0
Stage 1	572	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 168	520	938	-	-	-
Stage 1	565	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 163	520	938	-	-	-
Mov Cap-2 Maneuver	~ 163	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	102	0.4		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	938	-	163	520	-	-
HCM Lane V/C Ratio	0.031	-	1.085	0.192	-	-
HCM Control Delay (s)	9	-	151.9	13.6	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	9.1	0.7	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection						
Int Delay, s/veh	13.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	62	64	63	483	573	65
Future Vol, veh/h	62	64	63	483	573	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	95	98	90	690	819	93
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1736	866	912	0	-	0
Stage 1	866	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	96	353	747	-	-	-
Stage 1	412	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 84	353	747	-	-	-
Mov Cap-2 Maneuver	~ 84	-	-	-	-	-
Stage 1	363	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	122.6	1.2		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	747	-	84	353	-	-
HCM Lane V/C Ratio	0.12	-	1.136	0.279	-	-
HCM Control Delay (s)	10.5	-	229.4	19.1	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	6.7	1.1	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	86	5	389	429	57
Future Vol, veh/h	63	86	5	389	429	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	220	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	61	4	296	326	43
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	652	348	369	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	433	695	1190	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	432	695	1190	-	-	-
Mov Cap-2 Maneuver	432	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.2	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1190	-	432	695	-	-
HCM Lane V/C Ratio	0.003	-	0.103	0.087	-	-
HCM Control Delay (s)	8	-	14.3	10.7	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.3	-	-



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.i.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution considering approval of Harvest Meadows Commercial Plat 1 Preliminary Plat

CONTACT PERSON:

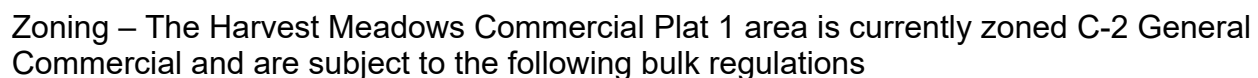
BRIEF HISTORY & ANALYSIS: For review by the City Council and recommended for approval is the Harvest Meadows Commercial Plat 1 Preliminary Plat. The preliminary plat developer is Kimberley Development Corp. The preliminary plat was submitted by Civil Design Advantage. The Harvest Meadows Commercial Plat 1 Preliminary Plat development proposes one lot and two outlots for general commercial development. This preliminary plat area is located north of 2nd Street NW, and east of Franklin Street NW. The Harvest Meadows Commercial Plat 1 Preliminary Plat development area is highlighted below.



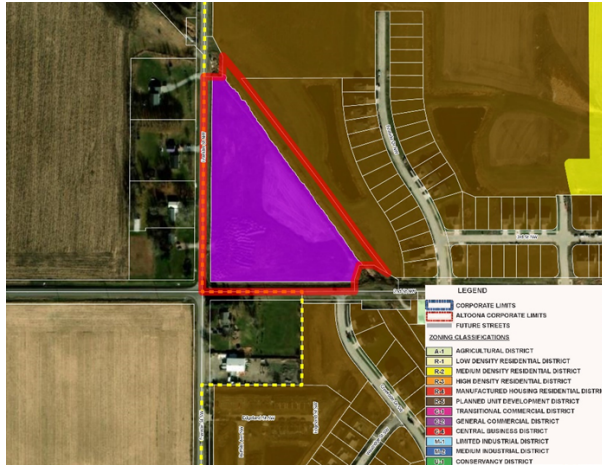
When considering preliminary plat requests, the Planning & Zoning Commission and City Council should take into account the following: the Comprehensive Plan/Future Land use Map, Zoning, Parkland Dedication, Streets, Pedestrian Connections, Utilities, the FEMA Floodplain, the City's Stream Buffer Ordinance, and Comments from City Officials and Private Utilities.

When considering preliminary plat requests, the Planning & Zoning Commission and

Comprehensive Plan/Future Land Use Map - the proposed general commercial use is consistent with the 2022 Future Land Use Map. The Harvest Meadows Commercial Plat 1 Preliminary Plat is outlined below on the 2022 Future Land Use Map.



- These bulk regulations are reflected on the submitted preliminary plat. The Harvest Meadows Commercial Plat 1 Preliminary Plat is highlighted below on the City's Zoning Map.



Parkland Dedication – No parkland dedication is required for commercial subdivisions.

Streets – the Harvest Meadows Commercial Plat 1 development area will be accessed from 2nd Street NW and Franklin Street NW.

As stated in the Harvest Meadows Traffic Impact Study, 2nd Street NW needs upgraded to a three-lane street with additional ROW provided for expansion to a five-lane street. This street widening will be a City project with developer cost-share participation required. The City will begin designing this street improvement project upon execution of a development agreement. The site plan will need to be designed to accommodate these street upgrades – the City would consider conditional site plan approval subject to the plan being updated once the public right-of-way designs are available.

Pedestrian Connections – the Harvest Meadows Commercial Plat 1 provides a 60-foot right-of-way which would allow for the future installation of sidewalks along 2nd Street NW and Franklin Street NW.

Utilities - the preliminary plat shows an 8" water main connecting to the water main along the south side of 2nd Street NW. The preliminary plat shows a 8" sanitary sewer located on the north side of 2nd Street NW. This development area is not located in the NW Trunk Connection Fee District area and the Franklin Street NW Water Connection Fee District area.

FEMA Floodplain – Portions of the Harvest Meadows Commercial Plat 1 development area is located in the FEMA Floodplain area.

Stream Buffer Ordinance – Outlot Z is subject to the City's Stream Buffer Ordinance.

Comments from City Officials and Utilities - Below is a summary of comments received:

- City Engineering - Bob Veenstra, City Engineer, reviewed and provided his initial feedback on the first draft preliminary plat submitted. The attached resolution factors in any additional review comments by this department.
- Public Works - no review comments received to date.
- Emergency Services - no review comments received to date.

FUNDING SOURCE: NA

STAFF RECOMMENDATION: The following options exist for the City Council:

1. Approval of Resolution regarding recommended approval of the Harvest Meadows Commercial Plat 1 Preliminary Plat.
2. Approval of Resolution regarding recommended approval of the Harvest Meadows Commercial Plat 1 Preliminary Plat, subject to Code clarification items being addressed.
3. Denial of Resolution regarding recommended approval of the Harvest Meadows Commercial Plat 1 Preliminary Plat.
4. Table pending additional information.

The Planning and Zoning Commission voted 6-0 to recommend approval of the Preliminary Plat at their October 12, 2023 meeting.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-210
2. Harvest Meadows Commercial Plat 1 Preliminary Plat

CITY OF BONDURANT
RESOLUTION NO. 231016-210

RESOLUTION REGARDING APPROVAL OF THE HARVEST MEADOWS
COMMERCIAL PLAT 1 PRELIMINARY PLAT.

WHEREAS Civil Design Advantage has submitted the Harvest Meadows Commercial Plat 1 Preliminary Plat; AND

WHEREAS the owner/developer is Kimberley Development Corp.; AND

WHEREAS this Harvest Meadows Commercial Plat 1 Preliminary Plat is described as follows:

A PART OF PARCEL '2020-170' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 1893, PAGE 980, BEING A PART OF THE SOUTHWEST QUARTER, AND A PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, ALL BEING IN SECTION 25, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF BONDURANT, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 25; THENCE NORTH 00°34'55" EAST ALONG THE WEST LINE OF SAID SECTION 25, A DISTANCE OF 874.57 FEET TO THE SOUTHWEST CORNER OF PARCEL 4 AS SHOWN ON THE WARRANTY DEED RECORDED IN BOOK 9677, PARCEL 514; THENCE SOUTH 89°53'24" EAST ALONG THE SOUTH LINE OF SAID PARCEL 4, A DISTANCE OF 50.00 FEET TO THE WESTERLY LINE OF SAID PARCEL '2020-170'; THENCE SOUTH 89°53'24" EAST ALONG SAID WESTERLY LINE, 25.46 FEET; THENCE NORTH 00°06'36" EAST ALONG SAID WESTERLY LINE, 84.84 FEET; THENCE NORTH 27°07'11" WEST ALONG SAID WESTERLY LINE, 36.03 FEET; THENCE SOUTH 37°26'04" EAST ALONG SAID WESTERLY LINE, 148.81 FEET TO THE NORTHWEST CORNER OF OUTLOT 'Z', HARVEST MEADOWS PLAT 1, AN OFFICIAL PLAT IN SAID CITY OF BONDURANT; THENCE CONTINUING SOUTH 37°26'04" EAST ALONG THE WESTERLY LINE OF SAID OUTLOT 'Z', 164.16 FEET; THENCE SOUTH 37°20'20" EAST ALONG SAID WESTERLY LINE, 374.82 FEET; THENCE SOUTH 35°53'39" EAST ALONG SAID WESTERLY LINE, 291.60 FEET; THENCE SOUTH 37°25'48" EAST ALONG SAID WESTERLY LINE, 164.71 FEET TO THE SOUTHERLY LINE OF SAID PARCEL '2020-170'; THENCE NORTH 59°00'33" WEST ALONG SAID SOUTHERLY LINE, 65.51 FEET; THENCE SOUTH 89°13'29" WEST ALONG SAID SOUTHERLY LINE AND THE WESTERLY LINE OF PARCEL 1 AS SHOWN ON THE WARRANTY DEED RECORDED IN BOOK 9677, PAGE 510, A DISTANCE OF 63.24 FEET; THENCE SOUTH 00°21'50" EAST ALONG SAID WESTERLY LINE, 46.70 FEET TO THE SOUTH LINE OF SAID SECTION 25; THENCE SOUTH 89°38'28" WEST ALONG SAID SOUTH LINE, 621.13 FEET TO THE POINT OF BEGINNING AND CONTAINING 9.40 ACRES (409,341 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Bondurant, Iowa, hereby approves the submitted Harvest Meadows Commercial Plat 1 Preliminary Plat:

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

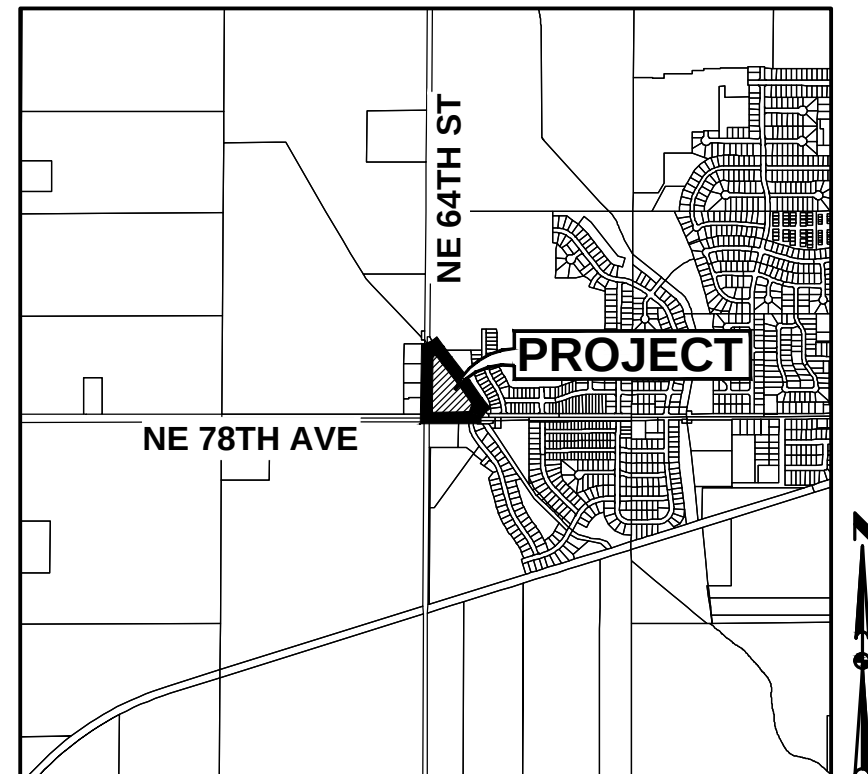
Action	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				

PRELIMINARY PLAT FOR:
HARVEST MEADOWS COMMERCIAL PLAT 1

BONDURANT, IOWA

VICINITY MAP

NOT TO SCALE



BONDURANT, IOWA

OWNER / DEVELOPER

KIMBERLEY DEVELOPMENT CORP
2785 N ANKENY BLVD STE 22
ANKENY, IA 50023
CONTACT: BILL KIMBERLEY

ENGINEER / SURVEYOR

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
CONTACT: ERIN OLLENDIKE
PH. (515) 369-4400
FX. (515) 369-4410

ZONING

EXISTING: C-2 GENERAL COMMERCIAL DISTRICT

PROPOSED: C-2 GENERAL COMMERCIAL DISTRICT

BULK REGULATIONS

SETBACKS:
FRONT = 30'
REAR = 25'
SIDE = N/A

DEVELOPMENT SUMMARY

TOTAL AREA OF SITE = 9.40 ACRES (409,341 SF)

DATE OF SURVEY

JUNE 20, 2023

NOTES

- CITY OF BONDURANT WILL OWN/ MAINTAIN THE STREAM BUFFER ORDINANCE AREA (OUTLOT 'Z').
- ALL PUBLIC SIDEWALKS ARE TO BE 5' WIDE.
- ALL INDIVIDUAL LOTS MUST BE DEVELOPED IN A MANNER TO ACCOMMODATE DRAINAGE FROM UPSTREAM LOTS.
- SANITARY SEWER MAIN WILL BE REQUIRED TO BE EXTENDED TO THE WESTERN PROPERTY LINE WHEN OUTLOT 'Y' DEVELOPS, OR AT THE TIME THE LAND TO THE WEST DEVELOPS, WHICHEVER IS EARLIER.

BENCHMARKS

- BURY BOLT ON HYDRANT SW CORNER OF MALLARD POINTE DR NW AND 3RD STREET NW. ELEVATION=945.14
- BURY BOLT ON HYDRANT SW CORNER OF MALLARD POINTE DR NW AND TAIL FEATHER CT. ELEVATION=946.01

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDERS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN. A REQUEST WAS MADE TO IOWA ONE CALL TO LOCATE THEIR UTILITIES IN THE FIELD.

LEGEND

FEATURES

PROPOSED

GROUND SURFACE CONTOUR

TYPE SW-501 STORM INTAKE

TYPE SW-502 STORM INTAKE

TYPE SW-503 STORM INTAKE

TYPE SW-505 STORM INTAKE

TYPE SW-506 STORM INTAKE

TYPE SW-512 STORM INTAKE

TYPE SW-513 STORM INTAKE

TYPE SW-401 STORM MANHOLE

TYPE SW-402 STORM MANHOLE

FLARED END SECTION

TYPE SW-301 SANITARY MANHOLE

STORM/SANITARY CLEANOUT

WATER VALVE

FIRE HYDRANT ASSEMBLY

SIGN

DETECTABLE WARNING PANEL

SANITARY SEWER

STORM SEWER

WATERMAIN WITH SIZE

SURVEY

SECTION CORNER
1/2" REBAR, YELLOW CAP #18660
(UNLESS OTHERWISE NOTED)

ROW MARKER

PLATTED DISTANCE

MEASURED BEARING & DISTANCE

RECORDED AS

DEED DISTANCE

CALCULATED DISTANCE

CURVE ARC LENGTH

MINIMUM 100 YEAR FLOOD

PROTECTION ELEVATION

CENTERLINE

SECTION LINE

1/4 SECTION LINE

1/4 SECTION LINE

EASEMENT LINE

LOT LINE

RIGHT OF WAY

BUILDING SETBACK

PLAT BOUNDARY

EXISTING

GROUND SURFACE CONTOUR

SANITARY MANHOLE

WATER VALVE BOX

FIRE HYDRANT

WATER CURB STOP

WELL

STORM SEWER MANHOLE

STORM SEWER SINGLE INTAKE

STORM SEWER DOUBLE INTAKE

FLARED END SECTION

DECIDUOUS TREE

CONIFEROUS TREE

DECIDUOUS SHRUB

ELECTRIC POWER POLE

GUY ANCHOR

STREET LIGHT

POWER POLE W/ TRANSFORMER

UTILITY POLE W/ LIGHT

ELECTRIC BOX

ELECTRIC TRANSFORMER

ELECTRIC MANHOLE OR VAULT

TRAFFIC SIGN

TELEPHONE JUNCTION BOX

TELEPHONE MANHOLE/VAULT

TELEPHONE POLE

GAS VALVE BOX

CABLE TV JUNCTION BOX

CABLE TV MANHOLE/VAULT

MAIL BOX

BENCHMARK

SOIL BORING

UNDERGROUND TV CABLE

GAS MAIN

FIBER OPTIC

UNDERGROUND TELEPHONE

OVERHEAD ELECTRIC

UNDERGROUND ELECTRIC

FIELD TILE

SANITARY SEWER W/ SIZE

STORM SEWER W/ SIZE

WATER MAIN W/ SIZE

8"W

FOUND

SET

SECTION CORNER

1/2" REBAR, YELLOW CAP #18660

(UNLESS OTHERWISE NOTED)

ROW MARKER

PLATTED DISTANCE

MEASURED BEARING & DISTANCE

RECORDED AS

DEED DISTANCE

CALCULATED DISTANCE

CURVE ARC LENGTH

MINIMUM 100 YEAR FLOOD

PROTECTION ELEVATION

CENTERLINE

SECTION LINE

1/4 SECTION LINE

1/4 SECTION LINE

EASEMENT LINE

LOT LINE

RIGHT OF WAY

BUILDING SETBACK

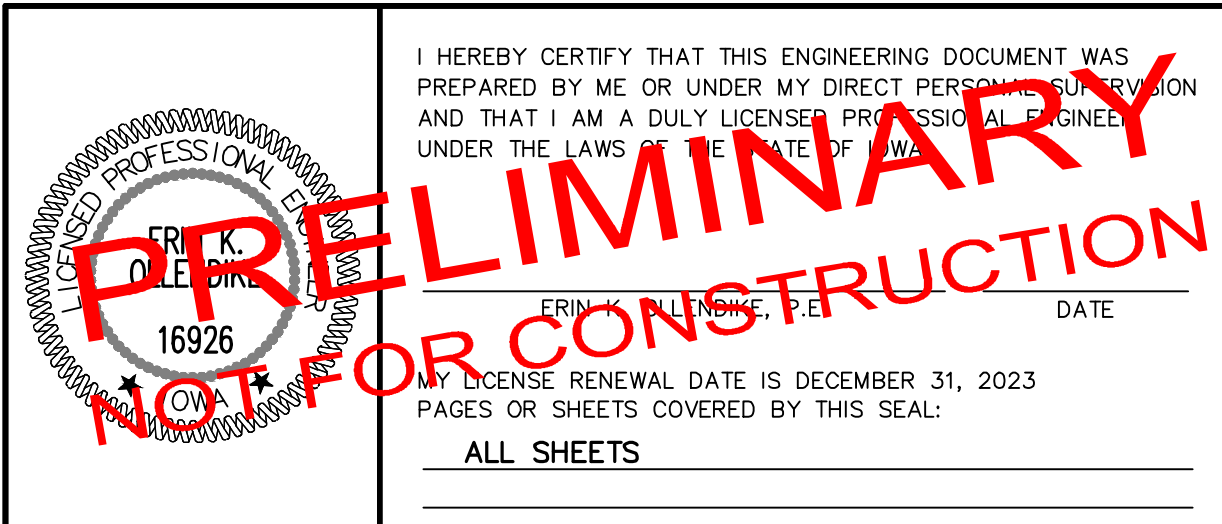
PLAT BOUNDARY

PRELIMINARY PLAT DESCRIPTION

A PART OF PARCEL '2020-170' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 1893, PAGE 980, BEING A PART OF THE SOUTHWEST QUARTER, AND A PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, ALL BEING IN SECTION 25, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF BONDURANT, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 25; THENCE NORTH 00°34'55" EAST ALONG THE WEST LINE OF SAID SECTION 25, A DISTANCE OF 874.57 FEET TO THE SOUTHWEST CORNER OF PARCEL 4 AS SHOWN ON THE WARRANTY DEED RECORDED IN BOOK 9677, PAGE 514; THENCE SOUTH 89°53'24" EAST ALONG THE SOUTH LINE OF SAID PARCEL 4, A DISTANCE OF 50.00 FEET TO THE WESTERLY LINE OF SAID PARCEL '2020-170'; THENCE SOUTH 89°53'24" EAST ALONG SAID WESTERLY LINE, 25.46 FEET; THENCE NORTH 00°06'36" EAST ALONG SAID WESTERLY LINE, 84.84 FEET; THENCE NORTH 27°07'11" WEST ALONG SAID WESTERLY LINE, 36.03 FEET; THENCE SOUTH 37°26'04" EAST ALONG SAID WESTERLY LINE, 148.81 FEET TO THE NORTHWEST CORNER OF OUTLOT 'Z'; HARVEST MEADOWS PLAT 1, AN OFFICIAL PLAT IN SAID CITY OF BONDURANT; THENCE CONTINUING SOUTH 37°26'04" EAST ALONG THE WESTERLY LINE OF SAID OUTLOT 'Z', 164.16 FEET; HENCE SOUTH 37°20'20" EAST ALONG SAID WESTERLY LINE, 374.82 FEET; THENCE SOUTH 35°53'39" EAST ALONG SAID WESTERLY LINE, 291.60 FEET; THENCE SOUTH 37°25'48" EAST ALONG SAID WESTERLY LINE, 164.71 FEET TO THE SOUTHERLY LINE OF SAID PARCEL '2020-170'; THENCE NORTH 59°00'33" WEST ALONG SAID SOUTHERLY LINE, 65.51 FEET; THENCE SOUTH 89°13'29" WEST ALONG SAID SOUTHERLY LINE, 60.00 FEET; THENCE SOUTH 18°12'17" WEST ALONG SAID SOUTHERLY LINE AND THE WESTERLY LINE OF PARCEL 1 AS SHOWN ON THE WARRANTY DEED RECORDED IN BOOK 9677, PAGE 510, A DISTANCE OF 63.24 FEET; THENCE SOUTH 00°21'50" EAST ALONG SAID WESTERLY LINE, 46.70 FEET TO THE SOUTH LINE OF SAID SECTION 25; THENCE SOUTH 89°38'28" WEST ALONG SAID SOUTH LINE, 621.13 FEET TO THE POINT OF BEGINNING AND CONTAINING 9.40 ACRES (409,341 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.



DATE

09/26/2023

09/16/2023

REVISIONS

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

TECH: MAE

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO

1

2

2306.387

PRELIMINARY PLAT

BONDURANT, IOWA





**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.j.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution authorizing the selection and purchase of playground equipment for the City Park renovation in an amount not to exceed \$725,000

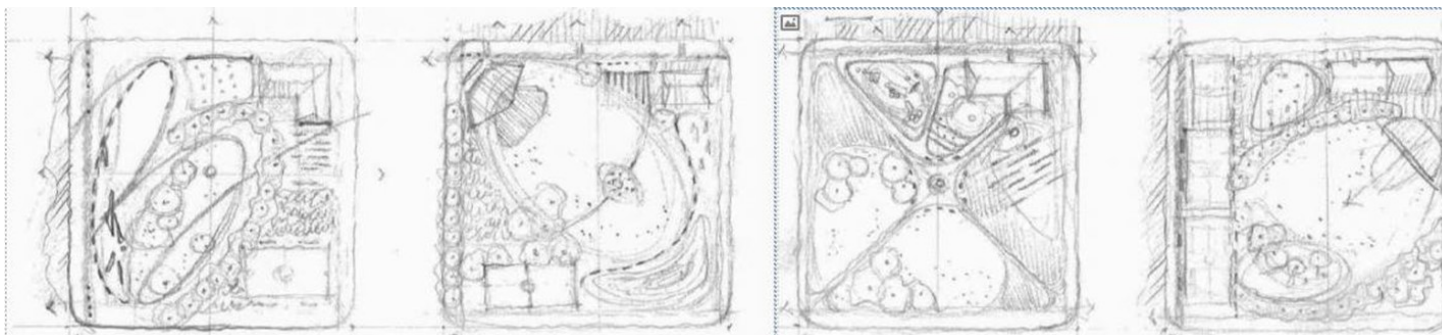
CONTACT PERSON:

Nicole Van Houten, Events & Communication Coordinator

BRIEF HISTORY & ANALYSIS: The proposed allocation of up to \$725,000 for the purchase of playground equipment and surfacing for the City Park renovation represents a pivotal decision in the ongoing transformation of Bondurant's City Park. This allocation is the result of meticulous planning, extensive community involvement, and a commitment to revitalizing a key hub of our city.

Historical Context:

In 2021, the City Council engaged RDG Planning & Design to initiate the City Park renovation, guided by findings from extensive community outreach and the City Park Master Plan. Since then, the project has evolved, with amendments endorsed by the City Council, and in August 2023, the City Park Phase 2 Schematic Design was approved.



Comprehensive Park Enhancements:

The proposed budget includes funding for the purchase of playground equipment and surfacing, as part of a broader renovation plan that encompasses various elements.

These elements include a flexible food truck area, a tent area, enhanced existing structures, a splash pad, open space, a basketball court, an amphitheater, a second open-air shelter, an ice ribbon, and angled parking along the west block.

Vendor Selection Considerations:

The Bondurant Parks and Recreation Board conducted a vendor selection process, emphasizing factors such as warranty options, life cycle costs, recycled product options, product illustrations, variety, color, project management, and vendor experience. This thorough evaluation ensures that the selected vendor not only provides quality equipment but also supports the long-term sustainability of the playground.

Budget Limitation:

The budget for the playground and surfacing purchase is capped at \$725,000. This figure represents a fiscally responsible allocation that ensures the project aligns with the city's financial constraints while still delivering a high-quality and inclusive park.

Community-Centric Approach:

The park renovation project has always been community-centric, with community input shaping the proposed improvements. The goal is to make City Park a vibrant, inclusive, and accessible space for residents of all ages and abilities. The playground equipment, designed for 2-5-year-olds and 5–12-year-olds, including a sensory area, zip line, and swings, reflects this commitment to inclusivity.

While the budget allocation represents a significant investment, it's important to recognize that quality playground equipment and surfacing materials are built to last and offer long-term benefits for the community. The new playground will contribute to a higher quality of life for residents, support economic development by attracting visitors, and maintain the park's appeal for generations.

Timeline:

The first phase of construction is slated to begin in November 2023 in order for the new playground to be ready for the 50th anniversary of Summerfest in June 2024.

Next Steps:

The Parks & Recreation Board will select specific playground pieces during its October 19, 2023. Due to the aggressive timeline of the project, it is necessary to place the order to purchase equipment right away after they select the specific pieces. The attached resolution approves the purchase of playground equipment for an amount not to exceed \$725,000 and empowers the Parks & Recreation Board to make those selections and authorizes the Mayor to sign a purchase order for said equipment.



FUNDING SOURCE: GO Bond/TIF/Grants

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-211

CITY OF BONDURANT
RESOLUTION NO. 231016-XXX

RESOLUTION AUTHORIZING THE SELECTION AND PURCHASE OF
PLAYGROUND EQUIPMENT FOR THE CITY PARK RENOVATION IN AN AMOUNT
NOT TO EXCEED \$725,000

WHEREAS, the City Council adopted the City Park Master Plan on July 19, 2021; AND

WHEREAS, the Parks & Recreation Board worked with RDG on the schematic design for City Park; AND

WHEREAS, the Bondurant City Park Master Plan served as the guiding document for the schematic design of City Park; AND

WHEREAS, the City Council revised and approved schematic design on August 7, 2023; AND

WHEREAS, the first phase of construction is slated to begin in November 2023 to be completed by June 2024 for the 50th Anniversary of Summerfest; AND

WHEREAS, in order to meet that timeframe, it is imperative that the City order playground equipment as soon as possible; AND

WHEREAS, the Parks and Recreation Board will meet on October 19, 2023 to discuss and select specific playground pieces.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Bondurant, Iowa, that the Mayor is authorized to execute a purchase order for playground equipment selected by the Parks and Recreation Board in an amount not to exceed \$725,000.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Name	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.k.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution setting the date for public hearing and additional action on proposal to enter into a Trail Improvements Loan Agreement and to borrow money thereunder in a principal amount not to exceed \$375,000

CONTACT PERSON:

Marketa Oliver, City Administrator

BRIEF HISTORY & ANALYSIS: There was a publication glitch with one of our bond notices, requiring additional Council action on one of the bond purposes and triggering the need for an additional public hearing. This hearing is related to the principal amount not to exceed \$375,000, pursuant to the provisions of Section 384.24A of the Code of Iowa, for the purpose of paying the costs, to that extent, of constructing recreation trail improvements and connections, a General Purpose Project. This is the piece of the 2023A bond that is for the Park Side Trail connection.

This does not increase the amount of the borrowing as previously approved by the City Council.

FUNDING SOURCE: GO Bond/Debt Service Levy

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-212

RESOLUTION NO. _____

Resolution setting the date for public hearing and additional action on proposal to enter into a Trail Improvements Loan Agreement and to borrow money thereunder in a principal amount not to exceed \$375,000

WHEREAS, the City of Bondurant (the "City"), in Polk County, State of Iowa, proposes to enter into a loan agreement (the "Trail Improvements Loan Agreement") and to borrow money thereunder in a principal amount not to exceed \$375,000, pursuant to the provisions of Section 384.24A of the Code of Iowa, for the purpose of paying the costs, to that extent, of constructing recreation trail improvements and connections (the "Project"), and it is now necessary to fix a date of meeting of the City Council at which it is proposed to take action to enter into the Trail Improvements Loan Agreement and to give notice thereof as required by such law, including notice of the right to petition for an election on such proposal pursuant to the provisions of Section 384.26 of the Code of Iowa;

NOW, THEREFORE, Be It Resolved by the City Council of the City of Bondurant, Iowa, as follows:

Section 1. This City Council shall meet on November 6, 2023, at the 200 Second Street NE, Bondurant, Iowa, at 6 o'clock p.m., at which time and place hearings will be held and proceedings will be instituted and action taken to enter into the Trail Improvements Loan Agreement described in the preamble hereof.

Section 2. The City Clerk is hereby directed to give notice of the proposed action on the Trail Improvements Loan Agreement setting forth the amount and purpose thereof, the time when and place where the said meeting will be held by publication at least once, not less than ten (10) and not more than twenty (20) days before the date of said meeting, in a legal newspaper which has a general circulation in the City. The notice shall be in substantially the following form:

NOTICE OF PROPOSED ACTION TO INSTITUTE PROCEEDINGS TO
ENTER INTO A LOAN AGREEMENT AND TO BORROW MONEY
THEREUNDER IN A PRINCIPAL AMOUNT NOT TO EXCEED \$375,000

(GENERAL OBLIGATION)

The City Council of the City of Bondurant, Iowa (the "City"), will meet on November 6, 2023, at the 200 Second Street NE, Bondurant, Iowa, at 6 o'clock p.m., for the purpose of instituting proceedings and taking action on a proposal to enter into a loan agreement (the "Loan Agreement") and to borrow money thereunder in a principal amount not to exceed \$375,000 for the purpose of paying the costs, to that extent, of constructing recreation trail improvements and connections.

The Loan Agreement is proposed to be entered into pursuant to authority contained in Section 384.24A of the Code of Iowa and will constitute a general obligation of the City.

The maximum rate of interest which may be payable under the Loan Agreement is 10% per annum.

At any time before the date fixed for taking action to enter into the Loan Agreement, a petition may be filed with the City Clerk of the City asking that the question of entering into the Loan Agreement be submitted to the registered voters of the City, pursuant to the provisions of Section 384.26 of the Code of Iowa. If no such petition is filed, at the aforementioned time and place, oral or written objections may be filed or made to the proposal to enter into the Loan Agreement. After receiving objections, the City may determine to enter into the Loan Agreement, in which case, the decision will be final unless appealed to the District Court within fifteen (15) days thereafter.

By order of the City Council of the City of Bondurant, Iowa.

Shelby Hagan
City Clerk

Section 3. All resolutions or parts of resolutions in conflict herewith are hereby repealed to the extent of such conflict.

Section 4. This resolution shall be in full force and effect immediately upon its adoption and approval, as provided by law.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.I.
For Meeting of 10/16/2023
Resolution

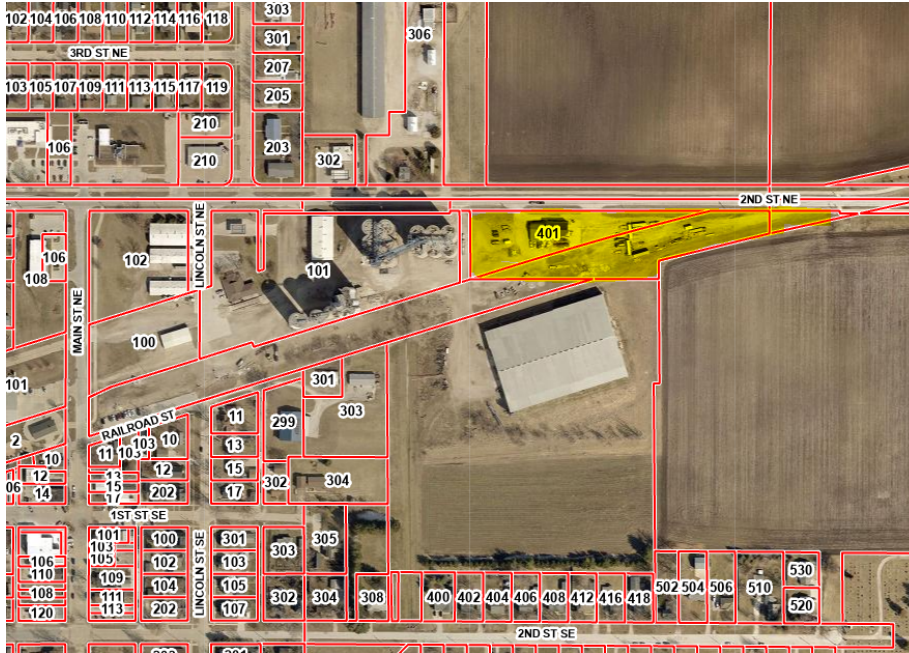
TITLE: - Resolution authorizing the Mayor to execute a real estate purchase agreement for land needed for street and trail construction, authorizing payment for the acquisition of property interests, and authorizing the taking of necessary steps for the closing of the property acquisition transaction in the amount of \$638,374.50

CONTACT PERSON:

Marketa Oliver, City Administrator

BRIEF HISTORY & ANALYSIS: The enclosed resolution authorizes the Mayor to execute a purchase agreement, pending legal counsel review, in the amount of \$638,374.50 for three parcels of land owned by 401 2nd Street NE LLC situated along 2nd Street NE just east of the Landus elevators. This 401 2nd Street NE LLC land is comprised of the following parcels: [231/00048-001-000](#), [231/00058-004-000](#), and [231/00037-500-000](#). An existing 4,635 SF industrial structure with an active lease through December 2024 is located on this land. The purchase agreement will include language that the seller shall have the right of first refusal on this property.

Area Map:

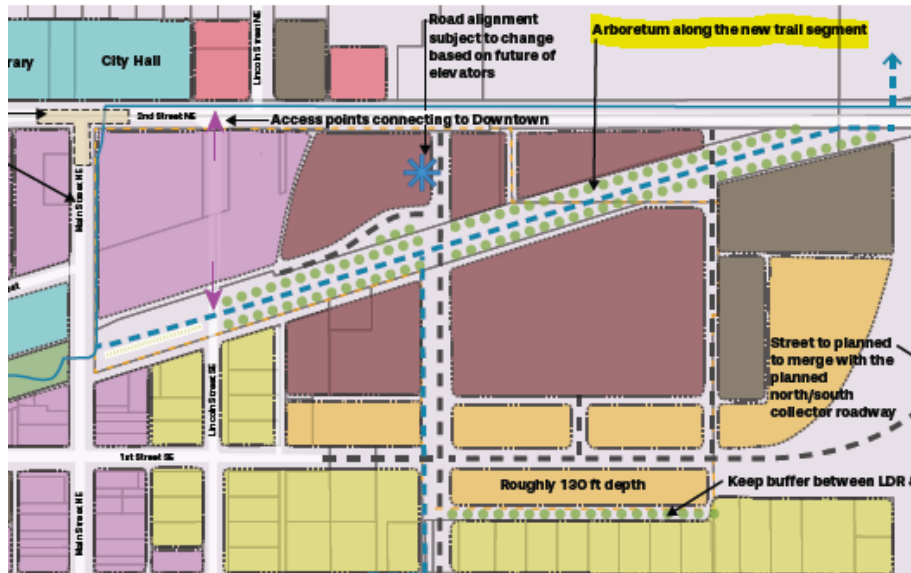


This land is currently located within the City's Medium Industrial (M-2) zoning district, which is inconsistent with the City's Future Land Use Map designation of Parks/Recreation along the proposed trail corridor and Retail Flex on the existing building parcel. Upon purchase of this property, the City will conduct a rezoning of this property to ensure consistency between the Future Land Use Map and the Zoning Map for this area of Bondurant.

Purchase of this land will allow the City to move forward with the following initiatives supported by the 2022-adopted Building Bondurant Comprehensive Plan:

- Construction of a new north/south street corridor to be called Truman Drive NE. Truman Drive NE will service a new elementary school north of 2nd Street NE that is slated for a Fall 2027 opening. Veenstra & Kimm has been hired to begin the detailed design of this new Truman Drive NE street corridor.
- Construction of a trail along the former railroad right-of-way corridor on this 401 2nd Street NE LLC land. The Building Bondurant Comprehensive Plan identifies the need to establish an arboretum trail along this former railroad right-of-way corridor. The engineering students in the University of Iowa's IISC Program are currently designing this arboretum trail corridor.
- The City of Bondurant is currently working with ISG to have a Downtown Landus Redevelopment Master Plan drafted which is slated for February 2024 adoption. The purchase of this 401 2nd Street NE LLC land will assist with the eventual implementation of this Downtown Landus Redevelopment Master Plan.

Building Bondurant Comprehensive Plan - Area Map:



FUNDING SOURCE: Bonds (General Obligation & TIF), Grants

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-213

CITY OF BONDURANT
RESOLUTION NO. 231016-XXX

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A REAL ESTATE PURCHASE AGREEMENT WITH 401 2ND STREET NE LLC IN THE AMOUNT OF \$638,374.50 FOR LAND NEEDED FOR STREET AND TRAIL CONSTRUCTION, AUTHORIZING PAYMENT FOR THE ACQUISITION OF PROPERTY INTERESTS, AND AUTHORIZING THE TAKING OF NECESSARY STEPS FOR THE CLOSING OF THE PROPERTY ACQUISITION TRANSACTION

WHEREAS, the City of Bondurant is in the process of the design a new north/south street corridor north of 2nd Street NE to be called Truman Drive NE that will service a new elementary school site north of 2nd Street NE; AND

WHEREAS, a portion of this new street corridor proposed for construction is situated on land currently owned by 401 2nd Street NE LLC; AND

WHEREAS, the Building Bondurant Comprehensive Plan identifies the need to extend a trail arboretum along the land owned by 401 2nd Street NE LLC to assist with redevelopment of the downtown Landus redevelopment area and other adjacent lands such as the 401 2nd Street NE LLC land; AND

WHEREAS, City staff at the request of Council has made certain offers for the acquisition of real property interests with those offers being accepted by the respective property owners; and

WHEREAS, it is necessary for the City to approve the purchase agreements as well as acquisition, authorize the payment of the agreed to compensation for the property acquisitions and to move forward with the completion of due diligence and closing on the property acquisitions.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BONDURANT, IOWA AS FOLLOWS:

1. The City authorizes the Mayor to execute the purchase agreement, pending a final review by the City's legal counsel, accepts the following property transactions, and authorizes the payment of the compensation pursuant to the purchase agreement.
2. The Mayor, City Administrator, City Attorney, City Administrator, and Planning and Community Development Director acting on behalf of the City are authorized to undertake such steps as are necessary to close the appropriate transactions including the authorization for payment of any costs associated with the closing of transactions.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Council Action	Ayes	Nays	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 7.a.
For Meeting of 10/16/2023
Public Hearing

TITLE: Public hearing on Section 177.07 Text Amendments regarding setback requirements for public parks

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The City of Bondurant currently is undergoing multiple large City park related projects. Currently, City parks have no specific park related zoning district and are instead subject to whichever residential zoning district they are located within. This has created a situation where some City parks have park-related buildings that violate residential setback requirements. City staff would like guidance on resolving these issues. When looking at other communities in the Des Moines metropolitan area there seem to be four options the City could take.

1. Require parks to meet regulations of whichever Zoning District they are located in.
2. Create a Open Space/Park zoning district and create new bulk regulations for City parks and park related buildings.
3. Permit City parks through Special Conditional Use process.
4. Create zoning exemptions for City parks and park-related buildings

This topic was discussed at the August 10, 2023 Planning & Zoning Commission meeting and Commission members indicated they were in favor of Option 2. Staff indicated that Option 2 would like take place when a complete overhaul of the Zoning Code took place. Commission members agreed that Option 4 would be good in the meantime, until the Zoning Code could be completely updated.

The Planning & Zoning Commission will review and make a recommendation at their October 12, 2023 meeting.

FUNDING SOURCE:

STAFF RECOMMENDATION:

APPROVED FOR SUBMITTAL:

ATTACHMENTS: None



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 7.b.
For Meeting of 10/16/2023
Public Hearing

TITLE: Public hearing on proposal to enter into an Emergency Services Loan Agreement (2023B additional)

CONTACT PERSON:

BRIEF HISTORY & ANALYSIS: Now is the time for the public hearing on the proposal to issue debt for the Bondurant Emergency Services facility. The City Council set the hearing date at its October 2, 2023 council meeting. This is an additional hearing for 2023B. The first hearing held for October 2, 2023 was set for an incorrect amount (\$4,400,000) and this item is an additional hearing for the difference between the original amount and the amount that should have been in the original notice, which was \$5,400,000. The hearing was held for the additional borrowing of \$1,000,000.

FUNDING SOURCE: TIF

STAFF RECOMMENDATION: Hold public hearing.

APPROVED FOR SUBMITTAL:

ATTACHMENTS: None



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 7.c.
For Meeting of 10/16/2023
Public Hearing

TITLE: Public Hearing regarding Urban Renewal Loan Agreement (Repurposing Bond proceeds - 2022A)

CONTACT PERSON:

Marketa Oliver, City Administrator
Jene Jess, Finance Director

BRIEF HISTORY & ANALYSIS: This is the time and date for the public hearing to repurpose bonds from 2022A borrowing to the underpass project. The Council set the date of the public hearing at its September 18, 2023 meeting. The repurposing of the proceeds will address a deficit balance in the Underpass capital project fund. The repurposing hearing is needed because the original bond was for streets and sidewalks and did not include the reference to trails. This will not affect the status of the streets project for which the 2022A bonds were issued.

FUNDING SOURCE: Bonds/TIF

STAFF RECOMMENDATION: Hold public hearing.

APPROVED FOR SUBMITTAL:

ATTACHMENTS: None



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 8.a.
For Meeting of 10/16/2023
Closed Session

TITLE: - (First Reading) Ordinance amending the City Code of Bondurant, Iowa, by amending the following Section 177.07 of the Zoning Code regarding Setback Requirements for Public Parks

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The City of Bondurant currently is undergoing multiple large City park related projects. Currently, City parks have no specific park related zoning district and are instead subject to whichever residential zoning district they are located within. This has created a situation where some City parks have park-related buildings that violate residential setback requirements. City staff would like guidance on resolving these issues. When looking at other communities in the Des Moines metropolitan area there seem to be four options the City could take.

1. Require parks to meet regulations of whichever Zoning District they are located in.
2. Create a Open Space/Park zoning district and create new bulk regulations for City parks and park related buildings.
3. Permit City parks through Special Conditional Use process.
4. Create zoning exemptions for City parks and park-related buildings

This topic was discussed at the August 10, 2023 Planning & Zoning Commission meeting and Commission members indicated they were in favor of Option 2. Staff indicated that Option 2 would like take place when a complete overhaul of the Zoning Code took place. Commission members agreed that Option 4 would be good in the meantime, until the Zoning Code could be completely updated.

The Planning & Zoning Commission recommended adoption at their October 12, 2023 meeting.

FUNDING SOURCE: NA

STAFF RECOMMENDATION: Staff recommends approval of the Ordinance.

The Planning & Zoning Commission voted 6-0 to recommend approval of the proposed text amendment at their October 12, 2023 regular meeting.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. ORDINANCE NO. 231016-223

CITY OF BONDURANT
ORDINANCE NO. 231016-223

**AN ORDINANCE AMENDING THE CITY CODE OF BONDURANT, IOWA, BY
AMENDING THE FOLLOWING SECTION SECTION 177.07 OF THE ZONING CODE
REGARDING SETBACK REQUIREMENTS FOR PUBLIC PARKS.**

BE IT ENACTED by the City Council of the City of Bondurant, Polk County, Iowa:

Section 1. **SECTIONS AMENDED.** Section 177.07. of the Code of Ordinances of the City of Bondurant, Iowa, 2002, is amended to read as follows:

177.07 EXCEPTIONS, MODIFICATIONS AND INTERPRETATIONS.

1. Structures Permitted Above Height Limit. No permit will be issued for any structure above height limits, except as specifically approved by the [Board of Adjustment](#).
2. Double Frontage Lots. Buildings on through lots and extending through from street to street shall provide the required front yard on both streets.
3. Rear and Side Yards Adjacent to [Alleys](#) - How Computed. In computing the depth of a rear yard or the width of a side yard where the rear or side yard opens on an [alley](#), one-half (½) of the [alley](#) width may be included as a portion of the rear or side yard as the case may be.
4. Other Exceptions to Yard Requirements. Every part of a required yard shall be open to the sky unobstructed with any building or structure, except for a permitted [accessory building](#) in a rear yard, and except for ordinary projections not to exceed twenty-four (24) inches, including roof overhang.
5. Billboards. No permit will be issued for any billboards except as specifically approved by the Council.
6. Front Yard Exceptions. In areas where some lots are developed with a front yard that is less than the minimum required for the district by this Zoning Code or where some lots have been developed with a front yard greater than required by the Zoning Code, the following rule shall apply. Any new building or addition in front thereof shall not be closer to the street [right-of-way](#) than the average of the front yard of the first building on each side within a distance of two hundred (200) feet measured from building to building, except as follows:
 - A. Buildings located entirely on the rear half of a lot shall not be counted.

- B. No residential dwelling shall be required to have a front yard greater than fifty (50) feet.
 - C. If no building exists on one side of a lot within two hundred (200) feet of the lot in question, the minimum front yard shall be the same as the building on the other side.
 - D. Zoning of Annexed Areas. Any land annexed to the City after the effective date of the Zoning Code shall be zoned A-1 Agricultural until the Planning and Zoning Commission and Council shall have studied the area and adopted a final zoning plan for the area. Said final zoning plan shall be adopted within six (6) months of the date of annexation.
7. Single-family, Semi-attached. Single-family, semi-attached dwellings are permitted only under the following terms and conditions:
- A. A “single-family, semi-attached dwelling is a building designed for or occupied by one (1) family only and which is erected on a separate lot and is joined to another such residence on one (1) side only by a wall located on the lot line and has yards on the remaining sides.
 - B. Must have an “R-2” or “R-3” zoning.
 - C. Each unit must have its own water service, sewer service, and secondary storm sewer service.
 - D. The joining wall must be a party wall and must be a fire wall having a one-hour rating.
 - E. Covenants must be submitted which address all legal implications associated with shared walls.
8. Public Parkland Setback Requirements. All structures located on properties designated for public parkland are not subject to setback requirements except as listed below:
- A. No structure shall be constructed so as to impede visibility at intersections as described in Section 177.01.

Section 2. REPEALER. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 3. SEVERABILITY. If any section, provisions, sentence, clause, phrase or part of this ordinance shall be adjudicated, invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any provision, section, subsection, sentence clause, phrase or part thereof not adjudged invalid or unconstitutional.

Section 4. **EFFECTIVE DATE.** This ordinance shall be in full force and effect following its passage, adoption and publication as required by law.

PASSED AND APPROVED by the City Council this ____ day of _____, 2023

CITY OF BONDURANT, POLK COUNTY, IOWA

DOUG ELROD, MAYOR

ATTEST:

SHELBY HAGAN, CITY CLERK

(SEAL)

FIRST CONSIDERATION:

SECOND CONSIDERATION:

THIRD CONSIDERATION:

CLERK'S CERTIFICATE

I, Shelby Hagan, hereby certify that the foregoing Ordinance No. _____, was published as required by law on the ____ day of _____, 2022.

Shelby Hagan
City Clerk



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 8.b.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution taking additional action on proposal to enter into Emergency Services Loan Agreement, Combining Loan Agreements, setting the date for the sale of General Obligation Urban Renewal Bonds, Series 2023B and authorizing the use of a Preliminary Official Statement in connection therewith

CONTACT PERSON:

Marketa Oliver, City Administrator
Jene Jess, Finance Director

BRIEF HISTORY & ANALYSIS: Now is the time for the public hearing on the proposal to issue debt for the Bondurant Emergency Services facility. The City Council set the hearing date at its October 2, 2023 council meeting. This is an additional hearing for 2023B. The first hearing held for October 2, 2023 was set for an incorrect amount (\$4,400,000) and this item is an additional hearing for the difference between the original amount and the amount that should have been in the original notice, which was \$5,400,000. The hearing was held for the additional borrowing of \$1,000,000.

FUNDING SOURCE: TIF

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-214

CITY OF BONDURANT
RESOLUTION NO. 231016-XXX

Resolution taking additional action on proposal to enter into Emergency
Services Loan Agreement and combining Loan Agreements

WHEREAS, the City of Bondurant (the "City"), in Polk County, State of Iowa, heretofore proposed to enter into a loan agreement (the "Essential Purpose Loan Agreement"), pursuant to the provisions of Section 384.24A of the Code of Iowa, and to borrow money thereunder in a principal amount not to exceed \$7,000,000 for the purpose of paying the costs, to that extent, of (1) constructing street, water system, sanitary sewer system, storm water drainage and sidewalk improvements; (2) acquiring and installing street lighting, signage and signalization improvements; and (3) undertaking improvements to and equipping of existing municipal parks, including the City Park project, and pursuant to law and duly published notice of the proposed action has held a hearing thereon on October 2, 2023; and

WHEREAS, the City also proposed to enter into a loan agreement (the "Urban Renewal Loan Agreement") and to borrow money thereunder in a principal amount not to exceed \$4,400,000, pursuant to the provisions of Sections 384.24A and 384.24.3(q) of the Code of Iowa, for the purpose of undertaking the City Campus Project, an urban renewal project of the City authorized by action of the City Council on September 18, 2023, including the construction and equipping of the Emergency Services Facility described therein and in lieu of calling an election upon such proposal, has published notice of the proposed action and has held a hearing thereon, and as of October 2, 2023, no petition had been filed with the City asking that the question of entering into the Urban Renewal Loan Agreement be submitted to the registered voters of the City; and

WHEREAS, the City also proposed to enter into a loan agreement (the "Emergency Services Loan Agreement" and, together with the Essential Purpose Loan Agreement and the Urban Renewal Loan Agreement, the "Loan Agreements") and to borrow money thereunder in a principal amount not to exceed \$1,000,000, pursuant to the provisions of Sections 384.24A and 384.24.3(q) of the Code of Iowa, for the purpose of undertaking the City Campus Project, an urban renewal project of the City authorized by action of the City Council on September 18, 2023, including the construction and equipping of the Emergency Services Facility described therein, and in lieu of calling an election upon such proposal, has published notice of the proposed action and has held a hearing thereon, and as of October 16, 2023, no petition had been filed with the City asking that the question of entering into the Emergency Services Loan Agreement be submitted to the registered voters of the City; and

WHEREAS, pursuant to the provisions of Section 384.28 of the Code of Iowa, the City Council intends to combine the Loan Agreements into a single loan agreement (the "2023B Loan Agreement");

NOW, THEREFORE, Be It Resolved by the City Council of the City of Bondurant, Iowa, as follows:

The Loan Agreements are hereby combined into the 2023B Loan Agreement. The City Council hereby determines to enter into the 2023B Loan Agreement in the future and orders that the 2023B Bonds be issued at such time, in evidence thereof. The City Council further declares that this resolution constitutes the “additional action” required by Section 384.24A of the Code of Iowa.

Section 1. Further action with respect to the Loan Agreement is hereby adjourned to the City Council meeting scheduled for November 1, 2023.

Section 2. All resolutions or parts thereof in conflict herewith are hereby repealed to the extent of such conflict.

Section 3. This resolution shall be in full force and effect immediately upon its adoption and approval, as provided by law.

Passed and approved October 16, 2023.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 8.c.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution taking additional action on proposal to enter an Urban Renewal Loan Agreement and repurposing bond proceeds

CONTACT PERSON:

Marketa Oliver, City Administrator

BRIEF HISTORY & ANALYSIS: A public hearing to repurpose bonds from 2022A borrowing to the underpass project was held earlier on the agenda. The repurposing of the proceeds will address a deficit balance in the Underpass capital project fund. The repurposing hearing is needed because the original bond was for streets and sidewalks and did not include the reference to trails. This will not affect the status of the streets project for which the 2022A bonds were issued.

FUNDING SOURCE: Bonds/TIF

STAFF RECOMMENDATION: Approve resolution on a roll call vote.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-215

RESOLUTION NO. _____

Resolution taking additional action on proposal to enter into an Urban Renewal Loan Agreement and repurposing bond proceeds

WHEREAS, the City of Bondurant (the "City"), in Polk County, Iowa, heretofore proposed to enter into an Urban Renewal Loan Agreement (the "Loan Agreement") and to borrow money thereunder in a principal amount not to exceed \$1,200,000, pursuant to the provisions of Sections 384.24A and 384.24.3(q) of the Code of Iowa, for the purpose of paying the costs, to that extent, of constructing recreation trail improvements, (the "Project") and in lieu of calling an election upon such proposal, has published notice of the proposed action, including notice of the right to petition for an election, has held a hearing thereon, and as of October 16, 2023, no petition had been filed with the City asking that the question of entering into the Urban Renewal Loan Agreement be submitted to the registered voters of the City; and

WHEREAS, the authorization of the Loan Agreement will vest the City with authority to lawfully use up to \$1,200,000 of unspent proceeds (the "Bond Proceeds") from the City's prior issuance of \$13,700,000 General Obligation Annual Appropriation Corporate Purpose Bonds, Series 2022A for the funding of the Project; and

WHEREAS, the City now proposes to use its authority to enter into the Loan Agreement, and in lieu of borrowing additional funds, to authorize the repurposing of the Bond Proceeds for paying the costs of the Project;

NOW, THEREFORE, Be It Resolved by the City Council of the City of Bondurant, Iowa, as follows:

Section 1. The City Council hereby approves the Loan Agreement and declares that this resolution constitutes the "additional action" required by Section 384.24A of the Code of Iowa. It is hereby ordered that up to \$1,200,000 of the Bond Proceeds be expended to pay the costs of the Project.

Section 2. All resolutions or parts thereof in conflict herewith are hereby repealed to the extent of such conflict.

Section 3. This resolution shall be in full force and effect immediately upon its adoption and approval, as provided by law.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Council Action	Ayes	Nays	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 8.d.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution considering approval of Casey's Site Plan

CONTACT PERSON:

Isaac Pezley, City Planner

BRIEF HISTORY & ANALYSIS: The City is in receipt of a site plan for review by the Planning & Zoning Commission and City Council for the existing 1.68-acre parcel of land accessed from 2nd Street NW. The site plan applicant is Casey's Marketing Company. The site plan was prepared by Civil Design Advantage and owned by Kimberley Development Corporation. The applicants are proposing a 42'-10" x 100'-10" convenience store building, 31 parking spaces, 16 of which are located at fuel dispensers. This property is zoned as being within the City's General Commercial (C-2) District.



When the Planning & Zoning Commission and City Council review site plans, they review for consistency with the following documents: Comprehensive Plan; Zoning Code; and Comments from City Officials.

Consistency with the City's Comprehensive Plan: A C-2 development at this location is consistent with the 2022 Comprehensive Plan which guides for Regional Commercial at this location.

Consistency with the City's Zoning Code: Below are notes detailing how the Zoning Code is met for

this request or what additional information is needed to ensure the Code will be met for this development.

General Commercial Use & Bulk

- The site plan labels the required setbacks at this location - a 30' front yard setback along 2nd Street NW, a 25' rear yard setback from their northern property line and no side yard setbacks from either the western or eastern property lines.
- The site plan shows a two underground fuel storage tanks.

Parking/Drive Areas

- Access to the site is available from 2nd Street NW. The site plan shows two access points in the southeast and south west corners of the property. The access point in the southwest corner is a right-in/right-out only access point.
- The site plan shows that no part of any parking/drive area (excluding driveways) will be located closer than 3' away from the front property lines, as is required by Section 177.10.1.
- The site plan shows that all parking/drive areas will be paved as required by Section 177.10.2 of the Zoning Code.
- Section 177.09.05 of the Zoning Code will be applied when determining minimum parking stall count requirements at this location. This section reads: Convenience Stores: one (1) space per 150 square feet of gross floor area.
- Section 177.08 regulates minimum loading space count requirements. This section reads: at least one (1) off-street loading space plus one (1) additional loading space for each twenty thousand (20,000) square feet or major fraction thereof of gross floor area so used in excess of ten thousand (10,000) square feet.
- The site plan shows 31 parking spaces, including 1 handicap stall, and 1 loading spaces. 16 of the parking spaces are shown at the fuel receptors.
- The site plan shows parking spaces will be provided with raised curbing or equivalent, as is required by Section 177.10.8.

Stormwater, Utilities & Natural Features

- A stormwater management report has been submitted for review by the City Engineer. All preliminary comments submitted by V&K have been addressed.
- Page 7 contains the required utility plan.
- This property is located within the NW Trunk Sewer Connection Fee District and the Franklin Street NW Water Connection Fee District.
- This site is not situated within FEMA's 100-year floodplain.
- This site is not situated within the City's Stream Buffer Ordinance area.

- Staff commented that any lighting used to illuminate the parking area will be arranged so as to reflect lighting away from any adjacent residential use. This can be accomplished by installing full cut-off lighting. Page 7, addresses Staff's comments.

Landscaping Plan

- Page 11 of the site plan shows the required landscaping plan. Notes on this:
 - The site plan shows that the required general trees will be located at least 4' away from the front property line as required by Section 182.05.E of the Zoning Code
 - Section 182.04 of the Zoning Code requires deciduous trees conform to the minimum of 1 ¾ inch caliper in size at time of planting. The applicant has not provided the City with the size of tree(s) that will be installed.
 - The site plan notes that 15.45% of this site will be open space.

ARCHITECTURAL STANDARDS

- Site plan submittal includes the required building elevations. The submitted elevations appear to meet City requirements.

Other Site Plan Features

- Staff commented if any exterior dumpster is proposed as a result of this project, site plan should show its location and note its screening technique.

Comments from City Officials:

The following City departments were notified of the submitted site plan:

1. Public Works - reviewed and all comments/concerns have been addressed.
2. Engineering – reviewed and all comments/concerns have been addressed.
3. Fire Department - reviewed and all comments/concerns have been addressed. Further discussion and inspection will be required when the fuel tank is installed on the property.

FUNDING SOURCE: NA

STAFF RECOMMENDATION: The following options exist for the City Council:

1. Approval of RESOLUTION.
2. Approval of RESOLUTION, subject to certain Zoning Code clarification items being addressed.
3. Denial of RESOLUTION.
4. Table pending additional information.

The Planning & Zoning Commission voted 6-0 to recommend approval of the submitted site plan at their October 12, 2023 regular meeting.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-216
2. Casey's - Store #4396 - Site Plan
3. Casey's Lighting Plan
4. Casey's Elevations

CITY OF BONDURANT
RESOLUTION NO. 231016-211

RESOLUTION REGARDING APPROVAL OF THE SITE PLAN FOR CASEY'S STORE
#4396, BONDURANT, IOWA

WHEREAS, Civil Design Advantage, on behalf of the applicant, Casey's Marketing Company, and the owner, Kimberley Development Corp, has submitted the site plan for Casey's Store #4396 described as follows; AND

LOT 1, HARVEST MEADOWS COMMERCIAL PLAT 1, CITY OF BONDURANT, POLK COUNTY, IOWA.

WHEREAS the zoning for the property is General Commercial (C-2) and a gas station use is a permitted conditional use per Sections 178.08.3.C of the Zoning Code; AND

WHEREAS the Planning and Zoning Commission voted 6-0, to recommend approval of the submitted site plan at their October 12, 2023 meeting subject to the following City Code/Policy clarification recommendation items;

1. The applicant is granted a Conditional Use for a gas station use prior to any building permit being issued from the City of Bondurant's Board of Adjustment.
2. The applicant receive approval for the Harvest Meadows Commercial Plat 1 from the City of Bondurant's City Council.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Bondurant, Iowa, the submitted Casey's Store #4396 site plan is hereby approved.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				

[illegible]

NOTES

CONTRACTOR TO PROVIDE A COMPLETE PROJECT PER THE CONSTRUCTION DOCUMENTS, QUANTITIES PROVIDED AS PART OF THIS SUMMARY ARE FOR REFERENCE PURPOSES ONLY AND ARE NOT A BASIS FOR CHANGE ORDER IF ADDITIONAL QUANTITY IS INSTALLED AS PART OF THE ORIGINAL BID DOCUMENTS.

PROJECT CONTACTS:

<u>DEVELOPER/APPLICANT:</u>	<u>WATER:</u>	<u>GAS:</u>
CASEY'S SERVICES COMPANY 3305 SE DELAWARE AVENUE ANKENY, IA 50021 ATTN: SARAH PHILLIPPI PH: (515) 381-5722	CITY OF BONDURANT, IOWA 200 2ND STREET NE BOX 37 BONDURANT, IA 50035 CONTACT: PAT COLLISON PH: (515) 971-6856	MID AMERICAN ENERGY 4124 NW URBANDALE DRIVE URBANDALE, IA 50322 CONTACT: MATT NOVY PH: (515) 252-6730
<u>ENGINEER:</u>	<u>SANITARY SEWER:</u>	<u>BUILDING DEPARTMENT:</u>
CIVIL DESIGN ADVANTAGE 4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 CONTACT: ERIN OLLENDIKE PH: (515) 369-4400	CITY OF BONDURANT, IOWA 200 2ND STREET NE BOX 37 BONDURANT, IA 50035 CONTACT: PAT COLLISON PH: (515) 971-6856	CITY OF BONDURANT, IOWA 200 2ND STREET NE BOX 37 BONDURANT, IA 50035 CONTACT: ISAAC PEZLEY PH: (515) 967-2418
<u>LANDSCAPE ARCHITECT:</u>	<u>ELECTRIC:</u>	<u>HEALTH DEPARTMENT:</u>
CIVIL DESIGN ADVANTAGE 4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 CONTACT: ERIN OLLENDIKE PH: (515) 369-4400	MID AMERICAN ENERGY 4124 NW URBANDALE DRIVE URBANDALE, IA 50322 CONTACT: MATT NOVY PH: (515) 252-6730	POLK COUNTY HEALTH DEPT. 1907 CARPENTER AVENUE DES MOINES, IA 50314 CONTACT: N/A PH: (515) 286-3798
<u>GEOTECHNICAL ENGINEER:</u>	<u>STORM SEWER:</u>	<u>ARCHITECT:</u>
	CITY OF BONDURANT, IOWA 200 2ND STREET NE BOX 37 BONDURANT, IA 50035 CONTACT: JOHN BERGESON PH: (515) 985-5216	PELDS DESIGN SERVICES 2323 DIXON STREET DES MOINES, IA 50316 CONTACT: DANIEL WILLRICH PH: (515) 265-8196
<u>SURVEYOR:</u>	<u>TELEPHONE/COMMUNICATION:</u>	
CIVIL DESIGN ADVANTAGE, LLC 4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 CONTACT: CHARLIE MCGLOTHLEN PH: (515) 369-4400	CENTURY LINK 3839 MERLE HAY ROAD SUITE 112 DES MOINES, IA 50310 CONTACT: SADIE HULL PH: (918) 547-0147	

GENERAL NOTES

1. THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC SEWERS CONTRACTOR SHALL NOTIFY THE CITY'S CONSTRUCTION DIVISION.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W.'S / EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY'S STANDARDS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
10. REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND PRIOR TO ANY RAIN EVENT.
11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
13. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
15. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
17. CONCRETE REMOVAL FOR DRIVEWAY APPROACHES SHALL BE REMOVED TO THE NEAREST TRANSVERSE JOINT. CONTRACTOR SHALL VERIFY REMOVAL LIMITS WITH CITY'S CONSTRUCTION INSPECTOR PRIOR TO ANY CONCRETE REMOVAL.
18. ALL SCOUR STOP SHALL BE INSTALLED BY A CERTIFIED CONTRACTOR ACCORDING TO SCOUR STOP PRODUCT SPECIFICATIONS.
19. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACTOR BID.
20. SIGN PERMITS ARE REQUIRED FOR ANY PROPOSED MONUMENT OR WALL SIGNAGE.
21. TRASH ENCLOSURE SHALL BE FULLY ENCLOSED WITH A 6' TALL OPAQUE FENCE OR MASONRY WALL.

DEMOLITION NOTES

1. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
2. PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY IN WRITING (48 HRS NOTICE) THE FOLLOWING:
 - A. CITY
 - B. APPROPRIATE UTILITY COMPANIES
 - C. OWNER
 - D. CIVIL DESIGN ADVANTAGE
 - E. ARCHITECT
3. DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
4. PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT.
5. BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DRY DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE (VERIFY WITH GEOTECH). TESTING OF BACKFILL TO BE BY A GEOTECHNICAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
6. FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES.
7. DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT.
8. ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DISPOSED OF OFFSITE IN FULL COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
9. CONSTRUCTION LIMITS SHALL BE CONFINED TO THE SITE BOUNDARY AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.

GRADING NOTES

1. PRIOR TO ANY GRADING, A COPY OF THE COSESCO PERMIT SHALL BE PROVIDED TO THE CITY'S PUBLIC WORKS DEPARTMENT.
2. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL AND STOCKPILE ONSITE. RESPREAD 8-INCHES OF TOPSOIL AFTER GRADING IS COMPLETE PRIOR TO SEEDING/ SOD INSTALLATION. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
3. EXCAVATION SHALL BE IN ACCORDANCE WITH THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
4. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
5. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
6. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
7. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
8. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
10. REFERENCE SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
11. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
12. SIDEWALKS:
MAINTAIN 1% MINIMUM AND 5% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 2.0% MAXIMUM TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
13. NO TANK BALLAST REQUIREMENTS FOR THIS SITE.

TRAFFIC CONTROL NOTES

1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.
6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.
8. THE CONTRACTOR IS TO PROVIDE ELECTRONIC MESSAGE BOARD ONE WEEK PRIOR TO ANY PLANNED LANE CLOSURES.

UTILITY NOTES

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
5. MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMAINS.
6. ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
7. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. INSTALL CHIMNEY SEALS ON ANY ADJUSTED MANHOLES. ALL PROPOSED SANITARY MANHOLES ARE TO UTILIZE A TYPE 'B' CASTING.
8. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
9. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN.
10. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
11. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE UTILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
12. ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
13. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
14. PRIVATE UTILITIES TO BE INSTALLED PER THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, AND THE LATEST VERSION OF THE UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. ALL APPLICABLE UTILITY COMPANIES SHALL BE CONTACTED 48 HOURS PRIOR TO ANY WORK BEING STARTED.
15. OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE RETENTION FACILITIES AND PRIVATE UTILITIES.
16. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SEDIMENT CONTROLS AT ALL PERMANENT STORM SEWER INLETS. DROP EROSION PROTECTION IS REQUIRED FOR PUBLIC STREETS.
17. CONTRACTOR SHALL TEST AND INSPECT ALL PROPOSED STORM SEWER, WATERMAIN AND SANITARY SEWER. THE CITY OF BONDRURANT ENGINEERING DEPARTMENT IS REQUIRED TO WITNESS TESTING. ALL TESTING SHALL BE COMPLETED MEETING CITY OF BONDRURANT STANDARDS.
18. ALL UTILITY TIE-INS TO EXISTING PUBLIC UTILITIES SHOULD BE COORDINATED WITH THE CITY OF BONDRURANT ENGINEERING DEPARTMENT.
19. ALL PRIVATE AND PUBLIC SANITARY SEWER AND STORM SEWER PIPES SHALL BE CLEANED OUT AND TELEDISCH PRIOR TO PAVING. ALL SANITARY MANHOLES SHALL BE VACUUM TESTED. A HARD COPY OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF BONDRURANT ENGINEERING DEPARTMENT.
20. ALL CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL BE CORE DRILLED AND A LINK SEAL SHALL BE USED FOR THE CONNECTION.
21. IT IS THE OWNER'S RESPONSIBILITY TO COORDINATE IRRIGATION AND METER PITS WITH THE CITY OF BONDRURANT PUBLIC WORKS DEPARTMENT.
22. ANY GAS MAIN RELOCATIONS WILL BE AT THE DEVELOPER'S EXPENSE.
23. THE GREASE INTERCEPTOR WILL NEED TO BE APPROVED BY THE DES MOINES WRA.

FIRE SAFETY NOTE

APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED FOR ALL BUILDINGS AS SOON AS VERTICAL CONSTRUCTION OF THE BUILDING COMMENCES. IF PAVING IS NOT INSTALLED PRIOR TO BUILDING CONSTRUCTION COMMENCING AFTER FOOTINGS ARE INSTALLED, AN APPROVED TEMPORARY ROUTE AROUND THE EXTERIOR OF THE BUILDING TO EXTEND WITHIN 100- FEET OF ALL PORTIONS OF THE EXTERIOR WALLS AS REQUIRED BY IFC SECTION 3310 SHALL BE SUBMITTED AND APPROVED BY THE FIRE DEPARTMENT.

[illegible]

ALTA/NSPS LAND TITLE SURVEY

ENGINEER/SURVEYOR

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322

OWNER / REQUESTED BY

KIMBERLEY DEVELOPMENT CORP
2875 N ANKENY BLVD STE 22
ANKENY, IA 50023-4705

DATE OF SURVEY

JUNE 15, 2023

SITE ADDRESS

N/A

PROPERTY DESCRIPTION

A PART OF PARCEL '2020-170' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 1893, PAGE 880, BEING A PART OF THE SOUTHWEST QUARTER, AND A PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, ALL BEING IN SECTION 25, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF BONDURANT, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 25; THENCE NORTH 00°34'55" EAST ALONG THE WEST LINE OF SAID SECTION 25, A DISTANCE OF 874.57 FEET TO THE SOUTHWEST CORNER OF PARCEL 4 AS SHOWN ON THE WARRANTY DEED RECORDED IN BOOK 9677, PAGE 514; THENCE SOUTH 89°53'24" EAST ALONG THE SOUTH LINE OF SAID PARCEL 4, A DISTANCE OF 50.00 FEET TO THE WESTERLY LINE OF SAID PARCEL '2020-170'; THENCE SOUTH 89°53'24" EAST ALONG SAID WESTERLY LINE, 25.46 FEET; THENCE NORTH 00°06'36" EAST ALONG SAID WESTERLY LINE, 84.84 FEET; THENCE NORTH 27°07'11" WEST ALONG SAID WESTERLY LINE, 36.03 FEET; THENCE SOUTH 37°26'04" EAST ALONG SAID WESTERLY LINE, 148.81 FEET TO THE NORTHWEST CORNER OF OUTLOT 'Z', HARVEST MEADOWS PLAT 1, AN OFFICIAL PLAT IN SAID CITY OF BONDURANT; THENCE CONTINUING SOUTH 37°26'04" EAST ALONG THE WESTERLY LINE OF SAID OUTLOT 'Z', 164.16 FEET; THENCE SOUTH 37°20'20" EAST ALONG SAID WESTERLY LINE, 374.82 FEET; THENCE SOUTH 35°53'39" EAST ALONG SAID WESTERLY LINE, 291.60 FEET; THENCE SOUTH 37°25'48" EAST ALONG SAID WESTERLY LINE, 164.71 FEET TO THE SOUTHERLY LINE OF SAID PARCEL '2020-170'; THENCE NORTH 59°00'33" WEST ALONG SAID SOUTHERLY LINE, 65.51 FEET; THENCE SOUTH 89°13'29" WEST ALONG SAID SOUTHERLY LINE, 60.00 FEET; THENCE SOUTH 18°12'17" WEST ALONG SAID SOUTHERLY LINE AND THE WESTERLY LINE OF PARCEL 1 AS SHOWN ON THE WARRANTY DEED RECORDED IN BOOK 9677, PAGE 510, A DISTANCE OF 63.24 FEET; THENCE SOUTH 00°21'50" EAST ALONG SAID WESTERLY LINE, 46.70 FEET TO THE SOUTH LINE OF SAID SECTION 25; THENCE SOUTH 89°38'28" WEST ALONG SAID SOUTH LINE, 621.13 FEET TO THE POINT OF BEGINNING AND CONTAINING 9.40 ACRES (409,341 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

AREA OF PROPERTY

9.40 ACRES (409,341 S.F.)

ZONING

C-2 GENERAL COMMERCIAL

BULK REGULATIONS

FRONT YARD = 50 FT
REAR YARD = 25 FT
SIDE YARD = NONE UNLESS ADJACENT TO "R"
THEN A BUFFER IS NEEDED

WETLANDS:

NO WETLANDS WERE DELINEATED AT THE TIME OF SURVEY.

FLOOD ZONE CLASSIFICATION

SUBJECT PROPERTY IS LOCATED IN SHADED ZONE 'A' (AREAS DETERMINED TO BE WITHIN THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR THE CITY OF BONDURANT, POLK COUNTY, IOWA, MAP NUMBER 19153C0230F WITH A REVISION DATE OF FEBRUARY 1, 2019.

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM MAPS AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

NOTES

- THERE IS EVIDENCE OBSERVED OF CURRENT EARTH MOVING, BUILDING CONSTRUCTION OR BUILDING ADDITION
- NO EVIDENCE WAS OBSERVED OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL
- THIS SURVEYOR KNOWS OF NO PROPOSED CHANGES TO THE EXISTING RIGHT OF WAY LINES.

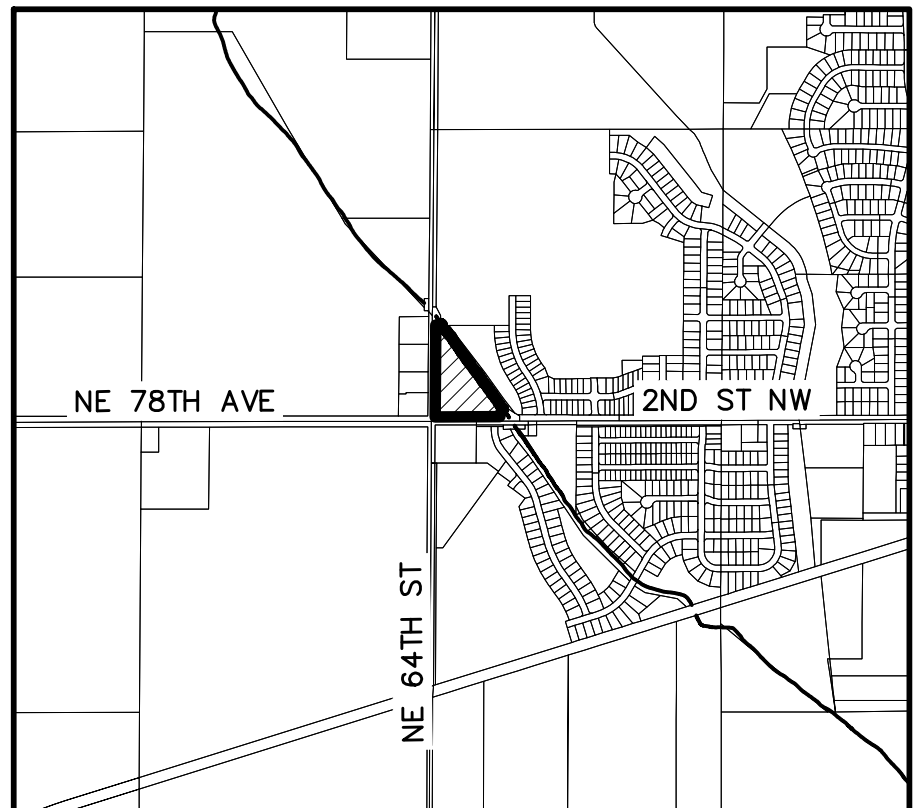
SCHEDULE B - SECTION II

THE TITLE OPINION PREPARED BY WASKER, DORR, WIMMER & MARCOUILLER, WITH A COMMITMENT NUMBER OF GWB54829 AND AN EFFECTIVE DATE OF MARCH 14, 2019 WAS USED TO PREPARE THIS SURVEY.

2. EASEMENTS:

- A. EASEMENT FOR ROAD PURPOSES AND FOR USE AS A PUBLIC HIGHWAY FILED JANUARY 25, 1950 IN BOOK 2318 AT PAGE 186; - EASEMENT LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.
- B. RIGHT-OF-WAY AGREEMENT IN FAVOR OF IOWA POWER AND LIGHT COMPANY FILED JANUARY 5, 1955 IN BOOK 2745 AT PAGE 245; - EASEMENT NOT LOCATED ON SUBJECT PROPERTY.
- C. WATERLINE EASEMENT AGREEMENT IN FAVOR OF SOUTHEAST POLK RURAL WATER DISTRICT FILED JUNE 17, 1997 IN BOOK 7657 AT PAGE 648. - EASEMENT LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.

VICINITY MAP



LEGEND

FOUND	SET	
●	△	GAS APPARATUS
●	○	AIR CONDITIONER
M		TELEPHONE PEDESTAL
R		WATER VALVE
D		FIRE HYDRANT
MPE		ELECTRIC TRANSFORMER
P.U.E.		ELECTRIC METER BOARD
		MAIL BOX
		SIGN
		POWER POLE
		TELEVISION PEDESTAL
		SANITARY SEWER MANHOLE
		STORM SEWER MANHOLE
		ROUND STORM SEWER INTAKE
		STORM SEWER INTAKE
		FLAG POLE
		SPRINKLER BOX
		BUSH
		CONIFEROUS TREE
		OVERHEAD LIGHT
		HANDICAPPED PARKING
		ROOF DRAIN
		TRAFFIC LIGHT
		SEPTIC TANK
		YARD LIGHT

CERTIFICATION:

TO THE CASEY'S MARKETING COMPANY, KIMBERLEY DEVELOPMENT CORPORATION, WEST BANK, AND WASKER, DORR, WIMMER & MARCOUILLER, P.C.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(A), 6(B), 7(A), 7(B1), 7(C), 8, 9, 10, 11, 13, 14, 16, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 15, 2023.

	I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED AND THE RELATED SURVEY WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.
MICHAEL A. BROONER, P.L.S.	DATE
LICENSE NUMBER 15980 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2024 PAGES OR SHEETS COVERED BY THIS SEAL:	
THIS SHEET	

CASEY'S - STORE #4396
ALTA/NSPS LAND TITLE SURVEY

SHEET NUMBER:
C-003
2306.385

BONDURANT, IOWA

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: GH

ENGINEER: EKO

CIVIL DESIGN ADVANTAGE

BONDURANT, IOWA

DATE	
REVISIONS	
09/26/2023	
09/01/2023	

REVISIONS	
09/26/2023	
09/01/2023	

REVISIONS	
09/26/2023	
09/01/2023	

REVISIONS	
09/26/2023	
09/01/2023	

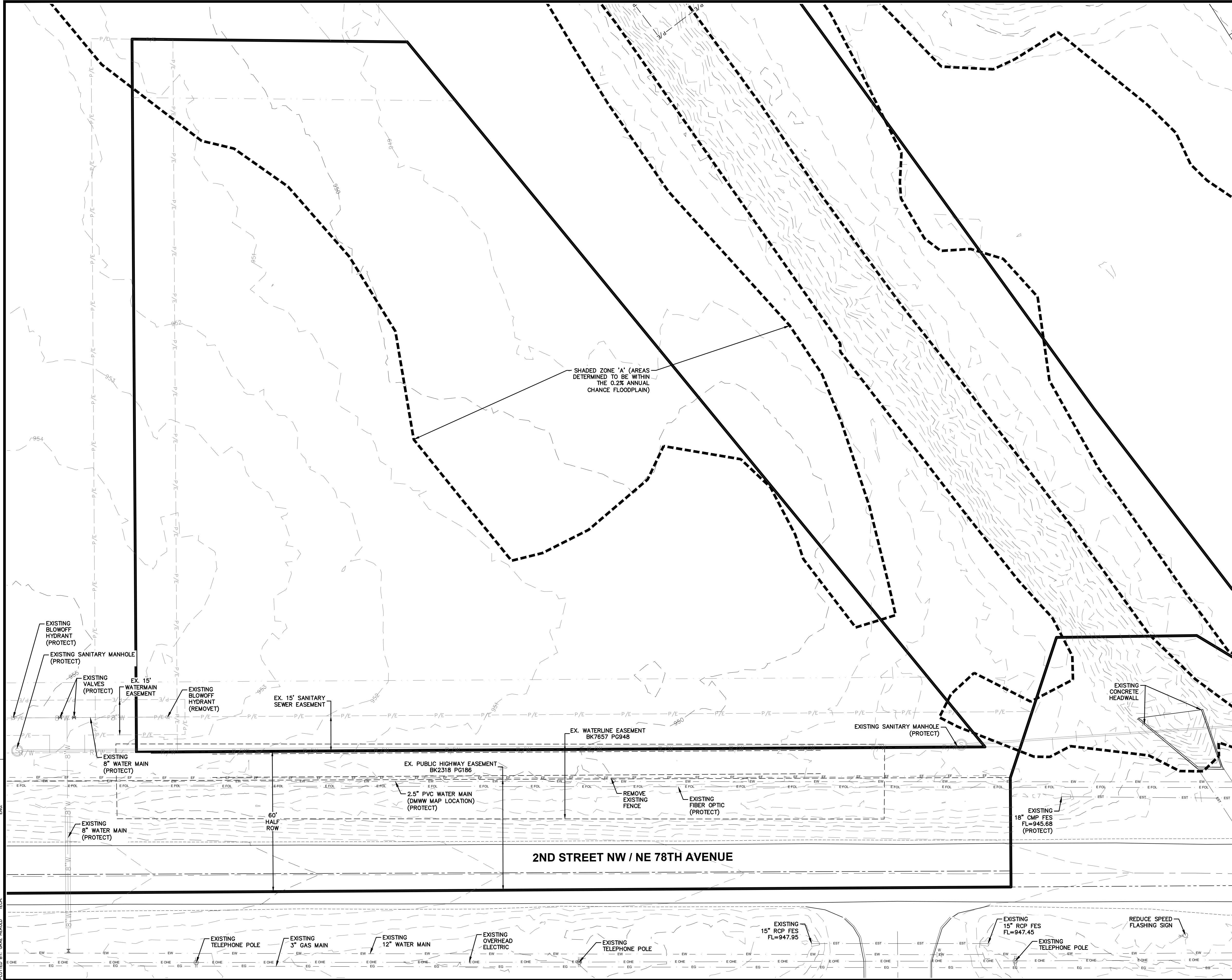
REVISIONS	
09/26/2023	
09/01/2023	

REVISIONS	
09/26/2023	
09/01/2023	

REVISIONS	
09/26/2023	
09/01/2023	

REVISIONS	
09/26/2023	
09/01/2023	

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DATE: 9/26/2023 11:26 AM
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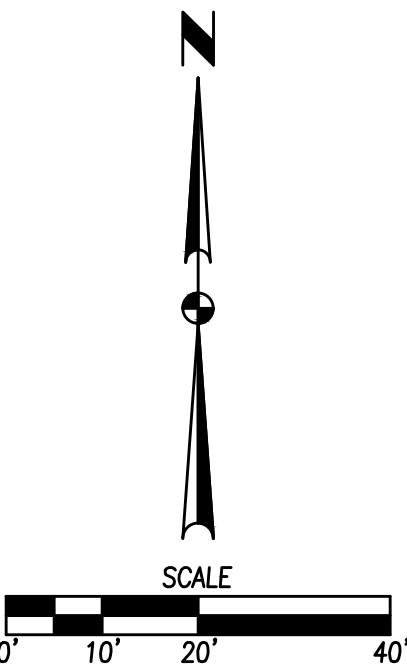


NOTES

1. REFER TO SHEET C-002 FOR NOTES.

LEGEND

GROUND SURFACE CONTOUR	
SANITARY MANHOLE	
WATER VALVE BOX	
FIRE HYDRANT	
WATER CURB STOP	
WELL	
STORM SEWER MANHOLE	
STORM SEWER SINGLE INTAKE	
STORM SEWER DOUBLE INTAKE	
FLARED END SECTION	
DECIDUOUS TREE	
CONIFEROUS TREE	
DECIDUOUS SHRUB	
CONIFEROUS SHRUB	
ELECTRIC POWER POLE	
GUY ANCHOR	
STREET LIGHT	
POWER POLE W/ TRANSFORMER	
UTILITY POLE W/ LIGHT	
ELECTRIC BOX	
ELECTRIC TRANSFORMER	
ELECTRIC MANHOLE OR VAULT	
TRAFFIC SIGN	
TELEPHONE JUNCTION BOX	
TELEPHONE MANHOLE/VAULT	
TELEPHONE POLE	
GAS VALVE BOX	
CABLE TV JUNCTION BOX	
CABLE TV MANHOLE/VAULT	
MAIL BOX	
BENCHMARK	
SOIL BORING	
UNDERGROUND TV CABLE	
GAS MAIN	
FIBER OPTIC	
UNDERGROUND TELEPHONE	
OVERHEAD ELECTRIC	
UNDERGROUND ELECTRIC	
FIELD TILE	
SANITARY SEWER	
STORM SEWER	
WATER MAIN	



DATE

09/26/2023

REVISIONS

SECOND SUBMITTAL
FIRST SUBMITTAL

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: GH

CIVIL DESIGN ADVANTAGE

CASEY'S - STORE #4396

TOPOGRAPHIC SURVEY & DEMOLITION PLAN

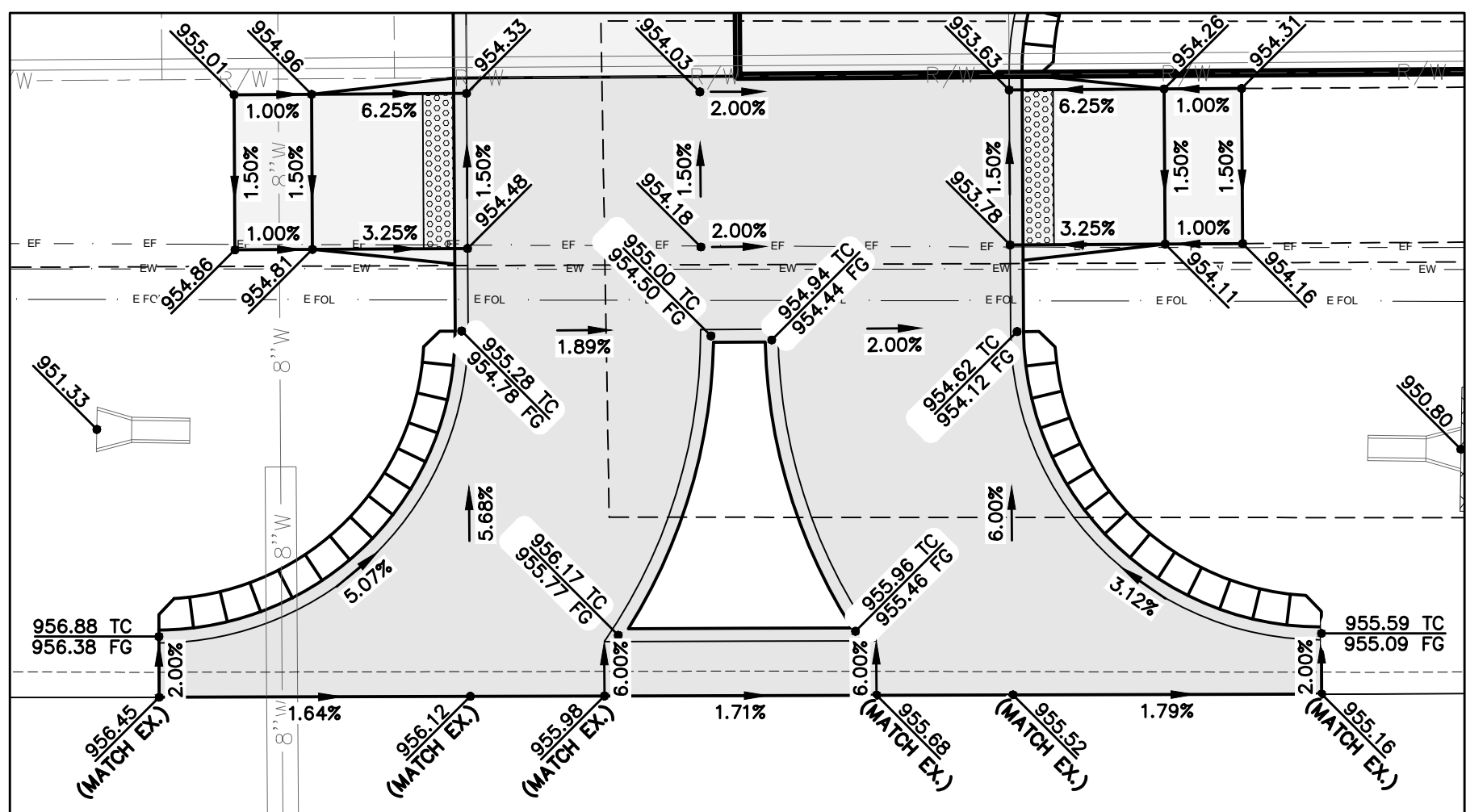
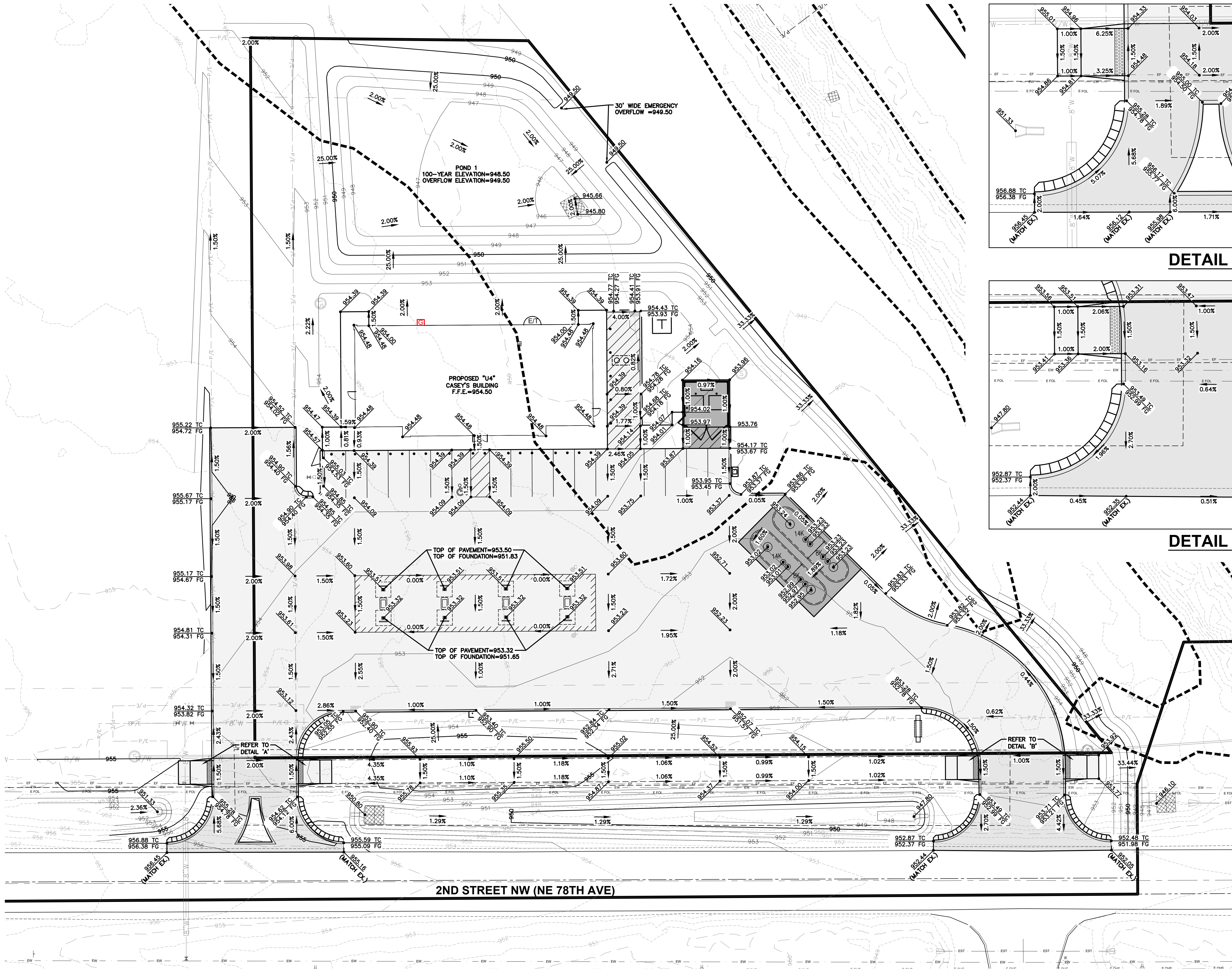
BONDURANT, IOWA

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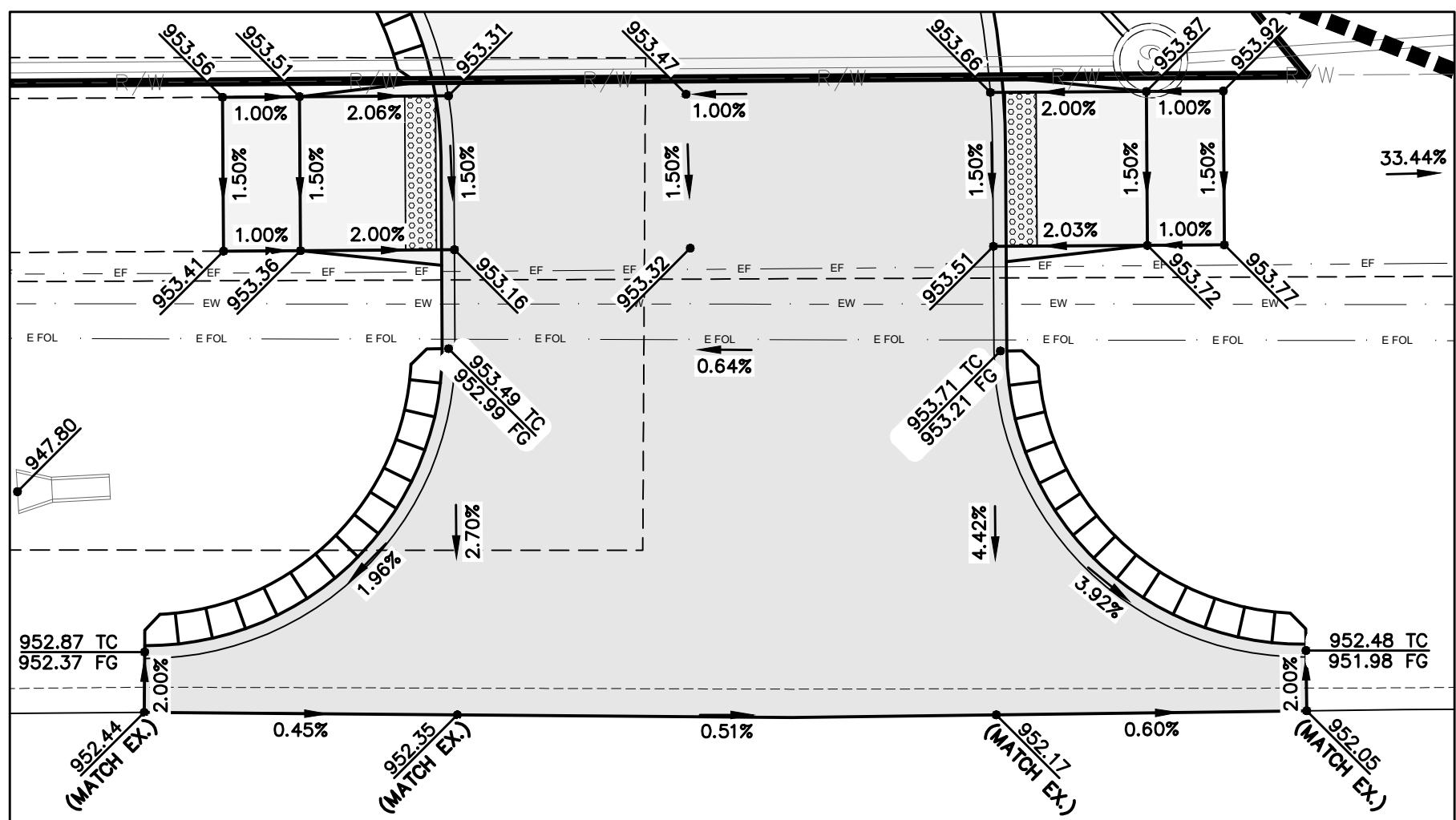
C-100

2306.385

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PLOT: 9/26/2023 11:27 AM
PLOT: 9/26/2023 11:27 AM



DETAIL 'A'



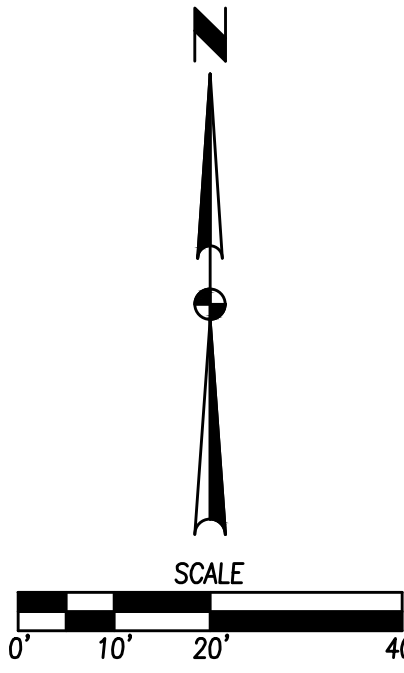
DETAIL 'B'

NOTES

1. REFER TO SHEET C-002 FOR NOTES.

LEGEND

PROPOSED
GROUND SURFACE CONTOUR TC
TOP OF CURB FG
FORM GRADE
EXISTING
GROUND SURFACE CONTOUR



DATE

09/26/2023

REVISIONS

SECOND SUBMITTAL

ENGINEER: GH

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO

BONDURANT, IOWA

CASEY'S - STORE #4396

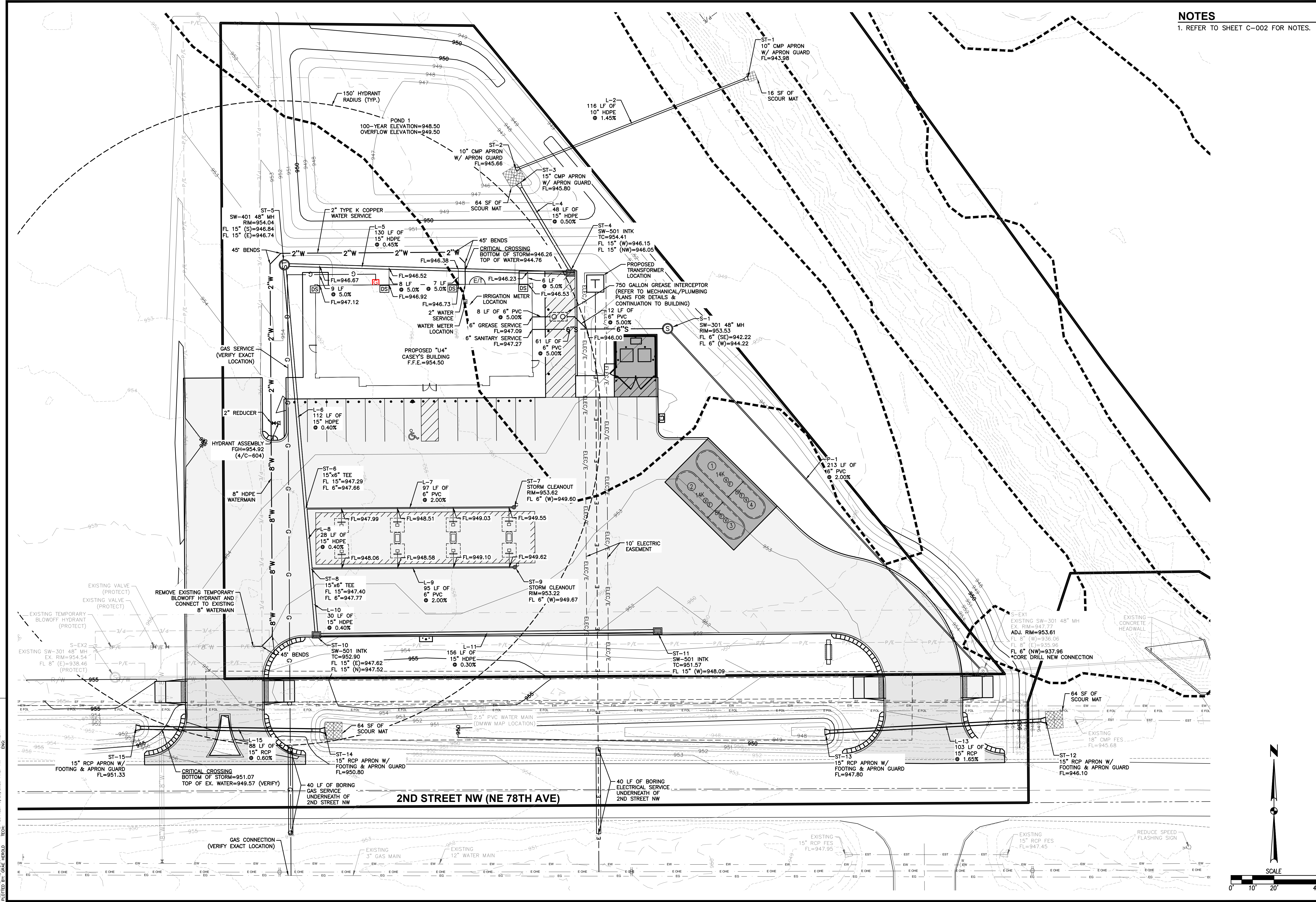
GRADING PLAN

SHEET NUMBER:

C-201

2306.385

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CHECKED BY: JAC
PLOT DATE: 9/26/2023 11:27 AM
PLOT BY: JAC



NOTES
1. REFER TO SHEET C-002 FOR NOTES.

REVISIONS		DATE	BY	CHKD
		09/26/2023		
		09/01/2023		

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: GH

ENGINEER: EKO

BONDURANT, IOWA

CASEY'S - STORE #4396
UTILITY PLAN

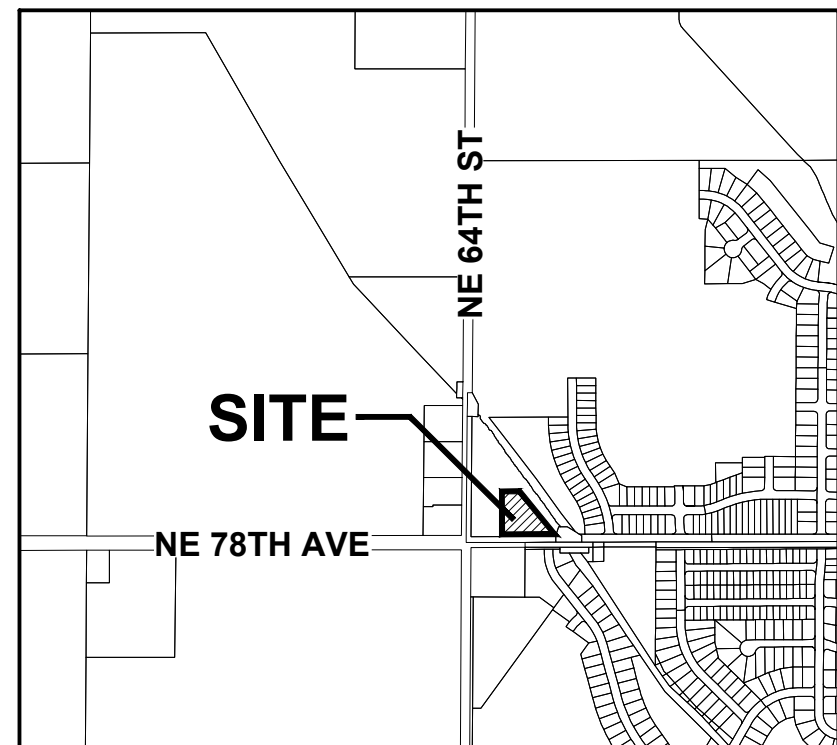
SHEET NUMBER:
C-301
2306.385

CASEY'S STORE #4396

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



BONDURANT, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	941
2	SOD	SF	11,473
3	SEED	SF	43,285
4	INLET PROTECTION DEVICES	EA	3
5	CONCRETE WASHOUT PIT	EA	1

DISCHARGE POINT SUMMARY

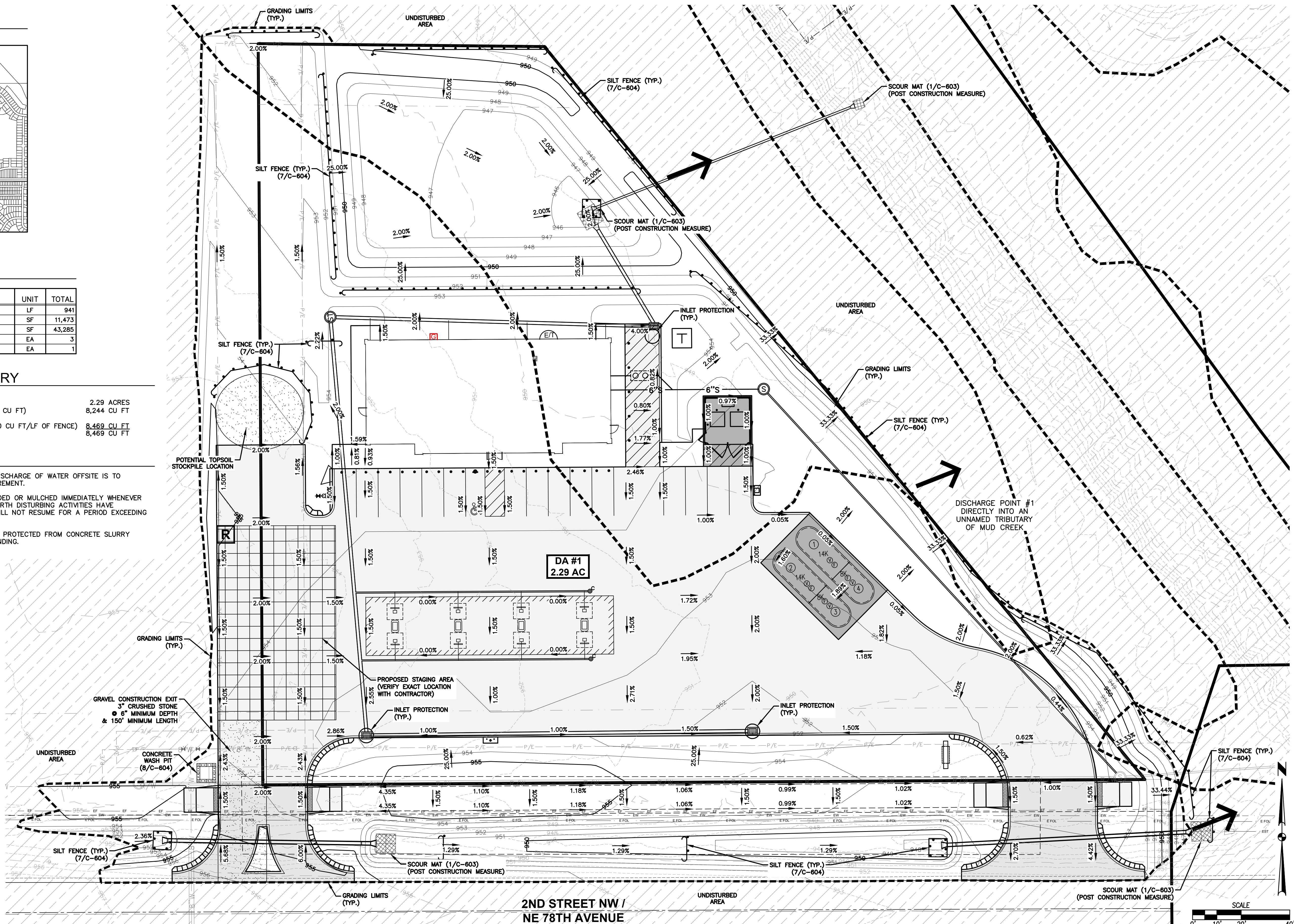
DISCHARGE POINT #1 DIRECTLY INTO MUD CREEK	2.29 ACRES
TOTAL AREA DISTURBED TO DISCHARGE POINT	8,244 CU FT
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	
VOLUME PROVIDED IN SILT FENCE (941 LF @ 9.0 CU FT/LF OF FENCE)	8,469 CU FT
TOTAL VOLUME PROVIDED	8,469 CU FT

NOTES:

- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
- DISTURBED AREAS SHALL BE TEMPORARILY SEED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.

SWPPP LEGEND

DRAINAGE ARROW	X.XX %
GRADING LIMITS	---
SILT FENCE	---
INLET PROTECTION	○
PORTABLE RESTROOM	R
CONCRETE WASHOUT PIT	□
UNDISTURBED AREA	▨
RIP-RAP	▨
GRAVEL ENTRANCE	▨
STAGING AREA	▨



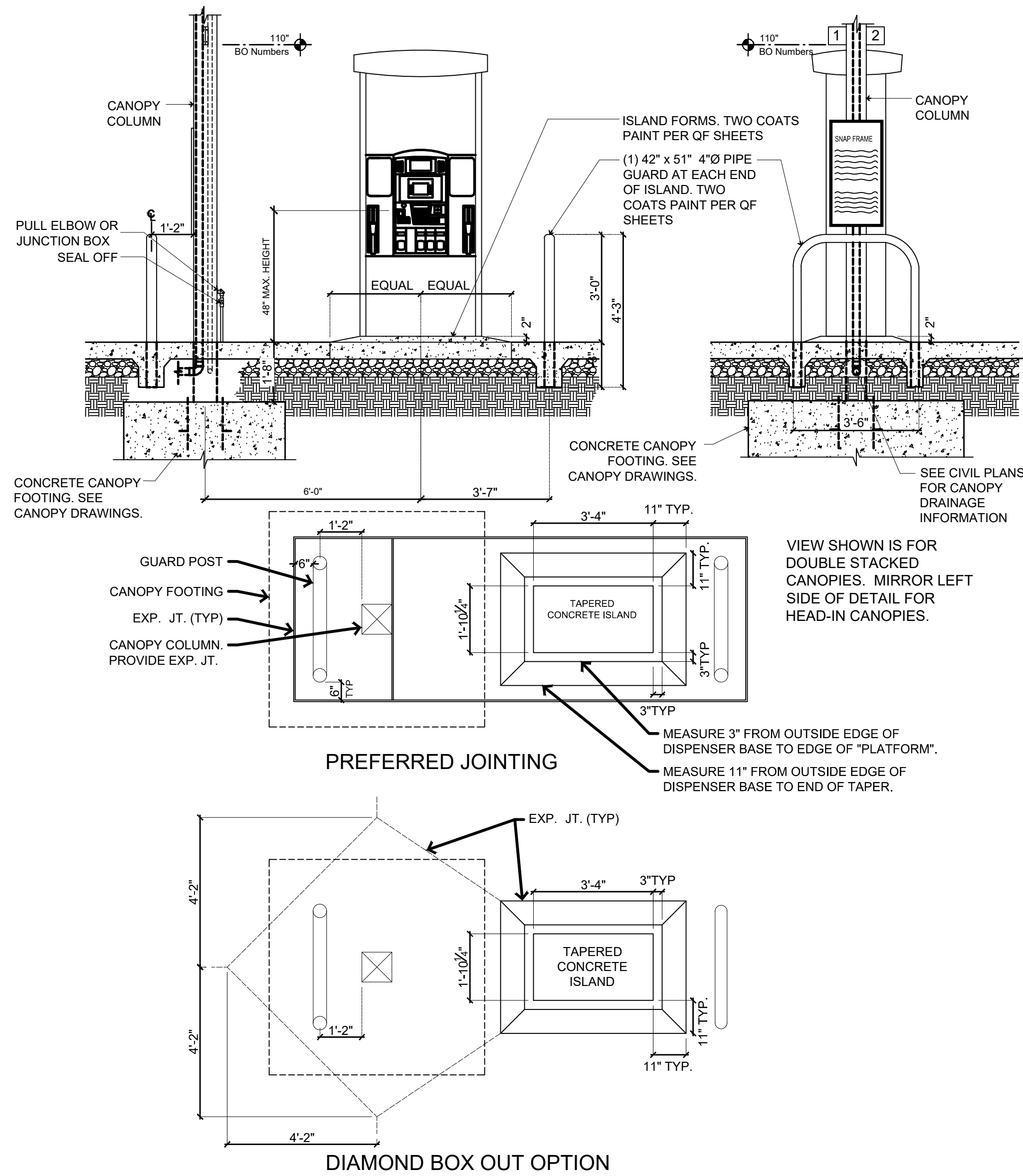
DATE: 09/26/2023
REVISIONS:
SECOND SUBMITTAL
FIRST SUBMITTAL

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: GH

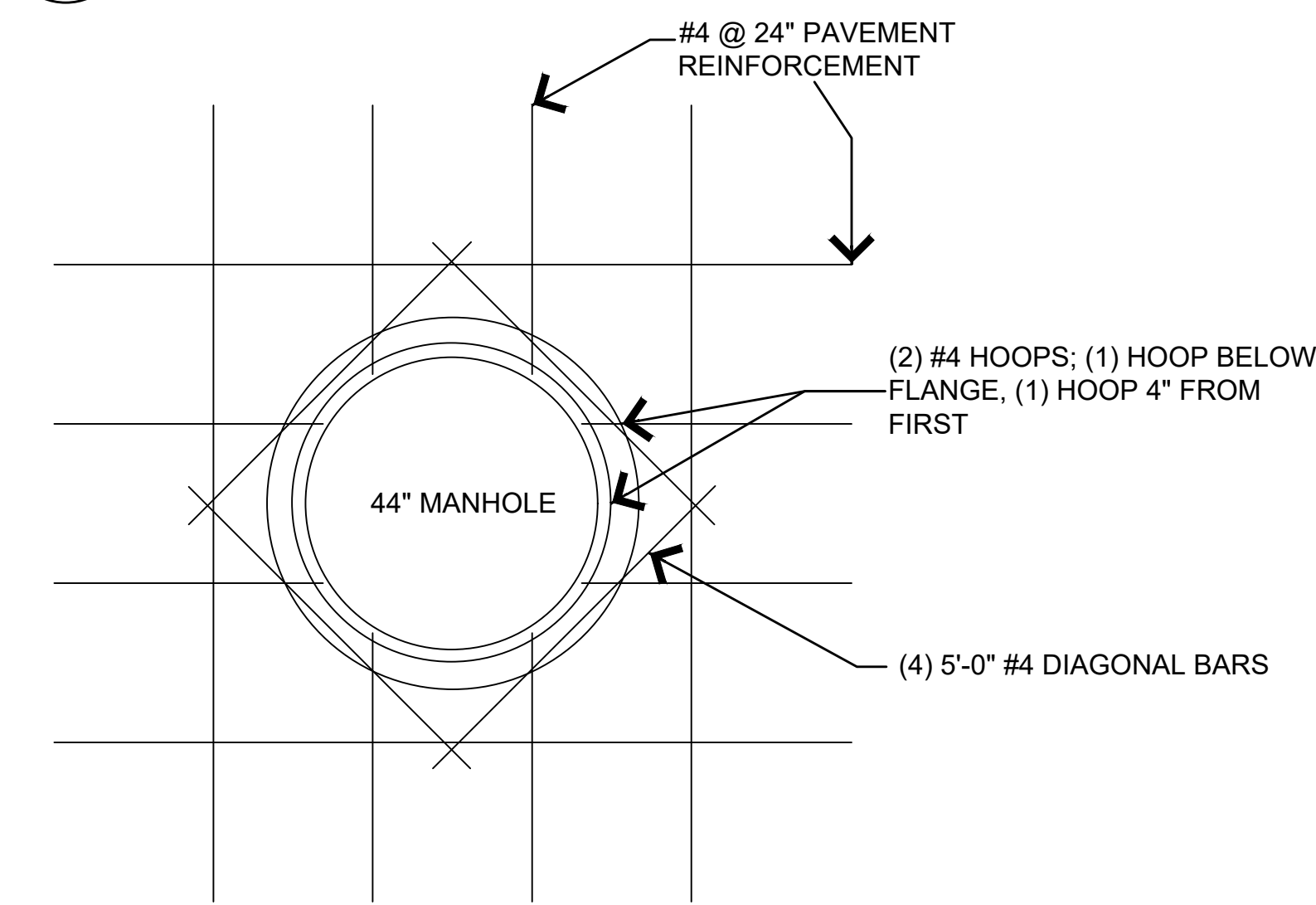
CIVIL DESIGN ADVANTAGE
BONDURANT, IOWA

CASEY'S - STORE #4396
EROSION AND SEDIMENT CONTROL PLAN
SHEET NUMBER:
C-401
2306.385

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1 GAS TAPERED FUEL ISLAND (PREFERRED OPTION)
Not to Scale

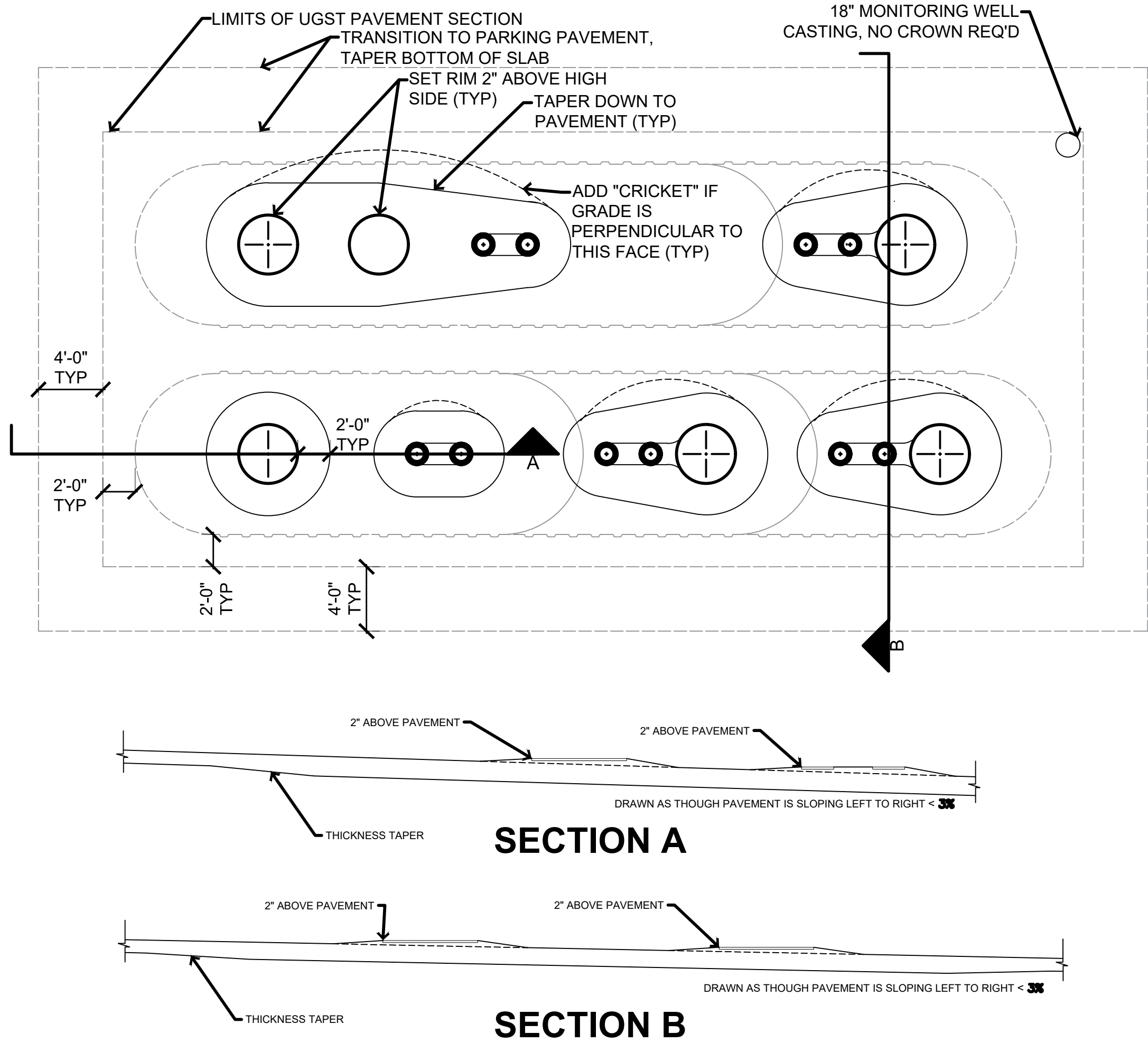


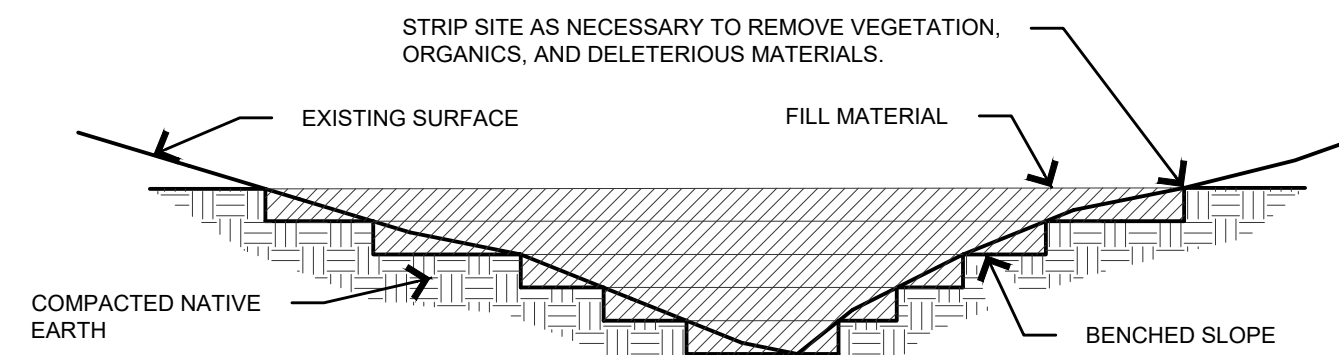
2 UGST Manhole Detail
1/2" = 1'-0"

General Notes:

- 1 ALL REINFORCING IS CENTER OF SLAB.

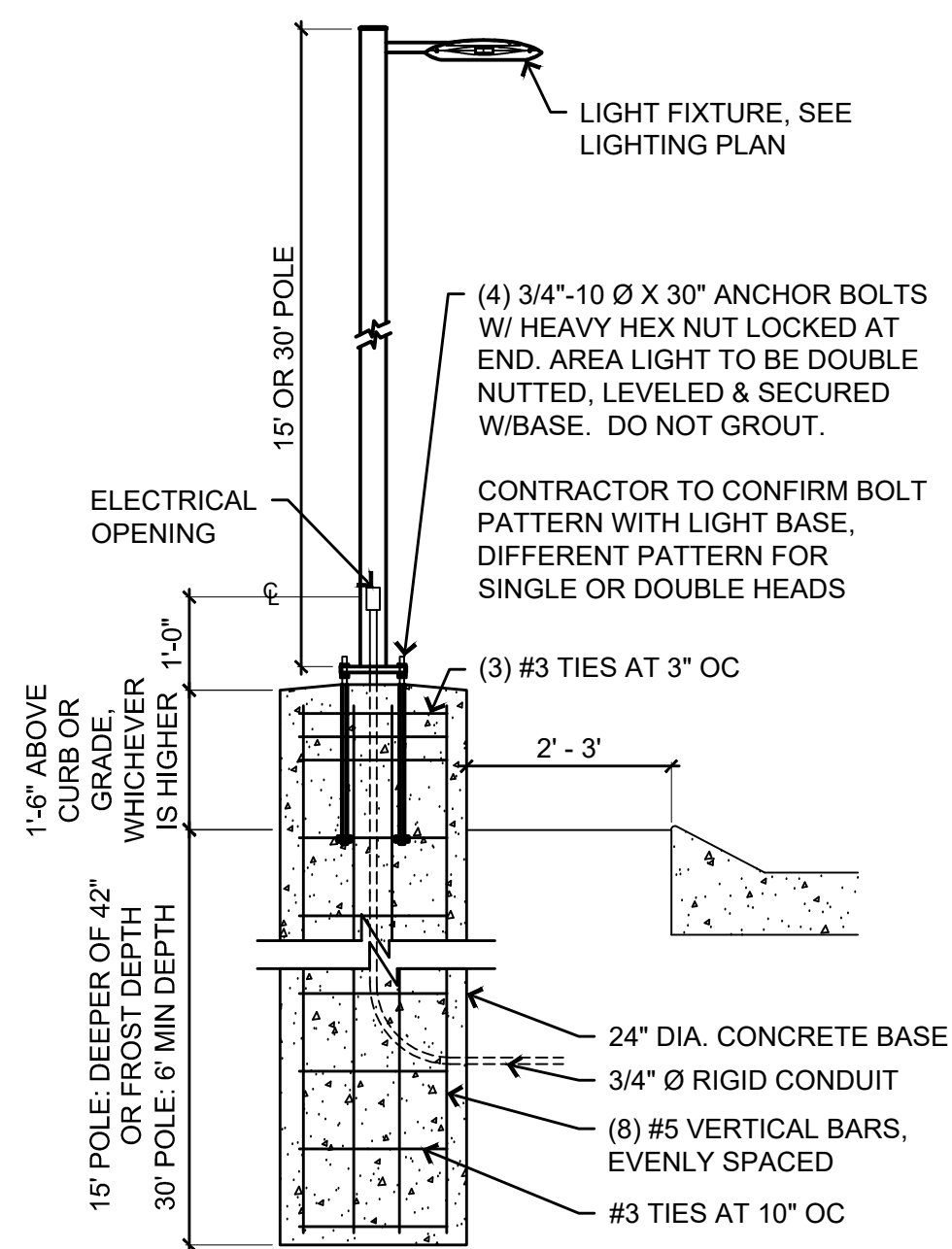
3 UGST PAVING FOR PAVEMENT SLOPE <3%
Not to Scale



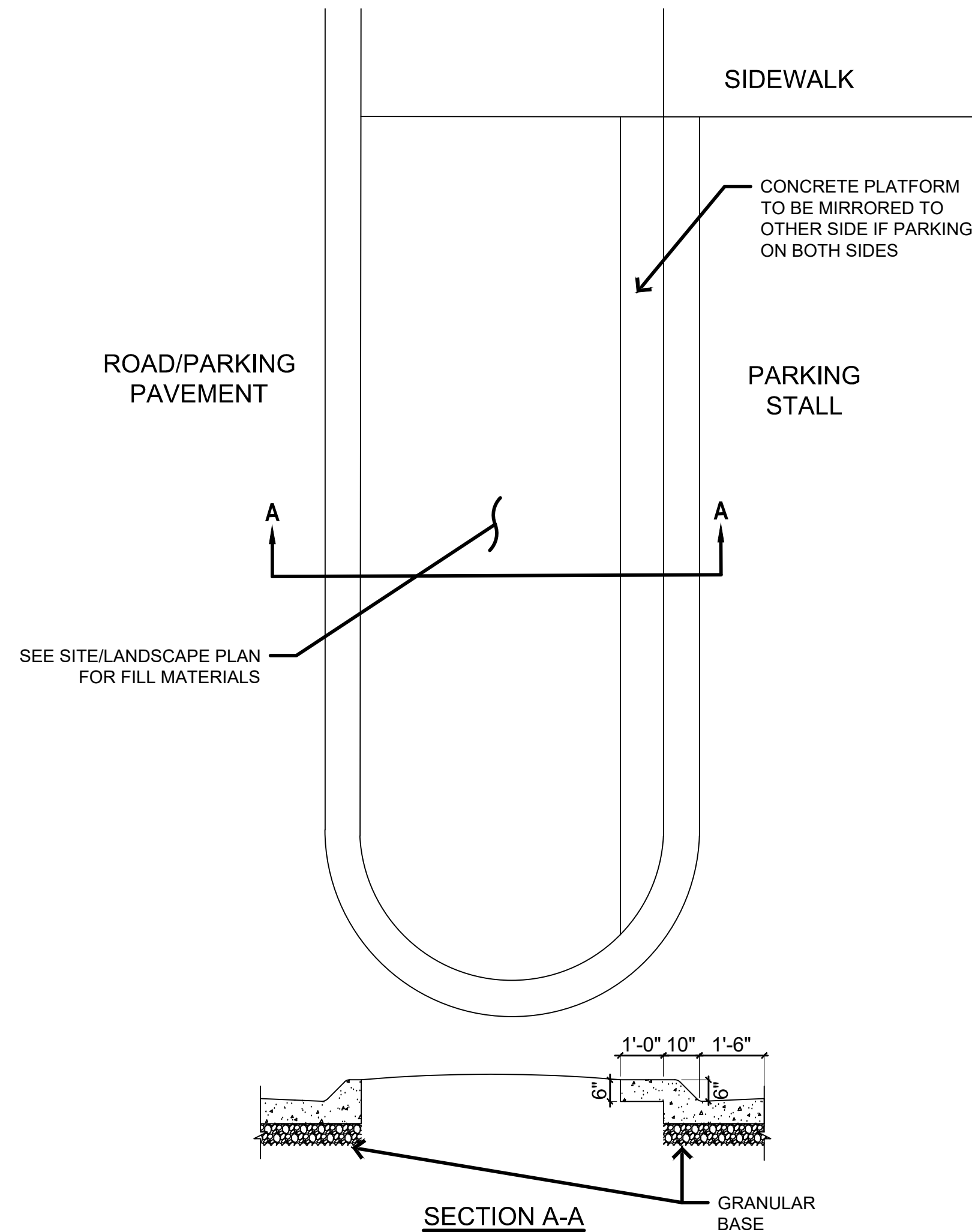


- NOTES:
1. BENCH SLOPES TO MAINTAIN VERTICAL SIDE SLOPES AT FILL LIMITS +/- 3' VERTICAL TO +/- 8' HORIZONTAL.
 2. COMPACTION SHALL BE IN 8" LIFTS TO 95% STANDARD PROCTOR OR OTHERWISE SPECIFIED IN GEOTECHNICAL REPORT.
 3. SCARIFY ORIGINAL GROUND AND BLEND WITH FIRST LIFT ON EACH BENCH.
 4. ALL FILL MATERIALS, INCLUDING FILL GENERATED ON-SITE, SHALL BE OF SUITABLE MATERIAL. UNSUITABLE FILL MATERIAL INCLUDES, BUT IS NOT LIMITED TO, SOIL THAT CONTAINS LARGE ROCKS, TREE AND PLANT ROOTS, CONCRETE TRASH, ETC.

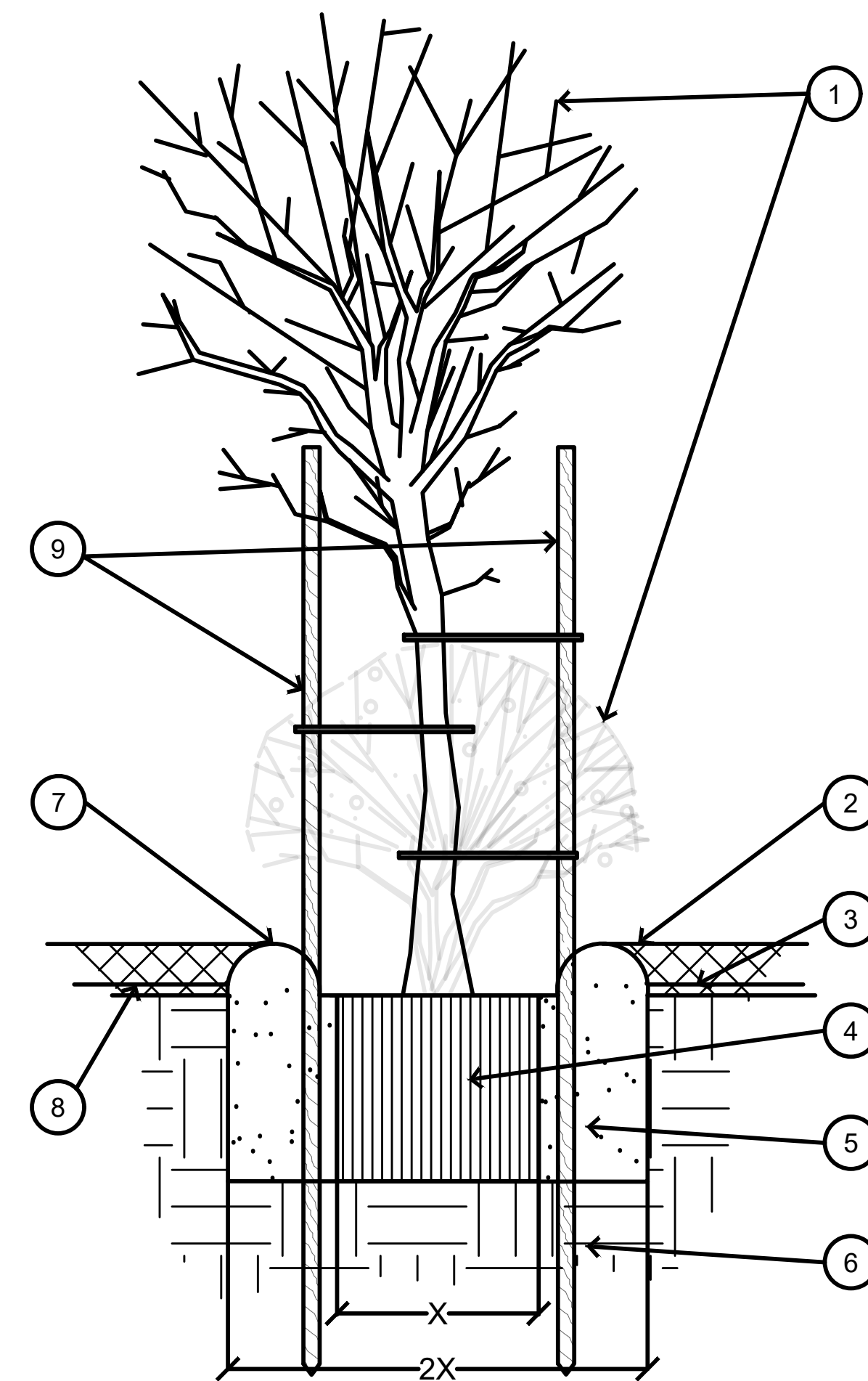
2 TYPICAL FILL SECTION



2 AREA LIGHTING



1 PARKING LANDSCAPE ISLAND DETAIL



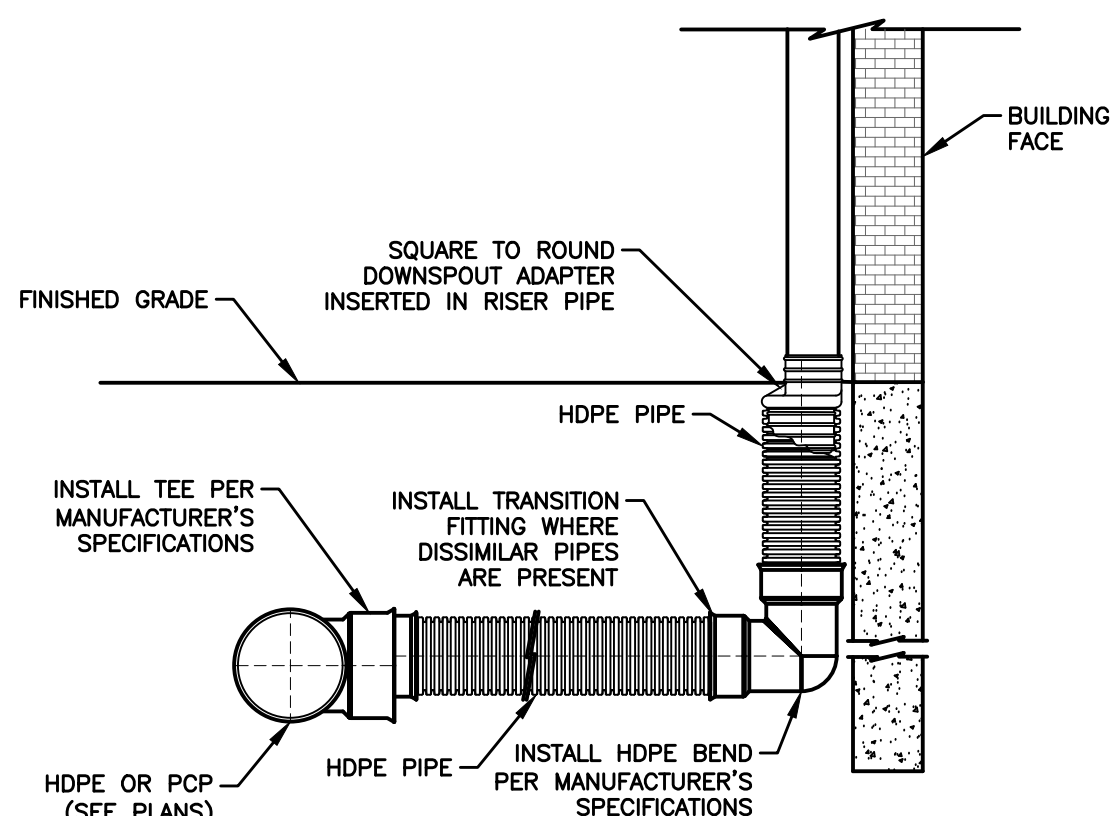
- 1 TREE/SHRUB, PERENNIAL, OR ORNAMENTAL GRASS.
- 2 GROUND COVER: 3" DEPTH OF 3/4" WASHED STONE OR WASHED BRICK CHIPS AS INDICATED IN LANDSCAPING PLAN.
- 3 FINISH GRADE.
- 4 ROOT BALL.
- 5 BACKFILL. AMEND AND FERTILIZE AS RECOMMENDED BY LOCAL SUPPLIER
- 6 UNDISTURBED NATIVE SOIL.
- 7 3" HIGH EARTHEN WATERING BASIN.
- 8 HEAVY WEED FABRIC UNDER GROUND COVER.
- 9 FOR TREES, 2 STAKES/GUIDEPOSTS MIN; 3 REQ ON SLOPES WITH TIES

5 PLANT/TREE INSTALLATION

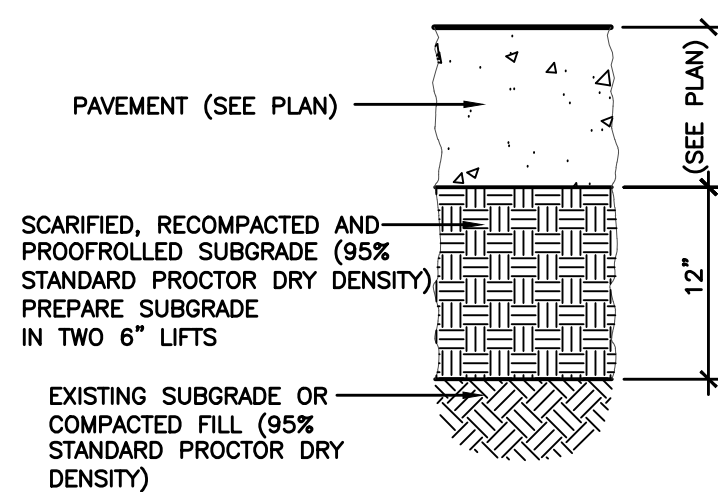


-
- DRIVEWAY WIDTH AS SPECIFIED
- 'E' JOINT
- 'B' JOINT
- PROPERTY LINE
- 1'-0" MIN.
- 'C' OR 'E' JOINT
- 8
- 9
- 10
- 2
- 'C' JOINT
- CURB OPENING
- REFER TO DETAIL B
- BACK OF CURB
- TYPE A WITH RADII
- 5 #5 x 36" REINFORCING BAR
- 1 R
- 2
- 1'-0"
- 1'-0"
- BACK OF CURB
- 7
- DETAIL B

Not to Scale



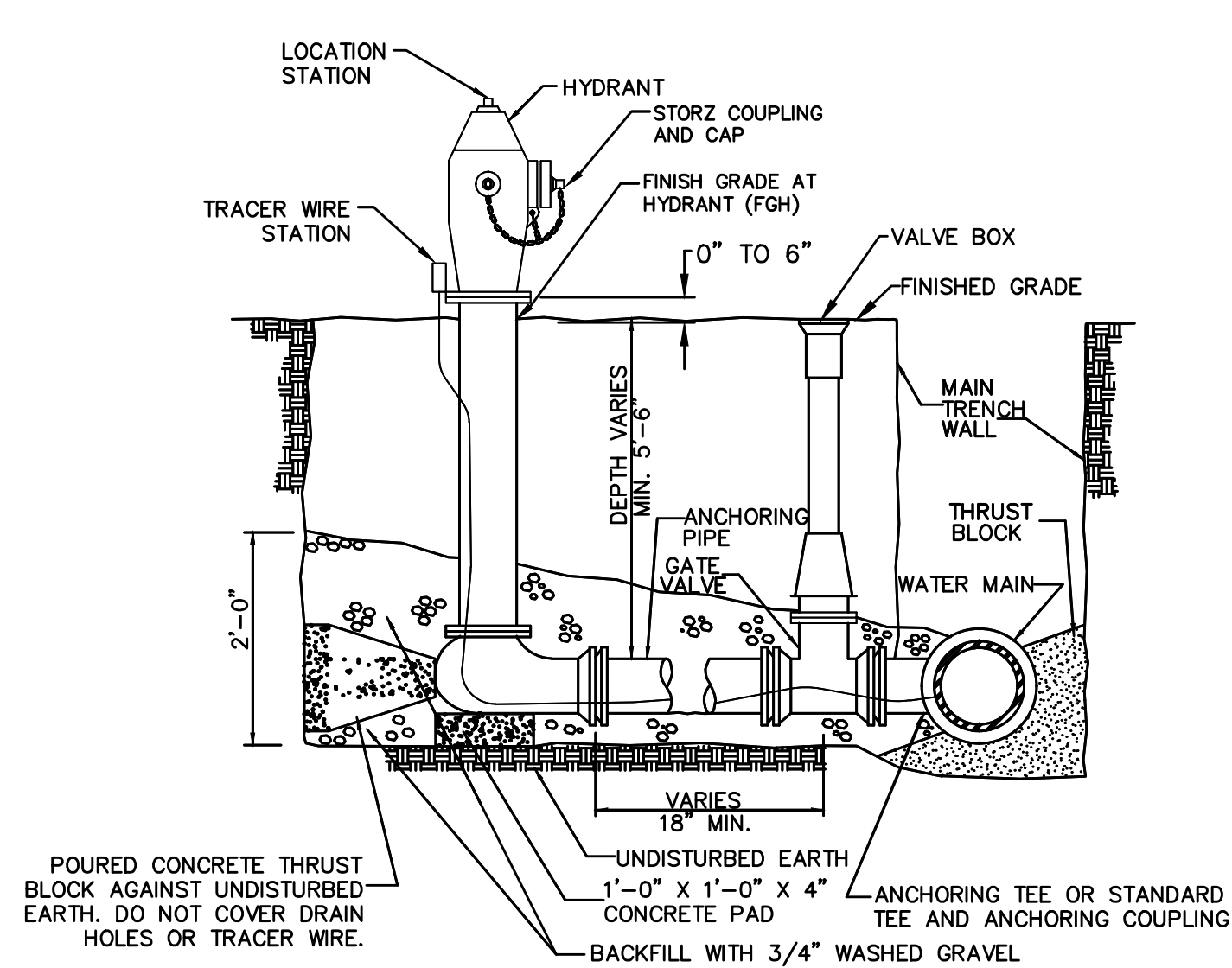
Not to Scale



NOTE:

1. SUBGRADE PREPARATION SHALL EXTEND 24" BEYOND EDGE OF PAVING OR BACK OF CURB, EXCEPT WHEN ABUTTING EXISTING PAVEMENT.

Not to Scale

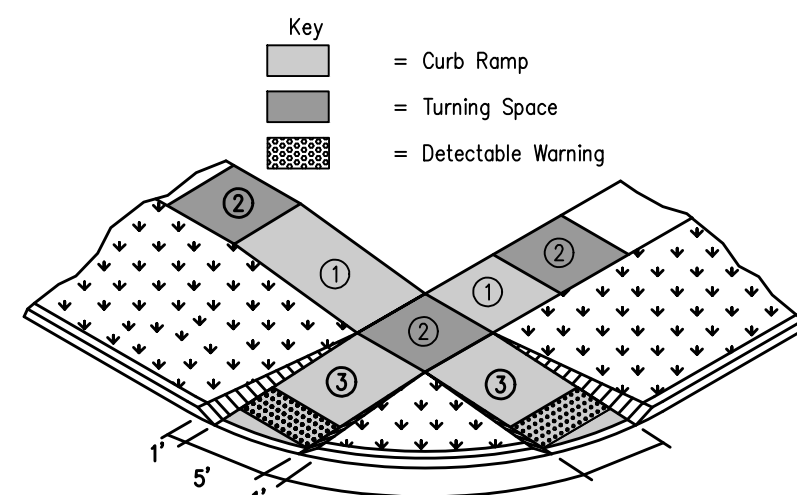


NOTES

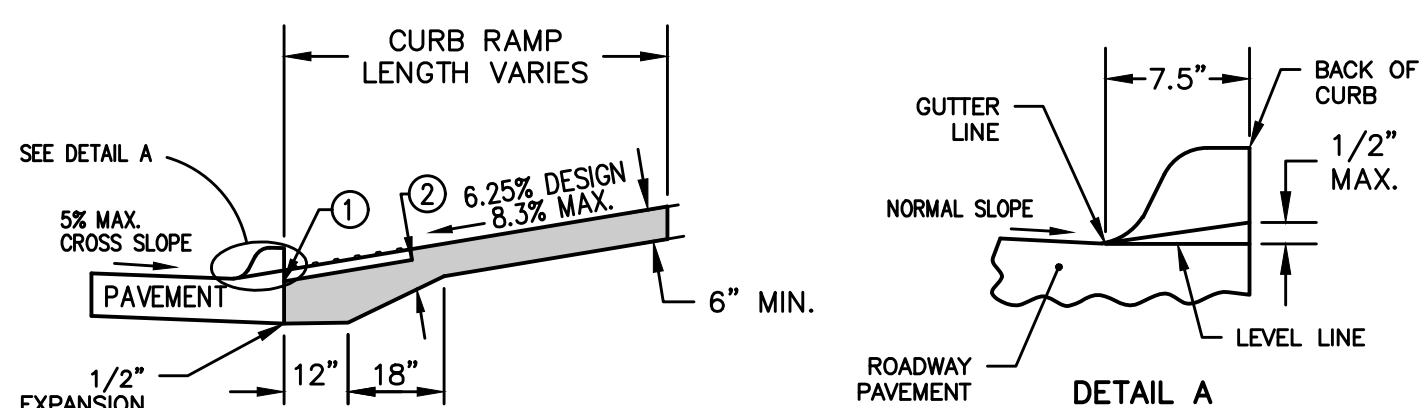
1. MINIMUM SIZE FOR PIPING, VALVES AND FITTINGS FROM WATERMAIN TO HYDRANT INLET: 6".
2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT.

Not to Scale

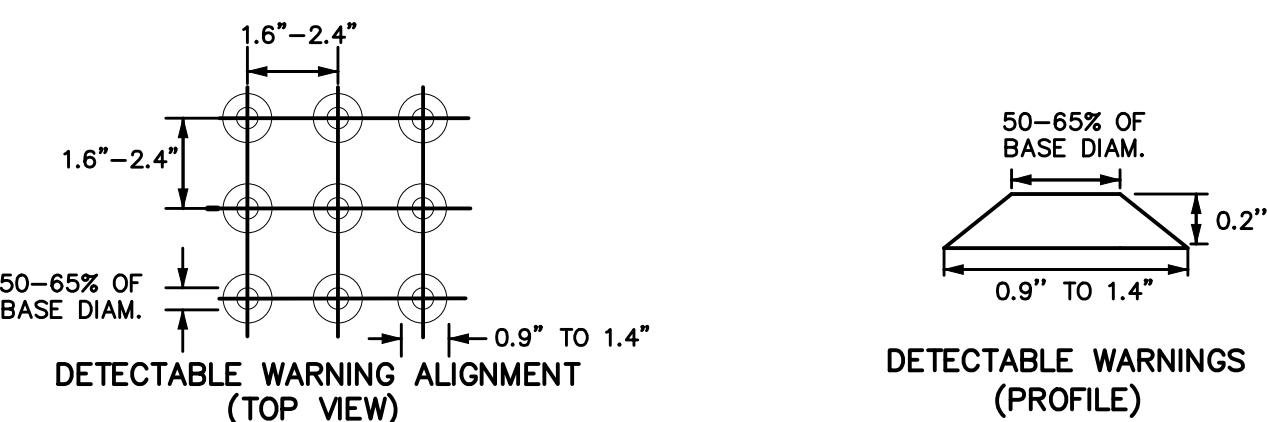
- ① **Parallel Curb Ramp:** If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.
The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
- ② **Turning Space:** Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 5 feet by 5 feet.
- ③ **Perpendicular Curb Ramp:** Target running slope of 6.25% with maximum running slope of 8.3%.
- ④ Target cross slope of 1.5% with a maximum cross slope of 2.0%
- ⑤ Match pedestrian street crossing cross slope or flatter



Not to Scale



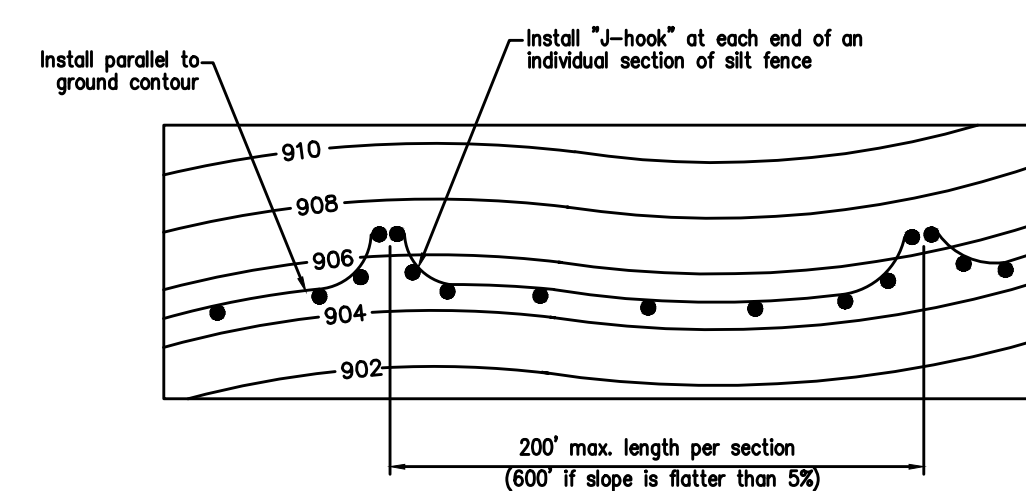
- ① INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.
- ② PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.



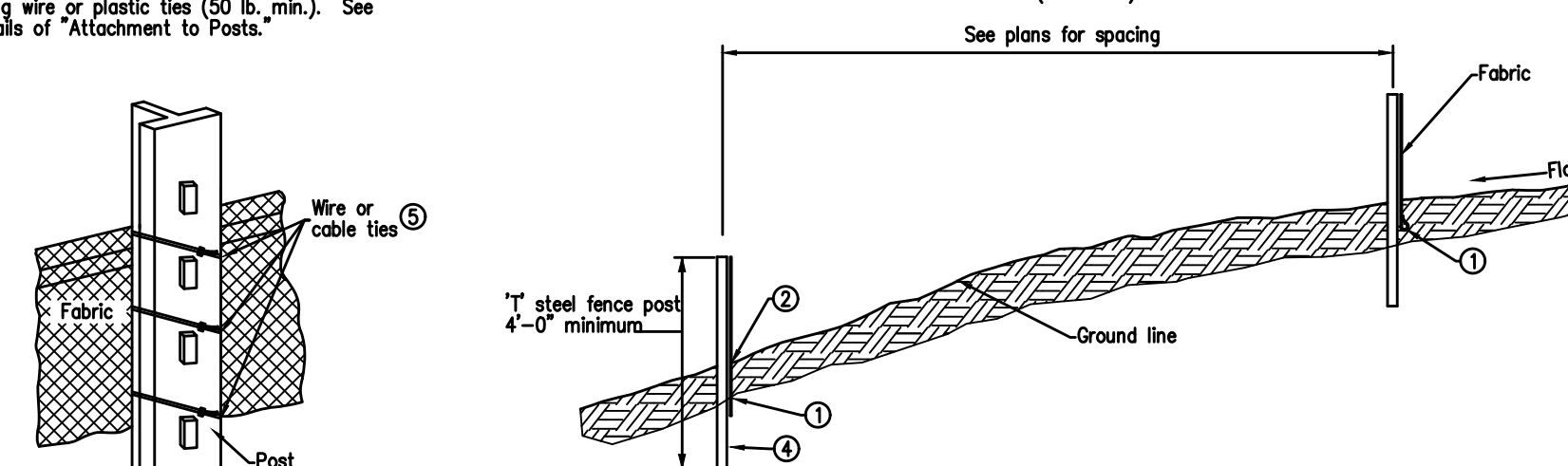
Not to Scale

Install silt fence according to the requirements of the project specifications and at locations shown in the contract documents or as directed by the Engineer.

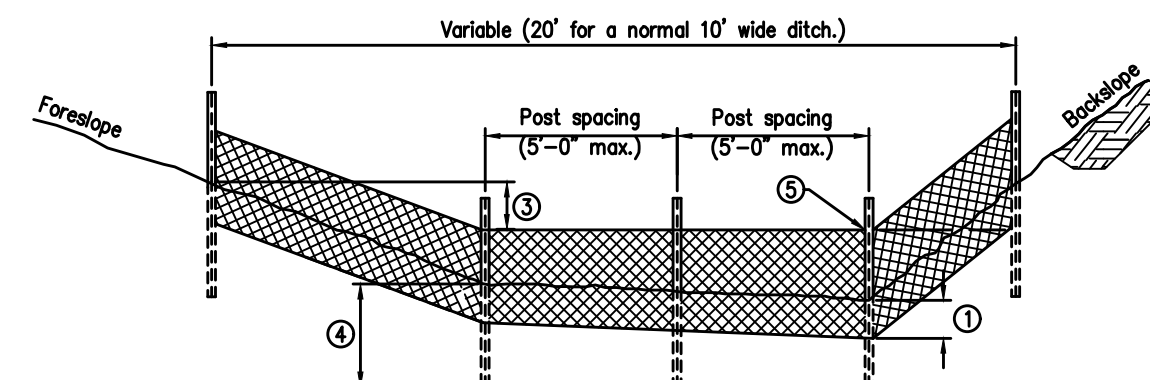
- ① Insert 12 in. of fabric a minimum of 6 in. deep (fabric may be folded below the ground line).
- ② Compact ground by driving along each side of the silt fence as required to sufficiently secure the fabric to the ground to prevent pullout and flow under the fence.
- ③ In ditches, extend silt fence up side slope so the bottom deflection at the end of the fence is a minimum of 2 in. higher than the top of the fence in the low point of the ditch.
- ④ Steel posts to be embedded 20 in. unless otherwise allowed by the Engineer.
- ⑤ Secure top of engineering fabric to steel posts using wire or plastic ties (50 lb. min.). See details of "Attachment to Posts."



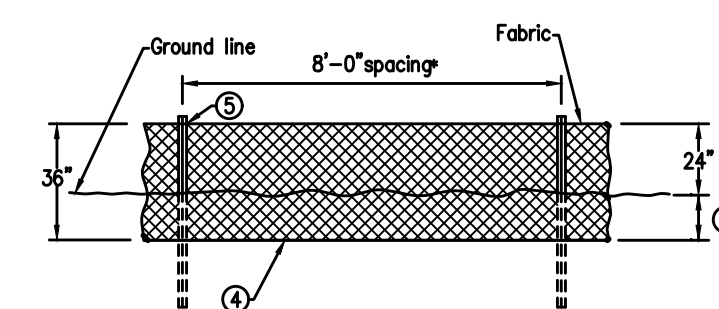
TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Plan View)



ATTACHMENT TO POST

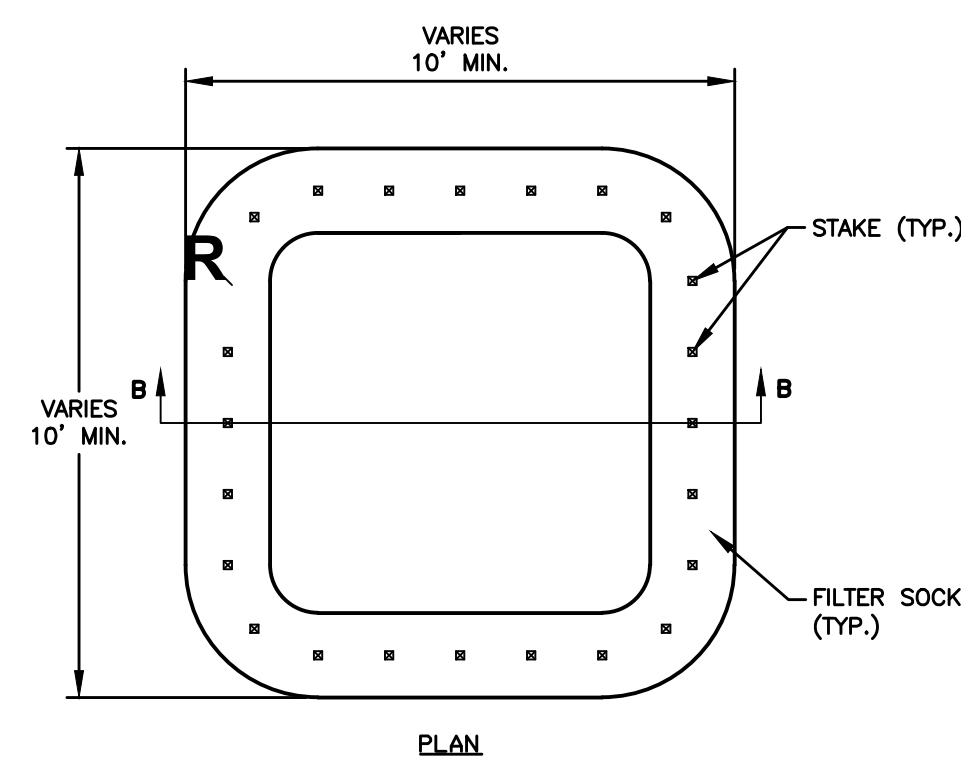


TYPICAL SILT FENCE DITCH CHECK

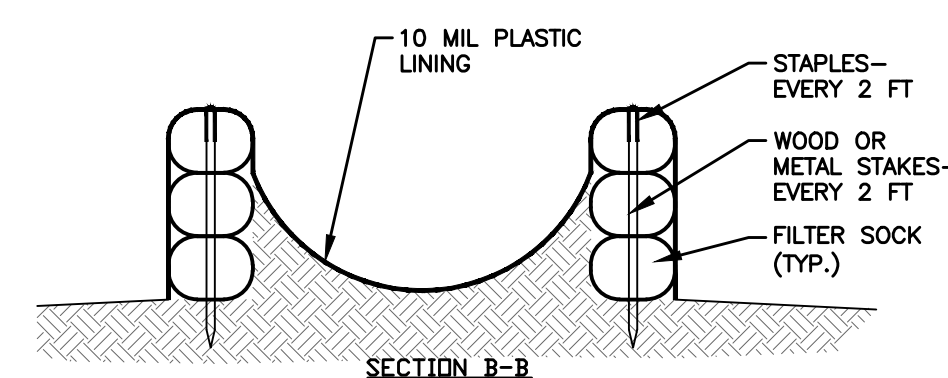


DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES
 *Reduce post spacing to 5'-0" at water concentration area
 or as required to adequately support fence

Not to Scale



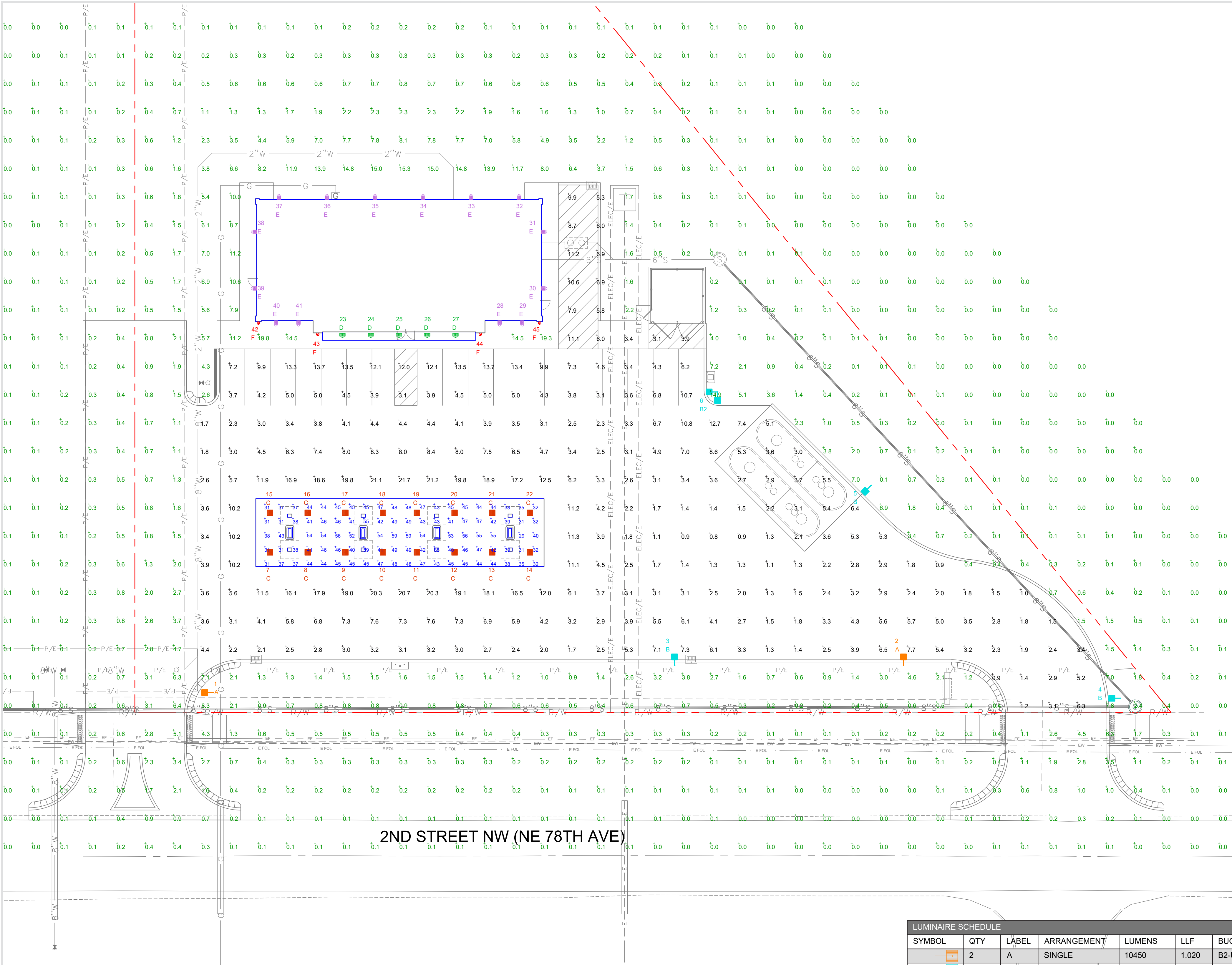
PLAN



SECTION B-B

- NOTES:
1. ACTUAL LAYOUT AND LOCATION TO BE DETERMINED IN FIELD BY THE CONTRACTOR.
 2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
 4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 75% FULL.

Not to Scale



NOTE:
- ALL AREA LIGHTS ARE ON NEW 17 FT. POLES MOUNTED ON 2 FT. CONCRETE BASES.

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A	17
2	A	17
3	B	17
4	B	17
5	B	17
6	B2	17
7	C	16.5
8	C	16.5
9	C	16.5
10	C	16.5
11	C	16.5
12	C	16.5
13	C	16.5
14	C	16.5
15	C	16.5
16	C	16.5
17	C	16.5
18	C	16.5
19	C	16.5
20	C	16.5
21	C	16.5
22	C	16.5
23	D	10
24	D	10
25	D	10
26	D	10
27	D	10
28	E	13
29	E	13
30	E	13
31	E	13
32	E	13
33	E	13
34	E	13
35	E	13
36	E	13
37	E	13
38	E	13
39	E	13
40	E	13
41	E	13
42	F	8.75
43	F	8.75
44	F	8.75
45	F	8.75

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES

LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
01_UNDER CANOPY	43.34	59	29	1.49	2.03
02_PAVED AREA	5.81	21.7	0.8	7.26	27.13
03_UNDEFINED AREA	1.05	19.8	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE									
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	CATALOG LOGIC
	2	A	SINGLE	10450	1.020	B2-U0-G2	97	194	OSQ-ML-C-DA-XX + OSQM-C-16L-57K7-3B-UL-NM-XX-Q9
	3	B	SINGLE	9575	1.020	B2-U0-G2	97	291	OSQ-ML-C-DA-XX + OSQM-C-16L-57K7-4B-UL-NM-XX-Q9
	1	B2	2 @ 90 DEGREES	9575	1.020	B2-U0-G2	97	194	OSQ-ML-C-DA-XX + OSQM-C-16L-57K7-4B-UL-NM-XX-Q9
	16	C	SINGLE	13518	1.020	B3-U3-G2	81	1296	CP5-13L-57K7-DF-UL-DM-XX-Q9 + CP5-BZ-SP-XX
	5	D	SINGLE	3902	1.030	B2-U0-G0	34	170	SFT-228-PS-RM-03-E-UL-XX-350-IC-57K
	14	E	SINGLE	8739	1.030	B2-U0-G2	101	1414	SEC-EDG-3M-WM-06-E-UL-XX-525-57K
	4	F	SINGLE	2849	1.000	B2-U5-G0	53	212	FCC618W-UNV-930-1515L-BRE-D15U15-LD

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SCALE:
1" = 20'
DWG SIZE:
D

LAYOUT BY:
RCF
DATE:
09/28/2023

PROJECT NAME:
CASEY'S #4396
BONDURANT, IA
DRAWING NUMBER:
RL-9152-S1



REDLEONARD
ASSOCIATES
1340 Kemper Meadow Dr. Forest Park, OH 45240
513-574-9500 | redleonard.com

	QTY	LABEL	DESCRIPTION
AREA	2	A	OSQ-ML-C-DA-XX + OSQM-C-16L-57K7-3B-UL-NM-XX-Q9
	3	B	OSQ-ML-C-DA-XX + OSQM-C-16L-57K7-4B-UL-NM-XX-Q9
	1	B2	OSQ-ML-C-DA-XX + OSQM-C-16L-57K7-4B-UL-NM-XX-Q9

ADDITIONAL FIXTURE INFO

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComf™ Technology – Version C

Product Description
The OSQ™ LED luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathering LED driver enclosure. Versatile mounting configurations allow simple installation, low tilt, low-profile design minimizes wind and wind-borne debris and provides easy access to the pendant eye, quality luminaire. Includes a suitable upgrade for HID applications up to 400 Watts. Large is suitable upgrade for HID applications up to 300 Watts. Extra Large is suitable upgrade for HID applications up to multiple 100 Watts.

Applications: Parking lots, walkways, campuses, car dealerships, offices, high-mast and internal roadways.

Performance Summary

Patented NanoComf™ Technology

Unique One TouchMount™ Technology on 5000K+ luminaires

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: 4,000 – 75,000

Efficiency: Up to 171 LPW

CRB: Minimum 70 CRB (5000K, 4000K & 5700K), 90 CRB (5000K)

Limited Warranty: 10 years for luminaires; 10 years for Colorfast DetailGuard® finish; 5 years for BML sensors; up to 5 years for Synapse accessories; 1 year for luminaire accessories.

See this document for details on warranty terms. For details on warranty terms, see this document for details on warranty terms.

Ordering Information

Mount Lumens must be ordered separately

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	QTY	LABEL	DESCRIPTION
CANOPY	16	C	CP5-15L-57K7-DF-UL-DM-XX-Q9 + CP5-BZ-SP-XX

CPY500™ Series

CPY500™ LED Canopy Luminaire – Direct Mount

Product Description
The CPY500™ LED luminaire features a large 11" x 11" glass optic that delivers the best in visual comfort and performance. Diffused optics minimize glare and increase visual comfort while delivering top-of-the-canopy LED efficiency and high-performance light distribution. The black and white optic lens directs into the canopy while still being easily perceivable from below. Above the canopy is a uniquely angled vented armature around the housing allows the CPY500™ Series to easily install around existing structures, making a clean fit for retrofit or new construction applications. Optional bezels provide enhanced aesthetics and optical control to minimize spillage yet retain the view of drivers.

Applications: Perimeter canopies, CNC lathing systems

Performance Summary

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 20,000

Efficiency: Up to 175 LPW

CRB: Minimum 70 CRB (500K, 50K, 57K, 60 CRB (500K), 90 CRB (500K, 50K)

CRB: Minimum 70 CRB (500K, 50K, 57K, 60 CRB (500K), 90 CRB (500K, 50K)

Limited Warranty: 10 years on luminaires; 10 years on Colorfast DetailGuard® finish; 5 years for BML sensors; up to 5 years for Synapse accessories; 1 year for luminaire accessories.

See this document for details on warranty terms. For details on warranty terms, see this document for details on warranty terms.

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	QTY	LABEL	DESCRIPTION
SOFFIT	5	D	SFT-22B-PS-RM-03-E-UL-XX-350-IC-57K

228 Series™

LED Soffit Luminaire – IC Rated

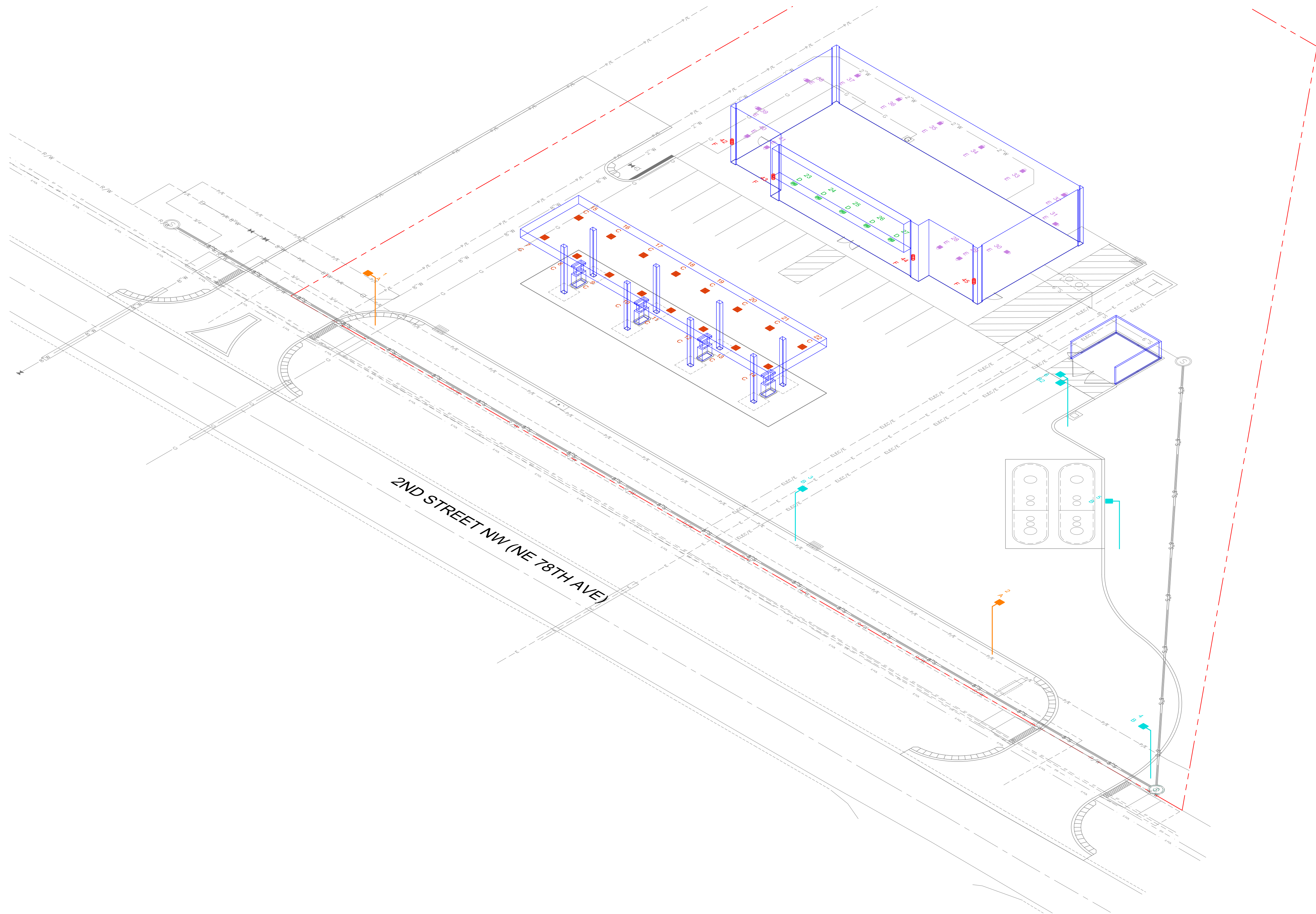
Product Description
High performance efficient LED down light designed for use in new construction or remodel applications where there is direct contact with insulation. The recessed mount is for use in gabled, gabled or hard to install with 1" x 1" diameter in center building construction. Heavy gauge steel recessed mounting frame features 1" x 1" diameter deep aperture flange to accommodate standard ceiling thicknesses, and a universal mounting bracket that accepts 3" x 1" diameter EMT. C-channel mounting bars or flat bar hangers with 1" x 1" diameter vertical adjustment from either above or below the ceiling. An oversized junction box is rated for up to 400W load with EMT. The recessed mount is entirely supported by the ceiling material and is designed to accept ceiling thickness from 0.125" to 2.5" (57mm) and is an ideal replacement for recessed 1" (25mm) square HID luminaires.

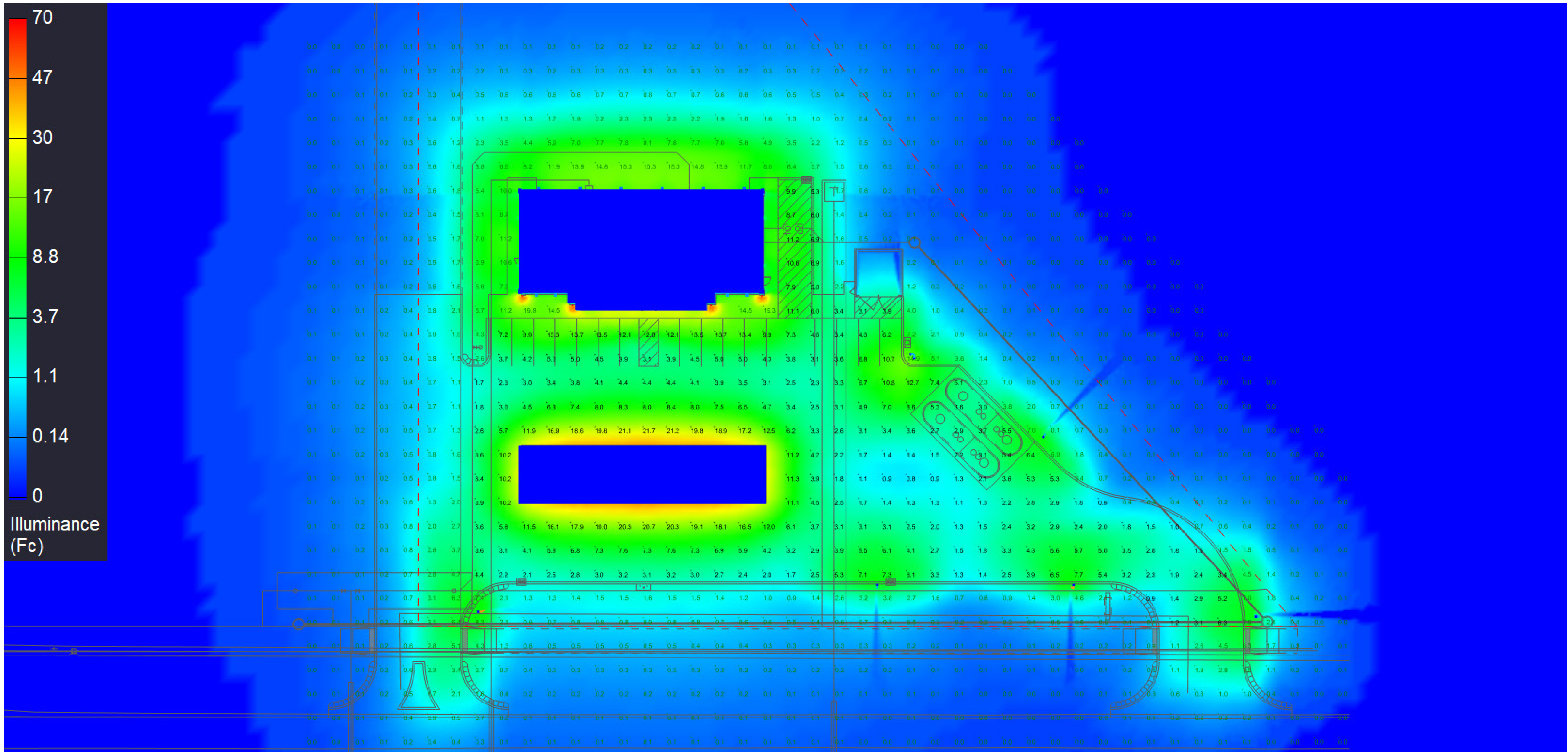
Applications: Perimeter canopies, soffits, indoor retail or industrial spaces

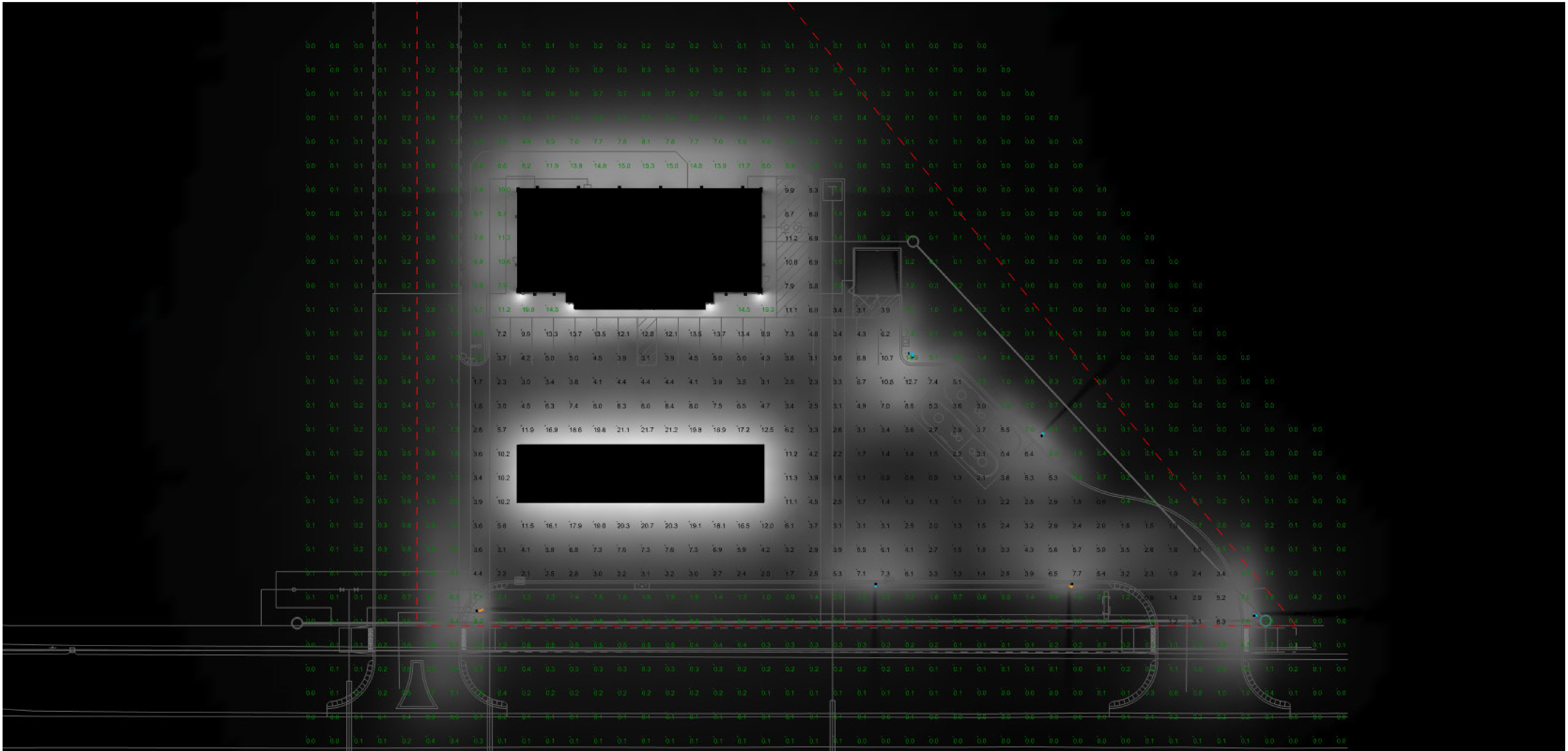
Performance Summary

Patented NanoComf™ Product Technology

Assembled in the U.S.A. of U.S. and imported parts









FRONT



BACK



FRONT ELEVATION



RIGHT ELEVATION



BACK ELEVATION



LEFT ELEVATION



**BUSINESS OF THE CITY COUNCIL
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 8.e.
For Meeting of 10/16/2023
Resolution

TITLE: - Resolution considering approval of Skol Trucking Site Plan

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director
Isaac Pezley, City Planner

BRIEF HISTORY & ANALYSIS: The City is in receipt of a site plan for review by the Planning & Zoning Commission and City Council for the existing 4.18-acre parcel of land accessed from Robinson Avenue NE. The site plan applicant is Bondurant Business Park LLC with Series 14-8128. The site plan was prepared by Pelds Design Services. The applicants are proposing twenty park parking spaces for large trucks and a processing area for crushing and storage of concrete. This property is zoned as being within the City's Medium Industrial (M-2) District. The use of the property will be truck parking and processing.



When the Planning & Zoning Commission and City Council review site plans, they review for consistency with the following documents: Comprehensive Plan; Zoning Code; and Comments from City Officials.

Consistency with the City's Comprehensive Plan: A M-2 development at this location is consistent with the 2022 Comprehensive Plan which guides for Regional Commercial at this location.

Consistency with the City's Zoning Code: Below are notes detailing how the Zoning Code is met for this request or what additional information is needed to ensure the Code will be met for this

development.

General Commercial Use & Bulk

- Outdoor storage area is proposed for the majority of this site. This portion is not required to be paved as it was submitted prior to the adoption of new code requirements regarding outdoor storage surface requirements.
- The site plan labels the required setbacks at this location - a 30' front yard setback along Robinson Avenue NE, a 40' rear yard setback along the northern property line and 20' side yard setbacks along the eastern property line.

Parking/Drive Areas

- Access to the site is available from Robinson Avenue NE.
- The parking lot will allow for 24 large truck stalls. The stalls are 12'x27' are the site plan notes they are intended for dump trucks.
- The site plan shows that no part of any parking/drive area (excluding driveways) will be located closer than 3' away from the front property lines, as is required by Section 177.10.1.
- The site plan shows that all parking/drive areas will be paved as required by Section 177.10.2 of the Zoning Code.
- The site plan notes there is one parking stall per employee.
- The site plan shows 24 parking spaces
- The site plan shows parking spaces will be provided with raised curbing or equivalent, as is required by Section 177.10.8.

Stormwater, Utilities & Natural Features

- A stormwater management report has been submitted for review by the City Engineer. All preliminary comments submitted by V&K have been addressed.
- This property is located within the Urban Service Area Sanitary Sewer Connection Fee District.
- This property is located within the Park Side Water Connection Fee District.
- This site is not situated within FEMA's 100-year floodplain.
- This site is not situated within the City's Stream Buffer Ordinance area.

ARCHITECTURAL STANDARDS

- There are no planned structures on this site.

Other Site Plan Features

- Staff commented about the setback of the proposed fuel tank. This tank will be 6'4" from the closest property line which exceeds accessory structure setback requirements. The tank may also be subject to regulations enforced by the Fire Chief.

Comments from City Officials:

The following City departments were notified of the submitted site plan:

1. Public Works - reviewed and all comments/concerns have been addressed.
2. Engineering – reviewed and all comments/concerns have been addressed.
3. Fire Department - reviewed and all comments/concerns have been addressed.

FUNDING SOURCE:

STAFF RECOMMENDATION: The following options exist for the City Council:

1. Approval of RESOLUTION.
2. Approval of RESOLUTION, subject to certain Zoning Code clarification items being addressed.
3. Denial of RESOLUTION.
4. Table pending additional information.

Staff recommends approval of RESOLUTION, regarding recommended approval of the 2465 Robinson Avenue NE site plan.

The Planning and Zoning Commission voted 6-0 to recommend approval of the submitted site plan at their October 12, 2023 meeting.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESOLUTION NO. 231016-217
2. Site Plan

CITY OF BONDURANT
RESOLUTION NO. 231016-XXX

RESOLUTION REGARDING APPROVAL OF THE SITE PLAN FOR 2465 ROBINSON
AVENUE NE, BONDURANT, IOWA

WHEREAS Pelds Design Services submitted the site plan for 2465 Robinson Avenue NE described as follows; AND

LOTS 10 AND 11 IN BONDURANT INDUSTRIAL PLAT, ALL BEING IN AND FORMING A PART OF THE CITY OF BONDURANT, POLK COUNTY, IA.

WHEREAS the zoning for the property is Medium Industrial (M-2) and a truck storage and processing use is a permitted use per Sections 178.14 of the Zoning Code; AND

WHEREAS the Planning and Zoning Commission voted 6-0, to recommend approval of the submitted site plan at their October 12, 2023, meeting; AND

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Bondurant, Iowa, the submitted 2465 Robinson Avenue NE site plan is hereby approved.

Passed this 16th day of October 2023,

By: _____
Doug Elrod, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
Cox				
Driscoll				
McKenzie				
Peffer				
Sillanpaa				

SITE ADDRESS
2465 ROBINSON AVE NE
BONDURANT, IA 50035

SITE AREA
4.18 ACRES (181,908 SQ.FT.)

ZONING
EXISTING: M-2 INDUSTRIAL DISTRICT

ADJACENT ZONING:
NORTH: R.O.W
EAST: M2
SOUTH: M2
WEST: R.O.W

SETBACKS
30' FRONTAGE (NORTHWEST PROPERTY LINE)
20' SIDE SETBACK (SOUTHWEST PROPERTY LINE)
40' REAR SETBACK (EAST PROPERTY LINE)

BUILDINGS
EXISTING: NONE
PROPOSED: NONE

PAVING
APPROACHES: 8" NON REINFORCED P.C.C.
PARKING LOT: 8" NON REINFORCED P.C.C.
PROCESSING AREA: 6" NON REINFORCED P.C.C.
PROCESSING AREA: 6" GRAVEL

MAXIMUM JOINT SPACING = PAVEMENT THICKNESS * 1.5 = 8 * 1.5 = 12 FT

OPEN SPACE
EXISTING: 100% (181,908 SQ.FT.)
REQUIRED: 10% (18,191 SQ. FT.)
PROPOSED: 32% (58,041 SQ.FT.)

IMPERVIOUS SPACE
EXISTING: 0% (0 SQ.FT.)
PROPOSED: 68% (128,867 SQ.FT.)

PARKING
REQUIRED: ONE (1) STALL PER EMPLOYEE (UP TO 20 EMPLOYEES USING SITE AT ANY GIVEN TIME)
PROPOSED: TWENTY FOUR (24) 12'X27' TRUCK STALLS

SIGN
THERE ARE NO PROPOSED SIGNS AT THIS TIME

DISTURBED AREAS
ESTIMATED: 140,173 SQ. FT.
ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED.
THE DISTURBED AREA FOR THIS SITE IS GREATER THAN 1 ACRE, THEREFORE A NPDES PERMIT IS REQUIRED.

GEOTECHNICAL REPORT
REFERENCE SOILS REPORT COMPLETED SEPT 25, 2018 BY NRCS

LEAKING UNDERGROUND STORAGE TANKS
THIS SITE IS NOT A LUST SITE

FLOODPLAIN
PER FEMA MAP #19153C0235F, THE SITE IS LOCATED IN ZONE X, WHICH DESCRIBES AREAS OF MINIMAL FLOOD HAZARD.

FAA
PER FAA NOTICE CRITERIA TOOL, SITE DOES NOT EXCEED NOTICE CRITERIA UP TO 100 FT HEIGHT (FOR POSSIBLE CRANE HEIGHT) AND THEREFORE FILING WITH THE FAA IS NOT REQUIRED

SITE IMPROVEMENTS

FOR

SKOL TRUCKING

2465 ROBINSON AVE NE

BONDURANT, IA

LEGAL DESCRIPTION:
LOTS 10 AND 11 IN BONDURANT INDUSTRIAL PLAT, ALL BEING IN AND FORMING A PART OF THE CITY OF BONDURANT, POLK COUNTY, IA.

VICINITY MAP



SHEET INDEX

- C1 - COVER SHEET
- C2 - NOTE SHEET
- C3 - TOPO SHEET
- C4 - LAYOUT SHEET
- C5 - GRADING SHEET
- C6 - LANDSCAPING SHEET

IOWA ONECALL CONTACT LIST:

(BON)BONDURANT, CITY OF	Patrick Collison	5159716856	pcollison@cityofbondurant.com
(BON)BONDURANT, CITY OF	Patrick Collison	5159716856	pcollison@cityofbondurant.com
(M52E)MIDAMER-ELEC	Craig Ranfeld	5152526632	MECDSDDesignLocates@midamerican.com
(M57E)MIDAMER-ELEC	JAMIE NEER	5152526972	MECDSDDESIGNLOCATES@MIDAMERICAN.COM
(SPR)SOUTHEAST POLK RURAL WATER DIS	Ed Clark	5153236244	onecallmaps@dmww.com
(WCG)CENTURYLINK	Tech On Duty	8773668344	Nationalrelo@Centurylink.com
(M52G)MIDAMER-GAS	Craig Ranfeld	5152526632	MECDSDDesignLocates@midamerican.com

LEGEND:

F.F.	FINISHED FLOOR	▲	CALCULATED SECTION CORNER	Ⓢ	ELEC. MANHOLE	Ⓢ	SINGLE INTAKE	— CATV —	CABLE TELEVISION
+/-	MORE OR LESS	▽	FOUND SECTION CORNER	Ⓢ	ELEC. VAULT	Ⓢ	AREA INTAKE	— FO —	FIBER OPTIC
123.45G	GUTTER ELEVATION	▽	PARKING SPACE	Ⓢ	GUY ANCHOR	Ⓢ	THROAT INTAKE	— G —	GAS LINE
123.45TC	TOP OF CURB ELEVATION	▽	SIGN	Ⓢ	UTILITY PEDESTAL	Ⓢ	FLARED END SECTION	— OHE —	OVERHEAD ELEC.
123.45/123.45	EXISTING/ PROPOSED ELEVATION	▽	STREET LIGHT	Ⓢ	CABLE TV JUNCTION BOX	Ⓢ	VALVE	— OHT —	OVERHEAD TEL.
FL	FLOWLINE ELEVATION	▽	POWER POLE	Ⓢ	GAS VALVE	Ⓢ	FIRE HYDRANT	— SAN —	SANITARY SEWER
Ⓢ	CONTROL POINT	▽	LIGHT POLE	Ⓢ	GAS METER	Ⓢ	WATER METER	— ST —	STORM SEWER
○	CALCULATED CORNER	▽	AREA LIGHT	Ⓢ	SANITARY SEWER MANHOLE	Ⓢ	WATER VALVE	— UGE —	UNDERGROUND ELEC.
●	FOUND CORNER	▽	ELEC. TRANSFORMER	Ⓢ	STORM SEWER MANHOLE	Ⓢ	WATER TEE	— UGT —	UNDERGROUND TEL.
		▽	ELEC. METER	Ⓢ	CLEANOUT	Ⓢ	PROPOSED UTILITY LINE	— W —	WATER
		▽	ELEC. BOX	Ⓢ	DOWNSPOUT	Ⓢ	EXISTING UTILITY LINE	— F —	FENCE LINE

DEVELOPER

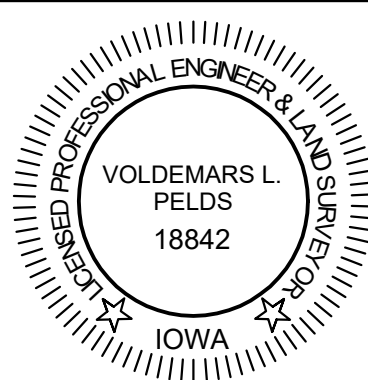
BONDURANT BUSINESS PARK LLC
2450 73RD STREET
URBANDALE, IOWA 50322
PROJECT CONTACT: JAMIE MYERS
PHONE: 515-440-1111
EMAIL: JAMIE@PARAMOUNT-MIDWEST.COM

CITY CONTACT

CITY OF BONDURANT
200 2ND STREET BOX 37
BONDURANT, IA 50035
PROJECT CONTACT: MAGGIE MURRAY
PHONE: (515) 630-6985
EMAIL: PLANNING@CITYOFBONDURANT.COM

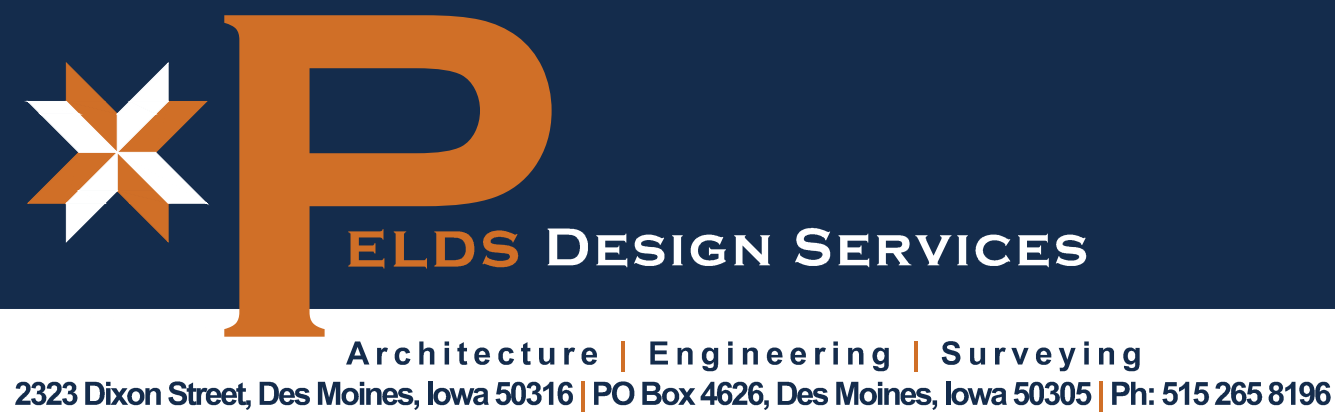
ENGINEER/ LAND SURVEYOR

PELDS DESIGN SERVICES
2323 DIXON ST
DES MOINES, IOWA 50316
PROJECT CONTACT: ELARA JONDLE
PHONE: (515) 265-8196
EMAIL: ELARA@PELDS.COM



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.

VOLDEMARS L. PELDS, P.E. IA LIC. NO. 18842 DATE
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
ADDITIONAL PAGES OR SHEETS COVERED BY THIS SEAL (NONE UNLESS INDICATED HERE) C1 - C6



SKOL TRUCKING

2465 ROBINSON AVE NE

BONDURANT, IA

PRELIMINARY

10.05.2023

23-022

C1 - COVER SHEET

GENERAL NOTES

- THE CITY OF BONDURANT MUST BE NOTIFIED BY ALL CONTRACTORS 48 HOURS PRIOR TO COMMENCING WORK.
- ALL PROPOSED MATERIALS AND STRUCTURES SHALL BE APPROVED BY THE CITY OF BONDURANT AND BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
- ALL NECESSARY CONSTRUCTION SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES REQUIRED DURING CONSTRUCTION WILL BE FURNISHED BY THE CONTRACTOR. SIGNS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
- PELDS DESIGN SERVICES SHALL NOT BE LIABLE FOR ANY INJURIES THAT HAPPEN ON SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TRENCH COLLAPSES FROM VARYING SOIL CONDITIONS OR INJURIES CAUSED BY UNDERGROUND UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
- THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
- IF A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THIS MEETING.
- LABORATORY TESTS SHALL BE PERFORMED BY THE OWNER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE SAMPLES OF MATERIAL REQUIRED FOR LABORATORY TESTS AND TESTING IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- THE CONTRACTOR SHALL PROTECT ALL STRUCTURES NOT SHOWN AS REMOVALS ON THE PLANS.
- THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL WORK WITH OWNER OR OWNER'S REPRESENTATIVE ON ALL REQUIRED STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES AND THE CITY OF BONDURANT.
- THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REMOVAL OF ALL MUD THAT HAS BEEN TRACKED OR WASHED UNTO ADJACENT PROPERTY OR RIGHT OF WAY UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED.
- DISPOSE OF ALL EXCESS MATERIALS AND TRASH IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PROVIDE WASTE AREAS OR DISPOSAL SITES OR EXCESS MATERIALS NOT DESIRABLE FOR INCORPORATION INTO THE PROJECT.
- ALL CONSTRUCTION WITHIN THE PUBLIC R.O.W/EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE CITY OF BONDURANT.
- THE CONTRACTOR SHALL CONTACT THE CITY OF BONDURANT TO SCHEDULE ANY REQUIRED INSPECTIONS AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W/EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS
- IN THE EVENT OF ANY CONFLICTING NOTES BETWEEN THE COVER SHEET AND ALL OTHER SHEETS, THE NOTES ON THE COVER SHEET SHALL SUPERCEDE ALL OTHERS
- IN THE EVENT OF ANY CONFLICTING INFORMATION BETWEEN THE LABEL, ELECTRONIC CAD FILE, AND THE ELECTRONIC SURFACE, THE DESIGN ENGINEER SHALL BE CONTACTED FOR CLARIFICATION

SURVEY NOTES

- SURVEY WORK WAS COMPLETED BY PELDS DESIGN SERVICES IN AUGUST 2018. SEE SITE SURVEY PROVIDED AS PART OF THIS SET OF PLANS FOR EXISTING SITE CONDITIONS AND BOUNDARY INFORMATION.

STAKING NOTES

- IT IS RECOMMENDED FOR THE CONTRACTOR TO HAVE ALL STAKING DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR AND IN COORDINATION WITH THE PROJECT ENGINEER.
- IT IS RECOMMENDED FOR THE CONTRACTOR TO HAVE ALL STAKING DONE DIRECTLY UNDER THE GENERAL CONTRACTOR BY A SINGLE COMPANY.
- STAKING DOES NOT RELIEVE CONTRACTOR OF ULTIMATE RESPONSIBILITY TO CONSTRUCT THE PROJECT PER PLAN.

DEMO NOTES

- SAWCUT & REMOVE ALL PAVEMENT TO FULL DEPTH OF SLAB.
- PROTECT ALL TREES NOT CALLED OUT FOR REMOVAL WITH ORANGE CONSTRUCTION FENCE AT THE DRIP LINE.
- PAVEMENT STRIPING CALLED OUT FOR REMOVAL SHALL BE SANDBLASTED. NO GRINDING WILL BE ALLOWED.
- PROPERLY DISCONNECT ALL PUBLIC AND PRIVATE UTILITIES, AS NECESSARY.
- COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS TO REMOVE AND PROPERLY DISPOSE OF SIDEWALKS, STEPS, DRIVEWAYS, AND STRUCTURES (INCLUDING BOTH ABOVE GROUND AND BELOW GROUND ELEMENTS).
- COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS TO REMOVE FUEL TANKS, SEPTIC TANKS, CISTERNS, AND ANY OTHER UNDERGROUND FACILITIES; AND TO PROPERLY DISPOSE OF ANY LIQUIDS OR PRODUCTS CONTAINED WITHIN THESE ITEMS.
- PLACE BACKFILL MATERIAL IN HOLES AND DEPRESSIONS, GRADE THE SITE, AND ESTABLISH GROUND COVER.
- PROTECT EXISTING FIRE HYDRANTS, STREET LIGHTS, TRAFFIC SIGNALS, UTILITY POLES, FIRE ALARM BOXES, WIRE CABLES, UNDERGROUND UTILITIES, AND OTHER APPURTENANCES IN THE VICINITY OF THE DEMOLITION SITE
- COMPLY WITH NOISE POLLUTION REQUIREMENTS AND ANY WORKING HOUR RESTRICTIONS OF THE JURISDICTION.
- MAINTAIN OR RE-ESTABLISH ALL TILES, ROADWAY SUBDRAINS, CULVERTS, OR OTHER DRAINAGE FACILITIES NOT IDENTIFIED IN THE CONTRACT DOCUMENTS FOR REMOVAL.
- IMPLEMENT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR EACH SITE PRIOR TO INITIATING DEMOLITION BY PLACING ALL REQUIRED DEVICES; INCLUDE MEASURES TO PREVENT TRACKING OF MUD ONTO ADJACENT STREETS OR ALLEYS.
- COMPLY WITH ALL APPLICABLE AIR POLLUTION REQUIREMENTS OF THE JURISDICTION. USE WATER OR APPROPRIATE CHEMICALS FOR CONTROL OF DUST IN THE DEMOLITION AREA, ON HAULING EQUIPMENT, ON ADJACENT ROADWAYS, AND WHEN GRADING THE SITE.
- TAKE STEPS TO PREVENT THE GENERATION OF LITTER DURING DEMOLITION AND COLLECT ALL LITTER FROM THE DEMOLITION AREA AT THE END OF EACH WORKING DAY. LOAD TRUCKS TO PREVENT LEAKAGE OR BLOWING OF DEBRIS.
- REMOVE ALL CONCRETE, ASPHALT, OR MASONRY SLABS AND APPURTENANCES.
- REMOVE AND DISPOSE OF ALL BRUSH, SHRUBS, TREES, LOGS, DOWNED TIMBER, AND OTHER YARD WASTE ON THE SITE UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. DO NOT MIX WITH DEMOLITION MATERIAL. REMOVE STUMPS TO A MINIMUM OF 2 FEET BELOW FINISH GRADE. PROTECT ANY TREES OR OTHER VEGETATION NOT DESIGNATED FOR REMOVAL BY PLACING A FENCE AT THE DRIP LINE ENCOMPASSING THE ENTIRE TREE AND KEEPING ALL OPERATIONS OUTSIDE OF THE FENCED IN AREA, INCLUDING STORAGE OF EQUIPMENT OR MATERIALS. AT NO ADDITIONAL COST TO THE CONTRACTING AUTHORITY, REPLACE ANY TREES THAT ARE DESIGNATED FOR PROTECTION BUT ARE DAMAGED BEYOND TREATMENT. THE ENGINEER WILL DETERMINE SIZE AND SPECIES OF THE REPLACEMENT TREE.
- SAW-CUT ALL HARD SURFACING AT LOCATION OF REMOVAL LIMITS.
- WHERE SELECTIVE DEMOLITION IS SHOWN AT PAVED AREAS, DEMOLISH THE EXISTING PAVING BACK TO AN EXISTING CONTROL JOINT NEAR THE LOCATION SHOWN.

WETLAND NOTES

- PELDS DESIGN SERVICES DOES NOT PERFORM WETLAND STUDIES OR WETLAND MITIGATION. IT IS THE OWNER'S RESPONSIBILITY TO DETERMINE IF ANY WETLANDS ARE LOCATED ON THE PROJECT SITE AND PERFORM ANY NECESSARY MITIGATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

DISCLAIMER

- THIS DRAWING IS BEING MADE AVAILABLE BY PELDS DESIGN SERVICES (P.D.S.) FOR USE ON THIS PROJECT IN ACCORDANCE WITH P.D.S.'S AGREEMENT FOR PROFESSIONAL SERVICES. P.D.S. ASSUMES NO RESPONSIBILITY OR LIABILITY (CONSEQUENTIAL OR OTHERWISE) FOR ANY USE OF THESE DRAWINGS (OR ANY PART THEREOF) EXCEPT IN ACCORDANCE WITH THE TERMS OF SAID AGREEMENT.
- P.D.S DISCLAIMS ANY AND ALL LIABILITY OR RESPONSIBILITY FOR INFORMATION THAT DOES NOT BEAR THE ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL IN CHARGE.

CIVIL ENGINEERING NOTES
FOR
SKOL TRUCKING
2465 ROBINSON AVE NE
BONDURANT, IA

UTILITY NOTES

- QUANTITY CALLOUTS ON PIPE LENGTHS ARE APPROXIMATE AND SHOULD BE USED FOR REFERENCE ONLY.
- PIPE LENGTHS CALLED OUT ON PLANS DO NOT INCLUDE FLARED END SECTION, WHERE APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL RELOCATE EXISTING UTILITIES AS NECESSARY, SHOWN OR NOT SHOWN.
- THE CONTRACTOR SHALL COORDINATE WITH THE CITY ON ALL SIZE, DEPTHS, AND MATERIALS OF ALL PROPOSED UTILITIES.
- THE CONTRACTOR MUST PROVIDE AS-BUILTS OF ALL UTILITIES, INCLUDING DEPTH AND LOCATION OF ALL SERVICES IF REQUIRED BY CITY.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONNECTION OR DISCONNECTION OF A SERVICE LINE.
- CONTRACTOR IS TO COMPLY WITH THE 2023 SUDAS SPECIFICATIONS FOR MAINTENANCE, INSTALLATION, AND TESTING FOR CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF ANY AND ALL EXISTING AND PROPOSED UTILITIES TO PROPOSED GRADES. EXISTING UTILITIES SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY OWNER REQUIREMENTS. ANY NECESSARY ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE. THE TILE SHOULD BE DIRECTED TO PUBLIC STORM SEWER IF POSSIBLE. THE CONTRACTOR SHALL RECORD THE ELEVATION AND LOCATION OF ALL TILES.
- ALL RIP RAP CALLED OUT ON PLANS SHALL BE UNDERLAIN WITH ENGINEERING FABRIC.
- ALL STRUCTURE SIZES CALLED OUT ON PLANS ARE MINIMUM INSIDE WALL DIMENSIONS.
- ALL PROPOSED UTILITIES SHALL BE PRIVATE, UNLESS NOTED OTHERWISE.
- ALL STRUCTURES CALLED OUT AS "MODIFIED" OR "SPECIAL" SHALL BE ENGINEERED BY THE PRECASTER TO ENSURE STRUCTURE STABILITY. MODIFICATIONS INCLUDE ADDITIONAL WALL LENGTH TO ACCOUNT FOR LARGE PIPE DIAMETERS AND ADDITIONAL WALL WIDTH & BASE DEPTH TO ACCOUNT FOR DEEPER STRUCTURES. ANY AND ALL MODIFICATIONS TO STANDARD STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO BID

ELECTRICAL SERVICE NOTES

- ALL SITE LIGHTING SHALL NOT SPILL ONTO ADJACENT PROPERTIES OR RIGHT-OF-WAYS
- TRANSFORMER PAD IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. PAD SHALL CONFORM TO ALL UTILITY COMPANY DESIGN STANDARDS AND SPECIFICATIONS.

SANITARY SERVICE NOTES

- SANITARY SEWER SERVICE CONNECTIONS SHALL BE PLACED AT A SLOPE OF NO LESS THAN 2% FOR A 4" PIPE AND 1% FOR A 6" PIPE. SERVICES SHALL MAINTAIN 18" OF VERTICAL SEPARATION FROM THE WATER MAIN WITH 18" OF COMPACTED LOW PERMEABILITY SOIL BETWEEN THE UTILITIES WITHIN 10' OF THE CROSSING.

STORM WATER SERVICE NOTES

- ALL STORM SEWER IN THE ROW SHALL BE RCP (CLASS III RCP), UNLESS OTHERWISE SPECIFIED.
- ALL PROPOSED RCP STORM SEWER PIPE JOINTS SHALL BE FABRIC WRAPPED AND THE LAST 3 PIPE SECTIONS ON THE APRON SHALL BE TIED WITH RF-14 TYPE II CONNECTORS. ALL APRONS SHALL HAVE A STANDARD FOOTING AND TRASH GUARD.
- ALL SUMP SERVICE LINES SHALL HAVE TRACE WIRE

WATER SERVICE NOTES

- WATER SERVICE SHALL BE TYPE K COPPER, DIP OR HDPE, DEPENDING ON SIZE AND JURISDICTIONAL REQUIREMENTS. IF CONTAMINATED OR "HOT" SOILS, ENSURE APPROPRIATE PIPE IS BEING UTILIZED. SIZE OF WATER MAIN AS SHOWN ON PLANS.
- TRACER WIRE SHALL BE ADDED TO ALL WATER MAIN, AND BROUGHT TO THE SURFACE AT EVERY HYDRANT.
- THRUST BLOCKS SHALL BE INSTALLED AS REQUIRED AND SHALL BE CONSIDERED INCIDENTAL TO WATER MAIN CONSTRUCTION.
- ANY AND ALL HYDRANT AND VALVE EXTENSIONS, TOGETHER WITH VERTICAL BENDS, SHALL BE CONSIDERED INCIDENTAL TO WATER MAIN CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR INCIDENTAL ITEMS.
- ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5 FEET OF COVER UNLESS NOTED OTHERWISE.

EXISTING UTILITIES NOTE

- THE LOCATIONS OF THE EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND/OR RECORDS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION: IOWA ONE-CALL (1-800-292-8989).

UTILITY CONFLICT NOTES

- UTILITY CONFLICTS MAY EXIST ACROSS THE SITE WITH NEW UTILITIES, GRADING, PAVING ETC. MOST UTILITY CONFLICTS HAVE BEEN CALLED OUT FOR CONTRACTOR CONVENIENCE.
- CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONFLICTS BETWEEN AN EXISTING UTILITY AND PROPOSED CONSTRUCTION THAT ARE EITHER CALLED OUT ON THE PLANS OR NOT CALLED OUT.
- CONTRACTOR SHALL COMPLY WITH ALL DNR REQUIREMENTS FOR PIPE MATERIAL, PIPE JOINTS, AND ANY OTHER APPLICABLE REQUIREMENTS ANY TIME A STORM SEWER OR SANITARY SEWER CROSSES OVER OR LESS THAN 18" BELOW A WATER MAIN.
- FOR ALL CRITICAL CROSSINGS WITH EXISTING UTILITIES, THE ELEVATION OF THE EXISTING UTILITY SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. NOTIFY PELDS DESIGN SERVICES PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS.

SPECIFICATIONS NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE URBAN STANDARDS SPECIFICATIONS FOR PUBLIC IMPROVEMENTS ON THE DATE OF APPROVAL AND THE CITY OF BONDURANT STANDARD SPECIFICATIONS.
- IN THE EVENT OF A DISCREPANCY BETWEEN THE PROJECT SPECIFICATIONS AND THE CITY OF BONDURANT REQUIREMENTS AND SPECIFICATIONS, PLUMBING CODE, AND URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENT, THE CITY OF BONDURANT STANDARD SPECIFICATIONS SHALL GOVERN.
- FOR ALL SPECIFICATION DISCREPANCIES, THE PROJECT ENGINEER SHALL BE CONTACTED PRIOR TO PROCEEDING WITH CONSTRUCTION. IF THE ENGINEER IS NOT CONTACTED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PROBLEMS THAT RESULT FROM SAID DISCREPANCIES.

REQUIRED AS-BUILT NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF AS-BUILT TOPO, IF REQUIRED BY CITY.
- CONTRACTOR SHALL CONTACT PELDS DESIGN SERVICES TO PERFORM SAID AS-BUILT SURVEYS.
- IF ANYTHING HAS BEEN CONSTRUCTED INCORRECTLY, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSEQUENT AS-BUILT SURVEYS UNTIL ISSUES HAVE BEEN RECTIFIED.

PAVING NOTES

- THE PAVING/ GRADING CONTRACTOR SHALL BACKFILL THE PAVING SLAB AND FINE GRADE THE RIGHT OF WAY AS SOON AFTER THE PAVING AS POSSIBLE. ALL AREAS SHALL BE SODDED IN ACCORDANCE WITH CITY OF BONDURANT SPECIFICATIONS AND THE 2023 VERSION OF SUDAS.
- SEE DETAILS FOR ALL PAVEMENT THICKNESS.
- DETECTABLE WARNING PANEL(S) CALLED OUT ON PLANS SHALL BE PER A.D.A. REGULATIONS. PANEL TYPE & COLOR SHALL BE PER CITY STANDARD.
- SIDEWALKS SHALL HAVE EXPANSION JOINTS AT 100 FOOT INTERVALS AS REQUIRED BY CITY CODE
- ALL WALKS, PARKING LOTS, HANDICAP PARKING, RAMPS, ETC. SHALL COMPLY WITH ALL A.D.A. AND CITY CODES. HANDICAP PARKING SIGNAGE IS REQUIRED FOR ALL HANDICAP STALLS AND SHALL BE CONSIDERED INCIDENTAL. IN EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE A.D.A./CITY CODES THE A.D.A./CITY CODES SHALL GOVERN. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING A.D.A. CODES ARE MET.
- ALL PARKING STALLS WILL BE PROVIDED WITH RAISED CURB AS NOTED ON PLANS

PAVEMENT SAWCUT NOTES

- CONTRACTOR TO PROVIDE SAWCUT JOINTING PLAN PRIOR TO ANY CONCRETE PAVEMENT INSTALLATION.
- PAVEMENT MAY BE REQUIRED TO BE REMOVED AND REPLACED IF PLACED WITHOUT AN APPROVED PLAN.
- LONGITUDINAL JOINTS IN DRIVE LANES & THE OUTER MOST JOINT OF ALL PARKING AREAS SHALL BE SUDAS TYPE 'L-1' OR 'L-2' JOINTS AND HAVE STEEL. INTERIOR PARKING LOT JOINTS, OTHER THAN THE OUTER MOST JOINT, DO NOT NEED STEEL AND SHALL BE SUDAS TYPE 'B' OR TYPE 'K' JOINTS. ALL TRANSVERSE JOINTS SHALL BE SUDAS TYPE 'C' OR TYPE 'DW' JOINTS WITH STEEL IN THE CASE OF A DAY'S WORK JOINT.

SOIL NOTES

- STRIP AND STOCKPILE THE TOP 8 INCHES OF SOIL ON ALL DISTURBED AREAS. GRADING CONTRACTOR SHALL STOCKPILE TOPSOIL FOR SHOULDERING.
- SOD REQUIREMENT PER SUDAS: IN AREAS WHERE TOPSOIL HAS BEEN STRIPPED, A SODBED SHOULD BE CONSTRUCTED BY SPREADING A MINIMUM OF 6 INCHES OF TOPSOIL PRIOR TO SODDING. DEEPER TOPSOIL DEPTHS (8 TO 12 INCHES OR GREATER) ARE DESIRABLE AS THEY INCREASE THE ORGANIC MATTER AVAILABLE FOR USE BY THE PLANTS, ALLOW FOR DEEPER ROOT PENETRATION AND INCREASE THE MOISTURE HOLDING ABILITY OF THE SOIL.
- PERMANENT SEED REQUIREMENT PER SUDAS: IN ORDER TO PROVIDE AN ADEQUATE GROWING MEDIUM, A MINIMUM OF 8 INCHES OF TOPSOIL SHOULD BE PLACED OVER THE DISTURBED AREA PRIOR TO SEEDING. DEEPER TOPSOIL DEPTHS (8-12 INCHES OR GREATER) ARE DESIRABLE AS THEY INCREASE THE ORGANIC MATTER AVAILABLE FOR USE BY THE PLANTS, ALLOW FOR DEEPER ROOT PENETRATION AND INCREASE THE MOISTURE HOLDING ABILITY OF THE SOIL.
- TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.
- TOPSOIL IS DEFINED AS: FERTILE, FRIABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS; REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER; ACIDITY RANGE (PH) OF 5.5 TO 7.5; CONTAINING MINIMUM 4 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.
- REFERENCE GEOTECHNICAL REPORT FOR ADDITIONAL SOILS INFORMATION INCLUDING BUT NOT LIMITED TO SUBGRADE INFORMATION, FOOTING DESIGN, AND ANY POSSIBLE OVER EXCAVATION DUE TO POOR SOILS. PAVEMENT SECTIONS ON THE PLANS GOVERN OVER PAVEMENT THICKNESS IN THE SOILS REPORT.

GRADING NOTES

- AREAS TO RECEIVE STRUCTURAL FILL SHALL BE BENCHED. STRUCTURAL FILL SHALL BE COMPACTED TO A DENSITY THAT IS NOT LESS THAN 95% STANDARD PROCTOR.
- PREPARE BOTTOM OF BENCH FOR FILL BY DISKING TO A DEPTH OF 12 INCHES AND COMPACT. ANY LOCALIZED AREAS WHICH CANNOT BE SATISFACTORILY COMPACTED OR WHICH SHOW EVIDENCE OF PUMPING ACTION SHALL BE UNDERCUT AND RE-COMPACTED WITH ON-SITE FILL MATERIALS.
- ALL AREAS WHICH ARE TO RECEIVE PAVING SHALL HAVE THE TOP 12 INCHES DISKED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.
- FINISH GRADE ON ALL NON-PAVED AREAS SHALL BE WITHIN 0.20 FT, AND PAVED AREAS SHALL BE WITHIN 0.10 FT OF THE PROPOSED GRADES SHOWN ON THE PLAN
- MAXIMUM ALLOWABLE GRADE ON ALL PROPOSED SLOPES IS 3:1.
- THE MOISTURE CONTENT SHALL NOT DEVIATE FROM THE OPTIMUM BY MORE THAN 2% IN STRUCTURAL FILL.
- MAXIMUM 2% CROSS-SLOPE ON ALL SIDEWALKS.
- GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.

LANDSCAPING NOTES

- ALL SODDING & LANDSCAPE PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
- SEED OR SOD ALL DISTURBED AREAS WITHIN THE CONTRACT LIMITS, UNLESS NOTED OTHERWISE. SEED/SOD LIMITS SHOWN ON PLAN ARE FOR REFERENCE ONLY. FINAL LIMITS MAY CHANGE BASED ON CONSTRUCTION ACTIVITIES. SEED ALL DISTURBED AREAS OFF-SITE
- STAKE SOD ON ALL SLOPES 4:1 OR GREATER.
- PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE, THE DRAWING SHALL PREVAIL IF A CONFLICT OCCURS.
- ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
- CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE.
- CONTRACTOR SHALL PLACE SHREDDED HARDWOOD MULCH OR BRICK CHIPS OR WASHED STONE AROUND ALL TREES, SHRUBS AND GROUND COVER BEDS TO A DEPTH OF 4 INCHES, UNLESS NOTED.
- PROVIDE 6MIL MINIMUM PLASTIC BELOW ROCK/BRICK.
- THE LANDSCAPING CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BEFORE STARTING ANY SITE WORK OR PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE MAINTAINING APPROPRIATE LEVEL OF WATERING FOR ALL NEW PLANTS FOR A PERIOD OF 30 DAYS.
- CONTRACTOR SHALL DESIGN AND PROVIDE IRRIGATION SYSTEM. COORDINATION WITH ARCHITECT REQUIRED.
- ALL BEDS TO RECEIVE GRANULAR PRE-EMERGENT WEED CONTROL BEFORE AND AFTER MULCH IS INSTALLED.



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TITLE:
SKOL TRUCKING
2465 ROBINSON AVE NE
BONDURANT, IA

BENCHMARK:
COPYRIGHT DATE: 2023
DRAWN BY: N. DAY
SCALE:
FILE PATH: 2023 Projects\23-022 Lots 3, 10-11, BIP (Skol)\Engineering\Sheet Set

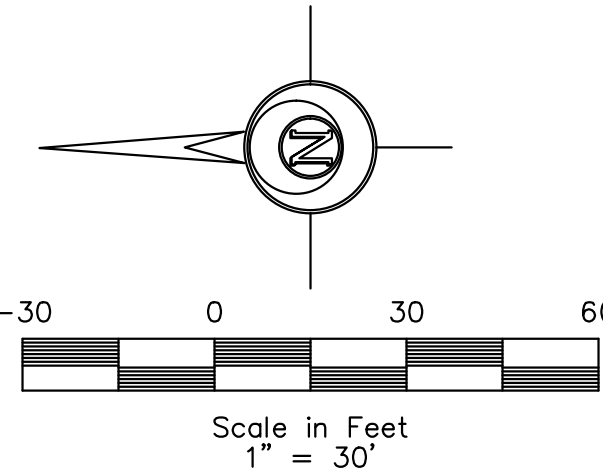
REVISIONS:
LATEST REVISION: 10.05.2023
DRAWING NO: 23-022

PRELIMINARY

C2 - NOTE SHEET

EXISTING ROAD

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C13	104.51	1970.00	3.04	S41° 50' 27"W	104.50



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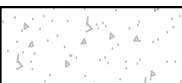
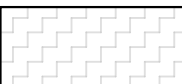
+/-	MORE OR LESS	⊙	ELEC. MANHOLE
F.F.	FINISHED FLOOR	⊙	SANITARY SEWER MANHOLE
123.45G	GUTTER ELEVATION	⊙	STORM SEWER MANHOLE
123.45TC	TOP OF CURB ELEVATION	⊙	TRAFFIC MANHOLE
123.45/123.45	EXISTING/PROPOSED ELEVATION	⊙	CLEANOUT
FL	FLOWLINE ELEVATION	⊙	DOWNSPOUT
⊙	CONTROL POINT	⊙	AREA INTAKE
⊙	CALCULATED CORNER	⊙	SINGLE INTAKE
●	FOUND CORNER	⊙	THROAT INTAKE
⊙	CALCULATED SECTION CORNER	⊙	FLARED END SECTION
⊙	FOUND SECTION CORNER	⊙	GAS VALVE
⊙	PARKING SPACE	⊙	FIRE HYDRANT
⊙	SIGN	⊙	WATER VALVE
⊙	STREET LIGHT	⊙	P XX PROPOSED UTILITY LINE
⊙	POWER POLE	⊙	E XX EXISTING UTILITY LINE
⊙	LIGHT POLE	⊙	CATV CABLE TELEVISION
⊙	AREA LIGHT	⊙	FO FIBER OPTIC
⊙	GUY ANCHOR	⊙	GAS GAS LINE
⊙	UTILITY PEDESTAL	⊙	OHE OVERHEAD ELEC.
⊙	ELEC. TRANSFORMER	⊙	OHT OVERHEAD TEL.
⊙	ELEC. METER	⊙	SAN SANITARY SEWER
⊙	ELEC. BOX	⊙	ST STORM SEWER
⊙	ELEC. VAULT	⊙	UGE UNDERGROUND ELEC.
⊙	FIBER OPTIC VAULT	⊙	UGT UNDERGROUND TEL.
⊙	GAS METER	⊙	W WATER
⊙	CABLE TV JUNCTION BOX	⊙	⊙ FENCE LINE
⊙	WATER METER		



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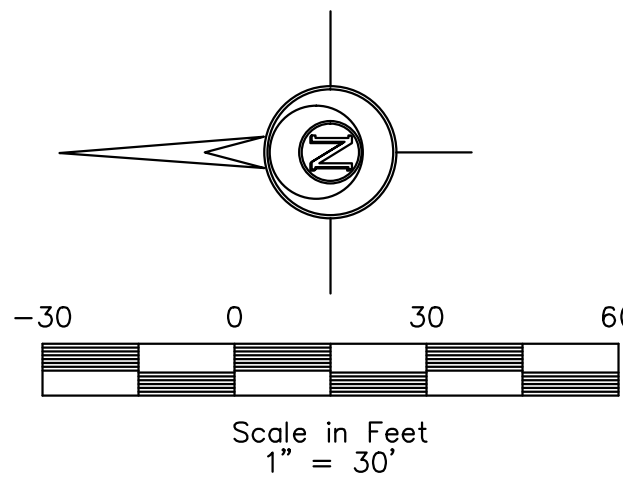
TITLE: SKOL TRUCKING 2465 ROBINSON AVE NE BONDURANT, IA			
REVISIONS: PRELIMINARY			
COPYRIGHT DATE: -----	DRAWN BY: N. DAY	SCALE: 1"=30'	LATEST REVISION: 10.05.2023
DRAWING NO: 23-022			C3 - TOPO SHEET

LOTS 10 & 11	
PROPERTY AREA	181,908 sq.ft. (4.18 acres)
IMPERVIOUS AREA	128,867 sq.ft. (2.84 acres)
PERVIOUS AREA	58,041 sq.ft. (1.33 acres) (MIN 10%)
PARKING AREA	22,860 sq.ft. (0.81 acres)
ACCESSES	1,597 sq.ft. (0.04 acres)
STORAGE AREA (GRAVEL)	86,550 sq.ft. (1.99 acres)

	EXISTING ROAD
	PROPOSED 8" P.C.C.
	PROPOSED 6" P.C.C.
	PROPOSED GRAVEL

- NOTES:
1. THERE ARE NO PROPOSED UTILITIES FOR THIS SITE
 2. CONCRETE BARRIERS HAVE BEEN ADDED TO PROTECT THE DETENTION BASIN FROM SITE OPERATIONS

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C13	104.51	1970.00	3.04	S41° 50' 27"W	104.50



LEGEND:

+/-	MORE OR LESS	⊙	ELEC. MANHOLE
F.F.	FINISHED FLOOR	⊙	SANITARY SEWER MANHOLE
123.45G	GUTTER ELEVATION	⊙	STORM SEWER MANHOLE
123.45TC	TOP OF CURB ELEVATION	⊙	TRAFFIC MANHOLE
123.45/123.45	EXISTING/ PROPOSED ELEVATION	⊙	CLEANOUT
FL	FLOWLINE ELEVATION	⊙	DOWNSPOUT
⊙	CONTROL POINT	⊙	AREA INTAKE
○	CALCULATED CORNER	⊙	SINGLE INTAKE
●	FOUND CORNER	⊙	THROAT INTAKE
⊙	CALCULATED SECTION CORNER	⊙	FLARED END SECTION
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⊙	PARKING SPACE	⊙	FIRE HYDRANT
⊙	SIGN	⊙	WATER VALVE
⊙	STREET LIGHT	— P XX	PROPOSED UTILITY LINE
⊙	POWER POLE	— E XX	EXISTING UTILITY LINE
⊙	LIGHT POLE	— CATV	CABLE TELEVISION
⊙	AREA LIGHT	— FO	FIBER OPTIC
⊙	GUY ANCHOR	— GAS	GAS LINE
⊙	UTILITY PEDESTAL	— OHE	OVERHEAD ELEC.
⊙	ELEC. TRANSFORMER	— OHT	OVERHEAD TEL.
⊙	ELEC. METER	— SAN	SANITARY SEWER
⊙	ELEC. BOX	— ST	STORM SEWER
⊙	ELEC. VAULT	— UGE	UNDERGROUND ELEC.
⊙	FIBER OPTIC VAULT	— UGT	UNDERGROUND TEL.
⊙	GAS METER	— W	WATER
⊙	CABLE TV JUNCTION BOX	⊙-⊙-⊙	FENCE LINE
⊙	WATER METER		



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DRAWN BY: N. DAY

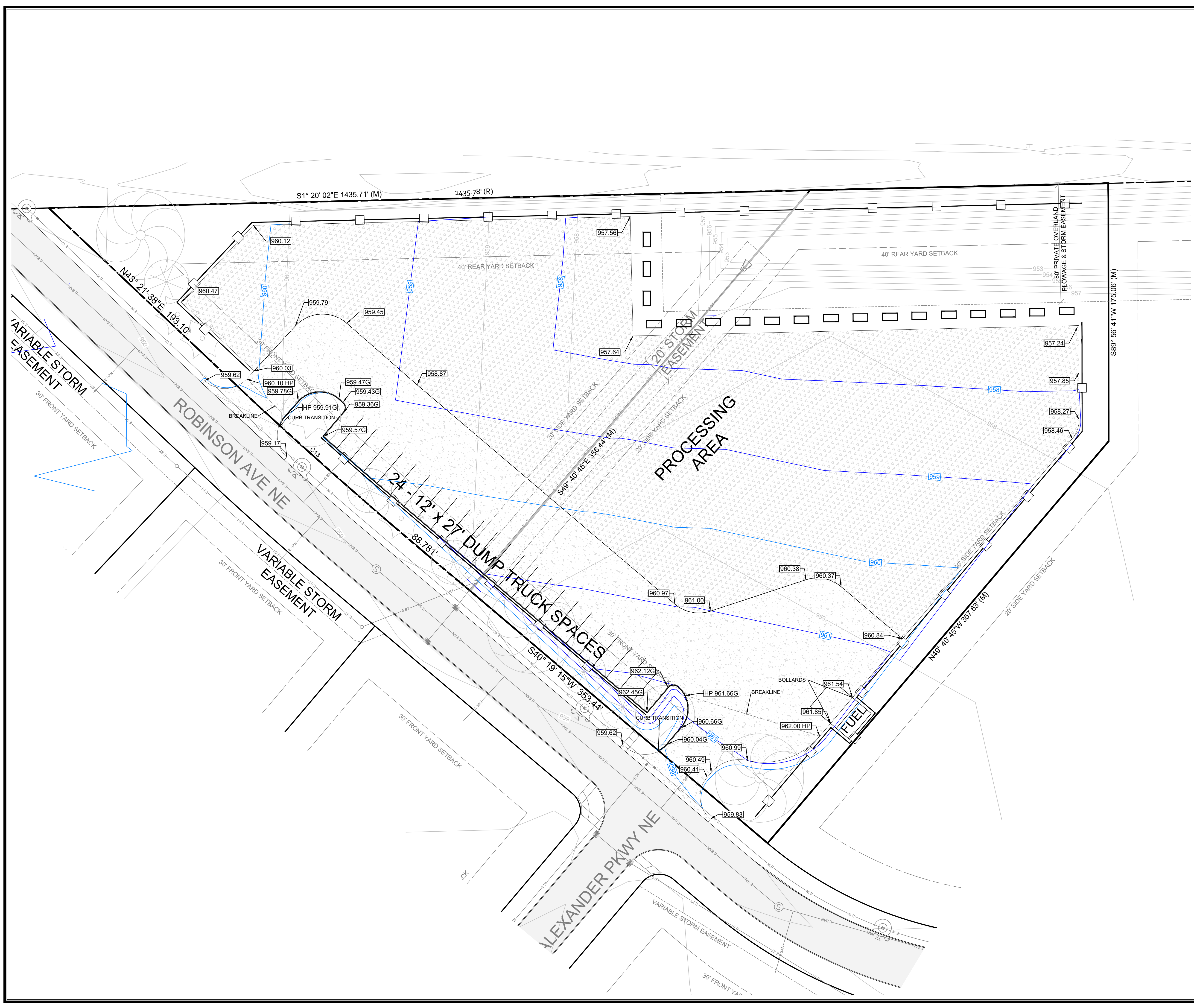
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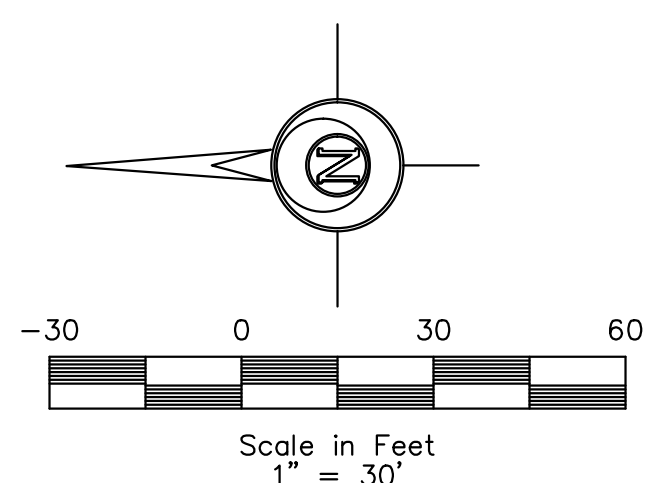
DRAWING NO: 23-022

PRELIMINARY

C4 - LAYOUT SHEET



- EXISTING ROAD
- PROPOSED 8" P.C.C.
- PROPOSED 6" P.C.C
- PROPOSED GRAVEL



LEGEND:

- | | | | |
|---------------|------------------------------|---|----------------------------|
| +/- | MORE OR LESS | ⊙ | ELEC. MANHOLE |
| F.F. | FINISHED FLOOR | ⊙ | SANITARY SEWER MANHOLE |
| 123.45G | GUTTER ELEVATION | ⊙ | STORM SEWER MANHOLE |
| 123.45TC | TOP OF CURB ELEVATION | ⊙ | TRAFFIC MANHOLE |
| 123.45/123.45 | EXISTING/ PROPOSED ELEVATION | ⊙ | CLEANOUT |
| FL | FLOWLINE ELEVATION | ⊙ | DOWNSPOUT |
| ⊙ | CONTROL POINT | ⊙ | AREA INTAKE |
| ⊙ | CALCULATED CORNER | ⊙ | SINGLE INTAKE |
| ● | FOUND CORNER | ⊙ | THROAT INTAKE |
| ⊙ | CALCULATED SECTION CORNER | ⊙ | FLARED END SECTION |
| ⊙ | FOUND SECTION CORNER | ⊙ | GAS VALVE |
| ⊙ | PARKING SPACE | ⊙ | FIRE HYDRANT |
| ⊙ | SIGN | ⊙ | WATER VALVE |
| ⊙ | STREET LIGHT | ⊙ | P XX PROPOSED UTILITY LINE |
| ⊙ | POWER POLE | ⊙ | E XX EXISTING UTILITY LINE |
| ⊙ | LIGHT POLE | ⊙ | CATV CABLE TELEVISION |
| ⊙ | AREA LIGHT | ⊙ | FO FIBER OPTIC |
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| ⊙ | ELEC. TRANSFORMER | ⊙ | OHT OVERHEAD TEL. |
| ⊙ | ELEC. METER | ⊙ | SAN SANITARY SEWER |
| ⊙ | ELEC. BOX | ⊙ | ST STORM SEWER |
| ⊙ | ELEC. VAULT | ⊙ | UGE UNDERGROUND ELEC. |
| ⊙ | FIBER OPTIC VAULT | ⊙ | UGT UNDERGROUND TEL. |
| ⊙ | GAS METER | ⊙ | W WATER |
| ⊙ | CABLE TV JUNCTION BOX | ⊙ | ⊙ FENCE LINE |
| ⊙ | WATER METER | | |

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BONDURANT, IA

REVISIONS:

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COPYRIGHT DATE: 10.05.2023

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SCALE: 1"=30'

LATEST REVISION: 23-022

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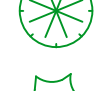
C5 - GRADING SHEET

LOTS 10 & 11	
PROPERTY AREA	181,908 sq.ft. (4.18 acres)
IMPERVIOUS AREA	128,867 sq.ft. (2.84 acres)
PERVIOUS AREA	58,041 sq.ft. (1.33 acres) (MIN 10%)
PARKING AREA	22,860 sq.ft. (0.81 acres)
ACCESSES	1,597 sq.ft. (0.04 acres)
STORAGE AREA (GRAVEL)	86,550 sq.ft. (1.99 acres)

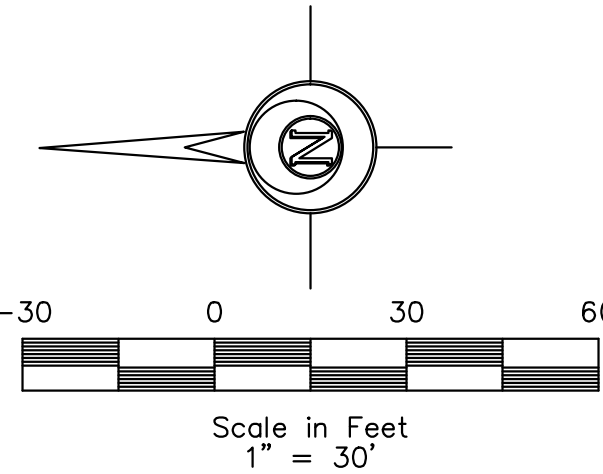
LANDSCAPING REQUIREMENTS

MIN 5% OF PARKING AREA IS LANDSCAPED (22,860 SQ.FT. PARKING AREA)
1,245 SQ.FT. OF INTERIOR LANDSCAPED ISLANDS
1 INTERIOR SHADE TREE PER 18 PARKING SPACES
24 PARKING SPACES = 2 INTERIOR TREES
AT LEAST 90% GROUND COVER FOR OPEN SPACE
NO LESS THAN 90% OF OPEN SPACE WILL HAVE LANDSCAPING OR GRASS
TYPE C SCREENING REQUIRED ALONG ROBINSON AVE
6' OPAQUE FENCE
1 TREE PER 50FT OF FRONTAGE (65'LF FRONTAGE) = 13 TREES
100% OF TREES MAY BE DECIDUOUS SHADE/OVERSTORY TREES
UP TO 25% OF FRONTAGE TREES MAY BE ORNAMENTAL, EVERGREEN, OR CONIFEROUS
UP TO 50% OF FRONTAGE TREES MAY BE QUICK GROWING TREES

LANDSCAPING SCHEDULE:

SYMBOL	#	COMMON NAME (BOTANICAL NAME)	PLANTING SIZE	MATURE SIZE (HEIGHT & SPREAD)	SHADE (FRONTAGE)
	3	RED OAK TREE (QUERCUS RUBRA)	MIN 1.75" CALIPER B&B	50'-75' & 50'-75'	SHADE (FRONTAGE)
	2	CHINESE ELM TREE (ULMUS PARVIFOLIA)	MIN 1.75" CALIPER B&B	40'-50' & 25'-40'	SHADE (FRONTAGE)
	5	KATSURA TREE (CERCIDIPHYLLUM JAPONICUM)	MIN 1.75" CALIPER B&B	40'-60' & 20'-30'	SHADE (FRONTAGE)
	3	AMERICAN SMOKE TREE (COTINUS COBOLATUS)	MIN 1.75" CALIPER B&B	20'-30' & 20'-30'	ORNAMENTAL (FRONTAGE)
TOTAL: 10 OVERSTORY TREES & 3 UNDERSTORY TREES					

- EXISTING ROAD
- PROPOSED 8" P.C.C.
- PROPOSED 6" P.C.C.
- PROPOSED GRAVEL



LEGEND:

+/-	MORE OR LESS	⊙	ELEC. MANHOLE
F.F.	FINISHED FLOOR	⊙	SANITARY SEWER MANHOLE
123.45G	GUTTER ELEVATION	⊙	STORM SEWER MANHOLE
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BENCHMARK: **PRELIMINARY**

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C6 - LANDSCAPING SHEET