



GRINNELL CITY COUNCIL REGULAR SESSION MEETING
MONDAY, JULY 21, 2025, AT 7:00 PM
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY HALL
AND VIA ZOOM
[HTTPS://ZOOM.US/J/97315673970?PWD=X7VO1VI4I0EUMY2BDO4H4UGFV0UKTE.1](https://zoom.us/j/97315673970?pwd=X7VO1VI4I0EUMY2BDO4H4UGFV0UKTE.1)

MEETING ID: 973 1567 3970
PASSCODE: 668707

TENTATIVE AGENDA

1. Call to Order:

2. Perfecting and Approval of Agenda:

The City Council may act on any item listed on the agenda.

3. Consent Agenda:

All items listed under the consent agenda will be enacted by one motion. There will be no separate discussion of these items unless a request is made prior to the time Council votes on the motion.

- A. July 7, 2025, Council Minutes.
- B. July 14, 2025, Council Special Meeting Minutes.
- C. Liquor License Renewals:
 - 1. Phillip's 66, 1031 West St.
 - 2. Bowladrome, 915 State St.
- D. Approve the resignation of Volunteer Firefighter Kyle Esrey.
- E. Approve the resignation of Volunteer Firefighter DJ Beck.
- F. Approve the removal of Devin Philips as a Volunteer Firefighter.
- G. Review Campbell Fund requests.

4. Meeting Minutes and Communications:

- A. Finance Committee Minutes: July 7, 2025.
- B. Public Works & Grounds Committee Minutes: July 7, 2025
- C. Public Safety Committee Minutes: July 7, 2025
- D. National Night Out Invitation

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, (641) 236-2600 or adevig@grinnelliowa.gov, no fewer than two business days prior to the meeting to enable the City of Grinnell to make reasonable arrangements to assure accessibility or language assistance for the meeting.

E. June 2025 Police Monthly Report

5. Committee Business:

A. Report from the Finance Committee

1. Consider approval of a special Campbell Fund request from Suds of Love.
2. Consider approval of a special Campbell Fund request from Renewed Hope Home Furnishings.
3. Consider approval of a resolution fixing date for a public hearing on the proposal to enter into a Development Agreement with United Mutual Insurance Association. (See Resolution No. 2025-124)
4. Consider approval of a resolution approving reasonable competitive bidding procedures for and setting the date for a public hearing on the proposal to convey interests in real property located within the Grinnell Urban Renewal Area; directing publication of related notices; and declaring the intent of the Seller to accept the offer submitted by Main & Main Capital Group, LLC in the event that no qualified competing proposals are submitted. (See Resolution No. 2025-125)

B. Report from the Public Works and Grounds Committee

1. Consider approval of a resolution approving a Professional Service Agreement with Veenstra and Kimm, Inc. for the 4th Avenue Reconstruction (2026), State Street to East Street Project. (See Resolution No. 2025-126)
2. Consider approval of a resolution approving a Professional Services Agreement with Veenstra and Kimm, Inc. for the Water Treatment Plant Streets Reconstruction Project. (See Resolution No. 2025-127)
3. Consider approval of a request from Snyder and Associates on behalf of Grinnell College to place signage in the right-of-way near Loose Hall building.
4. Consider approval of a resolution authorizing the City Manager or Mayor to execute and sign the FY 2025 Airport Infrastructure Grant Agreement on behalf of the city of Grinnell for the Apron Rehabilitation Project - Phase I Design. (See Resolution No. 2025-128)
5. Consider approval of a resolution setting a Public Hearing for August 18, 2025, at 7:00 P.M. on the proposed plans and specifications, proposed form of contract and estimate of cost and directing publication of Notice to Bidders for the Veterans Memorial Monument. (See Resolution No. 2025-129)

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, (641) 236-2600 or adevig@grinnelliowa.gov, no fewer than two business days prior to the meeting to enable the City of Grinnell to make reasonable arrangements to assure accessibility or language assistance for the meeting.

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6. Consider approval of an Agreement for Fabrication with Vector Fabricating, Inc. for the fabrication of the Veterans Memorial Monument.

C. Report from the Public Safety Committee

1. Consider approval of a resolution entering into an Agreement for Services with Roe Consulting LLC., in the amount of \$8,000.00 or 9% of the estimated federal share of GEMT reimbursements. (See Resolution No. 2025-130)

D. Report from the Planning Committee

1. Discuss a special event to be held at the Grinnell Airport on September 27, 2025.
2. Consider approval of an agreement with Maxfield Research of Minneapolis to complete a housing study for the city of Grinnell.
3. Review draft of the FY 27-33 Capital Improvement Plan.

6. Ordinances:

- A. Ordinance No. 1564 - Rezoning - Third and final reading
- B. Ordinance No. 1567 - Fireworks - Second reading

7. Inquiries: Public Comment

Visitors may address the Council/Board at this time; however, comments will be limited to 2 minutes. As per Iowa's Open Meetings Law, Council/Board can only listen during public comments and cannot take any action on items that are not posted on the agenda. Council may take issues under advisement and if needed refer them to a department head, Mayor's committee, or add them to a future agenda.

8. Adjourn:



GRINNELL CITY COUNCIL REGULAR SESSION MEETING
MONDAY, JULY 7, 2025, AT 7:00 PM
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY HALL AND VIA ZOOM

[HTTPS://ZOOM.US/J/94029629743?PWD=Q1BSQLFOSTMXDVDIM1PYA0NODDK0QT09](https://zoom.us/j/94029629743?pwd=Q1BSQLFOSTMXDVDIM1PYA0NODDK0QT09)

MINUTES

Mayor Agnew called the meeting to order at 7:00 p.m. with all council members present.

White made the motion, seconded by Hueftle-Worley, to approve the agenda as presented. AYES: 6-0. Motion carried.

- A. Minutes: June 16, 2025.
- B. Tobacco Permit - Dollar General, YLA Tobacco & Vape.
- C. Approve city claims and payroll claims from June 3, 2025, through and including July 7, 2025, in the amount of \$3,402,127.95.
- D. Review Campbell Fund requests.

The Council and Mayor acknowledged receipt of the following meeting minutes and communications:

- A. Finance Committee Minutes: June 16, 2025.
- B. Public Works & Grounds Committee Minutes: June 16, 2025.
- C. Public Safety Committee Minutes: June 16, 2025.
- D. Planning Committee Minutes: June 16, 2025.
- E. Police Monthly Report, May 2025.
- F. Service Line Warranties Report.
- G. Parks and Recreation Minutes - June 27, 2025.

Wray made the motion, seconded by Davis, to approve Resolution No. 2025-104. A resolution requesting the submission of a Local Sales and Services Tax to the qualified

voters and establishing uses for the local sales and services tax receipts. AYES: 6-0. Motion carried.

The Council and Mayor reviewed the May Investment and Treasurers report.

Wray made the motion, seconded by White, to approve Resolution No. 2025-105. A resolution for monthly internal transfers in the amount of \$47,583.53. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve a request from Jack Little, 507 10th Avenue, for a native planting area per Chapter 52. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-106. A resolution approving the appointment of the city of Grinnell's Title VI Coordinator. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-107. A resolution approving the appointment of the city of Grinnell's ADA Coordinator. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve a Settlement and General Release Agreement between the city of Grinnell and Ovivo USA, LLC. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve authorizing staff to begin negotiations for engineering services with Houston Engineering, Inc. for the Grinnell Lakes Restoration Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve a cooperative agreement with the Iowa Department of Natural Resources for design and engineering services on the Lake Restoration Projects. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-108a. A resolution adopting the plans and specifications, proposed form of contract and estimate of cost for the Hazelwood Cemetery Road Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-108. A resolution awarding contract for the Hazelwood Cemetery Road Paving Project to InRoads in the amount of \$163,187.00. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-109. A resolution accepting Change Order No. 5 with Con-Struct Inc. in the amount of \$57,083.70 for the Raw Water Main Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-110. A resolution authorizing payment of contractor's Pay Request No. 7, in the amount of \$233,690.59 to Con-Struct, Inc. for the Raw Water Main Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-111. A resolution authorizing payment of contractor's Pay Request No. 8, in the amount of \$55,869.74 to Con-Struct, Inc. for the Raw Water Main. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-112. A resolution authorizing payment of contractor's Pay Request No. 17, in the amount of \$7,695.00 to Manatt's, Inc. for the North Streets Inlay Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-113. A resolution authorizing payment of contractor's Pay Request for partial release of retainage, in the amount of \$140,000.00 to Manatt's Inc. for the North Streets Inlay Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-114. A resolution authorizing payment of contractor's Pay Request for partial release of retainage, in the amount of \$80,775.16 to All Star Concrete for the 4th Avenue Reconstruction Project - Prince Street to Pearl Street. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-115. A resolution accepting work for the 2024 Central Business District Maintenance Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-116. A resolution authorizing payment of contractor's Pay Request No. 5, in the amount of \$5,035.00 to Con-Struct, Inc. for the Park Street Reconstruction Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-117. A resolution accepting the work for the Park Street Reconstruction Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-

118. A resolution authorizing payment of contractor's Pay Request No. 5, in the amount of \$119,476.13 to Caldwell Tanks, Inc. for the South Water Tower Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-119. A resolution approving Change Order No. 2 in the amount of \$32,600.00, with Cahoy Pump Service, Inc. for the Jordan Well No. 10 Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-120. A resolution authorizing payment of contractor's Pay Request No. 10, in the amount of \$224,954.59 to Cahoy Pump Service, Inc. for the Jordan Well No. 10 Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-121. A resolution authorizing payment of contractor's Pay Request No. 3, in the amount of \$184,113.63 to WRH, Inc. for the Water Plant Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve Resolution No. 2025-122. A resolution authorizing payment of contractor's Pay Request No. 4, in the amount of \$478,268.13 to WRH, Inc. for the Water Plant Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve Resolution No. 2025-123. A resolution accepting the work and completion of the Wastewater Treatment Plant Project. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Bly, to approve the first reading of Ordinance No. 1566, an ordinance amending storm water and solid waste service charges effective July 1, 2025. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by Hart, to approve waiving the second and third reading of Ordinance No. 1566 and adopting the ordinance upon its publication following the first reading. AYES: 6-0. Motion carried.

White made the motion, seconded by Davis, to approve the first reading of Ordinance No. 1567. An ordinance amending section 41.12, Fireworks, of the ordinance for the city of Grinnell, Iowa, by repealing and replacing the same. AYES: 6-0. Motion carried.

Hueftle-Worley made the motion, seconded by White, to approve the second reading of Ordinance 1564 - Rezoning. AYES: 6-0. Motion carried.

There were no inquiries.

The meeting was adjourned at 7:22 P.M.



DAN F. AGNEW, MAYOR

ATTEST:



ALYSSA DEVIG, CITY CLERK



GRINNELL CITY COUNCIL SPECIAL MEETING
MONDAY, JULY 14, 2025, AT 5:30 PM
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY HALL AND VIA ZOOM

[HTTPS://ZOOM.US/J/94029629743?PWD=Q1BSQLFOSTMXDVDIM1PYA0NODDK0QT09](https://zoom.us/j/94029629743?pwd=Q1BSQLFOSTMXDVDIM1PYA0NODDK0QT09)

MINUTES

Mayor Agnew called the meeting to order at 7:00 p.m. with the following council members present: White, Bly, Davis, Hart, Hueftle-Worley (joined at 5:35). Absent: Wray.

White made the motion, seconded by Davis, to approve the agenda as presented. AYES: 3-0. Motion carried.

White made the motion, seconded by Hueftle-Worley, to authorize the use of the Grinnell Regional Airport to host the Frank Brownell Memorial Fly-In and Community Concert on Saturday, September 27, 2025. The airport shall remain open for all air operations and there shall be no airshow. Brownell's will carry of minimum \$5 million general liability policy and name the City of Grinnell as an additional insured. The sale of alcohol is also approved, contingent on proper licenses and insurance. AYES: 4-0. Motion carried.

There were no inquiries.

The meeting was adjourned at 5:45 P.M.

A handwritten signature in blue ink, reading "Dan F. Agnew".

DAN F. AGNEW, MAYOR

ATTEST:

A handwritten signature in blue ink, reading "Alyssa Devig".

ALYSSA DEVIG, CITY CLERK



State of Iowa

Alcoholic Beverages Division

Applicant

NAME OF LEGAL ENTITY	NAME OF BUSINESS(DBA)	BUSINESS		
MAHADEUA INC	Phillips 66 Grinnell	(641) 236-0507		
ADDRESS OF PREMISES	PREMISES SUITE/APT NUMBER	CITY	COUNTY	ZIP
1031 West St		Grinnell	Poweshiek	50112
MAILING ADDRESS	CITY	STATE	ZIP	
PO BOX 652	Grinnell	Iowa	50112	

Contact Person

NAME	PHONE	EMAIL
Hiren	(219) 677-6241	pateliowa66@gmail.com

License Information

LICENSE NUMBER	LICENSE/PERMIT TYPE	TERM	STATUS
LE0003112	Class E Retail Alcohol License	12 Month	Submitted to Local Authority

TENTATIVE EFFECTIVE DATE	TENTATIVE EXPIRATION DATE	LAST DAY OF BUSINESS
Aug 13, 2025	Aug 12, 2026	

SUB-PERMITS

Class E Retail Alcohol License

PRIVILEGES



State of Iowa

Alcoholic Beverages Division

Status of Business

BUSINESS TYPE

Corporation

Ownership

• Individual Owners

NAME	CITY	STATE	ZIP	POSITION	% OF OWNERSHIP	U.S. CITIZEN
Monika Patel	Valparaiso	Indiana	46385	Director	33.33	Yes
Kamlesh Patel	Schererville	Indiana	46375	Director	33.33	No
Hiren Patel	Schererville	Indiana	46375	Director	33.33	No
Hiren Patel	Schererville	Indiana	46375	Director		No

Insurance Company Information

INSURANCE COMPANY

POLICY EFFECTIVE DATE

POLICY EXPIRATION DATE

DRAM CANCEL DATE

OUTDOOR SERVICE EFFECTIVE
DATE

OUTDOOR SERVICE EXPIRATION
DATE

BOND EFFECTIVE DATE

TEMP TRANSFER EFFECTIVE
DATE

TEMP TRANSFER EXPIRATION
DATE



State of Iowa

Alcoholic Beverages Division

Applicant

NAME OF LEGAL ENTITY

Bowladrome, Inc.

NAME OF BUSINESS(DBA)

Bowladrome, Inc.

BUSINESS

(641) 236-5827

ADDRESS OF PREMISES

915 State Street

PREMISES SUITE/APT NUMBER

CITY

COUNTY

ZIP

Grinnell

Poweshiek

50112-0000

MAILING ADDRESS

915 State St. PO Box 162

CITY

Grinnell

STATE

Iowa

ZIP

50112

Contact Person

NAME

Mike Kriegel

PHONE

(641) 821-0119

EMAIL

bowladrome@windstream.net

License Information

LICENSE NUMBER

LC0018214

LICENSE/PERMIT TYPE

Class C Retail Alcohol License

TERM

12 Month

STATUS

Submitted
to Local
Authority

EFFECTIVE DATE

Aug 7, 2025

EXPIRATION DATE

Aug 6, 2026

LAST DAY OF BUSINESS

SUB-PERMITS

Class C Retail Alcohol License

PRIVILEGES



State of Iowa

Alcoholic Beverages Division

Status of Business

BUSINESS TYPE

Corporation

Ownership

• Individual Owners

NAME	CITY	STATE	ZIP	POSITION	% OF OWNERSHIP	U.S. CITIZEN
Mike Kriegel	Grinnell	Iowa	50112	President	0.00	Yes
Connie Buffum	Grinnell	Iowa	50112	Secretary	100.00	Yes

Insurance Company Information

INSURANCE COMPANY

Illinois Casualty Co

POLICY EFFECTIVE DATE

Aug 7, 2025

POLICY EXPIRATION DATE

Aug 7, 2026

DRAM CANCEL DATE

OUTDOOR SERVICE EFFECTIVE
DATE

OUTDOOR SERVICE EXPIRATION
DATE

BOND EFFECTIVE DATE

TEMP TRANSFER EFFECTIVE
DATE

TEMP TRANSFER EXPIRATION
DATE



**GRINNELL FINANCE COMMITTEE MEETING
MONDAY, JULY 7, 2025, AT 8:00 A.M.
IN THE LARGE CONFERENCE ROOM ON THE 2ND FLOOR
OF CITY HALL AND VIA ZOOM**

<https://zoom.us/j/93277924094?pwd=RgbsY28HQ4ZR1nQR1CcBoBJSCyH89Q.1>

MINUTES

ROLL CALL: Wray (Chair), White, Davis joined at 8:13 A.M. Also present were, Ardrian Tidwell, Russ Crawford, Mayor Agnew, Russ Behrens, and Alyssa Devig.

PERFECTING AND APPROVAL OF AGENDA: Approved as presented.

COMMITTEE BUSINESS:

1. White made the motion, seconded by Wray to approve Resolution No. 2025-103. A resolution approving and authorizing the execution of a Consent to Collateral Assignment Agreement, related to the Amended and Restated Agreement for Private Development with Grinnell Investments, LLC. AYES: 2-0. Motion carried.
2. White made the motion seconded by Wray to approve Resolution No. 2025-104. A resolution requesting the submission of a Local Sales and Services Tax to the qualified voters and establishing uses for the local sales and services tax receipts. AYES: 3-0. Motion carried.
3. Reviewed the May Investment and Treasurers Reports.
4. White made the motion, seconded by Wray to approve Resolution No. 2025-105. A resolution for monthly internal transfers in the amount of \$47,583.53. AYES: 3-0. Motion carried.

There were no inquiries.

The meeting was adjourned at 8:20 A.M.

JO WRAY, CHAIR

ATTEST:

ALYSSA DEVIG, CITY CLERK/FINANCE DIRECTOR



**GRINNELL PUBLIC WORKS & GROUNDS COMMITTEE MEETING
MONDAY, JULY 7, 2025, AT 5:30 P.M.
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY HALL
AND VIA ZOOM**

<https://zoom.us/j/94348342460?pwd=2yf8L6xlCTjLnYM3bQEuhluVlnqzEO.1>

TENTATIVE AGENDA

ROLL CALL: Hueftle-Worley (Chair), Bly, Hart. Also present were Jim White, Mayor Agnew, Russ Behrens, Dan Sicard, Greg Roth, Forrest Aldrich, Jordan Allsup and Alyssa Devig.

PERFECTING AND APPROVAL OF AGENDA: Approved as presented.

COMMITTEE BUSINESS:

1. Bly made the motion, seconded by Hart to approve a request from Jack Little, 507 10th Avenue, for a native planting area per Chapter 52. AYES: 3-0. Motion carried
2. Hart made a motion, seconded by Bly to approve Resolution No. 2025-106. A resolution approving the appointment of the city of Grinnell's Title VI Coordinator. AYES: 3-0. Motion carried
3. Bly made the motion, seconded by Hart to approve Resolution No. 2025-107. A resolution approving the appointment of the city of Grinnell's ADA Coordinator. AYES: 3-0. Motion carried
4. Hart made the motion, seconded by Bly to approve a Settlement and General Release Agreement between the city of Grinnell and Ovivo USA, LLC. AYES: 3-0. Motion carried
5. Bly made the motion, seconded by Hart to approve authorizing staff to begin negotiations for engineering services with Houston Engineering, Inc. for the Grinnell Lakes Restoration Project. AYES: 3-0. Motion carried
6. Hart made the motion, seconded by Bly to approve a cooperative agreement with the Iowa Department of Natural Resources for design and engineering services on the Lake Restoration Projects. AYES: 3-0. Motion carried
7. Bly made the motion, seconded by Hart to approve Resolution No. 2025-108a. A resolution adopting the plans and specifications, proposed form of contract and estimate of cost for the Hazelwood Cemetery Road Project. AYES: 3-0. Motion carried
8. Hart made the motion, seconded by Hart to approve Resolution No. 2025-108. A resolution awarding contract for the Hazelwood Cemetery Road Paving Project to InRoads in the amount of \$163,187.00. AYES: 3-0. Motion carried
9. Bly made the motion, seconded by Hart to approve Resolution No. 2025-109. A resolution accepting Change Order No. 5 with Con-Struct Inc. in the amount of \$57,083.70 for the Raw Water Main Project. AYES: 3-0. Motion carried

10. Hart made the motion, seconded by Bly to approve Resolution No. 2025-110. A resolution authorizing payment of contractor's Pay Request No. 7, in the amount of \$233,690.59 to Con-Struct, Inc. for the Raw Water Main Project. AYES: 3-0. Motion carried
11. Bly made the motion, seconded by Hart to approve Resolution No. 2025-111. A resolution authorizing payment of contractor's Pay Request No. 8, in the amount of \$55,869.74 to Con-Struct, Inc. for the Raw Water Main. AYES: 3-0. Motion carried
12. Hart made the motion, seconded by Bly to approve Resolution No. 2025-112. A resolution authorizing payment of contractor's Pay Request No. 17, in the amount of \$7,695.00 to Manatt's, Inc. for the North Streets Inlay Project. AYES: 3-0. Motion carried
13. Bly made the motion, seconded by Hart to approve Resolution No. 2025-113. A resolution authorizing payment of contractor's Pay Request for partial release of retainage, in the amount of \$140,000.00 to Manatt's Inc. for the North Streets Inlay Project. AYES: 3-0. Motion carried
14. Hart made the motion, seconded by Bly to approve Resolution No. 2025-114. A resolution authorizing payment of contractor's Pay Request for partial release of retainage, in the amount of \$80,775.16 to All Star Concrete for the 4th Avenue Reconstruction Project - Prince Street to Pearl Street. AYES: 3-0. Motion carried
15. Bly made the motion, seconded by Hart to approve Resolution No. 2025-115. A resolution accepting work for the 2024 Central Business District Maintenance Project. AYES: 3-0. Motion carried
16. Hart made the motion, seconded by Bly to approve Resolution No. 2025-116. A resolution authorizing payment of contractor's Pay Request No. 5, in the amount of \$5,035.00 to Con-Struct, Inc. for the Park Street Reconstruction Project. AYES: 3-0. Motion carried
17. Bly made the motion, seconded by Hart to approve Resolution No. 2025-117. A resolution accepting the work for the Park Street Reconstruction Project. AYES: 3-0. Motion carried
18. Hart made the motion, seconded by Bly to approve Resolution No. 2025-118. A resolution authorizing payment of contractor's Pay Request No. 5, in the amount of \$119,476.13 to Caldwell Tanks, Inc. for the South Water Tower Project. AYES: 3-0. Motion carried
19. Bly made the motion, seconded by Hart to approve Resolution No. 2025-119. A resolution approving Change Order No. 2 in the amount of \$32,600.00, with Cahoy Pump Service, Inc. for the Jordan Well No. 10 Project. AYES: 3-0. Motion carried
20. Hart made the motion, seconded by Bly to approve Resolution No. 2025-120. A resolution authorizing payment of contractor's Pay Request No. 10, in the amount of \$224,954.59 to Cahoy Pump Service, Inc. for the Jordan Well No. 10 Project. AYES: 3-0. Motion carried
21. Bly made the motion, seconded by Hart to approve Resolution No. 2025-121. A resolution authorizing payment of contractor's Pay Request No. 3,

in the amount of \$184,113.63 to WRH, Inc. for the Water Plant Project.
AYES: 3-0. Motion carried

22. Hart made the motion, seconded by Bly to approve Resolution No. 2025-122. A resolution authorizing payment of contractor's Pay Request No. 4, in the amount of \$478,268.13 to WRH, Inc. for the Water Plant Project.
AYES: 3-0. Motion carried
23. Bly made the motion, seconded by Hart to approve Resolution No. 2025-123. A resolution accepting the work and completion of the Wastewater Treatment Plant Project. AYES: 3-0. Motion carried
24. Bly made the motion, seconded by Hart to approve the first reading of Ordinance No. 1566, an ordinance amending storm water and solid waste service charges effective July 1, 2025. AYES: 3-0. Motion carried
 - a. Hart made the motion, seconded by Bly to approve waiving the second and third reading of Ordinance No. 1566 and adopting the ordinance upon its publication following the first reading. AYES: 3-0. Motion carried

There were no inquiries.

The meeting was adjourned at 5:43 P.M.

BYRON HUEFTLE-WORLEY, CHAIR

ATTEST:

ALYSSA DEVIG, CITY CLERK/FINANCE DIRECTOR



GRINNELL PUBLIC SAFETY COMMITTEE MEETING
MONDAY, JULY 7, 2025, AT 6:15 P.M.
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY HALL
AND VIA ZOOM

<https://zoom.us/j/93007754966?pwd=tRBAT54NYXmKygz94JC2DkWDmp9vKn.1>

MINUTES

ROLL CALL: White (Chair), Hueftle-Worley, Davis. Also present were Jo Wray, Shane Hart, Dan Sicard, Mayor Agnew, Russ Behrens, and Alyssa Devig.

PERFECTING AND APPROVAL OF AGENDA: Approved as presented.

COMMITTEE BUSINESS:

1. Davis made the motion, seconded by Hueftle-Worley to approve the first reading of Ordinance No. 1567. An ordinance, amending section 41.12, Fireworks, of ordinance for the city of Grinnell, Iowa, by repealing and replacing the same.
AYES: 3-0. Motion carried

There were no inquiries.

The meeting was adjourned at 6:19 P.M.

JIM WHITE, CHAIR

ATTEST:

ALYSSA DEVIG, CITY CLERK/FINANCE DIRECTOR



City of Grinnell
...Jewel of the Prairie

Police Department
1020 Spring Street
Grinnell, IA 50112

Phone: 641-236-2670
FAX: 641-236-2652
ORI#IA0790100

Michael McClelland
Chief of Police

THE HONORABLE DAN AGNEW
MAYOR OF GRINNELL, IA
GRINNELL CITY COUNCIL
520 4TH AVE
GRINNELL, IA 50112

Mayor Agnew,

We would like to cordially invite you, City Manager Russ Behrens, and the council members to attend this year's National Night Out. The event will take place on Tuesday, August 5th, 2025, and is being held in Grinnell's Central Park from 6p.m. – 8 p.m. National Night Out encourages people to visit the local park and meet their neighbors, city officials, and first responders while enjoying ice cream provided by the Grinnell Optimist Club.

In order for the Grinnell Police Department and the Grinnell Optimist Club to host this event, we are requesting the use of all facilities at Central Park and kindly request that any fees associated with its use be waived for that day. We are also asking for the city's permission to close down the 800 block of Park Street on this day, so that we can ensure the safety of all attendees while they view the first responder vehicles and food vendors. We will additionally be asking for assistance from the Parks and Recreation Department and the Public Services Department to organize and secure extra trash receptacles and roadblock barriers.

We look forward to your presence at this year's National Night Out to socialize with the community and greet your local public safety personnel!

Thank you for your continued support and assistance,

Officer Sean Carlock

Enforcement • Service • Courtesy



City of Grinnell
...Jewel of the Prairie

Michael A. McClelland
Chief of Police
Police Department
1020 Spring Street
Grinnell, IA 50112

Phone: 641-236-2670
FAX: 641-236-2652
ORI#IA0790100

TO: Honorable Dan Agnew
Honorable City Council Members
Mr. Russ Behrens, City Manager
Mrs. Alyssa Devig, City Clerk

DATE: 4 JULY 2025

SUBJECT: MONTHLY REPORT FOR JUNE 2025

MONTHLY STATS	CURRENT MO.	LAST MO.	PREVIOUS YEAR
	JUNE 2025	MAY 2025	JUNE 2024
ARRESTS	36	24	17
CITATIONS	26	28	16
WARNINGS	43	55	34
PD Collisions	8	13	9
PI Collisions	3	1	1
HIT & RUN	3	3	0
Parking Citations	26	38	21
Calls for Service	640	802	697

BIAS-BASED POLICING REPORT (JUNE 2025)

	ETHNICITY	GENDER (M/F)	RACE
ARRESTS	1 (Hispanic or Latino) 35 (Not Hispanic or Latino)	25/11	0 (American Indian or Alaska Native) 0 (Asian) 1 (Black) 35 (White)
CITATIONS	4 (Hispanic or Latino) 22 (Not Hispanic or Latino)	13/13	26 (White) 0 (Asian) 0 (Black) 0 (American Indian or Alaska Native)
WARNINGS	1 (Hispanic or Latino) 42 (Not Hispanic or Latino)	27/16	43 (White) 0 (Asian) 0 (Black) 0 (American Indian or Alaska Native)



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MENTAL HEALTH CRISIS CFS FOR JUNE 2025

Mental Health Crisis Calls for Service (CFS) - Total	94
Poweshiek County Sheriff's Office- CFS Referred	3
Grinnell Fire Department – CFS Referred	3
Grinnell Police Department- CFS Referred	57
% Referred for additional resources/ assistance	61%

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael A. McClelland", written over a light blue circular stamp.

Michael A. McClelland, Chief of Poli



**GRINNELL FINANCE COMMITTEE MEETING
MONDAY, JULY 21, 2025, AT 8:00 A.M.
IN THE LARGE CONFERENCE ROOM ON THE 2ND FLOOR
OF CITY HALL AND VIA ZOOM**

<https://zoom.us/j/97844245669?pwd=rqaMGYFUdYAFNbpxuu3BFqidX0spi8.1>

Meeting ID: 978 4424 5669

Passcode: 132035

TENTATIVE AGENDA

ROLL CALL: Wray (Chair), White, Davis.

PERFECTING AND APPROVAL OF AGENDA:

COMMITTEE BUSINESS:

1. Consider approval of a special Campbell Fund request from Suds of Love.
2. Consider approval of a special Campbell Fund request from Renewed Hope Home Furnishings.
3. Consider approval of a resolution fixing date for a public hearing on the proposal to enter into a Development Agreement with United Mutual Insurance Association. (See Resolution No. 2025-124)
4. Consider approval of a resolution approving reasonable competitive bidding procedures for and setting the date for a public hearing on the proposal to convey interests in real property located within the Grinnell Urban Renewal Area; directing publication of related notices; and declaring the intent of the Seller to accept the offer submitted by Main & Main Capital Group, LLC in the event that no qualified competing proposals are submitted. (See Resolution No. 2025-125)

INQUIRES:

ADJOURN:

Suds of Love Program Overview

Suds of Love is a free, no-strings-attached laundry outreach program sponsored by Grinnell United Church of Christ and held monthly at Grinnell's Maytag Laundry & Tanning (804 West St). This initiative began in July 2023 and serves to spread kindness, dignity, and health to low-income residents in Grinnell and surrounding communities. People who need free laundry services are welcome to bring clothes and bedding to the laundromat on the last Wednesday of each month. Suds of Love provides quarters to operate the machines, detergent, dryer sheets, and volunteers to help. The primary role of UCC volunteers is to assist guests with machines, distribute supplies, and ensure a welcoming, organized, and supportive environment.

Thanks to a \$1,000 gift from the John M. Campbell Fund in 2024, Grinnell UCC was able to create a voucher program for Suds of Love which allows families needing laundry assistance to access this service outside of the monthly events. The voucher program also reduces wait times at the monthly events by allowing guests with large volumes of laundry to return later to wash more loads. In addition, the voucher program provides laundry assistance during June and December when Suds of Love volunteers are on break and no events are scheduled. This voucher program has been extremely successful!

Suds of Love Voucher Program Details

Each Suds of Love Laundry Voucher allows a family to wash/dry up to 5 loads of laundry using quarters, laundry detergent and dryer sheets provided by the church. Maytag Laundromat employees track the number of quarters used for each voucher and invoice the church once a month. Families can access vouchers at the monthly Suds of Love event, by visiting Grinnell UCC, and at the laundromat. Kate Slater at the Grinnell Housing Authority also distributes vouchers to clients in need as do staff working in the Grinnell Newburg School District, ensuring students and their families have access to clean laundry.

Suds of Love Voucher Stats

Grinnell UCC began distributing vouchers at the August 2024 Suds of Love event. The data captured below is from September 2024 – May 2025 (9 months).

- Average number of vouchers used each month: 14
- Average cost of each voucher: \$27.50
- Average monthly cost of voucher program: \$385
- Cost of voucher program from 9/24-5/25: \$3,528
- Estimated Annual Cost of Voucher Program: \$4,620

Suds of Love Impact in Our Community

Providing vouchers is just one piece of the Suds of Love program. Below are stats from July 2024 – June 2025 that sum up the impact of the monthly Suds of Love. These stats include 9 months of voucher distribution:

- Average Number of Households Served Per Month: 30
- Average Total Beneficiaries Among Households Per Month: 50
- Average Total Number of Volunteers Per Month: 14
- Average Total Volunteer Hours Per Month: 30
- Total Loads of Laundry Washed the past 12 months: 1,053

Additional Services Offered at Suds of Love Events

While washing and drying their laundry, participants can benefit from additional services offered, including:

- Hygiene Items: Soap, shampoo, toothbrushes, toothpaste, deodorant, etc., available on a quarterly basis through pre-assembled tote bags sized for individuals and for households with children.

- Spanish-Speaking Volunteer Assistance: A bilingual volunteer fluent in Spanish is regularly available to assist Spanish-speaking guests and volunteers.
- Children's Activities: Drake Community Library provides a monthly literacy kit featuring a diverse range of library books and activities to be utilized during the event so that children can engage in reading, writing, coloring, and drawing.
- Snacks and Water: Participating guests are provided with snacks and water to enjoy during their visit, along with opportunities for conversation and community engagement.
- Community Resources Information: Handouts are available featuring information on local community resources, including food assistance programs, public health, head start, and other essential services.

Suds of Love Funding Sources and Budget

The Suds of Love initiative began with seed money from Grinnell UCC Outreach and grew with donations from the congregation. As Suds of Love has taken off, the church has continued to fund this program while also looking to other sources of funding to maintain and grow these efforts. Sources include grants from charitable organizations like the Campbell Fund, Poweshiek County Alliance, and Grinnell Mutual Foundation to name a few.

There is more to operating this program than meets the eye. Behind the scenes, church staff organize volunteers to ensure there are enough helpers at every event, respond to event feedback, secure quarters to operate machines, work with the laundromat staff to track vouchers and manage their usage, shop for and organize supplies, promote the program, manage monetary and in-kind donations, and collaborate with community partners. Staff are present at the event to provide oversight and ensure the event runs smoothly as planned.

Below is a breakdown of annual expenses. Salaries represent portions of three staff members' time committed to this project. Supplies include laundry detergent, dryer sheets, snacks, and hygiene kits. Costs to operate machines include both events and vouchers. Publicity costs include Facebook ads, flyers, and signage placed in high-traffic areas to raise awareness of the monthly event. Other costs include small tokens for volunteer appreciation.

Suds of Love Annual Expenses

Salaries	\$23,287
Program Supplies	\$2,000
Costs to Operate Machines	\$6,600
Publicity	\$250
<u>Other Costs</u>	<u>\$60</u>
Total	\$32,197

Request for Campbell Fund Support

With deep gratitude for the ways that the Campbell Fund has been instrumental in the development of Suds of Love thus far, Grinnell United Church of Christ respectfully requests \$5,000 from the Campbell Fund to help grow and sustain our Suds of Love initiative, including our voucher program, and to help continue our efforts to provide low-income families with access to clean clothing and bedding. This community program addresses a unique, critical, and often-overlooked need by helping individuals and families with the high cost of laundry. Suds of Love promotes overall health and wellbeing and helps provide a sense of dignity for those in need. Support for Suds of Love from the Campbell Fund has and will continue to directly benefit families in our community who face economic challenges. By contributing to Suds of Love, the Campbell Fund will help Grinnell UCC maintain and expand this vital service. Thank you for your consideration and support.

CAMPBELL FUND APPLICATION

From

RENEWED HOPE HOME FURNISHINGS

*A MINISTRY OF
GRINNELL FRIENDS CHURCH*

JULY 8TH, 2025



Campbell Fund Application
July 8th, 2025

From:

Renewed Hope Home Furnishings
306 Park Street
Grinnell, IA 50112

A Ministry of Grinnell Friends Church

Ph 641-236-6412, Ext 3

Email: renewedhope@grinnellfriends.org

Website: <https://renewedhope.grinnellfriends.org>

Church Address:

Grinnell Friends Church
1115 West St South
PO Box 507
Grinnell, IA 50112

Hours of Operation - OPEN HOUSES

Every Wednesday from 9-11 am

1st & 3rd Saturdays of every month from 9 to Noon

Renewed Hope Home Furnishings Board of Directors

Angie Radcliffe, Executive Director
Greg Lincoln, Service Director
Anthony Nieuwsma, Lead Pastor at Grinnell Friends Church
Ron Bryan, Pastor of Congregational Care at Grinnell Friends Church
Rick Ethington, RHHF Treasurer and Website Supervisor
Barb Briggs, Graphic Design and Marketing
Sixta Hernandez, RHHF Secretary
Jim Kessler, Followup
Kathy Kessler, Bedding and Laundry Supervisor
Vickie VanRenterghem, Gift Bag Supervisor
Gerald Adams, Administration knowledge
Sara Adams, Education knowledge
Paul Kessler, Non profit knowledge

REQUEST FOR FUNDING:

The Renewed Hope Home Furnishings Board of Directors would like the Campbell Fund Committee to consider a request for Renewed Hope Home Furnishings to receive funding. Renewed Hope Home Furnishings takes in home furnishings donations from Givers. We store these items in our warehouse at 306 Park Street in Grinnell. We give needed home furnishings to Receivers for free. This is done through our website and our Open Houses. We also pickup and deliver furniture as needed with our team of Volunteers and the Renewed Hope Home Furnishings moving trailer.

OUR DATA:

2021 - 30 Givers, 22 Receivers for a total of 52 families

2022 - 115 Givers, 85 Receivers for a total of 200 families

2023 - 94 Givers, 103 Receivers for a total of 197 families

2024 - 275 Givers, 403 Receivers for a total of 678 families

2025 (through 7/8/25) - 192 Givers, 264 Receivers for a total of 456 families

We are projecting a total of 775 or more families by the end of 2025.

RHHF BUDGET DATA 2025:

 RHHF Budget 2025.xlsx (attached)

NON PROFIT STATUS:

 Nonprofit Status (attached)

Amount Requested:

\$25,000

Reasons for Funding Request:

Annual Rent - \$16,400

Monthly building rental is \$1,400.

Purchasing Beds - \$8,600

40-45 Beds at roughly \$200/bed. Beds are the most requested item that we receive.

We are not able to keep beds in stock so many requests for beds go unmet.

Additional Information:

 Presentation about Renewed Hope Home Furnishings (attached)

Expenses	Budgeted	Actual	Notes
		5/31/2025	
Volunteer appreciation	\$600.00	\$526.31	Meal at Pagliai's
Receiver Meals	\$500.00		Two receiver meals
Mileage	\$1,200.00	\$810.10	
Miscellaneous	\$300.00		Supplies, etc.
Moving equipment	\$500.00		
Office Assistant	\$12,000.00	\$4,712.03	
Pest control	\$321.00		
Promotional materials	\$600.00	\$6.69	Banners, Brochures, Chamber of Commerce membership
Renter's insurance			Included in Church building insurance
Shelving	\$500.00		
Storage rent	\$16,800.00	\$7,000.00	
Trailer insurance	\$181.00	\$181.00	
Trailer registration	\$31.00		
Website	\$175.00		
Total expenses	\$33,108.00	\$13,236.13	
Income			
Church budget - RHHF	\$5,000.00	\$5,000.00	
Church budget - Office Assistant	\$12,000.00	\$4,712.03	
Anticipated contributions			
Organizations	\$3,000.00	\$3,500.00	Budget is half of what we received last year
Individuals	\$5,300.00	\$1,480.00	Budget is half of what we received last year
Total income	\$25,300.00	\$14,692.03	

Gain or Loss for 2025	-\$7,808.00	\$1,455.90	
Carried over from 2024	\$11,469.93		This is what we have in savings
Projected Total at end of 2025	\$3,661.93		

Nonprofit Status

Renewed Hope Home Furnishings is a ministry of the Grinnell Friends Church. The church is a member of the Iowa Yearly meeting and is listed as a subordinate in their determination letter. A copy of the letter follows.

Renewed Hope Home Furnishings

A Ministry of Grinnell Friends Church



- ~How it started~
- ~When did we start~ 11/7/21
- ~What it is~
- ~What is the process~
- ~What do we do~
- ~Who we are~



Committee:

Angie Radcliffe, *Founder & Executive Director, Volunteer*
Greg Lincoln, *Service Director, Volunteer*
Sixta Hernandez, *RHHF Secretary, Volunteer*
Anthony Nieuwsma, *Lead Pastor of Grinnell Friends*
Ron Bryan, *Pastor of Congregational Care at Grinnell Friends*
Vickie VanRenterghem, *Gift Bag Coordinator, Volunteer*
Jim Kessler, *Retired Teacher*
Kathy Kessler, *Retired Teacher, Laundry Coordinator*
Barb Briggs, *Retired Nurse, RHHF Graphics*
Rick Ethington, *Retired Programmer, RHHF Treasurer & Tech*
Gerald & Sara Adams, *Retired/Education, Volunteers*
Paul Kessler, *Teacher*

Dedicated Volunteers:

Rich & Connie Humphrey - Team Leaders
Mike Groves
Kerry & Bobbie Deeter
Tom Reynolds
Lowell VanderPloeg
Glen Volkman
Susie Pickhardt
Lee McFee
Denise Kaisand
Rick Radcliffe
Kurtis Waddell
Ryan Cline



Angie Radcliffe
Executive Director

2021
Givers - 30
Receivers - 22
TOTAL - 52 Families

2022
Givers - 115
Receivers - 85
TOTAL - 200 Families

2023
Givers - 94
Receivers - 103
TOTAL - 197 Families

2024
Givers - 275
Receivers - 403
TOTAL - 678 Families

2025 (thru 7/5/25)
Givers - 192
Receivers - 264
TOTAL - 456 Families



Greg Lincoln
Service Director

~Open House~

Every Wednesday ~ 9-11 am
1st & 3rd Saturday of every month ~ 9 am to Noon

~GIVER~

People who donate home furnishings to our ministry.

~RECEIVER~

People who request home furnishings because they need them.

~VOLUNTEERS~

Moving Team - Pick up and deliver furniture as needed.

Open House - Greet people, show available items, fill out paperwork

Other positions - Gift Bag Coordinator, Laundry & Bedding Coordinator, Furniture Cleaner, Marketing & Social Media Assistant, Grant Writing Assistant, Volunteer Coordinating Assistant, Event Planning Assistant, Fundraising Assistant

Gift Bags - to each new Receiver

- Meal from Meals from the Heartland
- Personal Hygiene kit from She Counts
- Food Vouchers from the Ahrens Foundation
- Welcome Guide from the Grinnell Chamber of Commerce
- Welcome note card from Grinnell Friends Church
- List of Resources for Poweshiek County
- Campbell Fund applications for Grinnell Receivers

~Our Needs~

Volunteers - We are always looking for volunteers to help us move furniture. Volunteers must be 14 yrs or older and physically able to lift furniture. As we continue to grow, we will have other volunteer opportunities available.

Fundraising - We are 100% funded through donations and grants. All monies received go toward building rental, moving equipment, gas reimbursement and other needs of the ministry. Monetary donations are encouraged and accepted.

~Mission Statement~

To be the hands and feet of Jesus; that as Christ's followers, we are obedient in our commission to love, serve and help others while sharing the gospel of Jesus Christ.

Ways to contact us:

Physical Address:

Renewed Hope Home Furnishings
306 Park Street
Grinnell, IA 50112

Website: <https://renewedhope.grinnellfriends.org/>

Church Phone number: 641-236-6412, Ext 3

Email: renewedhope@grinnellfriends.org

Facebook page: Renewed Hope Home Furnishings

Mailing Address:

Renewed Hope Home Furnishings
%: Grinnell Friends Church
P.O. Box 507
Grinnell, IA 50112

Thank You for the opportunity to share information about our ministry!



ITEM TO INCLUDE ON AGENDA

CITY OF GRINNELL, IOWA

July 21, 2025

7:00 P.M.

Grinnell Urban Renewal Plan

- Resolution fixing date for a public hearing on the proposal to enter into a Development Agreement with United Mutual Insurance Association.

IMPORTANT INFORMATION

1. The above agenda items should be included, along with any other agenda items, in the meeting agenda. The agenda should be posted on a bulletin board or other prominent place easily accessible to the public and clearly designated for that purpose at the principal office of the body holding the meeting. If no such office exists, the notice must be posted at the building in which the meeting is to be held.
2. If you do not now have a bulletin board designated as above mentioned, designate one and establish a uniform policy of posting your notices of meeting and tentative agenda.
3. Notice and tentative agenda must be posted at least 24 hours prior to the commencement of the meeting.

NOTICE MUST BE GIVEN PURSUANT TO CHAPTER 21,
CODE OF IOWA, AND THE LOCAL RULES OF THE CITY.

July 21, 2025

The City Council of the City of Grinnell in the State of Iowa, met in _____ session, in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa, at 7:00 P.M., on the above date. There were present Mayor _____, in the chair, and the following named Council Members:

Absent: _____

Vacant: _____

* * * * *

Council Member _____ then introduced the following proposed Resolution entitled "RESOLUTION FIXING DATE FOR A PUBLIC HEARING ON THE PROPOSAL TO ENTER INTO A DEVELOPMENT AGREEMENT WITH UNITED MUTUAL INSURANCE ASSOCIATION, AND PROVIDING FOR PUBLICATION OF NOTICE THEREOF", and moved that the same be adopted. Council Member _____ seconded the motion to adopt. The roll was called, and the vote was:

AYES: _____

NAYS: _____

Whereupon, the Mayor declared the Resolution duly adopted as follows:

RESOLUTION NO. 2025-124

RESOLUTION FIXING DATE FOR A PUBLIC HEARING ON
THE PROPOSAL TO ENTER INTO A DEVELOPMENT
AGREEMENT WITH UNITED MUTUAL INSURANCE
ASSOCIATION, AND PROVIDING FOR PUBLICATION OF
NOTICE THEREOF

WHEREAS, by Resolution No. 1687, adopted March 21, 1994, this Council found and determined that certain areas located within the City are eligible and should be designated as an urban renewal area under Iowa law, and approved and adopted the Grinnell Urban Renewal Plan (the "Urban Renewal Plan" or "Plan") for the Grinnell Urban Renewal Area (the "Urban Renewal Area" or "Area") described therein, which Plan has been amended eight times, most recently by Amendment No. 9 approved by Resolution No. 2024-248 adopted on October 7, 2024, and which Plan, as amended, is on file in the office of the Recorder of Poweshiek County; and

WHEREAS, it is desirable that properties within the Area be redeveloped as part of the overall redevelopment area covered by said Plan; and

WHEREAS, the City has received a proposal from United Mutual Insurance Association (the "Developer"), in the form of a proposed Development Agreement (the "Agreement") by and between the City and the Developer, pursuant to which, among other things, the Developer would agree to construct certain Minimum Improvements (as defined in the Agreement) on certain real property located within the Urban Renewal Area as defined and legally described in the Agreement (the "Development Property") and consisting of the construction of an approximately 11,500 square foot two-story commercial building, together with all related site improvements, as outlined in the proposed Agreement; and

WHEREAS, the Agreement provides that the City will advance payment of a First Economic Development Grant to the Developer in the amount of \$250,000 from the

WHEREAS, the Agreement proposes that the City will make up to ten (10) consecutive annual payments of Economic Development Grants to Developer, under the terms and following satisfaction of the conditions set forth in the Agreement, not to exceed a cumulative total amount of the lesser of (i) \$1,300,450, or (ii) the amount of Tax Increments generated by the construction of the Minimum Improvements and collected pursuant to Section 403.19, Code of Iowa, accrued under the formula outlined in the proposed Agreement; and

WHEREAS, the Agreement provides that the first Economic Development Grant will be funded using \$250,000 advanced from the City's utility franchise fee revenues account (the "City Advance"), under the terms and following satisfaction of the conditions set forth in the Agreement; and

WHEREAS, the Agreement provides that the subsequent Economic Development Grants will be equal in amount to 100% of the Tax Increments collected in a particular fiscal year, less the amount of Tax Increments retained by the City to reimburse the amount of the City Advance, such that no subsequent payment will be made to the Developer until the City has collected

sufficient Tax Increments generated by the construction of the Minimum Improvements and collected pursuant to Section 403.19, Code of Iowa, to reimburse the amount of the City Advance; and

WHEREAS, one of the obligations of the Developer relates to employment retention and/or creation; and

WHEREAS, Chapters 15A and 403, Code of Iowa, (the "Urban Renewal Law") authorize cities to make grants for economic development in furtherance of the objectives of an urban renewal project and to appropriate such funds and make such expenditures as may be necessary to carry out the purposes of said Chapter, and to levy taxes and assessments for such purposes; and

WHEREAS, the Council has determined that the Agreement is in the best interests of the City and the residents thereof and that the performance by the City of its obligations thereunder is a public undertaking and purpose and in furtherance of the Plan and the Urban Renewal Law and, further, that the Agreement and the City's performance thereunder is in furtherance of appropriate economic development activities and objectives of the City within the meaning of Chapters 15A and 403, Code of Iowa, taking into account the factors set forth therein; and

WHEREAS, neither the Urban Renewal Law nor any other Code provision sets forth any procedural action required to be taken before said economic development activities can occur under the Agreement, and pursuant to Section 364.6, Code of Iowa, it is deemed sufficient if the action hereinafter described be taken and the City Clerk publish notice of the proposal and of the time and place of the meeting at which the Council proposes to take action thereon and to receive oral and/or written objections from any resident or property owner of said City to such action.

NOW THEREFORE, BE IT RESOLVED, BY THE CITY COUNCIL OF THE CITY OF GRINNELL IN THE STATE OF IOWA:

Section 1. That this Council meet in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa, at 7:00 P.M. on August 4, 2025, for the purpose of taking action on the matter of the proposal to enter into a Development Agreement with United Mutual Insurance Association.

Section 2. That the City Clerk is hereby directed to cause at least one publication to be made of a notice of said meeting, in a legal newspaper, printed wholly in the English language, published at least once weekly, and having general circulation in said City, said publication to be not less than four (4) clear days nor more than twenty (20) days before the date of said public meeting.

Section 3. The notice of the proposed action shall be in substantially the following form:

(One publication required)

NOTICE OF PUBLIC HEARING OF THE CITY COUNCIL OF
THE CITY OF GRINNELL IN THE STATE OF IOWA, ON THE
MATTER OF THE PROPOSAL TO ENTER INTO A
DEVELOPMENT AGREEMENT WITH UNITED MUTUAL
INSURANCE ASSOCIATION, AND THE HEARING THEREON

PUBLIC NOTICE is hereby given that the Council of the City of Grinnell in the State of Iowa, will hold a public hearing on August 4, 2025, at 7:00 P.M. in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa, at which meeting the Council proposes to take action on the proposal to enter into a Development Agreement (the "Agreement") with United Mutual Insurance Association (the "Developer").

The Agreement would obligate the Developer to construct certain Minimum Improvements (as defined in the Agreement) on certain real property located within the Grinnell Urban Renewal Area as defined and legally described in the Agreement (the "Development Property"), consisting of the construction of approximately 11,500 square foot two-story commercial building, together with all related site improvements, under the terms and following satisfaction of the conditions set forth in the Agreement. One of the obligations of Developer relates to employment retention and/or creation.

The Agreement proposes that the City will make up to ten (10) consecutive annual payments of Economic Development Grants to Developer, under the terms and following satisfaction of the conditions set forth in the Agreement, not to exceed a cumulative total amount of the lesser of (i) \$1,300,450, or (ii) the amount of Tax Increments generated by the construction of the Minimum Improvements and collected pursuant to Section 403.19, Code of Iowa, accrued under the formula outlined in the proposed Agreement. The first Economic Development Grant would be funded using \$250,000 advanced from the City's utility franchise fee revenues account (the "City Advance"). Subsequent Economic Development Grants would be equal in amount to 100% of the Tax Increments collected in a particular fiscal year, less the amount of Tax Increments retained by the City to reimburse the amount of the City Advance, such that no subsequent payment will be made to the Developer until the City has collected sufficient Tax Increments to reimburse the amount of the City Advance.

A copy of the Agreement is on file for public inspection during regular business hours in the office of the City Clerk, City Hall, City of Grinnell, Iowa.

At the above meeting the Council shall receive oral or written objections from any resident or property owner of said City, to the proposal to enter into the Agreement with the Developer. After all objections have been received and considered, the Council will at this meeting or at any adjournment thereof, take additional action on the proposal or will abandon the proposal to authorize said Agreement.

This notice is given by order of the City Council of the City of Grinnell in the State of Iowa, as provided by Section 364.6, Code of Iowa.

Dated this _____ day of _____, 2025.

City Clerk, City of Grinnell in the State of Iowa

(End of Notice)

PASSED AND APPROVED this 21st day of July, 2025.

Mayor

ATTEST:

City Clerk

CERTIFICATE

STATE OF IOWA

)

) SS

COUNTY OF POWESHIEK

)

I, the undersigned City Clerk of the City of Grinnell, State of Iowa, do hereby certify that attached is a true and complete copy of the portion of the records of the City showing proceedings of the Council, and the same is a true and complete copy of the action taken by the Council with respect to the matter at the meeting held on the date indicated in the attachment, which proceedings remain in full force and effect, and have not been amended or rescinded in any way; that meeting and all action thereat was duly and publicly held in accordance with a notice of meeting and tentative agenda, a copy of which was timely served on each member of the Council and posted on a bulletin board or other prominent place easily accessible to the public and clearly designated for that purpose at the principal office of the Council pursuant to the local rules of the Council and the provisions of Chapter 21, Code of Iowa, upon reasonable advance notice to the public and media at least twenty-four hours prior to the commencement of the meeting as required by law and with members of the public present in attendance; I further certify that the individuals named therein were on the date thereof duly and lawfully possessed of their respective city offices as indicated therein, that no Council vacancy existed except as may be stated in the proceedings, and that no controversy or litigation is pending, prayed or threatened involving the incorporation, organization, existence or boundaries of the City or the right of the individuals named therein as officers to their respective positions.

WITNESS my hand and the seal of the Council hereto affixed this _____ day of _____, 2025.

City Clerk, City of Grinnell, State of Iowa

(SEAL)

(One publication required)

NOTICE OF PUBLIC HEARING OF THE CITY COUNCIL OF
THE CITY OF GRINNELL IN THE STATE OF IOWA, ON THE
MATTER OF THE PROPOSAL TO ENTER INTO A
DEVELOPMENT AGREEMENT WITH UNITED MUTUAL
INSURANCE ASSOCIATION, AND THE HEARING THEREON

PUBLIC NOTICE is hereby given that the Council of the City of Grinnell in the State of Iowa, will hold a public hearing on August 4, 2025, at 7:00 P.M. in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa, at which meeting the Council proposes to take action on the proposal to enter into a Development Agreement (the "Agreement") with United Mutual Insurance Association (the "Developer").

The Agreement would obligate the Developer to construct certain Minimum Improvements (as defined in the Agreement) on certain real property located within the Grinnell Urban Renewal Area as defined and legally described in the Agreement (the "Development Property"), consisting of the construction of approximately 11,500 square foot two-story commercial building, together with all related site improvements, under the terms and following satisfaction of the conditions set forth in the Agreement. One of the obligations of Developer relates to employment retention and/or creation.

The Agreement proposes that the City will make up to ten (10) consecutive annual payments of Economic Development Grants to Developer, under the terms and following satisfaction of the conditions set forth in the Agreement, not to exceed a cumulative total amount of the lesser of (i) \$1,300,450, or (ii) the amount of Tax Increments generated by the construction of the Minimum Improvements and collected pursuant to Section 403.19, Code of Iowa, accrued under the formula outlined in the proposed Agreement. The first Economic Development Grant would be funded using \$250,000 advanced from the City's utility franchise fee revenues account (the "City Advance"). Subsequent Economic Development Grants would be equal in amount to 100% of the Tax Increments collected in a particular fiscal year, less the amount of Tax Increments retained by the City to reimburse the amount of the City Advance, such that no subsequent payment will be made to the Developer until the City has collected sufficient Tax Increments to reimburse the amount of the City Advance.

A copy of the Agreement is on file for public inspection during regular business hours in the office of the City Clerk, City Hall, City of Grinnell, Iowa.

At the above meeting the Council shall receive oral or written objections from any resident or property owner of said City, to the proposal to enter into the Agreement with the Developer. After all objections have been received and considered, the Council will at this meeting or at any adjournment thereof, take additional action on the proposal or will abandon the proposal to authorize said Agreement.

This notice is given by order of the City Council of the City of Grinnell in the State of Iowa, as provided by Section 364.6, Code of Iowa.

Dated this _____ day of _____, 2025.

City Clerk, City of Grinnell in the State of Iowa

(End of Notice)

4926-9964-3987-1\10542-179

AGREEMENT FOR PRIVATE DEVELOPMENT

THIS AGREEMENT FOR PRIVATE DEVELOPMENT ("Agreement"), is made on or as of _____, 2025 by and between the CITY OF GRINNELL, IOWA, a municipality (the "City"), established pursuant to the Code of Iowa and acting under the authorization of Chapters 15A and 403 ("Urban Renewal Act") of the Code of Iowa, 2025, as amended, and UNITED MUTUAL INSURANCE ASSOCIATION, a Iowa insurance company having offices for the transaction of business at 224 West Street, Grinnell, Iowa 50112 ("Developer"). The City and Developer are the Parties to this Agreement.

WITNESSETH:

WHEREAS, in furtherance of the objectives of the Urban Renewal Act, the City has undertaken a program for the development of an economic development area in the City and is engaged in carrying out urban renewal project activities in an area known as the Grinnell Urban Renewal Area (the "Urban Renewal Area"), which is described in the Urban Renewal Plan approved for such area by Resolution No. 1687 on March 21, 1994 and which has been amended several times, lastly by Amendment No. 9 as approved by resolution on October 7, 2024 (the "Urban Renewal Plan"); and

WHEREAS, Developer owns or will own certain real property within the Urban Renewal Area, legally described as follows:

THAT PART OF LOT 2, BROWNELLS BUSINESS PARK 1, AN OFFICIAL PLAT, NOW IN AND FORMING A PART OF THE CITY OF GRINNELL, IOWA, AS RECORDED IN BOOK 000H, PAGE 0007, OF THE POWESKIEK COUNTY RECORDERS OFFICE,

BEING MORE PARTICULARLY DESCRIBED AS FOLLOW:

BEGINNING AT THE SW CORNER OF THE NORTHEAST QUARTER (NE1/4) OF THE NE1/4 OF SECTION 32, TOWNSHIP 80 NORTH, RANGE 16 WEST OF THE 5TH PRINCIPAL MERIDIAN, POWESKIEK COUNTY, IOWA; THENCE S.89°53'55"E., A DISTANCE OF 451.16 FEET; THENCE S.20°55'59"E., A DISTANCE OF 357.06 FEET, TO THE NORTH RIGHT-OF-WAY OF LANG CREEK AVENUE, AS PRESENTLY ESTABLISHED; THENCE S.69°26'48"W., ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 143.24 FEET, TO THE BEGINNING OF AN ARC CONCAVED NORTHERLY, HAVING A RADIUS OF 962.50 FEET; THENCE ALONG SAID ARC, ALSO BEING SAID NORTH RIGHT-OF-WAY OF SAID LANG CREEK AVENUE, A DISTANCE OF 451.82 FEET, SAID ARC HAS A CHORD BEARING OF S.82°53'41"W., AND A CHORD DISTANCE OF 447.68 FEET, TO THE WEST LINE OF SAID LOT 2; THENCE N.00°02'51"W., A DISTANCE OF 439.95 FEET TO THE POINT OF BEGINNING. SAID PARCEL CONTAINS 217,800 SQ.FT., OR 5.000 ACRES MORE OR LESS, AND SUBJECT TO ALL EASEMENTS RECORD.

(which property as so described is hereinafter referred to as the “Development Property”); and

WHEREAS, Developer is willing to cause certain improvements (the “Minimum Improvements,” as more particularly described herein) to be constructed on the Development Property and Developer will thereafter cause the same to be operated in accordance with this Agreement (the “Project”); and

WHEREAS, in consideration of Developer’s obligations under this Agreement, the City is willing to provide grants to Developer under the terms and conditions of Article II of this Agreement (the “Economic Development Grants”); and

WHEREAS, the City believes that the development of the Development Property pursuant to this Agreement and the fulfillment of this Agreement are in the vital and best interests of the City and in accordance with the public purposes and provisions of the applicable State and local laws and requirements under which the foregoing project has been undertaken and is being assisted.

NOW, THEREFORE, in consideration of the promises and the mutual obligations of the Parties hereto, each of them does hereby covenant and agree with the other as follows:

ARTICLE I

DEVELOPER REPRESENTATIONS AND COVENANTS

Section 1.0. Purchase of Development Property. Developer shall acquire title ownership of the Development Property by no later than December 31, 2025. If Developer is not the title owner of record, as reflected in the land records of Poweshiek County, Iowa, by this date, then this Agreement shall automatically terminate; upon such termination, neither party shall have any continuing rights or obligations under this Agreement.

Section 1.1. Completion of Minimum Improvements. Developer shall complete certain “Minimum Improvements,” as more particularly described in Exhibit A attached hereto and made a part hereof, on the Development Property on or before December 31, 2026. Developer shall have obtained or caused to be obtained, in a timely manner, all required permits, licenses, and approvals, if any, and shall have met, in a timely manner, all requirements of all applicable local, state, and federal laws and regulations which must be obtained or met before the Minimum Improvements may be lawfully completed. Developer anticipates that the construction of the Minimum Improvements will require an investment of approximately \$6,729,000.

Section 1.2. Employment. Following completion of construction of the Minimum Improvements, Developer shall operate its business within the Minimum Improvements on the Development Property. By no later than January 1, 2027, Developer shall create at least 5 Jobs in its operations on the Development Property. Thereafter, until at least the Termination Date of this Agreement, Developer shall retain a total Monthly Average of at least 5 Jobs in its operations within the Minimum Improvements on the Development Property. The Annual Certification submitted pursuant to Section 1.8 shall show a Monthly Average of at least 5 Jobs have been

maintained in Developer's operations on the Development Property beginning no later than April 1, 2027.

For the purposes of this Agreement, a "Job" means the employment of one natural person, and "Monthly Average" means the average number of Jobs employed as of October 1 of each year and as of the first day of each of the preceding eleven (11) months, as shown in the Annual Certifications (submitted pursuant to Section 1.8) (prorated for the first Annual Certification).

Section 1.3. No Violations or Claims. To Developer's knowledge and with respect to the Project, the Development Property and the Minimum Improvements, the Developer is not in material violation of any local, state, or federal environmental law or regulation and is not aware of any pending or threatened claim against the Developer with respect to such laws.

Section 1.4. Insurance. The Developer agrees, until at least the Termination Date, to maintain builder's risk, property damage, and liability insurance coverages with respect to the Development Property and all improvements thereon in such amounts as are customarily carried by like organizations engaged in activities of comparable size and liability exposure with insurance companies reasonably satisfactory to the City, together with such additional coverages as the City may reasonably request, and shall provide evidence of such coverages to the City upon request.

Section 1.5. Compliance with Laws. Developer shall comply with all state, federal, and local laws, rules, and regulations relating to the Project, including laws prohibiting discrimination against any applicant, employee, or tenant because of age, color, creed, national origin, race, religion, marital status, sex, physical disability, or familial status.

Section 1.6. Available Information. Upon request, Developer shall promptly provide the City with copies of information requested by City that are related to this Agreement and the Project so that City can determine compliance with the Agreement.

Section 1.7. Real Property Taxes. Developer, or its successors shall pay or cause to be paid, when due, all real property taxes and assessments payable with respect to all and any parts of the Development Property. Developer and its permitted successors and assigns agree that, prior to the Termination Date:

a. They will not seek administrative review or judicial review of the applicability or constitutionality of any tax statute relating to the taxation of real property contained on the Development Property determined by any tax official to be applicable to the Development Property or Minimum Improvements, or raise the inapplicability or constitutionality of any such tax statute as a defense in any proceedings, including delinquent tax proceedings; and

b. They will not seek any tax exemption, deferral, or abatement either presently or prospectively authorized under any state, federal, or local law with respect to taxation of real property contained on the Development Property between the date of execution of this Agreement and the Termination Date.

Section 1.8. Annual Certification. To assist the City in monitoring the Agreement and performance of Developer hereunder, duly authorized officers of Developer shall provide an Annual Certification to the City in the form of Exhibit C attached to this Agreement. As part of the Annual Certification, Developer shall annually provide to the City: (i) proof that all ad valorem taxes on the Development Property have been paid for the prior fiscal year and any taxes due and payable for the current fiscal year as of the date of certification; (ii) the date the Minimum Improvements were first fully assessed, the value at such assessment and the current assessed value; (iii) a certification of the number of Jobs employed by Developer at the Development Property as of October 1 and as of the first day of each of the preceding eleven (11) months; and (iv) a certification that the executing officers are familiar with the terms and provisions of this Agreement and that at the date of such certification, there is no Event of Default by Developer hereunder, or if the signer is aware of any such Event of Default, said officer shall disclose in such statement the nature thereof, its period of existence and what action, if any, has been taken or is proposed to be taken with respect thereto.

The Annual Certification shall be provided not later than October 15 of each year, commencing October 15, 2027 and ending on October 15, 2038, both dates inclusive. Developer shall provide supporting information germane to the Annual Certification upon request of the City.

ARTICLE II

ECONOMIC DEVELOPMENT GRANTS

Section 2.1. Economic Development Grants.

a. **Amount of Grants.** For and in consideration of the obligations being assumed by Developer hereunder, and in furtherance of the goals and objectives of the Urban Renewal Plan for the Urban Renewal Area and the Urban Renewal Act, the City agrees, subject to Developer being and remaining in compliance with the terms of this Agreement, to make up to ten (10) payments of Economic Development Grants to Developer up to a total amount not to exceed \$1,300,450 (the “Aggregate Maximum Amount”), subject to the following terms and conditions.

b. **Tax Increments.** Aside from the first Economic Development Grant, funded through the City Advance (as described in Section 2.1(c)), the Economic Development Grants shall be paid using only incremental tax revenues generated by construction of the Minimum Improvements (building/improvement value only), collected by the County pursuant to Iowa Code Section 403.19 and deposited into Grinnell Urban Renewal Tax Increment Revenue Fund of the City (the “Tax Increments”). The Tax Increments do not include incremental tax revenues received by the City into the Grinnell Urban Renewal Tax Increment Revenue Fund due to any increase in land assessment value or any increase in the assessment value of any existing improvements located on the Development Property.

c. **City Advance for First Economic Development Grant.** The Developer shall provide written notice to the City of the date on which the Developer commences regular business operations within the Minimum Improvements. Within sixty (60) days of the City’s receipt of such written notice, the City agrees to provide the first Economic Development Grant payment to the Developer, in the amount of \$250,000. The City shall advance payment of \$250,000 from the

City's utility franchise fee revenues account for the purpose of funding the first Economic Development Grant payment (the "City Advance"), which City Advance shall be reimbursed through the City's collection of Tax Increments in subsequent fiscal years, as further described herein. The first Economic Development Grant payment shall be payable solely and only from the City Advance.

The City Advance shall constitute debt related to an urban renewal project which the City is authorized to certify under Iowa Code Section 403.19 for purposes of obtaining reimbursement for the City Advance from the division of revenue within the Urban Renewal Area as authorized by Iowa Code Section 403.19 and the Urban Renewal Plan. No subsequent Economic Development Grants shall be paid to the Developer until the City has collected sufficient Tax Increments to reimburse the City full amount of the City Advance, as further described in Section 2.1(d).

d. Schedule of Grants. Assuming the completion of the Minimum Improvements by December 31, 2026, and full assessment of the Minimum Improvements on January 1, 2027, and debt certification by the City to the Auditor prior to December 1, 2027, the City shall begin to collect Tax Increments in Fiscal Year 28-29 to reimburse the City Advance and fund additional Economic Development Grant payments. The collected Tax Increments shall be applied first to reimbursement of the City Advance; additional Economic Development Grant payments shall be paid to the Developer only after the City has collected sufficient Tax Increments to reimburse the full amount of the City Advance. If the amount of Tax Increments available to the City in Fiscal Year 28-29 are insufficient to reimburse the full amount of the City Advance, then Economic Development Grant payments scheduled for subsequent fiscal years (as shown on the schedule below) will be reduced by the City retaining an amount of Tax Increments collected in the particular fiscal year (potentially up to 100% of the available Tax Increments in a particular fiscal year) in order for the City to allocate the amount of the Tax Increments collected in the particular fiscal year towards reimbursement of the amount of the City Advance; this reduction of the amount of Economic Development Grant payments to the Developer shall continue until the City Advance has been fully reimbursed.

Provided the conditions set forth in this Article II are satisfied and the Developer is in compliance with the terms of the Agreement, then the Developer shall be eligible to receive an Economic Development Grant payment on each June 1st, commencing on the later of: (i) June 1, 2030 or (ii) the June 1st of the fiscal year in which the City has collected sufficient Tax Increments to fully reimburse the City Advance. The Economic Development Grant payments shall end on the earlier of: (i) June 1, 2038, or (ii) the June 1st on which the Aggregate Maximum Amount of Economic Development Grants is paid, under the following schedule:

<u>Date</u>	<u>Amount of Economic Development Grant</u>
<i>June 1, 2029</i>	<i>[no Economic Development Grant payment anticipated, due to expectation that 100% of Tax Increments for the Fiscal Year 28-29 will be retained by the City to reimburse the amount of the City Advance]</i>

June 1, 2030	100% of Tax Increments for the Fiscal Year 29-30, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2031	100% of Tax Increments for the Fiscal Year 30-31, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2032	100% of Tax Increments for the Fiscal Year 31-32, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2033	100% of Tax Increments for the Fiscal Year 32-33, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2034	100% of Tax Increments for the Fiscal Year 33-34, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2035	100% of Tax Increments for the Fiscal Year 34-35, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2036	100% of Tax Increments for the Fiscal Year 35-36, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2037	100% of Tax Increments for the Fiscal Year 36-37, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance
June 1, 2038	100% of Tax Increments for the Fiscal Year 37-38, minus any amount of Tax Increments retained by the City to reimburse the amount of the City Advance

e. Calculation of Grant Amount. Each annual Economic Development Grant payment shall be in amounts calculated pursuant to the above percentages of the Tax Increments collected by the City (without regard to any averaging that may otherwise be utilized under Iowa Code Section 403.19 and excluding any interest that may accrue thereon prior to payment to Developer) during the preceding twelve-month period in respect of that portion of the assessed value of the Minimum Improvements (building/improvement value only), but subject to limitation and adjustment as provided in this Article, including reduction of the payment amount until the City Advance has been fully reimbursed.

f. Limitation to Minimum Improvements. The Economic Development Grants will only be calculated from the increase in assessed value to the Development Property due to the Minimum Improvements described in this Agreement and not any future expansions or improvements.

Section 2.2. Maximum Amount of Grants. The aggregate amount that may be paid to Developer as the Economic Development Grants under this Agreement shall not exceed the Aggregate Maximum Amount described in Section 2.1(a); provided, however, that the total amount of Economic Development Grants paid to the Developer shall not exceed the sum of the

total amount of the applicable percentage of Tax Increments collected in the fiscal years identified in Section 2.1(d). The City makes no guarantee that the Developer will receive the Aggregate Maximum Amount.

Section 2.3. Conditions Precedent. Notwithstanding the provisions of Section 2.1 above, the obligation of the City to make any Economic Development Grant payment shall be subject to and conditioned upon the following:

- a. Developer's compliance with the terms of this Agreement including, but not limited to, completion of the Minimum Improvements, payment of real property taxes, and the employment of the required number of Jobs in Developer's operations on the Development Property;
- b. Timely filing by Developer of the Annual Certification required under Section 1.8 hereof and the Council's approval thereof (provided, however, that no Annual Certification is due to be filed prior to the payment of the first Economic Development Grant); and
- c. No Event of Default has occurred and is continuing.

In the event that an Event of Default (as hereinafter defined) occurs or any Annual Certification (or other information) discloses the existence of an Event of Default that was not cured or cannot reasonably be cured within the applicable cure period, the City shall have the remedies set forth in Section 5.2.

Each Annual Certification filed by Developer under Section 1.8 hereof shall be considered separately in determining whether the City shall make an Economic Development Grant payment to Developer. Under no circumstances shall the failure by Developer to qualify for an Economic Development Grant in any year serve to extend the term of this Agreement beyond the Termination Date or the years during which Economic Development Grants may be awarded to Developer or the total amount thereof, it being the intent of parties hereto to provide Developer with an opportunity to receive Economic Development Grants only if Developer fully complies with the provisions hereof and the Developer becomes entitled thereto, up to the Aggregate Maximum Amount set forth in Section 2.1(a).

Section 2.4. Source of Funds Limited.

a. Except for the first Economic Development Grant being funded by the City Advance, the Economic Development Grants shall be payable from and secured solely and only by Tax Increments collected pursuant to Iowa Code Section 403.19 and deposited and held in the Grinnell Urban Renewal Tax Increment Revenue Fund of the City. The City hereby covenants and agrees to apply the appropriate portion of Tax Increments collected in respect of the Minimum Improvements and allocated to pay the Economic Development Grants for such payment, as and to the extent set forth in this Article. The Economic Development Grants shall not be payable in any manner by other tax increment revenues or by general taxation or from any other City funds. Any commercial and industrial property tax replacement monies that may be received under Iowa Code Chapter 441.21A shall not be included in the calculation to determine the amount of

Economic Development Grants for which Developer is eligible, and any monies received back under Iowa Code Chapter 426C relating to the Business Property Tax Credit shall not be included in the calculation to determine the amount of Economic Development Grants for which Developer is eligible.

b. Each Economic Development Grant is subject to annual appropriation by the City Council. The right of non-appropriation reserved to the City in this Section is intended by the parties, and shall be construed at all times, so as to ensure that the City's obligation to make future Economic Development Grants shall not constitute a legal indebtedness of the City within the meaning of any applicable constitutional or statutory debt limitation prior to the adoption of a budget which appropriates funds for the payment of that installment or amount. In the event that any of the provisions of this Agreement are determined by a court of competent jurisdiction to create, or result in the creation of, such a legal indebtedness of the City, the enforcement of the said provision shall be suspended, and the Agreement shall at all times be construed and applied in such a manner as will preserve the foregoing intent of the parties, and no Event of Default by the City shall be deemed to have occurred as a result thereof. If any provision of this Agreement or the application thereof to any circumstance is so suspended, the suspension shall not affect other provisions of this Agreement which can be given effect without the suspended provision. To this end the provisions of this Agreement are severable.

c. Notwithstanding the provisions of Section 2.1 hereof, the City shall have no obligation to make an Economic Development Grant to Developer if at any time during the term hereof the City fails to appropriate funds for payment, the City's ability to collect Tax Increment from the Minimum Improvements or Development Property terminates under Iowa Code Chapter 403, as may be amended, or the City receives an opinion from its legal counsel to the effect that the use of Tax Increments to fund an Economic Development Grant to Developer, as contemplated under said Section 2.1, is not, based on a change in applicable law or its interpretation since the date of this Agreement, authorized or otherwise an appropriate urban renewal activity permitted to be undertaken by the City under the Urban Renewal Act or other applicable provisions of the Code, as then constituted or under controlling decision of any Iowa Court having jurisdiction over the subject matter hereof. Upon receipt of any such legal opinion, non-appropriation, or termination of the ability to collect Tax Increment, the City shall promptly forward notice of the same to the Developer. If the non-appropriation or circumstances or legal constraints giving rise to the decision continue for a period during which two (2) Economic Development Grants would otherwise have been paid to Developer under the terms of Section 2.1, the City may terminate this Agreement, without penalty or other liability to the City, by written notice to Developer.

Section 2.5. Use of Other Tax Increments. The City shall be free to use any and all Tax Increments above and beyond the amount to be given to Developer in this Agreement, or any available Tax Increments resulting from the suspension or termination of the Economic Development Grants as provided in this Agreement, for any purpose for which the Tax Increments may lawfully be used pursuant to the provisions of the Urban Renewal Act (including an allocation of all or any portion thereof to the reduction of any eligible City costs), and the City shall have no obligations to Developer with respect to the use thereof.

Section 2.6. Reimbursement of City Costs. Developer shall pay to the City an amount equal to the actual costs incurred by the City in connection with the negotiation, drafting and adoption of this Agreement, including, but not limited to, publication fees for legal notices, actual costs associated with City Council meetings, and reasonable legal fees of the City. Such payment will be made by the Developer to the City within 30 days of the date on which the City presents a statement to the Developer demonstrating such costs, or if not previously paid, the costs shall be deducted from the first Economic Development Grant.

ARTICLE III **INDEMNIFICATION**

Section 3.1. Release and Indemnification. Developer releases the City and the governing body members, officers, agents, servants, and employees thereof (hereinafter, for purposes of this Article III, the “Indemnified Parties”) from, covenants and agrees that the Indemnified Parties shall not be liable for, and agrees to indemnify, defend, and hold harmless the Indemnified Parties against, any loss or damage to property or any injury to or death of any person occurring at or about or resulting from any defect in the Minimum Improvements or Development Property.

Except to the extent arising from any willful misrepresentation, gross negligence, or any willful or wanton misconduct or any unlawful act of the Indemnified Parties, Developer agrees to protect and defend the Indemnified Parties, now or forever, and further agrees to hold the Indemnified Parties harmless, from any claim, demand, suit, action, or other proceedings whatsoever by any person or entity whatsoever arising or purportedly arising from: (i) any violation of any agreement or condition of this Agreement (except with respect to any suit, action, demand or other proceeding brought by Developer against the City to enforce its rights under this Agreement); (ii) the acquisition and condition of the Development Property and the construction, installation, ownership, and operation of the Minimum Improvements or Development Property; or (iii) any hazardous substance or environmental contamination located in or on the Development Property.

The Indemnified Parties shall not be liable for any damage or injury to the persons or property of Developer, or its officers, agents, servants, or employees, or any other person who may be about the Minimum Improvements or Development Property due to any act of negligence of any person, other than any act of negligence on the part of any such indemnified party or its officers, agents, servants, or employees.

The provisions of this Article III shall survive the termination of this Agreement.

ARTICLE IV **PROHIBITION AGAINST ASSIGNMENT AND TRANSFER**

Section 4.1. Status of Developer; Transfer of Substantially All Assets; Assignment. As security for the obligations of Developer under this Agreement, Developer represents and agrees that, prior to the Termination Date, Developer will maintain its existence as a company and will not wind up or otherwise dispose of all or substantially all of its assets or transfer, convey, or

assign its interests in the Development Property, Minimum Improvements, or this Agreement to any other party unless: (i) the transferee partnership, corporation, limited liability company, or individual assumes in writing all of the then-outstanding obligations of Developer under this Agreement; and (ii) the City consents thereto in writing in advance thereof.

Section 4.2. Prohibition Against Use as Non-Taxable or Centrally Assessed Property. During the term of this Agreement, Developer, or its successors or assigns, agree that the Development Property cannot be transferred or sold to a non-profit entity or used for a purpose that would exempt the Development Property or Minimum Improvements from property tax liability, excepting any transfer of a portion of the Development Property to the City to be owned as public property. Nor can the Development Property or Minimum Improvements be used as centrally assessed property (including but not limited to, Iowa Code § 428.24 to 428.29 (Public Utility Plants and Related Personal Property); Chapter 433 (Telegraph and Telephone Company Property); Chapter 434 (Railway Property); Chapter 437 (Electric Transmission Lines); Chapter 437A (Property Used in the Production, Generation, Transmission or Delivery of Electricity or Natural Gas); and Chapter 438 (Pipeline Property)).

ARTICLE V

DEFAULT AND REMEDIES

Section 5.1. Events of Default Defined. The following shall be “Events of Default” under this Agreement and the term “Event of Default” shall mean, whenever it is used in this Agreement, any one or more of the following events during the Term of this Agreement:

- a. Failure by Developer to cause the Minimum Improvements to be completed pursuant to the terms and conditions of this Agreement;
 - b. The Development Property is put up for tax sale by the County;
 - c. Failure by Developer to substantially observe or perform any covenant, condition, or obligation under this Agreement;
 - d. The holder of any mortgage on the Development Property, or any improvements thereon, or any portion thereof, commences foreclosure proceedings as a result of any default under the applicable mortgage documents;
 - e. Developer shall:
 - i. file any petition in bankruptcy or for any reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar relief under the United States Bankruptcy Act of 1978, as amended, or under any similar federal or state law; or
 - ii. make an assignment for the benefit of its creditors; or
 - iii. admit in writing its inability to pay its debts generally as they become due;
- or

iv. be adjudicated as bankrupt or insolvent; or if a petition or answer proposing the adjudication of Developer as bankrupt or either entity's reorganization under any present or future federal bankruptcy act or any similar federal or state law shall be filed in any court and such petition or answer shall not be discharged or denied within ninety (90) days after the filing thereof; or a receiver, trustee or liquidator of Developer or the Minimum Improvements, or part thereof, shall be appointed in any proceedings brought against Developer and shall not be discharged within ninety (90) days after such appointment, or if Developer shall consent to or acquiesce in such appointment; or

f. Any representation or warranty made by Developer in this Agreement or in any written statement or certificate furnished by Developer pursuant to this Agreement, shall prove to have been incorrect, incomplete, or misleading in any material respect on or as of the date of the issuance or making thereof.

Section 5.2. Remedies on Default. Whenever any Event of Default referred to in Section 5.1 of this Agreement occurs and is continuing, and fails to cure said breach within thirty (30) days after written notice from the City to the Developer of the Event of Default, then the City may (i) suspend its performance under this Agreement; (ii) terminate this Agreement upon written notice to the Developer; (iii) suspend payment of the Economic Development Grants; (iv) demand repayment of previously paid Economic Development Grants; and/or (v) take any other legal or equitable action deemed appropriate to enforce the Developer's obligations under this Agreement.

Section 5.3. No Remedy Exclusive. No remedy herein conferred upon or reserved to the City is intended to be exclusive of any other available remedy or remedies, but each and every remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity or by statute. No delay or omission to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be deemed expedient.

Section 5.4 No Implied Waiver. In the event any agreement contained in this Agreement should be breached by any party and thereafter waived by any other party, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other concurrent, previous or subsequent breach hereunder.

Section 5.5. Enforcement Costs. Whenever any Event of Default occurs and the City shall employ attorneys or incur other expenses for the collection of payments due or to become due or for the enforcement or performance or observance of any obligation or agreement on the part of Developer herein contained, Developer agrees that it shall, on demand therefor, pay to the City the reasonable fees of such attorneys and such other expenses as may be reasonably and appropriately incurred by the City in connection therewith.

ARTICLE VI

MISCELLANEOUS

Section 6.1. Conflict of Interest. Developer represents and warrants that, to its best knowledge and belief after due inquiry, no officer or employee of the City, or their designees or agents, nor any consultant or member of the governing body of the City, and no other public official of the City who exercises or has exercised any functions or responsibilities with respect to the Project during his or her tenure, or who is in a position to participate in a decision-making process or gain insider information with regard to the Project, has had or shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work or services to be performed in connection with the Project, or in any activity, or benefit therefrom, which is part of the Project at any time during or after such person's tenure.

Section 6.2. Notices. Notices, demands, or other communications under this Agreement by either party to the other shall be sufficiently given or delivered if it is dispatched by registered or certified mail, postage prepaid, return receipt requested, or delivered personally, and

- a. In the case of Developer, is addressed or delivered personally to United Mutual Insurance Association, at 224 West Street, Grinnell, IA 50112, Attn: President;
- b. In the case of the City, is addressed to or delivered personally to the City of Grinnell at City Hall, 520 4th Avenue, Grinnell, Iowa 50112, Attn: City Clerk;

or to such other designated individual or officer or to such other address as either party shall have furnished to the other in writing in accordance herewith.

Section 6.3. Iowa Law Controlling. This Agreement shall be governed and construed under the laws of the State of Iowa.

Section 6.4. Entire Agreement. This Agreement and the Exhibits here referenced shall constitute the entire agreement between the City and the Developer and supersedes all other written and oral agreements, discussions, and negotiations.

Section 6.5. Amendments. This Agreement may not be amended or assigned by either party without the express written permission of the other party.

Section 6.6. Counterparts. This Agreement may be executed in counterparts, each of which shall constitute one and the same instrument.

Section 6.7. Severability. In the event any term or provision of this Agreement is held to be unenforceable by a court of competent jurisdiction, the remainder shall continue in full force and effect, to the extent the remainder can be given effect without the invalid provision.

Section 6.8. Successors and Assigns. This Agreement is intended to and shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

Section 6.9. No Third-Party Beneficiaries. No rights or privileges of either party hereto shall inure to the benefit of any landowner, contractor, subcontractor, material supplier, or any other person or entity, and no such contractor, landowner, subcontractor, material supplier, or

any other person or entity shall be deemed to be a third-party beneficiary of any of the provisions contained in this Agreement.

Section 6.10. Termination. This Agreement shall terminate and be of no further force or effect on and after December 31, 2038 (the “Termination Date”), unless terminated earlier under the provisions of this Agreement.

Section 6.11. Memorandum of Agreement. The parties agree to execute and record a Memorandum of Agreement for Private Development, in substantially the form attached as Exhibit B, to serve as notice to the public of the existence and provisions of this Agreement, and the rights and interests held by the City by virtue hereof. The City shall pay for all costs of recording.

IN WITNESS WHEREOF, the City has caused this Agreement to be duly executed in its name and behalf by its Mayor and its seal to be hereunto duly affixed and attested by its City Clerk, and the Developer has caused this Agreement to be duly executed in its name and behalf by its authorized representative, all on or as of the day first above written.

[Remainder of page intentionally left blank; Signature pages follow]

(SEAL)

CITY OF GRINNELL, IOWA

By: _____
Dan F. Agnew, Mayor

ATTEST:

By: _____
Alyssa Devig, City Clerk

STATE OF IOWA)
) SS
COUNTY OF POWESHIEK)

On this _____ day of _____, 2025, before me a Notary Public in and for said State, personally appeared Dan F. Agnew and Alyssa Devig, to me personally known, who being duly sworn, did say that they are the Mayor and City Clerk, respectively, of the City of Grinnell, Iowa, a Municipality created and existing under the laws of the State of Iowa, and that the seal affixed to the foregoing instrument is the seal of said Municipality, and that said instrument was signed and sealed on behalf of said Municipality by authority and resolution of its City Council, and said Mayor and City Clerk acknowledged said instrument to be the free act and deed of said Municipality by it voluntarily executed.

Notary Public in and for the State of Iowa

[Signature page to Agreement – City of Grinnell]

UNITED MUTUAL INSURANCE
ASSOCIATION,
An Iowa insurance company

By: _____
Jon Scheil, President and CEO

STATE OF IOWA)
) SS
COUNTY OF POWESHIEK)

This record was acknowledged before me on this _____ day of _____, 2025,
by Jon Scheil as President and CEO of United Mutual Insurance Association.

Notary Public in and for said state

My commission expires: _____

[Signature page to Agreement – Developer]

EXHIBIT A
MINIMUM IMPROVEMENTS

Minimum Improvements means the construction, by Developer, of an approximately 11,500 square foot two-story commercial building, and all related site improvements on the Development Property. The construction of the Minimum Improvements will be completed by December 31, 2026 and is expected to cost \$6,729,000.

Prepared by: Jenna Sabroske, Ahlers & Cooney, 100 Court Ave, Ste 600, Des Moines, IA 50309 515-243-7611
Return to: City Clerk, City of Grinnell, 520 4th Avenue, Grinnell, IA 50112

EXHIBIT B
MEMORANDUM OF AGREEMENT FOR PRIVATE DEVELOPMENT

WHEREAS, the City of Grinnell, Iowa (“City”) and United Mutual Insurance Association, an Iowa insurance company, (“Developer”) did on or about _____, 2025, make, execute and deliver, each to the other, an Agreement for Private Development (the “Agreement”), wherein and whereby Developer agreed, in accordance with the terms of the Agreement, to develop certain real property located within the City and within the Grinnell Urban Renewal Area, which real property is legally described as follows:

THAT PART OF LOT 2, BROWNELLS BUSINESS PARK 1, AN OFFICIAL PLAT, NOW IN AND FORMING A PART OF THE CITY OF GRINNELL, IOWA, AS RECORDED IN BOOK 000H, PAGE 0007, OF THE POWESKIEK COUNTY RECORDERS OFFICE,

BEING MORE PARTICULARLY DESCRIBED AS FOLLOW:

BEGINNING AT THE SW CORNER OF THE NORTHEAST QUARTER (NE1/4) OF THE NE1/4 OF SECTION 32, TOWNSHIP 80 NORTH, RANGE 16 WEST OF THE 5TH PRINCIPAL MERIDIAN, POWESKIEK COUNTY, IOWA; THENCE S.89°53'55"E., A DISTANCE OF 451.16 FEET; THENCE S.20°55'59"E., A DISTANCE OF 357.06 FEET, TO THE NORTH RIGHT-OF-WAY OF LANG CREEK AVENUE, AS PRESENTLY ESTABLISHED; THENCE S.69°26'48"W., ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 143.24 FEET, TO THE BEGINNING OF AN ARC CONCAVED NORTHERLY, HAVING A RADIUS OF 962.50 FEET; THENCE ALONG SAID ARC, ALSO BEING SAID NORTH RIGHT-OF-WAY OF SAID LANG CREEK AVENUE, A DISTANCE OF 451.82 FEET, SAID ARC HAS A CHORD BEARING OF S.82°53'41"W., AND A CHORD DISTANCE OF 447.68 FEET, TO THE WEST LINE OF SAID LOT 2; THENCE N.00°02'51"W., A DISTANCE OF 439.95 FEET TO THE POINT OF BEGINNING. SAID PARCEL CONTAINS 217,800 SQ.FT.,

OR 5.000 ACRES MORE OR LESS, AND SUBJECT TO ALL EASEMENTS
RECORD.

(the “Development Property”); and

WHEREAS, the term of the Agreement commenced on or about the date first set forth above and terminates on December 31, 2038, unless otherwise terminated as set forth in the Agreement; and

WHEREAS, the City and Developer desire to record a Memorandum of the Agreement referring to the Development Property and their respective interests therein.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. That the recording of this Memorandum of Agreement for Private Development shall serve as notice to the public that the Agreement contains provisions restricting development and use of the Development Property and the improvements located and operated on such Development Property.

2. That all of the provisions of the Agreement and any subsequent amendments thereto, if any, even though not set forth herein, are by the filing of this Memorandum of Agreement for Private Development made a part hereof by reference, and that anyone making any claim against any of said Development Property in any manner whatsoever shall be fully advised as to all of the terms and conditions of the Agreement, and any amendments thereto, as if the same were fully set forth herein.

3. That a copy of the Agreement and any subsequent amendments thereto, if any, shall be maintained on file for public inspection during ordinary business hours in the office of the City Clerk, Grinnell, Iowa.

IN WITNESS WHEREOF, the City and Developer have executed this Memorandum of Agreement for Private Development on or as of _____, 2025.

[Remainder of page intentionally left blank; signature pages follow]

(SEAL)

CITY OF GRINNELL, IOWA

By: _____
Dan F. Agnew, Mayor

ATTEST:

By: _____
Alyssa Devig, City Clerk

STATE OF IOWA)
) SS
COUNTY OF POWESHIEK)

On this _____ day of _____, 2025, before me a Notary Public in and for said State, personally appeared Dan F. Agnew and Alyssa Devig, to me personally known, who being duly sworn, did say that they are the Mayor and City Clerk, respectively, of the City of Grinnell, Iowa, a Municipality created and existing under the laws of the State of Iowa, and that the seal affixed to the foregoing instrument is the seal of said Municipality, and that said instrument was signed and sealed on behalf of said Municipality by authority and resolution of its City Council, and said Mayor and City Clerk acknowledged said instrument to be the free act and deed of said Municipality by it voluntarily executed.

Notary Public in and for the State of Iowa

[Signature page to Memorandum of Agreement for Private Development – City of Grinnell]

UNITED MUTUAL INSURANCE
ASSOCIATION,
An Iowa insurance company

By: _____
Jon Scheil, President and CEO

STATE OF IOWA)
) SS
COUNTY OF POWESHIEK)

This record was acknowledged before me on this _____ day of _____, 2025,
by Jon Scheil as President and CEO of United Mutual Insurance Association.

Notary Public in and for said state

My commission expires: _____

*[Signature page to Memorandum of Agreement for Private Development – United Mutual
Insurance Association]*

EXHIBIT C
ANNUAL CERTIFICATION

(due by October 15th as required under terms of Development Agreement)

Developer certifies that, during the time period covered by this Certification, they are and were in compliance with the Agreement as follows:

(i) Attached hereto is proof that all ad valorem taxes on the Minimum Improvements and Development Property have been paid for the prior fiscal year and any taxes due and payable for the current fiscal year as of the date of certification;

(ii) The Minimum Improvements were first fully assessed on January 1, 20____, at a full assessment value of \$_____ and are currently assessed at \$_____;

(iii) The number of Jobs employed by Developer at the Development Property as of October 1, 20____ and as of the first day of each of the preceding eleven (11) months are follows:

October 1, 20____:	April 1, 20____:
September 1, 20____:	March 1, 20____:
August 1, 20____:	February 1, 20____:
July 1, 20____:	January 1, 20____:
June 1, 20____:	December 1, 20____:
May 1, 20____:	November 1, 20____:

(iv) The undersigned officer of Developer is familiar with the terms and provisions of this Agreement and certify that Developer is not in default in the fulfillment of any of the terms and conditions of this Agreement, or if the signer is aware of any such Event of Default, said officer has disclosed the nature thereof, its period of existence and what action, if any, has been taken or is proposed to be taken with respect thereto.

I certify under penalty of perjury and pursuant to the laws of the State of Iowa that the preceding is true and correct to the best of my knowledge and belief.

DEVELOPER:
UNITED MUTUAL INSURANCE ASSOCIATION
an Iowa insurance company

By: _____

Print Name: _____

Its: _____

Date: _____

4912-7518-2416-3\10542-179

ITEM TO INCLUDE ON AGENDA

CITY OF GRINNELL, IOWA

July 21, 2025

7:00 P.M.

Grinnell Urban Renewal Plan

- Resolution approving reasonable competitive bidding procedures for and setting the date for a public hearing on the proposal to convey interests in real property located within the Grinnell Urban Renewal Area; directing publication of related notices; and declaring the intent of the Seller to accept the offer submitted by Main & Main Capital Group, LLC in the event that no qualified competing proposals are submitted

IMPORTANT INFORMATION

1. The above agenda items should be included, along with any other agenda items, in the meeting agenda. The agenda should be posted on a bulletin board or other prominent place easily accessible to the public and clearly designated for that purpose at the principal office of the body holding the meeting. If no such office exists, the notice must be posted at the building in which the meeting is to be held.
2. If you do not now have a bulletin board designated as above mentioned, designate one and establish a uniform policy of posting your notices of meeting and tentative agenda.
3. Notice and tentative agenda must be posted at least 24 hours prior to the commencement of the meeting.

NOTICE MUST BE GIVEN PURSUANT TO IOWA CODE
CHAPTER 21 AND THE LOCAL RULES OF THE CITY.

July 21, 2025

The City Council of the City of Grinnell in the State of Iowa, met in _____ session, in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa, at 7:00 P.M., on the above date. There were present Mayor _____, in the chair, and the following named Council Members:

Absent: _____

* * * * *

Council Member _____ then introduced the following proposed Resolution entitled "RESOLUTION APPROVING REASONABLE COMPETITIVE BIDDING PROCEDURES FOR AND SETTING THE DATE FOR A PUBLIC HEARING ON THE PROPOSAL TO CONVEY INTERESTS IN REAL PROPERTY LOCATED WITHIN THE GRINNELL URBAN RENEWAL AREA TO MAIN & MAIN CAPITAL GROUP, LLC; DIRECTING PUBLICATION OF RELATED NOTICES; AND DECLARING THE INTENT OF THE SELLER TO ACCEPT THE OFFER SUBMITTED BY MAIN & MAIN CAPITAL GROUP, LLC IN THE EVENT THAT NO QUALIFIED COMPETING PROPOSALS ARE SUBMITTED", and moved that the same be adopted. Council Member _____ seconded the motion to adopt. The roll was called and the vote was,

AYES: _____

NAYS: _____

WHEREUPON, the Mayor declared the resolution duly adopted as follows:

RESOLUTION NO. 2025-125

RESOLUTION APPROVING REASONABLE COMPETITIVE BIDDING PROCEDURES FOR AND SETTING THE DATE FOR A PUBLIC HEARING ON THE PROPOSAL TO CONVEY INTERESTS IN REAL PROPERTY LOCATED WITHIN THE GRINNELL URBAN RENEWAL AREA TO MAIN & MAIN CAPITAL GROUP, LLC; DIRECTING PUBLICATION OF RELATED NOTICES; AND DECLARING THE INTENT OF THE SELLER TO ACCEPT THE OFFER SUBMITTED BY MAIN & MAIN CAPITAL GROUP, LLC IN THE EVENT THAT NO QUALIFIED COMPETING PROPOSALS ARE SUBMITTED

WHEREAS, by Resolution No. 1687, adopted March 21, 1994, this Council found and determined that certain areas located within the City are eligible and should be designated as an urban renewal area under Iowa law, and approved and adopted the Grinnell Urban Renewal Plan (the "Urban Renewal Plan" or "Plan") for the Grinnell Urban Renewal Area (the "Urban Renewal Area" or "Area") described therein, which Plan has been amended eight times, most recently by Amendment No. 9 approved by Resolution No. 2024-248 adopted on October 7, 2024, and which Plan, as amended, is on file in the office of the Recorder of Poweshiek County; and

WHEREAS, Iowa Code Chapter 403 authorizes cities to dispose of property in furtherance of the objectives of an urban renewal project and to take other actions as may be necessary to carry out the purposes of said Chapter; and

WHEREAS, the City of Grinnell (the "Seller") has received a proposal from Main & Main Capital Group, LLC (the "Buyer"), in the form of a proposed Real Estate Purchase Contract (the "Contract"), which Contract proposes that the Seller would sell certain Seller-owned real property within the Grinnell Urban Renewal Area (the "Property") to Buyer for a purchase price of \$447,906.00 and in consideration of Buyer's other obligations under the Contract; and

WHEREAS, the Property proposed to be conveyed to the Buyer under the Contract is legally described as follows:

610 Industrial, Grinnell, Poweshiek County, Iowa

Parcel ID: 3365200

WHEREAS, because the Property is located within an urban renewal area, the Seller's sale of the Property is subject to the provisions of Iowa Code Section 403.8; and

WHEREAS, in order to comply with Iowa Code Section 403.8, the Seller is approving competitive bidding procedures for the disposition of the Property and inviting all persons interested in submitting a competing offer for the Property to submit a proposal meeting the requirements set forth herein; and

WHEREAS, to both recognize the proposal already received from the Buyer (in the form of the Contract) for the sale of the Property, and to give full and fair opportunity for other developers interested in submitting a proposal for the sale of the Property, by adoption of this Resolution this Council is: (i) determining a fair value of the Property, (ii) approving the minimum requirements for sale of the Property, (iii) approving “reasonable competitive bidding procedures” for disposition of the Property, and (iv) declaring the Seller’s intent to accept the Contract with the Buyer if no qualifying competing proposals are received; and

WHEREAS, the Council has determined that the Contract is in the best interests of the Seller and the residents thereof and that the performance by the Seller of its obligations thereunder is a public undertaking and purpose and in furtherance of the Plan and, further, that the Contract and the Seller’s performance thereunder is in furtherance of appropriate activities and objectives of the Plan within the meaning of Iowa Code Chapter 403, taking into account the factors set forth therein; and

WHEREAS, to comply with the procedural requirements of the Iowa Code, pursuant to Iowa Code Sections 364.6 and 403.8, it is deemed sufficient if the action hereinafter described be taken, including that this Council has set forth its proposal in this Resolution and should now set a date for a public hearing on the proposed conveyance of the Seller’s interests in the Property, at which time this Council proposes to take action thereon and to receive oral and/or written objections from any resident or property owner of said Seller to such action.

NOW THEREFORE, BE IT RESOLVED, BY THE CITY COUNCIL OF THE CITY OF GRINNELL IN THE STATE OF IOWA:

Section 1. That, by this Resolution, this Council does hereby give notice to all persons interested in bidding for the sale of the Property of the opportunity to submit a proposal for purchase and development of the Property meeting the criteria set forth herein, which proposal must be submitted consistent with the procedural requirements set forth herein.

Section 2. That all persons desiring to submit a competing proposal for the Property must submit a proposal pursuant to the following procedure, which procedure this Council has determined to be a reasonable competitive bidding process:

- a. Written proposals for the purchase of the Property must be received by the City Clerk at or before 12:00 P.M. (Noon) on September 2, 2025, by personal delivery or postal mail to City Hall, 520 4th Avenue, Grinnell, Iowa 50112.
- b. Each proposal that is timely received will be opened by the City Clerk, or the City Clerk’s designee, at 1:00 P.M. in the City Clerk’s office on September 2, 2025.

The City Clerk, or the City Clerk's designee, is hereby authorized and directed to make a preliminary analysis of each such proposal for compliance with the minimum requirements established by this Council herein and to advise the Council with respect thereto.

- c. The qualifying proposals will be presented to the City Council during a public hearing at the Council meeting which begins at 7:00 P.M. on September 2, 2025. The Council shall judge the strength of the proposals meeting the foregoing minimum requirements by the criteria set forth herein, and may make the final selection of a proposal or may reject any and all proposals received.

Section 3. It is hereby determined that in order to qualify for consideration for selection, each bidder must submit a proposal which contains terms no less favorable to the Seller than those set forth in the Contract submitted by the Buyer, and which must include and provide for the bidder's purchase of the Property at not less than the fair value.

Section 4. It is hereby determined that the Contract submitted by the Buyer satisfies the requirements of this offering and is approved as to form, subject to modifications as determined appropriate by the City Council, a copy of which Contract is available from the City Clerk's office.

Section 5. It is hereby determined that the Buyer possesses the qualifications, financial resources, and legal ability necessary to purchase the Property in the manner proposed by this offering and in accordance with the Plan.

Section 6. This action of the Council shall be considered to be and does hereby constitute notice to all concerned of the intention of this Council to accept the Contract with the Buyer for the sale of the Property unless a qualified competing proposal is timely received, pursuant to the procedures set forth above, that, in the Council's judgement, is superior to the Contract.

Section 7. The City Clerk is hereby directed to cause at least one publication to be made of a notice of competitive bidding, in a legal newspaper having general circulation in the City, said publication to be at least thirty (30) days prior to the date competing proposals are due, which notice shall be in substantially the following form:

NOTICE OF COMPETITIVE BIDDING FOR THE
DISPOSITION OF CERTAIN PROPERTY LOCATED WITHIN
THE GRINNELL URBAN RENEWAL AREA PURSUANT TO
COMPETITIVE CRITERIA AND PROCEDURES

PUBLIC NOTICE is hereby given that the City of Grinnell, Iowa (the "Seller") has received a proposal in the form of a Real Estate Purchase Contract (the "Contract") from Main & Main Capital Group, LLC ("the Buyer") related to the sale of certain Seller-owned real property (the "Property"), which Property is located within the Grinnell Urban Renewal Area, and more particularly described as follows:

610 Industrial, Grinnell, Poweshiek County, Iowa

Parcel ID: 3365200

The Contract proposes that the Seller would sell the Property to Buyer for \$447,906.00, under the terms and conditions set forth in the Contract.

In order to comply with Iowa Code Section 403.8, the Seller has established reasonable competitive bidding procedures for the anticipated disposition of the Property and all persons interested in submitting a competing proposal for the purchase of the Property (as legally described above) should submit a proposal meeting the requirements set forth herein:

1. In order to qualify for consideration for selection, each bidder must submit a proposal that contains terms no less favorable to the Seller than those set forth in the Contract submitted by the Buyer. A copy of the Contract is available for public inspection by contacting the City Clerk's office during regular business hours.
2. In order to qualify for consideration for selection, each bidder must submit a proposal that provides for the bidder's purchase of the Property at not less than fair value in accordance with Iowa Code Section 403.8.
3. Written proposals for the purchase of the Property must be received by the City Clerk's office at or before **12:00 PM (Noon) on September 2, 2025**, by personal delivery or postal mail to the City Clerk at City Hall, 520 4th Avenue, Grinnell, Iowa 50112.

Each qualifying competing proposal received will be opened by the City Clerk or her designee in the City Clerk's office at 1:00 P.M. on September 2, 2025, and will be presented to the City Council during a public hearing at the Council meeting which begins at 7:00 P.M. on September 2, 2025. The Council shall judge the strength of the proposals meeting the foregoing minimum requirements by the criteria set forth above and may make the final evaluation and selection of a proposal or may reject any or all proposals.

In the event that no other qualified proposals are timely submitted, the Seller intends to enter into the Contract with the Buyer, and convey the Property to the Buyer under the terms and conditions of the proposed Contract.

This notice is given by order of the City Council of the City of Grinnell in the State of Iowa, as provided by Iowa Code Sections 364.6 and 403.8.

Dated this _____ day of _____, 2025.

City Clerk, City of Grinnell in the State of Iowa

(End of Notice)

Section 8. That this Council shall hold a public hearing at its meeting which begins at 7:00 P.M. on September 2, 2025, in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa for the purpose of taking action on the matter of the proposal to convey interests in real property to Main & Main Capital Group, LLC, pursuant to the terms and conditions of the proposed Contract.

Section 9. That the City Clerk is hereby directed to cause at least one publication of a notice of said public hearing in a newspaper published at least once weekly and having general circulation in said City, said publication to be not less than four (4) clear days nor more than twenty (20) days before the date of said public meeting.

Section 10. The notice of the public hearing and proposed action shall be in substantially the following form:

(One publication required)

NOTICE OF PUBLIC HEARING OF THE CITY COUNCIL OF
THE CITY OF GRINNELL IN THE STATE OF IOWA, ON THE
MATTER OF THE PROPOSAL TO CONVEY REAL
PROPERTY TO MAIN & MAIN CAPITAL GROUP, LLC
PURSUANT TO A PROPOSED REAL ESTATE PURCHASE
CONTRACT, AND THE HEARING THEREON

PUBLIC NOTICE is hereby given that the Council of the City of Grinnell in the State of Iowa, will hold a public hearing before itself at its meeting that commences at 7:00 P.M. on September 2, 2025, in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa, at which meeting the Council proposes to take action on the proposal to enter into a Real Estate Purchase Contract (the "Contract") with Main & Main Capital Group, LLC ("the Buyer"), and the proposal to convey certain real property (the "Property") located within the Grinnell Urban Renewal Area to the Buyer, pursuant to the terms and conditions of the Contract. The Property is legally described as:

610 Industrial, Grinnell, Poweshiek County, Iowa

Parcel ID: 3365200

The Agreement proposes that the Seller would sell the Property to the Buyer for \$447,906.00, subject to the detailed terms and conditions set forth in the Agreement.

A copy of the Contract is on file for public inspection during regular business hours in the office of the City Clerk, City Hall, City of Creston, Iowa.

At the time and place set for the public hearing, interested individuals will be given the opportunity to express their views, both orally and in writing, on the proposed conveyance and proposed Contract. After all objections have been received and considered, the Council may at this meeting or at any adjournment thereof, take additional action to approve the Contract or to modify the Contract, or may abandon the proposal to authorize said Contract.

This notice is given by order of the City Council of the City of Grinnell in the State of Iowa, as provided by Iowa Code Section 364.6.

Dated this _____ day of _____, 2025.

City Clerk, City of Grinnell in the State of Iowa

(End of Notice)

PASSED AND APPROVED this 21st day of July, 2025.

Mayor

ATTEST:

City Clerk

STATE OF IOWA)
) SS
COUNTY OF POWESHIEK)

WITNESS my hand and the seal of the Council hereto affixed this ____ day of _____, 2025.

(SEAL)

Page 74 of 357

(One publication required)

NOTICE OF PUBLIC HEARING OF THE CITY COUNCIL OF
THE CITY OF GRINNELL IN THE STATE OF IOWA, ON THE
MATTER OF THE PROPOSAL TO CONVEY REAL PROPERTY
TO MAIN & MAIN CAPITAL GROUP, LLC PURSUANT TO A
PROPOSED REAL ESTATE PURCHASE CONTRACT, AND
THE HEARING THEREON

PUBLIC NOTICE is hereby given that the Council of the City of Grinnell in the State of Iowa, will hold a public hearing before itself at its meeting that commences at 7:00 P.M. on September 2, 2025, in the Council Chambers, City Hall, 520 4th Avenue, Grinnell, Iowa, at which meeting the Council proposes to take action on the proposal to enter into a Real Estate Purchase Contract (the "Contract") with Main & Main Capital Group, LLC ("the Buyer"), and the proposal to convey certain real property (the "Property") located within the Grinnell Urban Renewal Area to the Buyer, pursuant to the terms and conditions of the Contract. The Property is legally described as:

610 Industrial, Grinnell, Poweshiek County, Iowa

Parcel ID: 3365200

The Agreement proposes that the Seller would sell the Property to the Buyer for \$447,906.00, subject to the detailed terms and conditions set forth in the Agreement.

A copy of the Contract is on file for public inspection during regular business hours in the office of the City Clerk, City Hall, City of Creston, Iowa.

At the time and place set for the public hearing, interested individuals will be given the opportunity to express their views, both orally and in writing, on the proposed conveyance and proposed Contract. After all objections have been received and considered, the Council may at this meeting or at any adjournment thereof, take additional action to approve the Contract or to modify the Contract, or may abandon the proposal to authorize said Contract.

This notice is given by order of the City Council of the City of Grinnell in the State of Iowa, as provided by Iowa Code Section 364.6.

Dated this _____ day of _____, 2025.

City Clerk, City of Grinnell in the State of Iowa

(End of Notice)

NOTICE OF COMPETITIVE BIDDING FOR THE
DISPOSITION OF CERTAIN PROPERTY LOCATED WITHIN
THE GRINNELL URBAN RENEWAL AREA PURSUANT TO
COMPETITIVE CRITERIA AND PROCEDURES

PUBLIC NOTICE is hereby given that the City of Grinnell, Iowa (the "Seller") has received a proposal in the form of a Real Estate Purchase Contract (the "Contract") from Main & Main Capital Group, LLC ("the Buyer") related to the sale of certain Seller-owned real property (the "Property"), which Property is located within the Grinnell Urban Renewal Area, and more particularly described as follows:

610 Industrial, Grinnell, Poweshiek County, Iowa

Parcel ID: 3365200

The Contract proposes that the Seller would sell the Property to Buyer for \$447,906.00, under the terms and conditions set forth in the Contract.

In order to comply with Iowa Code Section 403.8, the Seller has established reasonable competitive bidding procedures for the anticipated disposition of the Property and all persons interested in submitting a competing proposal for the purchase of the Property (as legally described above) should submit a proposal meeting the requirements set forth herein:

1. In order to qualify for consideration for selection, each bidder must submit a proposal that contains terms no less favorable to the Seller than those set forth in the Contract submitted by the Buyer. A copy of the Contract is available for public inspection by contacting the City Clerk's office during regular business hours.
2. In order to qualify for consideration for selection, each bidder must submit a proposal that provides for the bidder's purchase of the Property at not less than fair value in accordance with Iowa Code Section 403.8.
3. Written proposals for the purchase of the Property must be received by the City Clerk's office at or before **12:00 PM (Noon) on September 2, 2025**, by personal delivery or postal mail to the City Clerk at City Hall, 520 4th Avenue, Grinnell, Iowa 50112.

Each qualifying competing proposal received will be opened by the City Clerk or her designee in the City Clerk's office at 1:00 P.M. on September 2, 2025, and will be presented to the City Council during a public hearing at the Council meeting which begins at 7:00 P.M. on September 2, 2025. The Council shall judge the strength of the proposals meeting the foregoing minimum requirements by the criteria set forth above and may make the final evaluation and selection of a proposal or may reject any or all proposals.

In the event that no other qualified proposals are timely submitted, the Seller intends to enter into the Contract with the Buyer, and convey the Property to the Buyer under the terms and

conditions of the proposed Contract.

This notice is given by order of the City Council of the City of Grinnell in the State of Iowa, as provided by Iowa Code Sections 364.6 and 403.8.

Dated this _____ day of _____, 2025.

City Clerk, City of Grinnell in the State of Iowa

(End of Notice)

4935-7981-6534-1\10542-1012



**GRINNELL PUBLIC WORKS & GROUNDS COMMITTEE MEETING
MONDAY, JULY 21, 2025, AT 4:45 P.M.
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY HALL
AND VIA ZOOM**

<https://zoom.us/j/93635020443?pwd=ba73e9fPpyifJFEgcTuxK34HWz2VQB.1>

Meeting ID: 936 3502 0443

Passcode: 684691

TENTATIVE AGENDA

ROLL CALL: Hueftle-Worley (Chair), Bly, Hart.

PERFECTING AND APPROVAL OF AGENDA:

COMMITTEE BUSINESS:

1. Consider approval of a resolution approving a Professional Service Agreement with Veenstra and Kimm, Inc. for the 4th Avenue Reconstruction (2026), State Street to East Street Project. (See Resolution No. 2025-126)
2. Consider approval of a resolution approving a Professional Services Agreement with Veenstra and Kimm, Inc. for the Water Treatment Plant Streets Reconstruction Project. (See Resolution No. 2025-127)
3. Consider approval of a request from Snyder and Associates on behalf of Grinnell College to place signage in the right-of-way near Loose Hall building.
4. Consider approval of a resolution authorizing the City Manager or Mayor to execute and sign the FY 2025 Airport Infrastructure Grant Agreement on behalf of the city of Grinnell for the Apron Rehabilitation Project - Phase I Design. (See Resolution No. 2025-128)
5. Consider approval of a resolution setting a Public Hearing for August 18, 2025, at 7:00 P.M. on the proposed plans and specifications, proposed form of contract and estimate of cost and directing publication of Notice to Bidders for the Veterans Memorial Monument. (See Resolution No. 2025-129)
6. Consider approval of an Agreement for Fabrication with Vector Fabricating, Inc. for the fabrication of the Veterans Memorial Monument.

INQUIRIES:

ADJOURNMENT:

RESOLUTION NO. 2025-126

RESOLUTION APPROVING PROFESSIONAL SERVICES AGREEMENT WITH VEENSTRA AND KIMM, INC. FOR THE 4TH AVENUE RECONSTRUCTION (2026), STATE STREET TO EAST STREET PROJECT.

WHEREAS, the City Council of the city of Grinnell desires to improve the water service line in the city of Grinnell, Iowa;

WHEREAS, the city desires the engineer to proceed with the planning and engineering services necessary to complete this project;

WHEREAS, the professional services agreement outlines the terms and conditions needed for said 4th Avenue Reconstruction (2026), State Street to East Street Project, and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Grinnell, Iowa, that the Mayor and City Clerk are hereby directed and authorized to sign a professional services agreement with Veenstra & Kimm, Inc. for the 4th Avenue Reconstruction (2026), State Street to East Street Project.

Passed and approved this 21st day of July 2025.

Dan F. Agnew, Mayor

ATTEST:

Alyssa Devig, City Clerk/Finance Director

AGREEMENT

GRINNELL, IOWA 4th AVENUE RECONSTRUCTION (2026), STATE STREET to EAST STREET ENGINEERING SERVICES

THIS AGREEMENT, made and entered into this ____ day of _____, 2025, by and between the **CITY OF GRINNELL, IOWA**, hereinafter referred to as the **Owner**, or **City**, party of the first part, and **VEENSTRA & KIMM, INC.**, a corporation organized and existing under the laws of the State of Iowa, party of the second part, hereinafter referred to as the **Engineers**,

WITNESSETH: THAT WHEREAS, the City is now contemplating improvements to 4th Avenue based on current conditions of the street and the current Capital Improvements Planning spanning from State Street to East Street. The project is to have one set of construction documents that will follow the City of Grinnell development process and be let locally or the **Project**, and

WHEREAS, the City desires to retain the Engineers to perform engineering services on the Project.

NOW, THEREFORE, it is hereby agreed by and between the parties hereto that the City does hereby retain the Engineers to act for and represent it in engineering matters on the Project. Such contract shall be subject to the following terms, conditions, and stipulations, to wit:

1. **SCOPE OF PROJECT.** It is understood and agreed upon the Project will include project development, state and local review processes, cost estimating, design of and general administration construction services for the improvements to the Project area.
2. The Engineer will work with City staff as well as adjacent property owners to help define the project details and materials, pedestrian and traffic control, staging, phasing requirements for construction, construction documents and cost estimates, scheduling, review of change orders and pay estimates, interpretation of plans, shop drawings review and attend meetings, as necessary.
3. This work will be consistent with City of Grinnell funding allocated for this project. The development process will involve project preliminary, check and final plans. This project will have a bid opening through the City of Grinnell. ADA ramp updates at all intersections are included in the construction project limits.
4. **SUBCONSULTANTS.** The Engineer shall coordinate the services of qualified professionals in material testing or other services deemed necessary for approvals either through clearances, design or construction. These subconsultants and their fees have not

been included in the services for this agreement. The services and fees for these services are outside this agreement and will be billed separately to and paid for by the City and not against the agreed fees for this contract.

5. **PERMITS AND LICENSES.** The Engineers shall provide copies of plans and specifications, explanatory letters of transmittal, completion of required application forms and other information necessary to obtain permits, licenses or other documentation required for securing permits, licenses or permissions necessary from governmental agencies for construction.

The Owner shall pay for all licenses and other costs associated with permits and licenses and said costs shall not be charged against the Engineer's maximum fee set forth hereinafter.

6. **ESTIMATES OF COST.** The Engineers shall prepare an Engineers' Estimate of Cost for the improvements to be constructed under the Project. The Engineers' Estimate of Cost is intended for the use of the Owner in financing the Project. Given the unknown nature and volatility of the recent bidding environment, the Engineers shall not be responsible if the contract(s) awarded for construction of the Project vary from the Engineers' Estimate of Cost.

7. **COMPENSATION.** The Owner shall compensate the Engineers for their services by payment of the following fees:

- a. The fee for the engineering services for the Project as set out in **1. SCOPE OF PROJECT, 2. SUBCONSULTANTS, 3. PERMITS AND LICENSES, and 4. ESTIMATES OF COST** shall be for services for design, preparation of plans and specifications, permitting and bidding services for the Project, General Administration Services during construction and project closeout shall be Eighty-Seven Thousand Six Hundred and Twenty Five dollars (\$87,625).

8. **PAYMENT.** The fee for work set out in **7. COMPENSATION** shall be billed and payable monthly while the rendering of the services. Monthly bills will be based on hours charged to this Project. If additional services are requested and the fees for the additional services are defined and agreed upon, the agreed upon maximums will increase.

9. **TIME OF COMPLETION.** It is the Owner's intent to have the construction documents prepared and in place to facilitate a letting for the Project in October of 2025 to facilitate certification of the tax increment financing of the project. Construction is anticipated in 2026 with possible carryover into 2027. Public meetings will be needed during the design process as well as at the beginning of construction phase services. For purposes of budgeting fees, it has been assumed that the general services duration is for a period of seven (7) months of construction. Variations in effort put forth by the contractor(s) or duration may impact the fees associated with general construction services. The engineer will not be held responsible for the contractor's ability to complete work in a timely manner.

10. **LEGAL SERVICES.** The Owner shall provide the services of the Owner's Attorney in matters pertaining to this Project. The Engineers shall cooperate with the Attorney and shall comply with his requirements as to form of contract documents and procedures relative to them.
11. **SERVICES NOT INCLUDED.** Services not included under this Agreement are as follows:
- a. Determination and/or preparation of assessments and plats to property owners or related services of the Project.
 - b. Services related to or regarding arbitration or litigation of the construction contract between the construction contractor and the Owner regarding any part of the Project.
 - c. Services related to or regarding arbitration or litigation of the ponding rights or flooding of one property onto another property.
 - d. Services relating to the acquisition of right-of-way and easements, permanent or temporary construction, required for the construction of the City project.
 - e. Legal surveys, property surveys and easement surveys are not included in this Project cost.
 - f. Services relating to the televising of underground utilities and/or their services to property owner or other means to assess the conditions of the City's utilities in the Project area.
 - g. The Engineer will review said video inspection files as part of the agreed upon design services.
 - h. Geotechnical or materials testing for design or during the construction of the project.
 - i. Other services not included in the above scope of services or services as mentioned on areas not within the project.
 - j. Part or full time construction observation/inspection services during construction.
12. **CHANGES.** If after approvals of the plans or portions thereof by the Owner, the Engineers are required or requested to change the plan or said portions because of changes made by the Owner to limits or project intent, the Engineers shall receive additional compensation for making such changes. The compensation for such changes shall be based upon the standard hourly fees, plus expenses for personnel of the Engineers engaged in making the changes. These amounts will be additive to the agreed upon fees cited above.

13. **EXTRA WORK.** Fees stated in this Agreement cover the specific services outlined in this Agreement for the Project. If the Owner requires additional services of the Engineers in connection with the Project, or changes or modifications in the Project, the Engineers shall receive additional compensation for said services. Such additional compensation shall be at the standard hourly fees for personnel of the Engineers, plus expenses for personnel engaged in the authorized extra work.
14. **INDEMNIFICATION.** The Engineers shall and hereby agree to hold and save the Owner harmless from any and all claims, settlements, and judgments, to include all reasonable investigative fees, attorneys' fees, suit and court costs for personal injury, property damage, and/or death arising out of the Engineers' or any of its agents', servants', and employees' errors, omissions or negligent acts for services under this Agreement, and for all injury and/or death to any and all of the Engineers' personnel, agents, servants, and employees occurring under the Workers' Compensation Act of the State of Iowa.
15. **INSURANCE.** The Engineers shall furnish the Owner with certificates of insurance by insurance companies licensed to do business in the State of Iowa, upon which the Owner is endorsed as an additional named insured, in the following limits. It must be clearly disclosed on the face of the certificates that the coverage is on an occurrence basis:
- | | |
|--|-----------------------|
| General Liability* | \$1,000,000/2,000,000 |
| Automobile Liability | 1,000,000 |
| Excess Liability (Umbrella)* | 8,000,000/8,000,000 |
| Workers' Compensation, Statutory Benefits Coverage B | 1,000,000 |
| Professional Liability**, *** | 2,000,000/2,000,000 |
- *Occurrence/Aggregate
**The Owner is not to be named as an additional insured
***Claims made basis
16. **TERMINATION.** Should the Owner abandon the Project before the Engineers have completed their work, the Engineers shall be paid for the work and services performed until the date of termination.
17. **ASSISTANTS AND CONSULTANTS.** It is understood and agreed that the employment of the Engineers by the Owner for the purposes aforesaid shall be exclusive, but the Engineers shall have the right to employ such assistants and consultants, as they deem proper in the performance of the work.
18. **ASSIGNMENT.** This Agreement and every portion thereof shall be binding upon the successors and assigns of the parties hereto.

The undersigned do hereby covenant and state that this Agreement is executed in duplicate as though each were an original, and that there are no oral agreements that have not been reduced to writing in this instrument.

It is further covenanted and stated that there are no other considerations or monies contingent upon or resulting from the execution of this Agreement, nor have any of the above been implied by or for any party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have subscribed their names on the date first written above.

CITY OF GRINNELL, IOWA

ATTEST:

By _____
Mayor

By _____

VEENSTRA & KIMM, INC.

ATTEST:

By  _____

By  _____

RESOLUTION NO. 2025-127

RESOLUTION APPROVING PROFESSIONAL SERVICES AGREEMENT WITH VEENSTRA AND KIMM, INC. FOR THE WATER TREATMENT PLANT STREETS RECONSTRUCTION PROJECT.

WHEREAS, the City Council of the city of Grinnell desires to improve the water service line in the city of Grinnell, Iowa;

WHEREAS, the city desires the engineer to proceed with the planning and engineering services necessary to complete this project;

WHEREAS, the professional services agreement outlines the terms and conditions needed for Water Treatment Plant Streets Reconstruction Project, and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Grinnell, Iowa, that the Mayor and City Clerk are hereby directed and authorized to sign a professional services agreement with Veenstra & Kimm, Inc. for the Water Treatment Plant Streets Reconstruction Project.

Passed and approved this 21st day of July 2025.

Dan F. Agnew, Mayor

ATTEST:

Alyssa Devig, City Clerk/Finance Director

AGREEMENT

GRINNELL, IOWA
WATER TREATMENT PLANT STREETS RECONSTRUCTION
MAIN STREET, 1st to 3rd AVENUES
2nd AVENUE, WEST to BROAD
3rd AVENUE, WEST to BROAD
ENGINEERING SERVICES

THIS AGREEMENT, made and entered into this ____ day of _____, 2025, by and between the **CITY OF GRINNELL, IOWA**, hereinafter referred to as the **Owner**, or **City**, party of the first part, and **VEENSTRA & KIMM, INC.**, a corporation organized and existing under the laws of the State of Iowa, party of the second part, hereinafter referred to as the **Engineers**,

WITNESSETH: THAT WHEREAS, the City is now contemplating improvements to Main Street, 2nd Avenue and 3rd Avenue based on current construction at the water treatment plant and conditions of the streets and the current Capital Improvements Planning spanning the limits as described above. The project is to have one set of construction documents that will follow the City of Grinnell development process and be let locally or the **Project**, and

WHEREAS, the City desires to retain the Engineers to perform engineering services on the Project.

NOW, THEREFORE, it is hereby agreed by and between the parties hereto that the City does hereby retain the Engineers to act for and represent it in engineering matters on the Project. Such contract shall be subject to the following terms, conditions, and stipulations, to wit:

1. **SCOPE OF PROJECT.** It is understood and agreed upon the Project will include project development, state and local review processes, cost estimating, design of and general administration construction services for the improvements to the Project area as described in the title of this agreement.
2. The Engineer will work with City staff as well as adjacent property owners to help define the project details and materials, pedestrian and traffic control, staging, phasing requirements for construction, construction documents and cost estimates, scheduling, review of change orders and pay estimates, interpretation of plans, shop drawings review and attend meetings, as necessary.
3. This work will be consistent with City of Grinnell funding allocated for this project. The development process will involve project preliminary, check and final plans. This project will have a bid opening through the City of Grinnell. ADA ramp updates at all intersections are included in the construction project limits.

4. **SUBCONSULTANTS.** The Engineer shall coordinate the services of qualified professionals in material testing or other services deemed necessary for approvals either through clearances, design or construction. These subconsultants and their fees have not been included in the services for this agreement. The services and fees for these services are outside this agreement and will be billed separately to and paid for by the City and not against the agreed fees for this contract.
5. **PERMITS AND LICENSES.** The Engineers shall provide copies of plans and specifications, explanatory letters of transmittal, completion of required application forms and other information necessary to obtain permits, licenses or other documentation required for securing permits, licenses or permissions necessary from governmental agencies for construction.

The Owner shall pay for all licenses and other costs associated with permits and licenses and said costs shall not be charged against the Engineer's maximum fee set forth hereinafter.

6. **ESTIMATES OF COST.** The Engineers shall prepare an Engineers' Estimate of Cost for the improvements to be constructed under the Project. The Engineers' Estimate of Cost is intended for the use of the Owner in financing the Project. Given the unknown nature and volatility of the recent bidding environment, the Engineers shall not be responsible if the contract(s) awarded for construction of the Project vary from the Engineers' Estimate of Cost.
7. **COMPENSATION.** The Owner shall compensate the Engineers for their services by payment of the following fees:
 - a. The fee for the engineering services for the Project as set out in **1. SCOPE OF PROJECT, 2. SUBCONSULTANTS, 3. PERMITS AND LICENSES,** and **4. ESTIMATES OF COST** shall be for services for design, preparation of plans and specifications, permitting and bidding services for the Project, General Administration Services during construction and project closeout shall be Two Hundred Eighteen Thousand Four Hundred and Seventy-Five dollars (\$218,475).
8. **PAYMENT.** The fee for work set out in **7. COMPENSATION** shall be billed and payable monthly while the rendering of the services. Monthly bills will be based on hours charged to this Project. If additional services are requested and the fees for the additional services are defined and agreed upon, the agreed upon maximums will increase.
9. **TIME OF COMPLETION.** It is the Owner's intent to have the construction documents prepared and in place to facilitate a letting for the Project in October of 2026 to facilitate certification of the tax increment financing of the project. Construction is anticipated in 2027 with possible carryover into 2028. Public meetings will be needed during the design process as well as at the beginning of construction phase services. For purposes of budgeting fees, it has been assumed that the general services duration is for a period of ten (10) months of construction. Variations in effort put forth by the contractor(s) or

duration may impact the fees associated with general construction services. The engineer will not be held responsible for the contractor's ability to complete work in a timely manner.

10. **LEGAL SERVICES.** The Owner shall provide the services of the Owner's Attorney in matters pertaining to this Project. The Engineers shall cooperate with the Attorney and shall comply with his requirements as to form of contract documents and procedures relative to them.
11. **SERVICES NOT INCLUDED.** Services not included under this Agreement are as follows:
 - a. Determination and/or preparation of assessments and plats to property owners or related services of the Project.
 - b. Services related to or regarding arbitration or litigation of the construction contract between the construction contractor and the Owner regarding any part of the Project.
 - c. Services related to or regarding arbitration or litigation of the ponding rights or flooding of one property onto another property.
 - d. Services relating to the acquisition of right-of-way and easements, permanent or temporary construction, required for the construction of the City project.
 - e. Legal surveys, property surveys and easement surveys are not included in this Project cost.
 - f. Services relating to the televising of underground utilities and/or their services to property owner or other means to assess the conditions of the City's utilities in the Project area.
 - g. The Engineer will review said video inspection files as part of the agreed upon design services.
 - h. Geotechnical or materials testing for design or during the construction of the project.
 - i. Other services not included in the above scope of services or services as mentioned on areas not within the project.
 - j. Part- or full-time construction observation/inspection services during construction.

12. **CHANGES.** If after approvals of the plans or portions thereof by the Owner, the Engineers are required or requested to change the plan or said portions because of changes made by the Owner to limits or project intent, the Engineers shall receive additional compensation for making such changes. The compensation for such changes shall be based upon the standard hourly fees, plus expenses for personnel of the Engineers engaged in making the changes. These amounts will be additive to the agreed upon fees cited above.
13. **EXTRA WORK.** Fees stated in this Agreement cover the specific services outlined in this Agreement for the Project. If the Owner requires additional services of the Engineers in connection with the Project, or changes or modifications in the Project, the Engineers shall receive additional compensation for said services. Such additional compensation shall be at the standard hourly fees for personnel of the Engineers, plus expenses for personnel engaged in the authorized extra work.
14. **INDEMNIFICATION.** The Engineers shall and hereby agree to hold and save the Owner harmless from any and all claims, settlements, and judgments, to include all reasonable investigative fees, attorneys' fees, suit and court costs for personal injury, property damage, and/or death arising out of the Engineers' or any of its agents', servants', and employees' errors, omissions or negligent acts for services under this Agreement, and for all injury and/or death to any and all of the Engineers' personnel, agents, servants, and employees occurring under the Workers' Compensation Act of the State of Iowa.
15. **INSURANCE.** The Engineers shall furnish the Owner with certificates of insurance by insurance companies licensed to do business in the State of Iowa, upon which the Owner is endorsed as an additional named insured, in the following limits. It must be clearly disclosed on the face of the certificates that the coverage is on an occurrence basis:
- | | |
|--|-----------------------|
| General Liability* | \$1,000,000/2,000,000 |
| Automobile Liability | 1,000,000 |
| Excess Liability (Umbrella)* | 8,000,000/8,000,000 |
| Workers' Compensation, Statutory Benefits Coverage B | 1,000,000 |
| Professional Liability**,*** | 2,000,000/2,000,000 |
- *Occurrence/Aggregate
**The Owner is not to be named as an additional insured
***Claims made basis
16. **TERMINATION.** Should the Owner abandon the Project before the Engineers have completed their work, the Engineers shall be paid for the work and services performed until the date of termination.
17. **ASSISTANTS AND CONSULTANTS.** It is understood and agreed that the employment of the Engineers by the Owner for the purposes aforesaid shall be exclusive, but the Engineers shall have the right to employ such assistants and consultants, as they deem proper in the performance of the work.

18. ASSIGNMENT. This Agreement and every portion thereof shall be binding upon the successors and assigns of the parties hereto.

The undersigned do hereby covenant and state that this Agreement is executed in duplicate as though each were an original, and that there are no oral agreements that have not been reduced to writing in this instrument.

It is further covenanted and stated that there are no other considerations or monies contingent upon or resulting from the execution of this Agreement, nor have any of the above been implied by or for any party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have subscribed their names on the date first written above.

CITY OF GRINNELL, IOWA

ATTEST:

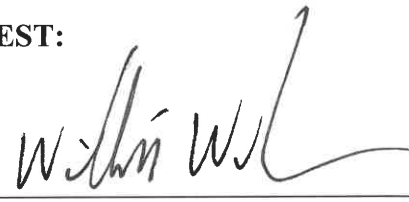
By _____
Mayor

By _____

VEENSTRA & KIMM, INC.

ATTEST:

By  _____

By  _____

July 15, 2025

Mr. Tyler Avis
Grinnell Planning and Building Director
520 4th Ave.
Grinnell, Iowa 50112-2043

RE: LOOSE HALL SIGNAGE INSTALLATION
VARIANCE REQUEST
S&A PROJECT NO. 123.0780.01

Dear Tyler:

I am requesting on behalf of Grinnell College seeking City approval to install 3 signs in the ROW between the sidewalk and curblin in front of Loose Hall along East St. Loose Hall has been undergoing extensive renovations both interior and exterior over the past year that are now nearing completion. Part of the exterior renovations was to remove the head in on-street parking in front of Loose, install a parallel parking stall drop off lane for deliveries and move in and installation of a new sidewalk system along the west side of East St.

The signs requested to be installed are.

1. Reinstall the Campus wayfinding sign back to its original location in the ROW.
2. Install a new regulatory type "NO PARKING- DELIVERIES ONLY SIGN" for the drop-off lane
3. Relocate the Loose Hall Building sign from in original location which conflicts with the new sidewalk to be located in the ROW.

The new sidewalk and the slope of the front yard behind the sidewalk provide the unique circumstance necessitating this request. I have included an exhibit depicting the proposed sign locations and exterior site improvements.

Please let me know if you have any questions or require further information. Thank you.

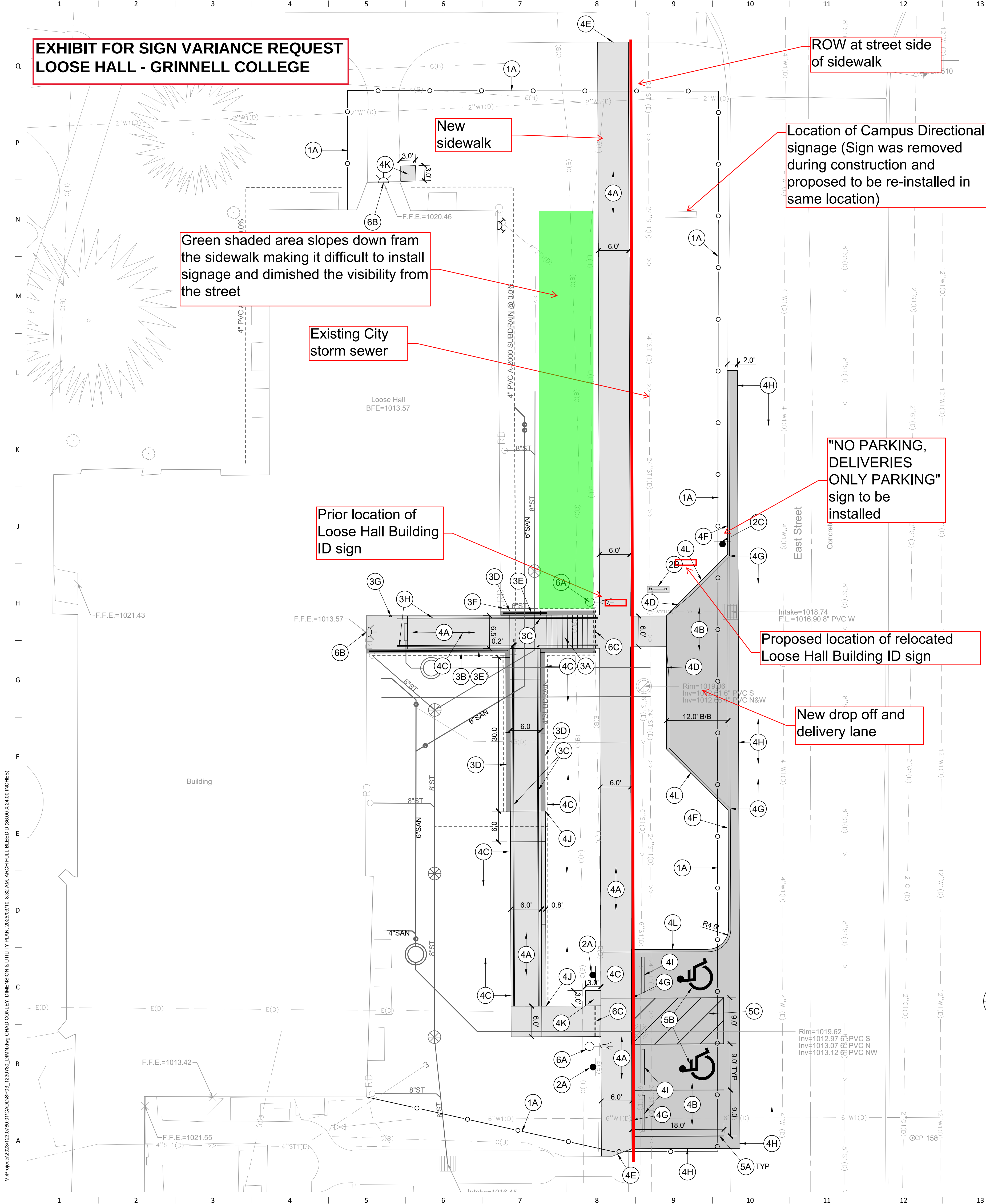
Sincerely,

SNYDER & ASSOCIATES, INC.



Jon L. Hanson, PE

CC: Christy Baker, Grinnell College (email)
Ryan Catus, Weitz, (email)

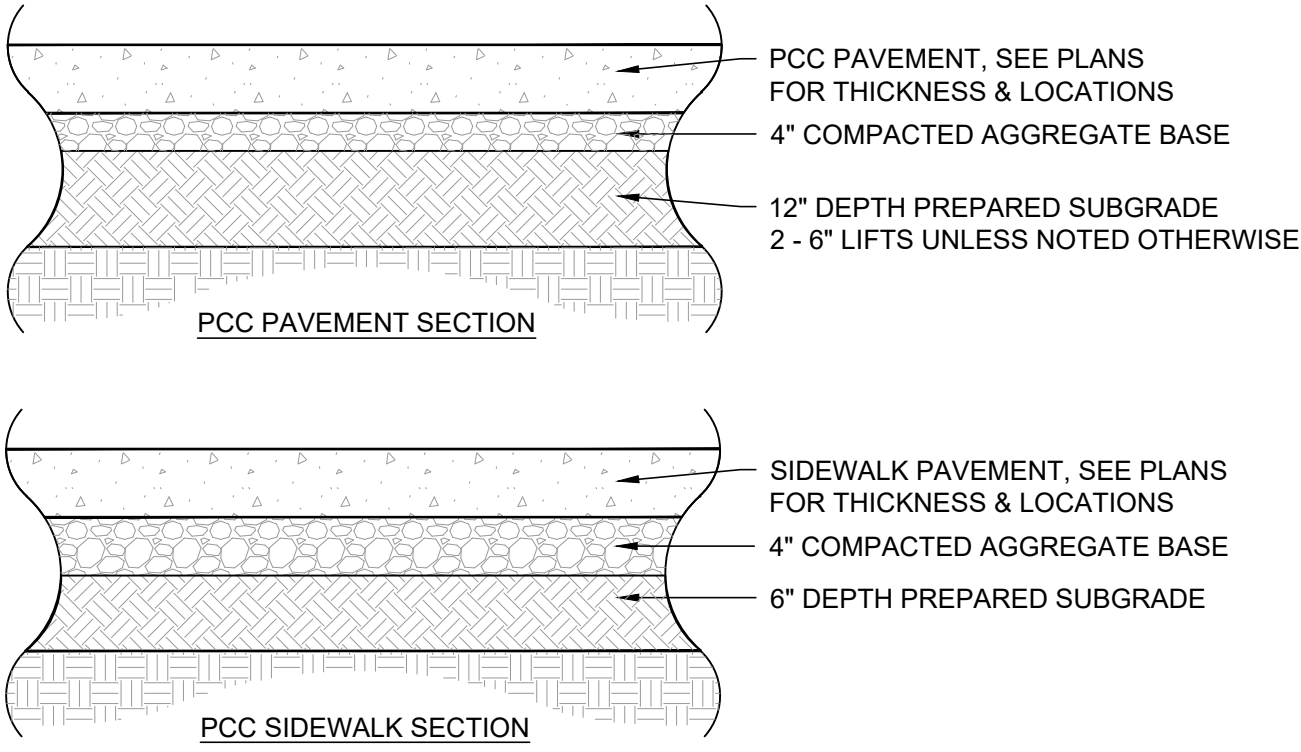


DIMENSION PLAN GENERAL NOTES

- A. UTILITY WARNING:
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- B. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
- C. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES WHICH ARE TO REMAIN. DAMAGE TO EXISTING UTILITIES OR SITE IMPROVEMENTS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
- D. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONSTRUCT ALL SITE IMPROVEMENTS AND UTILITIES IN ACCORDANCE WITH THE 2023 IOWA SUDAS STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 'MUTCD'. ALL PROPOSED SIGNS SHALL CONFORM TO THE 'MUTCD' MANUAL.
- F. THE CONTRACTOR SHALL LOAD AND TRANSPORT ALL MATERIALS NOT DESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.
- G. SAW-CUT AT TERMINATION TO FULL DEPTH ALL PAVEMENTS TO BE REMOVED.

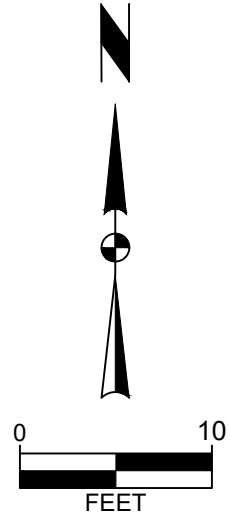
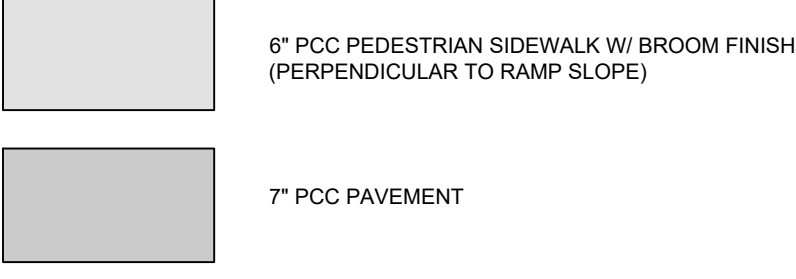
DIMENSION PLAN CONSTRUCTION NOTES

- 1. TEMPORARY SITE CONTROLS, PROVIDE THE FOLLOWING:
 - A. TEMPORARY CONSTRUCTION FENCE. PROVIDE AND MAINTAIN 6' TALL CHAIN-LINK FENCE THROUGHOUT THE DURATION OF THE PROJECT. ADJUST LOCATION AS NEEDED FOR CONSTRUCTION SEQUENCING AND AS NEEDED TO MINIMIZE DISRUPTION TO PEDESTRIAN CIRCULATION. REFER TO THE SITE LOGISTICS PLAN FOR ADDITIONAL DETAILED STAGING INFORMATION.
 - B. CONSTRUCTION ACCESS GATE.
- 2. SIGNS, PROVIDE THE FOLLOWING (ALL SIGNS TO BE INSTALLED ON 2" TELSAPR):
 - A. PROVIDE VAN ACCESSIBLE PARKING SIGNAGE AS PER ADAAG REQUIREMENTS. SEE DETAIL ON SHEET C700.
 - B. RELOCATED LOOSE HALL IDENTIFICATION SIGN. PROVIDE WITH 12"x60" PCC MAINTENANCE BASE.
 - C. 'NO PARKING DELIVERIES ONLY' SIGN.
- 3. SITE AMENITIES, PROVIDE THE FOLLOWING:
 - A. TYPE 'B' CONCRETE STEPS WITH HANDRAIL (SUDAS 9080.102). SEE DETAIL SHEET C700.
 - B. RETAINING WALL: SMOOTH ARCHITECTURAL FINISH. SEE DETAIL SHEET C700.
 - C. POST MOUNTED HANDRAIL: CORE DRILL AND GROUT ADA COMPLIANT STAINLESS STEEL HANDRAIL. SHOP DRAWINGS TO BE PROVIDED FOR APPROVAL.
 - D. TYPE 'A' COMBINED RETAINING WALL/SIDEWALK (SUDAS 9070.221). SEE DETAIL SHEET C700.
 - E. 42" SAFETY RAIL, SURFACE MOUNT WITH BASE PLATE COVER. PROVIDE WITH 6 HORIZONTAL PIPE MEMBERS AND VERTICAL MEMBERS AT 8' SPACING. PAINTED CHOCOLATE BROWN TO MATCH COLLEGE STANDARD. PROVIDE SHOP DRAWING FOR RAILING AND PAINT SAMPLE FOR REVIEW.
 - F. TURN DOWNSPOUT TO COME DOWN EAST FACE OF BUILDING. COORDINATE WITH ARCHITECTURAL DRAWINGS.
 - G. WALL MOUNTED HANDICAP DOOR PUSH BUTTON. COORDINATE WITH ELECTRICAL PLANS.
 - H. WALL MOUNTED HANDRAIL: ADA COMPLIANT STAINLESS STEEL HANDRAIL. SHOP DRAWINGS TO BE PROVIDED FOR APPROVAL. (WALL MOUNT WILL RUN FROM BOTTOM OF RAMP (22' EAST TO WEST) TO THE FIRST LANDING)
- 4. PAVEMENTS, PROVIDE THE FOLLOWING:
 - A. PCC SIDEWALKS, 6" DEPTH W/ 6X6X#10 WELDED-WIRE MESH REINFORCEMENT ON 4" COMPACTED AGGREGATE BASE AND 6" SUBGRADE COMPACTED TO 95% STANDARD PROCTOR.
 - B. PCC PARKING, 7" DEPTH PAVEMENT ON 4" COMPACTED AGGREGATE BASE AND 12" SUBGRADE COMPACTED TO 95% STANDARD PROCTOR. PROVIDE 6" CURB WHERE SHOWN.
 - C. PEDESTRIAN RAMP WITH HANDRAILS AND A MAXIMUM SLOPE OF 8.33%.
 - D. TAPER TO 6" HT. CURB IN 6.0'
 - E. CONNECT TO EXISTING PAVEMENT. DRILL AND DOWEL. INCLUDE #3 EPOXY-COATED PINS AT 18" SPACING.
 - F. 24" WIDE X 8" THICK STANDARD CURB AND GUTTER SECTION.
 - G. NO CURB.
 - H. CONNECT TO EXISTING PAVEMENT WITH SUDAS 'BT-5' JOINT (#4 BAR - 24" LONG AT 30" O.C.).
 - I. PLASTIC WHEEL STOP (MODEL H-2309) WITH CONCRETE INSTALLATION KIT (MODEL H-2311) AS MANUFACTURED BY ULINE. COLOR TO BE WHITE.
 - J. 6" TALL X 10" WIDE VERTICAL CURB. PIN TO SIDEWALK SLAB WITH #4 EPOXY COATED REBAR AT 24" O.C. PROVIDE ONE #4 LONGITUDINAL BAR CONTINUOUS ALONG LENGTH OF CURB. TOOL THE TOP OF EDGE. SEE DETAIL.
 - K. PROVIDE 36"x36"x6" PCC PAD FOR TRASH RECEPTACLE. PIN TO EXISTING CONCRETE SIDEWALK WITH #3 EPOXY-COATED PINS AT 18" SPACING.
 - L. 6" STANDARD CURB.
- 5. PAVEMENT MARKINGS, PROVIDE THE FOLLOWING:
 - A. 4" WIDE PAINTED PARKING STALL LINES.
 - B. PAINTED STATE-OF-IOWA-APPROVED ACCESSIBLE PARKING SYMBOL.
 - C. ACCESSIBLE AISLE. 45 DEGREE STRIPING AT 3' ON-CENTER SPACING WHERE SHOWN.
- 6. SITE LIGHTING, PROVIDE THE FOLLOWING:
 - A. POLE LIGHT. REFER TO ELECTRICAL PLANS FOR ADDITIONAL INFORMATION. (HUBBELL LIGHTING PROVIDENCE SERIES - PROV2-36L-510-4K7-50-BLS-STND-MNT-DL-ONV TYPE 'P', COLOR BLACK GLOSS SMOOTH, 15 FOOT MOUNTING HEIGHT).
 - B. WALL MOUNTED SECURITY LIGHT. COORDINATE WITH ELECTRICAL PLANS FOR FINAL LOCATION. (PHILLIPS STANCO LOW PROFILE WALL MOUNT LED LIGHT FIXTURE PW30-NW-G1-1-BZ TYPE W1, COLOR BLACK).
 - C. PROVIDE 4" SLEEVE UNDER SIDEWALK FOR SITE LIGHTING.



1 TYPICAL PAVEMENT CROSS SECTIONS
NO SCALE

PAVEMENT LEGEND



100 Court Ave., Suite 100
Des Moines, IA 50309
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Owner
GRINNELL COLLEGE
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GRINNELL, IA 50112

Project
GRINNELL LOOSE HALL RENOVATION
1215 EAST ST.

Contractor
Weitz Company
611 5TH AVE, STE. 300
DES MOINES, IA 50309
P. 515-246-3701

Civil Engineer
Snyder & Associates, Inc.
2727 SW SNYDER BLVD
ANKENY, IA 50023
P. 515-964-2020

Structural Engineer
Raker Rhodes Engineering, LLC
4117 GRAND AVE
DES MOINES, IA 50312
P. 515-277-0275

Mechanical Engineer
Salas O'Brien
3416 LAKERIDGE PL NW
ROCHESTER, MN 55901
P. 507-281-1632

Electrical Engineer
Salas O'Brien
3416 LAKERIDGE PL NW
ROCHESTER, MN 55901
P. 507-281-1632

Key Plan

Revision Description Date

OPN Project No.
Project Number

Sheet Issue Date
CONSTRUCTION SET 02/05/2024

Sheet Name
DIMENSION PLAN

Sheet Number

RESOLUTION NO. 2025-128

A RESOLUTION TO APPROVE AN AGREEMENT BETWEEN FEDERAL AVIATION ADMINISTRATION AND THE CITY OF GRINNELL FOR THE FY 2025 AIRPORT INFRASTRUCTURE GRANT, APRON REHABILITATION PROJECT – PHASE I DESIGN.

WHEREAS, the Federal Aviation Administration (FAA) has established an Airport Improvement Program to aid in the improvement of municipal airports; and

WHEREAS, this city of Grinnell has been approved for a grant in the amount of \$110,200.00 from the Iowa DOT; and

WHEREAS, the FAA requires that the city of Grinnell sign a Grant Agreement which outlines the requirements for accepting the Airport Infrastructure Grant; and

WHEREAS, the city of Grinnell agrees to all the terms as provided in said cooperative agreement; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the city of Grinnell, Iowa that authorization be given to Mayor Agnew to sign the Grant Project Agreement with the FAA.

PASSED AND APPROVED THIS 21st day of July 2025.

Dan F. Agnew, Mayor

ATTEST:

Alyssa Devig, City Clerk/Finance Director



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports Division
Central Region
Iowa, Kansas, Missouri, Nebraska

FAA ACE-600
901 Locust
Kansas City, MO 64106

Mr. Russ Behrens
City Manager
City of Grinnell
520 4th Avenue
Grinnell, IA 50112

Dear Mr. Behrens:

The Grant Offer for Infrastructure Investment and Jobs Act (IIJA) Airport Infrastructure Grant (AIG) Project No. 3-19-0039-023-2025 at Grinnell Regional Airport is attached for execution. This letter outlines the steps you must take to properly enter into this agreement and provides other useful information. Please read the conditions, special conditions, and assurances that comprise the grant offer carefully.

You may not make any modification to the text, terms or conditions of the grant offer.

Steps You Must Take to Enter Into Agreement. To properly enter into this agreement, you must do the following:

1. The governing body must give authority to execute the grant to the individual(s) signing the grant, i.e., the person signing the document must be the sponsor's authorized representative(s) (hereinafter "authorized representative").
2. The authorized representative must execute the grant by adding their electronic signature to the appropriate certificate at the end of the agreement.
3. Once the authorized representative has electronically signed the grant, the sponsor's attorney(s) will automatically receive an email notification.
4. On the **same day or after** the authorized representative has signed the grant, the sponsor's attorney(s) will add their electronic signature to the appropriate certificate at the end of the agreement.
5. If there are co-sponsors, the authorized representative(s) and sponsor's attorney(s) must follow the above procedures to fully execute the grant and finalize the process.
6. Signatures must be obtained and finalized no later than
7. The fully executed grant will then be automatically sent to all parties as an email attachment.

Payment. Subject to the requirements in 2 CFR § 200.305 (Federal Payment), each payment request for reimbursement under this grant must be made electronically via the Delphi eInvoicing System. Please see the attached Grant Agreement for more information regarding the use of this System.

Project Timing. The terms and conditions of this agreement require you to complete the project without undue delay and no later than the Period of Performance end date (1,460 days from the grant execution date). We will be monitoring your progress to ensure proper stewardship of these Federal funds. We expect you to submit payment requests for reimbursement of allowable incurred project expenses consistent with project progress. Your grant may be placed in "inactive" status if you do not make draws on a regular basis, which will affect your ability to receive future grant offers. Costs incurred after the

Period of Performance ends are generally not allowable and will be rejected unless authorized by the FAA in advance.

Reporting. Until the grant is completed and closed, you are responsible for submitting formal reports as follows:

- For all grants, you must submit by December 31st of each year this grant is open:
 1. A signed/dated SF-270 (Request for Advance or Reimbursement for non-construction projects) or SF-271 or equivalent (Outlay Report and Request for Reimbursement for Construction Programs), and
 2. An SF-425 (Federal Financial Report).
- For non-construction projects, you must submit [FAA Form 5100-140, Performance Report](#) within 30 days of the end of the Federal fiscal year.
- For construction projects, you must submit [FAA Form 5370-1, Construction Progress and Inspection Report](#), within 30 days of the end of each Federal fiscal quarter.

Audit Requirements. As a condition of receiving Federal assistance under this award, you must comply with audit requirements as established under 2 CFR part 200. Subpart F requires non-Federal entities that expend \$1,000,000 or more in Federal awards to conduct a single or program specific audit for that year. Note that this includes Federal expenditures made under other Federal-assistance programs. Please take appropriate and necessary action to ensure your organization will comply with applicable audit requirements and standards.

Closeout. Once the project(s) is completed and all costs are determined, we ask that you work with your FAA contact indicated below to close the project without delay and submit the necessary final closeout documentation as required by your Region/Airports District Office.

FAA Contact Information. Anthony Pollard, Ph: (816) 329-2619, is the assigned program manager for this grant and is readily available to assist you and your designated representative with the requirements stated herein.

We sincerely value your cooperation in these efforts and look forward to working with you to complete this important project.

Sincerely,



Rodney N. Joel

Director, Central Region Airports Division



U.S. Department
of Transportation
Federal Aviation
Administration

FY 2025 AIRPORT INFRASTRUCTURE GRANT
GRANT AGREEMENT
Part I - Offer

Federal Award Offer Date

-

Airport/Planning Area

Grinnell Regional

Airport Infrastructure Grant
Number

3-19-0039-023-2025

Unique Entity Identifier

CX34X6K2H9N5

TO: City of Grinnell, Iowa

(herein called the "Sponsor") (The word "Sponsor" in this Grant Agreement also applies to a Co-Sponsor.)

FROM: **The United States of America** (acting through the Federal Aviation Administration, herein called the "FAA")

WHEREAS, the Sponsor has submitted to the FAA a Project Application dated **June 16, 2025**, for a grant of Federal funds for a project at or associated with the **Grinnell Regional Airport** which is included as part of this Grant Agreement; and

WHEREAS, the FAA has approved a project for the **Grinnell Regional Airport** (herein called the "Project") consisting of the following:

Reconstruct General Aviation Terminal Apron – Phase 1: Design Only

which is more fully described in the Project Application.

NOW THEREFORE, Pursuant to and for the purpose of carrying out, the Infrastructure Investment and Jobs Act (Public Law (P.L.) 117-58) of 2021; FAA Reauthorization Act of 2024 (P.L. 118-63); and the representations contained in the Project Application; and in consideration of: (a) the Sponsor's adoption and ratification of the attached Grant Assurances dated April 2025, interpreted, and applied consistent with the FAA Reauthorization Act of 2024; (b) the Sponsor's acceptance of this Offer; and (c) the benefits to accrue to the United States and the public from the accomplishment of the Project and compliance with the Grant Assurance and conditions as herein provided;

THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES to pay Ninety-Five (95%) of the allowable costs incurred accomplishing the

Project as the United States share of the Project.

Assistance Listings Number (Formerly CFDA Number): 20.106

This Offer is made on and SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

CONDITIONS

- 1. Maximum Obligation.** The maximum obligation of the United States payable under this Offer is **\$110,200.00.**

The following amounts represent a breakdown of the maximum obligation for the purpose of establishing allowable amounts for any future grant amendment, which may increase the foregoing maximum obligation of the United States under the provisions of 49 U.S.C. § 47108(b):

\$0 for planning

\$110,200.00 for airport development or noise program implementation; and,

\$0 for land acquisition.

- 2. Grant Performance.** This Grant Agreement is subject to the following Federal award requirements:

- a. Period of Performance:

1. Shall start on the date the Sponsor formally accepts this Agreement and is the date signed by the last Sponsor signatory to the Agreement. The end date of the Period of Performance is 4 years (1,460 calendar days) from the date of acceptance. The Period of Performance end date shall not affect, relieve, or reduce Sponsor obligations and assurances that extend beyond the closeout of this Grant Agreement.
2. Means the total estimated time interval between the start of an initial Federal award and the planned end date, which may include one or more funded portions or budget periods. (2 Code of Federal Regulations (CFR) § 200.1) except as noted in 49 U.S.C. § 47142(b).

- b. Budget Period:

1. For this Grant is 4 years (1,460 calendar days) and follows the same start and end date as the Period of Performance provided in paragraph 2(a)(1). Pursuant to 2 CFR § 200.403(h), the Sponsor may charge to the Grant only allowable costs incurred during the Budget Period and as stated in 49 U.S.C § 47142(b). Eligible project-related costs incurred on or after November 15, 2021 that comply with all Federal funding procurement requirements and FAA standards are allowable costs.
2. Means the time interval from the start date of a funded portion of an award to the end date of that funded portion during which Sponsors are authorized to expend the funds awarded, including any funds carried forward or other revisions pursuant to 2 CFR § 200.308.

- c. Close Out and Termination

Unless the FAA authorizes a written extension, the Sponsor must submit all Grant closeout documentation and liquidate (pay-off) all obligations incurred under this award no later than 120 calendar days after the end date of the Period of Performance. If the Sponsor does not submit all required closeout documentation within this time period, the FAA will proceed to close out the grant within one year of the Period of Performance end date with

the information available at the end of 120 days. (2 CFR § 200.344). The FAA may terminate this agreement and all of its obligations under this agreement if any of the following occurs:

- (a) (1) The Sponsor fails to obtain or provide any Sponsor grant contribution as required by the agreement;
- (2) A completion date for the Project or a component of the Project is listed in the agreement and the Recipient fails to meet that milestone by six months after the date listed in the agreement;
- (3) The Sponsor fails to comply with the terms and conditions of this agreement, including a material failure to comply with the Project Schedule even if it is beyond the reasonable control of the Sponsor;
- (4) Circumstances cause changes to the Project that the FAA determines are inconsistent with the FAA's basis for selecting the Project to receive a grant; or
- (5) The FAA determines that termination of this agreement is in the public interest.

(b) In terminating this agreement under this section, the FAA may elect to consider only the interests of the FAA.

(c) The Sponsor may request that the FAA terminate the agreement under this section.

3. **Ineligible or Unallowable Costs.** In accordance with P.L. 117-58, Division J, Title VIII, and 49 U.S.C. § 47110, the Sponsor is prohibited from including any costs in the grant funded portions of the project that the FAA has determined to be ineligible or unallowable, including costs incurred to carry out airport development implementing policies and initiatives repealed by Executive Order 14148, provided such costs are not otherwise permitted by statute.
4. **Indirect Costs - Sponsor.** The Sponsor may charge indirect costs under this award by applying the indirect cost rate identified in the project application as accepted by the FAA, to allowable costs for Sponsor direct salaries and wages.
5. **Determining the Final Federal Share of Costs.** The United States' share of allowable project costs will be made in accordance with 49 U.S.C. § 47109, the regulations, policies, and procedures of the Secretary of Transportation ("Secretary"), and any superseding legislation. Final determination of the United States' share will be based upon the final audit of the total amount of allowable project costs and settlement will be made for any upward or downward adjustments to the Federal share of costs.
6. **Completing the Project Without Delay and in Conformance with Requirements.** The Sponsor must carry out and complete the project without undue delays and in accordance with this Agreement, IIJA (P.L. 117-58), and the regulations, policies, and procedures of the Secretary. Per 2 CFR § 200.308, the Sponsor agrees to report and request prior FAA approval for any disengagement from performing the project that exceeds three months or a 25 percent reduction in time devoted to the project. The report must include a reason for the project stoppage. The Sponsor also agrees to comply with the grant assurances, which are part of this Agreement.
7. **Amendments or Withdrawals before Grant Acceptance.** The FAA reserves the right to amend or withdraw this offer at any time prior to its acceptance by the Sponsor.
8. **Offer Expiration Date.** This offer will expire and the United States will not be obligated to pay any part of the costs of the project unless this offer has been accepted by the Sponsor on or before [redacted] or such subsequent date as may be prescribed in writing by the FAA.

9. Improper Use of Federal Funds and Mandatory Disclosure.

- a. The Sponsor must take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any other manner for any project upon which Federal funds have been expended. For the purposes of this Grant Agreement, the term “Federal funds” means funds however used or dispersed by the Sponsor, that were originally paid pursuant to this or any other Federal grant agreement. The Sponsor must obtain the approval of the Secretary as to any determination of the amount of the Federal share of such funds. The Sponsor must return the recovered Federal share, including funds recovered by settlement, order, or judgment, to the Secretary. The Sponsor must furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the Sponsor, in court or otherwise, involving the recovery of such Federal share require advance approval by the Secretary.
- b. The Sponsor, a recipient, and a subrecipient under this Federal grant must promptly comply with the mandatory disclosure requirements as established under 2 CFR § 200.113, including reporting requirements related to recipient integrity and performance in accordance with Appendix XII to 2 CFR Part 200.

10. United States Not Liable for Damage or Injury. The United States is not responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with this Grant Agreement.

11. System for Award Management (SAM) Registration and Unique Entity Identifier (UEI).

- a. Requirement for System for Award Management (SAM): Unless the Sponsor is exempted from this requirement under 2 CFR § 25.110, the Sponsor must maintain the currency of its information in the SAM until the Sponsor submits the final financial report required under this Grant, or receives the final payment, whichever is later. This requires that the Sponsor review and update the information at least annually after the initial registration and more frequently if required by changes in information or another award term. Additional information about registration procedures may be found at the SAM website (currently at <http://www.sam.gov>).
- b. Unique entity identifier (UEI) means a 12-character alpha-numeric value used to identify a specific commercial, nonprofit or governmental entity. A UEI may be obtained from SAM.gov at <https://sam.gov/content/entity-registration>.

12. Electronic Grant Payment(s). Unless otherwise directed by the FAA, the Sponsor must make each payment request under this Agreement electronically via the Delphi eInvoicing System for Department of Transportation (DOT) Financial Assistance Awardees.

13. Informal Letter Amendment of IIJA Projects. If, during the life of the project, the FAA determines that the maximum grant obligation of the United States exceeds the expected needs of the Sponsor by \$25,000 or five percent (5%), whichever is greater, the FAA can issue a letter amendment to the Sponsor unilaterally reducing the maximum obligation.

The FAA can, subject to the availability of Federal funds, also issue a letter to the Sponsor increasing the maximum obligation if there is an overrun in the total actual eligible and allowable project costs to cover the amount of the overrun provided it will not exceed the statutory limitations for grant amendments. The FAA’s authority to increase the maximum obligation does not apply to the

“planning” component of Condition No. 1, Maximum Obligation.

The FAA can also issue an informal letter amendment that modifies the grant description to correct administrative errors or to delete work items if the FAA finds it advantageous and in the best interests of the United States.

An informal letter amendment has the same force and effect as a formal grant amendment.

- 14. Environmental Standards.** The Sponsor is required to comply with all applicable environmental standards, as further defined in the Grant Assurances, for all projects in this grant. If the Sponsor fails to comply with this requirement, the FAA may suspend, cancel, or terminate this Grant Agreement.
- 15. Financial Reporting and Payment Requirements.** The Sponsor will comply with all Federal financial reporting requirements and payment requirements, including submittal of timely and accurate reports.
- 16. Buy American.** Unless otherwise approved in advance by the FAA, in accordance with 49 U.S.C. § 50101, the Sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured goods produced outside the United States to be used for any project for which funds are provided under this Grant. The Sponsor will include a provision implementing Buy American in every contract and subcontract awarded under this Grant.
- 17. Build America, Buy American.** The Sponsor must comply with the requirements under the Build America, Buy America Act (P.L. 117-58).
- 18. Maximum Obligation Increase.** In accordance with 49 U.S.C. § 47108(b)(3), as amended, the maximum obligation of the United States, as stated in Condition No. 1, Maximum Obligation, of this Grant:
 - a. May not be increased for a planning project;
 - b. May be increased by not more than 15 percent for development projects if funds are available;
 - c. May be increased by not more than the greater of the following for a land project, if funds are available:
 1. 15 percent; or
 2. 25 percent of the total increase in allowable project costs attributable to acquiring an interest in the land.

If the Sponsor requests an increase, any eligible increase in funding will be subject to the United States Government share as provided in IIJA (P.L. 117-58), or other superseding legislation if applicable, for the fiscal year appropriation with which the increase is funded. The FAA is not responsible for the same Federal share provided herein for any amount increased over the initial grant amount. The FAA may adjust the Federal share as applicable through an informal letter of amendment.

- 19. Audits for Sponsors.** The Sponsor must provide for a Single Audit or program-specific audit in accordance with 2 CFR Part 200. The Sponsor must submit the audit reporting package to the Federal Audit Clearinghouse on the Federal Audit Clearinghouse’s Internet Data Entry System at <http://harvester.census.gov/facweb/>. Upon request of the FAA, the Sponsor shall provide one copy of the completed audit to the FAA. Sponsors that expend less than \$1,000,000 in Federal awards and are exempt from Federal audit requirements must make records available for review or audit by the appropriate Federal agency officials, State, and Government Accountability Office. The FAA and

other appropriate Federal agencies may request additional information to meet all Federal audit requirements.

20. Suspension or Debarment. When entering into a “covered transaction” as defined by 2 CFR § 180.200, the Sponsor must:

- a. Verify the non-Federal entity is eligible to participate in this Federal program by:
 1. Checking the System for Award Management (SAM.gov) exclusions to determine if the non-Federal entity is excluded or disqualified; or
 2. Collecting a certification statement from the non-Federal entity attesting they are not excluded or disqualified from participating; or
 3. Adding a clause or condition to covered transactions attesting the individual or firm are not excluded or disqualified from participating.
- b. Require prime contractors to comply with 2 CFR § 180.330 when entering into lower-tier transactions with their contractors and sub-contractors.
- c. Immediately disclose in writing to the FAA whenever (1) the Sponsor learns it has entered into a covered transaction with an ineligible entity or (2) the Public Sponsor suspends or debars a contractor, person, or entity.

21. Ban on Texting While Driving.

- a. In accordance with Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the Sponsor is encouraged to:
 1. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving when performing any work for, or on behalf of, the Federal government, including work relating to a grant or subgrant.
 2. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as:
 - i. Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and
 - ii. Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.
- b. The Sponsor must insert the substance of this clause on banning texting while driving in all subgrants, contracts, and subcontracts funded with this Grant.

22. Trafficking in Persons.

- a. *Posting of contact information.*
 1. The Sponsor must post the contact information of the national human trafficking hotline (including options to reach out to the hotline such as through phone, text, or TTY) in all public airport restrooms.
- b. *Provisions applicable to a recipient that is a private entity.*
 1. Under this Grant, the recipient, its employees, subrecipients under this Grant, and subrecipients employees must not engage in:

- i. Severe forms of trafficking in persons;
 - ii. The procurement of a commercial sex act during the period of time that the grant or cooperative agreement is in effect;
 - iii. The use of forced labor in the performance of this grant; or any subaward; or
 - iv. Acts that directly support or advance trafficking in persons, including the following acts:
 - a) Destroying, concealing, removing, confiscating, or otherwise denying an employee access to that employee's identity or immigration documents;
 - b) Failing to provide return transportation of pay for return transportation costs to an employee from a country outside the United States to the country from which the employee was recruited upon the end of employment if requested by the employee, unless:
 - c) Exempted from the requirement to provide or pay for such return transportation by the federal department or agency providing or entering into the grant; or
 - d) The employee is a victim of human trafficking seeking victim services or legal redress in the country of employment or witness in a human trafficking enforcement action;
 - e) Soliciting a person for the purpose of employment, or offering employment, by means of materially false or fraudulent pretenses, representations, or promises regarding that employment;
 - f) Charging recruited employees a placement or recruitment fee; or
 - g) Providing or arranging housing that fails to meet the host country's housing and safety standards.
2. The FAA may unilaterally terminate this Grant or take any remedial actions authorized by 22 U.S.C. § 7104b(c), without penalty, if any private entity under this Grant:
- i. Is determined to have violated a prohibition in paragraph (b)(1) of this Grant; or
 - ii. Has an employee that is determined to have violated a prohibition in paragraph(b)(1) of this Grant through conduct that is either:
 - a) Associated with the performance under this Grant; or
 - b) Imputed to the recipient or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)," as implemented by the FAA at 2 CFR Part 1200.
- c. *Provisions applicable to a recipient other than a private entity.*
1. The FAA may unilaterally terminate this award or take any remedial actions authorized by 22 U.S.C. § 7104b(c), without penalty, if subrecipient than is a private entity under this award:
- i. Is determined to have violated a prohibition in paragraph (b)(1) of this Grant or

- ii. Has an employee that is determined to have violated a prohibition in paragraph (b)(1) of this Grant through conduct that is either:
 - a) Associated with the performance under this Grant; or
 - b) Imputed to the recipient or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, “OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),” as implemented by the FAA at 2 CFR Part 1200.
- d. *Provisions applicable to any recipient.*
 - 1. The recipient must inform the FAA and the DOT Inspector General immediately of any information you receive from any source alleging a violation of a prohibition in paragraph (b)(1) of this Grant.
 - 2. The FAA’s right to unilaterally terminate this Grant as described in paragraphs (b)(2) or (c)(1) of this Grant, implements the requirements of 22 U.S.C. chapter 78, and is in addition to all other remedies for noncompliance that are available to the FAA under this Grant.
 - 3. The recipient must include the requirements of paragraph (b)(1) of this Grant award term in any subaward it makes to a private entity.
 - 4. If applicable, the recipient must also comply with the compliance plan and certification requirements in 2 CFR 175.105(b).
- e. *Definitions. For purposes of this Grant award, term:*
 - 1. “Employee” means either:
 - i. An individual employed by the recipient or a subrecipient who is engaged in the performance of the project or program under this Grant; or
 - ii. Another person engaged in the performance of the project or program under this Grant and not compensated by the recipient including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing requirements.
 - 2. “Private entity” means:
 - i. Any entity, including for-profit organizations, nonprofit organizations, institutions of higher education, and hospitals. The term does not include foreign public entities, Indian Tribes, local governments, or states as defined in 2 CFR 200.1.
 - ii. The terms “severe forms of trafficking in persons,” “commercial sex act,” “sex trafficking,” “Abuse or threatened abuse of law or legal process,” “coercion,” “debt bondage,” and “involuntary servitude” have the meaning given at section 103 of the TVPA, as amended (22 U.S.C. § 7102).

23. IJA Funded Work Included in a PFC Application. Within **120** days of acceptance of this Grant Agreement, the Sponsor must submit to the FAA an amendment to any approved Passenger Facility Charge (PFC) application that contains an approved PFC project also covered under this Grant Agreement as described in the project application. The airport sponsor may not make any

expenditure under this Grant Agreement until project work addressed under this Grant Agreement is removed from an approved PFC application by amendment.

24. **Exhibit "A" Property Map.** The Exhibit "A" Property Map dated **May 31, 2006**, is incorporated herein by reference or is submitted with the project application and made part of this Grant Agreement.
25. **Employee Protection from Reprisal.** In accordance with 2 CFR § 200.217 and 41 U.S.C. § 4701, an employee of a grantee, subgrantee contractor, recipient or subrecipient must not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing to a person or body described in paragraph (a)(2) of 41 U.S.C. § 4712 information that the employee reasonably believes is evidence of gross mismanagement of a Federal contract or grant, a gross waste of Federal funds, an abuse of authority relating to a Federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a Federal contract (including the competition for or negotiation of a contract) or grant. The grantee, subgrantee, contractor, recipient, or subrecipient must inform their employees in writing of employee whistleblower rights and protections under 41 U.S.C. § 4712. See statutory requirements for whistleblower protections at 10 U.S.C. § 4701, 41 U.S.C. § 4712, 41 U.S.C. § 4304, and 10 U.S.C. § 4310.
26. **Prohibited Telecommunications and Video Surveillance Services and Equipment.** The Sponsor agrees to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [P.L. 115-232 § 889(f)(1)] and 2 CFR § 200.216.
27. **Critical Infrastructure Security and Resilience.** The Sponsor acknowledges that it has considered and addressed physical and cybersecurity and resilience in its project planning, design, and oversight, as determined by the DOT and the Department of Homeland Security (DHS). For airports that do not have specific DOT or DHS cybersecurity requirements, the FAA encourages the voluntary adoption of the cybersecurity requirements from the Transportation Security Administration and Federal Security Director identified for security risk Category X airports.
28. **Title VI of the Civil Rights Act.** As a condition of a grant award, the Sponsor shall demonstrate that it complies with the provisions of Title VI of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d et seq) and implementing regulations (49 CFR part 21), the Airport and Airway Improvement Act of 1982 (49 U.S.C. § 47123), the Age Discrimination Act of 1975 (42 U.S.C. 6101 et seq.), Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 et seq.), the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101, et seq.), U.S. Department of Transportation and Federal Aviation Administration (FAA) Assurances, and other relevant civil rights statutes, regulations, or authorities, including any amendments or updates thereto. This may include, as applicable, providing a current Title VI Program Plan to the FAA for approval, in the format and according to the timeline required by the FAA, and other information about the communities that will be benefited and impacted by the project. A completed FAA Title VI Pre-Grant Award Checklist is required for every grant application, unless excused by the FAA. The Sponsor shall affirmatively ensure that when carrying out any project supported by this grant that it complies with all federal nondiscrimination and civil rights laws based on race, color, national origin, sex, creed, age, disability, genetic information, in consideration for federal financial assistance. The Department's and FAA's Office of Civil Rights may provide resources and technical assistance to recipients to ensure full and sustainable compliance with Federal civil rights requirements. Failure to comply with civil rights requirements will be considered a violation of the agreement or contract and be subject to any enforcement action as authorized by law.

FAA Reauthorization Act of 2024. This grant agreement is subject to the terms and conditions contained herein including the terms known as the Grant Assurances as they were published in the Federal Register on May 2022. On May 16, 2024, the FAA Reauthorization Act of 2024 made certain amendments to 49 U.S.C. chapter 471. The Reauthorization Act will require the FAA to make certain amendments to the assurances in order to best achieve consistency with the statute. Federal law requires that the FAA publish any amendments to the assurances in the Federal Register along with an opportunity to comment. In order not to delay the offer of this grant, the existing assurances are attached herein; however, the FAA shall interpret and apply these assurances consistent with the Reauthorization Act. To the extent there is a conflict between the assurances and Federal statutes, the statutes shall apply. The full text of the FAA Reauthorization Act of 2024 is at <https://www.congress.gov/bill/118th-congress/house-bill/3935/text>

29. Applicable Federal Anti-Discrimination Laws. Pursuant to Section (3)(b)(iv), Executive Order 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity, the sponsor:

- a. Agrees that its compliance in all respects with all applicable Federal anti-discrimination laws is material to the government's payment decisions for purposes of 31 U.S.C. 3729(b)(4); and
- b. certifies that it does not operate any programs promoting diversity, equity, and inclusion (DEI) initiatives that violate any applicable Federal anti-discrimination laws.

30. Federal Law and Public Policy Requirements. The Sponsor shall ensure that Federal funding is expended in full accordance with the United States Constitution, Federal law, and statutory and public policy requirements: including but not limited to, those protecting free speech, religious liberty, public welfare, the environment, and prohibiting discrimination; and the Sponsor will cooperate with Federal officials in the enforcement of Federal law, including cooperating with and not impeding U.S. Immigration and Customs Enforcement (ICE) and other Federal offices and components of the Department of Homeland Security in and the enforcement of Federal immigration law.

31. National Airspace System Requirements

- a. The Sponsor shall cooperate with FAA activities installing, maintaining, replacing, improving, or operating equipment and facilities in or supporting the National Airspace System, including waiving permitting requirements and other restrictions affecting those activities to the maximum extent possible, and assisting the FAA in securing waivers of permitting or other restrictions from other authorities. The Sponsor shall not take actions that frustrate or prevent the FAA from installing, maintaining, replacing, improving, or operating equipment and facilities in or supporting the National Airspace System.
- b. If the FAA determines that the Sponsor has violated subsection (a), the FAA may impose a remedy, including:
 - (1) additional conditions on the award;
 - (2) consistent with 49 U.S.C chapter 471, any remedy permitted under 2 C.F.R. 200.339–200.340, including withholding of payments; disallowance of previously reimbursed costs, requiring refunds from the Recipient to the USDOT; suspension or termination of the award; or suspension and debarment under 2 CFR part 180; or
 - (3) any other remedy legally available.

- c. In imposing a remedy under this condition, the FAA may elect to consider the interests of only the FAA.
- d. The Sponsor acknowledges that amounts that the FAA requires the Sponsor to refund to the FAA due to a remedy under this condition constitute a debt to the Federal Government that the FAA may collect under 2 CFR 200.346 and the Federal Claims Collection Standards (31 CFR parts 900–904).

32. Signage Costs for Construction Projects. The airport grant recipient hereby agrees that it will require the prime contractor of a Federally- assisted airport improvement project to post signs consistent with a DOT/FAA-prescribed format, as may be requested by the DOT/FAA, and further agrees to remove any signs posted in response to requests received prior to February 1, 2025.

33. Title 8 - U.S.C., Chapter 12, Subchapter II - Immigration. The sponsor will follow applicable federal laws pertaining to Subchapter 12, and be subject to the penalties set forth in 8 U.S.C. § 1324, Bringing in and harboring certain aliens, and 8 U.S.C. § 1327, Aiding or assisting certain aliens to enter.

SPECIAL CONDITIONS

34. **Protection of Runway Protection Zone - Airport Property.** The Sponsor agrees to prevent the erection or creation of any structure, place of public assembly, or other use in the Runway Protection Zone, as depicted on the Exhibit "A": Property Map, except for Navigational Aids (NAVAIDS) that are fixed by their functional purposes or any other structure permitted by the FAA. The Sponsor further agrees that any existing structures or uses within the Runway Protection Zone will be cleared or discontinued by the Sponsor unless approved by the FAA.
35. **Protection of Runway Protection Zone - Easement.** The Sponsor, under the easement, agrees to take any and all steps necessary to ensure that the owner of the land within the designated Runway Protection Zone will not build any structure in the Runway Protection Zone that is an airport hazard or which might create glare or misleading lights or lead to the construction of residences, fuel handling and storage facilities, smoke generating activities, or places of public assembly, such as churches, schools, office buildings, shopping centers, and stadiums.
36. **Plans and Specifications Prior to Bidding.** The Sponsor agrees that it will submit plans and specifications for FAA review prior to advertising for bids.
37. **Design Grant.** This Grant Agreement is being issued in order to complete the design of the project. The Sponsor understands and agrees that within two (2) years after the design is completed that the Sponsor will accept, subject to the availability of the amount of Federal funding identified in the Airport Capital Improvement Plan (ACIP), a grant to complete the construction of the project in order to provide a useful and usable unit of work. The Sponsor also understands that if the FAA has provided Federal funding to complete the design for the project, and the Sponsor has not completed the design within four (4) years from the execution of this Grant Agreement, the FAA may suspend or terminate grants related to the design.
38. **Buy American Executive Orders.** The Sponsor agrees to abide by applicable Executive Orders in effect at the time this Grant Agreement is executed, including Executive Order 14005, Ensuring the Future Is Made in All of America by All of America's Workers.

The Sponsor's acceptance of this Offer and ratification and adoption of the Project Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, constituting the contractual obligations and rights of the United States and the Sponsor with respect to the accomplishment of the Project and compliance with the Grant Assurances, terms, and conditions as provided herein. Such Grant Agreement shall become effective upon the Sponsor's acceptance of this Offer.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.¹

UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION

(Signature)

Rodney N. Joel

(Typed Name)

**Director, Central Region Airports
 Division**

(Title of FAA Official)

¹ Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. § 1001 (False Statements) and could subject you to fines, imprisonment, or both.

Part II - Acceptance

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.²

Dated _____

City of Grinnell

(Name of Sponsor)

(Signature of Sponsor's Authorized Official)

By:

(Typed Name of Sponsor's Authorized Official)

Title:

(Title of Sponsor's Authorized Official)

² Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. § 1001 (False Statements) and could subject you to fines, imprisonment, or both.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, _____, acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of Iowa. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative, who has been duly authorized to execute this Grant Agreement, which is in all respects due and proper and in accordance with the laws of the said State; the Infrastructure Investment and Jobs Act (P.L. 117-58) of 2021; FAA Reauthorization Act of 2024 (P.L. 118-63); and the representations contained in the Project Application. In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.³

Dated at _____

By: _____

(Signature of Sponsor's Attorney)

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

³ Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. § 1001 (False Statements) and could subject you to fines, imprisonment, or both.

ASSURANCES

AIRPORT SPONSORS

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this Grant Agreement.

B. Duration and Applicability.

1. **Airport Development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.**

The terms, conditions, and assurances of this Grant Agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.**

The preceding paragraph (1) also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.**

Unless otherwise specified in this Grant Agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 23, 25, 30, 32, 33, 34, 37, and 40 in Section C apply to planning projects. The terms, conditions, and assurances of this Grant Agreement shall remain in full force and effect during the life of the project; there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport.

C. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this grant that:

1. General Federal Requirements

The Sponsor will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance, and use of Federal funds for this Grant. Performance under this agreement shall be governed by and in compliance with the following requirements, as applicable, to the type of organization of the Sponsor and any applicable sub-recipients. The applicable provisions to this agreement include, but are not limited to, the following:

FEDERAL LEGISLATION

- a. 49 U.S.C. subtitle VII, as amended.
- b. Davis-Bacon Act, as amended — 40 U.S.C. §§ 3141-3144, 3146, and 3147, et seq.¹
- c. Federal Fair Labor Standards Act — 29 U.S.C. § 201, et seq.
- d. Hatch Act — 5 U.S.C. § 1501, et seq.²
- e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 U.S.C. 4601, et seq.^{1, 2}
- f. National Historic Preservation Act of 1966 — Section 106 — 54 U.S.C. § 306108.¹
- g. Archeological and Historic Preservation Act of 1974 — 54 U.S.C. § 312501, et seq.¹
- h. Native Americans Grave Repatriation Act — 25 U.S.C. § 3001, et seq.
- i. Clean Air Act, P.L. 90-148, as amended — 42 U.S.C. § 7401, et seq.
- j. Coastal Zone Management Act, P.L. 92-583, as amended — 16 U.S.C. § 1451, et seq.
- k. Flood Disaster Protection Act of 1973 — Section 102(a) - 42 U.S.C. § 4012a.¹
- l. 49 U.S.C. § 303, (formerly known as Section 4(f)).
- m. Rehabilitation Act of 1973 — 29 U.S.C. § 794.
- n. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq.) (prohibits discrimination on the basis of race, color, national origin).
- o. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.) (prohibits discrimination on the basis of disability).
- p. Age Discrimination Act of 1975 — 42 U.S.C. § 6101, et seq.
- q. American Indian Religious Freedom Act, P.L. 95-341, as amended.
- r. Architectural Barriers Act of 1968, as amended — 42 U.S.C. § 4151, et seq.¹
- s. Powerplant and Industrial Fuel Use Act of 1978 — Section 403 — 42 U.S.C. § 8373.¹
- t. Contract Work Hours and Safety Standards Act — 40 U.S.C. § 3701, et seq.¹
- u. Copeland Anti-kickback Act — 18 U.S.C. § 874.¹
- v. National Environmental Policy Act of 1969 — 42 U.S.C. § 4321, et seq.¹
- w. Wild and Scenic Rivers Act, P.L. 90-542, as amended — 16 U.S.C. § 1271, et seq.

- x. Single Audit Act of 1984 – 31 U.S.C. § 7501, et seq.²
- y. Drug-Free Workplace Act of 1988 – 41 U.S.C. §§ 8101 through 8105.
- z. The Federal Funding Accountability and Transparency Act of 2006, as amended (P.L. 109-282, as amended by section 6202 of P.L. 110-252).
- aa. Civil Rights Restoration Act of 1987, P.L. 100-259.
- bb. Infrastructure Investment and Jobs Act, P.L. 117-58, Title VIII.
- cc. Build America, Buy America Act, P.L. 117-58, Title IX.
- dd. Endangered Species Act – 16 U.S.C. 1531, et seq.
- ee. Title IX of the Education Amendments of 1972, as amended – 20 U.S.C. 1681–1683 and 1685–1687.
- ff. Drug Abuse Office and Treatment Act of 1972, as amended – 21 U.S.C. 1101, et seq.
- gg. Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, P.L. 91-616, as amended – 42 U.S.C. § 4541, et seq.
- hh. Appropriated Funds to Influence Certain Federal Contracting and Financial Transactions – 31 U.S.C. § 1352.

EXECUTIVE ORDERS

- a. Executive Order 11990 – Protection of Wetlands
- b. Executive Order 11988 – Floodplain Management
- c. Executive Order 12372 – Intergovernmental Review of Federal Programs
- d. Executive Order 12699 – Seismic Safety of Federal and Federally Assisted New Building Construction¹
- e. Executive Order 14005 – Ensuring the Future is Made in all of America by All of America's Workers
- f. Executive Order 14149 – Restoring Freedom of Speech and Ending Federal Censorship
- g. Executive Order 14151 – Ending Radical and Wasteful Government DEI Programs and Preferencing
- h. Executive Order 14154 – Unleashing American Energy
- i. Executive Order 14168 – Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government
- j. Executive Order 14173 – Ending Illegal Discrimination and Restoring Merit-Based Opportunity

FEDERAL REGULATIONS

- a. 2 CFR Part 180 – OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).
- b. 2 CFR Part 200 and 1201 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.^{3, 4, 5}
- c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment.

- d. 14 CFR Part 13 – Investigative and Enforcement Procedures.
- e. 14 CFR Part 16 – Rules of Practice for Federally-Assisted Airport Enforcement Proceedings.
- f. 14 CFR Part 150 – Airport Noise Compatibility Planning.
- g. 28 CFR Part 35 – Nondiscrimination on the Basis of Disability in State and Local Government Services.
- h. 28 CFR § 50.3 – U.S. Department of Justice Guidelines for the Enforcement of Title VI of the Civil Rights Act of 1964.
- i. 29 CFR Part 1 – Procedures for Predetermination of Wage Rates.¹
- j. 29 CFR Part 3 – Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States.¹
- k. 29 CFR Part 5 – Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (Also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act).¹
- l. 41 CFR Part 60 – Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and Federally-assisted contracting requirements).¹
- m. 49 CFR Part 20 – New Restrictions on Lobbying.
- n. 49 CFR Part 21 – Nondiscrimination in Federally-Assisted Programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964.
- o. 49 CFR Part 23 – Participation by Disadvantage Business Enterprise in Airport Concessions.
- p. 49 CFR Part 24 – Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs.^{1, 2}
- q. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.
- r. 49 CFR Part 27 – Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance.¹
- s. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities Conducted by the Department of Transportation.
- t. 49 CFR Part 30 – Denial of Public Works Contracts to Suppliers of Goods and Services of Countries That Deny Procurement Market Access to U.S. Contractors.
- u. 49 CFR Part 32 – Governmentwide Requirements for Drug-Free Workplace (Financial Assistance).
- v. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).
- w. 49 CFR Part 38 – Americans with Disabilities Act (ADA) Accessibility Specifications for Transportation Vehicles.
- x. 49 CFR Part 41 – Seismic Safety.

FOOTNOTES TO ASSURANCE (C)(1)

¹ These laws do not apply to airport planning sponsors.

- ² These laws do not apply to private sponsors.
- ³ 2 CFR Part 200 contains requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation shall apply where applicable to private sponsors receiving Federal assistance under Title 49, United States Code.
- ⁴ Cost principles established in 2 CFR Part 200 subpart E must be used as guidelines for determining the eligibility of specific types of expenses.
- ⁵ Audit requirements established in 2 CFR Part 200 subpart F are the guidelines for audits.

SPECIFIC ASSURANCES

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this Grant Agreement.

2. Responsibility and Authority of the Sponsor.

a. Public Agency Sponsor:

It has legal authority to apply for this Grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

b. Private Sponsor:

It has legal authority to apply for this Grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this Grant Agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. Sponsor Fund Availability.

It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this Grant Agreement which it will own or control.

4. Good Title.

- a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.
- b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. Preserving Rights and Powers.

- a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this Grant

Agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

- b. Subject to 49 U.S.C. 47107(a)(16) and (x), it will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this Grant Agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of this Grant Agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this Grant Agreement.
- c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.
- d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.
- e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.
- f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to ensure that the airport will be operated and maintained in accordance with Title 49, United States Code, the regulations and the terms, conditions and assurances in this Grant Agreement and shall ensure that such arrangement also requires compliance therewith.
- g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 and the sponsor assurances.

6. Consistency with Local Plans.

The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. Consideration of Local Interest.

It has given fair consideration to the interest of communities in or near where the project may be located.

8. Consultation with Users.

In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. Public Hearings.

In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. Metropolitan Planning Organization.

In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the sponsor has made available to and has provided upon request to the metropolitan planning organization in the area in which the airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the project and a copy of any airport master plan in which the project is described or depicted.

11. Pavement Preventive Maintenance-Management.

With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program, and it assures that it will use such program for the useful life of any pavement constructed, reconstructed, or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. Terminal Development Prerequisites.

For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under 49 U.S.C. 44706, and all the security equipment required by rule or regulation, and has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. Accounting System, Audit, and Record Keeping Requirements.

- a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this Grant, the total cost of the project in connection with which this Grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.
- b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this Grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which this Grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. Minimum Wage Rates.

It shall include, in all contracts in excess of \$2,000 for work on any projects funded under this Grant Agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor under 40 U.S.C. §§ 3141-3144, 3146, and 3147, Public Building, Property, and Works), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. Veteran's Preference.

It shall include in all contracts for work on any project funded under this Grant Agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in 49 U.S.C. 47112. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. Conformity to Plans and Specifications.

It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this Grant Agreement, and, upon approval of the Secretary, shall be incorporated into this Grant Agreement. Any modification to the approved plans, specifications, and schedules shall also be subject to approval of the Secretary and incorporated into this Grant Agreement.

17. Construction Inspection and Approval.

It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in

accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. Planning Projects.

In carrying out planning projects:

- a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.
- b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.
- c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.
- d. It will make such material available for examination by the public and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.
- e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.
- f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.
- g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.
- h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. Operation and Maintenance.

- a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state, and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for:
 1. Operating the airport's aeronautical facilities whenever required;
 2. Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
 3. Promptly notifying pilots of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood, or other climatic conditions

interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

- b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. Hazard Removal and Mitigation.

It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. Compatible Land Use.

It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. Economic Nondiscrimination.

- a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.
- b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to:
 - 1. Furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and
 - 2. Charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.
- c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.
- d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.
- e. Each air carrier using such airport (whether as a tenant, non-tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers

which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non-tenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

- f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees (including, but not limited to maintenance, repair, and fueling) that it may choose to perform.
- g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.
- h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.
- i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. Exclusive Rights.

It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

- a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and
- b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport. It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. Fee and Rental Structure.

It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for

which a Grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. Airport Revenues.

- a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. The following exceptions apply to this paragraph:
 1. If covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.
 2. If the Secretary approves the sale of a privately owned airport to a public sponsor and provides funding for any portion of the public sponsor's acquisition of land, this limitation on the use of all revenues generated by the sale shall not apply to certain proceeds from the sale. This is conditioned on repayment to the Secretary by the private owner of an amount equal to the remaining unamortized portion (amortized over a 20-year period) of any airport improvement grant made to the private owner for any purpose other than land acquisition on or after October 1, 1996, plus an amount equal to the federal share of the current fair market value of any land acquired with an airport improvement grant made to that airport on or after October 1, 1996.
 3. Certain revenue derived from or generated by mineral extraction, production, lease, or other means at a general aviation airport (as defined at 49 U.S.C. 47102), if the FAA determines the airport sponsor meets the requirements set forth in Section 813 of Public Law 112-95.
- b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.
- c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of 49 U.S.C. 47107.

26. Reports and Inspections.

It will:

- a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the

public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

- b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;
- c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of this Grant Agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and
- d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:
 - 1. all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and
 - 2. all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. Use by Government Aircraft.

It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that:

- a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or
- b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. Land for Federal Facilities.

It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. Airport Layout Plan.

- a. The airport owner or operator will maintain a current airport layout plan of the airport showing:

1. boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto;
 2. the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities;
 3. the location of all existing and proposed non-aviation areas and of all existing improvements thereon; and
 4. all proposed and existing access points used to taxi aircraft across the airport's property boundary.
- b. Subject to subsection 49 U.S.C. 47107(x), the Secretary will review and approve or disapprove the plan and any revision or modification of the plan before the plan, revision, or modification takes effect.
 - c. The owner or operator will not make or allow any alteration in the airport or any of its facilities unless the alteration—
 1. is outside the scope of the Secretary's review and approval authority as set forth in subsection (x); or
 2. complies with the portions of the plan approved by the Secretary.
 - d. When the airport owner or operator makes a change or alteration in the airport or the facilities which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary:
 1. eliminate such adverse effect in a manner approved by the Secretary; or
 2. bear all costs of relocating such property or its replacement to a site acceptable to the Secretary and of restoring the property or its replacement to the level of safety, utility, efficiency, and cost of operation that existed before the alteration was made, except in the case of a relocation or replacement of an existing airport facility due to a change in the Secretary's design standards beyond the control of the airport sponsor.

30. Civil Rights.

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, color, and national origin (including limited English proficiency) in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d to 2000d-4); creed and sex per 49 U.S.C. 47123 and related requirements; age per the Age Discrimination Act of 1975 and related requirements; or disability per the Americans with Disabilities Act of 1990 and related requirements, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program and activity conducted with, or benefiting from, funds received from this Grant.

- a. Using the definitions of activity, facility, and program as found and defined in 49 CFR 21.23(b) and 21.23(e), the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by or pursuant to these assurances.

b. Applicability

1. **Programs and Activities.** If the sponsor has received a grant (or other federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.
2. **Facilities.** Where it receives a grant or other federal financial assistance to construct, expand, renovate, remodel, alter, or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.
3. **Real Property.** Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.

c. Duration.

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

1. So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or
2. So long as the sponsor retains ownership or possession of the property.

d. Required Solicitation Language. It will include the following notification in all solicitations for bids, Requests For Proposals for work, or material under this Grant Agreement and in all proposals for agreements, including airport concessions, regardless of funding source:

"The (**Grinnell Regional Airport**), in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, all businesses will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex, age, or disability in consideration for an award."

e. Required Contract Provisions.

1. It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the Department of Transportation (DOT), and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.
2. It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.
3. It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.
4. It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin (including limited English proficiency), creed, sex, age, or

disability as a covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:

- a. For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
- b. For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
- f. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.
- g. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

31. Disposal of Land.

- a. For land purchased under a grant for airport noise compatibility purposes, including land serving as a noise buffer, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will be, at the discretion of the Secretary, (1) reinvested in another project at the airport, or (2) transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order:
 - 1. Reinvestment in an approved noise compatibility project;
 - 2. Reinvestment in an approved project that is eligible for grant funding under 49 U.S.C. 47117(e);
 - 3. Reinvestment in an approved airport development project that is eligible for grant funding under 49 U.S.C. 47114, 47115, or 47117;
 - 4. Transfer to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport; or
 - 5. Payment to the Secretary for deposit in the Airport and Airway Trust Fund.

If land acquired under a grant for noise compatibility purposes is leased at fair market value and consistent with noise buffering purposes, the lease will not be considered a disposal of the land. Revenues derived from such a lease may be used for an approved airport development project that would otherwise be eligible for grant funding or any permitted use of airport revenue.

- b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, upon application to the Secretary, be reinvested or transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order:

1. Reinvestment in an approved noise compatibility project;
 2. Reinvestment in an approved project that is eligible for grant funding under 49 U.S.C. 47117(e);
 3. Reinvestment in an approved airport development project that is eligible for grant funding under 49 U.S.C. 47114, 47115, or 47117;
 4. Transfer to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport; or
 5. Payment to the Secretary for deposit in the Airport and Airway Trust Fund.
- c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.
- d. Disposition of such land under (a), (b), or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. Engineering and Design Services.

If any phase of such project has received Federal funds under Chapter 471 subchapter 1 of Title 49 U.S.C., it will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services in the same manner as a contract for architectural and engineering services is negotiated under Chapter 11 of Title 40 U.S.C., or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. Foreign Market Restrictions.

It will not allow funds provided under this Grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. Policies, Standards, and Specifications.

It will carry out any project funded under an Airport Improvement Program Grant in accordance with policies, standards, and specifications approved by the Secretary including, but not limited to, current FAA Advisory Circulars (https://www.faa.gov/sites/faa.gov/files/aip-pfc-checklist_0.pdf) for AIP projects as of June 16, 2025.

35. Relocation and Real Property Acquisition.

- a. It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B.

- b. It will provide a relocation assistance program offering the services described in Subpart C of 49 CFR Part 24 and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24.
- c. It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. Access By Intercity Buses.

The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. Disadvantaged Business Enterprises.

The sponsor shall not discriminate on the basis of race, color, national origin, or sex, in the award and performance of any DOT-assisted contract covered by 49 CFR Part 26, or in the award and performance of any concession activity contract covered by 49 CFR Part 23. In addition, the sponsor shall not discriminate on the basis of race, color, national origin or sex in the administration of its Disadvantaged Business Enterprise (DBE) and Airport Concessions Disadvantaged Business Enterprise (ACDBE) programs or the requirements of 49 CFR Parts 23 and 26. The sponsor shall take all necessary and reasonable steps under 49 CFR Parts 23 and 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts, and/or concession contracts. The sponsor's DBE and ACDBE programs, as required by 49 CFR Parts 26 and 23, and as approved by DOT, are incorporated by reference in this agreement. Implementation of these programs is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the sponsor of its failure to carry out its approved program, the Department may impose sanctions as provided for under Parts 26 and 23 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. § 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. §§ 3801-3809, 3812).

38. Hangar Construction.

If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. Competitive Access.

- a. If the airport owner or operator of a medium or large hub airport (as defined in 49 U.S.C. § 47102) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that:
 - 1. Describes the requests;
 - 2. Provides an explanation as to why the requests could not be accommodated; and
 - 3. Provides a time frame within which, if any, the airport will be able to accommodate the requests.

- b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six-month period prior to the applicable due date.

40. Access to Leaded Aviation Gasoline

- a. If 100-octane low lead aviation gasoline (100LL) was made available at an airport, at any time during calendar year 2022, an airport owner or operator may not restrict or prohibit the sale of, or self-fueling with 100-octane low lead aviation gasoline.
- b. This requirement remains until the earlier of December 31, 2030, or the date on which the airport or any retail fuel seller at the airport makes available an unleaded aviation gasoline that has been authorized for use by the FAA as a replacement for 100-octane low lead aviation gasoline for use in nearly all piston-engine aircraft and engine models; and meets either an industry consensus standard or other standard that facilitates the safe use, production, and distribution of such unleaded aviation gasoline, as determined appropriate by the FAA.
- c. An airport owner or operator understands and agrees, that any violation of this grant assurance is subject to civil penalties as provided for in 49 U.S.C. § 46301(a)(8).

RESOLUTION NO. 2025-129

RESOLUTION SETTING PUBLIC HEARING ON PROPOSED PLANS, SPECIFICATIONS, AND FORM OF CONTRACT AND ESTIMATE OF COST AND DIRECTING PUBLICATION OF NOTICE TO BIDDERS FOR THE CONSTRUCTION OF THE VETERANS MEMORIAL MONUMENT IN THE CITY OF GRINNELL, IOWA.

WHEREAS the proposed plans, specifications, and form of contract costs will be placed on file in the office of the City Clerk for the construction of the Veterans Memorial Monument Project in the city of Grinnell, Iowa, as is fully set forth in the plans and specifications, and

WHEREAS the cost of the said improvement is in excess of the amount required to hold a public bid and a public hearing on the plans, specifications, form of contract and the estimated cost of said improvement is required by law and that notice thereof shall be given as required by law, and

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF GRINNELL, IOWA:

Section 1. This Council does hereby order the construction of the Veterans Memorial Monument Project in the city of Grinnell, Iowa, which public improvement is fully and particularly described in the plans and specifications, to be placed on file in the office of the City Clerk of Grinnell, Iowa.

Section 2. That the method of construction shall be by contract in accordance with the plans and specifications and general stipulations for said improvement approved by the City Council.

Section 3. The City Clerk is hereby directed to publish notice of hearing on plans, specifications, and form of contract in the manner provided by law for the public improvement outlined herein and that any person interested therein may appear and make objections thereto. The Council will meet in the Council Chambers at City Hall at 520 4th Avenue Grinnell, Iowa, at 7:00 pm local time on the 18th day of August 2025, for the purpose of hearing of said objections made and for taking final action upon the plans, specifications, and form of contract now on file.

Section 4. The City Clerk is further directed to advertise for bids in the manner provided by law for the construction of said improvements, setting forth in said notice such necessary pertinent information as will advise prospective bidders thereof together with the proposed manner of payment of the work to be constructed and that such bids be filed and received by the office of the City Clerk of Grinnell, Iowa, up to 2:00 pm, local time, on the 12th day of August 2025. The bids will be opened, read, and tabulated at that time and will be acted upon by the City Council of said City at a meeting to be held in the Council Chambers at City Hall at 520 4th Avenue Grinnell, Iowa, at 7:00 pm local time on the 18th day of August 2025.

Passed this 21st day of July 2025.

CITY OF GRINNELL, IOWA

DAN F. AGNEW, MAYOR

ATTEST:

ALYSSA DEVIG, CITY CLERK/FINANCE DIRECTOR



PROJECT MANUAL FOR:

Veterans Memorial Monument

Grinnell, Iowa

July 15, 2025
Bid Documents

Prepared for:

City of Grinnell
927 4th Avenue
Grinnell, IA 50112

Prepared by:

RITLAND+KUIPER
LANDSCAPE ARCHITECTS



Veterans Memorial Monument Grinnell, Iowa

Prepared For:
City of Grinnell, Iowa

Prepared By:
RITLAND+KUIPER Landscape Architects
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July 15, 2025
Bid Documents

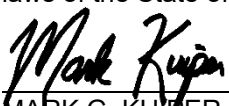
	I hereby certify that the portion of this technical submission described below was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.
	 MARK G. KUIPER, ASLA July 15, 2025 Date
	License No. 00413
	My license renewal date is June 30, 2027.
	Pages or sheets covered by this seal: <u>Part 1 documents, Part 2 Section 32 14 16, and Part 3 Special Provisions</u>

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PART I

Bid Documents / Contract Forms

**NOTICE TO BIDDERS AND
NOTICE OF PUBLIC HEARING
for the Taking of Construction Bids for the
VETERANS MEMORIAL MONUMENT
for the
CITY OF GRINNELL, IOWA**

Notice is Hereby Given:

Receiving and Opening of Bids

Sealed proposals will be received by the City of Grinnell, Iowa, at the office of City Administration, located at the Grinnell Community Center, 927 4th Avenue, Grinnell, IA 50112 for this work. Proposals must be filed before **2:00 p.m. local time on August 12, 2025**, as hereinafter described in general and as described in detail in the plans and specifications for said improvements now on file at the office of the City Clerk. Proposals will be opened and read aloud at that time.

Public Hearing

A public hearing will be held by the City Council on the proposed contract documents (plans, specifications, and form of contract) and an estimated cost for the proposed improvements at its meeting at **5:00 p.m. local time on August 18, 2025**, at the office of City Administration, located at the Grinnell Community Center, 927 4th Avenue, Grinnell, IA 50112. At said time and place, any interested person may appear and file objections thereto.

Proposals will be acted on by the City Council at that time, or at such later time and place as may then be fixed. The City of Grinnell reserves the right to award the Contract at the time of said meeting or at such later time may then be fixed and to reject any or all bids and to waive technicalities and irregularities and to enter into such Contract as it shall deem necessary.

Scope of Work

The extent of the work involved is as follows: **Installation of storm sewer improvements, concrete pavement, earthwork, brick pavement, concrete foundation for large sculptural feature, feature and site lighting (including power supply and controls), and other work indicated in the plans and specifications.**

Contract Time

The work under the contract shall actively commence within ten (10) days upon issuance of the Notice to Proceed, and shall be substantially completed on or before the 1st day of June, 2026, subject to any changes in the contract period as provided for in these specifications, and granted by the City of Grinnell. The Work on this project shall be finally completed by, and ready for final payment, on or before the 15th day of June, 2026, subject to any changes in the contract period as provided for in these specifications and granted by the City of Grinnell. This project is subject to liquidated damages as described within the project manual. The Notice to Proceed shall be issued at a preconstruction conference to be held at a future determined date after a fully executed contract.

Bid Security

Each proposal must be accompanied with a bid security as defined in Iowa Code Section 26.8, as security that the successful bidder will enter into a contract for the work bid upon and will furnish after the award of contract a corporate surety bond, in a form acceptable to the

Jurisdiction, for the faithful performance of the contract, in an amount equal to five percent (5%) of the amount of the contract. The bidder's security shall be in the amount fixed in the Instruction to Bidders and shall be in the form of a cashier's check or a certified check drawn on an FDIC insured bank in Iowa or on an FDIC insured bank chartered under the laws of the United States; or a certified share draft drawn on a credit union in Iowa or chartered under the laws of the United States; or a bid bond on the form provided in the contract documents with corporate surety satisfactory to the Jurisdiction and filed in an envelope separate from the one containing the proposal. Said check or draft may be cashed or the bid bond declared forfeited by the Treasurer as liquidated damages in the event the successful bidder fails to enter into a Contract within fourteen (14) days and post bond satisfactory to the Owner insuring the faithful fulfillment of the Contract and maintenance of said improvements as required by law and the Specifications. The bid shall contain no condition except as provided in the specifications.

Award of Contract

Bidders shall not be permitted to withdraw their bids for a period of sixty (60) days after the date set for opening bids. The Owner reserves the right to reject any and all bids and to waive any informality in the bids received in the best interest of the Jurisdiction.

Bonding Requirements

The successful bidder will be required to furnish a performance and payment bond in the amount equal to 100% of the contract price at the time of contract execution. Each successful bidder will be required to furnish a corporate surety bond in an amount equal to 100% of its contract price. Said bond shall be issued by a responsible surety approved by the City of Grinnell and shall guarantee the faithful performance of the contract and the terms and conditions therein contained and shall guarantee the prompt payment of all material and labor, and protect and save harmless the City of Grinnell from claims and damages of any kind caused by the operations of the contract and shall also guarantee the maintenance of the improvement caused by failures in materials and construction for a period of one (1) year from the date of final acceptance of the work under the Contract.

Additional Provisions

Modification to the project documents may only be made by written addendum as issued by the Owner or Owner's authorized Representative. The bidder's proposal must be made on the forms provided within the bound project manual. Bidders must supply all required information prior to the time of bid opening.

The City of Grinnell hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The City of Grinnell is exempt from paying Sales and Use Tax and will supply Contractor with an "Iowa Sales Tax Exemption Certificate" and an authorization letter to allow the Contractor to buy equipment and material for the project without paying Sales and Use tax.

Copies of project plans and specifications and form of contract are now on file for examination by bidders. Paper copies may also be obtained through Rapids Reproductions, 6201 Chancellor Dr., Cedar Falls, IA 50613, or calling 1-800-383-1223, upon deposit of fifty dollars (\$100.00) which shall be refunded if plans and specifications are returned to Rapid Reproductions in good usable condition no later than fourteen (14) days following award of project. If the plans and specifications are not returned within the allotted time and in a reusable condition, the deposit

shall be forfeited. Please call ahead to make sure that bidding documents are ready to pick up when you arrive.

Drawings, specifications, and other Bidding Documents may also be obtained online at www.questcdn.com. If you do not already have a free membership, you may sign up for one to gain access to the documents. The QuestCDN eBidDoc number is 9786020. There is no fee to access a pdf copy of the documents online.

Any bidder or equipment supplier whose firm or affiliate is listed in the GSA publication "List of Parties Excluded from Federal Procurement and Non-procurement Programs" will be prohibited from the bidding process. Anyone submitting a bid who is listed in this publication will be determined to be a nonresponsive bidder in accordance with 40 CFR Part 31.

Published upon order of the City of Grinnell.

Alyssa Devig
City Clerk/Finance Director

SECTION 01 5713
TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary erosion and sedimentation control measures.
- B. Storm Water Pollution Prevention Plan (SWPPP)

1.02 PROJECT CONDITIONS

A. Traffic:

- 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
- 2. Provide alternate routes around closed or obstructed traffic ways. Refer to the IDOT Standard Road Plan TC Series and the current MUTCD for traffic control measures.
- 3. All traffic control shall be installed, maintained, and removed by the contractor.

B. Install temporary erosion and sedimentation control measures prior to beginning earth moving activities.

C. The following practices are prohibited within protection zones:

- 1. Storage of construction materials, debris, or excavated material.
- 2. Parking vehicles or equipment.
- 3. Foot traffic.
- 4. Erection of sheds or structures.
- 5. Impoundment of water.
- 6. Excavation or other digging unless otherwise indicated.
- 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Division 31 Section "Earth Moving."

- 1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

2.02 EROSION AND SEDIMENT CONTROL PRODUCTS

A. FILTER MATERIAL: Material for use in filter socks, filter berms, and other areas, as specified.

- 1. Use material derived from wood, bark, or other, non-toxic vegetative feedstocks.
- 2. Use material with no visible admixture of refuse or other physical contaminants, nor any material toxic to plant growth.
- 3. Use material meeting the following particle sizes:

Sieve Size	Percent Passing ¹
2"	100
1"	90-100
3/8"	0-30

B. FILTER SOCK

1. For slope and sediment control applications, use a continuous, tubular, knitted, mesh netting with 3/8-inch openings, constructed of 5-mil thickness, photodegradable HDPE.
2. For inlet protection, use a continuous, tubular, knitted, mesh netting with 3/8-inch openings, constructed of 500-denier polypropylene.
3. Use 1 inch by 2-inch (minimum) hardwood stakes or stakes of equivalent strength.

C. DUST CONTROL

1. Water: Use potable water or water from a source approved by the Engineer
2. Calcium Chloride: Shall meet requirements of AASHTO M 144. Unless otherwise provided in the contract documents, at the Contractor's Option, the calcium chloride may be furnished in either solid or liquid form.
 - a. Solid Form: Shall be flake, pellet, or other granular calcium chloride containing not less than 77% calcium chloride.
 - b. Liquid Form: Liquid form shall be a water solution of calcium chloride containing not less than 32% calcium chloride.
3. Lignosulfonate (Tree Sap): Use a commercially-available product with known lignin content.
4. Soapstock (Soybean Oil):
 - a. Use a commercially-available, undiluted, soybean oil soapstock emulsion.
 - b. Conform to specific storage, transportation, temperature, and application equipment requirements, as recommended by the manufacturer.

D. EROSION CONTROL MULCH

1. Conventional Mulch:
 - a. Use dry straw (oats, wheat barley, or rye) or hay (bromegrass, timothy, orchard grass, alfalfa, or clover).
 - b. Use material that is free of noxious weed, seed-bearing stalks, or roots and will be inspected and approved by the Engineer prior to use.
 - c. Other materials, subject to the approval of the Engineer may be used.
2. Hydromulch:
 - a. Wood Cellulose Mulch:
 - 1) Use material that is a natural or cooked cellulose fiber processed from whole wood chips, or a combination of up to 50% recycled paper (by volume).
 - 2) Product contains a colloidal polysaccharide tackifier adhered to the fiber to prevent separation during shipment and avoid chemical co-agglomeration during mixing.
 - 3) Form a homogeneous slurry of material, tackifier, and water.
 - 4) Use a slurry that can be applied with standard hydraulic mulching equipment.
 - 5) Dye the slurry green to facilitate visual metering during application.
 - 6) Do not use materials that have growth or germination-inhibiting factors or any toxic effect on plant or animal life when combined with seed or fertilizer.
 - b. Bonded Fiber Matrix (BFM):

- 1) Produced from long-strand wood fibers, held together by organic tackifiers and bonding agents that, when dry, become insoluble and non-dispersible.
 - 2) Upon curing 24-48 hours, form a continuous, 100% coverage, flexible, absorbent, erosion-resistant blanket that encourages seed germination.
 - 3) Manufactured to be applied hydraulically.
 - 4) Physical Properties:
 - a) Fibers: Virgin wood, greater than 88% of total volume.
 - b) Organic Material: Greater than 96% of total volume.
 - c) Tackifier: 8-10%.
 - d) pH: 4.8 minimum.
 - e) Moisture Content: 12% +/- 3%.
 - f) Water-Holding Capacity: 1.2 gal/lb.
- c. Mechanically Bonded Fiber Matrix (MBFM):
- 1) Produced from long-strand wood fibers and crimped, interlocking synthetic fibers.
 - 2) Within two hours of application, form a continuous, 100% coverage, flexible, absorbent, porous, erosion-resistant blanket that encourages seed germination.
 - 3) Manufactured to be applied hydraulically.
 - 4) Physical properties:
 - a) Wood Fibers: 73% minimum.
 - b) Tackifier: 10% +/- 1%.
 - c) Crimped, Interlocking Synthetic Fibers: 5% +/- 1%.
 - d) Moisture Content: 12% +/- 3%.

E. INLET PROTECTION

1. Drop-In Intake Protection:
 - a. Use a manufactured device that is inserted into the intake, and is capable of trapping or filtering sediment from runoff prior to entering the storm sewer.
 - b. All components must be contained entirely below the surface of the intake grate.
 - c. Incorporate means of emergency outflow to prevent flooding if plugged with sediment.
2. Surface-Applied Intake Protection:
 - a. Use devices or filter socks, placed around or over the intake, that are capable of trapping or filtering sediment from runoff prior to entering the storm sewer.
 - b. Do not allow the device to completely block or plug the intake, preventing inflow.

F. STABILIZED CONSTRUCTION ENTRANCE

1. Stabilized constructing entrance placed during Rough Grading Package shall be maintained. Keep rock with future street footprint.
2. Entrance Stone: shall be a Macadam stone base material and shall be a product of crushing limestone, dolomite, or quartzite and shall meet the following requirements:
 - a. Abrasion Loss: The percentage of wear, determined in accordance with AASHTO T 96, Grading A or B, shall not exceed 45%

- b. Freeze Thaw Loss: When subjected to the freezing and thawing test, Iowa DOT Materials Laboratory Test Method 211, Method C, the percentage loss shall not exceed 10%.
- 3. Gradation: The aggregate for both base course and choke stone course may be produced from the same source. The coarse material shall be produced with a minimal maximum size of 3 inches, and screened over a $\frac{3}{4}$ inch screen. When specified in the contract documents, this material shall be screened over a 1 inch screen. The aggregate retained on the 3.4 inch or 1 inch screen shall be furnished as the macadam base course material. The aggregate passing the $\frac{3}{4}$ inch or 1 inch screen may be furnished as the choke stone material however, the material shall have from 6" to 16" passing the No. 200 sieve.
- 4. Subgrade Stabilization Material:
 - a. Use woven, UV-stabilized geotextile.
 - b. Minimum tensile strength of 135 lb/ft.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Contractor shall notify Architect, Engineer, and Owner should any contaminated soils or foreign fill material be encountered during installation or maintenance of SWPPP controls.
- B. Protect and maintain benchmarks and survey control points from disturbance during construction.
- C. Note trees, shrubs, and other vegetation to remain as shown on the plan sheets.
- D. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner. Damage outside of the work limits shall be repaired at the contractor's expense.

3.02 SWPPP MANAGEMENT

- A. A Stormwater Pollution Prevention Plan (SWPPP) according to the requirements of the Iowa DNR NPDES General Permit No. 2 has been prepared and provided to the Prime Contractor. The Prime Contractor shall sign the Certification Statement. The Prime Contractor shall provide the owner and all sub-contractors, with earth disturbing activities, the appropriate certification statements and place the signed documents in the SWPPP.
- B. Newspaper Notices have been published and the Notice of Intent has been submitted to the Iowa DNR and shall have approval prior to the beginning of construction. The Prime Contractor shall place copies of these documents into the SWPPP if they have not already been installed.
- C. The contractor shall maintain the SWPPP throughout the project duration including weekly inspections and maintenance measures.
- D. Ensure that controls utilized in the SWPPP conform to the type and quantity of erosion and sediment controls shown in the contract documents.
- E. Coordinate and carry out all requirements of Iowa DNR NPDES General Permit No. 2 and any local ordinance requirements, including:
 - 1. Update the SWPPP according to the requirements of the NPDES General Permit No. 2.
 - 2. Revise the SWPPP and implement changes, as necessary, to prevent sediment or hazardous materials from being transported off the site.
 - 3. Perform, and maintain records of, weekly erosion and sediment control site inspections, unless otherwise specified.
 - 4. Maintain records of transfer of responsibility under the NPDES General Permit No. 2.
 - 5. Retain all records on-site, or as required by the NPDES General Permit No. 2.

6. After final stabilization, provide all records and documentation to the Owner. Retain a copy of all records for the period required under the Permit. Submit the Notice of Discontinuation to the Iowa DNR (a copy is located in the SWPPP).
7. Continue to perform the work required under this item throughout the duration of the project, and until final stabilization is achieved.

3.03 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to the Pollution Prevention Plan. Furnish all materials; install, construct, maintain, and remove specified erosion control devices; at locations shown on the plans, or where specified by the Engineer, in accordance with the contract documents.
- B. Complete the required construction work on this project, while minimizing soil erosion and controlling water pollution. Maintain these features as specified, from initial construction stages to final completion of the project.
- C. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- D. Inspect, maintain, and repair erosion and sedimentation control measures during construction at the frequency required by the Iowa DNR NPDES General Permit No. 2 until permanent vegetation has been established.
- E. Schedule necessary maintenance or improvements for items that are included in the contract documents.
- F. Provide copies of the inspection reports to the Engineer upon request.
- G. Temporary stabilizing seeding and fertilizing shall be completed as disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days, including all soil stockpiles. No more than 750,000 square feet of exposed erodible area is allowed in any one grading spread without permission of the engineer. Temporary seeding and fertilizing shall be in accordance with the following:

Spring - March 1 to May 20

- Oat - 2 bu. per acre
- Winter Rye - 1 bu. per acre
- Red Clover - 5 lbs per acre
- Timothy - 5 lbs per acre

Summer - May 21 to July 20

- Oat - 3 bu. per acre
- Annual Rye - 35 bu. per acre
- Red Clover - 5 lbs per acre
- Timothy - 5 lbs per acre

Fall - July 21 to September 30

- Oat - 2 bu. per acre
- Winter rye - 2 bu. per acre
- Red Clover - 5 lbs per acre
- Timothy - 5 lbs per acre

Fertilizing for stabilizing crop seeding shall be chemically combined, commercial fertilizer applied to all seeded areas at the rate of 450 pounds per acre of 13-13-13 or equivalent.

- H. Prevent the accumulation of soil sediment or debris onto streets adjacent to project site. Remove any accumulation of earth or soil immediately, and take remedial actions for prevention.

- I. Prevent the accumulation of soil sediment or debris in any storm sewer including public, existing private facilities on site, and new private facilities on site.
- J. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- K. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled, and are ordered by the Engineer; perform such work at the Contractor's expense.
- L. In case of repeated failures on the part of the Contractor to control erosion, pollution, and /or siltation, the Engineer reserves the right to employ outside assistance, or to use the Jurisdiction's own forces to provide the necessary corrective measures at the prime contractor's expense.
- M. All storm sewer with evidence of siltation in the structures and pipes shall be jetted clean upon final stabilization of the site or more frequently if deemed necessary by the Engineer.

3.04 TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES

A. FILTER BERMS

- 1. Construct berm with filter material to the dimensions shown in contract documents or SUDAS Figure 9040.2, unless otherwise specified in the contract documents.
- 2. Install filter berm along the contour as specified in the contract documents, or as directed by the Engineer.
- 3. Turn the ends of the filter berm uphill to prevent runoff from flowing around the end of the berm.
- 4. When a vegetated berm is specified, apply seed to the surface of the berm.
- 5. Replace the berm when sediment accumulation reaches one-half of the height of the berm.

B. FILTER SOCKS

- 1. Installation:
 - a. Pneumatically fill mesh filter sock of size and length indicated in the contract documents, or as directed by the Engineer. Alternative methods of filling the sock may be allowed upon approval of the Engineer.
 - b. Fill socks with filter material.
 - c. Place the filter sock along the contour as specified in the contract documents, or as directed by the Engineer.
 - d. Place additional filter material or soil from the site, on the upstream side of the sock, in the seam between the tube and the ground.
 - e. Construct a "J-hook" at each end of a continuous run of filter sock, by turning the end of the sock uphill, as necessary to prevent runoff from flowing around the ends when water behind the sock ponds up to a level even with the top of the sock.
 - f. Drive stakes into the ground at a maximum spacing of 10 feet, and as required to secure the sock and prevent movement.
 - g. Construct according to SUDAS Figure 9040.2 for perimeter control and sediment control on grade.
- 2. Maintenance:
 - a. Repair or replace non-functioning filter socks that allow water to flow under the sock, are torn, or are otherwise damaged, due to inadequate installation.
 - b. Remove filter material from damaged socks that are located along streambanks, around intakes, in ditches, or in other locations where the material may be carried to surface waters.

3. Removal: When indicated in the contract documents, or as directed by the Engineer; remove the filter sock upon completion of the project, and after final stabilization is achieved; or as indicated in the SWPPP, if applicable.
 - a. Upon completion of the project, completely remove socks and filter material that are located along streambanks, around intakes, in ditches, or in other locations where the filter material may be carried to surface waters if the sock degrades and/or tears.
 - b. Slice the sock longitudinally. Remove and dispose of the filter sock material and stakes.
 - c. Spread the filter material and accumulated sediment to match finished grade and to ensure proper drainage.
 - d. If the site has been brought to finished grade and prepared for permanent seeding, spread and incorporate the filter material into the surface by tilling, or as required to break up any large particles and provide a finished surface suitable for permanent seeding.
4. Replacement:
 - a. When accumulated sediment reaches a level one-half the height of the sock, or when the sock becomes clogged with sediment and no longer allows runoff to flow through, remove the sock as described above, and replace according to the installation instructions above.
 - b. At the Engineer's option, the existing filter sock and accumulated sediment may be left in place, and a new filter sock installed up-slope from the existing filter sock.

C.DUST CONTROL

1. Water: Apply frequent light watering to ground surface, as required to control dust.
2. Calcium Chloride:
 - a. The calcium chloride may be applied in the solid form and the water applied separately, or a liquid form may be furnished or the solid form may be made into a solution and applied. Calcium chloride shall not be applied during rain or when, in the opinion of the Engineer, the weather is unsuitable for the application.
 - b. When calcium chloride is to be applied in the solid form, unless otherwise provided in the contract documents, water shall first be applied uniformly at a rate sufficient to produce the desired condition of moisture on the surface to be treated. It is anticipated that this will require 10,000 gallons of water per 1 mile of roadway, but this rate may be increased or decreased at the direction of the Engineer.
 - c. Unless otherwise provided in the contract documents, the solid form shall be spread at a rate which will deliver 1 pound (0.5 kg) of calcium chloride per square yard (square meter), computed on the anhydrous basis. When calcium chloride is applied in solid form, it shall be spread uniformly within 1 hour after application of water to that section.
 - d. When calcium chloride is to be applied in solution, water and calcium chloride shall be thoroughly mixed into a uniform solution completely dissolving any solid material before the solution is spread. The concentration of the solution and the rate of distribution of the solution shall be controlled to deliver to the surface the quantity of calcium chloride specified above.
 - e. Unless results of laboratory analysis of samples of material actually used are available, the rate of distribution may be computed on the following percentages for the respective material:

<u>Material</u>	<u>Assumed % Calcium Chloride by weight (mass) (anhydrous basis)</u>
Regular Flakes	77.0%
Conc. Flakes, Pellets, or other granular form	94.0%
Calcium Chloride Liquor	32.0%*
* Total calcium chloride. This percentage may be modified with the approval of the Engineer.	

3. Lignosulfonate (Tree Sap):
 - a. Loosen the top 1 to 2 inches of the roadway surface.
 - b. Apply solution with a 50% residual concentration, at a rate of 0.50 gal/yd², to deliver a 25% residual. For diluted solutions, increase the application rate, as required, to deliver an equivalent 25% residual.
 - c. Allow product to penetrate through the loosened material.
 - d. Tight-blade road surface.
4. Soapstock (Soybean Oil):
 - a. Loosen the top 1 to 2 inches of the roadway surface.
 - b. Apply undiluted soapstock at a rate of 0.70 gal/yd².
 - c. Allow product to penetrate through the loosened material.
 - d. Tight-blade surface.

D. TEMPORARY EROSION CONTROL SEEDING

1. See Section 32 9200

E. EROSION CONTROL MULCHING

1. Conventional Mulching:
 - a. Use conventional mulching when the surface cannot be stabilized by seeding, due to season or ground conditions.
 - b. Uniformly distribute mulch over the required areas, at a rate of 2 tons/acre for dry cereal straw, or 2.5 tons/acre for prairie hay.
 - c. Work the mulch into the soil with a mulch tucker, designed to anchor the mulch into the soil, by means of dull blades or disks.
2. Hydromulching:
 - a. Place mulch and tackifier (if applicable) in equipment specifically manufactured for hydraulic mulching.
 - b. Mix materials with fresh, potable water; using a combination of re-circulation through the equipment's pump, and mechanical agitation to form a homogeneous slurry.
 - c. If necessary, dampen any dry, dusty soil, as required to prevent balling of the material during application.
 - d. Apply hydromulch in multiple layers from opposing directions, where possible.
 - e. Apply the slurry evenly over all specified areas, at the minimum component material rates specified:
 - 1) Wood Cellulose Mulch:
 - a) Mulch: 2600 lb/acre dry weight.
 - b) Tackifier: 50 lb/acre.

- 2) Bonded Fiber Matrix: 3600 lb/acre dry weight.
- 3) Mechanically Bonded Fiber Matrix: 3600 lb/acre dry weight.
- 4) Retain and count empty bags of mulch to ensure final application rate.

F. SURFACE ROUGHENING

1. Directional Tracking:
 - a. Do not use on slopes steeper than 3:1.
 - b. Operate tracked equipment up and down exposed slope, to create ridges perpendicular to the slope.
 - c. Continue operation until the entire surface has been tracked.
2. Grooving/Furrowing:
 - a. May be used on all slopes.
 - b. Use rippers, disks, harrows, chisel plows, or other equipment, capable of operating on the slope and creating grooves a maximum of 15 inches apart and 3 inches deep.
 - c. Operate equipment along the contour of the slope, to create grooves that are perpendicular to the slope.
 - d. Perform over all exposed slopes as specified.

G. TEMPORARY ROLLED EROSION CONTROL PRODUCTS

1. Install temporary RECPs according to the manufacturer's published installation recommendations, subject to the following minimum requirements:
 - a. Slope Application:
 - 1) Grade and smooth surface. Remove all rocks, clods, vegetation, or other obstructions that will prevent direct contact between the RECP and the soil surface.
 - 2) When specified, prepare seedbed and place seed and fertilizer according to Section 329200 prior to placing RECP.
 - 3) Install according to SUDAS Figure 9040.3.
 - a) Install anchor trench at top of slope. Seed and fertilize trench after backfill and compaction, if seeding is specified.
 - b) Unroll the RECP down or horizontally across the slope.
 - c) Place consecutive blankets down the slope end-over-end, shingle style.
 - d) Overlap ends of consecutive rolls a minimum of 3 inches, and install anchors at a maximum spacing of 18 inches along all overlaps.
 - e) Overlap edges of adjacent rolls a minimum of 2 inches.
 - f) Install anchors at edge seams between rows.
 - b. Channel/Ditch Application:
 - 1) When specified, prepare seedbed and place seed and fertilizer according to Section 329200, prior to placing RECP.
 - 2) Install RECP according to SUDAS Figure 9040.4.

H. INLET PROTECTION

1. Install inlet protection devices according to the manufacturer's recommendations.
2. Remove the accumulated sediment, as required to maintain the inlet protection device in working order. Remove any accumulated sediment from streets open to traffic if it encroaches into the traveled roadway.

I. STABILIZED CONSTRUCTION ENTRANCE

1. Install a stabilized construction entrance at all locations where construction traffic leaving the site presents the potential for sediment track-out.
2. Construct the entrance according to SUDA Figure 9040.20, or as specified in the contract documents
3. Remove the accumulated sediment and install new stone, as required to prevent track-out.

3.05 TREE AND PLANT PROTECTION

- A. General: Protect trees and plants remaining on-site as shown on the plans.
- B. Maintain temporary fencing around trees to remain in place. Remove fence when construction is complete.
- C. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Engineer.

3.06 EXISTING UTILITIES

- A. Existing utilities have been identified on the drawings from available surveys, records and deeds. Therefore, their locations must be considered approximate only. There may be others, the existence of which is presently not known. It is the contractor's responsibility to verify the location and depth of these utilities.
- B. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
 1. Arrange with utility companies to shut off indicated utilities.
- C. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Engineer not less than two days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Engineer's written permission.
- D. Removal of underground utilities is included in Division 22 Sections.

END OF SECTION

INSTRUCTIONS TO BIDDERS
City of Grinnell, Iowa
VETERANS MEMORIAL MONUMENT

The work comprising the above-mentioned project shall be constructed in accordance with the SUDAS Standard Specifications, Current Edition, and as further modified by supplemental specifications and special provision included in the contract documents. The terms used in the contract revision of the documents are defined in said Standard Specifications. Before submitting your bid, please review the requirements of Division One, General Provisions and Covenants, in particular the sections regarding proposal requirements, bonding, contract execution and insurance requirements. Please be certain that all documents have been completed properly, as failure to complete and sign all documents and to comply with the requirements listed below can cause your bid not to be read.

1. EXPLANATIONS TO BIDDERS

- a. Any explanation desired by a bidder regarding the meaning or interpretation of the Notice to Bidders, Plans, Specifications, etc., must be requested in writing and with sufficient time allowed for a reply to reach bidders before submission of their bids. Any interpretation made will be in the form of an amendment of the Notice to Bidders, Plans, Specifications, etc., and will be furnished to all prospective bidders. Its receipt by the bidder must be acknowledged in the space provided on the Proposal Form or by letter or telegram received before the time set for opening of bids. Oral explanations or instructions given before the award of the contract will not be binding.

2. EXAMINATION OF PROPOSED WORK

- a. Bidders should visit the site and take such other steps as may be reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work. The owner will assume no responsibility for any understanding or representation concerning conditions made by any of its officers or agents prior to the execution of the contract, unless included in the Notice to Bidders, the Specifications or related documents.

3. BID SECURITY

- a. The bid security must be in the minimum amount of 5% of the total bid amount including all add alternates (do not deduct the amount of deduct alternates). Bid security shall be in the form of a cashier's check or a certified check, drawn on an FDIC insured bank in Iowa or drawn on an FDIC insured bank chartered under the laws of the United States; or a certified share draft drawn on a credit union in Iowa or chartered under the laws of the United States; or a bid bond executed by a corporation authorized to contract as a surety in Iowa or satisfactory to the Jurisdiction.
- b. The bid bond must be submitted on the enclosed Bid Bond form as no other bid bond forms are acceptable. All signatures on the bid bond must be original signatures in ink; facsimile (fax) of any signature on the bid bond is not acceptable. Bid security other than said bid bond shall be made payable to the City of Grinnell. "Miscellaneous Bank Checks", and personal checks, as well as "Money Orders" and "Traveler's Checks" issued by persons, firms or corporations licensed under Chapter 533B of the Iowa Code, are not acceptable bid security.

4. PREPARATION OF BIDS

- a. Bids shall be submitted on the forms furnished, or copies thereof, and must be manually signed. If erasures or other changes appear on the forms, each erasure or change must be initialed by the person signing the bid.
- b. The bidder has the option to submit a computer-generated spreadsheet in lieu of the portion of the Form of Bid or Proposal, which includes the Bid Item Number, Description, Unit, Estimated Quantity, Unit Bid Price, Total Bid Price, and Total Bid. The computer-generated spreadsheet shall include all

of the information listed in that portion of the Form of Bid or Proposal as well as bear the signature of the Prime Contractor submitting the bid. For the bidders who submit a computer-generated spreadsheet, the TOTAL BID (with alternates, if applicable) shall also be indicated in the space(s) provided on the Form of Bid or Proposal.

- c. The Bid Form may provide for submission of a price or prices for one or more items, which may be lump sum bids, alternate prices, schedule items resulting in a bid on a unit of construction or a combination thereof, etc. When the Bid Form explicitly requires that the bidder bid on all items, failure to do so will disqualify the bid. When submission of a price on all items is not required, bidders should insert the words "no bid" in the space provided for any item on which no price is submitted.
- d. Unless called for, alternate bids will not be considered.
- e. In preparing their bid, the bidder shall specify the price, written legibly in ink or with the typewriter, at which they propose to do each item of work. The unit price shall be stated in figures in the blank space provided (i.e., \$7.14). In items where unit price is required, the total amount of each item shall be computed at the unit prices bid for the quantities given on the Bid Form and stated in figures in the blank space provided.
- f. If the bidder chooses to submit the unit prices, total bid price, and total bid on a computer-generated spreadsheet, all numbers shall be easily legible.
- g. Any changes or alterations made in the Bid Form, or any addition thereto, may cause the rejection of the bid. No bid will be considered which contains a clause in which the contractor reserves the right to accept or reject a contract awarded him by the City of Grinnell. Bids in which the unit prices are obviously unbalanced may be rejected.

5. SUBMISSION OF THE PROPOSAL AND IDENTITY OF BIDDER

- a. The proposal shall be sealed in an envelope, properly identified as the Proposal with the project title and the name and address of the bidder, and deposited with the Jurisdiction at or before the time and at the place provided in the Notice to Bidders. It is the sole responsibility of the bidder to see that its proposal is delivered to the Jurisdiction prior to the time for opening bids, along with the appropriate bid security sealed in the separate envelope identified as Bid Security and attached to the outside of the bid proposal envelope. Any proposal received after the scheduled time for the receiving of proposals will be returned to the bidder unopened and will not be considered.
- b. The following documents shall be completed, signed and returned in the Proposal envelope. The bid cannot be read if any of these documents are omitted from the Proposal envelope.

1. PROPOSAL – Complete each of the following parts:

- Part B – Acknowledgment of Addenda, if any have been issued;
- Part C – Bid Items, Quantities and Prices
- Part F – Proposal Attachments;
- Bidder Status Form

The following documents which are proposal attachments must be completed and attached:

<u>ITEM NO.</u>	<u>DESCRIPTION OF ATTACHMENT</u>
1.	Bidder Status Form
2.	
3.	
4.	
5.	
6.	

- Part G – Identity of Bidder;

Sign the proposal. The signature on the proposal and all proposal attachments must be an original signature in ink signed by the same individual who is the Company Owner or an authorized Officer of the Company; copies or facsimile of any signature will not be accepted. The Bidder Status Form is required by the Iowa Labor Commissioner, pursuant to the Iowa Administrative Code rule 875-156.2(1). The Bidder must complete and submit the Bidder Status Form, signed by an authorized representative of the Bidder, with their bid proposal. Under Iowa Administrative Code rule 875-156.2(1), failure to provide the Bidder Status Form with the bid may result in the bid being deemed non-responsive and may result in the bid being rejected. The Worksheet: Authorized to Transact Business from the Labor Commissioner is including on the following pages and can be used to assist Bidders in completing the Bidder Status Form.

6. PUBLIC OPENING OF BIDS

- a. Bids will be publicly opened at that time and place set for opening in the Notice to Bidders. Their content will be made public for the information of bidders and others interested who may be present either in person or by a representative.

7. STATEMENT OF BIDDER'S QUALIFICATIONS

- a. Each bidder shall, upon request of the Owner, submit on the form furnished for that purpose (a copy of which is included in the contract documents), a statement of bidder's qualifications, his experience record in constructing the type of improvements embraced, and his organization and equipment available for the work contemplated; and, when specifically requested, a detailed financial statement.
- b. The Owner shall have the right to take such steps as it deems necessary to determine the ability of the bidder to perform his obligations under the contract, and the bidder shall furnish the Owner all such information and data for this purpose as it may request. The right is reserved to reject any bid where an investigation of the available evidence or information does not satisfy the Owner that the bidder is qualified to carry out properly the terms of the contract.

8. AWARD OF CONTRACT

- a. Award of contract will be made to that responsive and responsible bidder whose bid, conforming to the Specifications, is most advantageous to the Owner; price and other factors considered. The intention is to award the contract at the time of opening bids, but the right is reserved to postpone such action for a reasonable time, not exceeding thirty (30) days.
- b. The Owner may, when in its interest, reject any or all bids or waive any informality in bids received.
- c. The bidder shall submit bids on all the items listed in the proposal and shall state the unit bid price in words in the blank spaces provided beneath the item description. Should there be any discrepancy between the unit bid price in words and listed numeral unit bid price, the Owner shall consider the unit bid price in words as being the valid unit bid price. A computer-generated spreadsheet as herein provided shall also be acceptable. Proposals requiring mathematical computations to determine unit prices or totals will be rejected. A contract will be awarded to the qualified bidder submitting the lowest total bid as indicated in the NOTICE TO BIDDERS.

9. EXECUTION OF AGREEMENT, BONDS, AND CERTIFICATE OF INSURANCE

- a. Subsequent to the award and within ten (10) days after the prescribed forms are presented for signature, the successful bidder shall execute and deliver to the Owner an agreement in the form included in the contract documents in such number of copies as the Owner may require.
- b. Having satisfied all conditions of award as set forth elsewhere in these documents, the successful bidder shall, within the period specified in paragraph "a" above, furnish a surety bond and a payment bond in a penal sum not less than the amount of the contract as awarded, as security for the faithful

performance of the contract and terms and conditions therein contained and shall guarantee the prompt payment of all persons, firms, or corporations to whom the contractor may become legally indebted for labor, materials, tools, equipment, or services of any nature including utility and transportation services, employed or used by him in performing the work. The bonds shall protect and save harmless the City of Grinnell from claims and damages of any kind caused by the operations of the contractor and shall also guarantee the maintenance of the contract improvements for the period stated in the Notice of Hearing from and after completion of said improvements and their acceptance by the Owner. Such bonds shall be in the same form as that included in the contract documents and shall bear the same date as, or a date subsequent to that of the agreement. The current Power of Attorney for the person who signs for any surety company shall be attached to such bonds.

- c. The successful bidder shall, within the period specified in paragraph "a" above, furnish a certificate of insurance for approval in amounts of not less than the amounts specified in the General Specifications for Construction. The certificate of insurance shall be furnished in such number of copies as the Owner may require. The City of Grinnell shall be named as an "Additional Insured." The contractor shall similarly submit his subcontractor's certificates of insurance in the amounts for approval before each commences work. The contractor shall carry or require that there be Worker's Compensation Insurance for all their employees and those subcontractors engaged in work at the site, in accordance with State Worker's Compensation Laws.
- d. The failure of the successful bidder to execute such agreement and to supply the required bond or bonds within ten (10) days after the prescribed forms are presented for signature, or within such extended period as the City of Grinnell may grant, based upon reasons determined sufficient by the City of Grinnell, may either award the contract to the next lowest bidder or re-advertise for bids, and may charge against the bidder the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid guaranty. If a more favorable bid is received by re-advertising, the defaulting bidder shall have no claim against the City of Grinnell for a refund.

10. PROJECT INSURANCE REQUIREMENTS

- a. The Contractor shall provide a Certificate of Liability Insurance (Acord Form 25 or equal) in accordance with "Section 1070, Part 3 - Bonds and Insurance" of the SUDAS Standard Specifications, Current Edition. The City of Grinnell, RITLAND+KUIPER Landscape Architects, MODUS Engineering, and Clapsaddle-Garber Associates, Inc. shall be named as additional insured on the Certificate of Liability Insurance for all insurances required by "Section 1070, Part 3 - Bonds and Insurance" of the SUDAS Standard Specifications, Current Edition, except for workers compensation insurance.
- b. All responsibility for maintenance of property and insurance on the work (including but not limited to Builders Risk and Installation Floater) remains solely with the Contractor who may at his option insure against any or all perils, and such responsibility shall remain with the Contractor until such time as the work is complete and accepted in writing by the Owner. It is a condition of the Contract that the Owner and Engineer and all Contractors, subcontractors and sub-subcontractors waive all rights of recovery against each other for damages caused by fire or other perils to the extent covered by any valid and collectible insurance, and further, that any policy not including the standard waiver of subrogation clause be so endorsed as to comply with this paragraph.

Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

- ☐ Yes ☐ No My business is currently registered as a contractor with the Iowa Division of Labor.
- ☐ Yes ☐ No My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.
- ☐ Yes ☐ No My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
- ☐ Yes ☐ No My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.
- ☐ Yes ☐ No My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa Secretary of State, has filed its most recent biennial report with the Secretary of State, and has neither received a certificate of withdrawal from the Secretary of state nor had its authority revoked.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.
- ☐ Yes ☐ No My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa Secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

FORM OF BID OR PROPOSAL
Grinnell Veterans Memorial Monument

The following documents must be submitted as printed. No alterations, additions, or deletions are permitted. If the Bidder notes a requirement in the contract documents which the Bidder believes will require a conditioned or unsolicited alternate bid, the Bidder must immediately notify the Owner in writing. The Owner's representative will issue any necessary interpretation by an addendum.

TO: City of Grinnell, Iowa

PROPOSAL: PART A – SCOPE

The **City of Grinnell**, hereinafter called the "Owner", has need of a qualified contractor to complete the work comprising the below referenced improvement. The undersigned Bidder hereby proposes to complete the work comprising the below referenced improvement as specified in the contract documents, which are officially on file with the Owner, at the prices hereinafter provided in Part C of the Proposal, for the following described improvements:

PROJECT DESCRIPTION:

Grinnell Veterans Memorial Monument

PROPOSAL: PART B – ACKNOWLEDGMENT OF ADDENDA

The Bidder hereby acknowledges that all addenda become a part of the contract documents when issued, and that each such addendum has been received and utilized in the preparation of this bid. The Bidder hereby acknowledges receipt of the following addenda by inserting the number of each addendum in the blanks below:

ADDENDUM NUMBER _____	DATE _____
ADDENDUM NUMBER _____	DATE _____
ADDENDUM NUMBER _____	DATE _____
ADDENDUM NUMBER _____	DATE _____

And certifies that said addenda were utilized in the preparation of this bid.

PROPOSAL: PART C – BID ITEMS, QUANTITIES AND PRICES

UNIT BID PRICE CONTRACTS: The Bidder must provide the Unit Bid Price, the Total Bid Price, any Alternate Prices and the Total Construction Costs on the Proposal Form. In case of discrepancy, the Unit Bid Price governs. The quantities shown on the Proposal Form are approximate only, but are considered sufficiently adequate for the purpose of comparing bids. The Total Construction Cost, plus any alternates selected by the Owner, shall be used only for comparison of bids. The Total Construction Cost, including any alternates, shall be used for determining the sufficiency of the bid security.

PROJECT QUANTITIES

Bid Item	Description	Unit	Plan Quantity	Unit Bid Price	Total Bid Price
1	Mobilization	LS	1		
2	Perimeter Construction Safety Fence	LF	750		
3	Removal of Wall Feature	LS	1		
4	Clearing & Grubbing	LS	1		
5	Earthwork	CY	455		
6	Topsoil (6" Strip, Salvage, Respread)	CY	585		
7	Removal of Sidewalk and Brick Pavers	SY	690		
8	Removal of Curb & Gutter	LF	30		
9	Traffic Control	LS	1		
10	Wattles Installation, 12"	LF	335		
11	Wattles Removal	LF	335		
12	Inlet Protection Device, Installation	EA	3		
13	Inlet Protection Device, Maintenance	EA	3		
14	Removal of Type A Sign	EA	4		
15	Storm Intake, SW-511	EA	1		
16	Storm Sewer Manhole Adjustment	EA	1		
17	Storm Sewer Pipe, HDPE, 15"	LF	25		
18	Curb & Gutter, 2.5' wide, 6"	LF	30		
19	PCC Sidewalk, Standard 6"	SY	342		
20	PCC Sidewalk, Dark Gray, 6"	SY	232		
21	PCC Sidewalk, Tan, 6"	SY	169		
22	Subgrade Preparation, 6"	SY	1894		
23	Granular Subbase, 6"	SY	1894		
24	Brick Paving with Concrete Base New	SF	9842		
25	Brick Paving Reinstallation	SF	517		
26	Concrete Stairs	LS	1		
27	Steel Handrail	LS	1		
28	Veterans Monument Footing	LS	1		
29	Security Cameras, Pole, and Wiring	LS	1		
30	Type LA Monument Light Fixtures	LS	1		
31	LA CBX Power Supplies	LS	1		
32	Type SB Monument Light Fixtures	EA	8		
33	Type SA Site Light Fixtures	EA	3		
34	Lightening Protection for Monument	LS	1		
35	Lighting Controls System	LS	1		
36	Electrical Enclosure	LS	1		
37	Lighting Branch Circuits	LS	1		

TOTAL CONSTRUCTION COST

PROPOSAL: PART D – GENERAL

The Bidder hereby acknowledges that the Owner, in advertising for public bids for this project, reserves the right to:

1. Reject any or all bids. Award of the contract, if any, to be to the lowest responsible, responsive bidder; and
2. Reject any or all alternates in determining the items to be included in the contract. Designation of the lowest responsible, responsive bidder to be based on comparison of the total bid plus any selected alternates; and
3. Make such alterations in the contract documents or in the proposal quantities as it determines necessary in accordance with the contract documents after execution of the contract. Such alterations shall not be considered a waiver of any conditions of the contract documents, and shall not invalidate any of the provisions thereof.

The Bidder hereby agrees to:

1. Enter into a contract, if this proposal is selected, in the form approved by the Owner, provide proof of registration with the Iowa Division of Labor in accordance with Chapter 91C of the Iowa Code, and furnish a performance, maintenance, and payment bond; and insurance certificate; and
2. Forfeit bid security, not as a penalty but as liquidated damages, upon failure to enter into such contract and/or to furnish said bond; and
3. Commence the work on this project on or before a date to be specified in a written notice to proceed by the Owner, and to fully complete the project on or before the date specified in the Notice to Bidders.

PROPOSAL: PART E – NON-COLLUSION AFFIDAVIT

The Bidder hereby certifies:

1. That this proposal is not affected by, contingent on, or dependent on any other proposal submitted for any improvement with the Owner; and
2. That no individual employed by the Bidder has employed any person to solicit or procure the work on this project, nor will any employee of the Bidder make any payment or agreement for payment of any compensation in connection with the procurement of this project; and
3. That no part of the bid price received by the Bidder was or will be paid to any person, corporation, firm, association, or other organization for soliciting the bid, other than the payment of their normal compensation to persons regularly employed by the Bidder whose services in connection with the construction of the project were in the regular course of their duties for the Bidder; and
4. That this proposal is genuine and not collusive or sham; that the Bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to submit a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought, by agreement or collusion, or communication or conference, with any person, to fix the bid price of the Bidder or of any other bidder, and that all statements in this proposal are true; and

5. That the individual(s) executing this proposal have the authority to execute this proposal on behalf of the Bidder.

PROPOSAL: PART F – PROPOSAL ATTACHMENTS

The Bidder shall complete and include the following attachments as part of this proposal:

<u>ITEM NO.</u>	<u>DESCRIPTION OF ATTACHMENT</u>
1.	Bidder Status Form
2.	
3.	

PROPOSAL: PART G – IDENTITY OF BIDDER

The Bidder shall indicate whether the bid is submitted by a/an:

☐ Individual,
Sole Proprietorship

☐ Partnership

☐ Corporation

☐ Limited Liability Company

☐ Joint-venture: all parties must join-in and
execute all documents

☐ Other

The Bidder shall enter its Public Registration
Number _____ - _____ issued
By the Iowa Commissioner of Labor Pursuant
Section 91C.5 of the Iowa Code.

Failure to provide said Registration Number
shall result in the bid being read under
advisement. A contract will not be executed
until the Contractor is registered.

Bidder

Signature

By _____
Name (Print/Type)

Title

Street Address

City, State, Zip Code

Telephone Number

**Type or print the name and title of the
company's owner, president, CEO, etc. if a
different person than entered above**

Name

Title

**NOTE: The signature on this proposal must be an original signature in ink; copies or
facsimile of any signature will not be accepted.**

Bidder Status Form

To be completed by all bidders

Part A

Please answer "Yes" or "No" for each of the following:

☐ Yes

☐ No

My company is authorized to transact business in Iowa.
(To help you determine if your company is authorized, please review the worksheet on the next page).

☐ Yes

☐ No

My company has an office to transact business in Iowa.

☐ Yes

☐ No

My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.

☐ Yes

☐ No

My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.

☐ Yes

☐ No

My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a non-resident bidder. Please complete Parts C and D of this form.

To be completed by resident bidders

Part B

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: _____ to _____ Address: _____
(mm/dd/yyyy) City, State, Zip: _____

Dates: _____ to _____ Address: _____
(mm/dd/yyyy) City, State, Zip: _____

Dates: _____ to _____ Address: _____
(mm/dd/yyyy) City, State, Zip: _____

You may attach additional sheet(s) if needed.

To be completed by non-resident bidders

Part C

1. Name of home state or foreign country reported to the Iowa Secretary of State:

2. Does your company's home state or foreign country offer preferences to bidders who are residents? ☐ Yes ☐ No

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders

Part D

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name: _____

Signature: _____ Date: _____

BID BOND

KNOW ALL BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the **City of Grinnell, Iowa**, as Obligee, (hereinafter referred to as "the Owner"), in the penal sum of _____ dollars (\$ _____), or _____ percent of the amount bid in lawful money of the United States, for which payment said Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents.

The condition of the above obligation is such that whereas the Principal has submitted to the Owner a certain proposal, in a separate envelope, and hereby made a part hereof, to enter into a contract in writing, for the following described improvements;

Grinnell Veterans Memorial Monument, Grinnell, Iowa

The Surety hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid or execute such Contract; and said Surety does hereby waive notice of any such extension.

In the event that any actions or proceedings are initiated with respect to this Bond, the parties agree that the venue thereof shall be **Poweshiek County, State of Iowa**. If legal action is required by the Owner against the Surety or Principal to enforce the provisions of the bond or to collect the monetary obligation incurring to the benefit of the Owner, the Surety or Principal agrees to pay the Owner all damages, costs, and attorney fees incurred by enforcing any of the provisions of this Bond. All rights, powers, and remedies of the Owner hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to the Owner, by law. The Owner may proceed against Surety for any amount guaranteed hereunder whether action is brought against Principal or whether Principal is joined in any such action or actions or not.

NOW, THEREFORE, if said proposal by the Principal be accepted, and the Principal shall enter into a contract with Owner in accordance with the terms of such proposal, including the provision of insurance and of a bond as may be specified in the contract documents, with good and sufficient surety for the faithful performance of such contract, for the prompt payment of labor and material furnished in the prosecution thereof, and for the maintenance of said improvements as may be required therein, then this obligation shall become null and void; otherwise, the Principal shall pay to the Owner the full amount of the bid bond, together with court costs, attorney's fees, and any other expense of recovery.

Signed and sealed this _____ day of _____, 20_____.

SURETY:

By _____
Surety Company

Signature Attorney-in-Fact/Officer

Name of Attorney-in-Fact/Officer

Company Name

Company Address

City, State, Zip Code

Company Telephone Number

PRINCIPAL:

By _____
Bidder

Signature

Name (Print/Type)

Title

Address

City, State, Zip Code

Telephone Number

NOTE: All signatures on this bid bond must be original signatures in ink; copies or facsimile of any signature will not be accepted. This bond must be sealed with the Surety's raised, embossing seal. The Certificate or Power of Attorney accompanying this bond must be valid on its face and sealed with the Surety's raised, embossing seal.

CONTRACT

THIS CONTRACT, made and entered into at **Grinnell, Iowa** this _____ day of _____, 2025, by and between the **City of Grinnell, Iowa** hereinafter called the "Owner", and _____, hereinafter called the "Contractor".

WITNESSETH:

The Contractor hereby agrees to furnish all necessary tools, equipment, materials, and labor necessary to complete the work comprising the below referenced improvement as specified in the contract documents, which are officially on file with the Owner, in the office of the City of Grinnell, Iowa. This contract includes all contract documents. The work under this contract shall be constructed in accordance with the SUDAS Standard Specifications, Current Edition, and as further modified by the supplemental specifications, special provisions, plans, and additional requirements. The Contractor further agrees to complete the work in strict accordance with said contract documents, and to guarantee the work as required by law, for the time required in said contract documents, after its acceptance by the Owner.

This contract is awarded and executed for completion of the work specified in the contract documents for the bid prices proposed by the Contractor in its proposal form submitted in accordance with the Notice to Bidders and Notice of Public Hearing for the following described improvements:

Grinnell Veterans Memorial Monument

The Contractor agrees to perform said work for and in consideration of the Owner's payment of the bid amount of _____ dollars (\$_____) which amount shall constitute the required amount of the performance, maintenance, and payment bond. The Contractor hereby agrees to commence work under this contract on or before a date to be specified in a written notice to proceed by the Owner and to fully complete the project within the time period provided in the Notice to Bidders, subject to the stipulated damages and costs thereafter.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have executed five (5) copies of this Agreement on the date first shown written.

OWNER

Name: **City of Grinnell**

Address: **520 4th Avenue**

Grinnell, Iowa 50112

By: _____
Signature

Title of Representative

ATTEST

By: _____
Signature

Title

CONTRACTOR

Name: _____

Address: _____

By: _____
Signature

Title of Representative

ATTEST

By: _____
Signature

Title

CONTRACTOR PUBLIC REGISTRATION INFORMATION To Be Provided By:

1. All Contractors: The Contractor shall enter its Public Registration Number ____ - ____ issued by the Iowa Commissioner of Labor pursuant to Section 91C.5 of the Iowa Code.
2. Out-of-State Contractors:
 - A. Pursuant to Section 91C.7 of the Iowa Code, an out-of-state contractor, before commencing a contract in excess of five thousand dollars in value in Iowa, shall file a bond with the division of labor services of the department of workforce development. It is the contractor's responsibility to comply with said Section 91C.7 before commencing this work.
 - B. Prior to entering into contract, the designated low bidder, if it is a corporation organized under the laws of a state other than Iowa, shall file with the Engineer a certificate from the Secretary of the State of Iowa showing that it has complied with all the provisions of Chapter 490 of the Iowa Code, or as amended, governing foreign corporations.

NOTE: All signatures on this contract must be original signatures in ink; copies, facsimile, or electronic signatures will not be accepted.

PERFORMANCE, PAYMENT AND MAINTENANCE BOND

KNOW ALL BY THESE PRESENTS:

That we, _____, as Principal (hereinafter the "Contractor" or "Principal") and _____, as Surety are held and firmly bound unto **City of Grinnell, Iowa**, as Obligee (hereinafter referred to as "the Owner"), and to all persons who may be injured by any breach of any of the conditions of this Bond in the penal sum of _____ DOLLARS (\$_____), lawful money of the United States, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, legal representatives and assigns, jointly or severally, firmly by these presents.

The conditions of the above obligations are such that whereas said Contractor entered into a contract with the Owner, bearing date the _____ day of _____, 20____, (hereinafter the "Contract") wherein said Contractor undertakes and agrees to construct the following described improvements:

Grinnell Veterans Memorial Monument

And to faithfully perform all the terms and requirements of said Contract within the time therein specified, in a good and workmanlike manner, and in accordance with the Contract Documents. Provided, however, that one year after the date of acceptance as complete of the work under the above referenced Contract, the maintenance portion of this Bond shall continue in force but the penal sum for maintenance shall be reduced to the sum of _____ DOLLARS (\$_____) which is the cost associated with those items shown on the proposal and in the Contract which require a maintenance bond period in excess of one year.

It is expressly understood and agreed by the Contractor and Surety in this bond that the following provisions are a part of this Bond and are binding upon said Contractor and Surety, to-wit:

1. **PERFORMANCE:** The Contractor shall well and faithfully observe, perform, fulfill and abide by each and every covenant, condition and part of said Contract and Contract Documents, by reference made a part hereof, for the above referenced improvements, and shall indemnify and save harmless the Owner from all outlay and expense incurred by the Owner by reason of the Contractor's default or failure to perform as required. The Contractor shall also be responsible for the default or failure to perform as required under the Contract and Contract Documents by all its subcontractors, suppliers, agents, or employees furnishing materials or providing labor in the performance of the Contract.
2. **PAYMENT:** The Contractor and the Surety on this Bond are hereby agreed to pay all just claims submitted by persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the performance of the Contract on account of which this Bond is given, including but not limited to claims for all amounts due for labor, materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used by the Contractor or any subcontractor, wherein the same are not satisfied out of the portion of the contract price which the Owner is required to retain until completion of the improvement, but the Contractor and Surety shall not be liable to said persons, firms, or corporations unless the claims of said claimants against said portion of the contract price shall have been established as provided by law. The Contractor and Surety hereby bind themselves to the obligations and conditions set forth in Chapter 573, Code of Iowa, which by this reference is made a part hereof as though fully set out herein.
3. **MAINTENANCE:** The Contractor and the Surety on this Bond hereby agree, at their own expense:
 - A. To remedy any and all defects that may develop in or result from work to be performed under the Contract within the period of **one (1)** year from the date of acceptance of the

work under the Contract, by reason of defects in workmanship or materials used in construction of said work;

- B. To keep all work in continuous good repair; and
 - C. To pay the Owner's reasonable costs of monitoring and inspection to assure that any defects are remedied, and to repay the Owner all outlay and expense incurred as a result of Contractor's and Surety's failure to remedy any defect as required by this section.
 - D. Contractor's and Surety's agreement herein made extends to defects in workmanship or materials not discovered or known to the Owner at the time such work was accepted.
4. GENERAL: Every Surety on this Bond shall be deemed and held bound, any contract to the contrary notwithstanding, to the following provisions:
- A. To consent without notice to any extension of time to the Contractor in which to perform the Contract;
 - B. To consent without notice to any change in the Contract or Contract Documents, which thereby increases the total contract price and the penal sum of this bond, provided that all such changes do not, in the aggregate, involve an increase of more than twenty percent of the total contract price, and that this bond shall then be released as to such excess increase; and
 - C. To consent without notice that this Bond shall remain in full force and effect until the Contract is completed, whether completed within the specified contract period, within an extension thereof, or within a period of time after the contract period has elapsed and the liquidated damage penalty is being charged against the Contractor.

The Contractor and every Surety on the bond shall be deemed and held bound, any contract to the contrary notwithstanding, to the following provisions:

- D. That no provision of this Bond or of any other contract shall be valid which limits to less than **one (1) year** after the acceptance of the work under the Contract the right to sue on this Bond.
- E. That as used herein, the phrase "all outlay and expense" is not to be limited in any way, but shall include the actual and reasonable costs and expenses incurred by the Owner including interest, benefits and overhead where applicable. Accordingly, "all outlay and expense" would include but not be limited to all contract or employee expense, all equipment usage or rental, materials, testing, outside experts, attorneys fees (including overhead expenses of the Owner's staff attorneys), and all costs and expenses of litigation as they are incurred by the Owner. It is intended the Contractor and Surety will defend and indemnify the Owner on all claims made against the Owner on account of Contractor's failure to perform as required in the Contract and Contract Documents, that all agreements and promises set forth in the Contract and Contract Documents, in approved change orders, and in this Bond will be fulfilled, and that the Owner will be fully indemnified so that it will be put into the position it would have been in had the Contract been performed in the first instance as required.
- F. In the event the Owner incurs any "outlay and expense" in defending itself with respect to any claim as to which the Contractor or Surety should have provided the defense, or in the enforcement of the promises given by the Contractor in the Contract, Contract Documents, or approved change orders, or in the enforcement of the promises given by the Contractor and Surety in this Bond, the Contractor and Surety agree that they will make the Owner whole for all such outlay and expense, provided that the Surety's obligation under this bond shall not exceed 125% of the penal sum of this bond.

In the event that any actions or proceedings are initiated with respect to this Bond, the parties agree that the venue thereof shall be **Poweshiek County, State of Iowa**. If legal action is required by the Owner to enforce the provisions of this Bond or to collect the monetary obligation incurring to the benefit of the Owner, the Contractor and the Surety agree, jointly and severally, to pay the Owner all outlay and expense incurred therefore by the Owner. All rights, powers, and remedies of the Owner hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to the Owner, by law. The Owner may proceed against surety for any amount guaranteed hereunder whether action is brought against the Contractor or whether Contractor is joined in any such action or actions or not.

NOW THEREFORE, the condition of this obligation is such that if said Principal shall faithfully perform all the promises of the Principal, as set forth and provided in the Contract, in the Contract Documents, and in this Bond, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

When a word, term, or phrase is used in this Bond, it shall be interpreted or construed first as defined in this Bond, the Contract, or the Contract Documents; second, if not defined in the Bond, Contract, or Contract Documents, it shall be interpreted or construed as defined in applicable provisions of the Iowa Code; third, if not defined in the Iowa Code, it shall be interpreted or construed according to its generally accepted meaning in the construction industry; and fourth, if it has no generally accepted meaning in the construction industry, it shall be interpreted or construed according to its common or customary usage.

Failure to specify or particularize shall not exclude terms or provisions not mentioned and shall not limit liability hereunder. The Contract and Contract Documents are hereby made a part of this Bond.

In Witness Whereof, we have hereunto set our hands and seals this _____ day of _____, 20____.

Surety Countersigned By:

PRINCIPAL:

Signature of Iowa Resident Commission Agent as
Prescribed by Chapter 515.52-57, Iowa Code.
(Require only if Attorney-in-Fact is not also an
Iowa Resident Commission Agent).

Contractor

By: _____

Signature

Name of Resident Commission Agent

Title

Company Name

SURETY:

Company Address

Surety Company

City, State, Zip Code

By: _____

Signature Attorney-in-Fact Officer

Company Telephone Number

Name of Attorney-in-Fact Officer

Company Name

Company Address

City, State, Zip Code

FORM APPROVED BY:

Attorney for Owner

Company Telephone Number

NOTE:

1. All signatures on this performance, payment & maintenance bond must be original signatures in ink; copies or facsimile of any signature will not be accepted.
2. This bond must be sealed with the Surety's raised, embossing seal.
3. The Certificate or Power of Attorney accompanying this bond must be valid on its face and sealed with the Surety's raised, embossing seal.
4. The name and signature of the Surety's Attorney-in-Fact/Officer entered on this bond must be exactly as listed on the Certificate or Power of Attorney accompanying this bond.

PART II

Supplemental Specifications

SECTION 129300

HANDRAIL

PART 1 - GENERAL

- 1.1 SECTION INCLUDES:
 - A. Exterior Handrail
- 1.2 SUBMITTALS
 - A. Product Data: For each type of product indicated.
 - B. Shop Drawings for all handrail.
 - 1. Include plans, elevations, sections, and details.
 - C. Product Certificates: For each type of handrail, brackets, hardware, and anchoring material (grout, cement, etc).
- 1.3 PERFORMANCE REQUIREMENTS
 - A. Structural Performance: Railings shall be designed to withstand the effects of gravity and loads/stresses exhibited during typical usage of pedestrians traversing along adjacent pavement.
 - B. Control of Corrosion: Prevent corrosion by providing a product which can withstand the weather of the project's region and by preventing direct contact with incompatible materials.

PART 2 - PRODUCTS

- 2.1 HANDRAIL
 - A. Grade 302 Stainless Steel (To Match Finish of Monument Sculpture)
 - 1. 1 1/2 inches in diameter. Post diameter shall match handrail diameter.
 - B. Bends
 - 1. Provide manufactured pipe bends and connections for handrail. Field bends shall not be allowed unless otherwise approved by the Owner/Engineer.
- 2.2 CONNECTIONS
 - A. Anchor Plates: 1/4 inch thick, 6-inch x 6-inch steel plate with 46,000 psi minimum strength. Stainless steel plate to match handrail
 - B. Nuts/Bolts: Provide 3/8" minimum stainless steel bolts with 3-inch minimum embedment. Comply with ASTM A 36.
 - C. Adhesive Anchoring Material: Epoxy complying with ASTM C 881, Type IV. Provide appropriate epoxy class based upon concrete temperatures at time of install. Comply with IA DOT Materials I.M. 491.11, Appendix C.
 - D. Grout: Polymer grout shall comply with IA DOT Materials I.M. 491.11 and non-shrink grout shall comply with IA DOT Materials I.M. 491.13.

PART 3 - EXECUTION

- 3.1 HANDRAIL INSTALLATION
 - A. Install handrail continuously with no gaps or breaks along the length specified in the plans. Form work true to line and level with accurate angles per the dimensions and separations shown on the plans.

- B. Use welded connections between rail components. Grind connections to remove sharp or abrasive edges and remove other irregularities.
- C. Install handrail 34 to 38 inches above the nose of the step or top of concrete. Maintain a consistent height above all stair treads, ramps, and sidewalks. On floor mounted railing, install the bottom rail midway between the top of concrete and the top of rail.
- D. Do not weld, cut, or abrade any surfaces after fabrication unless otherwise approve by the Owner/Engineer.
- E. Do not paint handrail, posts, or hardware.
- F. Bend members to produce uniform curvature without buckling or otherwise deforming exposed surfaces.
- G. Close all exposed ends of railing with prefabricated end fittings.
- H. Provide wall returns at ends of wall-mounted handrails.
- I. All damaged handrail, posts, bends, or hardware shall be repaired in the field prior to final acceptance.

3.2 POST INSTALLATION

- A. Install posts at a maximum spacing of 8 feet.
- B. All posts shall be set plumb.
- C. Attach handrail posts per one of the following:
 - 1. Bolted Connection:
 - a. Layout location and drill four 7/16-inch holes for anchor bolts at each post attachment point. Drill holes with a carbide drill bit; do not core drill anchor bolt holes.
 - b. Apply adhesive anchoring material according to the manufacturer's published recommendations and install threaded rod or anchor bolts.
 - 2. Grouted Connection:
 - a. Form a 6-inch-deep hole in the concrete curb 1 inch larger than the outside diameter of the post. Alternatively, hole may be core drilled in hardened concrete.
 - b. After the concrete hardens, set handrail posts into the holes and temporarily secure.
 - c. Fill the void between the post and holes with non-shrink or polymer grout.

END OF SECTION

SECTION 26 00 50
BASIC ELECTRICAL REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Basic Electrical Requirements specifically applicable to Electrical Division Specification Sections.
- B. Division 26 Specification requirements also include, by reference, all Division 00 and 01 specification sections. This contractor is responsible to review these specification sections. Requirements of these specification sections are included as a part of this contract.

1.02 OWNER OCCUPANCY

- A. The owner will not occupy the premises during the construction period.
- B. Schedule the work to accommodate this requirement.

1.03 REGULATORY REQUIREMENTS

- A. This contractor shall give proper authorities all requisite notices relating to work in their charge, obtain official permits, licenses for temporary construction and pay proper fees for it.
- B. This contractor is to be solely answerable for and shall promptly make good all damage, injury or delay to other contractors, to neighboring premises or to persons or property of the public by themselves, by their employees or through any operation under their charge, whether in the contract or extra work.
- C. No attempt has been made to reproduce in these specifications any of the rules or regulations contained in city, state or federal ordinances and codes pertaining to the work covered by these specifications that the contractor be thoroughly familiar with all such ordinances and codes.
- D. The fact that said various rules, regulations and ordinances are not repeated in this specification does not relieve the contractor of the responsibility of making the entire installation in accordance with the requirement of those authorities having jurisdiction.
- E. All work shall comply with the applicable recommendations of:
 - 1. The National Board of Fire Underwriters
 - 2. The ANSI-NFPA 70 National Electrical Code
 - 3. The National Fire Protection Association (NFPA)
 - 4. The Occupations Safety and Health Act (OSHA)
 - 5. IBC Building Code (current) and any current applicable city building and or electrical codes.
 - 6. Fire Protection: Conform to International Fire Code (IFC) and NFPA.
 - 7. International Energy Conservation Code (IECC)
- F. Obtain permits and request inspections from authority having jurisdiction.
- G. Conform to latest approved versions of codes.

1.04 PROJECT/SITE CONDITIONS

- A. Install work in locations shown on drawings unless prevented by project conditions.
- B. Prepare drawings showing proposed rearrangement of work to meet project conditions, including changes to work specified in other sections. Obtain permission of owner and architect/engineer before proceeding.
- C. This contractor, before submitting their bid, shall visit the site of the project to familiarize themselves with locations and conditions affecting their work.
- D. It is the intent of this specification that the contractor furnish all labor and material required to complete the installation as outlined in the drawings and specifications. No additions to the contract price will be allowed due to the failure of this contractor to properly evaluate the effect of existing conditions on the work to be done under this contract.
- E. This contractor shall provide, as necessary, for the installation of their work and in accordance with materials other than the structure.

1.05 SEQUENCING AND SCHEDULING

- A. This contractor shall arrange their work in order that it progresses along with the general construction of the building.
- B. This contractor shall be kept informed as to the work of other trades engaged in the project and shall execute their work in such a manner so as not to delay or interfere with progress of other contractors.

1.06 GUARANTEE

- A. This contractor shall guarantee all of the apparatus, materials, equipment furnished, and labor installed under this contract for a period of one year after date of final acceptance, unless a longer period is specified.
- B. Neither final certificate of payment nor any provisions in the contract documents nor partial or complete occupancy of premises by owner shall constitute an acceptance for work not done in accordance with contract documents or relieve the contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.
- C. Should any defects arise as the result of defective workmanship or material within the guarantee period set forth, this contractor shall make the necessary correction at their own expense.

1.07 ENGINEER APPROVED EQUAL PRODUCTS

- A. When the engineer, at the request of the interested parties, including the contractor, supplier and manufacturer approved "engineer approved equal" products for this project, such products are approved on the assumption that they will equal or exceed the performance of the products specified.
- B. If such products do not do so after being installed on this project, this contractor shall replace or modify the particular product as necessary to equal the performance of the products specified at no expense to the owner, architect or engineer.
- C. Request for "engineer approved equal" products shall be received by the architect/engineer prior to the last addendum being issued. Requests for substitutions received after this date will not be considered. Substitution requests shall clearly state which products are being considered for substitution. Substitution requests shall include all pertinent product information needed to evaluate the substitution as an "equal".
- D. Similar products shall be all of the same manufacturers and style. There is no exception to this unless prior approval has been granted from engineer.

1.08 OWNER'S RIGHT OF SALVAGE

- A. Before beginning construction, the contractor shall check and verify with the owner each item of existing equipment that must be removed.
- B. The owner will designate which items of material or equipment not reused that they may wish to keep. The contractor shall then remove these items with care and store in a location designated by the owner for the owner's disposal.
- C. All other items of equipment to be removed and not specified for reuse in new construction or reserved by the owner for their use shall become the property of the contractor and shall be removed from the site.

1.09 PROTECTION AND MAINTENANCE

- A. Where necessary to connect to any existing utility service, this electrical contractor shall contact the owner and shall coordinate any building service connection with the owner so that normal operation to the building is disrupted as little as possible.
- B. Any work to be done in existing structures shall be coordinated with the owner and arrangements made so that traffic flow may be maintained and areas finished where possible before other areas are begun.

- C. This contractor shall protect existing equipment in finished areas from dirt, dust and damage as a result of their work.
- D. Coordinate protection requirements with department heads before beginning construction.
- E. Protect any building openings from unauthorized entry. Coordinate with owner where building entry must be controlled.

1.10 CUTTING AND PATCHING

- A. This contractor shall do all cutting and patching necessary for the installation of his work.

1.11 DAILY HOUSEKEEPING AND CLEANING

- A. At the end of each workday, the contractor shall remove all of their debris, rubbish, tools, and surplus materials from the project work area. The work area shall be broom cleaned and left in a neat and orderly condition. The contractor shall not use the owner's waste disposal facility for the removal of debris from the project.
- B. At end of construction, all equipment shall be cleaned and the premises left in first class condition as far as this contractor's work is concerned.

1.12 CLEANING AND RUBBISH

- A. This contractor, upon completion of their work, shall remove all rubbish and debris resulting from their operation and shall remove it from site at their own expense.
- B. As far as their work is concerned, all equipment shall be cleaned and the premises left in first class condition.
- C. This contractor shall maintain the work area each day to prevent hazardous accumulation of waste from their work.

1.13 HAZARDOUS MATERIALS

- A. If the contractor stores any hazardous solvents or other materials on the site, they shall obtain copies of the safety data sheets for the materials and post them at the site. The contractor shall inform the owner and all employed of any potential exposure to this material.

1.14 AS-BUILT DRAWINGS

- A. This electrical contractor shall provide (at the conclusion of the project) one clean, non-torn, neat and legible "as-built" set of drawings to the owner. These drawings shall show the routing of conduit, wiring and equipment drawn in at scaled locations. All circuits shall be labeled and shall conform to labeled panel breakers. All dimensions indicated shall be referenced to a column line. A set of construction drawings will be furnished for this work.
- B. All electrical panels and electrical installed equipment shall be shown on the "as-built" drawings.
- C. Refer to General Specification Sections for additional requirements.
- D. This contractor shall update these drawings during the project at least once a week.

1.15 ALTERNATES

- A. Refer to description of alternate bids under General Specification Sections.

1.16 REVIEW OF MATERIALS

- A. This contractor shall submit to the engineer for review one (1) electronic copy giving a complete list of materials, fixtures, devices and panels they propose to furnish. The brochure shall contain complete information as to the make of equipment, type, size, capacities, dimensions, and illustration. One of the returned copies shall be kept on the job at all times.
- B. Checking of submittal drawings by the engineer does not relieve the contractor of the responsibility for the accuracy of such drawings and for their conformity to drawings and specifications unless the contractor notifies engineer, in writing, of such deviation at time such drawings are furnished.

- C. All submittals shall have the date marked on them when the contractor receives them from the supplier. Submittals shall be submitted through the contractor and shall not come direct from the supplier to the architect or engineer.
- D. This contractor shall mark the date and sign each set. This indicates that each of them have been checked in their entirety before submitting to the engineer. Submittals that are not dated and signed by the contractor will not be accepted or checked and will be marked "resubmit" and sent back to the contractor.

1.17 TEST OF SYSTEMS

- A. This contractor shall, before concealed, test all systems installed under this contract as called for in these specifications and as required by local codes. Tests shall be made in the presence of the engineer, local authorities or their duly authorized representative. Any defects discovered in testing shall be corrected and the tests repeated until all defects are eliminated.
- B. This contractor shall be held responsible for all damage resulting from defects in the system.
- C. Each individual feeder circuit shall be tested at the panel and in testing for insulation resistance to ground; the power equipment shall be connected for proper operation. In no case shall the insulation resistance to ground be less than that required by the National Electrical Code (NEC).

1.18 SCOPE OF WORK

- A. This contractor shall furnish all the labor and material necessary to install a complete electrical system. The system shall include all items of work as outlined in these specifications and on the drawings.
- B. All work shall be performed by a well-qualified, licensed electrician with a thorough knowledge of the various systems involved. It shall be this contractor's responsibility to see that their employees are familiar with all the various codes and tests applicable to this work.
- C. All equipment shall be new and of the type specified by the engineer unless otherwise noted in these specifications or on the drawings to remain and or be reused.
- D. The intent of the specifications and drawings is for complete installation of the systems outlined in the specifications and drawings so that at the conclusion of construction the system will be turned over to the owner complete and ready for safe and efficient operation. The specifications and drawings cannot deal individually with the many minute items that may be eventually required by the nature of the systems.
- E. This contractor is required to furnish and install all such items normally included on systems of this type, which, while not mentioned directly herein or on the drawings are obviously essential to the installation and operation of the system and which are normally furnished on quality installation of this type.
- F. This contractor, before proceeding with any work, shall review the architectural drawings. Any conflict between the electrical and architectural drawings shall be reported to the engineer for clarification.
- G. If there is a discrepancy between the drawings and the specifications or within either document, the more stringent requirement shall be estimated unless brought to the engineer's attention and an addendum is issued for clarification.

1.19 OWNER'S RIGHT OF WORK CESSATION

- A. The owner reserves the right to order an immediate cessation of work without giving advance notice.

1.20 ELECTRICAL UTILITY COMPANY

- A. Any fees by the utility company are to be billed directly to the owner.
- B. The contractor is required to assist the owner in the preparation of all utility company rebate forms that deal with equipment furnished and/or installed as a part of this contractor.

1.21 TELECOMMUNICATIONS UTILITY COMPANY

- A. Any fees by the telecommunications utility company are to be billed directly to the owner.

- B. The contractor shall be required to provide pathways to the property easement and/or right-of-way. Final Coordination of conduit routing and termination shall be performed by this contractor while communicating with each telecommunications utility company. This shall include telephone, cable television and internet services to the building.

1.22 TRENCHING AND BACKFILLING

- A. Each contractor is responsible for their own individual trenching and backfilling unless otherwise noted in the drawings or addendum.
- B. All underground utilities, telephone conduit, parking lot lighting, tunnels, etc shall be exactly located prior to digging. This contractor shall be held responsible for all damages caused by failure to do so.
- C. Any backfill shall be tamped and compacted to prevent future settling. The backfill shall be installed to a smooth and level grade and installed in accordance with local codes.
- D. All excess dirt shall be cleared from the area and disposed of as directed by the owner.
- E. Refer to architectural specification sections for additional information.

1.23 LOW VOLTAGE CONDUIT INSTALLATION

- A. This contractor shall install conduit serving low voltage cables located in all mechanical rooms and non-accessible areas and exposed structural areas. Use cable trays in other areas as indicated on the drawings. Where cable trays are not accessible, use J-hooks equal to Caddy Cable CAT. Provide hooks with closure holes and cable ties. Mount hooks three foot (3') on center.
- B. This contractor shall install conduit sleeves serving low voltage cables through walls and floors.
- C. Refer to other specification sections for additional information.

1.24 TEMPORARY POWER AND LIGHTING

- A. Temporary electrical power and lighting necessary for the construction process is the responsibility of the electrical contractor and shall be included in the base bid amount.

1.25 DIGITAL MEDIA AGREEMENT

- A. Computer Aided Drafting (CAD) documents may be available to the contractor for some uses. Contact the engineer prior to bidding to determine what information is available to be transmitted to the contractor in digital form.
- B. When documents are determined to be available, and as requested by the contractor, they will be transmitted upon the completion and execution of the MODUS digital media agreement. A service fee for each document transmitted will be assessed to the contractor. Documents will be transmitted upon payment receipt. Current service fee is \$100.00 per CAD sheet.

1.26 SECURE NETWORKABLE DEVICES

- A. Update network devices to the most current software/firmware.
- B. Change default password of all networkable devices.
 - 1. Passwords shall have at least eight characters.
 - 2. Include uppercase and lowercase letters, numerals, and special characters
- C. Supply MAC address and serial number of all networkable devices.
- D. Work with the Owner's IT department to align to existing IT standards.
- E. Provide to the owner a printed and/or electronic spreadsheet log of all network information including, IP addresses, MAC addresses, logins and password information during system training.

1.27 SYSTEM CONFIGURATION AND PROGRAMMING FILES

- A. Supply system configuration and programming files where export is available.
- B. Supply uncompiled programming for systems applicable.
- C. All configuration and programming shall be property of the owner at conclusion of the project.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 26 00 51
PRE-BID SUBSTITUTION REQUEST FORM

This document shall be submitted for all MODUS projects where a manufacturer's sales rep requests that additional products be considered where they are not currently listed on the lighting fixture schedule and/or specifications. Where "Engineer Approved Equal" is listed on the fixture schedule, the designer for the project was unable to find a product that matched the performance and/ or aesthetic criteria required. Product submittals shall include notations on any variances so that they are brought to the attention of the designer for consideration.

All substitution requests shall be submitted to the electrical engineer (10) ten business days prior to the project bid date. The electrical engineer contact information can be found on the first page of the MEP cover sheet. If information is not available, please contact MODUS directly at (515) 251-7280 to identify the responsible party.

Refer to the paragraphs below for product submittal requirements. However, only page 2 is to be completed and submitted with the required information.

LIGHTING FIXTURE SUBSTITUTION REQUEST FOR CONSIDERATION:

1. Provide a summary, description, and any discrepancies of the lighting fixture(s) being submitted for consideration. - i.e. "submitting alternate fixtures for cove products", "submitting alternate LED troffer", etc.
2. Summarize any differences that you are aware of for each product: "has 3.5" aperture while 3" was specified", "fixture has slightly lower lumen package but better efficacy", "steel pole instead of aluminum", etc.
3. Provide a list of lighting fixtures being submitted on your company letterhead along with this form at the beginning of the submittal. The list shall include the TYPE, MANUFACTURER and MODEL NUMBER that is being submitted.
4. Submitter shall include a product page for each type(s) being submitted. The product page shall have all parts of the model number identified by highlighting or boxing in the specific components. If these items are not identified, we will not review the submittal request.
5. Submit IES files for all products submitted, re-named with the fixture type being submitted. Photopia or other software created files will not be accepted. ie: TYPE FA.ies

LIGHTING CONTROLS SUBSTITUTION REQUEST FOR CONSIDERATION:

1. Provide a summary, description, and any discrepancies of the lighting control devices being submitted for consideration. ie - "submitting alternate control devices".
2. Please provide and review the sequence of operation located on our lighting drawings that outline the required control methods for each space. It is our expectation that the submitter completely understands the manufacturer's responsibility to make sure all parts and pieces are included in your submittal.
3. Provide manufacturer warranty and commissioning information.
4. Submitter shall include a product page for each type(s) being submitted. The product page shall have all parts of the model number identified by highlighting or boxing in the specific components.

SUMMARY OF OTHER LIGHTING RELATED ITEMS BEING SUBMITTED:

1. This section is for battery packs, inverters or any other items that you would like us to consider where you believe that you have an equivalent product for us to consider. Again, please don't just include "generic" cutsheets – identify exactly what products you are submitting and if there are any differences that we should be aware of.

PROJECT NAME: _____
PROJECT LOCATION: _____
DATE SUBMITTED: _____
BID DATE: _____
ELECTRICAL ENGINEER: _____
FIXTURE SCHEDULE SHEET: _____
LIGHTING FIXTURE SUBSTITUTION REQUEST FOR CONSIDERATION:

Note that if a fixture is approved in our addendum, light fixtures will be approved only with the TYPE and MANUFACTURER listed. It shall be the responsibility of the submitter to verify that all information contained within the submittals after bids are awarded matches the dimensions, lumen outputs, voltages, dimming types, warranties, etc.

LIGHTING CONTROLS SUBSTITUTION REQUEST FOR CONSIDERATION:

SUMMARY OF OTHER LIGHTING RELATED ITEMS BEING SUBMITTED:

END OF SECTION

SECTION 26 05 19
ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Building wire
- B. Wiring connectors

1.02 RELATED SECTIONS

- A. Specification Section 26 0553 - Identification for Electrical Systems

1.03 REFERENCES

- A. NECA Standard of Installation (National Electrical Contractors Association)
- B. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (International Electrical Testing Association)
- C. NFPA 70 - National Electrical Code
- D. Product Data: Provide for each cable assembly type.
- E. Test Reports: Indicate procedures and values obtained.
- F. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.

1.04 SUBMITTALS

- A. Project Record Documents: Record actual locations of components and circuits.
- B. Project Record Documents: Provide documentation of the manufacturer's recommended lug torque value for aluminum conductors, the date the lugs were torqued, and installed torque readings.

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years experience.

1.06 REGULATORY REQUIREMENTS

- A. Conform to NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories Inc., as suitable for the purpose specified and indicated.

1.07 PROJECT CONDITIONS

- A. Verify that field measurements are as indicated.
- B. Wire and cable routing indicated is approximate unless dimensioned. Include wire and cable lengths within 10 foot of length shown.

1.08 COORDINATION

- A. Where wire and cable destination is indicated and routing is not shown, determine exact routing and lengths required.

PART 2 PRODUCTS

2.01 BUILDING WIRE

- A. Manufacturers:
 - 1. Okanite
 - 2. Bell/Hubbell #BICC
 - 3. American Insulated Wire
 - 4. General Cable
 - 5. Southwire
 - 6. Encore Wire Corporation

- 7. Engineer approved equal.
- B. Description: Insulated conductor wire.
 - 1. All wire shall be stranded. Refer to Section 26 0553 Identification for Electrical Systems for conductor color requirements.
 - 2. Provide solid wire pigtails at all wiring devices and lighting control devices.
- C. Conductor:
 - 1. Copper
- D. Insulation Voltage Rating: 600 volts.
- E. Insulation: NFPA 70, type #THHN/THWN-2. All cable installation procedures or sizing shall be based on 75 deg C temperature rating.

2.02 WIRING CONNECTORS

- A. Split Bolt Connectors:
 - 1. Burndy
 - 2. Engineer approved equal.
- B. Spring Wire Connectors:
 - 1. Thomas & Betts
 - 2. Engineer approved equal.
- C. Compression Connectors:
 - 1. Burndy
 - 2. Thomas & Betts
 - 3. Engineer approved equal.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that interior of building has been protected from weather.
- B. Verify that mechanical work likely to damage wire and cable has been completed.
- C. Verify that raceway installation is complete and supported.

3.02 PREPARATION

- A. Completely and thoroughly swab raceway over two inch (2") in size or buried below grade before installing wire.

3.03 WIRING METHODS

- A. Concealed Dry Interior Locations: Use only building wire, type #THHN/THWN-2 insulation in raceway.
- B. Exposed Dry Interior Locations: Use only building wire, type #THHN/THWN-2 insulation in raceway.
- C. Above Accessible Ceilings: Use only building wire, type #THHN/THWN-2 insulation in raceway.
- D. Wet or Damp Interior Locations: Use only building wire, type #THHN/THWN-2 insulation in raceway.
- E. Exterior Locations: Use only building wire, type #THHN/THWN-2 insulation, in raceway. Use liquid-tight wiring methods. Use liquid-tight connections.
- F. Underground Installations: Use only building wire, type #THHN/THWN-2 insulation, in raceway. Use liquid-tight wiring methods.
- G. Interior Installations: Use only building wire, type #THHN/THWN-2 insulation, in raceway.
- H. Use wiring methods indicated.

3.04 INSTALLATION

- A. Route wire and cable as required meeting project conditions.
- B. Install cable in accordance with the NECA "Standard of Installation."

- C. Use conductors not smaller than 12 AWG for power and lighting circuits.
- D. Use #10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 75 feet.
- E. Use #10 AWG conductors for 20 ampere, 208/240 volt branch circuits longer than 200 feet.
- F. Use #10 AWG conductors for 20 ampere, 277 volt branch circuits longer than 300 feet.
- G. Provide minimum #8 AWG wiring for exterior lighting and power circuits leaving building.
- H. It shall be the responsibility of the electrical contractor to verify all voltage drop and size all wire accordingly.
- I. Pull all conductors into raceway at same time.
- J. Use suitable wire pulling lubricant for building wire #4 AWG and larger.
- K. Protect exposed cable from damage.
- L. Use suitable cable fittings and connectors.
- M. Neatly train and lace wiring inside boxes, equipment and panel boards.
- N. Clean conductor surfaces before installing lugs and connectors.
- O. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
- P. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, #8 AWG and smaller.
- Q. Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, #10 AWG and smaller. All connections in exterior hand holes shall have liquidtight connections.
- R. Trench and backfill for direct burial cable installation. Install warning tape along entire length of direct burial cable within three inch (3") of grade.
- S. Identify and color code wire and cable under provisions of Specification Section 26 0553 - Identification for Electrical Systems. Identify each conductor with its circuit number or other designation indicated.
- T. Do not install multi-wire branch circuits. No sharing of neutral shall be permitted.
- U. Install all conductors and make final connections in accordance with all manufacturer's recommendations.

3.05 FIELD QUALITY CONTROL

- A. Perform field inspection and testing.
- B. Inspect wire and cable for physical damage and proper connection.
- C. Measure tightness of bolted connections and compare torque measurements with manufacturer's recommended values.
- D. Verify continuity of each branch circuit conductor.

END OF SECTION

SECTION 26 05 26
GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Rod electrode and conductors
- B. Mechanical connectors
- C. Wire
- D. Grounding well components
- E. Ground enhancement material

1.02 SUBMITTALS

- A. Product data and manufacturer's installation instructions for non-approved manufacturers shall be submitted for review prior to the bid date.
- B. Submittals shall include:
 - 1. Dimensional drawing for each planned device.
 - 2. Exothermic Connection Certification for installers.

1.03 SUMMARY

- A. Provide all labor, materials, and equipment necessary to properly install a grounding system conductor in all new branch wiring and feeder installations, which shall be in full compliance with all applicable codes as accepted by the authorities having jurisdiction. The secondary distribution system shall include a grounding conductor in all raceways in addition to the return path of the metallic conduit.
- B. In general, all electrical equipment (metallic conduit, etc.) shall be bonded together with a green insulated or bare copper system grounding conductor in accordance with specific rules of Article 250 of the NEC and local codes. The bonding conductor through the raceway system shall be continuous from main switch ground bus to panel ground bar of each panelboard, and from panel grounding bar of each panelboard to branch circuit equipment and devices.
- C. All raceways shall have an insulated copper system ground conductor throughout the entire length of circuit installed within conduit in strict accordance with NEC. The grounding conductor shall be included in total conduit fill determining conduit sizes, even though not included or shown on drawings. All grounding conductors that run with feeders in PVC conduit outside of building shall be bare only.
- D. Provide and install all grounding and bonding as required by the National Electrical Code (NEC) including but not limited to Article 800 of the NEC.

1.04 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code
- B. IEEE 837-2014: Standard for Qualifying Permanent Connections Used in Substation Grounding
- C. IEEE Emerald Book
- D. IEEE Green Book

1.05 PROJECT RECORD DOCUMENTS

- A. Submit record documents to accurately record actual locations of grounding electrodes.
- B. Submit test results of each ground rod.

1.06 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

PART 2 PRODUCTS

2.01 ROD ELECTRODE AND CONDUCTORS

- A. Material: Copper-clad steel.
- B. Diameter: 5/8 inch.
- C. Length: 10 feet (min). Increase number and/or lengths of ground rod electrodes as required to meet and achieve specified resistance.
- D. Maintain separation of not less than eight foot (8') and not more than 20 feet between ground rod electrodes.

2.02 MECHANICAL CONNECTORS

- A. All grounding connectors shall be in accordance with UL 467 and UL listed for use with rods, conductors, reinforcing bars, etc., as appropriate.
- B. Connectors and devices used in the grounding systems shall be fabricated of copper or bronze materials, and properly applied for their intended use. All connectors and devices shall be compatible with the surfaces being bonded and shall not cause galvanic corrosion by dissimilar metals.
- C. Lugs: Substantial construction, of cast copper or bronze with "ground" (micro-flat) surfaces, twin clamp, and two-hole tongue equal to Burndy QQA Series.
- D. Grounding and Bonding Bushings: Malleable iron.
 - 1. Manufacturers:
 - a. Thomas & Betts
 - b. Engineer approved equal.
- E. Piping Clamps: Burndy GAR-TC Series with a two-hole compression terminal.
- F. Grounding Screw and Pigtail: Raco #983.
- G. Building Structural Steel: Thompson #701 Series heavy duty bronze "C" clamp with two-bolt vise-grip cable clamp or equal.
- H. Mechanical lugs or wire terminals shall be used to bond ground wires together or to junction boxes and panel cabinets.

2.03 WIRE

- A. Material: Stranded copper.
- B. Size to meet NFPA 70 requirements as a minimum. Increase size if called for on drawings or in these specifications.
- C. Insulated THWN (or bare as noted elsewhere).

2.04 GROUNDING WELL COMPONENTS

- A. Well: 12"x12"x12" Eritech inspection well, Quazite box, or engineer approved equal.
- B. Well Cover: Bolt attachment, skid resistant with "GROUND" embossed on cover, suitable for designated traffic rating. Verify with engineer.
- C. Material: Polymer concrete with a minimum 10,000lb. load rating.
- D. Increase depth or size as required to provide proper access at installed location.

2.05 GROUNDING ENHANCEMENT MATERIAL

- A. Erico #GEM25A or engineer approved equal.
- B. Product shall meet IEC 62561-7.

PART 3 EXECUTION

3.01 GENERAL

- A. Install products in accordance with manufacturer's instructions.

- B. Install grounding electrodes conductor, bonding conductors, ground rods, etc. with all required accessories.
- C. Grounding shall meet (or exceed as required to meet these specifications) all the requirements of the N.E.C., the NFPA, and applicable standards of IEEE.
- D. Where there is a conflict between these specifications and the above applicable codes/standards or between this section of these specifications and other sections, then the most stringent or excessive requirement shall govern. Where there is an omission of a code/standard requirement in these specifications then the current code/standard requirements shall comply.
- E. Requirement in these specifications to comply with a specific code/standard article, etc. is not to be construed as deleting of requirements of other applicable codes/standards and their articles, etc.

3.02 GROUNDING ELECTRODES

- A. All connections shall be exothermic welded unless otherwise noted herein. All connections above grade and in accessible locations may be by exothermic clamping with devices UL listed as suitable for use except in locations where exothermic welding is specifically specified in these specifications or called for on drawings.
- B. Each rod shall be die stamped with identification of manufacturer and rod length.
- C. Install rod electrodes at locations indicated and/or as called for in these specifications.
- D. Ground Resistance:
 - 1. Resistance to ground of all non-current carrying metal parts shall not exceed 3 ohms measured at memorial sculpture, equipment racks, fixtures and other equipment.
 - 2. Resistance called for above shall be maximum resistance of each ground electrode prior to connection to grounding electrode conductor. Where ground electrode system being measured consists of two or more ground rod electrodes then the resistance specified above shall be the maximum resistance with two or more rods connected together but not connected to the grounding electrode conductor.
- E. Install additional rod electrodes as required to achieve specified resistance to ground (specified ground resistance is for each ground rod location prior to connection to ground electrode conductor).
 - 1. Provide grounding well with cover at each rod location. Install grounding well top flush with finished grade.
 - 2. Verify that final backfill and compaction has been completed before driving rod electrodes.
 - 3. Install ground rods not less than one foot (1') below grade level and not less than two feet (2') from structure foundation.

3.03 GROUNDING ELECTRODE CONDUCTOR

- A. Conductor shall be sized to meet or exceed the requirements of NEC 250 to meet these specifications and/or drawings.

3.04 GROUNDING CONDUCTORS

- A. Grounding conductors shall be provided with every circuit to meet (or exceed as required to meet these specifications and/or drawings) the requirements of NEC 250.
- B. At every voltage level, new portions of the electrical power distribution system shall be grounded with a dedicated copper conductor, which extends from termination back to power source in supply panelboard.
- C. Provide separate, insulated (bare if with feeder in PVC conduit outside of building) conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug.
- D. Except as otherwise indicated, each feeder raceway on the load side of the service entrance shall contain a ground conductor sized as indicated and where not shown shall be sized to meet (or exceed as required) these specifications and/or drawings the requirements of NEC 250. The conductor shall be connected to the equipment grounding bus in panelboards, and as

specified to lighting fixtures and other types of equipment and outlets. The ground shall be in addition to the metallic raceway and shall be properly connected thereto, using a lug device located within each item enclosure at the point of electric power connections to permit convenient inspection.

- E. Provide green insulated ground wire for all receptacles and for equipment of all voltages. In addition to grounding strap connection to metallic outlet boxes, a supplemental grounding wire and screw equal to Raco No. 983 shall be provided to connect receptacle ground terminal to the box.

3.05 EXTERIOR GRADE MOUNTED EQUIPMENT

- A. General:
 - 1. All equipment mounted exterior to building shall have their enclosures grounded directly to a grounding electrode at the equipment location in addition to the building equipment ground connection.
 - 2. Bond each equipment enclosure, metal rack support, mounting channels, etc. to ground electrode system at each rack with an insulated copper ground conductor sized to match the grounding electrode conductor required by applicable table in NEC 250 based on equipment feeder size, but in no case shall conductor be smaller than #6 copper or larger than #2 copper. This connection is in addition to grounding electrode connections required for services.
- B. Electrical Equipment Connection Rack Mounted Equipment: Bond all metal parts as noted above.
- C. Grounding Electrodes (Ground Electrodes System) shall be located at each rack location.
- D. Equipment Connection: Two or more ten foot (10') ground rods at no less than 30 foot spacing, driven vertical to a minimum depth of one foot (1') below grade. Bond the two or more ground rods together with a size to meet applicable table in NEC 250, but no less than a #2 copper ground conductor. Provide additional rod electrodes as required to achieve specified ground resistance.
- E. Complete installation shall exceed the minimum requirements of NEC 250 and, when applicable, NFPA 78.

3.06 LIGHT FIXTURES

- A. All new and removed/reinstalled fixtures shall be provided with green grounding conductor, solidly connected to unit. Individual fixture grounds shall be with lug to fixture body, generally located at point of electrical connection to the fixture unit.
- B. Pole Light Fixtures:
 - 1. Metal Pole Light Fixtures:
 - a. Freestanding pole mounted lighting fixtures shall each have a Class I or Class II lightning protection main copper down conductor connected to grounding electrodes at base of pole.
 - b. Conductor shall be bonded to metal pole via UL Listed ground clamp suitable for use. Locate ground lug opposite to hand hole (or adjacent if visible through hand hole).
 - 2. Grounding Electrodes:
 - a. Two or more ten foot (10') ground rods at no less than ten foot (10') spacing shall be driven vertically to a minimum depth of ten foot' plus one foot below grade.
 - b. Bond the two or more ground rod electrodes together with a Class I or Class II lightning protection main copper conductor.
 - c. Provide additional rod electrodes as required to achieve specified ground resistance.
 - d. The two or more grounding rod electrodes shall be installed at each light pole.
- C. Installation shall exceed minimum requirements of NFPA 780.

3.07 MISCELLANEOUS GROUNDING CONNECTIONS

- A. Provide bonding to meet regulatory requirements.

- B. Required connections to memorial sculpture steel shall be bolted to steel in locations where weld will affect the structural properties of the steel.
- C. Grounding conductors shall be so installed as to permit shortest and most direct path from equipment to ground; be installed in conduit; be bonded to conduit at both ends when conduit is metal; have connections accessible for inspection; and made with accepted solderless connectors brazed or bolted to the equipment or to be grounded; in NO case be a current carrying conductor; have a green jacket unless it is bare copper; be run in conduit with power and branch circuit conductors. The main grounding electrode conductor shall be exothermically welded to ground rods, water pipe, and building steel.
- D. All surfaces to which grounding connections are made shall be thoroughly cleaned to maximum conductive condition immediately before connections are made thereto. Metal rust proofing shall be removed at grounding contact surfaces, for 0 ohms by digital Vm. Exposed bare metal at the termination point shall be painted.
- E. All ground connections that are buried or in otherwise inaccessible locations, shall be welded exothermically. The weld shall provide a connection which shall not corrode or loosen and which shall be equal or larger in size than the conductors joined together. The connection shall have the same current carrying capacity as the largest conductor.
- F. Install ground bushings on all metal conduits entering enclosures where the continuity of grounding is broken between the conduit and enclosure (i.e. metal conduit stub-up into a motor control center enclosure or at ground bus bar). Provide an appropriately sized bond jumper from the ground bushing to the respective equipment ground bus or ground bus bar.
- G. Install ground bushings on all metal conduits where the continuity of grounding is broken between the conduit and the electrical distribution system (i.e. metal conduit stub-up from wall outlet box to ceiling space. Provide an appropriately sized bond jumper from the ground bushing to the respective equipment ground bus or ground bus bar.
- H. Bond all metal parts of pole light fixtures to ground rod at base.
- I. Bond together reinforcing steel and metal accessories in memorial sculpture structures.
- J. Where reinforced concrete is utilized for building grounding system, proper reinforced bonding shall be provided to secure low resistance to earth with "thermite" type devices, and #10AWG wire ties shall be provided to not less than ten full length rebars that contact the connected rebar.

3.08 GROUNDING BAR INSTALLATION

- A. Where indicated on the drawings, provide and install grounding bar/ground bus (bus bar). These bus installations are intended to provide a low-impedance "Earthing" path for surge voltages, which are electrically "clamped" and shunted to earth by variable-impedance surge protective devices. Metal sheaths of underground cables are also to be grounded thereto at points of building entrance.
- B. Mount bolt tapping lugs with hex head bolts to bus bar at two inch (2") on center spacing, one for each ground conductor.
- C. Mount bus bar to wall using two inch (2") polyester molded insulator stand-off.

3.09 TESTING AND REPORTS

- A. Raceway Continuity: Metallic raceway system as a component of the facilities ground system shall be tested for electrical continuity. Resistance to ground throughout the system shall not exceed specified limits.
- B. Ground resistance measurements shall be made on each system utilized in the project. The ground resistance measurements shall include building structural steel, driven grounding system, water pipe grounding system and other accepted systems as may be applicable. Ground resistance measurements shall be made in normally dry weather, not less than 24 hours after rainfall, and with the ground under test isolated from other grounds and equipment. Resistances measured shall not exceed specified limits.

- C. Upon completion of testing, the testing conditions and results shall be certified by the electrical contractor and submitted to the engineer.

3.10 INTERFACE WITH OTHER PRODUCTS

- A. Interface with communications system installed under other specification sections.

3.11 FIELD QUALITY CONTROL

- A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.
- B. Use suitable test instrument with current certificate of calibration to measure resistance to ground of system. Perform testing in accordance with test instrument manufacturer's recommendations using the fall-of-potential method or signal injection method.

END OF SECTION

SECTION 26 05 29

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Product requirements
- B. Formed steel channel
- C. Indoor housekeeping pads
- D. Outdoor housekeeping pads
- E. Sleeves

1.02 REFERENCES

- A. NECA Standard of Installation (National Electrical Contractors Association)
- B. NFPA 70 - National Electrical Code

1.03 SUBMITTALS

- A. Product Data: Provide manufacturers catalog data for fastening systems.
- B. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of products.

1.04 REGULATORY REQUIREMENTS

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2 PRODUCTS

2.01 PRODUCT REQUIREMENTS

- A. Materials and Finishes:
 - 1. Corrosion resistant.
 - 2. Select materials, sizes, and types of anchors, fasteners and supports to carry the loads of equipment and conduit, including weight of wire in conduit.
- B. Anchors and Fasteners:
 - 1. Concrete Structural Elements: Use expansion anchors and preset inserts.
 - 2. Steel Structural Elements: Use beam clamps and welded fasteners.
 - 3. Concrete Surfaces: Use self-drilling anchors and expansion anchors.
 - 4. Hollow Masonry, Plaster, and Gypsum Board Partitions: Use toggle bolts and hollow wall fasteners.
 - 5. Solid Masonry Walls: Use expansion anchors and preset inserts.
 - 6. Sheet Metal: Use sheet metal screws.
 - 7. Wood Elements: Use wood screws.

2.02 FORMED STEEL CHANNEL

- A. Manufacturers:
 - 1. Globe Strut
 - 2. Uni-Strut
 - 3. Kindorf
 - 4. Power-Strut
 - 5. Erico
 - 6. Engineer approved equal.
- B. Description: Galvanized steel.
- C. Provide aluminum supports and hangers in pool area and pool equipment room.

2.03 OUTDOOR HOUSEKEEPING PADS

- A. This contractor shall provide and install concrete pads under all electrical equipment installed outdoors. The pads shall be as detailed on the drawings unless indicated otherwise. This contractor shall install pads under all utility company supplied and installed transformers. The pad dimensions shall be detailed on the drawings unless indicated otherwise.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install products in accordance with manufacturer's instructions and utility company regulations where applicable.
- B. Provide anchors, fasteners and supports in accordance with NECA "Standard of Installation".
 - 1. Do not fasten supports to pipes, ducts, mechanical equipment, or conduit.
 - 2. Do not use spring steel clips and clamps.
 - 3. Do not use powder-actuated anchors.
 - 4. Do not drill or cut structural members.
- C. Fabricate supports from structural steel or formed steel members or steel channel. Rigidly weld members or use hexagon-head bolts to present neat appearance with adequate strength and rigidity. Use spring lock washers under all nuts.
- D. Reinforce outdoor concrete pads with 1/2 inch steel reinforcing bars on 12 inch centers or as shown on the drawings.
- E. All pathways and hangers shall be independently hung.
- F. All pathways shall be routed overhead unless otherwise noted or approved by engineer.

END OF SECTION

SECTION 26 05 33
RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Conduit requirements
- B. Conduit types
- C. Box types

1.02 REFERENCES

- A. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated
- B. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated
- C. ANSI C80.5 - Rigid Aluminum Conduit
- D. ANSI/NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies
- E. ANSI/NFPA 70 - National Electrical Code
- F. NEMA 250 - Enclosures for Electric Equipment
- G. NEMA WD 6 - Wiring Device Configurations
- H. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit
- I. NECA (National Electrical Contractor's Association) Standard of Installation
- J. NEMA WD 6 - Wiring Device Configurations
- K. NEMA OS 2 – Nonmetallic Outlet Boxes, Device Boxes, Covers, and Box Supports; National Electrical Manufacturers Association; 2013 (ANSI/NEMA OS2)
- L. UL 514C- Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers; Current Edition, Including All Revisions

1.03 PROJECT RECORD DOCUMENTS

- A. Accurately record actual routing of conduits larger than two inches.
- B. Record actual locations and mounting heights of outlet, pull, and junction boxes on project record documents.

1.04 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

1.05 SUBMITTALS

- A. Product Data: Provide dimensions, knockout sizes and locations, materials, fabrication details, finishes, and accessories.
- B. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

1.06 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to the site.
- B. Accept products on site. Inspect for damage.

- C. Protect products from corrosion and entrance of debris by storing above grade. Provide appropriate covering.

1.08 PROJECT CONDITIONS

- A. Verify that field measurements are as shown on the drawings.
- B. Verify routing and termination locations of conduit prior to rough in.
- C. Conduit routing is shown on the drawings in approximate locations unless dimensioned. Route as required completing the wiring system.

PART 2 PRODUCTS

2.01 CONDUIT REQUIREMENTS

- A. Minimum Size: 3/4 inch for power wiring and 1 inch for low voltage wiring unless noted otherwise.
- B. Size conduit per ANSI/NFPA 70.
- C. Underground Installations:
 - 1. Within Five Feet (5') from Foundation Wall Including Below Building Slab: Use rigid steel conduit or schedule 40 PVC conduit.
 - 2. More Than Five Feet (5') from Foundation Wall: Use rigid steel conduit or schedule 40 PVC conduit.
 - 3. Where PVC conduit is utilized below slab, provide transition from PVC to rigid steel prior to elbow up and then as continuous rigid conduit through slab. No PVC conduits shall penetrate vertically through concrete slab.
 - 4. Minimum Size: One inch.
 - 5. Provide warning tape.
- D. Above Grade Outdoor Locations: Use rigid steel and aluminum conduit. Aluminum conduit shall not contact concrete mortar or block.
- E. Above Grade In or Under Slab:
 - 1. Use rigid steel conduit or schedule 40 PVC conduit.
 - 2. Maximum Size Conduit in Slab: Total of 50% of pour depth.
 - 3. Minimum Size: One inch.
 - 4. Where PVC conduit is utilized below slab, provide transition from PVC to rigid steel prior to elbow up and then as continuous rigid conduit through slab. No PVC conduits shall penetrate vertically through concrete slab. Unless PVC conduit is stalled below bottom-fed ground mounted equipment. PVC conduits may penetrate the slab as long as a box-out is provided in the slab to allow for conduit to pass through. Backfill box-out with pea gravel once conduits have been installed.
- F. Wet and Damp Locations:
 - 1. Use rigid steel conduit and intermediate metal conduit.
- G. Dry Locations:
 - 1. Concealed: Use rigid steel conduit, intermediate metal conduit or electrical metallic tubing.
 - 2. Exposed: Use rigid steel conduit, intermediate metal conduit or electrical metallic tubing.

2.02 CONDUIT TYPES

- A. Metal Conduit:
 - 1. Rigid Steel Conduit: ANSI C80.1
 - 2. Rigid Aluminum Conduit: ANSI C80.5
 - 3. Intermediate Metal Conduit (IMC): Rigid steel
 - 4. Fittings and Conduit Bodies: ANSI/NEMA FB 1; material to match conduit.
- B. Liquidtight Flexible Metal Conduit:
 - 1. Description: Interlocked steel construction with PVC jacket.
 - 2. Fittings: ANSI/NEMA FB 1.
- C. Electrical Polyvinyl Chloride (PVC):

1. Description: Synthetic Thermoplastic
 2. Fittings: NEMA TC3/UL 651
 3. Joints: ASTM D2855 solvent weld with ASTM D2564 solvent cement.
- D. Electrical Metallic Tubing (EMT):
1. Description: ANSI C80.3; galvanized tubing.
 2. Fittings and Conduit Bodies: ANSI/NEMA FB 1; steel compression type with steel lock nut, and ring or steel setscrew fittings.
- E. Fittings and Conduit Bodies:
1. NEMA TC 3
 2. Install offsets at surface boxes.
 3. Install single hole strap connectors on all exposed conduit one inch (1") and smaller.

2.03 BOX TYPES

- A. General Requirements:
1. Do not use boxes and associated accessories for applications other than as permitted by NFPA 70 and product listing.
 2. Provide all boxes, fittings, supports, and accessories required for a complete raceway system and to accommodate devices and equipment to be installed.
 3. Provide a low voltage partition divider plate for applications where low voltage and line voltage circuits share the same outlet box.
- B. Cast Boxes: NEMA FB 1, type #FD, cast alloy. Provide gasket cover by box manufacturer.
- C. Pull and Junction Boxes:
1. Sheet Metal Boxes: NEMA OS 1 galvanized steel.
 2. Surface Mounted Cast Metal Box: NEMA 250, type #4 and #6, flat-flanged, surface mounted junction box:
 - a. Material: Galvanized cast iron.
 3. Cover: Furnish with ground flange, neoprene gasket and stainless steel cover screws.
 4. Fiberglass Hand Holes:
 - a. Die molded fiberglass hand holes.
 - b. Cable Entrance: Precut 6" x 6" cable entrance at center bottom of each side.
 - c. Cover: Fiberglass weatherproof cover with nonskid finish and light traffic rating.

PART 3 EXECUTION

3.01 CONDUIT INSTALLATION

- A. Install conduit in accordance with NECA "Standard of Installation."
- B. Arrange supports to prevent misalignment during wiring installation.
- C. Support conduit using coated steel, malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
- D. Group related conduit support using conduit rack. Construct rack using steel channel and provide space on each for 25% additional conduits.
- E. Fasten conduit supports to building structure and surfaces.
- F. Do not support conduit with perforated pipe straps. Remove wire used for temporary supports.
- G. Do not use spring steel clips and clamps for support.
- H. Install compression type fittings in all wet and damp areas.
- I. Do not attach conduit to ceiling support wires.
- J. Arrange conduit to present neat appearance.
- K. Route the conduit in and under slab from point-to-point.
- L. Do not cross conduits in slab.
- M. Maintain adequate clearance between conduit and piping.

- N. Maintain 12 inch clearance between conduit and surfaces with temperatures exceeding 104 degree F.
- O. Cut conduit square using saw or pipe cutter; de-burr cut ends.
- P. Bring conduit to shoulder of fittings; fasten securely.
- Q. Use conduit hubs to fasten conduit to cast boxes.
- R. A run of conduit shall not contain more than the equivalent of four (4) quarter bends (360 degrees), including those bends located immediately at the outlet or body. Use conduit bodies to make sharp changes in direction (as around beams). Use hydraulic one-shot bender to fabricate bends in metal conduit larger than two inch (2") size. All conduit shall be held right to structure.
- S. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
- T. Provide suitable fittings to accommodate expansion and deflection where conduit crosses control and expansion joints.
- U. Provide suitable pull string in each empty conduit except sleeves and nipples.
- V. Use suitable caps to protect installed conduit against entrance of dirt and moisture.
- W. Ground and bond all conduits.
- X. Identify conduit.
- Y. Use flexible and liquidtight conduits where required by NEC
- Z. Install insulated bushings on all conduits and sleeves serving low voltage wiring prior to pulling wire unless otherwise noted.
- AA. Install grounded insulated bushings on all conduits and sleeves serving data wiring prior to pulling wire unless otherwise noted.
- AB. All low voltage conduits shall be sized to have less than 40% fill. Each penetration through a surface of any kind shall have a conduit sleeve with insulated bushings.
- AC. Junction boxes shall not be installed over four foot (4') above accessible ceiling without prior written approval by owner.
- AD. Minimum bend radius for communications conduits:
 - 1. For conduits 2" or less, maintain a minimum bend radius of (6) times the actual inside diameter of the conduit.
 - 2. For conduits greater than 2", maintain a minimum bend radius of (10) times the actual inside diameter of the conduit.
- AE. Communications conduits shall have no more than two (2) 90 degree bends between pull points and contain no continuous sections longer than 100 feet. Insert pull points or pull boxes for conduits exceeding 100 feet in length.
 - 1. A third bend is acceptable if:
 - a. The total run is not longer than (33) feet.
 - b. The conduit size is increased to the next trade size.
- AF. No continuous section of conduit may exceed 100 feet. Utilize pull boxes as necessary. Refer to the pull box execution section for more information.
- AG. All wiring in the same conduit shall be from the same source and have the same voltage except where approved by the owner.
- AH. For conduit installed in precast concrete walls or floors, it shall be acceptable to utilize Schedule 40 PVC conduit in lieu of EMT.

3.02 BOX INSTALLATION

- A. Install boxes in accordance with NECA "Standard of Installation."
- B. Install electrical boxes in locations as shown on the drawings and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.

- C. Set wall mounted boxes at elevations to accommodate mounting heights as indicated.
- D. Electrical boxes are shown on the drawings in approximate locations unless dimensioned. Adjust box location up to ten foot (10') if required to accommodate intended purpose. Verify with architectural drawings and elevations for additional information.
- E. Orient boxes to accommodate wiring device orientation.
- F. Maintain headroom and present neat mechanical appearance.
- G. Do not fasten boxes to ceiling support wires.
- H. Support boxes independently of conduit.
- I. Use cast outlet box in exterior locations exposed to the weather and wet locations.
- J. Large Pull Boxes: Use set screw enclosure in interior dry locations, surface-mounted cast metal box in other locations.
- K. Use stamped steel bridges to fasten flush mounting outlet box between studs.
- L. All floor mounted device locations shall have a dimensioned drawing from the Architect prior to installation.

3.03 PULLBOXES

- A. Size communications cabling pull boxes according to the following:

Conduit Trade Size	Width	Length	Depth	Width Increase for Additional Conduit
1"	4"	16"	3"	2"
1-1/4"	6"	20"	3"	3"
1-1/2"	8"	28"	4"	4"
2"	8"	36"	4"	5"
2-1/2"	10"	42"	5"	6"
3"	12"	48"	5"	6"
4"	16"	60"	8"	6"

- B. Directional changes within a pullbox shall not be allowed. Conduit entering the box shall have conduit leaving the box from the opposite side. Do not use a pull box to make 90 degree turns.
- C. Install pullboxes in conveniently accessible locations.
- D. Where identified on drawings as lockable, key all pullboxes the same.
- E. Label all pull boxes. Handwritten labels shall not be accepted.

3.04 INTERFACE WITH OTHER PRODUCTS

- A. Coordinate installation of outlet and junction boxes for equipment connection.

3.05 ADJUSTING

- A. Adjust flush-mounting outlets to make front flush with finished wall material.
- B. Install knockout closures in unused box openings.
- C. Adjust floor box flush with finish flooring material.

3.06 CLEANING

- A. Clean interior of boxes to remove dust, debris, and other material.
- B. Clean exposed surfaces and restore finish.

END OF SECTION

SECTION 26 05 53
IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Nameplates and labels
- B. Wire markers
- C. Conduit markers
- D. Underground warning tape
- E. Tracer wires
- F. Identification

1.02 REFERENCES

- A. NFPA 70 - National Electrical Code
- B. NFPA 70E - Standard for Electrical Safety in the Workplace

1.03 SUBMITTALS

- A. Product Data: Provide catalog data for nameplates, labels and markers.
- B. Samples: Submit two nameplates 4" x 4" in size illustrating materials and engraving quality.
- C. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

1.04 REGULATORY REQUIREMENTS

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2 PRODUCTS

2.01 NAMEPLATES AND LABELS

- A. Labels: Embossed adhesive tape with 3/16 inch white letters on black background. Use only for identification of individual wall switches and receptacles, control device stations, and communication outlets.

2.02 WIRE MARKERS

- A. Description: Tape feeders to indicate phases.
- B. Locations: Each conductor at panelboard gutters, pull boxes, outlet and junction boxes, and each load connection.
- C. Legend:
 - 1. Power and Lighting Circuits: Branch circuit or feeder number indicated.
 - 2. Control Circuits: Control wire number indicated on schematic and interconnection diagrams.

2.03 UNDERGROUND WARNING TAPE

- A. Manufacturers:
 - 1. Seaton
 - 2. Engineer approved equal.
- B. Description: Plastic four inch (4") wide tape, detectable type, colored RED with suitable warning legend describing buried electrical lines and inscribed "CAUTION - ELECTRIC LINE BURIED BELOW".
- C. Location: Along length of each underground conduit.

2.04 TRACER WIRES

- A. The electrical contractor shall provide a solid #10 AWG Tracer wire in each below grade conduit serving the electrical and communication systems. Tracer wires shall be labeled at each location of accessibility.

2.05 IDENTIFICATION

- A. Identify All Junction Boxes With Appropriate Marker As Follows:
 - 1. 208 Volt System: Black (circuit name and number)
- B. Write the circuit number of each device inside the device box (not ON the device cover). All receptacles and light switches (new and existing) shall have the final circuit number installed on each device cover with a nylon label. Coordinate exact requirements with the owner prior to installation.
- C. Label all outlets and switches with an adhesive label identifying panel and circuit the device is energized by.

PART 3 EXECUTION

3.01 PREPARATION

- A. Degrease and clean surfaces to receive nameplates and labels.

3.02 INSTALLATION

- A. Install label parallel to equipment lines.
- B. Identify underground conduits or wiring using one underground warning tape per trench at three inch (3") below finished grade.

END OF SECTION

SECTION 26 09 43
DIGITAL LIGHTING CONTROL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Digital graphic wall stations
- B. Digital daylighting sensors
- C. Digital room controllers
- D. SmartPORT module
- E. Low voltage cables
- F. Wall face plates

1.02 RELATED SECTIONS

- A. Specification Section 26 0533 - Raceway and Boxes for Electrical Systems
- B. Specification Section 26 2726 - Wiring Devices
- C. Specification Section 26 5600 - Exterior Lighting

1.03 REFERENCES

- A. NECA - Standard of Installation
- B. NEMA WD 1 - General Requirements for Wiring Devices
- C. NEMA WD 6 - Dimensional Requirements for Wiring Devices
- D. NFPA 70 - National Electrical Code
- E. UL 916 - Energy Management Equipment
- F. UL 924 - Standard for Emergency Lighting and Power Equipment

1.04 SUBMITTALS

- A. Product Data: Provide catalog data for nameplates, installation instructions, labels and markers, ratings, configurations, standard wiring diagrams, dimensions, colors, service condition requirements, and installed features.
- B. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- C. Shop Drawings:
 - 1. Composite wiring and/or schematic diagram of each control circuit as proposed to be installed.
 - 2. Show exact location of all digital devices, including at minimum sensors, load controllers, and switches for each area on reflected ceiling plans.
 - 3. Provide room/area details including products and sequence of operation for each room or area. Illustrate typical acceptable room/area connection topologies and proof that the sensor is suitable for the proposed application.
 - 4. Network riser diagram including floor and building level details. Include network cable specification and end-of-line termination details, if required. Illustrate points of connection to integrated systems. Coordinate integration with mechanical and/or other trades.
 - 5. Product information sheets for all components and wiring provided. Include standard options for each product and color offerings.
 - 6. Submit manufacturer sensor coverage patterns applicable to this project. For areas requiring multiple sensor devices for appropriate coverage, submit specific manufacturer approved sensor layout as an overlay directly on the project drawings
- D. Closeout Submittals:
 - 1. Project Record Documents: Record actual installed locations and settings for lighting control devices.

2. Operation and Maintenance Manual:
 - a. Include approved Shop Drawings and Product Data.
 - b. Include Sequence of Operation, identifying operation for each room or space.
 - c. Include manufacturer's maintenance information.
 - d. Operation and Maintenance Data: Include detailed information on device programming and setup.
 - e. Include startup and test reports.
3. Provide list of Extra Materials for owner to verify and sign for acknowledgement of receiving

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum five years' experience.
- B. All room control devices and panels shall be provided with a five-year limited manufacturer's warranty, including one for one device replacement.

1.06 REGULATORY REQUIREMENTS

- A. Digital Lighting Management System shall accommodate the square-footage coverage requirements for each area controlled, utilizing room controllers, digital occupancy sensors, switches, daylighting sensors and accessories that suit the required lighting and electrical system parameters.
- B. Conform to requirements of NFPA 70.
- C. Provide products listed and classified by Underwriters Laboratories, Inc., as suitable for the purpose specified and indicated.
- D. System shall comply with FCC emission standards specified in part 15, sub-part J for commercial and residential application.

1.07 APPROVED MANUFACTURERS

- A. All equipment specified in this specification shall be manufactured by one of the below listed companies unless specified elsewhere. Model numbers stated in this specification are for basis of design information only.
 1. Digital Lighting Control Systems:
 - a. Hubbell Control Solutions - NX Series (Basis of Design)
 - b. Lutron
 - c. Crestron
 - d. Acuity Brands
 - e. Leviton
 - f. Wattstopper
 - g. Engineer approved equals.

1.08 SYSTEM TYPE

- A. System shall be wired.

PART 2 PRODUCTS

2.01 DIGITAL DAYLIGHTING SENSORS

- A. Refer to drawings for schedule with basis of design information.
- B. Devices shall provide automatic switching, bi-level, or tri-level or dimming daylight harvesting capabilities for any load type connected to the controller or panel and include the following features:
 1. Switching photo sensors shall provide a field-selectable dead band, or a separation, between the "ON Setpoint" and the "OFF Setpoint" that will prevent the lights from cycling excessively after they turn off.
 2. Dimming photo sensors shall provide the option, when the daylight contribution is sufficient, of turning lights off or dimming lights to a field-selectable minimum level.

3. Photo sensors shall have a digital, independently configurable fade rate for both increasing and decreasing light level in units of percent per second
 4. Photo sensors shall provide adjustable cut-off time. Cut-off time is defined by the number of selected minutes the load is at the minimum output before the load turns off. Selectable range between 0-240 minutes including option to never cut-off.
 5. All parameter data programmed into an individual occupancy sensor shall be retained in non-volatile FLASH memory within the sensor itself. Memory shall have an expected life of no less than 10 years.
 6. Provide accessories to accommodate multiple mounting methods and building materials. Photo sensors may be mounted on a ceiling tile, skylight light well, suspended lighting fixture or backbox.
 7. Any load or group of loads in the room may be assigned to a daylighting zone controlled by photo sensor.
- C. Closed loop sensors shall measure the ambient light in the space and control a single lighting zone and include the following features:
1. An internal photodiode that measures light in a 100-degree angle, cutting off the unwanted light from bright sources outside of this cone.
 2. Automatic self-calibration, initiated from the photo sensor, a wireless configuration tool or a PC with appropriate software.
 3. Automatic creation of application-specific setpoints following self-calibration. For switching operation, an adequate dead band between the ON and OFF setpoints shall prevent the lights from cycling; for dimming operation a sliding setpoint control algorithm with separate Day and Night setpoints shall prevent abrupt ramping of loads.
- D. Open loop sensors shall measure incoming daylight in the space and capable of controlling multiple lighting zones and include the following features:
1. An internal photodiode that measures light in a 60-degree angle (cutting off the unwanted light from the interior of the room).
 2. Automatic creation of application-specific setpoints following manual calibration using a wireless configuration tool or a PC with appropriate software. For switching operation, an adequate dead band between the ON and OFF setpoints for each zone shall prevent the lights from cycling; for dimming operation, a proportional control algorithm shall maintain the design lighting level in each zone.
 3. Each of the three discrete daylight zones can include any non-overlapping group of loads in the room.

2.02 DIGITAL ROOM CONTROLLERS

- A. Digital controllers for lighting zones and fixtures that automatically bind room loads to the connected control devices in the space without commissioning or the use of any tools. Provide controllers to match the room lighting and plug load control requirements.
- B. Devices shall automatically configure the room to the most energy-efficient sequence of operation based upon the devices in the room.
- C. Self-configuring, digitally addressable one, two or three relay plenum-rated controllers for on/off or selected dimming control.
 1. Basis of Design: Hubbell Control Solutions - NX Room Controller
 2. Controller shall match the room lighting sequence and control type requirements.
 3. Dual voltage (120/277 VAC, 60 Hz) capable rated for 20A total load
 4. Wire per manufacturer's recommendations.
 5. Based on individual configuration, each load shall be capable of the following behavior on power up following the loss of normal power: Turn on to 100 percent, turn off, turn on to last level.
 6. Dimming room controllers shall have options for 0-10 volt or line voltage forward phase control dimming outputs and integral current monitoring capabilities.
 7. Devices shall have a minimum of two RJ-45 local network ports.

8. All parameter data programmed into an individual occupancy sensor shall be retained in non-volatile FLASH memory within the sensor itself. Memory shall have an expected life of no less than 10 years.
9. Room controller shall be capable of being programmed through Bluetooth technology via a free app and via a local area connection.

2.03 SMARTPORT MODULE

- A. Where needed, provide the NXSP SmartPORT Module.
- B. Each SmartPORT module shall have four RJ-45 SmartPORTs for connection of digital wall switch stations, occupancy sensors, and photocells to the networked system.
- C. Devices connected to the SmartPORT module shall be network visible and configurable to operate with panels and room controllers via the web browser user interface.

2.04 LOW VOLTAGE CABLES

- A. Field-Terminated
 1. Digital room devices shall connect to the local network using field-terminated cables, which provide both data and power to room devices.
 2. Cable shall be plenum rated Cat 5e with RJ-45 connectors. Maximum cable run, and cable ratings shall meet manufacturer's requirements.
 3. Each field-terminated cable shall be tested following installation and testing results submitted to the Manufacturer's Representative for approval prior to proceeding with the work.
 4. Low voltage wiring topology must comply with manufacturer's specifications.
 5. Installing contractor shall meet all qualifications discussed in section 27 1005 -Telecommunications Cabling Infrastructure.

2.05 WALL FACE PLATES PROVIDED BY LIGHTING CONTROLS MANUFACTURER

- A. Cover Plate:
 1. Basis of Design: Pass & Seymour #SS (Metal), to be confirmed by architect.
 2. Provide cover plate for all devices and provide multiple gang plates where required.
- B. Jumbo Cover Plate:
 1. Basis of Design: Pass & Seymour #SSO (Metal) to be confirmed by architect.
 2. Provide cover plate for all devices and provide multiple gang plates where required.
 3. Provide jumbo plates on masonry rough-in. Verify with architect prior to work being performed.

PART 3 EXECUTION

3.01 SAMPLES

- A. Upon request, electrical contractor is to provide a sample of any device specified in any available color.

3.02 COLOR

- A. All colors of devices, flanges, and faceplates shall be determined during the submittal process by the Architect. In the electrical bid, include any allowances needed to allow for selection of all cataloged colors.

3.03 EXAMINATION

- A. Verify that boxes are installed at proper height.
- B. Verify that wall openings are neatly cut and will be completely covered by wall plates.
- C. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

3.04 PREPARATION

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean debris from outlet boxes.

3.05 INSTALLATION

- A. Install in accordance with NECA "Standard of Installation."
- B. Install devices plumb and level.
- C. Low voltage wiring topology must comply with manufacturer's specifications
- D. All line voltage connections shall be tagged to indicate circuit and switched legs.
- E. Install wall plates on switches in finished areas.
- F. Test all devices to ensure proper communication.
- G. All Class II cabling shall enter enclosures from within low-voltage wiring areas and shall remain within those areas. No Class I conductors shall enter a low-voltage area.
- H. Run separate neutrals for any phase dimmed branch load circuit. Different types of dimming loads shall have separate neutral.
- I. Furnish the Company's system which accommodates the square-footage coverage requirements for each area controlled, utilizing room controllers, daylighting sensors and accessories which suit the lighting and electrical system parameters.
- J. Digital controllers for lighting shall automatically bind the room loads to the connected devices in the space without commissioning or the use of any tools. Room controllers shall be provided to match the room lighting control requirements.
- K. Devices shall have status notification that indicates: data transmission, device power, load status and configuration status.
- L. Each load shall be capable of the following behavior on power up following the loss of normal power: turn on to 100%, turn off, turn on to last level.
- M. All devices installed above ceilings shall be UL 2043 plenum rated.
- N. All digital parameter data programmed into an individual room controller or plug load controller shall be retained in non-volatile FLASH memory within the controller itself. Memory shall have an expected life of no less than 10 years.
- O. Network signal integrity on low-voltage cables require that each conductor and ground wire be correctly terminated at every connected device.
- P. All low voltage cabling routed exposed in common and public areas shall be installed in EMT conduit. Coordinate final conduit routings with the Architect in the field during installation. Conduit installation shall meet all requirements listed in Section 26 0533 - Raceway and Boxes for Electrical Systems.

3.06 INTERFACE WITH OTHER PRODUCTS

- A. Coordinate locations of outlet boxes provided under Specification Section 26 0533 - Raceway and Boxes for Electrical Systems to obtain mounting heights indicated on the drawings. Before roughing in any floor devices the electrical contractor shall obtain a dimensioned drawing signed by the owner showing device locations.

3.07 OVERSIGHT AND COMMISSIONING

- A. At the start of construction, the contractor shall be responsible for organizing a pre-construction lighting controls meeting with contractor, manufacturer representative, owner, design team. The manufacturer rep shall provide samples of all products for review at this meeting.
- B. Supplier is to give instructions to the electrical contractor for installation locations. Locations, shown on the drawings, are intended to provide device count for bidding. All placement must be per manufacturer's recommendations.
- C. Electrical contractor to install devices per manufacturer's layout. It shall be the responsibility of the contractor to verify that all quantities and device types are appropriate for space.
- D. Supplier is to visit site, calibrate, and verify that the control of each space complies with the Sequence of Operation at substantial completion of building. Coordinate this meeting with project engineer.

- E. Supplier is to visit site and confirm proper operation of all automatic occupancy devices one month after owner occupancy. Supplier shall make modifications and calibrations as needed.
- F. Manufacturer shall provide the owner with one working configuration tool (device or app) with instructions on how to wireless facilitate customization of devices post occupancy.

3.08 FIELD QUALITY CONTROL

- A. Inspect each wiring device for defects.
- B. Operate each wall switch with circuit energized and verify proper operation.
- C. Factory telephone support shall be available at no cost to the Owner following acceptance. Factory assistance shall consist of assistance in solving application issues pertaining to the control equipment.

3.09 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

3.10 CLEANING

- A. Clean exposed surfaces to remove splatters and restore finish.

3.11 CLOSEOUT ACTIVITIES

- A. Training Visit
 - 1. Lighting Control System Manufacturer shall provide (3) 2-hour training sessions on-site for personnel. At 3 months, 6 months, and 1 year from occupancy. The lighting controls representative shall schedule a 2 hour meeting with the owner to review system performance and make system adjustments if needed.
- B. On-site Walkthrough
 - 1. Lighting Control System Manufacturer shall provide a factory certified Field Service Engineer to demonstrate system functionality to the Commissioning Agent.
- C. Owner Occupancy
 - 1. After 30 days from occupancy contractor shall adjust sensor time delays and sensitivities to meet the Owner's requirements. Provide a detailed report to the Owner of post start-up activity.
 - 2. Contractor shall be responsible for resetting self-learning devices that are designed to adapt to the normal use of the area of control. This should happen once the owner has full occupied the space and the areas are under normal occupancy.

END OF SECTION

SECTION 26 27 26
WIRING DEVICES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Duplex receptacles

1.02 RELATED REQUIREMENTS

- A. Specification Section 26 0533 - Raceway and Boxes for Electrical Systems
- B. Specification Section 26 0943 - Digital Lighting Control Systems

1.03 REFERENCE STANDARDS

- A. NECA 1 - Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association; 2010
- B. NEMA WD 1 - General Color Requirements for Wiring Devices; National Electrical Manufacturers Association; 1999 (R 2005)
- C. NEMA WD 6 - Wiring Device -- Dimensional Requirements; National Electrical Manufacturers Association; 2002 (R 2008)
- D. NFPA 70 - National Electrical Code; National Fire Protection Association; 2011
- E. UL Standard 943 - Standard for Safety for Ground-Fault Circuit Interrupters (GFCIs)

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.
- C. Manufacturer's Installation Instructions.
 - 1. Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.
 - 2. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 6000 - Product Requirements, for additional provisions.
 - 2. Extra Wall Plates: One of each style, size, and finish.

1.05 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Products: Provide products listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.
- D. Compliance

PART 2 PRODUCTS

2.01 DUPLEX RECEPTACLES

- A. Description
 - 1. Style: Hard use specification grade
 - 2. Device Body: Impact resistant plastic with impact-resistant nylon face. Auto-grounding strap.
 - 3. Configuration: NEMA WD 6, type as specified and indicated.
 - 4. Rating: Match branch circuit and load characteristics. Default rating is 5-20R, 125V, 20A.
 - 5. Standards: Receptacles comply with NEMA WD 6 and WD 1.

6. Wiring: Back and side wire connections. Accepts #14-#10 AWG solid and stranded copper conductors.
 7. Provide #12 AWG solid pigtails at each device. Splice to building wire within outlet box.
 8. Color: Selected during submittal phase. Provide color chart upon request.
- B. Types
1. Weather-Resistant Receptacles
 - a. Manufacturers:
 - 1) Pass & Seymour #2097TRWR
 - 2) Cooper #WRSGF20
 - 3) Hubbell #GFTWRST20
 - 4) Leviton #GFWT2
 - b. Description: UL listed weather-resistant receptacle.
 - c. Provide weather-resistant receptacles for all receptacles located in wet and damp locations as described in NEC Article 406.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that outlet and switch boxes are installed at proper height.
- B. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

3.02 PREPARATION

- A. Clean debris from outlet and switch boxes prior to device installation.

3.03 INSTALLATION

- A. Install securely, in a neat and workmanlike manner, as specified in NECA 1.
- B. Install devices plumb and level.
- C. Install switches with OFF position down.
- D. Install wall dimmers to achieve full rating specified and indicated after derating for ganging as instructed by manufacturer.
- E. Install receptacles with grounding pole on top.
- F. Connect wiring device grounding terminal to outlet box with bonding jumper.
- G. Install decorative plates on switch, receptacle, and blank outlets in finished areas.
- H. Connect wiring devices by wrapping conductor around screw terminal.
- I. Use oversize plates for outlets installed in masonry walls.
- J. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- K. The feeding of receptacles downstream of GFI receptacles for protection in lieu of providing multiple GFI receptacles is NOT allowed.

3.04 INTERFACE WITH OTHER PRODUCTS

- A. Coordinate locations of outlet boxes provided under Section 26 0533 to obtain mounting heights specified.

3.05 FIELD QUALITY CONTROL

- A. Perform field inspection, testing, and adjusting in accordance with Section 01 4000.
- B. Inspect each wiring device for defects.
- C. Operate each wall switch with circuit energized and verify proper operation.
- D. Verify that each receptacle device is energized.
- E. Test each receptacle device for proper polarity.
- F. Test each GFCI receptacle device for proper operation.

3.06 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

3.07 CLEANING

- A. Clean exposed surfaces to remove splatters and restore finish.

3.08 EXTRA MATERIALS AND LABOR

- A. The electrical contractor shall include in their bid an allowance to install an additional two duplex receptacles including an average 50 feet of raceway, associated wiring, back box and labor, and all accessories required to energize each receptacle requested. Receptacle(s) may be added anytime during the construction process as requested by the owner or design team. Any unused devices shall be turned over to the owner at the final acceptance of building.

END OF SECTION

SECTION 26 41 13
LIGHTNING PROTECTION SYSTEM - PASSIVE

PART 1 GENERAL

1.01 SCOPE

- A. Furnish all labor, materials, and items of service for a complete and unobtrusive lightning protection system approved by the design team, and in strict accordance with the specifications and contract drawings. System shall be as indicated on the drawings and as specified herein. If any departure from the contract drawings covered below is deemed necessary by the contractor, details of such departures and reasons therefore shall be submitted to the design team for approval. No such departures shall be made without the prior written approval of the design team.
- B. All installers shall have 5 years experience with installing UL master labeled and LPI certified systems or of equivalent qualification, as accepted in writing by the engineer of record. A UL/LPI certified installer shall be on the project site at all times during installation of the systems and shall supervise all of the installation. Installer must be willing to provide installation references, with contact information, upon request.

1.02 RELATED SECTIONS

- A. Specification Section 26 0526 - Ground and Bonding for Electrical Systems

1.03 REFERENCE STANDARDS

- A. NECA 1 - Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association; 2010.
- B. NEMA WD 1 - General Color Requirements for Wiring Devices; National Electrical Manufacturers Association; 1999 (R 2005).
- C. NEMA WD 6 - Wiring Device -- Dimensional Requirements; National Electrical Manufacturers Association; 2002 (R 2008).
- D. NFPA 70 - National Electrical Code; National Fire Protection Association; 2011.

1.04 QUALITY ASSURANCE

- A. The system shall conform to the above cited standards. The system furnished shall be the standard product of a single, UL listed manufacturer regularly engaged in the production of lightning protection systems and shall be the manufacturer's latest approved design. The lightning protection system shall be installed by a firm presently engaged in installations of Master Labeled or LPI certified lightning protection systems. The system as completed shall comply with the latest edition of UL96A, Installation Requirements for Lightning Protection Systems, and NFPA-780 "Standard for the Installation of Lightning Protection Systems." The system shall meet all requirements of these standards and the Lightning Protection Institute Standard of Practice LPI-175. All components required for a complete system shall be provided whether or not such materials are specifically addressed by the contract drawings or described herein.

1.05 SUBMITTALS

- A. Complete shop drawings shall be prepared by the manufacturer and submitted to the engineer for approval prior to start of work. System installer shall submit to the design team an original, project specific, notarized certification from the equipment manufacturer verifying their qualifications as a lightning protection installer. Samples and catalog data shall be submitted to the design team for approval upon request.
- B. Shop drawings shall identify all system wiring and component placement for the Engineer to review. The Contractor shall not perform any portion of the Work until the respective submittal has been accepted. All work shall be in accordance with accepted submittals.
- C. Installation details shall be submitted to the Engineer for review indicating the method of cabling connections and attachments starting at the top of the project building to the ground rods at the counterpoise. All details shall be appropriate for the project.

- D. All product data sheets submitted, for proposed system components, shall clearly identify the item being submitted and shall indicate the UL label.
- E. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the acceptance of shop drawings, product data, samples or similar submittals unless the Contractor has specifically informed the Engineer in writing of such deviation at the time of submittal and the Engineer has given written acceptance to the specific deviation.
- F. Provide documentation of UL master label, LPI certification or equivalent qualification of exact installer intended to do this particular job.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Lightning Protection System:
 - 1. ERICO, INC.
 - 2. Engineer approved equals
- B. All equipment used shall be factory inspected, approved, and properly labeled in accordance with LPI and UL requirements. All equipment shall be new, the product of a single manufacturer, and of a design and construction to suit the application where used.

2.02 GENERAL REQUIREMENTS

- A. All materials used for the system installation shall comply in size, composition and weight to all requirements of NFPA U.L. and LPI for the class of system in which they are installed. All materials shall be labeled or listed by Underwriters Laboratories, Inc. for use in master labeled or LPI certified lightning protection systems.
- B. Generally, the external lightning protection system shall be constructed of copper cable and copper compatible components. The internal lightning protection system, starting with the down conductors and concluding at the ground termination system shall be constructed of copper cable and copper compatible components. Likewise, all bonding conductors, equipotential loop conductors, etc, shall also be constructed of compatible cable and components.
- C. All portions of the system, whether copper or aluminum, shall be galvanically compatible to the building material to which they are to be attached. Connections between copper and aluminum OR copper and gold leaf portions of the system shall be made with appropriate bimetallic coupling devices. In all areas, the conductor shall be supported to maintain clearance from all galvanically incompatible materials or shall be of the same material if permitted within these specifications.
- D. All system components shall be, to the maximum extent possible, the product of a single manufacturer. All components shall be Class I or II as required by NFPA 780 or as noted. All air terminal bases shall be securely mounted to the building structure by means of mechanical fasteners. Adhesive type air terminal bases are acceptable only where hard setting epoxy adhesive is utilized, where mechanical fastening is prohibited by the roofing manufacturer and where acceptable to the code authority having jurisdiction. Submit shop drawings for all proposed air terminal mounting details.
- E. System installation at vertical surfaces and into grade shall be fully concealed. Items which aren't able to be concealed shall be noted in the shop drawing layout and discussed with the design team to determine an alternate routing.

2.03 EQUIPMENT

- A. Air Terminals
 - 1. Air Terminals shall be copper as required to match the system to which they attach. Air terminals shall protrude a minimum of 10 inches above the object to be protected. Center terminals shall be 24" high. Air terminal points shall be blunt with the radius of curvature equal to the rod diameter.
 - 2. Each air terminal shall be equipped with the correct type of base for the location in which it is mounted.

B. Conductors

1. Main conductors shall be copper unless otherwise specified or required and shall provide a two-way path from each air terminal horizontally or downward to connections with down conductors. Conductors shall be free of excessive splices and bends. No bend of a conductor shall form an included angle of less than 90 degrees nor have a radius of bend of less than 8 inches. Conductors shall be secured to the structure at intervals not exceeding 3 feet with approved fasteners. Cables connected to "thru-roof" connectors may rise from the roof to the connector at a maximum slope of 3 inches per foot, not exceeding 3 feet horizontally in air.
2. Down conductors shall be copper and shall be concealed in the structural columns. Where run in or on reinforced concrete columns, bond down conductor to the re-bar at top and bottom of column. Down conductors shall be spaced at intervals averaging not more than 100 feet around the perimeter of the structure. If project structure is of structural steel frame construction, down conductors may be omitted and conductors shall be connected to the structural steel frame at intervals averaging not more than 100 feet around the perimeter of the structure. Connections to the steel frame shall be made with heavy duty bonding plates having 8 square inches of contact surface or with exothermic welds.
3. Submit all conductor types in shop drawings. Each conductor shall be identified as to location in the lightning protection system.

C. Common Grounding

1. Common grounding of all ground mediums within the project building shall be made by interconnecting with main size conductors, fittings as required or exothermic welds.
2. Bonding: Grounded metal bodies located within the required bonding distance (as determined by the bonding distance formulas in NFPA 780) shall be bonded to the system using bonding conductors and fittings. Bond to rebar utilizing exothermic weld connections.

D. Ground Terminations

1. One ground termination shall be provided for each down conductor and shall consist of (1) 3/4" inch x 10 foot copper-clad ground rod. Each down conductor shall be connected to the ground rod by an exothermic weld connection. Tops of ground rods shall be located 2 feet below finished grade and two feet (2') from the foundation wall and shall extend a minimum of 10 feet vertically into the earth. Where a counterpoise is provided, rods shall be interconnected with the counterpoise.
2. Where the structural steel framework is utilized as the down conductor for the system, every other perimeter steel column shall be grounded but no more than 60 feet apart. Steel columns shall be grounded using bonding plates having 8 square inches of surface contact area or with exothermic welds. Conductors from the steel column connections to the ground terminations shall be full size copper lightning conductors.

E. Fasteners

1. Conductor fasteners shall be manufactured of a material which is compatible with the type of conductor being supported. Fasteners shall be of sufficient strength to properly support each conductor or terminal base, etc.

2.04 COUNTERPOISE CONDUCTOR

- A. Where indicated on the drawings or required by NFPA 780, the structure shall be provided with a below-grade continuous counterpoise conductor, equal in size to the largest conductor in the lightning protection system, or sized as indicated on the drawing. This conductor shall be installed at a minimum depth of two feet below finished grade and a minimum of two feet from the exterior foundation wall of the building. The counterpoise conductor shall be copper and extend continuously around the entire perimeter of the sculpture. All joints and connections shall be exothermically welded.
- B. As a minimum, the counterpoise conductor shall be connected to each of the following system components utilizing appropriate exothermic welds:
 1. Each down conductor or steel column ground.

2. All metallic fence posts, safety railings, etc., or any other metallic item within ten feet of the project building.

PART 3 EXECUTION

3.01 INSTALLATION OF CONDUCTORS

- A. Conductors shall be installed to interconnect all air terminals to the system of grounding electrodes, and in general provide a minimum of at least 2 paths to ground from any air terminal on the system. Conductors shall provide a horizontal or downward path between the system air terminals and grounding electrode system.
- B. Conductors shall be routed in such a manner that maximum concealment from public view is achieved. Down conductors may be installed in one-inch PVC conduit from roof to grade.
- C. Counterpoise conductors shall be installed after finished grades are established to insure specified depth and to minimize the possibility of damage. Any counterpoise conductor which is cut or damaged shall be repaired or replaced with no additional cost to the contract.
- D. All connections between conductors below grade shall be exothermically welded. Improper application of weld shall be replaced at no additional cost to the contract.

3.02 INSTALLATION OF GROUND RODS

- A. Ground rods shall be installed vertically at each down conductor position at a minimum of 2 feet from the building foundation wall. Inspection and documentation at each grounded location, weld, depth of counterpoise, etc., shall be made prior to backfill. Contractor shall notify engineer in writing to request inspection of underground work and for L.P.I. inspection before backfill. Allow a minimum of one week for engineer to make the inspection after notification from contractor.
- B. Provide prefabricated test and inspection wells for all ground rods installed in paved or concrete areas.

3.03 BONDING OF SECONDARY METALLIC BODIES

- A. Structure Grounding: Provision shall be made at the roof level on reinforced concrete structures for bonding between the roof or down conductors, metallic elements of the roof system and metallic exterior wall systems.
- B. All down conductors run in concrete columns shall be bonded to the reinforcing steel at the top and the bottom of the column.

3.04 GENERAL WORKMANSHIP

- A. All elements of the Lightning Protection System shall be installed in a professional and workmanlike manner consistent with the best industry practices.
- B. All system components shall be concealed to the maximum extent possible to preserve the aesthetic appearance of the project building on which the system is installed.

3.05 COORDINATION WITH OTHER TRADES

- A. Coordination: The Contractor shall coordinate their work with all trades, to insure the use of proper materials and procedures in and around the roof in order not to jeopardize the roofing warranty.
- B. Where fasteners are to be embedded in masonry or the structural system, they shall be coordinated to insure installation at the proper time of construction.
- C. Upon completion of the installation the Contractor shall provide to the owner the Master Label issued by Underwriters Laboratories, Inc. for the installation, and the LPI certification issued by LPI.

END OF SECTION

SECTION 26 56 00
EXTERIOR LIGHTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Luminaries and accessories
- B. LED drivers
- C. Light emitting diodes (LEDs)
- D. Precast pole base
- E. Metal poles

1.02 REFERENCES

- A. IES RP-8-14 - Recommended Practice for Roadway Lighting
- B. IES RP-20-14 - Recommended Practice for Lighting for Parking Facilities
- C. IES RP-33-14 - Recommended Practice for Lighting for Exterior Environments
- D. NFPA 70 - National Electrical Code
- E. ANSI C78.377 - SSL Chromaticity Specification
- F. NEMA SSL 3-2011 - High-Power White LED Binning for General Illumination
- G. IES LM-79-08 - Electrical and Photometric Measurements of Solid-State Lighting Products
- H. IES LM-80-08 - Approved Method for Lumen Maintenance Testing of LED Light Sources
- I. IES TM-21-11 - Projecting Long Term Lumen Maintenance of LED Light Sources
- J. IES LM-82-12 - Characterization of LED Light Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature.
- K. IES TM-15-11 - Luminaire Classification System for Outdoor Luminaires (BUG ratings)
- L. NFPA 101 - Life Safety Code

1.03 TERMS AND DEFINITIONS

- A. ANCHOR BASE - Base plate used to anchor poles to pole footing.
- B. ANNODIZED - Electro-chemical process that produces a very strong oxide coating on the surface of the pole. This coating shall be very resistant to scratches and corrosion.
- C. ANTI-GRAFFITI - A coating applied to the finished pole that allows easy removal of painted graffiti. Graffiti shall be able to be removed with manufacturer approved solvents without harming manufacturer's paint finish.
- D. BUG RATING - Backlight, Uplight, Glare. Replaces the old system of cut-off, semi-cut-off and not cut-off.
- E. EPA - Effective Projected Area of a luminaire which is its actual projected area times its coefficient of drag.
- F. GROUNDING PROVISION - A drilled and tapped hole located near the hand hole to allow attachment of the ground connection and grounding wire.
- G. MOUNTING HEIGHT - The height measured from finished grade level to the position of the luminaire on the pole.
- H. POWDERCOAT PAINT - An electrostatically applied powder paint that is then oven cured on to the pole.

1.04 SUBMITTALS

- A. Shop Drawings: Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.
- B. Product Data: Provide dimensions, ratings, and performance data.

- C. Test Reports: Submit LM-79 test reports and/or DLC paperwork as required for rebates
- D. Submit manufacturer's installation instructions. Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.
- E. Provide maintenance data for each luminaire.
- F. Provide additional light fixture components including driver cutsheets with each fixture.
- G. All lighting submittals must be on Local Authorized Manufacturer Representative's letterhead and contain Project Name and Location.

1.05 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70 and NFPA 101.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.
- D. Electrical Contractor shall be responsible for all costs associated with the installation of the pole footing and the footing itself in their bid. Coordinate means and methods and actual coordinate locations with contractor and design team prior to commencing work.

1.06 REGULATORY REQUIREMENTS

- A. Conform to requirements of NFPA 70 and NFPA 101.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.
- C. Provide products with specified ingress protection (IP) ratings where required.
- D. Provide products with specified impact resistance (IK) ratings where required.
- E. Provide poles with shaft size and thickness to account for current AASHTO wind map ratings for the project location. Coordinate with manufacturer's EPA rating for all devices attached to pole.
- F. Products with Light Emitting Diodes:
 - 1. Fixtures shall comply with LM-79-08: Electrical and Photometric Measurements of Solid-State Lighting Products.
 - 2. Exterior fixture diode arrays shall maintain +/- 500 K color temperature range through the life of the fixture and utilize 70+ CRI sources.
 - 3. Diode arrays shall be wired so that if one diode fails, at least 90% of the remaining diodes will operate.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle solid wood poles in accordance with ANSI O5.1.
- B. Protect luminaire finishes, lenses and trims from damage during storage and installation. Do not remove protective films until construction cleanup within each area is complete.
- C. Protective materials on poles while in storage shall not result in any permanent marks on the paint finish of the poles. Manufacturer shall fully instruct contractor as to required storage and acceptable temperature extremes for the packing materials.
- D. All metal poles shall be fully protected from moisture and corrosion prior to installation. Touch up paint in the field will not be accepted.

1.08 COORDINATION

- A. Furnish bolt templates and pole mounting accessories to installer of pole foundations prior to pole ship date.

- B. Contractor shall review site conditions and geotechnical reports prior to installing any pole footings. Alert design team if poor soil conditions or subgrade obstructions are encountered during installation.

PART 2 PRODUCTS

2.01 LUMINAIRES AND ACCESSORIES

- A. See schedule on drawings.
- B. No fiberglass poles will be permitted.
- C. Listed for wet or damp location as scheduled.
- D. Meet required and listed IP ratings.
- E. Provide low temperature (-20deg F) LED drivers.

2.02 LED DRIVERS:

- A. Manufacturers must be in business a minimum of (5) years.
- B. Drivers shall be provided with light emitting diodes as a modular replaceable system. The system shall be fully designed and tested for operation throughout warranted period.
- C. Driver shall be Underwriters Laboratories (UL) listed, Class 2 Outdoor recognized.
- D. Driver shall be suitable for wet locations.
- E. Driver shall operate from -20 to 60 deg C.
- F. Refer to fixture schedule on drawings for additional requirements.
- G. Driver shall operate from 50 to 60 Hz input source of 120 V, 208 V, 240V, 277 V and/or 480 V, as required in plans, with sustained variations of +/-10% (voltage and frequency) with no damage to the driver.
- H. Driver output shall be regulated to +/- 5% across published load range.
- I. Driver shall have an "A" sound rating.
- J. Driver shall have a power factor greater than 0.9.
- K. Driver input current shall have Total Harmonic Distortion (THD) of less than +/-20% at all operating voltages.
- L. Driver shall tolerate sustained open circuit and short circuit output conditions without damage and without need for external fuses or trip devices.
- M. Driver shall carry a five-year warranty from the date of manufacture against defects in material or workmanship, including replacement for operation at a maximum case temperature of 90 deg
- N. Driver shall have an efficiency greater than or equal to 85%.
- O. Driver shall comply with Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 15, Non-consumer (Class A) for EMI/RFI (conductive and radiated).
- P. Driver shall not contain any Polychlorinated Biphenyl (PCB).

2.03 LIGHT EMITTING DIODES (LEDs):

- A. Manufacturers must be in business a minimum of (5) years.
- B. Light Emitting Diodes shall be provided with a driver as a modular replaceable system. The system shall be fully designed and tested for operation throughout warranted period.
- C. Diode arrays shall maintain +/-100K color temperature through the life of the fixture.
- D. Diodes shall have a minimum color rendering index of 70.
- E. Diodes shall be photometrically tested for compliance with IESNA LM-80-08, with projections calculated in accordance with IESNA TM-21-11.
- F. Diode arrays shall maintain a minimum 70% lumen output through an average operating life of 50,000 hours.
- G. Diodes and associated printed circuit boards shall be RoHS compliant.

- H. Refer to Lighting Fixture Schedule for color temperature requirements.

2.04 PRECAST POLE BASE

- A. Provide engineered shop drawing for pole base for approval.
- B. Coordinate bolt pattern and special requirements with light fixture and light pole.
- C. Pole base is to have three foot (3') exposed above grade when not protected by a curb. Pole base is to have six inch (6") exposed above grade when protected by a curb. Refer to pole base detail on the electrical drawings for more information.
- D. Top of base is to have beveled canted edge.
- E. Pole color or aggregate finish is to be determined by architect during submittal phase.
- F. Bottom of base shall be located below frost line at each location installed. Refer to the drawings for additional information regarding light pole base dimensions and details.
- G. Pole base shall be painted by the general contractor. Final color selection shall be chosen by the design team.

2.05 METAL POLES

- A. Refer to fixture schedule for specific metal pole requirements.
- B. Aluminum Poles
 - 1. Pole Shaft: The shaft shall be constructed of seamless extruded tube of or Aluminum Alloy 6063 (square shafts) per the requirements of ASTM B221 of sufficient nominal thickness to meet the design requirements without the use of internal reinforcing sleeves. No longitudinal shaft welds shall be allowed. The shaft shall be full-length heat treated after welding to produce a T6 temper in round shafts and a T5 temper in square shafts. The heat-treating oven used shall be certified to meet the requirements of ASTM B597 and Mil-H-6088 specifications. An aluminum pole cap utilizing stainless steel attaching screws will be provided when required.
 - 2. Base Plate: The 4-Bolt base flange for attachment to the foundation or to the transformer base shall be of cast Aluminum Alloy 356-T6. Base flange shall be joined to pole shaft by means of complete circumferential welds; externally at the top of flange and internally at bottom of shaft tube. Four anchor bolt covers of cast Aluminum Alloy 356-F with stainless steel hex head attaching screws shall be provided
 - 3. Anchor Bolts: Anchor bolts shall be fabricated from commercial quality hot rolled carbon steel bar that meets or exceeds a minimum yield strength of 55,000 psi. Four properly sized anchor bolts, each with two regular hex nuts and washers, shall be furnished and shipped with all poles unless otherwise specified. Anchor bolts shall have the threaded end galvanized a minimum of eight inches (8") in accordance with ASTM A-153.
 - 4. Handhole: Poles shall feature a 4" x 6-1/2" handhole with curved lap style aluminum door and two (2) stainless steel self-tapping attaching screws. A grounding provision incorporating a tapped 1/4"-20NC hole shall be provided opposite the handhole
 - 5. Finishes: The Standard finish shall be a polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils.
 - 6. Structure: Poles shall be designed for luminaire size and suitable for AASHTO wind charts for the project location.
 - 7. Vibration dampeners: All poles over 12' tall shall have an internal vibration dampener. The dampener shall include a rubberized coating to prevent excessive metal-on-metal noise during high wind events.

PART 3 EXECUTION

3.01 FINISHES

- A. Pole shafts shall be satin ground, chemically etched, sanded or shot blasted to ensure proper powder coat surface adhesion. To ensure that the prepared parts are kept clean and not exposed to dirt, dust, grease or oil and to ensure maximum powder coat adhesion, the product shall proceed continuously and immediately to the powder coating process within the same facility where the poles and arms are manufactured.

- B. Powder coating material shall be a thermosetting polyester powder. A minimum coating thickness of 3.0 mils shall be maintained for aluminum and steel poles.
- C. Steel poles shall receive an additional internal rust inhibitor prior to receiving the final finish coat (required when 5-year warranty is specified).
- D. The powder coating system shall employ a powder recovery system utilizing closed loop quick-change technology to achieve efficient and contamination free color changes. The powder shall be applied only when both the ambient and part temperatures are 50 degrees F. or above. Once powder coated, the product shall proceed through a curing oven operating at 400 degrees Fahrenheit that has been surveyed and certified for temperature uniformity. The product shall move continuously through the oven from beginning to end and shall attain the appropriate time at temperature to cure the finish in accordance with the paint manufacturer's recommendations. Once oven cured, the product shall move immediately to and continuously through a forced air cooling tunnel designed to restore the product to acceptable packaging temperature prior to inspection and packaging. Upon exiting the cooling tunnel the product shall be immediately inspected and packaged.

3.02 INSTALLATION

- A. Provide concrete bases for lighting poles at locations indicated.
- B. Install poles plumb and provide double nuts to adjust plumb. Grout around each base.
- C. Install lamps in each luminaire.
- D. Bond luminaires metal accessories and metal poles to branch circuit equipment grounding conductor. Provide supplementary grounding electrode at each pole.
- E. Grout between pole and concrete base. Grout color to match pole base.
- F. Refer to specification section 26 0943 for lighting controls requirements.
- G. Operate each luminaire after installation and connection. Inspect for improper connections and operation.

3.03 WARRANTIES

- A. Light Fixtures
 - 1. Light fixture manufacturer shall warranty LED array, and all associated components for a period of 5-years from date of shipment which shall include full replacement of any failed components. Labor shall be reimbursed to the contractor on a pro-rated basis.
- B. Poles
 - 1. Steel poles shall be warrantied to be free of defects in material and workmanship for a period of one (1) year from the date of shipment.
 - 2. Aluminum poles shall carry a lifetime warranty to be free of defects in material and workmanship and free from corrosion.
- C. Paint Finishes
 - 1. Factory applied powder coated finishes shall be warranted against cracking, peeling or excessive fading due to normal climatic exposure for a period of five (5) years from the date of shipment. Damage to the finish coating caused by mechanical abuse, such as rough handling during installation or vandalism, is not covered by these warranties.
- D. All warranties shall remain as an agreement between the installing contractor and the manufacturer. No third parties shall be involved with warranty repairs or replacements of installed products without the written consent of the installing contractor and the owner or their representative.
- E. Labor for warranty repairs shall be billed by the contractor directly to the manufacturer or distributor during the duration of the labor warranty on the originally installed products. Labor work required on warrantied parts, but outside of the 1-year labor warranty shall be the responsibility of the owner.

3.04 ADJUSTING AND CLEANING

- A. Clean lighting fixtures of dirt and debris upon completion of installation.
- B. Clean all electrical parts to remove conductive and deleterious materials.
- C. Remove dirt and debris from enclosure.
- D. Clean photometric control surfaces as recommended by manufacturer.
- E. Clean finishes and touch up damage.
- F. Any adjustment to aiming of the light fixtures in the field shall be completed in the presence of the lighting designer, contractor and architect.
- G. Lighting Designer and Contractor shall come to a mutual agreement on a specific date and time- after sunset, at which all of the fixtures can be aimed. All materials and labor necessary for the final aiming and adjusting of these fixtures shall be included in the Contractor's base bid and shall not warrant a change order or additional expense to the owner.

END OF SECTION

**SECTION 31 1000
SITE CLEARING**

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements and existing features.
6. Disconnecting, capping or sealing site utilities.

1.02 MATERIAL OWNERSHIP

- A. Except for stripped topsoil and other materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.03 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.

- C. During site clearing, contact the Architect, Engineer, and Owner should any contaminated soils or foreign fills be encountered.

- D. Utility Locator Service: Notify Iowa One Call forty-eight (48) hours prior to site clearing.

- E. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

- F. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.
2. Parking vehicles or equipment.
3. Foot traffic.
4. Erection of sheds or structures.
5. Impoundment of water.
6. Excavation or other digging unless otherwise indicated.
7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

- G. Geotechnical Report and Soil Borings: Terracon has performed soil borings in the area and the contractor shall refer to these reports prior to bidding and beginning construction.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Division 31 Section "Earth Moving."
 - 1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.
- B. Unsuitable Soil Material: Any material which is considered foreign fill materials, Contractor shall notify the Architect, Owner and Geotechnical Engineer prior to proceeding with remediation, over excavation or replacement with suitable material. Should unsuitable material or suspected unsuitable material be encountered, contractor shall contact Owner, Architect, and Geotechnical Engineer for confirmation of removal, disposal, and haul in of suitable material.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly identify trees, shrubs, and other vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner. Damage outside of the work limits shall be repaired at the contractor's expense.

3.02 TREE AND PLANT PROTECTION

- A. General: Protect trees and plants remaining on-site.
- B. The contractor shall remove trees within construction limits or as specified on the plans.
- C. Erect and maintain temporary fencing around trees to remain before starting site clearing. Install mulch around tree for protection during construction. Remove fence when construction is complete.
- D. Repair or replace trees, shrubs, and other vegetation indicated to remain that are damaged by construction operations, in a manner approved by Engineer.

3.03 EXISTING UTILITIES

- A. Existing utilities have been identified on the drawings from available surveys, records and deeds. Therefore, their locations must be considered approximate only. There may be others, the existence of which is presently not known. It is the contractor's responsibility to verify the location and depth of these utilities.
- B. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
 - 1. Arrange with utility companies to shut off indicated utilities.
- C. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 - 2. Notify Architect not less than two days in advance of proposed utility interruptions from contaminated soils.
 - 3. Do not proceed with utility interruptions without Owner's written permission.
- D. Removal of underground utilities is included in Division 22 Sections.

3.04 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, logs, downed timber, hedge rows, brush, field fence, agricultural products, rubbish, vegetation, and other objectionable materials to permit installation of new construction.
 - 1. Grind down stumps and remove roots, obstructions, and debris to a depth of 18 inches (450 mm) below exposed subgrade.
 - 2. Use only hand methods for grubbing within protection zones.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 - 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches (200 mm), and compact each layer to a density equal to adjacent original ground.
- C. Disposal: Material from clearing and grubbing may be removed according to Iowa Code 335 and must meet local ordinances.
 - 1. Process by chipping logs, downed timber, or brush for mulching material; or salvage logs and downed timber for firewood.
 - 2. Other vegetation, including corn stubble may be disked into the existing soil if approved by the Engineer.
 - 3. Haul vegetative materials from clearing and grubbing that are not handled on the project to a yard waste disposal site.
 - 4. Remove field fence and other non-vegetative materials from the project.

3.05 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil. Mow all weeds, grass, and growing crops or other herbaceous vegetation close to the ground and remove from the site. Shred sod by shallow plowing or blading and thorough disking. Thoroughly shred to allow the soil to be easily spread in a thin layer over areas to be covered. If allowed by the Engineer, herbicides may be applied, and vegetation may be incorporated into the topsoil.
- B. Strip topsoil to a minimum depth of eight (8) inches in a manner to prevent intermingling with underlying subsoil or other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water. Place silt fence around all stockpiles to prevent sediment from running offsite.
- D. Refer to Section 312000 "Earth Moving" for topsoil spreading.

3.06 SITE IMPROVEMENTS

- A. Remove existing above and below grade improvements as indicated and necessary to facilitate new construction per the plans.
- B. Pavement Removal
 - 1. Cut surface pavement to full depth as required in straight lines, and at designated removal lines.
 - 2. Remove all items without damage to adjacent property, trees, utilities, or pavement that are to remain in place.
 - 3. Salvage and stockpile all items removed if indicated on the plans.
 - 4. Grind or saw existing curbs at locations specified in the contract documents to install pavement, curb & gutter and sidewalks.
 - 5. Remove all pavement materials.
 - a. If specified in the contract documents or allowed by the Engineer, process for re-use.
 - b. Dispose of excess material as follows:

- 1) Use as unsuitable soil according to Section 312000.
 - 2) If specified in the contract documents, deliver and stockpile at a site designated by the Engineer.
 - 3) Otherwise, properly dispose of off-site in accordance with local, state, and federal guidelines.
6. Remove pavement material broken or damaged by the Contractor beyond designated removal lines to new line designated by the Architect or Owner, and replaced at the Contractor's expense.
 7. Protect subgrade beneath existing pavement removal areas.
- 3.07 DISPOSAL OF SURPLUS, UNSUITABLE, AND WASTE MATERIALS
- A. Remove surplus soil material, unsuitable topsoil, obstructions, unsuitable soil, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.
 - B. During site clearing, contact the Architect, Engineer, and Owner should any foreign fills be encountered. Foreign fill shall be disposed of properly with local, state, and federal regulations. Proper soil mitigation shall be utilized in these areas at the direction of the Geotechnical Engineer.

END OF SECTION

SECTION 31 20 00
EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Preparing subgrades for slabs-on-grade, walks, pavements, lawn grasses, and plants.
2. Subbase course for concrete pavements
3. Excavating, bedding material, and backfilling for utility trenches.
4. Stripping, stockpiling, and placing Topsoil

1.2 DEFINITIONS

A. Backfill: Soil material used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

D. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

E. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.

F. Fill: Soil materials used to raise existing grades

G. RAP: Recycled Asphalt Pavement

H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

I. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.

J. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

K. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

L. Unsuitable Materials: Any soils with contaminants, rubble, buried foundations, or materials deemed to not be suitable or native fill materials by the Owner and Geotechnical Engineer.

1.3 PROJECT CONDITIONS

- A. Utility Locator Service: Notify Iowa One Call forty-eight (48) hours prior to beginning earth moving operations.
- B. Conflict Avoidance:
 - 1. Expose possible conflicts in advance of construction, such as utility lines and drainage structures. Verify elevations and locations of each and verify clearance for proposed construction.
 - 2. Complete other elements of the work which can affect line and grade in advance of other open cut construction unless noted on plans.
- C. Stop Work: Stop work and notify Architect, Engineer, and Owner immediately if contaminated soils, foreign fill materials, historical artifacts, or other environmentally hazardous or historic items are encountered. Contaminated soils or soils with foreign fill may require additional soil mitigations at the direction of the Geotechnical Engineer.
- D. Conform to Local, State, and Federal requirements.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: All grading shall be completed with soil that is present on the existing site as much as possible.
- B. Topsoil: Use suitable topsoil of uniform quality, free from hard clods, roots, sod, stiff clay, hard pan, stones larger than 1 inch (1/2 inch for turfgrass seeding), lime cement, ash, slag, concrete, tar residue, tarred paper, boards, chips, sticks, or any undesirable material. Use on-site topsoil, unless compost-amended or off-site topsoil is specified.
 - 1. On-site Topsoil: On-site topsoil material is material excavated from the top 12 inches of the site. Use of on-site topsoil material is subject to the Engineer's approval.
 - 2. Compost-amended On-site Topsoil: Amend low-quality on-site topsoil, not meeting the requirements specified for off-site topsoil, with a minimum of 1 inch of compost for every 3 inches of topsoil. Use compost meeting the following requirements:
 - a. Derived from a well-decomposed source of organic matter.
 - b. Produced using an aerobic composting process, meeting Code of Federal Regulations (CFR) 503 for time, temperature, and heavy metal concentrations.
 - c. No visible admixture of refuse or other physical contaminants, nor any material toxic to plant growth.
 - d. Certified by the U.S. Composting Council's Seal of Testing Assurance (STA) program.
 - e. Conforms to chemical, physical, and biological parameters of AASHTO MP 10-03, with the following additional requirements:
 - 1) Follow U.S. Composting Council's TMECC guidelines for all testing.
 - 2) Organic Matter Content: 30% minimum.
 - 3) pH: between 6.0 and 8.0.
 - 4) Maturity (growth screening): Minimum 90% emergence for all compost to be vegetated.
 - 5) Particle Size:

Sieve Size	Percent Passing*
2"	100

1"	90-100
3/4"	65-100
3/8"	0-75
*6 inch maximum particle length	

3. Off-site Topsoil: Contains at least 3% organic matter, according to ASTM D 2974, has a high degree of fertility, is free of herbicides that prohibit plant growth, has a pH level between 6.0 and 8.0, and meets the following mechanical analysis requirements:

Sieve Size	Percent Passing*
1"	100
1/2"	95*-97*
1/4"	40-60
No. 100	40-60
No. 200	10-30
*100% for turf grass	

C. The Engineer will approve the source of off-site topsoil. Surface soils from ditch bottoms, drained ponds, and eroded areas, or soils that are supporting growth of noxious weeds or other undesirable vegetation, will not be accepted. The Engineer will determine if testing is necessary. The Contractor will be responsible for payment of the testing if the off-site topsoil does not meet the above requirements.

D. Satisfactory Soils: Meet the following requirements:

1. ASTM D2487 soil classification groups CL, CL-ML, SC, GW, GP, GM, SW, SP, SM or a combination of these group symbols
2. Density of 95 pcf or greater according to ASTM D 698 or AASHTO T 99 (Standard Proctor Density)
3. Be free of rock, gravel, or concrete chunks larger than 3 inches in any dimension
4. Be free of debris, waste, frozen materials, vegetation, and other deleterious materials.
5. Have a liquid limit less than or equal to 45 and a plasticity index of less than or equal to 23.
6. Be approved by the Special Inspection Agency.
7. Soils not meeting these requirements are considered unsuitable soils.
8. For soils to be placed below water, use clean granular material.

E. Unsatisfactory Soils:

1. ASTM D2487 soil classification groups CL-CH, GC, MH, CH, OL, OH, PT or a combination of these group symbols.
2. Material encountered during excavation above or below grade that does not meet the suitable soil requirements in this section under "Satisfactory Soils". Should contaminated soils or soils with foreign fill materials be encountered, the contractor shall notify the Architect, Engineer, and Owner. Soil mitigation may be required at the discretion of the Geotechnical Engineer.

3. Contractor shall fill below-grade voids from unsuitable material excavation with satisfactory soils defined below per the cross section defined in the proposed plans.
4. Satisfactory Soils not maintained as follows:
 - a. Cohesive soils: moisture content within a range of -1 to +4 percent of the material's optimum moisture content.
 - b. Cohesionless sands: moisture content within a range of ± 3 percent of optimum moisture content.
5. Rubbish and debris, including trees, stumps, waste construction materials, scrap metals, and other materials that cannot be buried or used for backfill or topsoil.
6. Moisture content does not determine suitability of materials.

F. Select Subgrade Materials

1. All soils required for select subgrade materials must be approved by the Engineer. Approval of materials and their use will be based on AASHTO M 145.
 - a. Cohesive soils must meet all of the following requirements:
 - 1) 45% or less silt size fraction.
 - 2) Density of 110 pcf or greater according to ASTM D 698 or AASHTO T 99 (Standard Proctor Density).
 - 3) Plasticity index greater than 10.
 - 4) A-6 or A-7-6 soils of glacial origin.
 - b. Granular soils must meet all of the following requirements:
 - 1) Density of 110 pcf or greater according to ASTM D 698 or AASHTO T 99 (Standard Proctor Density).
 - 2) 15% or less silt and clay.
 - 3) Plasticity index of 3 or less.
 - 4) A-1, A-2, or A-3 (0).
2. Crushed stone, crushed PCC, crushed composite pavement, or RAP; mixtures of gravel, sand, and soil; or uniformly-blended combinations of the above; as approved by the Engineer.
3. The Engineer may authorize a change in select subgrade materials subject to materials available locally at time of construction.

G. Granular Stabilization Materials:

1. Clean, crushed stone or crushed concrete, with the following gradation:

Sieve Size	Percent Passing*
2 1/2"	100
2"	90-100
1 1/2"	35-70
1"	0-20
1/2"	0-5

2. The Engineer may authorize a change in gradation, subject to materials available locally at time of construction.

H. Subgrade Treatment:

1. Cement: Meet the requirements of AASHTO M 85 for portland cement.
2. Asphalt: Meet the requirements of AASHTO M 140.
3. Fly ash:
 - a. Meet requirements of ASTM C 618 or AASHTO M 295.
 - b. Class C, the pozzolanic activity test with lime will not be required.
 - c. Approval of source required.
4. Lime: Hydrated lime should meet requirements of ASTM C 207, Type N or AASHTO M 216, and others.

Geogrid: Use an integrally-formed grid structure manufactured of a stress-resistant polypropylene material. Use Type 1 geogrid, unless Type 2 is specified. Meet the following minimum physical properties:

Property	Test Method	Units	Type 1 ¹	Type 2
Aperture stability modulus at 20 cm-kG	Kinney ² – 01	cm-kG/deg	3.2	6.5
Minimum true initial modulus in use				
Machine direction (MD)	ASTM	lb/ft	15,080	32,890
Cross Machine direction (CMD)	D 6637-01		20,560	44,725
Tensile strength, 2% strain				
MD	ASTM	lb/ft	270	410
CMD	D 6637-01		380	590
Junction efficiency	ASTM	%	93	93
	D 13388-96			
Flexural rigidity	ASTM	mg-cm	250,000	750,000
	D 1388-96			
Aperture size				
Minimum		in.	0.5	0.5
Maximum		in.	2.0	2.0
¹ Geogrids meeting the requirements of Iowa DOT Article 4196.01, E and Materials I.M. 496.01 will be acceptable.				
² Dr. Thomas C. Kinney, P.E. and US Army Corps of Engineers.				

I. Stabilized Construction Entrance

1. Comply with Iowa DOT Section 4122, Gradation 13, Macadam crushed stone.

J. Subbase Material:

1. Special Backfill shall meet the following requirements:
 - a. Crushed stone, crushed PCC, crushed composite pavement, or reclaimed HMA (Class C Subbase)
 - b. Mixtures of gravel, sand, and soil
 - c. Or uniformly blended combinations of the above meeting the following gradations:

Class A Subbase						
Material	% Passing Standard Sieve Size					
	1 1/2"	1.0"	3/4"	1/2"	8	200
Crushed Stone Crushed PCC Crushed Composite Pavement	100				10-40	0-10
Gravel or Gravel Blends with Crushed Stone, PCC or Composite		100	90-100	75-90	30-55	3-7

Class C Subbase	
IDOT TABLE 4132.02 – 2	
Material	Gradation
Reclaimed HMA	Nominal top size of 2 inches (50 mm)

- d. For gravel mixture do not exceed the following:

IDOT TABLE 4132.03		
Maximum Permissible Amounts of Objectionable Materials	Maximum Percent Allowed	Test Method
Plasticity Index	10	Iowa DOT Materials Laboratory Test Method 109
Carbon	1.0	Iowa DOT Materials Laboratory Test Method 111

2. Granular Subbase (Class B Subbase) shall meet the following requirements:
- Crushed stone
 - Gravels of which 30% or more of the particles retained on the 3/8 inch (9.5 mm) sieve have at least one fractured face as defined in IDOT Materials I.M. 305
 - Crushed PCC pavement meeting the requirements of IDOT Materials I.M. 210
 - Or uniformly blended combinations of the above materials.
 - Crushed Material shall meet the requirements of the following gradation:

Sieve Size	Percent Passing*
------------	------------------

1 1/2"	100
3/8"	40-80
8	5-25
200	0-6

- f. Gravel Material shall meet the requirement of the following gradation:

Sieve Size	Percent Passing*
1 1/2"	100
1/2"	50-80
8	10-30
50	5-15
200	3-7

The following requirements apply to the individual virgin aggregates before combining:

IDOT TABLE 4121.03		
Coarse Aggregate Quality	Maximum Percent Allowed	Test Method
Abrasion	50	AASHTO T 96
Alumina ^(a)	1.5	Iowa DOT Materials Laboratory Test Method 222
A Freeze	25	Iowa DOT Materials Test Laboratory Test Method 211, Method A
^(a) If the Alumina value fails, the A Freeze value shall be determined for specification compliance. Iowa DOT Materials Laboratory Test Method 222 does not apply to gravel.		

K. Engineered Fill:

1. Granular
 - a. Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 12 percent passing a No. 200 (0.075-mm) sieve.
2. Soil
 - a. Low plasticity cohesive or cohesionless soil
 - b. Liquid Limit of 45 or less and Plasticity Index of 23 or less
 - c. Free of rubble and organics

- d. Moisture content of -1 to +4% of optimum moisture

L. Bedding Course:

1. Class I Granular Bedding and Backfill Material
2. Use gravel or crushed stone for granular bedding, complying with the following gradation:

Sieve	Percent Passing
1-1/2"	100
1"	95 to 100
1/2"	25 to 60
No. 4	0 to 10
No. 8	0 to 5

- a. Engineer may allow the use of gravel or authorize a change in gradation subject to materials available locally at time of construction
- b. Engineer may authorize the use of crushed PCC, for pipe sizes up to 12 inches.
- c. Use aggregates having a percentage of wear, Grading A or B, not exceeding 50%, determined according to AASHTO T 96.
3. Class II Backfill Material:
 - a. Class II material is manufactured and non-manufactured open graded (clean) or dense graded (clean) processed aggregate, clean sand, or coarse-grained natural soils (clean) with little or no fines.
 - b. Class II material is non-plastic soil less than 1-1/2 inches in size and consists of the following:

Class	Type	Soil Group Symbol D 2487	Description	1 1/2 in. (40 mm)	No. 4 (4.75 mm)	No. 200 (0.075 mm)	LL	PI	Uniformity C _u	Curvature C _c
II	Course-Grained Soils, clean	GW	Well-graded gravels and gravel-sand mixtures, little or no fines.	100 %	< 50% of "Course Friction"	< 5%	Non Plastic		>4	1 to 3
		GP	Poorly graded gravels and gravel sand mixtures, little or no fines.						>4	<1 or >3
		SW	Well-graded sands and gravelly sands, little or no fines.		> 50% of "Course Friction"				>6	1 to 3
		SP	Poorly graded sands and gravelly sands, little or no fines.						>6	<1 or >3
	Course-Grained Soils, borderline clean to with fines	e.g. GW-GC, SP-SM	Sands and gravels which are borderline between clean and with fines.	100 %	Varies	5% to 12%	Non Plastic		Same as for GW, GP, SW, and SP	

4. Class III Backfill Material

- a. Class III material is natural coarse-grained soils with fines.
- b. Do not use where water condition in trench may cause instability.
- c. Class III material consists of the following:

Class	Type	Soil Group Symbol D 2487	Description	1 ½ in. (40 mm)	No. 4 (4.75 mm)	No. 200 (0.075 mm)	LL	PI	Uniformity C _u	Curvature C _c
III	Course-Grained Soils, with fines	GM	Silty gravels, gravel-sand-silt mixtures.	100%	< 50% of "Course Friction"	12% to 50%	N/A		>4 or <"A" Line	1 to 3
		GC	Clayey gravels, gravel-sand-clay mixtures.						<7 and >"A" Line	<1 or >3
		SM	Silty sands, sand-silt mixtures.		> 50% of "Course Friction"				>4 or <"A" Line	1 to 3
		SC	Clayey sands, sand-clay mixtures.						>7 and >"A" Line	<1 or >3

5. Class IVA Material:

- a. The Engineer will determine if material is not suitable for use as backfill material under deep fills, surface applied wheel loads, heavy vibratory compactors, tampers, or other conditions.
- b. Do not use where water conditions in trench may cause instability.
- c. Material is suitable for use in dry trench conditions only.
- d. Natural fine-grained inorganic soils consists of the following:

Class	Type	Soil Group Symbol D 2487	Description	1 ½ in. (40 mm)	No. 4 (4.75 mm)	No. 200 (0.075 mm)	LL	PI	Uniformity C _u	Curvature C _c
IVA	Fine-Grained Soils (inorganic)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, silts with slight plasticity.	100%	100%	> 50%	<50	<4 or <"A" Line	N/A	N/A
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clay, lean clay					>7 and >"A" Line		

6. Class IVB Material:

- a. When approved by the Engineer, material may be used as final trench backfill in a dry trench.
- b. Do not use in pipe embedment zone.

Natural fine-grained inorganic (high elastic silts and plastic clays – fat clay) with a liquid limit greater than 50% meeting the following:

Class	Type	Soil Group Symbol D 2487	Description	1 ½ in. (40 mm)	No. 4 (4.75 mm)	No. 200 (0.075 mm)	LL	PI	Uniformity C _u	Curvature C _c
IVB	Fine-Grained Soils (inorganic)	MH	Inorganic silts or micaceous or diatomaceous fine sandy or silty soils, elastic silts.	100%	100%	> 50%	>50	<"A" Line	N/A	N/A
		CH	Inorganic clays of high plasticity, fat clays.					>"A" Line		

7. Unsuitable Material: Remove unsuitable materials from the site, including, but not limited to, the following:

- a. Soils not classified as suitable backfill material, as defined in this section.
- b. Rock with gradation not meeting the stated gradation for stabilization material.
- c. Individual stones or concrete chunks larger than 6 inches, and averaging more than one per each cubic foot of soil.
- d. Frozen materials.
- e. Stumps, logs, branches, and brush.

- f. Trash, metal, or construction waste.
 - g. Soil in clumps or clods larger than 6 inches, and without sufficient fine materials to fill voids during placement.
 - h. Environmentally-contaminated soils.
 - i. Materials removed as rock excavation or over-excavation.
8. Special Pipe Embedment and Encasement Material
- a. Concrete Cradle, Arch, or Encasement: Use Iowa DOT Class C concrete.
 - b. Flowable Mortar: Comply with Iowa DOT Article 2506.02
 - c. CLSM:
 - 1) Approximate quantities per cubic yard:
 - a) Cement: 50 pounds
 - b) Fly ash: 250 pounds
 - c) Fine aggregate: 2, 910 pounds
 - d) Water: 60 gallons
 - 2) A compressive strength of at least 50 psi compressive strength at 28 calendar days can be expected.
 - 3) Comply with material requirements of Iowa DOT Article 2506.02

M. Drainage Course:

1. Crushed stone or Processed Gravel shall conform with the following gradation:

Sieve	Percent Passing
3/4"	100
1/2"	95 to 100
3/8"	50 to 100
No. 4	0 to 50
No. 8	0 to 8

2. Pea gravel shall conform with the following gradation (may not be used under pavement):

Sieve	Percent Passing
3/4"	100
1/2"	95 to 100
3/8"	40 to 80
No. 4	0 to 15
No. 8	0 to 7

2.2 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility; colored to comply with local practice or requirements of authorities having jurisdiction.
- B. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches

(150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep; colored to comply with local practice or requirements of authorities having jurisdiction.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.
- D. Remove all ground cover from the area.
- E. All grading around existing buildings to remain shall be shaped in a manner to create positive drainage away from all structures.
- F. Strip topsoil to the depth encountered (1.0'-1.5') below proposed building and pavement slabs and to a minimum of 8" in all other areas.

3.2 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.
- B. Any buried foundation encountered shall be cut and removed to a minimum of 2-feet below the proposed subbase. This work shall be considered extra beyond the base bid and shall be paid for by the unit price listed in the bid documents.

3.3 EXCAVATION AND BACKFILL FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 - 1. Protect existing facilities, trees, and shrubs during trench excavation.
 - 2. Place excavated material away from trench.
 - 3. Grade spoil piles to drain. Do not allow spoil piles to obstruct drainage.
- B. Unsuitable Backfill Material:
 - 1. If unsuitable backfill material or foreign fill is encountered, notify the Architect as well as the Owner prior to remediating, backfilling, or replacing with suitable material.
 - 2. Remove rock, rubbish, boulders, debris, and other unsuitable backfill materials at least 6 inches below and on each side of the pipe.
 - 3. Keep unsuitable backfill material separated from suitable backfill material and topsoil.
 - 4. Restore trench to design dimensions using bedding or stabilization material.
- C. Rock or Unstable Soils in Trench Bottom:
 - 1. Notify the Architect prior to over-excavation.
 - 2. The Engineer will determine the need for over-excavation and trench foundation stabilization prior to installation of pipes and structures.
- D. Trench Protection:
 - 1. Install adequate trench protection (sheeting, shoring, and bracing) to prevent ground movement or damage to adjacent structures, pipelines, and utilities.
 - 2. Move trench boxes carefully to avoid disturbing pipe, bedding, or trench wall.
- E. Dewatering:
 - 1. Maintain water levels below the bottom of trench excavation.

2. Perform the dewatering operation according to the dewatering plan approved by the Engineer. The dewatering plan may be modified to meet actual field conditions, with approval of the Engineer.
3. Ensure operation of the dewatering system does not damage adjoining structures and facilities. Cease dewatering operations and notify the Engineer if damage is observed.
4. Discharged Water:
 - a. Do not discharge water into sanitary sewers.
 - b. Discharging water into storm sewers requires Engineer's approval.
 - c. Obtain permission of adjacent property owner prior to discharging water onto their property.
 - d. Maintain and control water discharge as necessary to prevent a safety hazard for vehicular and pedestrian traffic.
 - e. Direct water discharge away from electrical facilities or equipment.
 - f. Use dewatering equipment that will minimize disturbance from noise and fumes.
 - g. Protect discharge points from erosion. Provide sediment control for sediment contaminated water discharged directly from trench.

F. Pipe Bedding and Backfill:

1. General:
 - a. Comply with Details in the Contract Documents.
 - b. Bedding and backfill used for pipe installation will depend on:
 - 1) Type of installation (water main, sanitary sewer gravity main, sanitary sewer force main, or storm sewer).
 - 2) Pipe material.
 - 3) Depth of bury.
 - 4) Pipe diameter.
 - c. After pipe installation, place remaining bedding material and immediately place backfill in trench.
 - d. Adjust the moisture content of excessively wet, but otherwise suitable, backfill material by spreading, turning, aerating, and otherwise working material as necessary to achieve required moisture range.
 - e. Adjust the moisture content of excessively dry, but otherwise suitable, backfill material by adding water, then turning, mixing, and otherwise blending the water uniformly throughout the material until the required moisture range is achieved.
 - f. Hydraulic compaction (flooding with water) is not allowed unless authorized by the Engineer.
2. Pipe Bedding:
 - a. Granular Material:
 - 1) Class I granular bedding material is required for all gravity mains. Use when specified for pressure pipes.
 - 2) Comply with Details in Contract Documents.
 - 3) Place bedding material in the bottom of the trench in lifts no greater than 9 inches thick. Consolidate and moderately compact bedding material.

- 4) Shape bedding material to evenly support pipe at the proper line and grade, with full contact under the bottom of the pipe. Excavate for pipe bells.
 - 5) Install pipe and system components.
 - 6) Place, consolidate, and moderately compact additional bedding material adjacent to the pipe to a depth equal to 1/6 the outside diameter of the pipe.
 - b. Suitable Backfill Material:
 - 1) Only use with pressure pipe. Comply with Details in Contract Documents.
 - 2) Use suitable backfill material to shape trench bottom to evenly support pipe at the proper line and grade, with full contact under the bottom of the pipe. Excavate for pipe bells.
 - c. Special Pipe Embedment and Encasement Materials:
 - 1) If specified in the contract documents, use concrete, flowable mortar, or CLSM in lieu of other bedding materials.
 - 2) Secure pipe against displacement or flotation prior to placing concrete, flowable mortar, or CLSM.
3. Haunch Support: Place from the top of the pipe bedding to the springline of the pipe.
 - a. Granular Material:
 - 1) Place Class I material in lifts no greater than 9 inches thick.
 - 2) Consolidate and moderately compact by slicing with a shovel or using other approved techniques.
 - b. Suitable Backfill Material:
 - 1) Place in lifts no greater than 9 inches thick.
 - 2) For Class II backfill material, consolidate and moderately compact by slicing with a shovel or using other approved techniques.
 - 3) For Class III and Class IVA backfill materials, compact to at least 90% of Standard Proctor Density. Obtain required compaction within a soil moisture range of optimum moisture to 4% above optimum moisture content.
 - c. Special Pipe Embedment and Encasement Materials:
 - 1) If specified in the contract documents, use concrete, flowable mortar, or CLSM in lieu of other haunch materials.
 - 2) Secure pipe against displacement or flotation prior to placing concrete, flowable mortar, or CLSM.
4. Primary and Secondary Backfill:
 - a. General:
 - 1) For primary backfill, place from the spring line of the pipe to the top of the pipe.
 - 2) For secondary backfill, place from the top of the pipe to 1 foot above the top of the pipe.

- b. Granular Material:
 - 1) Place in lifts no greater than 9 inches thick.
 - 2) Compact to at least 65% relative density.
- c. Suitable Backfill Material:
 - 1) Place in lifts no greater than 9 inches thick.
 - 2) For Class II backfill material, compact to at least 65% relative density.
 - 3) For Class III and Class IVA backfill materials, compact to at least 95% of Standard Proctor Density. Obtain required compaction within a soil moisture range of optimum moisture to 4% above optimum moisture content.
- d. Special Pipe Embedment and Encasement Materials:
 - 1) If specified in the contract documents, use concrete, flowable mortar, or CLSM in lieu of other primary and secondary backfill materials.
 - 2) Secure pipe against displacement or flotation prior to placing concrete, flowable mortar, or CLSM.
- 5. Final Trench Backfill:
 - a. Place suitable backfill material from 1 foot above the top of the pipe to the top of the trench.
 - 1) Use no more than 9-inch-thick lifts for backfill areas more than 3 feet below the bottom of pavement.
 - 2) Use no more than 9-inch-thick lifts for backfill areas less than or equal to 3 feet below the bottom of pavement.
 - b. Place backfill material after recording locations of connections and appurtenances or at the Engineer's direction.
 - c. Class I and Class II Backfill Material:
 - 1) Compact to at least 65% relative density within city right-of-way and under pavements.
 - 2) Compact to at least 50% relative density under vegetative areas.
 - d. Class III and Class IVA Backfill Material:
 - 1) Compact to at least 95% of Standard Proctor Density within city right-of-way and under pavements
 - 2) Compact to at least 90% of Standard Proctor Density under vegetative areas.
 - 3) Obtain required compaction within a soil moisture range of optimum moisture to 4% above optimum moisture content.
 - e. In areas to remain unpaved, terminate backfill material 8 inches below finished grade. Use topsoil for the final 8 inches above trench backfill material.
 - f. Terminate backfill material at subgrade elevation in areas to be paved.
- G. Trenches in Tree and Plant Protection Zones:
 - 1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or

chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.

2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.
3. Cut and protect roots according to requirements in Division 01 Section "Temporary Tree and Plant Protection."

3.4 EXCAVATION AND HAUL OFF OF UNSUITABLE MATERIALS

- A. Contractor shall notify Architect, Owner, and Geotechnical Engineer should unsuitable materials be encountered on-site including but not limited to foreign fill or rubble fill.
- B. All below grade voids created from unsuitable material excavations shall be backfilled with satisfactory material per this specification section per the proposed cross section in the proposed plans.

3.5 SOIL FILL FOR EXTERIOR SLABS ON GRADE

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 1. Under future grass and planted areas, use satisfactory soil material or Topsoil (Soil Classification Group CL-CH).
 2. Under future building, walks, and pavements use satisfactory soil material as outlined in the geotechnical report.

3.6 COMPACTION OF SOIL FILLS

- A. Place fill soil materials in layers not more than 9 inches (200 mm) in loose depth for material compacted by heavy compaction equipment.
- B. Compact soil materials to not less than the following percentages of Standard Proctor Density according to ASTM D 698:
 1. Under future structures, building slabs, steps, and pavements, scarify and recompact top 12 inches (300 mm) of existing subgrade and each layer of backfill or fill soil material as follows:
 - a. 98% Standard Proctor Density for Cohesive Soil (ASTM D698)
 - b. 98% Standard Proctor Density for Cohesionless Soil (ASTM D698)
 - c. 70% Relative Density for Cohesionless Soil (ASTM D4253& D4254) where Standard Proctor technique (ASTM D698) does not result in a definable maximum dry density and optimum moisture content
 2. Under walkways, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill soil material at 98 percent SPD.
 3. Under turf or unpaved areas, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill soil material at 85 percent SPD.
- C. Compact granular soils with vibratory compaction equipment.
- D. Compact cohesive soils with sheepsfoot or pneumatic type compactors.

3.7 SUBGRADE PREPARATION FOR EXTERIOR SLABS-ON-GRADE

- A. Shape and consolidate subgrade in preparation for the placement of pavement and/or building foundations.
- B. Uniform Composition: Provide uniform composition of at least 12 inches below top of subgrade under buildings, pavement, or subbase and of at least 6 inches below top of

subgrade under walkways, plus 2 feet on each side. Use select subgrade materials unless granular stabilization materials or subgrade treatment is specified.

1. Subgrade Compaction in Fill Sections:
 - a. See "COMPACTION OF SOIL BACKFILLS AND FILLS" in this section
2. Subgrade Compaction in Cut Sections:
 - a. Excavate and stockpile the top 6 inches of subgrade.
 - b. Scarify, mix with subbase treatment, and re-compact the next 6 inches of subgrade.
 - c. Replace, mix with subbase treatment, and compact the top 6 inches of subgrade.
 - d. Remove stones over 3 inches from subgrade.
 - e. Construct to elevation and cross-section such that, after rolling, surface will be above required subgrade elevation.
3. Final Subgrade: Complete final subgrade by excavation to grade by use of steel-shod template supported on side forms, support rollers, or by use of an automatically-controlled subgrade excavating machine.

C. Subgrade Check:

1. Proof-roll all subgrades prior to placing subbase rock or pavement with fully loaded dump truck. If soft spots appear, rework area and/or add more treatment material.
2. Check subgrade elevations and grades prior to paving.

D. Ruts: If ruts or other objectionable irregularities form in subgrade during construction, reshape and re-roll subgrade before placing pavement. Fill ruts or other depressions with material similar to other subgrade material, and compact.

E. Sprinkling or wetting of the finished subgrade will be required, as necessary; to insure reasonable moisture content at the time pavement or base is placed upon it.

3.8 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:

1. Shape subbase course and base course to required crown elevations and cross-slope grades to the specified depth, plus 2 feet outside the pavement area.
2. Place subbase course and base course that exceeds 6 inches (150 mm) in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches (150 mm) thick or less than 3 inches (75 mm) thick.
3. Compact subbase course and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

C. Ensure that the top 1 inch of the subbase is uniformly moist prior to paving.

D. Do not allow hauling equipment and other traffic on completed subbase.

3.9 SUBGRADE TREATMENT FOR EXTERIOR SLABS ON GRADE (AS NECESSARY)

A. Lime, Cement, Fly Ash, or Asphalt:

1. Incorporate the subgrade treatment material uniformly during subgrade preparation to the depth and rate specified in the contract documents.
2. Place subgrade treatment in the areas specified in the contract documents for the width of the pavement, plus 2 feet on each side.

B. Geogrid or Geotextiles:

1. Install according to manufacturer's recommendations, on top of the prepared subgrade.
2. Place in the areas specified in the contract documents for the width of the pavement, plus 2 feet on each side.

3.10 SUBGRADE AND FOOTING INSPECTION

A. Footing Excavations shall be kept free of water accumulation.

B. Test Probing shall be done by a Geotechnical Engineer in all foundation and slab subgrades.

C. Subgrade Stability for Slabs-On-Grade:

1. Perform proof rolling of subgrade below the building slabs and pavements with a truck loaded to the maximum single legal axle gross weight of 20,000 pounds or the maximum tandem axle gross weight of 34,000 pounds. Operate trucks at less than 10 mph. Make multiple passes. The subgrade will be considered to be unstable if, under the operation of the loaded truck, the surface shows yielding (soil wave in front of the loaded tires) or rutting of more than 2 inches, measured from the top to the bottom of the rut at the outside edges. Do not proof-roll wet or saturated subgrades.
2. If soft or yielding areas are located, remove unstable materials and replace with suitable foundation materials as approved by the Engineer. Compact subgrade materials in cut sections as required by the Geotechnical Engineer. If stabilization material is used, place and compact as required for subbase.

D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Geotechnical Engineer, without additional compensation.

3.11 UNAUTHORIZED EXCAVATION

A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi (17.2 MPa), may be used when approved by Geotechnical Engineer.

1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Engineer.

3.12 STORAGE OF SOIL MATERIALS

A. Maintain erosion control around stockpiles following the requirements of the Pollution Prevention Plan.

3.13 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction as follows:

1. Cohesive soils: moisture content within a range of -1 to +4 percent of the material's optimum moisture content.
2. Cohesionless sands: moisture content within a range of ± 3 percent of optimum moisture content.

B. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.

C. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content as defined above and is too wet to compact to specified dry unit weight.

3.14 SPREADING TOPSOIL

A. Preparation for Topsoil Placement:

1. Finish excavation and embankment work according to the specified grades and cross-sections; grade and slope all surfaces to drain away from buildings and prevent ponding. Conform to the grading plan within +/- 2 inches.
2. Loosen surface to a minimum depth of 4 inches to reduce compaction.

B. Topsoil Spreading and Finish Grading:

1. Place the topsoil after all grading and trenching activities in the area have been completed.
2. Place topsoil at least 8 inches deep; smooth and finished grade according to the contract documents. If topsoil is being amended with compost, thoroughly blend compost with on-site topsoil at the rate specified.
3. After finish grading the topsoil, remove clods, lumps, roots, litter, other undesirable material, or stones larger than 1 inch (1/2 inch for turfgrass).

3.15 DRAINAGE

- A. Provide temporary drainage facilities to prevent damage to public or private interests when necessary to interrupt natural drainage or flow of artificial drains.
- B. Restore original drainage as soon as work allows.
- C. The Contractor is responsible for damage resulting from their neglect to provide erosion control or artificial drainage.
- D. Partially grade two future ponds (one wet, one dry) to be used as silt basins during construction. Install temporary cmp culverts as indicated in the plans.

3.16 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- C. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.17 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.
- D. Maintain stabilized construction entrance tracking pad as indicated on the drawings and as per Section 311000
- E. Seed all disturbed areas with Temporary stabilizing seeding as per Section 311000.

3.18 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove trash, and debris, and legally dispose of them off Owner's property in accordance with all state, local, and federal guidelines.

END OF SECTION

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**SECTION 32 1313
CONCRETE PAVING**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Curbs and Gutters
 2. Walks
 3. Concrete Steps

1.2 SUBMITTALS

- A. Two weeks prior to commencing any portland concrete placement, the Contractor shall submit a paving mix design for each different source of aggregate to be used for review and approval by the Architect or Engineer. Mixes or mix designs approved by the Iowa Department of Transportation or an independent testing laboratory shall be submitted.
- B. Prior to ordering materials, Contractor shall submit material certifications for truncated domes and wheel stops.
- C. Submit all testing and certifications in accordance with this Section.
- D. The Contractor will provide Material Certifications to the Architect or Engineer.

1.3 DELIVERY, STORAGE, HANDLING, AND SALVAGING

- A. Aggregate Storage: Prevent contamination and frequent variations in specific gravity, gradation, or moisture content; Iowa DOT 2301.
- B. Concrete transported without continuous agitation shall not be used if the period elapsed between the time the concrete is mixed and the time it is placed is greater than 30 minutes; Iowa DOT 2301. With the approval of the Engineer or Engineer, an approved retarding admixture may be used at the rate prescribed in Materials IM 403 and the mixed-to-placed time may be extended by an additional 30 minutes.
- C. Concrete transported with agitation shall not be used when the cement has been in contact with the aggregate more than 90 minutes before it is placed; Iowa DOT 2301. With the approval of the Engineer or Engineer, an approved retarding admixture may be used at the rate prescribed in Materials IM 403.

Concrete containing Type III cement and transported with agitation shall be delivered and placed within the following time limits:

Concrete Temperature (at time of mixing, degrees F)	Maximum Time (from mixing to placement, in min.)
75 or less	60
76 to 85	45
above 85	30

- D. The methods of delivering and handling the concrete shall be such that objectionable segregation or damage to the concrete will not occur, and that which will facilitate placing with a minimum of rehandling; Iowa DOT 2301.

- E. The compartment in which concrete is transported to the work shall be thoroughly cleaned and flushed with water to ensure that hardened concrete will not accumulate. Flushing water shall be discharged from the compartment before it is charged with the next batch; Iowa DOT 2301.
- F. Cement and Fly Ash: Store in suitable weatherproof enclosures; Iowa DOT 2301.
- G. Admixtures: Store in suitable weather tight enclosures which will preserve quality.
- H. Reinforcing Steel: Store off ground on timbers or other supports.

1.4 SCHEDULING AND CONFLICTS

- A. Construction Sequence:
 - 1. Attend a preconstruction meeting unless not required by Architect or Engineer.
 - 2. Submit plan for construction sequence and schedule prior to commencing construction.
- B. Conflict Avoidance:
 - 1. Expose possible conflicts in advance of construction, such as utility lines and drainage structures. Verify elevations and locations of each and verify clearance for proposed construction.
 - 2. Complete elements of the work which can affect line and grade in advance of other open cut construction unless noted on plans.
 - 3. Notify Engineer or Engineer of conflicts discovered or changes needed to accommodate unknown or changed conditions.
- C. Traffic Control Plan: The Contractor shall develop a traffic control plan based on the Manual on Uniform Traffic Control Devices (MUTCD). Traffic control plans that are provided in the contract documents shall be reviewed by the Contractor and all traffic control devices used shall be in accordance with the MUTCD.
- D. Stop Work: Stop work and notify Engineer or Engineer immediately if contaminated soils, historical artifacts, or other environmental or historic items are encountered.
- E. Conform to Local, State, and Federal Requirements.

1.5 RESTRICTIONS ON OPERATIONS

- A. Weather Conditions:
 - 1. Do not place concrete when stormy or inclement weather or temperature prevents good workmanship. Aggregates containing frozen lumps shall not be placed, and concrete shall not be placed on a frozen subgrade or subbase. The contractor will take all necessary actions to prevent the pavement from freezing.
 - a. Concrete placement may commence if the concrete mix temperature is a minimum of 40° and the air temperature is:
 - 1) After November 15, the air temperature is 36° and rising.
 - 2) After April 15, the air temperature is 32° and rising.
 - b. Concrete placement will stop when:
 - 3) After November 15, the air temperature is 37° and falling.
 - 4) After April 15, the air temperature is 32° and falling.
 - 5) With non-reinforced pavement, calcium chloride may be added to the mixing water to hasten initial set, if approved by Engineer or Engineer.
 - 6) Pavement damaged by inclement weather shall be removed and replaced.
 - 2. Temperature restrictions and protection requirements may be modified by the Engineer or Engineer under unusual conditions.
- B. Night Conditions:
 - 1. Do not place or finish concrete under artificial light, unless approved by the Engineer.

2. In good weather, the header shall be placed at least 45 minutes before sunset.
3. In cold weather, more time must be allowed for finishing and protection.
4. All finishing and covering operations shall be performed prior to darkness.
5. Temperature restrictions and protection requirements may be modified by the Engineer under unusual conditions.

C. Cold Weather Temperature Protection:

1. All concrete pavement and curb/gutters, including exposed edges of the slab and curb, shall be cured. In addition, concrete less than 36 hours old shall be protected as follows:

Night Temperature Forecast	Type of Protection ¹
35°F to 32°F	One layer of burlap for concrete.
31°F to 25°F	Two layers of burlap or one layer of plastic on one layer of burlap.
Below 25°F	Four layers of burlap between layers of 4 mil (100 µm) plastic or equivalent commercial insulating material approved by the Engineer or Engineer.
The protection shall remain until one of the following conditions is met: a. The pavement is 5 calendar days old. b. Opening strength is attained. c. Forecasted low temperatures exceed 35°F for the next 48 hours. d. Forecasted high temperatures exceed 55°F for the next 24 hours and sub-grade temperatures are above 40°F.	

- c. Paving operations shall be shut down in time to comply with protection requirements outlined above. In good weather, the header shall be placed at least 45 minutes before sunset. During cold weather, more time must be allowed for finishing and protection. All finishing and covering operations shall be performed prior to darkness. Temperature restrictions and protection requirements may be modified by the Engineer or Engineer.
- d. When the pavement is placed directly on natural subgrade, earth check dams shall be constructed immediately after passage of the slip forms or removal of the forms to prevent water from flowing along the edge of the pavement and undermining the slab. They shall not be spaced or be of a width to provide an approach over which a vehicle may be driven onto the pavement.
- e. Equivalent commercial insulating material approved by the Engineer or Engineer may be used. This material shall be waterproof and have a minimum R value of 0.50. If initial set has not yet occurred, a layer of burlap shall be placed on top of concrete prior to placing insulating blankets.
- f. Vertical edges of pavement and back of curbs shall be cured by the same method used for curing the surface.
- g. Method of protection and materials used shall maintain the concrete above 40°F.

D. Concrete Evaporation Protection:

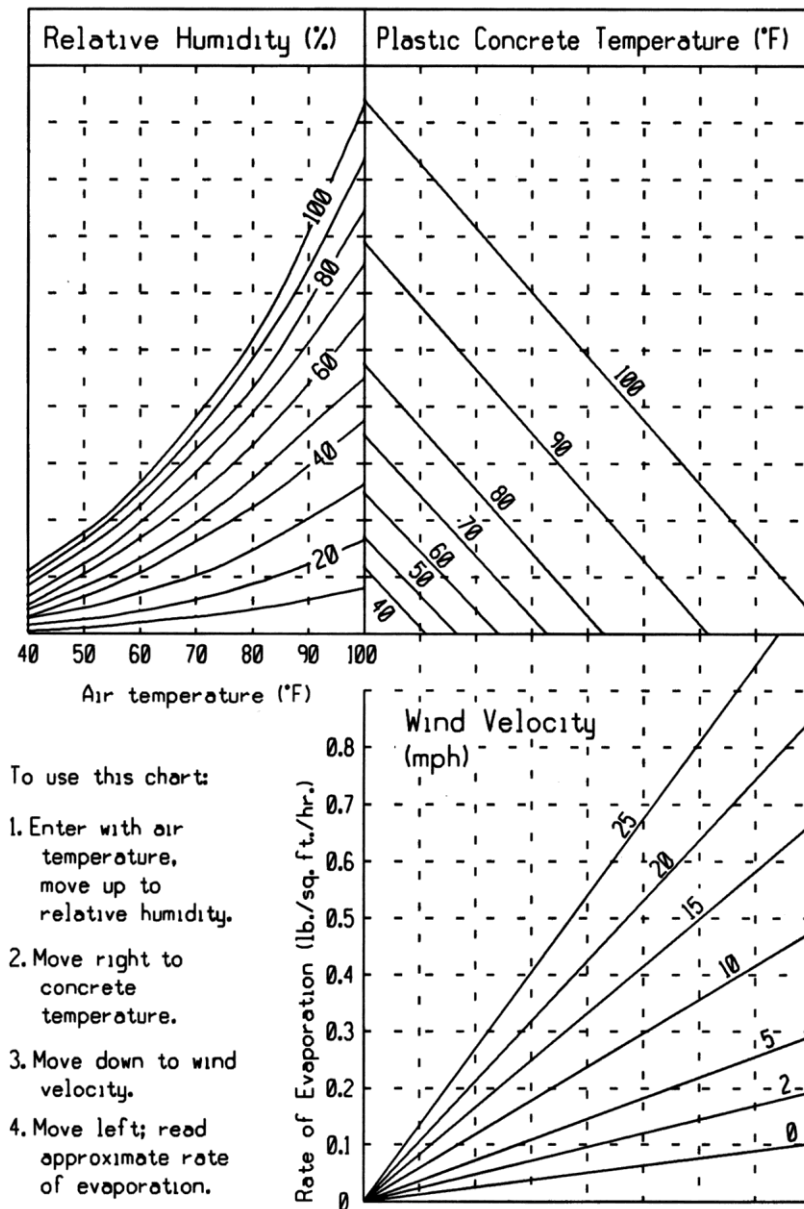
1. Hot weather condition is defined as any combination of the following conditions that tend to impair the quality of plastic concrete by accelerating the rate of moisture loss and rate

of cement hydration causing thermal shrinkage and resulting in plastic shrinkage cracking or crazing.

- High Ambient Temperature
- High Concrete Temperature
- Low Relative Humidity
- High Wind Velocity
- Solar Radiation

2. Concrete evaporation protection will be based on the theoretical rate of surface evaporation when it exceeds 0.1 lbs. per square foot per hour. The National Weather Service's maximum air temperature, relative humidity and maximum steady wind velocity without gusts, for the date and the location of the paving pour shall be used for the Theoretical Rate of Evaporation Chart.

a. THEORETICAL RATE OF EVAPORATION CHART



3. During hot weather conditions the Engineer or Engineer may restrict concrete placement to early morning or evening hours.
4. Under hot weather conditions the Contractor will advise the Engineer or Engineer of the results of the theoretical evaporation rate throughout paving operations.
5. The Contractor shall discontinue with placement of the concrete when the theoretical evaporation rate exceeds to 0.30 lbs./sq.ft./hr.
6. The protection practice by the Contractor will be as follows for the evaporation rate greater than 0.1 lbs./sq.ft./hr.
 - h. Immediately apply an approved evaporation retarder (Polymers) to the concrete pavement and curbs or increase the application cure to 1.5 times the standard specified rate.
 - i. Take special precautions to assure that the forms and subgrade are sufficiently moist or protected to avoid lowering the water content at the pavement/subgrade interface. In hot weather conditions the subgrade should also be moistened the evening before operations.
 - j. Assure that the time between placing and curing is minimized and eliminate delays.
 - k. Moisten concrete aggregates that are dry and absorptive.
 - l. Use a fog spray to raise the relative humidity of the ambient air if there is a delay in immediately applying the curing compound.
 - m. Minimize solar heat by shading, wetting or covering concrete chutes or other equipment that comes in contact with plastic concrete.
 - n. If shrinkage cracks should appear during finishing the cracks can be closed by striking each side of the crack with a float and refinishing.

E. Rain Protection:

1. The Contractor shall have available, near the site of the work, materials for proper protection of the edges and surface of concrete. Protective material may consist of sheets of burlap, or plastic film. Planks or other material with suitable stakes that can be used as temporary forms shall also be on hand; Iowa DOT 2301.
2. If initial set has not occurred, contractor shall take every precaution necessary to protect the surface texture of the concrete.
3. Failure to properly protect concrete shall constitute cause for removal and replacement of defective pavement, if so determined by the Engineer or Engineer.

F. Safety Fence for Pavement:

1. The Contractor shall insure that all traffic control devices are in place in accordance with the Traffic Control Plan.
2. At the end of each day's run and at all side streets, the Contractor shall erect and maintain such barriers and fencing as are necessary to protect the pavement from damage.
3. Intermediate safety fences may be required for the purpose of opening the slab for access to a side road, side street, or entrance.

G. Repair of Pavement:

1. The Contractor shall protect the new pavement and its appurtenances from traffic, both public and that caused by its own employees and agents, at its expense. This includes the erection and maintenance of warning signs, lights, barricades, watchmen to direct traffic, and pavement bridges or crossovers.
2. Any part of the pavement damaged by traffic or other causes occurring prior to final acceptance of the pavement shall be repaired or replaced, at the discretion of the Engineer or Engineer, at the Contractor's expense.

3. The Contractor shall not operate equipment with metal tracks, metal bucket blades, or metal motor patrol blades directly on new paving. The Contractor shall not unload soil or granular materials, including base rock for storage and future reloading directly onto new paving.

H. Utilities Protection: The Contractor will not start work until all utilities are located.

1. Repairs: When the Contractor disrupts or breaks known utilities of the Jurisdiction or privately owned utilities, such utilities shall be repaired at the Contractor's expense. Unnecessary delays in making repairs shall cause the Engineer or Engineer to have such repairs made and the cost thereof deducted from the monies due the Contractor.
2. Drains, Pipe, Tiles: Existing subsurface drains, pipe, and tiles, which are disrupted or broken by reason of the construction shall be connected to the storm sewer, or another adequate outlet if storm sewer is not available. Should no outlet be readily available, the Engineer or Engineer shall determine a suitable solution.
3. Water Stop Boxes and Services: The adjustment of stems and castings and/or repair of those broken or damaged by the Contractor shall be at the contractor's expense.

I. Use of Pavement: Time for opening pavement for use is determined by age or by test results from cylinder or beams taken during placement.

MINIMUM AGE OR STRENGTH OF PAVEMENT BEFORE OPENING				
Class of Mix	Type of Cement	Minimum Age For Opening without Testing ⁽⁴⁾	Minimum Compressive Strength (psi)	⁽¹⁾ Minimum Flexural Strength Center Point (psi)
A	Type I	14 Days ⁽²⁾	3,000	500
B	Type I	14 Days	2,400	400
C	Type I	7 Days ⁽³⁾	3,000	500
C	Type III	48 Hours	3,000	500
M	Type I	48 Hours	3,000	500
C-V47B	Type I	7 Days ⁽³⁾	3,000	500
C-V47B	Type IP	7 Days ⁽³⁾	3,000	500
M-V	Type I	48 Hours	3,000	500
M-V	Type IP	48 Hours	3,000	500
Optional test method for primary roads Ten days for concrete 8 inches or more in thickness Five days for concrete 9 inches or more in thickness Opening without testing only allowed upon approval of Engineer or Engineer Note: Maturity Method may be allowed with approval of the Engineer or Engineer; IM 383				

PART 2 - PRODUCTS

2.1 TYPE OF PAVEMENT

- A. Standard Concrete Pavement: Standard concrete pavement may be reinforced, or nonreinforced, as noted in the contract documents and shall consist of concrete of the class specified in the contract documents, reinforced as shown in the contract documents, placed within forms, and consolidated and finished by equipment operating on forms.

2.2 MATERIALS

A. Portland Cement; Iowa DOT 4101 and IM 401

1. Portland cement shall meet the requirements of AASHTO M 85 specifications for the type of cement required. Cement which contains 5.0 percent or more of lumps retained on a No. 20 sieve shall be rejected.
 - a. Cement which contains less than 1.0 percent of lumps may be used without adjustment in batch weights. For each 1.0 percent or fraction thereof from 1.0 to 5.0 percent of lumps found by test, batch weights of cement used in either concrete pavement shall be increased by 2.0 percent of the original value.
 - b. Cement stored at the site of the work or local warehouses for more than 60 days, or cement stored in producer's silo more than a year shall be retested for lumps before using.
2. Type I; Normal Portland Cement:
 - a. Unless otherwise specified, cement shall meet Type I AASHTO M 85, Type I.
 - b. When the addition of fly ash to Type I cement is allowed in accordance with Iowa DOT 2301, or AASHTO M 240, Type I (PM) or Type IP, cement may be furnished and used within the same limitations.
 - c. The cement content of the concrete shall be that specified for Type I cement.

B. Mineral Additives:

1. Fly Ash Substitute

- a. The use of fly ash may be substituted for Portland Cement in a Portland Cement Concrete mixture if approved by the Engineer or Engineer and shall conform to the requirements of Iowa DOT 4108, I.M. 529, and I.M. 491.17. Iowa DOT 2301 shall also apply except that fly ash substitution rates shall follow the table given in Section 321313, 2.3.
- b. Fly ash to be substituted for Portland cement in concrete shall comply with AASHTO M 295, either Class F or Class C, including the Supplementary Optional Chemical Requirements. Sources with fly ash between 1.5 percent and 2.5 percent available alkalies may be approved. For Class C fly ash, the pozzolanic activity test with lime will not be required.
- c. Approval of the source of fly ash will be required. This is to be based on fly ash produced when the power plant is using specific materials, equipment, and processes. Any change in materials, equipment, and processes shall void the source approval, and a new approval of the source will be required.
- d. Inspection and acceptance of fly ash will be in accordance with Iowa DOT Materials I.M. 491.17.

2. Ground Granulated Blast Furnace Slag Substitute

- a. GGBFS may be substituted for Portland cement in Portland cement concrete mixes if approved by the Engineer or Engineer and shall conform to the requirements of Iowa DOT 2301, 4108, I.M. 529 and I.M. 491.14.
- b. Inspection and acceptance of GGBFS will be in accordance with Iowa DOT Materials I.M. 491.14, appendix A.

C. Fine Aggregate for Concrete, Iowa DOT 4110: Clean, hard, durable mineral aggregate particles free from detrimental amount of silt, shale, coal, or organic matters.

1. Natural sand as a result from disintegration of rock through erosional processes.
2. From an approved source of not more than 2.0 percent shale and coal particles retained on a No. 16 sieve; not more than 2.5 percent silt by weight.

3. Gradation: Iowa DOT 4109, gradation No. 1.

Sieve Size	Percent Passing
3/8 inch	100
No. 4	90 to 100
No. 8	70 to 100
No. 30	10 to 60
No. 200	0 to 1.5
Engineer or Engineer may adjust gradation to allow for use of local aggregates.	

D. Coarse Aggregate for Concrete, Iowa DOT 4115: Coarse aggregate shall consist of crushed stone particles.

1. Abrasion loss, in accordance with AASHTO T 96 shall not exceed 50.
2. Freeze and thaw loss, in accordance with Iowa DOT Test Method 211, Method A, shall not exceed 6 percent.

Objectionable Materials: The percentage of such materials shall not exceed the following percentages: Objectionable Materials	Percent
Clay lumps	0.5
Coal and carbonaceous shale	0.5

Total of all shale, similar objectionable materials, and coal combined.	1.0
Sticks (wet weight) and other organic materials, except coal.	0.1
Unsound chert particles retained on 3/8" sieve (Nonstructural concrete)	3.0
Unsound chert particles retained on the No. 4 sieve (Gradation No. 6) (½" nominal maximum size)	0.5
NOTE: Chert particles which break into three or more pieces when subjected to the freezing and thawing test will be considered unsound.	
Chert in aggregate produced from limestone sources is defined as unsound when any of the fractions of the crushed or uncrushed chert do not meet the soundness requirements.	

3. Durability: Soundness - Iowa DOT Test Method 408-A.

- a. Class 2 durability for local and minor collectors; some stone deterioration within 20 years.
- b. Class 3 durability for major collectors and arterials; little to no stone deterioration within 20 years.
- c. Class 2 durability stone shall be used unless stated otherwise in the contract documents or otherwise specified by the Engineer or Engineer.

4. Gradation: Iowa DOT 4109, Gradation No. 3.

Sieve Size	Percent Passing
1 ½ inch	100
1 inch	95 to 100
½ inch	25 to 60
No. 4	0 to 10
No. 8	0 to 5
No. 200	0 to 1.5

Engineer or Engineer may adjust gradation to allow for use of local aggregates.
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- E. Water Requirements: Iowa DOT 4102.
1. Free from detrimental amounts of oil, salts, acids, strong alkalis, vegetable matter, or other materials detrimental to concrete; AASHTO T 26. If practicable, potable water shall be used.
 2. Suspended matter in excess of 2000 ppm shall be filtered or otherwise clarified.
 3. Hardness not more than 750 ppm, as calcium carbonate.
 4. Methyl orange, alkalinity, not more than 1,000 ppm, as calcium carbonate.
 5. Phenolphthalein alkalinity, not more than one-half the methyl orange alkalinity, as calcium carbonate.
 6. Total acidity, not more than 100 ppm as calcium carbonate.
 7. Potable water obtained from a municipal supply, suitable for drinking, may be accepted without testing.
- F. Air Entrainment Admixture: Iowa DOT 4103, IM 403, AASHTO M 154. Provisions shall be made to stir, agitate or circulate air entraining admixtures prior to use so as to insure a uniform and homogeneous mixture.
- G. Admixtures: All liquid admixtures as listed below must meet the following requirements. Other admixtures may be used subject to the approval of the Engineer or Engineer.
1. Retarding and Water Reducing Admixtures: Iowa DOT 4103, IM 403, AASHTO M194.
 - a. The retarding and water reducing admixture used shall be compatible with the air entraining agent used.
 - b. The admixtures shall be used in amounts recommended by the manufacturer for conditions which prevail on the project.
 - c. When used, they shall be introduced into the mixer after all other ingredients are in the mixer.
 - d. Retarding and water reducing admixtures shall be agitated prior to and during their use.
 - e. When fly ash is used in the concrete, the liquid admixture dosage shall be applied to both the cement and fly ash weight combined.
 2. Accelerating admixtures (calcium chloride): Iowa DOT 2529.
 - a. When calcium chloride is required, it shall be furnished at the job site.
 - b. Calcium chloride solution shall be a commercial 32 percent solution or equivalent, prepared by the Contractor as follows:

	Solution	
	lbs. solid produced	
	per gallon per gallon	
	<u>of water of water</u>	
Type 1 - Regular Flake (77% material)	7	1.35
Type 2 - Concrete Flake or pellets (94% material)	5	1.18

- c. The solution shall be added at a maximum rate of 2.75 gallons per cubic yard of concrete.
- d. Mixture shall be agitated until the calcium chloride is completely in solution and agitation shall be continued, as necessary, to maintain uniformity.

H. Reinforcing Steel:

1. Deformed Bars: Billet steel bar, Iowa DOT 4151.
 - a. All deformed bars shall be epoxy coated, Iowa DOT 4151.
 - b. Tie bars shall be bent back reasonably straight. Tie bars broken during rebending shall be replaced by the Contractor at no cost by drilling a hole and setting the bar in epoxy. Tie bars shall meet the requirements of ASTM A 615 Grade 40 or 60.
 - c. All damage to epoxy coated bars shall be repaired by an approved patching material.
2. Plain Bars, carbon steel, ASTM A 663, Grade 40. Epoxy coated complying with Iowa DOT 4151.
3. Smooth Dowel Bars, carbon steel, ASTM A 615, grade 40 fabricated from plain bars cut without deformation of ends; Iowa DOT 4151.
 - a. Epoxy coated complying Iowa DOT 4151.
 - b. Dowels, with exception of end of run and header joints, shall be furnished in approved assemblies.
 - c. Sawed ends of dowels shall be free of burrs and projections. Sawed ends need not be coated.
 - d. Assemblies dipped in MC-70, RC-70, RC-250, CRS-1, CRS-2, CSS-1H, HFMS-2, HFMS-2H, or HFMS-2S prior to delivery to work site.
4. Welded Wire Fabric, Iowa DOT 4151, ASTM A 185.
 - a. Epoxy coated complying Iowa DOT 4151.
 - b. Used as conventional reinforcement shall be of the size and spacing shown in the contract documents.
- I. Metal Keyways: Iowa DOT 4191; Fabricated 24 gage sheet steel; provide lengths in multiples of tie bar spacing; punch at the centerline to receive tie bars; support metal keyway with legs unless installed by paving machine. Keyways formed on the grade during the paving operation may be of coated or uncoated sheets of 26 gage iron or steel.
- J. Supports for Reinforcing Steel: Iowa DOT 2301.
 1. Support tie bars as required to place and maintain correct location during construction.
 2. Support dowel bars at expansion and contraction joints.
 3. Epoxy Coated Reinforcement: Support with epoxy coated or plastic chairs; tie with plastic coated tie wires.

K. Joint Fillers and Sealers:

1. Contraction Joint Sealers: Material for sealing sawed contraction and center line joints and other joints, as shown in the contract documents, shall meet the following requirements:
 - a. Poured Joint Sealer: Iowa DOT 4136. Hot poured joint sealer shall be composed of petropolymers and be supplied in solid form. The sealer shall meet requirements of ASTM D 3405 with the following modifications:
 - 1) Penetration of 90 - 150 at 77 degrees F (25 degrees C).
 - 2) Bond at -20 degrees F (-29 degrees C) standard specimen, 3 cycles, 200% extension, Passes.
 - b. Cold applied joint sealers meeting the above physical requirements may be used with the approval of the Engineer or Engineer.

2. Preformed Expansion Joint Filler and Sealer: Preformed material for filling expansion joints shall be one of the following types. When the type is not specified, resilient filler shall be used.
 - a. Resilient Filler: Iowa DOT 4136, AASHTO M 213. Resilient filler shall be furnished in strips of dimensions shown in the contract documents.
 - 1) When the self-expanding type is specifically required, the material shall meet requirements of AASHTO M 153, Type III.
 - 2) Sealer used with these fillers shall meet requirements of Iowa DOT 4136 or shall be two component, synthetic polymer type meeting requirements of ASTM D 1850.
 - b. Polyethylene Joint Filler: Iowa DOT 4136, AASHTO T 42.
 - 3) Polyethylene joint filler shall be resistant to petroleum derivatives and comply with the following requirements:
 - a) Compression: 45 p.s.i. maximum
 - b) Recovery: 90% minimum
 - c) Extrusion: 0.25 inches maximum
 - 4) Sealer used with this filler shall be a two component, synthetic polymer type meeting requirements of ASTM D1850.
 - c. Elastomeric Joint Seals: Iowa DOT 4136, AASHTO M 220.
 - 5) Elastomeric joint seals shall be of the size and shape designated in the contract documents.
 - 6) Seals with splices shall be acceptable only when splices are made using factory type methods. A splice shall not occur within one foot of a sharp bend, when placed in final position, and no piece shall have more than one splice.
 - d. Preformed Urethane Foam Expansion Joint Filler: Iowa DOT 4136, IM 436.
 - 7) Preformed urethane foam expansion joint filler shall be made with a semi-open cell, flexible polyurethane foam which is molded to such cross sectional shape that it can be easily installed in a 3¼ inch to 4¼ inch wide pavement joint with parallel sides and shall be sufficiently self locking to prevent the material from floating out of the joint.
 - 8) The joint filler may be produced in any convenient lengths in excess of 4 feet and shall have the following cross sectional dimensions:
 - a) Top Width 4½ inches plus or minus 1/8 inch
 - b) Overall depth 7-3/4 inches plus or minus ½ inch
 - 9) A lubricating adhesive, recommended by the manufacturer for the intended use, shall be provided with the joint filler.
 - 10) The properties of the urethane foam when determined on skin free specimens shall meet the following requirements:
 - a) Density: 6.5 to 10.0 lb. per cu. ft.
 - b) Compressive load, 50% deflection: 20.0 psi, max.
 - c) Recovery: 95% min.
 - d) Water absorption: 35% by volume, max.
 - e) Chemical Resistance. The material shall be resistant to petroleum solvents and linseed oil.
 - L. Liquid Curing Compounds: Iowa DOT 4105, AASHTO M 148.
 1. Compounds shall be of such consistency that they can be readily applied by spraying to a uniform coating at a material temperature above 40 degrees F.

2. Moisture Retention shall meet this requirement of Iowa DOT Material Laboratory Test Method 901.
 3. Liquid curing compounds shall dry to the touch in not more than 4 hours. After 12 hours, the compounds shall not track off the concrete when walked upon.
 4. White Pigmented Compounds. Iowa DOT 4105.
 - a. Shall consist of finely ground, white pigment and vehicle, ready mixed for use without alteration.
 - b. The pigment shall not settle excessively or cake in the container.
 - c. After the compound sprayed on a test slab has dried, it shall have an apparent daylight reflectance not less than 60 percent relative to magnesium oxide.
 - d. The compound shall be agitated just prior to being removed from the container and continuously during application.
 5. Dark colored compounds shall consist of asphalt emulsion or asphalt cut back with a volatile solvent and shall contain not less than 50.0 percent asphalt.
- M. Burlap Covering: Iowa DOT 4104.
1. Jute and manilla fibers shall weigh not less than 10 ounces per square yard.
 2. Shall be new material or reclaimed material which shall not have a deleterious affect upon fresh concrete.
- N. Pavement Seals: Linseed Oil Emulsion.
1. Shall be non-pigmented and homogenized to produce uniform mixture as set forth in the United States Department of Agriculture Patent Number 3,873,326.
 2. Comply with requirements of ASTM C 309 and C 156.
 3. Shall be used on pavements subject to receiving large quantities of salt. Engineer or Engineer will determine pavements to receive linseed emulsion
 4. Apply after curing compound has dried.
- O. Epoxy Bonding Compound: Iowa DOT 2301 and IM 491.11.
1. Epoxy bonding compound (polymer grouts) shall meet the requirements of Iowa DOT 2301 and IM 491.11 for each particular application.
 2. The material shall be an approved brand as listed in IM 491.11.
- 2.3 MIXES: IOWA DOT IM 529
- A. Mix Design: Unless otherwise specified, the mix design shall be Class C or C-V47B mix with air entraining. If a different mix is specified in the contract documents or if the Contractor requests a mix different than C or C-V47B, the Contractor shall submit to the Engineer or Engineer the paving mix design for approval two weeks prior to starting paving operations. The submittal shall contain the mix number as described below and admixtures in accordance with Section 321313, 2.3E. Unless otherwise specified, the minimum compressive strength of the mix shall be 4,000 pounds per square inch at 28 days.
- B. Mix Number: Mix numbers designate numerous aspects of the particular mix. The following is an explanation of the various aspects of the mix number. For example: C-4WR-C10.
1. The first letter designates the class of concrete as designated in the contract documents.
 2. The number indicates the relationship of coarse aggregate to fine aggregate. A mix with a 4 is a 50/50 mix. The following chart shows the number within the mix number and the proportions of the aggregates for each number:
- | | |
|---|---|
| 2 | is composed of 40% fine and 60% coarse. |
| 3 | is composed of 45% fine and 55% coarse. |
| 4 | is composed of 50% fine and 50% coarse. |

- 5 is composed of 55% fine and 45% coarse.
 6 is composed of 60% fine and 40% coarse.
 7 is composed of 65% fine and 35% coarse.
 8 is composed of 70% fine and 30% coarse.

3. The letters WR indicate water reducer is used in this mixture.
 4. When a C or an F is shown toward the end of the mix number, fly ash is a part of the mixture and C-fly ash or F-fly ash, respectively, is used. The percentage of fly ash being used in the mixture shall be designated at the end of the mix number.
 5. In certain mix designations, the letter V appears after the first hyphen. This indicates that a Class V aggregate is to be used. If no letter is shown, aggregate other than Class V shall be used.

C. Concrete Mixes: Shall meet the following design targets, as per Iowa DOT 2301, IM 529.

Basic Absolute Volumes of Materials for Unit Volume of Concrete							
Mix	W/C Basic	W/C Max.	Cement Min.	Water	Entrained Air	Fine Aggregate	Course Aggregate
A-4 ⁽¹⁾	0.474	0.532	0.108	0.161	0.060	0.335	0.336
B-4 ⁽²⁾	0.536	0.600	0.093	0.157	0.060	0.345	0.345
C-3WR	0.430	0.489	0.108	0.146	0.060	0.309	0.377
C-4	0.430	0.488	0.118	0.159	0.060	0.331	0.332
C-4WR	0.430	0.489	0.112	0.151	0.060	0.339	0.338
M-4	0.328	----	0.156	0.161	0.060	0.312	0.311
O-4WR	0.327	-----	0.156	0.160	0.060	0.312	0.312
(1) Concrete Base or temporary pavement only.							
(2) Temporary only.							
Other approved mixes will follow Iowa DOT IM 529.							

Basic Absolute Volumes of Materials for Unit Volume of Concrete							
Mix	W/C Basic	W/C Max.	Cement Min.	Water	Entrained Air	Class V.	Limestone
C-V47B	0.440	0.560	0.107	0.148	0.060	0.479	0.206
M-V	0.390	----	0.160	0.196	0.060	0.555	0.029

The above mixtures are based on Type I cements (Sp. G. = 3.14). Mixes using blended cements (Type IP, I(PM), IS, or I(SM)) must be adjusted for specific gravities listed in Iowa DOT I.M. 401.

- D. Consistency and Workability: The amount of materials used shall produce a concrete of uniform consistency, workability and a satisfactory surface finish.

Paving	Type of Concrete	Slump-in		% Air Content of Fresh Un-consolidated Concrete (Before Paver)			Target % Air, Consolidated Concrete (After Paver)
		Min.	Max.	Target or Initial*	Acceptable Range		
					Minus	Plus	
Machine Finish	A, B, C, C-V47B	½	2½	7.5	1	1 1/2	6
Hand Finish	A, B, C, C-V47B	½	4	7	1	1 1/2	6
Curb & Gutter	C, C-47B	----	3	7	1	1	6
Base (Machine Finish)	A	½	2½	7	1	1 1/2	6
Base (Hand Finish)	A	½	4	7	1	1 1/2	6
Patches with CaCl	M, M-V	1	3	5**	2	2	N/A
Patch w/o CaCl	M, M-V	1	3	6 1/2	1 1/2	1 1/2	N/A

As per Iowa DOT 2301, 2511, 2512, 2529, and 2530.

* The initial values for fresh concrete listed in the table above account for anticipated air loss during consolidation of concrete during placement and paving. Actual air loss and target value for air content of fresh concrete are established below.

** Prior to addition of Calcium Chloride

E. Air Content :

1. Establishing the Target Air Content

- a. On the first day of paving, the air content of fresh, unconsolidated concrete shall be in accordance with the table above for Initial Air Content.
- b. The air content of concrete before and after consolidation (in front of and behind the paver), shall be tested within the first 10 loads. The air content behind the paver shall be checked at two locations. Samples behind the paver shall be taken such that they are representative of the entire cross section (one sample from each side of the slab) and the results averaged.
- c. The target air content for fresh, unconsolidated concrete for a specific concrete mixture and paver shall be established based on the initial samples taken. The air loss due to consolidation (the difference in air content before and after the paver) shall be added to the target value for finished concrete and rounded to the next higher 0.5% to establish the target air content for fresh, unconsolidated concrete.

2. Minimum Testing Frequency

- a. The air content of fresh, unconsolidated concrete (in front of the paver) shall be tested every 200 CY.
- b. The target air content for fresh, unconsolidated concrete shall be reestablished whenever the concrete material sources, concrete mix, and/or paver are changed

3. Adjustments

- a. The air content of the fresh, unconsolidated concrete shall be maintained at the established target air content within the range allowed by Section 321313, 2.3D.
- b. A new target air content for fresh concrete shall be established, and the mix adjusted as required, if the loss through the paver changes by more than 0.5% from the previously established air loss.

- F. Use of Fly Ash: The Contractor shall notify the Engineer or Engineer prior to making concrete mixture changes which have been approved. Mix proportions for the various mixes using fly ash are included in the Iowa DOT Materials I.M. 529. The following fly ash substitution rates shall replace those given in Iowa DOT 2301 and as referenced in Iowa DOT IM 529:

Fly Ash Substitution Rate		
Time Period	Cement Type	Fly Ash Substitution Rate by Weight
March 16 through September 14 ***	Type I and Type II	Not more than 20 percent
March 16 through September 14 ***	Type IP and Type I(PM)	Not more than 5 percent *
September 15 through October 15	Type I and Type II	Not more than 15 percent
September 15 through October 15	Type IP and Type I(PM)	None

October 16 thru March 15	Type I, Type II, & Type III	None
October 16 thru March 15	Type IP and Type I(PM) **	None
March 16 thru October 15	Type I, Type II, or Type III used in Class M mixtures	Class C fly ash only at not more than 10 percent
* Note: If the cement manufacturer provides the Engineer or Engineer with satisfactory concrete strength and freeze-thaw durability test results equivalent to concrete with the same Type IP or Type I(PM) cement without fly ash, the substitution rate may be increased to 10 percent. The testing and acceptance criteria shall be in accordance with Materials I.M. 401.		
** Note: Proportions of Type IP and Type I(PM) shall be increased 15 percent, by weight, during this time period.		
*** Note: The March 16 through September 14 substitution rate may be used at any time the maturity method for monitoring concrete strength is utilized.		

Fly ash shall be transported, stored, hauled, and batched in such a manner to keep it dry.

2.4 MIXING EQUIPMENT

- A. Weighing and Proportioning Equipment: Iowa DOT 2001.
- B. Mixing Equipment: Iowa DOT 2001.
- C. Material Bins: Iowa DOT 2001.

2.5 CONCRETE BATCHING: IOWA DOT 2301

- A. Plant batching shall be Iowa DOT calibrated and approved. Provide copy of current calibrations and approvals.
- B. Batch plant operation and batch trucks shall be coordinated with the paving operation in order to ensure a steady supply of materials.
- C. Batch plant and trucks shall be operated to minimize dust, noise or truck nuisances.

2.6 CONCRETE MIXING

- A. Construction or Stationary Mixer: Iowa DOT 2301.
 - 1. The concrete shall be uniform in composition and consistency. If this condition is not produced because of the size of the batch, the size of the batch may be reduced or the mixing time increased, or both, until this result is obtained. If non-uniform, concrete producers shall take corrective action.
 - 2. Concrete transported without continuous agitation shall not be used if the period elapsed between the time the concrete is mixed and the time it is placed is greater than 30 minutes. The mixed-to-placed time period may be extended an additional 30 minutes with the use of a retarding admixture, upon approval of Engineer or Engineer.
 - 3. Concrete transported with agitation shall not be used when the time between start of mixing and placement is more than 90 minutes.
 - 4. The methods of delivering and handling the concrete shall be such that objectionable segregation or damage to the concrete will not occur, and that which will facilitate placing with a minimum of handling.

5. The compartment in which concrete is transported to the work shall be thoroughly cleaned and flushed with water at such intervals as may be necessary to insure that hardened concrete will not accumulate in the compartment. Flushing water shall be discharged from the compartment before it is charged with the next batch.
- B. Ready Mixed Concrete: Iowa DOT 2301.
1. The concrete shall be uniform in composition and consistency. If non-uniform, concrete producers shall take corrective action.
 2. Proportioned in a central plant and mixed in a stationary mixer for transportation in trucks without agitation.
 3. Proportioned at a central plant, and only partially mixed in a stationary mixer for transportation and finish mixing in a transit mixer.
 4. Proportioned at a central plant, and then mixed in a transit mixer prior to or during transit.
 5. When necessary to add additional mixing water at the site of placement, the batch shall be mixed at least an additional 30 revolutions of the drum at mixing speed.
 6. For main portions of the work it must be demonstrated before the work starts that each vehicle in which concrete will be delivered is capable of discharging concrete having a slump not over 2 inches at an overall rate for its entire load of not less than 1.25 cubic yards per minute. The concrete shall be delivered at a rate sufficient to maintain a sustained rate of progress of not less than 100 feet per hour for the width and depth of slab to be placed.
 7. Concrete transported without continuous agitation shall not be used if the period elapsed between the time the concrete is mixed and the time it is placed is greater than 30 minutes. The mixed-to-placed time period may be extended an additional 30 minutes with the use of a retarding admixture upon approval of the Engineer or Engineer.
 8. Concrete transported with agitation shall not be used when the time between start of mixing and placement is more than 90 minutes. However with the approval of the Engineer or Engineer, an approved retarding admixture may be used at the rate prescribed in Materials IM 403.
 9. The compartment in which concrete is transported to the work shall be thoroughly cleaned and flushed with water at such intervals as may be necessary to insure that hardened concrete will not accumulate in the compartment. Flushing water shall be discharged from the compartment before it is charged with the next batch:
 - a. Concrete with Type III cement and transported without agitation shall be delivered and placed within 30 minutes after mixing.
 - b. With the approval of the Engineer or Engineer, an approved retarding admixture may be used at the rate prescribed in Materials IM 403 and the mixed-to-placed time may be extended by an additional 30 minutes.
- C. All Methods: Each truck load shall be identified by a plant charge ticket showing plant name, contractor, project data, quantity, class, time batched, and water added at site.
- 2.7 CONCRETE PLACEMENT EQUIPMENT: IOWA DOT 2301
- A. Subgrade Finishing Equipment: Use mechanical excavating equipment designed for this purpose, approved by Engineer or Engineer.
1. Form line or path area for slip-form paving machine shall be constructed to final grade by form-line excavating equipment with automatic grade controls.
 2. Subgrade between forms or between path areas for slip-form machines constructed to final grade with automatically controlled subgrade excavating machine
- B. Side Forms: Steel, minimum thickness: 5 gage, height at least equal to design thickness of pavement with base width at least 6 inches.

1. Minimum section length: 10 feet, joint connections designed to permit horizontal and vertical adjustment with locking device to hold abutting sections firmly in alignment.
2. Bracing, support, and staking must prevent deflection or movement of forms.
- C. Flexible Forms: Use steel or wood flexible forms for curves with radius less than 100 feet.
 1. Bracing, support, and staking must prevent deflection or movement of forms.
 2. Forms used to form back of curbs at returns shall have height at least equal to design thickness of pavement and curb height.
 3. Forms must be free from scale and surface irregularities; coat with release agent (see Section 323113, 3.3.G) prior to concrete placement.
- D. Consolidating and Finishing Equipment: Fixed form or slip form paving machines specifically designed for placing, striking off, consolidating, and finishing in single pass to required cross section.
 1. Consolidation of concrete by single pass of approved surface, tube, or internal vibrator operated in accordance with manufacturer's recommendations.
 2. Slip form equipment: Automatic horizontal and vertical controls required; equipment must spread concrete to uniform depth prior to finishing.
 3. Air screeds and vibrating screeds are approved consolidating and finishing equipment for cul-de-sacs, drives and some intersections. Small runs of pavement up to 250 feet maximum may also require screeds if paving machines are not practical.
 4. Equipment subject to approval of Engineer or Engineer.
- E. Hand Finishing Equipment: Contractor shall provide tools including wood or magnesium floats, wood hand floats, point trowels, edgers, or other equipment necessary for proper finishing of concrete.
 1. Provide 2 light straightedges, 10 feet long, with handles not less than 12 feet long for use in detecting irregularities in surface; provide 2 heavy straightedges of similar size for use in correcting surface; provide 2 light straightedges 10 feet long for checking curb and gutter line.
 2. Provide approved vibrators for consolidating concrete.
 3. Provide metal or wood screed true to crown.
- F. Curing Equipment: Use pressure sprayer capable of applying a continuous uniform film of curing compound.
- G. Concrete Saws: Power operated concrete saws capable of cutting hardened concrete neatly.
- H. Joint Sealing Equipment: Equipment capable of heating and installing sealant in joints in accordance with manufacturer's recommendations.

2.8 CONCRETE STEPS

- A. Install concrete steps as shown on the details within the plans.
 1. Type: Cast in place reinforced concrete unless otherwise approved by the Engineer.

PART 3 - EXECUTION

3.1 FINAL SUBGRADE/SUBBASE PREPARATION

- A. Natural Subgrade:
 1. Subgrade construction shall meet the requirements of Section 312000 "Earth Moving".
 2. Should the subgrade be left high or not prepared for final template shape by a previous contractor, the subgrade shall be proof rolled and depressions filled in accordance with Section 31200 "Earth Moving".
 3. Trimming:

- c. The subgrade shall be checked by the most accurate practical method, subject to approval of the Engineer or Engineer.
 - 4. Unless otherwise ordered by the Engineer or Engineer, the subgrade, at time of placing concrete for Concrete Pavement, shall be in a uniformly moist but not muddy condition to a depth of not less than one inch.
 - 5. Subgrade Loading:
 - d. Where concrete trucks must travel on a prepared soil-type subgrade to unload and, as approved by the Engineer or Engineer, watering of the subgrade must be limited to just ahead of the paving machine.
 - e. Repetitive loading on the subgrade by concrete trucks shall be minimized.
 - f. Loads in excess of the legal axle load shall not be allowed on the completed subgrade.
 - g. Partially loaded trucks may be required.
 - h. If subgrade/subbase failure occurs, the repair shall be coordinated with the Engineer or Engineer.
 - 6. Paving Suspended:
 - i. The paving operation shall be suspended where subgrade stability has been lost.
 - j. No concrete shall be placed upon a subgrade which has become unstable, bears ruts or tire marks of Contractor's equipment or which is excessively softened by rain until such subgrade has been reconsolidated and replanned or reshaped to correct the objectionable condition.
 - k. If necessary, scarify to a minimum depth of 6 inches, aerating, and recompact at the Contractor's expense. Recompaction shall meet requirements of Section 312000 "Earth Moving".
 - 7. Maintenance of Subgrade:
 - l. The Contractor is responsible for maintenance of the completed subgrade during subsequent construction activities.
 - m. Before allowing hauling equipment to use the completed subgrade, the Contractor must be satisfied as to the effect this hauling equipment may have on the partially completed work.
 - B. Granular Subbase:
 - 1. Granular Class A, B, C, and D subbase construction shall meet the requirements of this section.
 - 2. Should the Contractor who constructed the subbase elect to overbuild the subbase, the paving contractor shall trim down to the design elevation and shape to the final template with an automatically controlled trimming machine.
 - 3. Excess material shall be salvaged and spread for use on any other approved project location or operation.
 - 4. The top 1 inch of the subbase shall be uniformly moist prior to paving.
 - 5. Construction traffic may be allowed only on Class A subbase (special backfill), Class C subbase (RAP special backfill), and Class D subbase (modified) upon approval of Engineer or Engineer. (See Section 312000 "Special Backfill")
 - 6. The paving operation shall be suspended where subbase stability has been lost.
- 3.2 SURFACE FIXTURE ADJUSTMENT
- A. Adjust manhole frames and other fixtures within area to be paved to conform to finished surface.
 - B. Clean outside of fixture to depth of pavement before concrete placement.

- C. Box out fixtures for later adjustment where allowed. Size and shape of box out for intakes as shown in Standard Drawings.

3.3 FORM SETTING

1. Use form line excavating machine to establish subgrade of forms.
2. Set base of forms at or below subgrade elevation with top of forms at pavement surface elevation.
3. Extra height forms with Engineer or Engineer approval may be used to back up integral curb and paving slab; set base at or below subgrade elevation with top of form at top of curb elevation.
4. Secure forms in place to required grade and alignment.
5. If voids occur under forms, remove forms and rework subgrade to proper elevation and density; reinstall forms.
6. If the soil supporting the form is softened by rain or standing water so that form is inadequately supported, remove forms and rework subgrade to proper elevation and density; reinstall forms.
7. Coat forms with release agent before concrete is placed.
8. Place forms true to alignment and free of latent concrete.

3.4 BAR AND REINFORCING PLACEMENT

- A. Reinforcing metal shall be clean, straight, free from distortion and rust, and shall be firmly secured in position as detailed.
- B. All reinforcing metal shall be placed in approved storage to prevent damage; do not distribute along the work site except as needed to avoid delay in paving.
- C. Tie Bars:
 1. Place bars prior to vibration. Bars may be supported by approved chairs or may be placed in position by a machine or method approved by the Engineer.
- D. Dowel Bar Assemblies:
 1. When dowel bar assemblies are required in the contract documents, accurately place these assemblies as shown. To prevent their movement during subsequent concrete paving operations, securely stake or fasten to the base to line and grade.
 2. Do not use assemblies that are damaged prior to placement. If assemblies are damaged after placement, replace prior to paving. Ensure horizontal and vertical alignment of the load transfer bars does not exceed $\frac{1}{4}$ inch from parallel line and grade. Place each assembly so the bars are in a horizontal plane at $T/2 \pm \frac{1}{2}$ inch.
 3. Check the placement of each assembly and the position of the bars within the assembly using a suitable template or other device approved by the Engineer. If the assembly is found to be placed outside of the above tolerances, correct the placement.
 4. Cutting the tie wires of the load transfer assemblies is optional.
- E. Bar Mats for Reinforced Pavement
 1. When reinforced pavement is specified, assemble bar mats accordingly and firmly fastened altogether at all bar intersections.
 2. Place, secure, latch, and tie bar mats for a continuous mat as specified in the contract documents. Displacement during concrete placement operations is not allowed.
 3. Use chairs to ensure proper placement of bar mats.
- F. Tie Bars and Dowel Bar in Existing Pavement
 1. When anchoring in existing concrete, use a grout system according to the manufacture's instructions. Obtain the Engineer's approval for the grout system.

2. For horizontal installations, use either a pressure injection system with mechanical proportioning and mixing, or use encapsulated chemical anchors. Install as follows:
 - n. Ensure drilled holes to receive the grout match the dimensions and spacing specified in the contract documents. When not specified in the contract documents, the maximum nominal diameter of the hole must be 1/8 inch larger than the outside diameter of the dowel or bar, or as recommended by the manufacturer. Drill holes for tie bars and dowel bars into the face of the existing pavement at midpoint. To ensure proper horizontal alignment, do not allow any hole misalignments to exceed 1/4 inch in the vertical or horizontal plane. Clean the hole with compressed air immediately prior to placing the grout.
 - o. Use a polymer grout to secure the dowels in the existing pavement. Inject the grout into the rear of the hole with pressure. Use sufficient grout so that when the bar to be grouted is placed in position, excess grout will be forced out the front of the hole. Rotate the bar during the insertion process to ensure complete coating with the grouting material. Hand proportioning and mixing is not allowed.
 - p. If using grout with approved encapsulated anchors, install according to the manufacturer's recommendations.
 - q. Use horizontal installation procedures for vertical or angled installations; however, pourable grouts may be used. Pourable grouts must be mechanical mixed.

3.5 CONSTRUCTION OF JOINTS

A. General:

1. Longitudinal and transverse joints shall be constructed of the type, dimensions, and at the locations required, as described by these specifications, or as detailed by the plans or special provisions.
2. Longitudinal joints shall be coincident with or parallel to the pavement center line unless shown otherwise on the plans.
3. All transverse joints shall be at right angles to the center line and shall extend the full width of the pavement unless otherwise specified.
4. All joints shall be perpendicular to the finished grade of the pavement and the alignment across the joint shall not vary from a straight line by more than 1 inch.
5. All joint fillers shall be installed as shown in the contract documents.
6. The Contractor shall exercise care in placing, consolidating, and finishing the concrete at and about all joints.
7. The edges of the pavement at tooled joints shall be rounded, where required, as specified on the standard detailed plates.
8. Wet sawing shall be used when required by the contract documents for dust control.

B. Expansion Joint:

1. Install expansion joints where shown on plans and as shown on Standard Drawings.
2. Prevent movement of or damage to joint assembly when placing concrete; set joint material low enough to clear the finish machine.
3. Construct double width expansion joint in curb over expansion joint in pavement. The backside of the joint must be clear of concrete.
4. The expansion joint shall be aligned straight and true.
5. If joint fillers are assembled in sections, or if joints as a whole are constructed in sections, then no offsets shall be between adjacent units.

6. Where more than one section is used in a joint, the sections shall be securely laced or clipped together. Damaged basket assemblies shall not be used.

C. Saw Joints:

1. Joint locations shall be chalked with a string line before sawing.
2. Joint dimensions:
 - r. All transverse contraction joints shall be sawed at a maximum spacing of $21T$, where T is the thickness of the pavement in feet.
 - s. All joints shall be sawed to a depth shown below and on the detail plate.

	Minimum Sawcut Depth	
	Conventional Saw	Early "Green" Saw
Transverse "C" Joint	$T/3$	$1\frac{1}{4}"$
All other Transverse Contraction joints	$T/3$	$1\frac{1}{4}"$
Longitudinal Joint	$T/3$	Not Allowed

- t. The Contractor shall closely monitor joint sawing for both longitudinal and transverse joints for depth and spacing and immediately report any deviations from the specifications. The Contractor shall take immediate steps to correct any deviations.
3. In order to prevent shrinkage cracks, sawing shall be commenced promptly after the pavement has obtained sufficient strength to resist tearing of the concrete adjacent to the joint during the process of sawing.
4. Pavement pours shall be scheduled to allow transverse joints to be sawn within 24 hours of the concrete being placed.
5. Longitudinal joints shall be sawn within 24 hours of the concrete being placed.
6. If necessary, the sawing operations shall be carried on both day and night.
7. Joints sawed with an early "green" concrete saw shall be washed out prior to sealing. The concrete must be capable of supporting the sawing operations to allow the use of an early green concrete saw.

D. Construction Joints:

1. Longitudinal or transverse construction joints shall be placed between adjacent lanes of concrete and at end-of-day header runs.
2. Manhole boxouts shall be located and placed on grade prior to paving. Manhole boxouts are required for two piece castings for sanitary/storm manholes.
3. The longitudinal construction joints shall be an approved key type joint with legs unless machine placed.
4. Transverse construction joints shall employ load transfer devices (Header) and shall be placed whenever concrete placement is delayed for more than 30 minutes.
5. Saw and seal to the dimensions shown for a "B" joint on the detail plate.

3.6 CONCRETE PAVEMENT PLACEMENT

- A. Set survey control stakes at 25 foot maximum spacing including high and low points. Additional staking may be required by the Engineer or Engineer.
- B. The concrete shall be placed, consolidated, and finished to the widths and depths outlined in the plans.
- C. Integral curbs shall be poured with the slab in a single paving machine operation. Normal mainline paving will not have construction joints at integral curbs.

- D. The concrete shall be deposited upon the supported reinforcement keeping segregation to a minimum.
- E. Concrete shall be deposited to the full depth of the pavement in a single operation.
- F. Necessary hand spading and spreading shall be done with shovels and not rakes.
- G. Use paving machine for all uniform width slabs 8 ½ feet or more in width and 250 feet or more in length.
- H. When pavement is constructed in separate lanes, the junction line in straight sections shall not deviate from the true line shown on the plans by more than ½ inch at any point and shall be tooled to the radius shown on the plans. A joint formed with a metal keyway shall be used between separately poured lanes.
- I. Place concrete to full depth in single operation. Keep a uniform pile of concrete in front of the paving machine, up to a maximum of 6 to 8 inches above the design surface elevation.
- J. The concrete shall be distributed and spread as soon as placed. A mechanical concrete spreader may be used.
- K. Concrete Screed:
 - 1. The concrete shall then be struck off and screeded by mechanical means.
 - 2. The striking off or screeding shall conform to the crown and cross section shown on the plans.
 - 3. If, in the operation of subgrade or finishing equipment, it is necessary to operate one or both sets of wheels or tracks on previously placed concrete, the wheels or tracks shall be adjusted so that the bearing on the concrete will be not less than 3 inches from the edge of the pavement.
 - 4. When operating with two wheels on the previously placed concrete and two wheels on the form, the form wheels shall be double flanged.
 - 5. All wheels operating on the pavement shall be flangeless and rubber tired. All tracks operating on the pavement shall use rubber, wood, or belting pads.
- L. The top of the forms shall be kept clean from accumulations of concrete, and the travel of the finishing machine on the forms shall be maintained true without lift, wobbling, or other variations tending to affect precision of finish.
- M. When finishing by hand methods, concrete shall be consolidated by use of vibrating units operating in the concrete. Unless the vibrating apparatus is such that the full width of concrete is consolidated in a single passage, a definite system or pattern shall be used in the operation of the vibrator so the full width of concrete in each linear foot of lane will receive adequate and uniform consolidation. The system and methods of vibrating shall be subject to approval of the Engineer or Engineer. Vibrating equipment shall meet the requirements of IDOT Section 2301.07. Vibrating equipment shall, under no circumstances, be used as a tool for moving concrete laterally on the grade.

3.7 CURB AND GUTTER CONSTRUCTION

- A. Construct curb and gutter as shown on Standard Drawings.
- B. Use paving machine slip-form for curb; curb mule or similar mechanical equipment providing equivalent results.
- C. Hand methods shall be allowed for radius, returns, and sections of curb and gutter 100 feet or less in length.
- D. When depressed curb at driveways and where sidewalk intersects street, use templates to form backs of such curbs. See standard plates for shape of depressed curbs.
- E. Form and construct curb by hand only where barrier or depressed curb is required and where small radii or other special sections preclude use of mechanical equipment.
- F. Finish curb as rapidly as finishing operations on pavement permit. Maximum distance behind paving machine is 100 feet.

- G. Remove free water, latency, dust, leaves, or other foreign matter prior to placing concrete for curb.
- H. Use freshly mixed concrete; do not store concrete in receptacles at side of pavement for use in curb at a later time; do not use concrete requiring retempering.
- I. Vibrate or puddle concrete to secure bond with paving slab and eliminate rock pockets.
- J. Secure final finish on curbs by hand method, including 6 foot straightedge or 6 foot slipform.
- K. Edge, protect, and cure curb in same manner as pavement.
- L. Check surfaces of curb and gutter with 10 foot straightedge; correct variations greater than 1/8 inch; remove and replace curbs having varying cross section.

3.8 FINISHING

- A. Grade and Crown: Promptly after concrete has been placed and vibrated, the surface shall be struck off to the true section by the screed. The surface shall be finished true to crown and grade.
- B. Watering the Surface: The practice of lubricating the pavement surface with wet burlap or by sprinkling water from brushes or from sprinkler containers to afford greater ease in finishing operation shall not be allowed.
- C. Floats: Finish surface with wood or magnesium floats; finish from both sides simultaneously if pavement is placed to full width with one pass of paving machine.
- D. Straight Edging:
 - 1. After the longitudinal floating has been completed and the excess water has been removed, and while the concrete is still plastic, the slab shall be tested for trueness with a channel radius float, or approval equal. ("channel radius float" is manufactured by Owens Industries, Inc.)
 - 2. The channel radius float shall be held in successive positions parallel to the road center line in contact with the surface and the whole area worked from one side of the slab to the other as necessary.
 - 3. Advancement along the pavement shall be in successive stages of not more than one half the length of the channel radius float.
 - 4. Any depressions found shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished.
 - 5. Check surface longitudinally while concrete is still plastic; correct any surface deviations greater than 1/8 inch in 10 feet. Round edges of pavement to 1/8 inch radius.
- E. Surface Treatment:
 - 1. Dragged Surface Treatment: Unless otherwise specified, the finished surface shall be textured with a dragged surface treatment.
 - u. Astroturf or burlap shall be dragged longitudinally over the finished surface to produce a tight, uniform, textured surface, and the edges shall be rounded in a workmanlike manner.
 - v. The Astroturf or burlap drag shall be removed from the pavement surface at regular intervals and cleaned with water to remove accumulated concrete from the fabric in order to maintain a consistent finished texture.
 - w. When, for any reason, the desired texture normally obtained by the drag is not secured, the Engineer or Engineer may require that the final finish be a broom finish, in lieu of or in addition to the drag.
 - 2. Edge Finish: Before the concrete has taken its initial set, all edges of the slab shall be carefully finished with an edging tool and the pavement shall be left smooth and true to line and grade.

3.9 SURFACE CURING

- A. Apply liquid curing compound in a fine spray to form a continuous, uniform film on the horizontal surface and vertical edges of pavement, curbs and back of curbs immediately after surface moisture has disappeared, but no later than 30 minutes after finishing. With approval of the Engineer or Engineer, the timing of cure application may be adjusted due to varying weather conditions and concrete mix properties to ensure acceptable macrotexture is achieved.
 - 1. Use a white pigment liquid curing compound for concrete not receiving an asphalt overlay.
 - 2. Use a dark-colored curing compound for concrete receiving an asphalt overlay.
- B. Apply compound with power sprayer; rate of application not less than 0.067 gallon per square yard (15 square yards per gallon); do not dilute compound. For concrete receiving an asphalt overlay, the minimum rate for black cure shall be not less than 0.08 gallon per square yards (12.5 square yards per gallon) in accordance with Iowa DOT 4105.
- C. If forms are used, apply to pavement edges and back of curbs within 30 minutes after forms are removed.
- D. Protect concrete pavement during cold weather for at least 5 days, or protect a minimum of 24 hours and flexural strength of 500 psi.

3.10 JOINT SEALING

- A. Timing:
 - 1. Unless otherwise provided, before any portion of the pavement is opened to the Contractor's forces or to general traffic, joints that require sealing shall be sealed.
 - 2. The Jurisdiction Engineer may limit the wheel loads and axle loads of equipment operating on the pavement during this operation, if prior to the age and strength specified in this Section. Additional tests to determine the modulus of rupture may be required.
- B. Cleaning:
 - 1. For those joints that are not to be sealed, cleaning is not required.
 - 2. For those joints that are to be sealed, the residue from sawing shall be removed from the crack. An air compressor that provides moisture-free and oil-free compressed air shall be used. Removal of wet-sawing residue by flushing with high pressure water may be necessary prior to blowing the crack clean.
- 3. Joint Sealer:
 - x. Joint sealer shall be prepared and installed in the joint and to the proper level as shown in the contract documents and as recommended by the manufacturer.
 - y. Hot-poured sealers shall be heated in a thermostatically controlled heating kettle; the material shall be heated to the temperature required for use, but not above that recommended by the manufacturer. After sealing, excess sealer shall be removed from the pavement surface.
 - z. Joint sealer shall be placed only when the pavement and ambient air temperatures are 40° or higher. When near this minimum, additional air blasting or drying time or both may be necessary to assure a satisfactory bond to the joint surfaces.
 - aa. When this sealer cannot be properly placed due to late fall work, the Contractor shall submit a joint construction plan and sealing details to the Engineer or Engineer for approval before paving can begin.
 - bb. Joints shall be sealed the same day they are cleaned. Sealing shall be done only when the joint surfaces appear dry by visual examination.

- cc. If surface correction required the joints may need to be re-cleaned and re-sealed.

3.11 FORM REMOVAL

A. Timing:

1. Forms shall not be removed before the initial set of the concrete has taken place.
2. Remove stakes and forms with care to prevent cracking, spalling, or over stressing concrete. If damage does occur, the minimum repair shall be to saw cut full depth and remove a 4 by 2-1/2 feet wide area, dowel into adjoining sound concrete and pour back full depth; or as required by the Engineer or Engineer.
3. Clean forms before resetting.

B. Honeycomb Repair:

1. When the side forms are removed, honeycomb shall be filled with mortar composed of 1 part cement and 2 parts fine aggregate by weight.
2. If the honeycombing is to the degree and nature that it is considered by the Engineer or Engineer as defective work, it shall be removed and replaced at the expense of the Contractor.

- C. Paving Protection: The area behind the curbs and slab shall be backfilled immediately after the forms are removed. Dams or other protection shall be constructed to insure that no saturation or erosion of the subgrade under or near the pavement shall occur. This may include check dams, pumping, etc.

3.12 CONCRETE STEP INSTALLATION

- A. Form, reinforce, and cast in place concrete steps as shown on the details within the plans.
- B. Concrete steps shall be poured in a single pour unless otherwise authorized by the Architect or Engineer.
- C. Ensure concrete steps are poured over stable subgrade per Section 312000.
- D. Accommodations shall be made for floor mounted handrails as shown on the details.

3.13 TESTING FOR PORTLAND CEMENT CONCRETE (Minimum Frequencies)

MATERIAL OR CONSTRUCTION ITEM	TESTS (as per IDOT requirements)	METHODS OF ACCEPTANCE OF SAMPLING & TESTING	FIELD SAMPLING & TESTING			REMARKS
			FREQUENCY (minimum)	DESIGNATED RESPONSIBLE AGENT	REPORT	
Aggregates-Fine	Gradation (1)	Cert. Plant Inspector	1/250 CY or min 1/day (2)	Supplier/ Contractor	IDOT Form 830224	For federal, state or county projects.
	Moisture	Cert. Plant Inspector	1 per 1/2 day			
	Specific Gravity	Cert. Plant Inspector	1/250 CY or min 1/day (2)			
	Quality	Quality Certification	Prior to use			
Aggregates-Course	Gradation (1)	Cert. Plant Inspector	1/250 CY or min 1/day (2)		IDOT Form	

	Moisture	Cert. Plant Inspector	1 per 1/2 day		830224	
	Specific Gravity	Cert. Plant Inspector	1/250 CY or min 1/day (2)			
	Quality	Quality Certification	Prior to use			
Portland Cement	Quality	Quality Certification	Prior to use		IDOT Form 830224	
	W/C Ratio	Cert. Plant Inspector	1/250 CY or min 1/day (2)			
Fly Ash	Quality	Quality Certification	Prior to use		IDOT For 830211	
GGBFS	Quality	Quality Certification	Prior to use			
Curing Compound	Quality	Quality Certification	Prior to use	Supplier	Cert.	
Joint Sealer	Quality	Quality Certification	Prior to use			
Steel Reinforcing	Quality	Quality Certification	Prior to use			
Plastic Concrete	Air Content	Field Testing	1/200 CY or min. 1/day (2)	Jurisdiction	IDOT Form 830224	1/350 CY on primary roads
	Slump	Field Testing	1/200 CY or min. 1/day (2)			
	Cylinders 6" non-primary roads	Field Testing	2/500 CY or 2/day (2) (3)	Jurisdiction / Contractor	Field Book/ Lab Report	
	Cylinders 6" (Structures)	Field Testing	1 per 3 structures or min 1/day (2)		IDOT Form 830224	May be required on federal, state and county projects
	Beams (Paving)	Field Test	1/2000 CY or 2/day (2) (3)			
	Beams (Structures)	Field Test	2 per section (4)			
	Thickness	Field Testing	1/200 CY	Jurisdiction	Field Book	
Hardened Concrete	Thickness	Field Testing	1 core/1000 SY or 3 cores/project (2)	Contractor	Field Book/ Lab Report	Frequency may decrease with larger projects
	Width	Field Testing	1/day or as needed	Jurisdiction		
	Smoothness	Field Testing	Section 7010, 3.15	Contractor	Cert.	
	Compressive Strength	Maturity Tests	Test each day's pour		Lab Report	Follow IDOT Maturity Testing Requirements

Gradation submittal may be required by Engineer or Engineer on local projects.

Use most restrictive frequency.

The two samples will be collected at the same time.

Pours greater than 25 CY per day and 75 CY per week.

If maturity method is desired, the contractor shall be responsible for developing the maturity curve for the specified mix, taking maturity readings, and delivering a copy of the results to the Engineer or Engineer. IDOT IM 383.

3.14 DEFECTS OR DEFICIENCIES

- A. Pavement containing excessive cracks, fractures, spalls, or other defects shall be removed and replaced or repaired at no cost to the owner. Remedy to be determined by Engineer or Engineer. In lieu of the above, the Engineer or Engineer may approve an extended warranty.

3.15 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Engineer.
- B. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- C. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION

SECTION 32 1314
COLORED CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Products and Execution for all colored concrete flatwork

1.2 RELATED SECTIONS

- A. SUDAS Section 7010- PORTLAND CEMENT CONCRETE PAVEMENT** for work within the Public Right-of-Way

1.3 SUBMITTALS

- A. Contractor shall submit specified manufacture's complete technical data sheets and color charts for the following:**

1. Liquid Integral Color
2. Liquid Release Agent
3. Non-Stamping Evaporation Controller
4. Concrete Efflorescence Remover
5. Slip-Resistant Lacquer-Based Sealer for Decorative Concrete flatwork

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications:** Manufacturer of specified colored additives and sealants shall have a minimum 10 years' experience in the production of specified products.

- B. Contractor Qualifications:** Concrete work shall be performed by firm with five years' experience with work of similar scope and quality.

- C. Perform work in accordance with ACI 301 and ACI 316.**

- D. Perform work in accordance with SUDAS specification Section 7010 for work in the Public Right-of-Way and with Section 033000 – Cast-in-place Concrete.**

- E. Obtain each specified material from same source and maintain high degree of consistency in workmanship throughout the Project.**

- F. Colored Concrete Field Samples: Test panels**

1. Provide under provisions of SUDAS Section 7032.
2. At location on Project selected by Owners Representative, place and finish 5' x 5' area.
3. For accurate color, the quality of concrete should not be less than three (3) cubic yards (not less than 1/3 the capacity of the mixing drum on the ready-mix truck) and should always be in full cubic yard increments. Excess material shall be discarded according to legal regulations.
4. Construct simple-using processes and techniques intended for use on permanent work, including curing procedures. Include samples of control, construction, and tooled joints in sample panels. The field sample shall be produced by the individual worker who will be performing the work for the project.
5. Retain Samples of cements, sands, aggregates and color additives used in mock-up for comparison with materials used in remaining work.
6. Field samples shall require acceptance by the Owner's Representative in writing prior to continuation of paving work. If field sample is rejected by Owner's Representative, Contractor shall remove and dispose of rejected materials off-site in accordance with local regulations and shall install a newly constructed

Field Sample, until acceptance by the Owner's Representative, at no additional cost to the Owner.

7. Field sample(s) accepted by the Owner's Representative provides visual standard for work of SUDAS Section 7031. Field sample acceptance does not waive the right of Owner's Representative to reject subsequent areas of paving.
8. Field sample shall remain through completion of the work for use as quality standard for finished work.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Comply with manufacturer's instructions. Deliver products in original, unopened packaging. Do not allow products to freeze, do not store products in temperatures exceeding 120°F.

1.6 PROJECT CONDITIONS

A. Colored Concrete Environmental Requirements

1. Refer to specifications Section 7010- PORTLAND CEMENT CONCRETE PAVEMENT.
2. Schedule placement to minimize surface moisture loss due to exposure to hot weather conditions as noted in Section 7010, Part A, 2.
3. Avoid placing concrete if rain, snow, or frost is forecast within 72 hours. Protect fresh concrete from moisture and freezing (do not cover concrete with plastic or burlap sheeting).
4. Keep slabs free of traffic and loads for a minimum of 10 days after completion. Maintain ambient temperature at 50 F (10 C) or above during this time period.
5. Professional practices as described in ACI 305 R Hot Weather Concreting and 306R Cold Weather Concreting should be followed.

PART 2 - PRODUCTS

2.1 LIQUID INTEGRAL COLOR

- A. Liquid integral color shall be an iron oxide, water-based, dust-free moisture that mixes evenly into concrete, is UV-resistant and meets ASTM C979.
- B. Final color selections will be made from Contractor's submittals. Custom colors may be required at time of selection. For the initial submittal, Contractor shall submit a standard charcoal gray.
- C. Liquid integral color shall conform to the following
 1. ACI 303.1-97 – Standard Specification for Cast-In-Place Architectural Concrete.
 2. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete.
 3. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete.
 4. AASHTO M194 – Chemical Admixtures. CHECK
- D. The Manufacturer for the Liquid Integral Color shall be approved in writing by the Owner's Representative **prior to commencement of work.**

2.2 COLORLESS LIQUID RELEASE AGENT

- A. Colorless liquid release agent shall be colorless, bond-breaking agent that minimizes concrete build-up by forming a lubricating barrier for mat-type, texturing tools. Agent shall evaporate and leave no residue.
- B. Release Agent shall conform to the following:
 1. ACI 303.1-97 – Standard Specification for Cast-In-Place Architectural Concrete.
 2. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete.
 3. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete.

4. ASTM M194. Chemical Admixtures.

C. The Manufacturer for the Release Agent shall be approved in writing by the Owner's Representative **prior to commencement of work.**

2.3 EVAPORATION RETARDER (LIQUID CURE)

A. Evaporative Retarder shall be clear, non-yellowing, breathable UV-stable curing compound that complies with ASTM C309.

B. Evaporation Retarder shall be designed for outdoor application in areas subject to freeze-thaw conditions.

C. Evaporation Retarder shall conform to the following:

1. ACI 303.1-97 – Standard Specification for Cast-In-Place Architectural Concrete.
2. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete.
3. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete.
4. ASTM M194. Chemical Admixtures.

2.4 EFFLORESCENCE REMOVER

A. Efflorescence Remover shall contain a blend of acids and surfactants designed for the safe removal of cement scale after newly installed colored concrete has cured.

B. Efflorescence Remover shall be completely biodegradable and shall contain no toxins or carcinogens.

C. Muriatic Acid is not acceptable in this application.

D. The Manufacturer for the Efflorescence Remover shall be approved in writing by the Owner's Representative **prior to the commencement of work.**

2.5 CONCRETE SEALER

A. Concrete Sealer shall be a premium high-solids, lacquer-based acrylic coating designed to protect with a slip-resistant seal.

B. Concrete Sealer shall be designed for outdoor application in areas subject to freeze-thaw conditions.

C. Concrete Sealer shall conform to the following:

1. ACI 303.1-97 – Standard Specification for Cast-In-Place Architectural Concrete.
2. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete.
3. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete.
4. ASTM M194. Chemical Admixtures.

D. The Manufacturer for the Concrete Sealer shall be approved in writing by the Owner's Representative **prior to commencement of work.**

2.6 SUBSTITUTIONS

A. The use of any products other than those specified will be considered providing that the Controller requests its use in writing within seven (7) days prior to bid date. This request shall be accompanied by:

1. A certificate of compliance from the material manufacturer stating that the proposed products meet or exceed the requirements for this specification, including standards ACI 303.1-97, ASTM C979, ASTM C494 and ASSHTO M194.
2. Documented proof that the proposed material has a ten (10) year proven record of performance, confirmed by at least five (5) local projects that the Owner's Representative can examine.

2.7 CONCRETE MIX DESIGN FOR FLATWORK

A. See SUDAS specifications Section 7010-PORTLAND CEMENT CONCRETE PAVEMENT

- B. Slump of the concrete shall be consistent throughout the project at four (4) inches or less. At no time shall the slump exceed five (5) inches.
- C. The coarse aggregate shall be minus 3/8".
- D. Calcium chloride shall not be added to the mix since it causes mottling and surface discoloration.
- E. Supplemental admixtures, such as waterproofing agents and super plasticizers shall not be used. The use of a retarded-set, water-reducing admixture is acceptable.
- F. Air-entraining admixtures shall be used. Refer to SUDAS specification Section 7010.
- G. Do not add water to the mix in the field.
- H. Mix design shall be submitted and approved by the Engineer prior to commencing with the work.

PART 3 - EXECUTION

3.1 SUBGRADE

- A. The subgrade shall be well drained and have adequate uniform load-bearing characteristics.
- B. Subgrade must be moist, completely consolidated, and free of frost at the concrete installation. If necessary, subgrade should be dampened with water prior to pouring, but there must be no free-standing water on the subgrade nor should there be any muddy or soft spots when the concrete is placed.
- C. See construction details for sub-base requirements.

3.2 LAYOUT

- A. Allowance should be made during layout, approximately 1/16" to the foot, for possible tool floatation (i.e. an eight foot driveway should be formed at eight feet and 1/2").
- B. Establish a reference line. This may be accomplished with the use of a taught line square with a prominent feature or other reference.

3.3 PLACING FLATWORK CONCRETE

- A. Prior to placing concrete, surrounding surfaces and walls shall be protected to prevent discoloration and to facilitate cleanup.
- B. Contractor shall control concrete mix design to ensure good batch-to-batch uniformity.
- C. Transit Mixers shall be thoroughly cleaned of wash water and left over concrete from previous batch before receiving new batch ingredients.
- D. Place and finish concrete as specified in SUDAS STANDARD SPECIFICATION SECTION 7010-PORTLAND CEMENT CONCRETE PAVEMENT for flatwork.: Refer to details for types of construction joints.

3.4 COLORING

- A. Liquid integral color must be agitated or stirred to obtain proper viscosity prior to being mixed with liquid concrete mixture.
- B. Liquid Integral Color shall be incorporated into the concrete mixture at manufacturer's recommended timing and applied at the Manufacturer's recommended rate.
- C. Absolutely no water need shall be sprinkled or otherwise added to the surface during finishing.

3.5 CONCRETE SEALING

- A. After the 28 day curing period, inspect the concrete for efflorescence. If efflorescence is present, apply an approved efflorescence remover at Manufacturer's recommended rate. Apply as per manufacturer's recommendation.
- B. Thoroughly clean the areas to be sealed with a pressure washer or power scrubber. The use of soaps and detergents are prohibited. RINSE THOROUGHLY.

- C. Allow the surface to dry for 24 hours, the application area must be completely clean and dry to touch before sealant can be applied.
 - D. Stir contents thoroughly before and during the entire application process to maintain full suspension and even distribution of the slip-resistant additive.
 - E. DO NOT THIN sealant.
 - F. Apply 2 light, even coats of sealant with a natural brush or a good-quality roller. Allow 24 hours between coats for proper curing. Follow manufacturer's recommendations.
 - G. Protect finished surfaces from traffic, damaging mechanical disturbances, wind, and water flow during application and for 72 hours after final application.
- 3.6 CLEAN-UP AND MAINTENANCE
- A. Contractor shall remove all debris resulting from construction operations including temporary protective elements established to protect existing surfaces, walls, etc.
 - B. Contractor shall submit to the Owner's Representative a recommended maintenance schedule for the proper care needed to ensure long-life of colored concrete areas.
- 3.7 TOLERANCES
- A. Minor variations in appearance of colored concrete, which are similar to natural variations in color and appearance of uncolored concrete, are acceptable.

END OF SECTION

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SECTION 32 14 16 BRICK PAVERS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish and install brick unit pavers, sand setting beds and joint sand as shown on the Drawings and Specified herein.

1.02 REFERENCES

- A. ASTM C 902 - Standard Specification for Pedestrian and Light Traffic Paving Brick.
- B. ASTM C 33 - Specification for Concrete Aggregates.
- C. ASTM C 43 - Terminology of Structural Clay Products.
- D. ASTM C 67 - Test Methods of Sampling and Testing Brick and Structural Clay Tile.
- E. ASTM C 88 - Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
- F. ASTM C 136 - Method for Sieve Analysis for Fine and Coarse Aggregates.
- G. ASTM C 140 - Sampling and Testing Concrete Masonry Units.
- H. ASTM C 144 - Standard Specifications for Aggregate for Masonry Mortar.
- I. ASTM D 698 - Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5 lb (24.4 N) Rammer and 12 in. (305 mm) drop.
- J. ASTM C 1272, Standard Specification for Heavy Vehicular Paving Brick.
- K. ASTM D 1557 - Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10 lb (44.5 N) Rammer and 18 in. (457 mm) drop.
- L. ASTM D 2940 - Graded Aggregate Material for Bases or Subbases for Highways or Airports.
- M. Brick Industry Association Technical Note #14 on Brick Construction.

1.03 QUALITY ASSURANCE

- A. Installer Qualifications: Exterior Unit Paver installer shall have a minimum of five years successful experience, either in the present business form or by having principal personnel with equivalent experience elsewhere, in the installation of the products and systems of the type specified.
- B. Single-Source Responsibility: Obtain each color, type, and variety of unit pavers, joint materials, and setting materials from a single source with resources to provide products and materials of consistent quality in appearance and physical properties without delaying progress of the Work.

1.04 SUBMITTALS

- A. Product Data: Submit copies of manufacturer's specifications, installation instructions and setting bed requirements.
- B. Submit six full size samples of brick pavers for initial selection purposes in form of actual units or sections of units showing full range of colors and textures available for the unit paver indicated. Include similar samples of material for joints and accessories involving color selection. Engineer or Contracting Authority will approve color and final product from submitted samples.
- C. Submit sieve analysis for grading of bedding and joint sands.

- D. Test results shall be submitted from an independent testing laboratory for compliance of paving unit requirements to ASTM or other applicable requirements.

1.05 MOCK-UPS

- A. One complete in-place installation of one section of the pavers, as selected by the Contractor and agreed to by the Engineer. Installation shall reflect all detailing as shown on the drawings, including installation of concrete edges.
- B. This area will be used to determine the amount that the pavers settle into bedding after compaction, joint sizes, lines, laying pattern(s), color(s), and texture of the project.
- C. This area shall be the standard from which the work will be judged.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver brick pavers to the site in steel banded, plastic banded or plastic-wrapped cubes capable of transfer by fork lift or clamp lift. Unload pavers at job site in such a manner that no damage occurs to the product.
- B. Sand shall be covered with waterproof covering to prevent exposure to rainfall or removal by wind. The covering shall be weighted to resist removal by wind.
- C. Delivery and paving schedules shall be coordinated to minimize interference with normal use of buildings adjacent to paving.

1.07 ENVIRONMENTAL CONDITIONS

- A. Do not install sand, gravel, or pavers during rain or snowfall or during freezing conditions.

PART 2 PRODUCTS

2.01 CLAY BRICK PAVERS

- A. Obtain each type of brick from one source, with consistent color range and texture, complying with referenced ASTM standards and other references indicated.
- B. Classification: Nominal 4 x 8 x 2-1/4 as per ASTM C-1272 Class SX, Type 1 Application PS, 8000 minimum PSI, 6% maximum average absorption. Slip resistance shall be tested in general accordance with ASTM C 1028-96, standard test method for determining the static coefficient of friction of ceramic tile and other like surfaces by the horizontal dynamometer pull-meter test. Minimum static coefficient of friction shall be .60 for wet and .70 for dry.
- C. Type 1 Pavers: See Drawings for details on brick layout. Products of other manufacturers of similar color and finish shall also be considered if submitted as equal. Contractor shall submit samples to match the following types for approval of color and texture:
 - 1. 4"x8"x2 1/4" Standard – Bevel with spacing lugs
 - 2. Manufactured by The Whitacre Greer Company, 1400 South Mahoning Ave, Alliance, OH 44601. Telephone: (800) 947-2837 (www.wgpaver.com)
 - 3. Distributed by Glen-Gery, 101 Ashworth Rd, West Des Moines, IA 50265, Telephone: (515) 224-4110 (www.glengery.com)
 - 4. Colors:
 - (a) #34 Mulberry
 - (b) #41 Caribbean
 - (c) #42 Cinnamon
 - (d) #50 Ivory
 - (e) #52 Majestic

- (f) #53 Cimmerean
- (g) #56 Desert Gray

D. Type 2 Pavers: See Drawings for details on brick layout. Products of other manufacturers of similar color and finish shall also be considered if submitted as equal. Contractor shall submit samples to match the following types for approval of color and texture:

1. 8"x8"x2 1/4" Standard – Bevel with spacing lugs
2. Manufactured by The Whitacre Greer Company, 1400 South Mahoning Ave, Alliance, OH 44601. Telephone: (800) 947-2837 (www.wgpaver.com)
3. Distributed by Glen-Gery, 101 Ashworth Rd, West Des Moines, IA 50265, Telephone: (515) 224-4110 (www.glengery.com)
4. Colors: Red blend to match existing pavers in diagonal crosswalk in Central Park, Grinnell, Iowa. Submit samples for approval.

2.02 BITUMINOUS SETTING-BED MATERIALS

- A. Primer for Base: ASTM D 2028, cutback asphalt, grade as recommended by paver manufacturer.
- B. Fine Aggregate for Setting Bed: ASTM D 1073, No. 2 or No. 3.
- C. Asphalt Cement: ASTM D 3381, Viscosity Grade AC-10 or Grade AC-20.
- D. Neoprene-Modified Asphalt Adhesive: Paving manufacturer's standard adhesive consisting of oxidized asphalt combined with 2 percent neoprene and 10 percent long-fibered mineral fibers containing no asbestos.
- E. Sand for Joints: Fine, sharp, washed, natural sand or crushed stone with 100 percent passing No. 16 sieve and no more than 10 percent passing No. 200 sieve. Provide sand of color needed to produce required joint color.

2.03 BITUMINOUS SETTING-BED MIX

- A. Mix bituminous setting-bed materials at an asphalt plant in approximate proportion, by weight, of 7 percent asphalt cement to 93 percent fine aggregate unless otherwise indicated. Heat mixture to 300 deg F.

2.04 GEOTEXTILES

- A. Geotextile shall be a woven, polypropylene fabric complying with ASTM D 4751, Test Method for Determining Apparent Opening Size of a Geotextile, with an approximate opening size from a No. 70 to No. 100 sieve size opening. Geotextile fabric shall permit water passage without allowing sand or soil migration. Geotextiles should be lapped at the sides and ends of rolls a minimum of 12 in. (305 mm). Care should be taken to not locate laps directly under anticipated wheel paths.

PART 3- EXECUTION

3.01 WEATHER EXTREMES

- A. Cover units with a weather resistant membrane held securely in place or otherwise protect units from the elements.
- B. Follow the procedures developed by the International Masonry Industry All-Weather Council (IMIAC) "Recommended Practices and Guide Specifications for Cold Weather Masonry Construction" and BIA Technical Notes on Brick Construction 1, "All Weather Construction".

3.02 EXAMINATION

- A. Verify that subgrade preparation, compacted density and elevations conform to the specifications.
- B. Verify that concrete base elevations conform to the specifications. The slope of the concrete base surface shall conform to the finish grade of the pavers to provide uniform bedding thickness.
- C. Verify the proper installation of the concrete edge restraints, in terms of location, straightness, elevation, and adherence to the specifications.
- D. Beginning of bedding material shall signify acceptance of base and edge restraints.
- E. Determine actual paver dimensions (including tolerances) and coordinate with dimensions for pavement areas indicated on Contract Drawings prior to any pavement installation. Adjust pavement area dimensions to eliminate unnecessary paver cutting. Notify Engineer of notable discrepancies with the Contract Drawings due to site conditions.

3.03 SITE PREPARATION (CONCRETE BASE)

- A. Clean all concrete base areas in preparation for paver installation.
- B. Geotextile: Install geotextile where indicated on Contract Drawings. Overlap ends and edges a minimum of 12 inches (300 mm.).
- C. Before commencing the placing of the bedding course and the placement of the brick pavers, the base shall be inspected by the Owner or the Consultant.

3.04 BITUMINOUS SETTING-BED APPLICATIONS

- A. Apply primer to concrete slab or binder course immediately before placing setting bed.
- B. Prepare for setting-bed placement by locating 3/4-inch- deep control bars approximately 11 feet apart and parallel to one another, to serve as guides for striking board. Adjust bars to subgrades required for accurate setting of paving units to finished grades indicated.
- C. Place bituminous setting bed where indicated, in panels, by spreading bituminous material between control bars. Spread mix at a minimum temperature of 250 deg F. Strike setting bed smooth, firm, even, and not less than 3/4 inch thick. Add fresh bituminous material to low, porous spots after each pass of striking board. After each panel is completed, advance first control bar to next position in readiness for striking adjacent panels. Carefully fill depressions that remain after removing depth-control bars. Machine placement of bituminous setting-bed will be allowed with specific documentation of procedures, quality assurance measures, and reference experience on similar projects.
- D. Roll setting bed with power roller to a nominal depth of 3/4 inch. Adjust thickness as necessary to allow accurate setting of unit pavers to finished grades indicated. Complete rolling before mix temperature cools to 185 deg F.
- E. Apply neoprene-modified asphalt adhesive to cold setting bed by squeegeeing or troweling to a uniform thickness per ICPI recommendations. Proceed with setting of paving units only after adhesive is tacky and surface is dry to touch.
- F. Place pavers carefully by hand in straight courses, maintaining accurate alignment and uniform top surface. Protect newly laid pavers with plywood panels on which workers can stand. Advance protective panels as work progresses, but maintain protection in areas subject to continued movement of materials and equipment to avoid creating depressions or disrupting alignment of pavers. If additional leveling of paving is required, and before treating joints, roll paving with power roller after sufficient heat has built up in the surface from several days of hot weather.
- G. Joint Treatment: Place unit pavers with hand-tight joints. Fill joints by sweeping sand over paved surface until joints are filled. Remove excess sand after joints are filled.

3.05 BRICK PAVER INSTALLATION

- A. Initiation of paver placement shall be deemed to represent acceptance of the pavers.
- B. Pavers shall be free of foreign material before installation.
- C. Pavers shall be inspected for color distribution and all chipped, damaged or discolored pavers shall be replaced.
- D. Color Blending - Paving units shall be installed from a minimum of 3 bundles simultaneously drawing the paver vertically rather than horizontally.
- E. The pavers shall be laid in the pattern(s) as shown on the drawings. String lines or chalk lines on bedding material should be used to hold all pattern lines true.
- F. Joints between the pavers on average shall be between 1/16 in. and 1/8 in. (2 mm to 4 mm) wide. Joint spacing must be consistent to maintain patterns. This spacing must also be provided for the first row abutting the edge restraint.
- G. No more than 5% of the joints shall exceed [1/4 in. (6 mm)] wide to achieve straight bond lines. Joint (bond) lines shall not deviate more than $\pm 1/2$ in. (± 15 mm) over 50 ft. (15 m) from string lines.
- H. Gaps at the edges of the paved area shall be filled with cut pavers. Layout paver units within each field such that no paver units are cut smaller than one-third of a whole paver along edges subject to vehicular traffic.
- I. Pavers to be placed along the edge shall be cut with a double blade paver splitter or masonry saw.
- J. Upon completion of cutting, the area must be swept clean of all debris to facilitate inspection and to ensure pavers are not damaged during compaction. (Debris or sand particles left on pavers which are being compacted can cause point loading which may chip, scrape or break the paver.)
- K. After sweeping and prior to compaction, the paved area must be inspected by the Owner or Engineer to ensure satisfactory color blending. Pavers can be moved easily at this time to achieve good color distribution.

3.06 FIELD QUALITY CONTROL

- A. Check final elevations for conformance to the drawings. Notify Engineer of deviations and adjust as directed.
- B. All surface and pavement structures shall be true to the lines and levels, grades, thickness and cross sections shown on the drawings. All pavements shall be finished to lines and levels to ensure positive drainage at all drainage outlets and channels. In no case shall the cross-fall of any portion of pavement be less than that shown on the plans. The final surface elevations shall not deviate more than 3/8 in. (10 mm) under a 10 ft. (3 m) long straight edge.
- C. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.
- D. Lippage: No greater than 1/8 in. (3 mm) difference in height between adjacent pavers.
- E. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment and with no evidence of replacement.

PART 4– MEASUREMENT AND PAYMENT

- 4.01 Measurement: The Engineer shall measure the number of square feet of brick pavers that are satisfactorily installed in accordance with the plans and these specifications, as required by the contract documents.

- 4.02 Payment: For each type of brick paver installed and measured for payment, the Contractor shall be paid the contract unit price. This payment shall be full compensation for the paver installed.

END OF SECTION

SECTION 33 4100
STORM SEWER

PART 1 - GENERAL

- 1.1 SECTION INCLUDES:
 - A. Pipe and Fittings
 - B. Expansion Joints
 - C. Intakes
- 1.2 SUBMITTALS
 - A. Product Data: For each type of product indicated.
 - B. Shop Drawings:
 - 1. Include plans, elevations, sections, details, frames, covers, and grates.
 - C. Product Certificates: For each type of cast-iron soil pipe and fitting, from manufacturer.
 - D. Field quality-control reports.
 - E. As-Built Drawings.

PART 2 - PRODUCTS

- 2.1 STORM SEWERS
 - A. High Density Polyethylene Pipe (HDPE):
 - 1. Use pipe complying with the following:
 - a. AASHTO M 294, Type S corrugated exterior and smooth interior.
 - b. Minimum pipe stiffness at 5% deflection according to ASTM D 2412.
 - c. Integral bell and spigot joints with elastomeric seals complying with ASTM F 477.
 - d. Maximum 5% deflection of the average inside diameter by testing after installation according to Section 4060, 3.05 of the Iowa SUDAS Specifications.
 - 2. Do not use in the right-of-way. Use only outside the right-of-way in public utility easement areas where no utilities exist or are proposed (running parallel or crossing) or where the trench for the PVC pipe will not be disturbed, and where the Engineer allows Jointing Material for Concrete Pipe:
 - B. Bituminous Jointing Material:
 - 1. Use a cold-applied mastic sewer joint sealing compound recommended by the manufacturer for the intended use and approved by the Engineer. Comply with AASHTO M 198.
 - 2. Rubber Rope Gasket Jointing Material: Comply with ASTM C 990.
 - 3. Rubber O-ring or Profile Gasket: Comply with ASTM C 443 (for RCP) or ASTM C 361 (for RCPP).
 - C. Bituminous Joint Primer: Material intended for use in priming concrete joints. Comply with the requirements of ASTM D 41.
 - D. Engineering Fabric: Comply with Iowa DOT Article 4196.01.
 - E. Non-Shrink Grout: Comply with Iowa DOT Materials I.M. 491.13.
- 2.2 CONCRETE MATERIALS
 - A. Precast: Comply with ASTM C 478

- B. Cast-in-place class C concrete complying with IDOT Specification Section 2403, and the following:

1. Cement: ASTM C 150, Type II.
2. Fine Aggregate: ASTM C 33, sand meeting the following gradation:

Sieve	Percent Passing
3/8"	100
No. 4	90 to 100
No. 8	70 to 100
No. 30	10 to 60

3. Coarse Aggregate: ASTM C 33, crushed gravel meeting the following gradation:

Sieve	Percent Passing
1-1/2"	100
1"	50 to 100
3/4"	30 to 100
1/2"	20 to 75
3/8"	5 to 55
No. 4	0 to 10
No. 8	0 to 5

4. Water: Potable.

- C. Portland Cement Design Mix:

1. Flexural strength = 550 psi (3.8MPa) minimum in 7 calendar days
2. Slump = 1 inch minimum to 4 inches maximum (25 mm and 100 mm)
3. Air Entrainment = 5.5% minimum to 8% maximum

- D. Reinforcement shall comply with IDOT Specification Section 2404:

1. Reinforcing Fabric: ASTM A 185/A 185M, steel, welded wire fabric, plain.
2. Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A996M, Grade 60 (420 MPa) deformed steel.

2.3 NON-SHRINK GROUT

- A. shall comply with IDOT Materials I.M.491.13

- B. Compressive Strength ASTM C 109

1. Plastic State:

- a. 1 day 3000 psi (20.7 MPa)
- b. 7 days 5000 psi (34.5 MPa)

2. High Flow State:

- a. 1 day 800 psi (5.5 MPa)
- b. 7 days 3000 psi (20.7 MPa)

- C. Shrinkage

1. Plastic State

- a. ASTM C 827 (The manufacturer shall provide independent test result of C 827 for evaluation).

- b. In plastic state, the grout must not shrink, and the grout must not expand by more than 2%
 - 2. Hardened State
 - a. ASTM C 157
 - b. 0.20% Maximum
- D. When casting specimens for above tests, consistency shall meet the following requirements:
 - 1. Plastic State: ASTM C 109 110 $\pm$ 5%
 - 2. High Flow State: ASTM C 939/IM 375 20 $\pm$ 5 seconds

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavation, trenching, and backfilling are specified in Division 31 Section "Earth Moving."
- B. Contractor shall contact the Architect, Engineer, and Owner should contaminated soils or foreign fill material be encountered during water main or service construction. Soil mitigation may be deemed necessary by the Geotechnical Engineer.

3.2 PIPING INSTALLATION

A. Examination

- 1. Verify measurements at site; make necessary field measurements to accurately determine pipe makeup lengths or closures.
- 2. Examine site conditions to ensure construction operations do not pose hazards to adjacent structures or facilities.

B. General:

- 1. Provide proper facilities for lowering the sections into place without damaging the pipe
- 2. Inspect pipe for defects before carefully lowering into trench. Do not install damaged or defective pipe.
- 3. Clean pipe interior and joints prior to lowering into trench. Keep pipe clean during construction.
- 4. Begin at the lowest point in the line. Lay groove or bell end pointing upstream unless specifically noted otherwise.
- 5. Place pipe with lifting holes at the top of the pipe and fill lift hole with non-shrink grout or manufactured plugs.
- 6. Assemble joints as specified by the pipe manufacturer. When specified, wrap exterior of storm sewer pipe joints with engineering fabric.
- 7. Cut ends of pipe at manholes, intakes, and structures. Do not hammer cut or break pipe.
- 8. Provide intakes as specified in the contract documents.
- 9. Use watertight stopper, plug, or other approved means to protect the exposed upstream ends of the pipe and prevent soil sediment from entering the storm sewer system.

C. Trenched:

- 1. Excavate trench and provide pipe bedding and backfill material as specified in Section 312000 "Earth Moving". If RCEP is used, provide pipe bedding as specified.
- 2. Prepare trench bottom to design line and grade so that only minor movement of the pipe is necessary after installation.
- 3. Lay pipe to design line and grade.

- a. Install pipe to line and grade specified in the contract documents. Set field grades to invert of pipe.
- b. At no additional cost to the Owner, correct misalignment, displacement, or otherwise defective pipe by removing, relaying, or replacing pipe.
- 4. Provide uniform bearing for full pipe barrel length. Excavate bell holes as necessary for uniform support of pipe barrel on bedding material.
- 5. Do not lay pipe in water or on saturated soil or bedding, or allow water to rise in trench around pipe prior to placing backfill material.
- 6. Do not disturb installed pipe and bedding when using movable trench boxes and shields. Block or anchor pipe as necessary to prevent joint displacement.

3.3 PIPE JOINTING

- A. General:
 - 1. Clean joint surfaces to remove soil or foreign material prior to jointing pipe.
 - 2. Assemble joints according to pipe manufacturer's recommendations. Use equipment that does not apply damaging forces to pipe joints.
- B. Reinforced Concrete Low Head Pressure Pipe (RCP); Polyvinyl Chloride Pipe (PVC) and Corrugated PVC Pipe; and High Density Polyethylene Pipe (HDPE): Coat gasket and joint with soap-based lubricant immediately prior to closing the joint.
- C. Connections between Dissimilar Pipes:
 - 1. Use manufactured adapters or couplings approved by the Engineer.
 - 2. Where adapters or couplings are not available, the Engineer may authorize use of a concrete collar as shown in the contract documents.

3.4 TOLERANCES

- A. The following tolerances apply to utilities installed by open trench construction. For trenchless construction, comply with Section 312000 "Earth Moving".
 - 1. Ensure horizontal and vertical alignment of gravity sewer lines does not vary from design line and grade at any point along the pipe by more than 1% of the inside diameter of the pipe or 1/4 inch, whichever is larger.
 - 2. Tolerance is allowed only if design line and grade is sufficient to prevent backslope when tolerance limits are reached.
 - 3. Reverse slope on pipe is prohibited. Remove and reinstall pipe to proper grade.

3.5 CONFLICTS

- A. Provide temporary support for existing water, gas, telephone, power, and other utilities or services that cross the trench.
- B. Compact backfill material under existing utility crossing as specified in Section 312000 "Earth Moving", or construct utility line supports where specified in the contract documents or as directed by the Engineer.

3.6 INTAKE INSTALLATION

- A. Excavation: Excavate according to Section 31 20 00 "Earth Moving".
- B. Subgrade Preparation:
 - 1. Cut Sections (Undisturbed Soil): Prepare subgrade to accurate elevation required to place structure base or subbase.
 - 2. Fill Sections: Compact to 95% of maximum Standard Proctor Density and hand grade to accurate elevation required to place structure base or subbase, or install stabilization material as directed by the Engineer.
 - 3. Unstable Soil: Install stabilization material as directed by the Engineer.

- C. Subbase:
 - 1. Cast-in-place Structures: No subbase material is required.
 - 2. Precast Structures: If precast structure is provided, install 8 inch thick pad of Class I bedding material a minimum of 12 inches outside footprint of the structure.
 - D. Pipes: Install and bed pipes and connect to manhole or intake. Install pipe flush with inside wall of structure. Place bedding and pipe embedment material according to Section 312000 "Earth Moving".
 - 1. Cast-in-place Structures: Form structure walls around pipe.
 - 2. Precast Storm Sewer Intakes: Fill space between pipe and structure with non-shrink grout.
 - E. Joint Sealant:
 - 1. Apply bituminous jointing material or install rubber rope gasket.
 - 2. If indicated in the contract documents, apply engineering fabric wrap to joints.
 - F. Invert:
 - 1. Construct intake invert up to one-half of pipe diameter to produce a smooth half-pipe shape between pipe inverts.
 - 2. Shape invert to provide a smooth transition between pipe inverts.
 - 3. Slope invert top toward pipe 1/2 inch per foot perpendicular to flow line.
 - 4. For precast inverts, remove any projections and repair any voids to provide a hydraulically smooth channel between ends of pipes.
 - G. Top Sections: Install intake top.
 - H. Adjustment Ring(s): Bed each concrete ring with bituminous jointing material in trowelable or rope form. Bed each polyethylene ring with manufacturer's approved product. Do not install more than a total ring stack height of 12 inches. For greater adjustment, modify lower riser section(s).
 - I. Casting: Install the type of casting specified in the contract documents and adjust to proper grade. When specified in the contract documents, attach a casting frame to the structure with four anchor bolts.
 - J. Backfill and Compaction:
 - 1. Place suitable backfill material after concrete in structure has reached at least 3,000 psi compressive strength or 550 psi flexural strength. If concrete strength is not determined, place backfill at least 14 calendar days after initial concrete placement.
 - 2. Place backfill material simultaneously on all sides of walls and structures so the fill is kept at approximately the same elevation at all times.
 - 3. Compact the 3 feet closest to all walls or wing faces using pneumatic or hand tampers only. Ensure proper and uniform compaction of backfill around structure.
- 3.7 ADDITIONAL REQUIREMENTS FOR CAST-IN-PLACE CONCRETE STRUCTURES
- A. Forms:
 - 1. Comply with Iowa DOT Article 2403.07, E.
 - 2. Form all cast-in-place intakes on both the inside and the outside face above the base. Do not form against excavated earthen surface.
 - B. Reinforcing Steel:
 - 1. Comply with Iowa DOT Section 2404.
 - 2. Lap bars a minimum of 36 diameters, unless otherwise specified in the contract documents.

3. Provide a minimum of 3 inches of clearance for structure bases and 2 inches of clearance for walls and tops.
- C. Concrete Mixing:
 1. Comply with Iowa DOT Article 2403.06.
 2. When using ready-mixed concrete, comply with ASTM C 94.
- D. Concrete Placing:
 1. Comply with Iowa DOT Article 2403.08.
 2. Do not place concrete when the air temperature is less than 40°F without the approval of the Engineer. When placement of concrete below 40°F is allowed, comply with Iowa DOT Article 2403.11.
 3. Place concrete continuously in each section until complete. Do not allow more than 30 minutes to elapse between depositing adjacent layers of concrete within each section.
 4. Comply with Iowa DOT Article 2403.09 for concrete vibration.
 5. Form 1 1/2 inch by 3 inch keyed construction joints at locations shown in the contract documents.
 6. Provide a broom finish on portions of structure that are to become part of exposed pavement.
- E. Stripping and Cleaning:
 1. Remove forms for intake walls and tops according to Iowa DOT Article 2403.18. References to culverts include all storm structures. When allowed by the Engineer, compressive strengths at six times the stated flexural strengths may be used in determining concrete strength of structure tops.
 2. Finish surfaces according to Iowa DOT Article 2403.21. Give exposed surfaces a Class 2 finish.
- F. Curing:
 1. Comply with Iowa DOT Article 2403.10.
 2. For surfaces visible to the public, use only curing compounds complying with ASTM C 309, Type 1-D or Type 2.
- G. Exterior Loading:
 1. Restrict exterior loads on concrete according to Iowa DOT Article 2403.19.
 2. When allowed by the Engineer, compressive strengths at six times the stated flexural strengths may be used.
- H. Repairs: After visual inspection of the completed intake, repair honeycomb areas, visible leaks, tie holes, or other damaged areas. Remove concrete webs or protrusions.
- I. Concrete Testing: The contractor shall provide concrete testing results to the Engineer.
- 3.8 CONCRETE PLACEMENT
 - A. Place cast-in-place concrete according to ACI 318.
- 3.9 IDENTIFICATION
 - A. Materials and their installation are specified in Division 31 Section "Earth Moving." Arrange for installation of green warning tape directly over piping and at outside edge of underground structures.
 1. Use detectable warning tape over ferrous piping.
 2. Use detectable warning tape over nonferrous piping and over edges of underground structures.

3.10 FIELD QUALITY CONTROL

A. Cleaning

1. Clean all storm sewers and pipe culverts prior to testing by flushing with high pressure water and removing debris by vacuum extraction, and by removing sheeting bracing, shoring, forms, soil sediment, concrete, or other debris.
2. Do not discharge soil sediment or debris to drainage channels, existing storm sewers, or existing sanitary sewers.

B. Visual Inspection

1. Check each section of sanitary sewer, storm sewer, or pipe culvert by lamping.
2. Light should be visible through section of pipe lamped.
3. Visually inspect each run of pipe.
4. Repair or replace defective pipe or joints, or remove and relay pipe not meeting alignment tolerances, as directed by the Engineer

END OF SECTION

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PART III

Special Provisions

SPECIAL PROVISIONS

The Iowa SUDAS Standard Specifications, Current Edition, along with Supplemental Specifications and Special Provisions included herein (hereinafter referred to as the Specifications), shall apply to the work on this project. The Supplemental Specifications and Special Provisions modify, amplify, or amend the Specifications for use on this project and take precedence over them in the event of any discrepancy.

Electronic versions of the Specifications can be downloaded free from this website:

<http://www.iowasudas.org/>. To order a printed specification manual:

- contact SUDAS, 515-294-2869, or
- fill out an order form on their website: <http://www.iowasudas.org/manuals/order-forms/>

S.P. 1 – COORDINATION BETWEEN CONTRACTOR, OWNER, AND ENGINEER:

Wherever these specifications refer to Jurisdiction or Owner, such terms shall be considered interchangeable and shall refer to the City of Grinnell, Iowa. Russ Behrens will be the main point of contact on behalf of the Owner.

The Engineer for this project, as referred to in these specifications, is RITLAND+KUIPER Landscape Architects, with assistance from Clapsaddle-Garber Associates and MODUS Engineering. Mark Kuiper from RITLAND+KUIPER Landscape Architects will be the project manager and main point of contact for all inquiries from the Contractor during construction.

S.P. 2 – INSURANCE: The Contractor shall provide a Certificate of Liability Insurance in accordance with Project Insurance Requirements section of this project manual.

S.P. 3 – CONSTRUCTION STAKING: Construction staking during construction shall be provided by the Engineer. Additional costs for any restaking shall be borne by the Contractor. This shall be accomplished by a reduction of payment from the Owner to the Contractor of the original contract amount. The reduction of payment shall be the cost of the restaking by the Engineer charged to the Owner.

S.P. 4 – TESTS: Testing of concrete (air and slump), soil proctors, and nuclear gauge moisture/density testing of soils shall be performed by the Engineer. All other quality control tests as required by the plans and specifications shall be provided by the Contractor, and all tests shall be taken as outlined in the specifications. The cost of all quality control testing shall be paid for by the Contractor. Acceptance testing shall be provided and paid for by the Owner.

If tests indicate materials and work do not meet requirements as specified, the expense of all retesting, as determined by the Engineer, shall be borne by the Contractor. Types and number of tests shall be as indicated in the reference specifications or as directed by the Engineer.

The Contractor shall be responsible for providing manufacturers certifications on all structures and materials installed on the project, indicating compliance with the Specifications.

S.P. 5 – CONSTRUCTION SEQUENCE: The Owner reserves the right to determine the order in which the various sections of work will be constructed. The Contractor shall submit a written plan outlining the proposed work schedule and sequence of construction at the preconstruction meeting and will maintain and update this information throughout the performance of the work.

S.P. 6 – SUBSURFACE SOIL DATA: Subsurface soil investigations have been made on site by Terracon. Results of these tests will be made available to the Contractor upon request. There are no known underground conflicts or areas of concern. Bidders are expected to examine the site and then decide for themselves the character of the material to be encountered. The Owner or Engineer will not assume responsibility for variations of subsoil quality or conditions.

S.P. 7 – UTILITIES: The Contractor shall contact the various utility companies, whether public or private, regarding the movement or protection of poles, wires, cables, conduits, or pipelines. The Contractor shall be responsible for the repair of any damage to utility lines or structures caused by the Contractor's work.

S.P. 8 – CODES AND REGULATORY AGENCIES: The Contractor shall comply with all applicable codes, regulations and the directions of all properly appointed authorities having jurisdiction.

S.P. 9 – PERMITS AND INSPECTIONS: The Contractor shall obtain and furnish all necessary permits and inspection certificates for all material and labor furnished by the Contractor. Permits and certificates shall be obtained from the proper inspection authorities. The cost of permits, certificates and all fees required in connection with the installation shall be borne by the Contractor. The Contractor shall see that such application is properly filed with the utility and that all information required for such an application is presented to the extent and in the form required by the utility company.

All contractors shall become co-permittees on the IA DNR NPDES No. 2 Construction Permit for the Storm Water Pollution Prevention Plan.

S.P. 10 – INCIDENTAL ITEMS OF WORK: The Contractor is responsible for the performance of any item of miscellaneous work indicated on the Plans or Specifications even though these items may be omitted from the Bid Schedule. Such omission indicates that compensation for these omitted categories is considered included in those pay items which are listed in the Bid Schedule.

S.P. 11 – PUBLIC ACCESS & COORDINATION: Contractor shall coordinate with the City staff to prevent conflicts with City events to the greatest extent practical. The Contractor shall provide a construction schedule to the City for prevention of conflicts and to assist in scheduling and coordination.

S.P. 12 – EMERGENCY ACCESS: The construction zone shall be maintained to such a condition to permit emergency vehicles access to the construction area at all times.

S.P. 13 – SAFETY REQUIREMENTS: The Contractor shall be solely and exclusively responsible for providing temporary ladders, guard rails, shoring, bracing, dewatering (if required), warning signs, night lights, and other safeguards desirable or required, and shall comply with all Federal, State and Municipal Safety Requirements. The Contractor shall be solely and exclusively responsible for the design, construction, inspection and continual maintenance of such facilities at all times. The Contractor shall be responsible for protecting the work and stored materials until completion and acceptance of the work by the Owner. It shall be the sole and exclusive responsibility of the Contractor to provide a safe place to work for all laborers and mechanics and other persons employed on or in connection with the project, and nothing in these Contract Documents shall be construed to give any of such responsibility to the Owner or Engineer.

S.P. 14 – CONTRACTORS ACCESS: The Contractor's access routes and assembly and storage areas shall be on the project property within the green space and not in the existing parking which will still be utilized by the City. The Contractor shall not park equipment on public streets or within the driplines of any trees during the construction project. The Contractor shall be responsible for repair or replacement of any damage to existing facilities, pavements, trees, or other site features as a result of construction activities. The Contractor shall also be responsible for providing any temporary surfacing necessary for access to the construction site and removal of such surfacing upon completion of the project. This includes seeding, fertilizing and mulching if necessary.

S.P. 15 – REGULATIONS: The Contractor shall comply with the directions of all property appointed authorities having jurisdiction.

S.P. 16 – DAMAGE: The Contractor is responsible for damage to existing buildings and to existing facilities and is responsible for the repair of any damage caused by the Contractor's work. This shall include any and all work to repair or restore the Contractor's assembly and storage area.

S.P. 17 – CLEANUP OF THE PROJECT SITE: The Contractor shall at all times keep the site of the work and adjacent premises as free from materials, debris, and trash as practicable, and shall remove same from any portion of the site if, in the opinion of the Owner, such materials, debris, or trash constitute a nuisance or are objectionable in any way to the public. The Contractor shall be responsible for the removal of dirt accumulation or any other debris on pavements resulting from the Contractor's operations on the work.

At the completion of the work, the Contractor shall remove all materials, implements, barricades, equipment, staging, piling, falsework, debris and rubbish connected with or caused by operations for such work immediately upon the completion of that work and shall leave the premises in perfect condition insofar as affected by the work under this Contract. Fires for disposal of rubbish on the site are prohibited.

All cleaning shall be accomplished by a street sweeper or power broom to remove debris. Prior to sweeping, the area shall be cleaned of large debris, concrete, mud, etc., with an end loader. If the street sweeper or power broom does not adequately clean the pavement surface, the Contractor shall flush the surface with a water truck and then re-sweep.

S.P. 18 – SALES TAX: The Owner will issue special exemption certificates to contractors and subcontractors allowing them to purchase, or withdraw from inventory, materials for the contract free from sales tax in accordance with the Specifications.

S.P. 19 – COORDINATION OF SPECIFICATIONS, PLANS AND SPECIAL PROVISIONS: In case of a discrepancy within the various items included in the contract documents, the items shall prevail, or govern, in the following descending order:

1. Special Provisions
2. Plans, including plan notes
3. Supplemental Specifications in Bid Documents
4. SUDAS Specifications

Grinnell Veterans Memorial Monument

Design Team

Project Leader/Landscape Architect:

RITLAND+KUIPER
Landscape Architects
501 Sycamore Street, Mezz. A
Waterloo, Iowa 50703
Phone: 319-233-8090

Civil Engineer/Surveyor:

Clapsaddle-Garber Associates
16 East Main Street
Marshalltown, IA 50158
Phone: 641-752-6701

Monument Artist:

JTL Workshop
3633 Hwy 146
Grinnell, IA 50112
Phone: 515-229-6626

Monument Design and Fabrication:

Vector Custom Fabricating
2118 W. Fulton Street
Chicago, Illinois 60612
Phone: 312-421-5161

Electrical & Lighting Engineer:

MODUS Engineering
214 East 4th Street
Waterloo, Iowa 50703
Phone: 319-235-0650

Structural Engineer:

Goodfriend Magruder Structure LLC
53 W Jackson Blvd. Suite 340
Chicago, Illinois 60604
Phone: 312-265-2643

City of Grinnell, Iowa

07/15/25

BID DOCUMENTS

Project Location

CENTRAL PARK IN GRINNELL, IOWA

Drawing Index

SITE/CIVIL

C-0.0 COVER SHEET
C-0.1 SYMBOLS, LEGEND, AND GENERAL INFORMATION
C-1.0 EXISTING CONDITION & DEMO PLAN
C-2.0 LAYOUT & UTILITY PLAN
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C-5.0 TYPICAL DETAILS

LANDSCAPE

L-1.1 LANDSCAPE PLAN
L-2.1 PAVER LAYOUT PLAN
L-2.2 PAVER DETAILS

ELECTRICAL

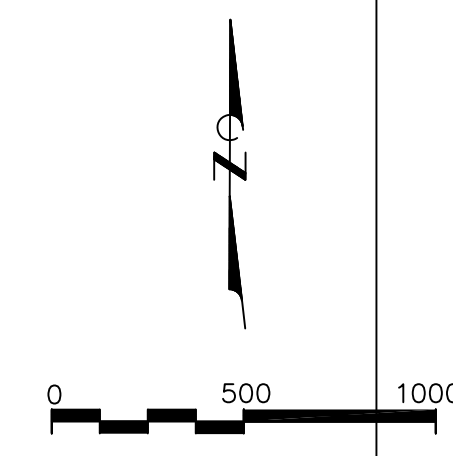
E-1.1 ELECTRICAL SYMBOLS AND SITE PLAN
E-1.2 ELECTRICAL SCHEDULES & DETAILS

MONUMENT ERECTION

ME1-7 ERECTION PLAN & DETAILS

STRUCTURAL

S-0.0 GENERAL NOTES
S-0.1 GENERAL NOTES
S-1.0 FOUNDATION PLAN
S-3.0 TYPICAL DETAILS



LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED	
		EVERGREEN TREE			WATERLINE
		DECIDUOUS TREE			WATER VALVE
		FRUIT TREE			FIRE HYDRANT
		SHRUBS (BUSHES)			WATER METER
		TREE LINE			CURB STOP
		STUMP			YARD HYDRANT
		SWAMP			FIRE DEPT. CONNECTION
		CEMETERY			POST INDICATOR VALVE
		GRAVE			SANITARY SEWER LINE
		CAVE			STORM SEWER LINE
		SINK HOLE			DRAIN TILE
		WELL			SUBDRAIN
		WINDMILL			MANHOLE
		CISTERN			CLEANOUT
		SEPTIC TANK			INTAKE
		LP GAS TANK			BEEHIVE INTAKE
		UNDERGROUND STORAGE TANK			ROOF DRAIN
		SATELLITE DISH			ROOF DRAIN (SURFACE)
		SIGN (TYPE AS NOTED)			ROOF DRAIN (UNDERGROUND)
		FLAGPOLE			GAS LINE
		SOIL BORING			GAS VALVE
		MONITORING WELL			GAS METER
		PARKING METER			OVERHEAD ELECTRICAL LINE
		MAILBOX			BURIED ELECTRICAL LINE
		POST			POWER POLE
		BOLLARD			ELECTRICAL METER
		SPRINKLER HEAD			ELECTRICAL HIGHLINE TOWER
		SPRINKLER HEAD VALVE			TRAFFIC SIGNAL
		GUARDRAIL (BEAM OR CABLE)			TRAFFIC SIGNAL LINE
		FENCE			STREET LIGHT
		TILE OUTLET			LUMINAIRE
		DRAINAGE WAY			ELECTRICAL BOX/TRANSFORMER
		EDGE OF WATER			FIBER OPTICS LINE
		SILT FENCE			FIBER OPTICS BOX
		CONTOUR LINE			FIBER PEDESTAL
		SPOT ELEVATION			TELEPHONE LINE
		BUILDING			TELEPHONE POLE
					TELEPHONE PEDESTAL
					TELEPHONE BOX
					CABLE TELEVISION LINE
					TELEVISION PEDESTAL
					TELEVISION BOX
					AIR CONDITIONER

ABBREVIATIONS

PCC	PORTLAND CEMENT CONCRETE
ACC	ASPHALT CEMENT CONCRETE
STM	STORM SEWER MANHOLE
INT	STORM SEWER INTAKE
INT-MH	STORM SEWER INTAKE WITH MANHOLE
STCO	STORM SEWER CLEANOUT
FES	STORM SEWER FLARED END SECTION
STP	STORM SEWER PIPE
STFM	STORM SEWER FORCE MAIN
SMH	SANITARY SEWER MANHOLE
SACO	SANITARY SEWER CLEANOUT
SAP	SANITARY SEWER PIPE
SAFM	SANITARY SEWER FORCE MAIN
FH	FIRE HYDRANT ASSEMBLY
YH	YARD HYDRANT ASSEMBLY
WV	WATER VALVE
CS	CURB STOP
PIV	POST INDICATOR VALVE
FDC	FIRE DEPT. CONNECTION
RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
PVC	POLYVINYL CHLORIDE PIPE
DI	DUCTILE IRON PIPE
CP	SURVEY CONTROL POINT
BM	SURVEY BENCHMARK
SB	SOIL BORING
MW	MONITORING WELL
PM	PARKING METER
SH	SPRINKLER HEAD
GV	GAS VALVE
GM	GAS METER
PP	POWER POLE
EM	ELECTRIC METER
TS	TRAFFIC SIGNAL
LP	LIGHT POLE/STREET LIGHT
EB	ELECTRICAL BOX/TRANSFORMER
FB	FIBER OPTICS BOX/PEDESTAL
TB	TELEPHONE BOX/PEDESTAL
TP	TELEPHONE POLE
CB	CABLE/TELEVISION BOX
AC	AIR CONDITIONER UNIT
CBU	CLUSTER MAILBOX UNIT

CONTROL POINTS:

IOWA REGIONAL COORDINATE SYSTEM IOWA REGIONAL COORDINATE SYSTEM (ZONE 9)
NAD83(2011)(EPOCH 2010) IARTN DERIVED -US SURVEY FEET

NUMBER	NORTHING	EASTING	ELEV.	DESCRIPTION
303	635479.92	1852645.44	1014.39	MAG NAIL
400	636101.77	1852180.48	1020.35	MAG NAIL IN CURB
401	636099.55	1852540.36	1016.12	MAG NAIL IN CORNER OF INTAKE
402	635751.59	1852376.52	1017.51	MAG NAIL
403	635827.36	1852191.97	1020.16	MAG NAIL IN CURB
405	635590.23	1852210.51	1016.79	CUT X

SURVEY PREPARED BY:

CLAPSADDLE-GARBER ASSOCIATES, INC
16 EAST MAIN STREET
MARSHALLTOWN, IOWA 50158
PH 641-752-6701
WWW.CGACONSULTANTS.COM

SITE PLAN PREPARED BY:

PROJECT MANAGER:LUKE WILSON
CLAPSADDLE-GARBER ASSOCIATES, INC
16 EAST MAIN STREET
MARSHALLTOWN, IOWA 50158
PH 641-752-6701
WWW.CGACONSULTANTS.COM

FIELD WORK COMPLETED:

5/31/2024

PROPERTY ADDRESS:

834 BROAD STREET, GRINNELL,
IOWA

OWNER OF RECORD:

CITY OF GRINNELL

UTILITY COMPANIES

THE FOLLOWING UTILITIES ARE PRESENT ON THIS PROJECT

ALLIANT ENERGY ALLIANT ENERGY FIELD ENGINEER	800-255-4288
CITY OF GRINNELL JAN B. ANDERSON	641-236-2600
GRINNELL COLLEGE MIKE BURT	641-269-3300
IOWA COMMUNICATIONS NETWORK DAVE AUSPURGER	515-725-4604
AUREON NETWORK SERVICES JEFF KLOCKO	515-830-0445
VERIZON INVESTIGATIONS	489-886-4090
MASHASKA COMMUNICATION GROUP FRANK HANSON	641-676-1000
MEDIACOM CURT HODGES	515-669-3647
WINDSTREAM COMMUNICATIONS LOCATE DESK	800-289-1901

NOTE:

UNDERGROUND STRUCTURES, FACILITIES, AND UTILITIES
HAVE BEEN PLATTED FROM AVAILABLE SURVEYS, RECORDS
AND DEEDS. THEREFORE THEIR LOCATIONS MUST BE
CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS,
THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

NOTES:

- ALL BEARINGS ARE THE RESULT OF G.P.S. OBSERVATIONS.
- ALL UNDERGROUND UTILITIES ON THIS SITE HAVE BEEN LOCATED AT ASCE LEVEL C OR D SURVEY QUALITY.
- UTILITY LINETYPES WITH A QUALITY LEVEL INDICATOR (*) HAVE BEEN LOCATED PER THE FOLLOWING ASCE STANDARD GUIDELINE FOR THE COLLECTION & DEPICTION OF EXISTING SUBSURFACE UTILITY DATA* :

(A) - PRECISE HORIZONTAL & VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED & SURVEYED UTILITIES) & SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. MINIMALLY INTRUSIVE EXCAVATION EQUIPMENT IS TYPICALLY USED TO MINIMIZE THE POTENTIAL FOR UTILITY DAMAGE. A PRECISE HORIZONTAL & VERTICAL LOCATION, AS WELL AS OTHER UTILITY ATTRIBUTES, IS SHOWN ON PLAN DOCUMENTS. ACCURACY IS TYPICALLY SET TO 15- MM VERTICAL & TO APPLICABLE HORIZONTAL SURVEY & MAPPING ACCURACY AS DEFINED OR EXPECTED BY THE PROJECT OWNER.

(B) - INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE & APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. QUALITY LEVEL B DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT & REDUCED ONTO PLAN DOCUMENTS.

(C) - INFORMATION OBTAINED BY SURVEYING & PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES & BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

(D) - INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
C-0.1	SYMBOLS, LEGEND AND GENERAL INFORMATION
C-1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C-2.0	LAYOUT & UTILITY PLAN
C-3.0	GRADING PLAN
C-5.0	TYPICAL DETAILS



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

Signature
Lucas A. Wilson, PE
Iowa License Number 26390
My license renewal date is December 31, 2025

Date
7/15/25

Pages or sheets covered by this seal: ALL C-SERIES SHEETS IN THIS PROJECT

VETERANS
MEMORIAL
MONUMENT

Central Park
Grinnell, Iowa

Project Leader/Landscape Architect:

RITLAND+KUIPER
Landscape Architects
501 Sycamore Street, Mezz. A
Waterloo, Iowa 50703
Phone: 319-233-8090

Civil Engineer/Surveyor:

Clapsaddle-Garber Associates
16 East Main Street
Marshalltown, IA 50158
Phone: 641-752-6701

Monument Artist:

JTL Workshop
3633 Hwy 146
Grinnell, IA 50112
Phone: 515-229-6626

Monument Design and Fabrication:

Vector Custom Fabricating
2118 W. Fulton Street
Chicago, Illinois 60612
Phone: 312-421-5161

Electrical & Lighting Engineer:

MODUS Engineering
214 East 4th Street
Waterloo, Iowa 50703
Phone: 319-235-0650

Structural Engineer:

Goodfriend Magruder Structure LLC
53 W Jackson Blvd. Suite 340
Chicago, Illinois 60604
Phone: 312-265-2643

Revisions	No.	Date	Description

Issue Date : 07/15/25	Designed By : KMN
Drawn By : KMN	Reviewed By : LAW

Sheet Title

SYMBOLS,
LEGEND, AND
GENERAL
INFORMATION

Category Sheet

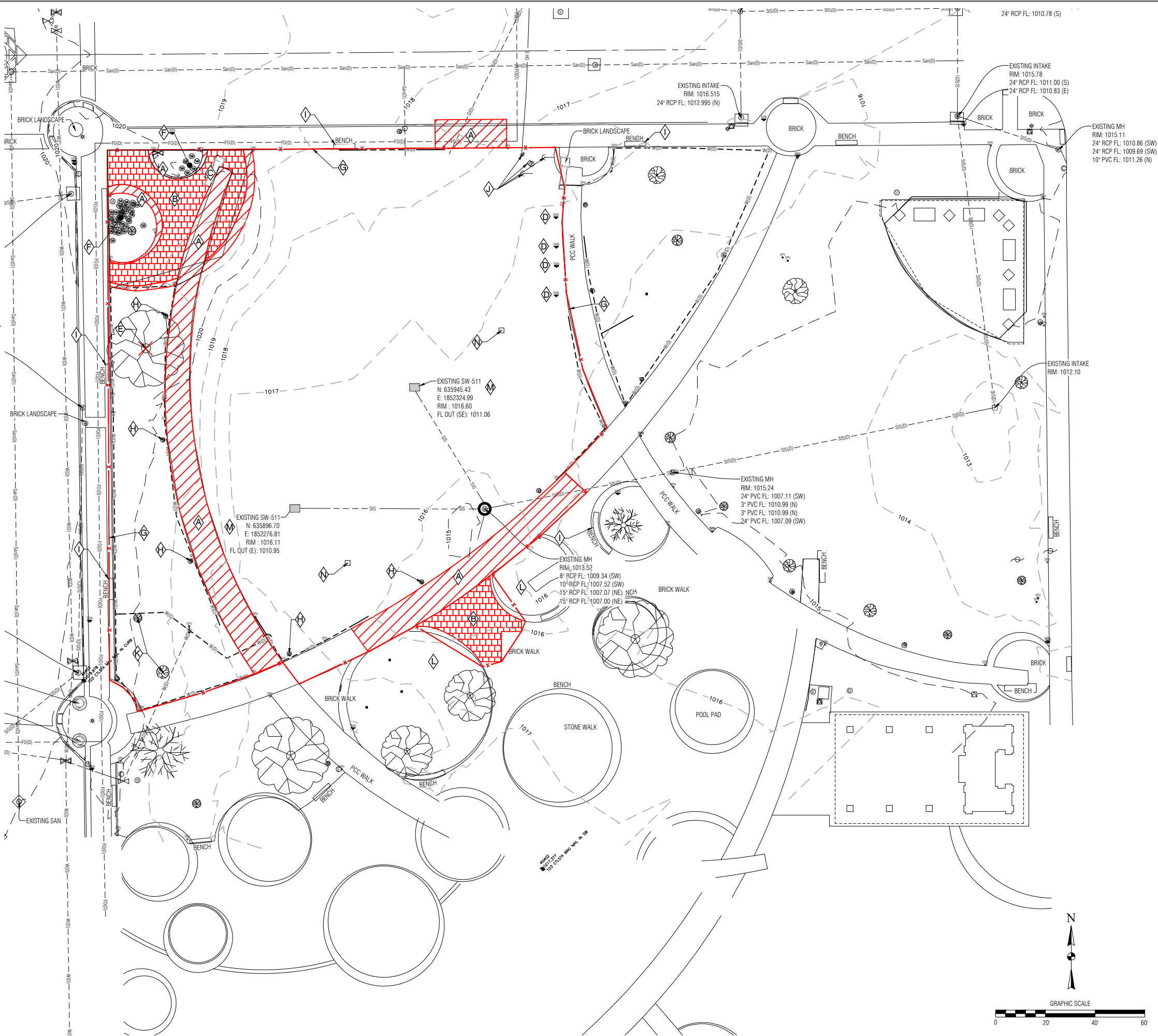
C-0.1

GENERAL DEMOLITION NOTES:

- ADJOINING PROPERTIES SHALL BE PROTECTED DURING DEMOLITION OPERATIONS. DEBRIS ON ADJOINING PROPERTIES SHALL BE CAREFULLY REMOVED BY CONTRACTOR.
- ANY DAMAGE TO EXISTING PAVEMENT TO REMAIN DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL EFFORTS SHALL BE MADE TO NOT DISTURB EXISTING PAVEMENT TO REMAIN.
- CONTRACTOR SHALL SUPPLY DETAILED CONSTRUCTION SCHEDULE TO THE CITY.
- ONE WEEK PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY:
A. CITY OF GRINNELL
B. RITLAND+KUIPER LANDSCAPE ARCHITECTS
- CONTRACTOR SHALL DISPOSE OF PAVEMENT & FENCING OFF-SITE
- ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS, OR SIMILAR ITEMS ARE PROHIBITED ON PRIVATE PROPERTY.
- EXISTING IRRIGATION SYSTEM TO BE REMOVED AND REPLACED IN THIS AREA. LOCATE, CUT, AND CAP IRRIGATION MAINS WHERE THEY ENTER THIS ARE AND TAKE CARE NOT TO DAMAGE AREAS OUTSIDE OF THE CONSTRUCTION AREA DURING CONSTRUCTION ACTIVITIES. SALVAGE EXISTING IRRIGATION HEADS AND VALVES AND PROVIDE TO CITY OF GRINNELL. NEW IRRIGATION SYSTEM TO BE PROVIDED BY OWNER (NOT IN CONTRACT).

KEY DEMOLITION CONSTRUCTION NOTES:

- A** REMOVE EXISTING PAVEMENT
- B** REMOVE EXISTING BRICK PAVERS & CONCRETE BASE. SALVAGE PAVERS FOR REUSE IN THE SAME LOCATION
- C** REMOVE EXISTING WALL FEATURE, SALVAGE CAST STONE CAPS TO THE CITY
- D** REMOVE EXISTING SIGNS AND SALVAGE TO THE CITY
- E** REMOVE EXISTING TREE
- F** CLEAR & GRUB EXISTING PLANTS
- G** INSTALL CONSTRUCTION FENCING AROUND SITE PERIMETER
- H** EXISTING LIGHT POLE SHALL BE REMOVED, SALVAGED & RESET ON NEW CONCRETE BASE
- I** EXISTING BENCH TO BE PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION
- J** EXISTING POWER POLE, GUY WIRES & ELECTRICAL PEDESTAL TO BE REMOVED
- K** EXISTING TREES TO BE PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION. INSTALL CONSTRUCTION FENCING AROUND TREE DRIPLINE TO PREVENT PARKING UNDER TREES.
- L** EXISTING LANDSCAPED AREA TO BE PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION
- M** INSTALL INLET PROTECTION DEVICE. PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL INSTALL, MAINTAIN AND REMOVE CONSTRUCTION DEVICE WHEN CONSTRUCTION HAS BEEN COMPLETED
- N** EXISTING INLET STRUCTURE TO BE REMOVED.



VETERANS
MEMORIAL
MONUMENT

Central Park
Grinnell, Iowa

Project Leader/Landscape Architect:

RITLAND+KUIPER
Landscape Architects
501 Sycamore Street, Mezz. A
Waterloo, Iowa 50703
Phone: 319-233-8090

Civil Engineer/Surveyor:

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Phone: 312-265-2643

Revisions

No.	Date	Description

Issue Date :

07/15/25

Designed By :

KMN

Drawn By :

KMN

Reviewed By :

LAW

Sheet Title

EXISTING
CONDITIONS &
DEMOLITION
PLAN

Category

Sheet

C-1.0

TRAFFIC CONTROL NOTES

- 1. ALL TRAFFIC CONTROL DEVICES & BARRIERS SHALL BE FURNISHED, ERECTED, MAINTAINED, & REMOVED BY THE CONTRACTOR. ALL CONTROL DEVICES SHALL BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION, AND SHALL CONFORM TO SUDAS TRAFFIC CONTROL STANDARDS
- 2. PROPOSED CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE REVIEWED WITH THE OWNER BEFORE CHANGES ARE MADE.
- 3. THE CONTRACTOR SHALL USE CARE WHEN WORKING UNDER/OVER/AROUND ELECTRICAL LINES.

GENERAL LAYOUT NOTES:

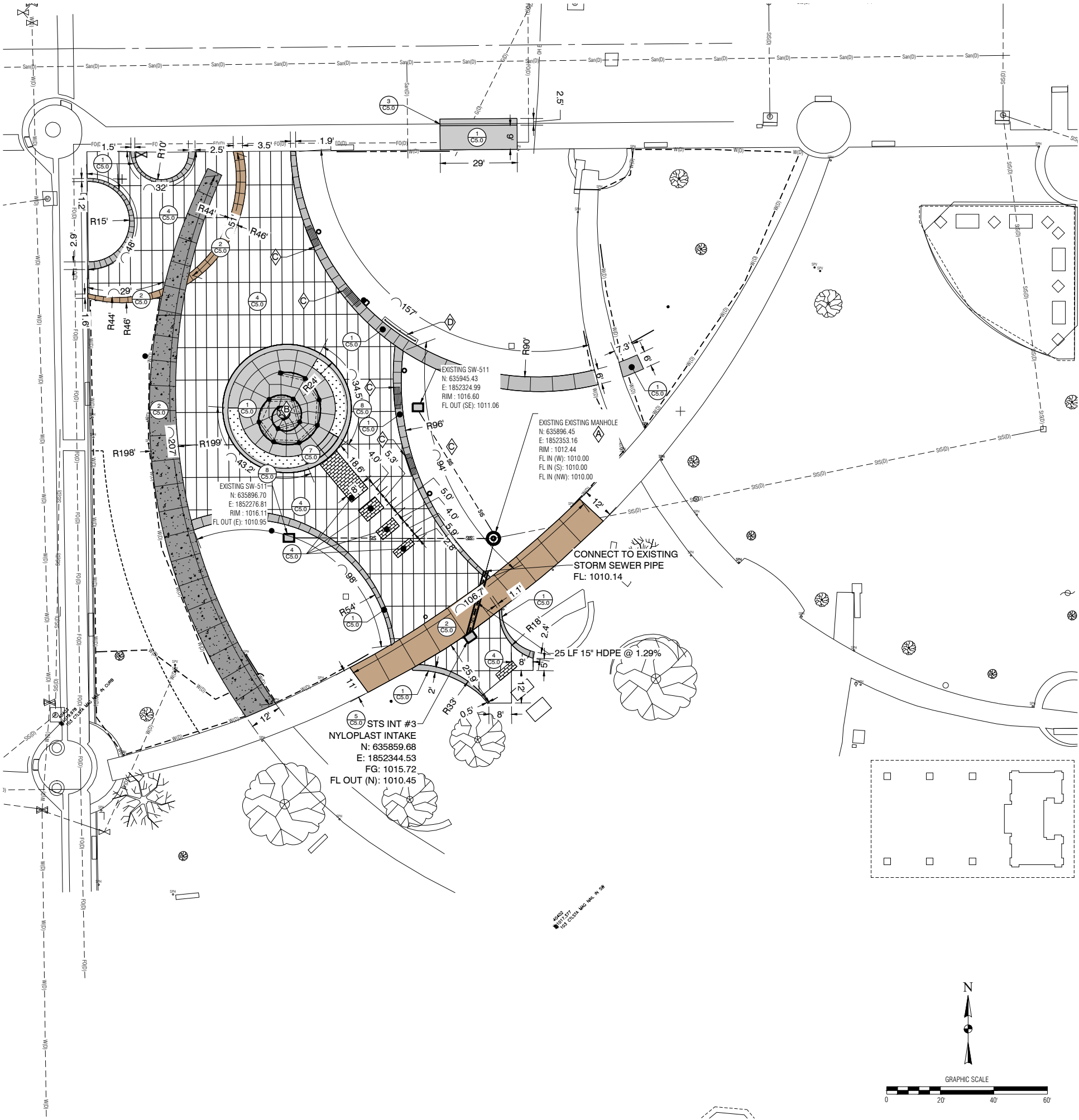
- 1. ALL DIMENSIONS ARE TO EDGE OF PAVING UNLESS OTHERWISE NOTED.
- 2. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES & STANDARDS. NOTHING INDICATED ON THESE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH APPROPRIATE SAFETY REGULATIONS.
- 3. ALL DISTURBED AREAS DESIGNATED AS GREEN SPACE SHALL BE SEEDED, FERTILIZED & MULCHED UNLESS OTHERWISE NOTED IN PLANS. REFER TO L-SERIES PLANS.
- 4. ANY DAMAGE TO THE PAVEMENT NOT SHOWN FOR REMOVAL ON THE PLANS DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE. ALL EFFORTS SHALL BE MADE TO NOT DISTURB EXISTING PAVEMENT.
- 5. COORDINATE GAS, ELECTRIC, TELEPHONE, & FIBER OPTIC RELOCATIONS OR REMOVALS WITH RESPECTIVE UTILITY COMPANIES.
- 6. ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS, OR SIMILAR ITEMS ARE PROHIBITED ON PRIVATE PROPERTY.
- 7. CONCRETE CONTRACTOR SHALL COORDINATE WITH MONUMENT INSTALLER PRIOR TO BEGINNING WORK. MONUMENT INSTALLER/ FABRICATOR SHALL SEND A TEMPLATE FOR LAYING OUT AND LOCATING STRUCTURAL FOOTINGS TO THE CONCRETE FLATWORK CONTRACTOR TO USE DURING PREPARATION OF CONCRETE WORK.

CONSTRUCTION DETAILS

- 1. INSTALL 6" PCC PAVEMENT SECTION
- 2. INSTALL 6" PCC COLORED SIDEWALK PAVEMENT SECTION
 - DARK GRAY COLOR
 - TAN COLOR
- 3. INSTALL 6" STANDARD CURB & GUTTER MATCH EXISTING PAVEMENT
- 4. BRICK PAVER SECTION (SEE L-SERIES PLANS FOR MORE INFORMATION)
- 5. NYLOPLAST 2' X 3' ROAD AND HIGHWAY STRUCTURE EQUIVALENT TO SUDAS SW-511
- 7. INSTALL CONCRETE STEPS
- 8. INSTALL VARIED HEIGHT CURB & GUTTER WITH THICKENED EDGE

CONSTRUCTION NOTES:

- A. ADJUST MANHOLE (MAJOR ADJUSTMENT) AND REPLACE TOP WITH SOLID TOP. CONTRACTOR SHALL FIELD VERIFY MANHOLE RIM ELEVATION PRIOR TO ADJUSTMENT.
- B. VETERANS MONUMENT (SEE STRUCTURAL PLAN FOR MORE INFORMATION ON FOOTING LOCATIONS AND CONSTRUCTION) MONUMENT INSTALL SHALL BE COMPLETED BY OTHERS.
- C. BENCH (TO BE INSTALLED BY OWNER - N.I.C.)
- D. DONOR WALL (TO BE INSTALLED BY OWNER - N.I.C.)



VETERANS
MEMORIAL
MONUMENT

Central Park
Grinnell, Iowa

Project Leader/Landscape Architect:

RITLAND+KUIPER
Landscape Architects
501 Sycamore Street, Mezz. A
Waterloo, Iowa 50703
Phone: 319-233-8090

Civil Engineer/Surveyor:

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Marshalltown, IA 50158
Phone: 641-752-6701

Monument Artist:

JTL Workshop
3633 Hwy 146
Grinnell, IA 50112
Phone: 515-229-6626

Monument Design and Fabrication:

Vector Custom Fabricating
2118 W. Fulton Street
Chicago, Illinois 60612
Phone: 312-421-5161

Electrical & Lighting Engineer:

MODUS Engineering
214 East 4th Street
Waterloo, Iowa 50703
Phone: 319-235-0650

Structural Engineer:

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Chicago, Illinois 60604
Phone: 312-265-2643

Revisions

No.	Date	Description

Issue Date :

07/15/25

Designed By :

KMN

Drawn By :

KMN

Reviewed By :

LAW

Sheet Title

LAYOUT &
UTILITY PLAN

Category

Sheet

C-2.0

Central Park
Grinnell, Iowa

Project Leader/Landscape Architect:
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501 Sycamore Street, Mezz. A
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Phone: 319-233-8090

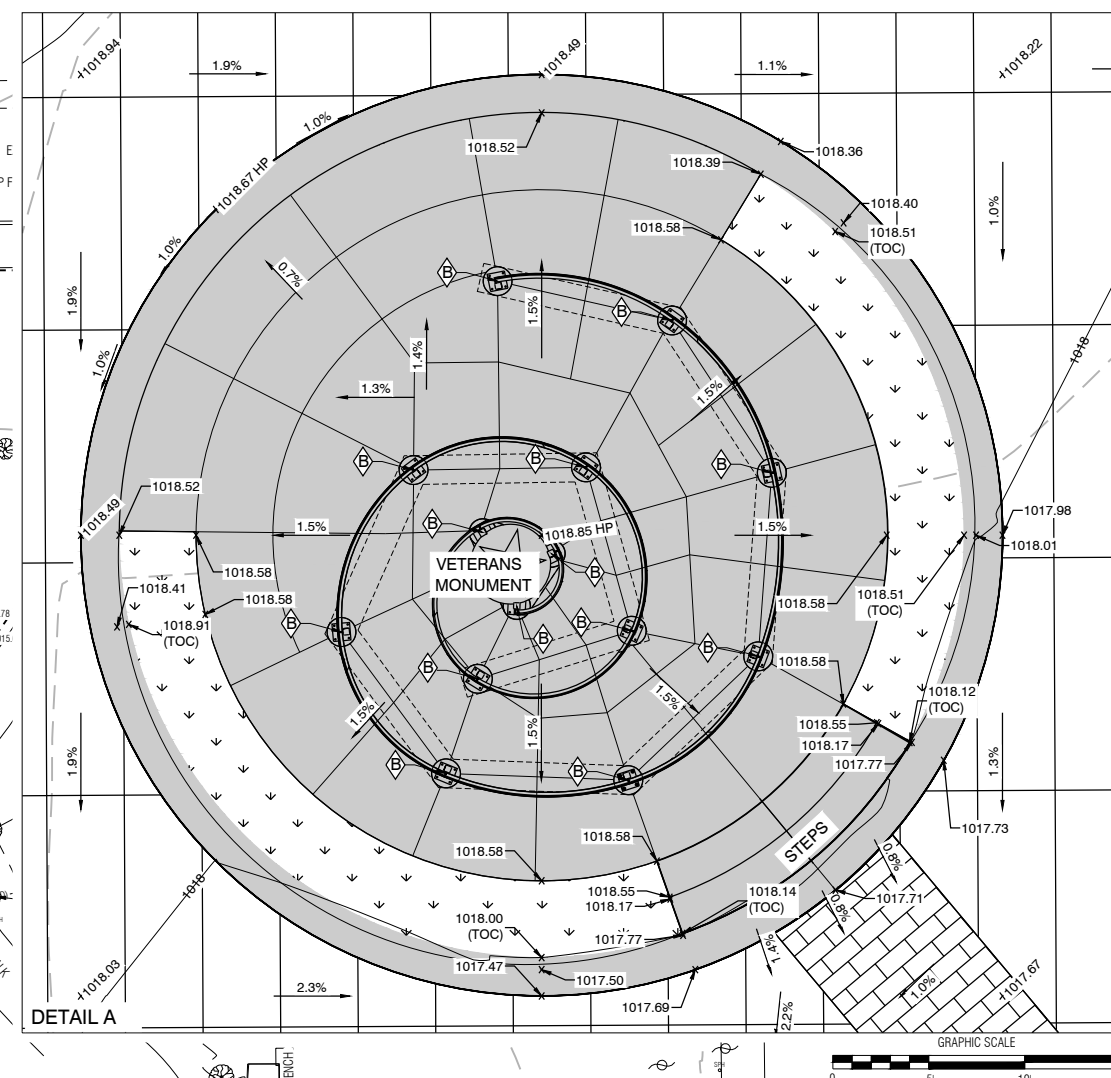
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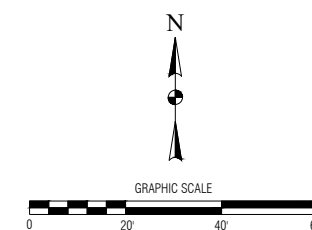
CONSTRUCTION NOTES:

- A** INSTALL STRAW WATTLE
- B** VERIFY ELEVATIONS WITH STRUCTURAL ENGINEER PRIOR TO INSTALLING PCC PAVEMENT AND MEMORIAL FOUNDATIONS. BOTTOM OF MONUMENT SHALL BE NO GREATER THAN 4" FROM TOP OF PAVEMENT

<u>Topsoil Summary:</u> Strip/Salvage (6"): 585 CY Respread (6"): 385 CY Waste: 200 CY
<u>Earthwork Summary:</u> Cut: 255 CY Fill + 30%: 455 CY Borrow: 200 CY

GENERAL GRADING NOTES:

1. CONCRETE CONTRACTOR SHALL COORDINATE WITH MONUMENT INSTALLER PRIOR TO BEGINNING WORK. MONUMENT INSTALLER/ FABRICATOR SHALL SEND A TEMPLATE FOR LAYING OUT AND LOCATING STRUCTURAL FOOTINGS TO THE CONCRETE FLATWORK CONTRACTOR TO USE DURING PREPARATION OF CONCRETE WORK.

[illegible]

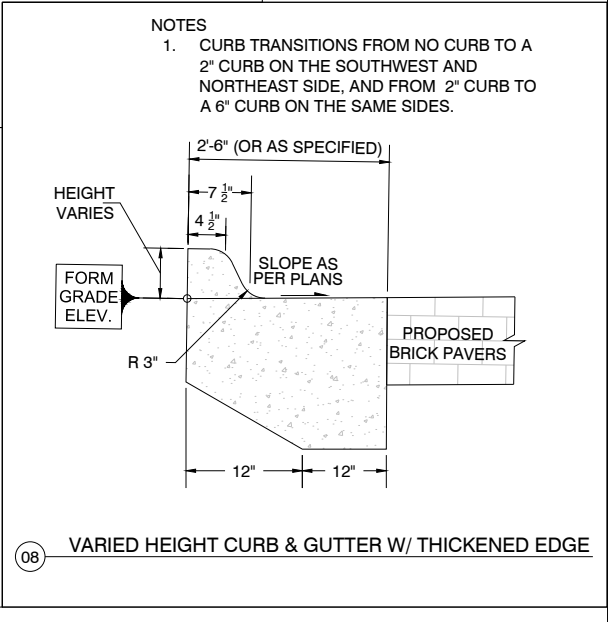
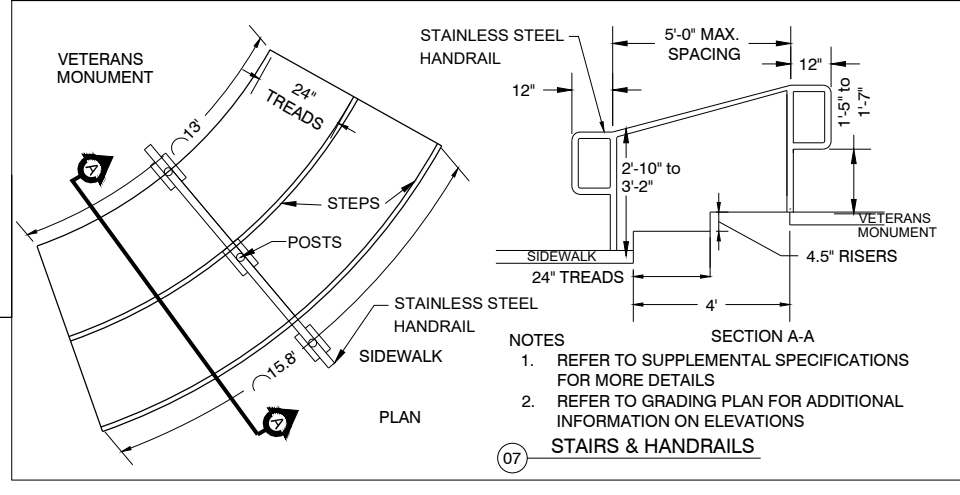
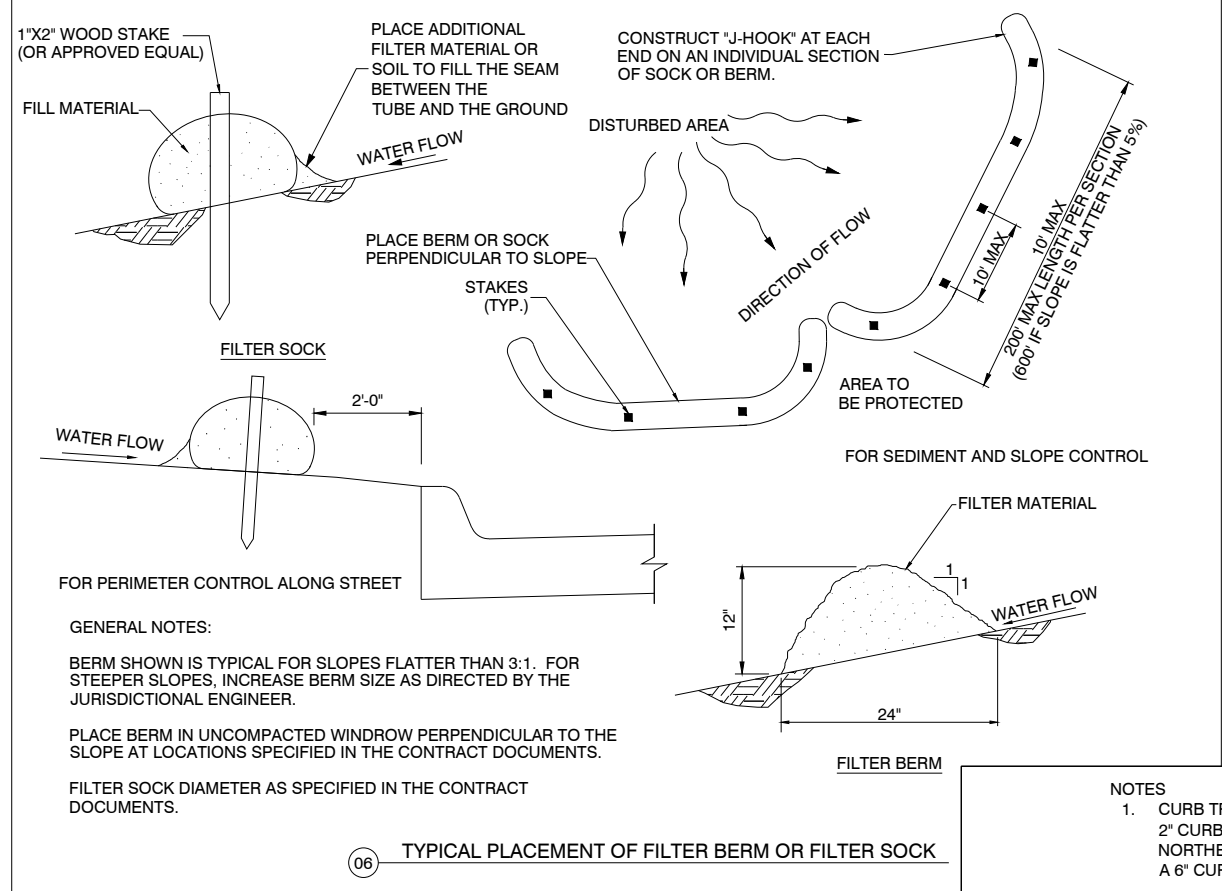
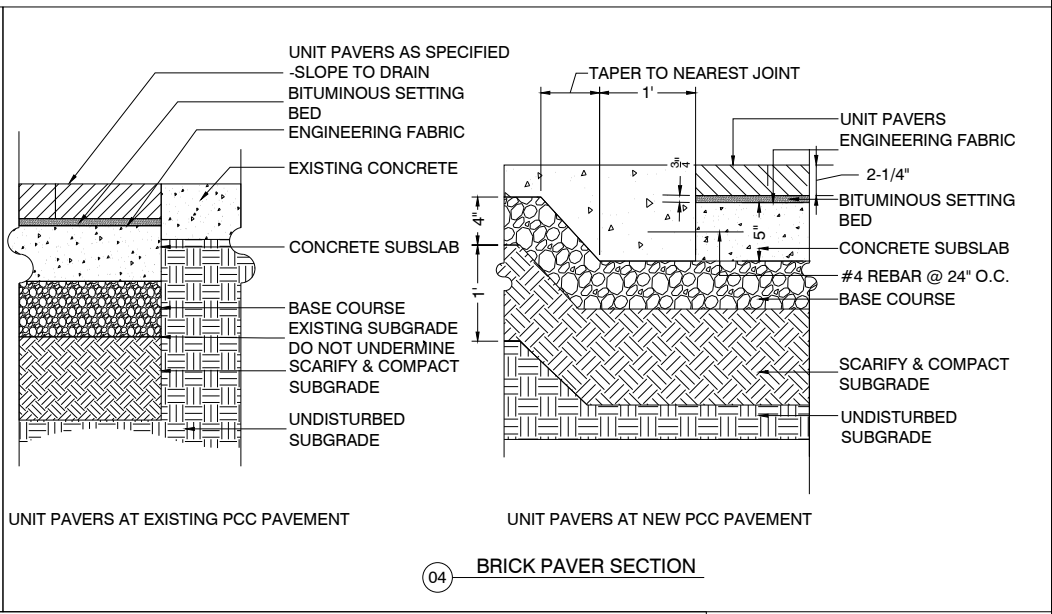
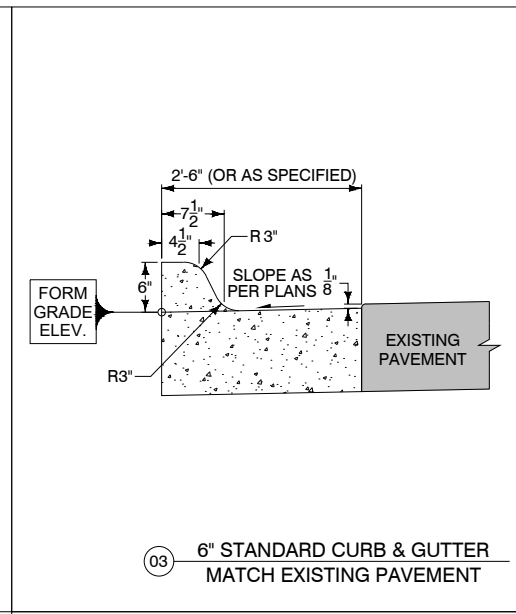
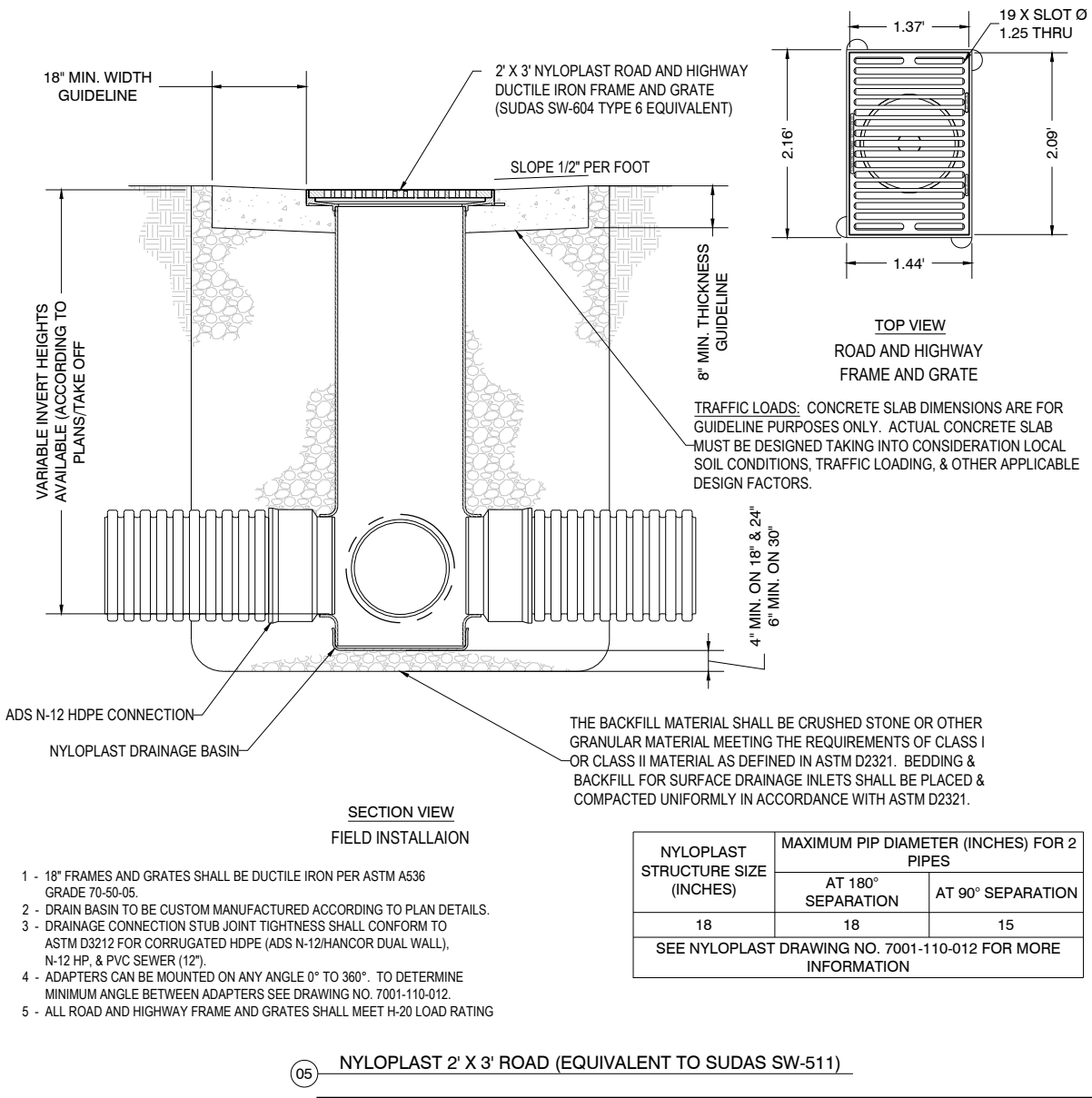
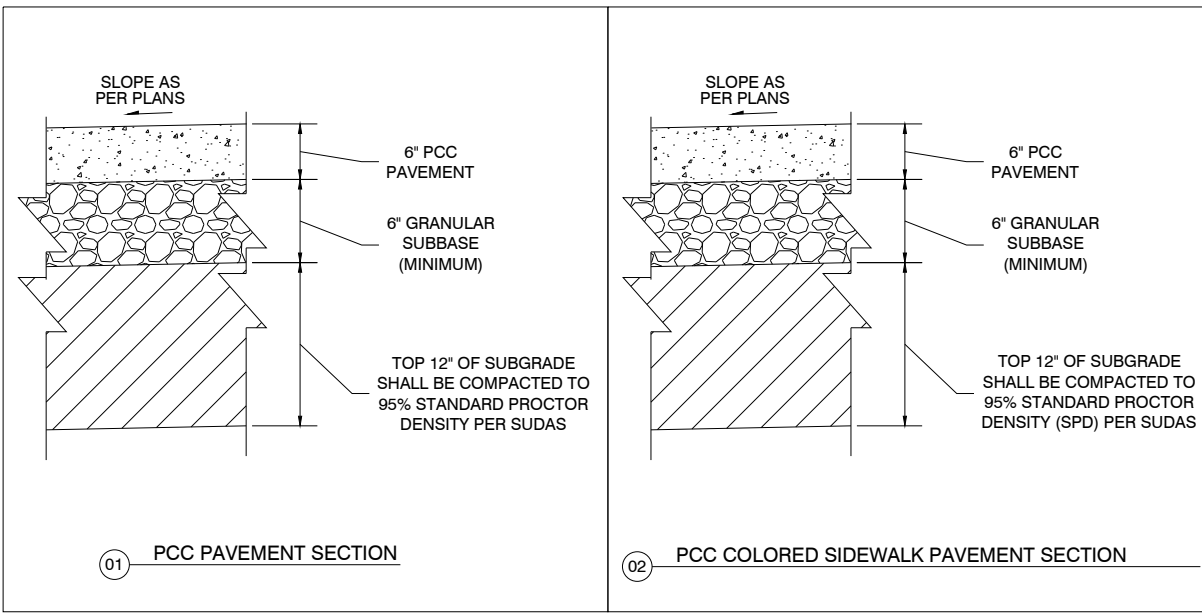
Issue Date : 07/15/25	Designed By : KMN
Drawn By : KMN	Reviewed By : LAW

Sheet Title

GRADING PLAN

Category	Sheet
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C-3.0



VETERANS MEMORIAL MONUMENT

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Grinnell, Iowa

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No.	Date	Description

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Drawn By: KMN	Reviewed By: LAW

Sheet Title
TYPICAL DETAILS

Category Sheet

C-5.0

VETERANS
MEMORIAL
MONUMENT

Central Park
Grinnell, Iowa

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Landscape Architects
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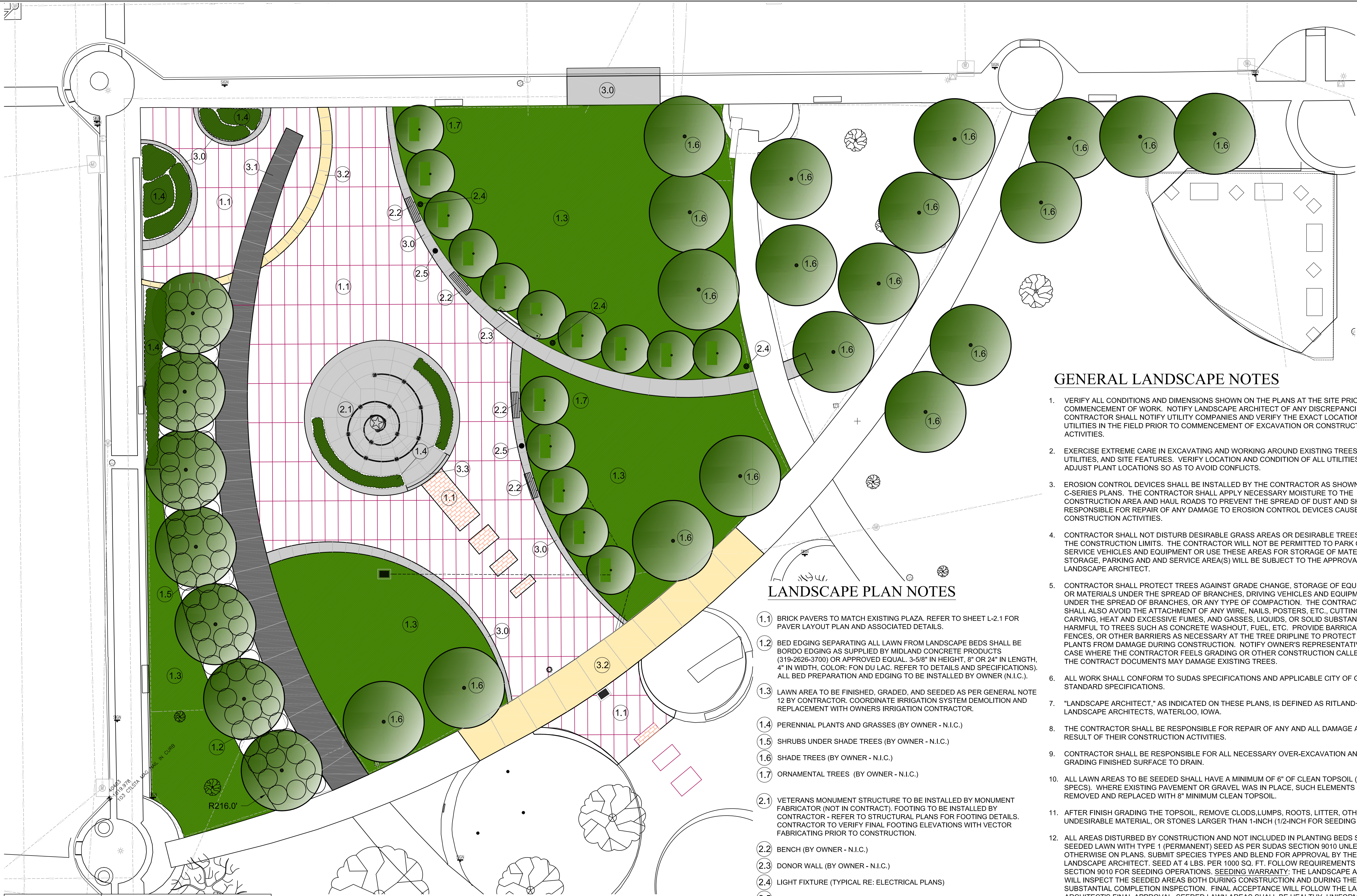
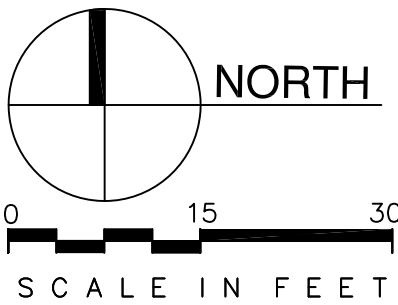
Structural Engineer:
Goodfriend Magruder Structure LLC
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Chicago, Illinois 60604
Phone: 312-265-2643

GENERAL LANDSCAPE NOTES

- VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AND VERIFY THE EXACT LOCATION OF ALL UTILITIES IN THE FIELD PRIOR TO COMMENCEMENT OF EXCAVATION OR CONSTRUCTION ACTIVITIES.
- EXERCISE EXTREME CARE IN EXCAVATING AND WORKING AROUND EXISTING TREES, UTILITIES, AND SITE FEATURES. VERIFY LOCATION AND CONDITION OF ALL UTILITIES. FIELD ADJUST PLANT LOCATIONS SO AS TO AVOID CONFLICTS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED BY THE CONTRACTOR AS SHOWN ON THE C-SERIES PLANS. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST AND SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EROSION CONTROL DEVICES CAUSED BY CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS OR 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 AND SERVICE AREA(S) WILL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL PROTECT TREES AGAINST GRADE CHANGE, STORAGE OF EQUIPMENT OR MATERIALS UNDER THE SPREAD OF BRANCHES, DRIVING VEHICLES AND EQUIPMENT UNDER THE SPREAD OF BRANCHES, OR ANY TYPE OF COMPACTION. THE CONTRACTOR SHALL ALSO AVOID THE ATTACHMENT OF ANY WIRE, NAILS, POSTERS, ETC., CUTTING OR CARVING, HEAT AND EXCESSIVE FUMES, AND GASSES, LIQUIDS, OR SOLID SUBSTANCES HARMFUL TO TREES SUCH AS CONCRETE WASHOUT, FUEL, ETC. PROVIDE BARRICADES, FENCES, OR OTHER BARRIERS AS NECESSARY AT THE TREE DRILINE TO PROTECT EXISTING PLANTS FROM DAMAGE DURING CONSTRUCTION. NOTIFY OWNER'S REPRESENTATIVE IN ANY CASE WHERE THE CONTRACTOR FEELS GRADING OR OTHER CONSTRUCTION CALLED FOR BY THE CONTRACT DOCUMENTS MAY DAMAGE EXISTING TREES.
- ALL WORK SHALL CONFORM TO SUDAS SPECIFICATIONS AND APPLICABLE CITY OF GRINNELL STANDARD SPECIFICATIONS.
- "LANDSCAPE ARCHITECT," AS INDICATED ON THESE PLANS, IS DEFINED AS RITLAND+KUIPER LANDSCAPE ARCHITECTS, WATERLOO, IOWA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY AND ALL DAMAGE AS A RESULT OF THEIR CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY OVER-EXCAVATION AND GRADING FINISHED SURFACE TO DRAIN.
- ALL LAWN AREAS TO BE SEEDED SHALL HAVE A MINIMUM OF 6" OF CLEAN TOPSOIL (RE: SPECS). WHERE EXISTING PAVEMENT OR GRAVEL WAS IN PLACE, SUCH ELEMENTS SHALL BE REMOVED AND REPLACED WITH 8" MINIMUM CLEAN TOPSOIL.
- AFTER FINISH GRADING THE TOPSOIL, REMOVE CLODS, LUMPS, ROOTS, LITTER, OTHER UNDESIRABLE MATERIAL, OR STONES LARGER THAN 1-INCH (1/2-INCH FOR SEEDING AREAS).
- ALL AREAS DISTURBED BY CONSTRUCTION AND NOT INCLUDED IN PLANTING BEDS SHALL BE SEEDED LAWN WITH TYPE 1 (PERMANENT) SEED AS PER SUDAS SECTION 9010 UNLESS NOTED OTHERWISE ON PLANS. SUBMIT SPECIES TYPES AND BLEND FOR APPROVAL BY THE LANDSCAPE ARCHITECT. SEED AT 4 LBS. PER 1000 SQ. FT. FOLLOW REQUIREMENTS OF SUDAS SECTION 9010 FOR SEEDING OPERATIONS. SEEDING WARRANTY: THE LANDSCAPE ARCHITECT WILL INSPECT THE SEEDED AREAS BOTH DURING CONSTRUCTION AND DURING THE SUBSTANTIAL COMPLETION INSPECTION. FINAL ACCEPTANCE WILL FOLLOW THE LANDSCAPE ARCHITECT'S FINAL APPROVAL. SEEDED LAWN AREAS SHALL BE HEALTHY, UNIFORM AND A CLOSE STAND OF GRASS SHALL BE ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES. IN ANY 10 SQUARE FOOT AREA WITHIN THE SEEDED LAWN, COVERAGE SHALL EXCEED 95%. SCATTERED BARE SPOTS SHALL NOT EXCEED AN AREA 4 INCHES BY 4 INCHES. SEEDED LAWN AREAS WHICH DO NOT MEET THE REQUIREMENTS OF ACCEPTANCE AT THE TIME OF INSPECTION SHALL BE RESEED AND MAINTAINED AS OFTEN AS REQUIRED, UNTIL ACCEPTED, AT NO ADDITIONAL COST TO OWNER.
- ALL LAWN AREAS SHALL BE MAINTAINED, MOWED, WEED FREE, AND WATERED BY THE CONTRACTOR THROUGH SUBSTANTIAL COMPLETION.

LANDSCAPE PLAN NOTES

- BRICK PAVERS TO MATCH EXISTING PLAZA. REFER TO SHEET L-2.1 FOR PAVER LAYOUT PLAN AND ASSOCIATED DETAILS.
- BED EDGING SEPARATING ALL LAWN FROM LANDSCAPE BEDS SHALL BE BORDO EDGING AS SUPPLIED BY MIDLAND CONCRETE PRODUCTS (319-2626-3700) OR APPROVED EQUAL. 3-5/8" IN HEIGHT, 8" OR 24" IN LENGTH, 4" IN WIDTH, COLOR: FON DU LAC. REFER TO DETAILS AND SPECIFICATIONS). ALL BED PREPARATION AND EDGING TO BE INSTALLED BY OWNER (N.I.C.).
- LAWN AREA TO BE FINISHED, GRADED, AND SEEDED AS PER GENERAL NOTE 12 BY CONTRACTOR. COORDINATE IRRIGATION SYSTEM DEMOLITION AND REPLACEMENT WITH OWNERS IRRIGATION CONTRACTOR.
- PERENNIAL PLANTS AND GRASSES (BY OWNER - N.I.C.)
- SHRUBS UNDER SHADE TREES (BY OWNER - N.I.C.)
- SHADE TREES (BY OWNER - N.I.C.)
- ORNAMENTAL TREES (BY OWNER - N.I.C.)
- VETERANS MONUMENT STRUCTURE TO BE INSTALLED BY MONUMENT FABRICATOR (NOT IN CONTRACT). FOOTING TO BE INSTALLED BY CONTRACTOR - REFER TO STRUCTURAL PLANS FOR FOOTING DETAILS. CONTRACTOR TO VERIFY FINAL FOOTING ELEVATIONS WITH VECTOR FABRICATING PRIOR TO CONSTRUCTION.
- BENCH (BY OWNER - N.I.C.)
- DONOR WALL (BY OWNER - N.I.C.)
- LIGHT FIXTURE (TYPICAL RE: ELECTRICAL PLANS)
- LITTER RECEPTACLE (BY OWNER - N.I.C.)
- STANDARD PCC CONCRETE PAVEMENT (RE: C-SERIES PLANS)
- DARK GRAY COLORED CONCRETE (RE: C-SERIES PLANS)
- TAN COLORED CONCRETE (RE: C-SERIES PLANS)
- STEPS WITH HANDRAIL (RE: C-SERIES PLANS)



I hereby certify that the portion of this technical submission described below was prepared by me or under my direct personal supervision and responsible charge. I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.

Mark G. Kuiper
Mark G. Kuiper, ASLA, LEED AP
License Number 00413
July 15, 2025
Date

My license renewal date is June 30, 2027.

Pages or sheets covered by this seal:
ALL L-SERIES DRAWINGS



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Revisions		
No.	Date	Description

Issue Date :	Designed By :
07/15/25	MGK/CDR
Drawn By :	Reviewed By :
MGK	MGK

Sheet Title
**LANDSCAPE
PLAN**

Category Sheet

L-1.1

VETERANS
MEMORIAL
MONUMENT

Central Park
Grinnell, Iowa

GENERAL NOTES

1. SURVEY INFORMATION WAS PROVIDED BY CLAPSADDLE-GARBER ASSOCIATES (2024). VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO C-SERIES PLAN SHEETS FOR CONCRETE PAVING LAYOUT AND DETAILS AND FINISH GRADE ELEVATIONS FOR ALL PAVED AREAS.
3. ALL LAYOUT DIMENSIONS SHOWN ARE FROM FRONT FACE OF CONCRETE CURB AS DETAILED ON C-SERIES PLAN SHEETS.
4. ALL CLAY BRICK PAVERS SHALL BE WHITACRE GREER STANDARD CLAY BRICK PAVERS (BEVEL WITH SPACING LUGS) AS SUPPLIED BY GLEN-GERY (515-224-4110) OR APPROVED EQUAL. PAVERS SHALL EXACTLY MATCH EXISTING PAVERS IN PLAZA. TYPE 1 PAVERS SHALL BE 4" X 8" X 2-1/4" AND TYPE 2 PAVERS WILL BE 8" X 8" X 2-1/4" AS PER SPECIFICATIONS.

PLAN NOTES

- 1 COLOR 1: TYPE 1 PAVERS #34 MULBERRY (FRAME/BAND PAVERS)
- 2 COLOR 2: TYPE 1 PAVERS #41 CARIBBEAN
- 3 COLOR 3: TYPE 1 PAVERS #42 CINNAMON
- 4 COLOR 4: TYPE 1 PAVERS #50 IVORY
- 5 COLOR 5: TYPE 1 PAVERS #52 MAJESTIC
- 6 COLOR 6: TYPE 1 PAVERS #53 CIMMEREAN
- 7 COLOR 7: TYPE 1 PAVERS #56 DESERT GRAY
- 8 COLOR 8: TYPE 2 RED MIXTURE 8" X 8" X 2-1/4" PAVERS WITH COLORS TO MATCH EXISTING DIAGONAL CROSSWALK - SUBMIT SAMPLES FOR APPROVAL

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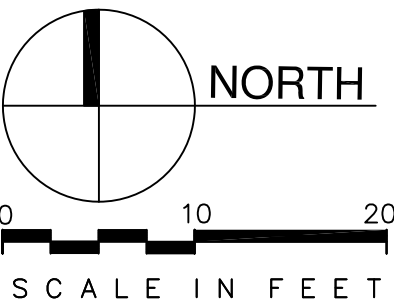
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No.	Date	Description

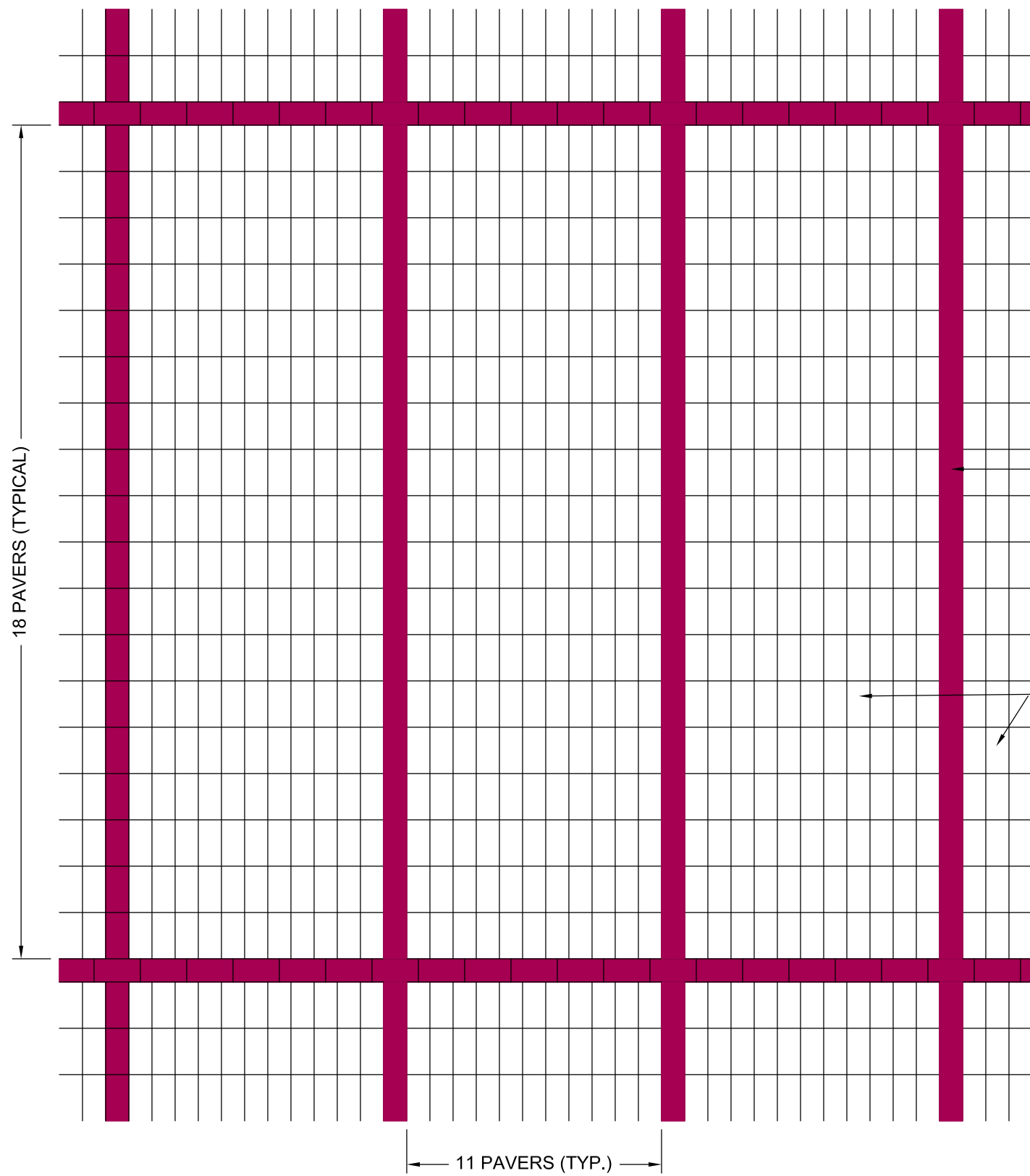
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Drawn By : MGK	Reviewed By : MGK

Sheet Title
PAVER LAYOUT
PLAN

Category Sheet

L-2.1



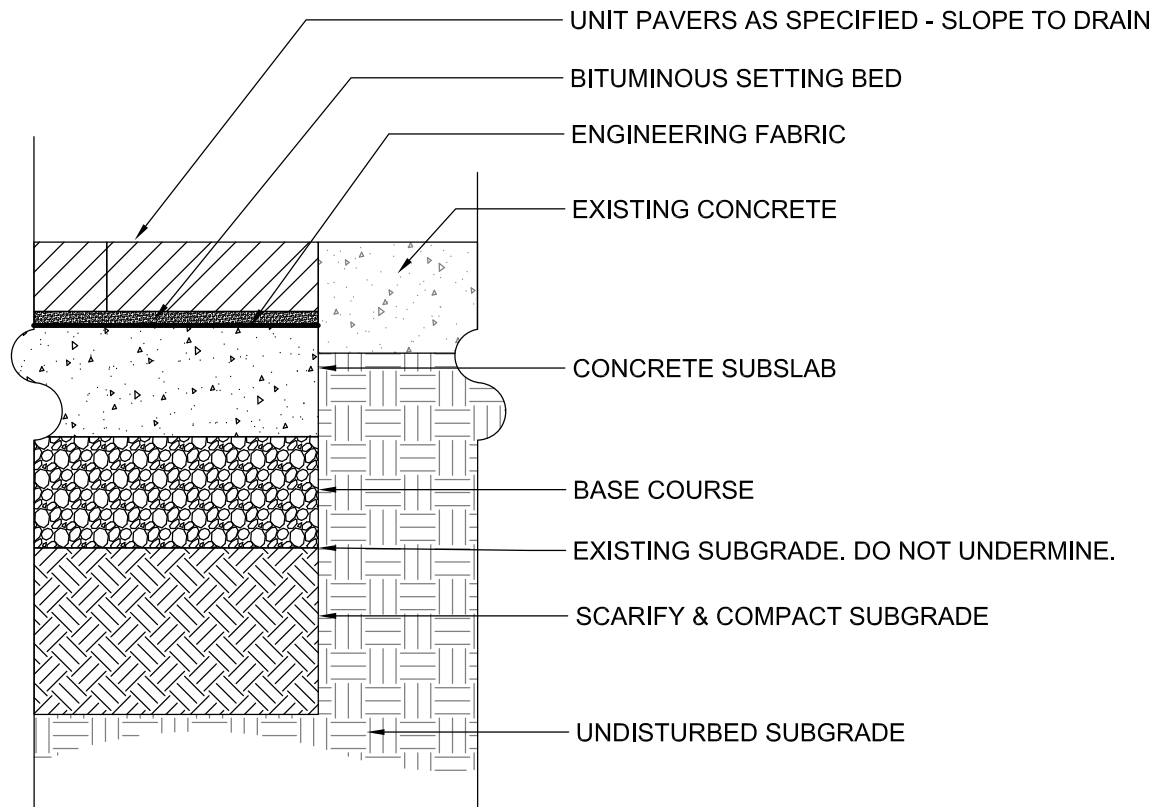


1 TYPICAL PLAZA PAVER LAYOUT PLAN
SCALE: 1/2" = 1'-0" AT 22X34 SHEET SIZE

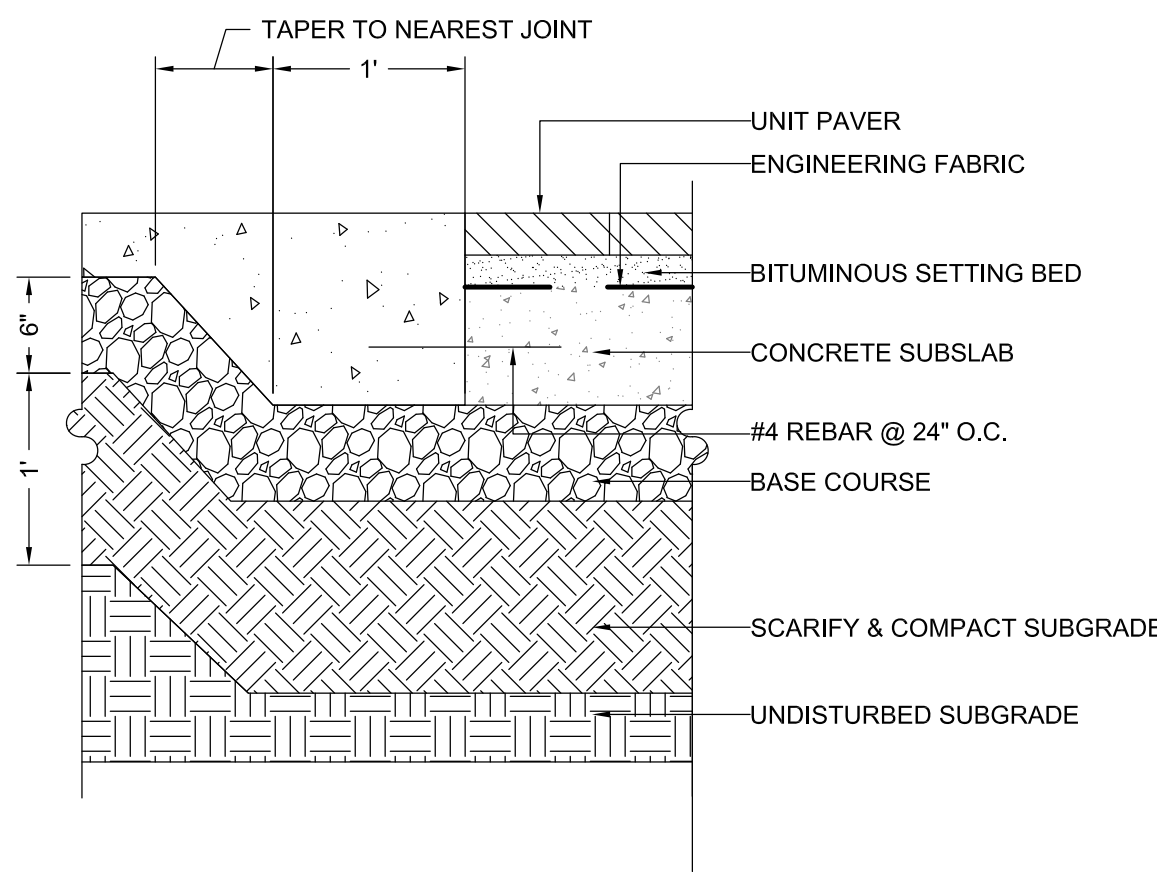
NOTE:
THERE SHOULD NO CUTTING OF
PAVERS WITHIN THE LARGE FIELD OF
PAVERS. THE ONLY CUTS THAT WILL
BE ALLOWED ARE ALONG THE
PERIMETER OF THE PAVERS SPACES
WHERE THE PAVERS MEET CONCRETE
OR WHERE THERE ARE FEATURES
WITHIN THE PLAZA THAT REQUIRE
TRIMMING TO FIT.

FRAMING BANDS IN PLAZA
TO BE COLOR 1 AS PER PLAN.
INSTALL WITH RUNNING BOND
PATTERN AS SHOWN

PROVIDE BRICK FIELD PAVERS WITH
COLORS AS PER NOTES ON SHEET
L-2.1. INSTALL WITH STACKED BOND
PATTERN AS SHOWN



2 TYP. SECT: UNIT PAVERS @ EXISTING PCC
NOT TO SCALE



3 TYP. SECT: UNIT PAVERS @ NEW PCC
NOT TO SCALE

VETERANS MEMORIAL MONUMENT

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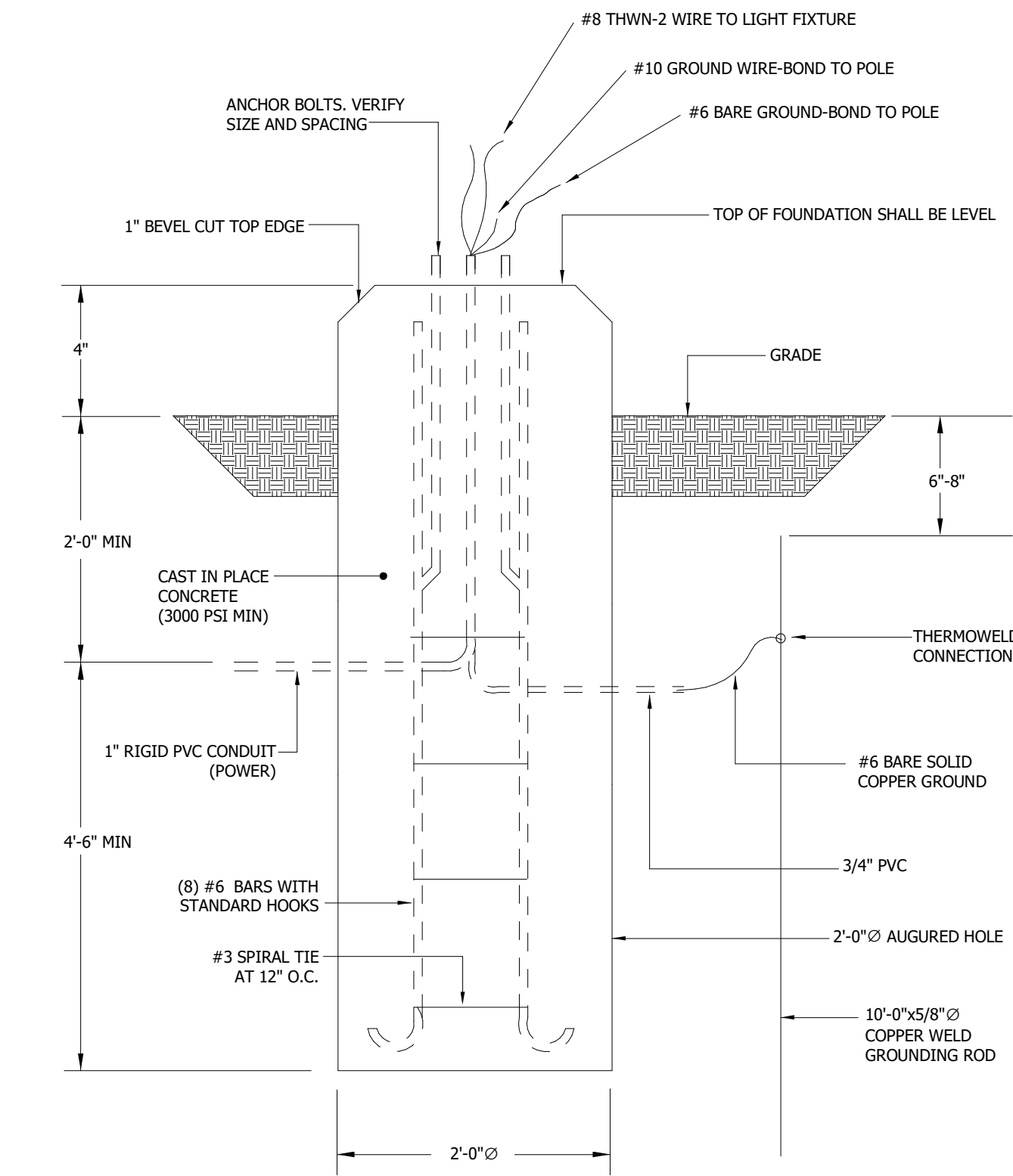
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Sheet Title
PAVER DETAILS

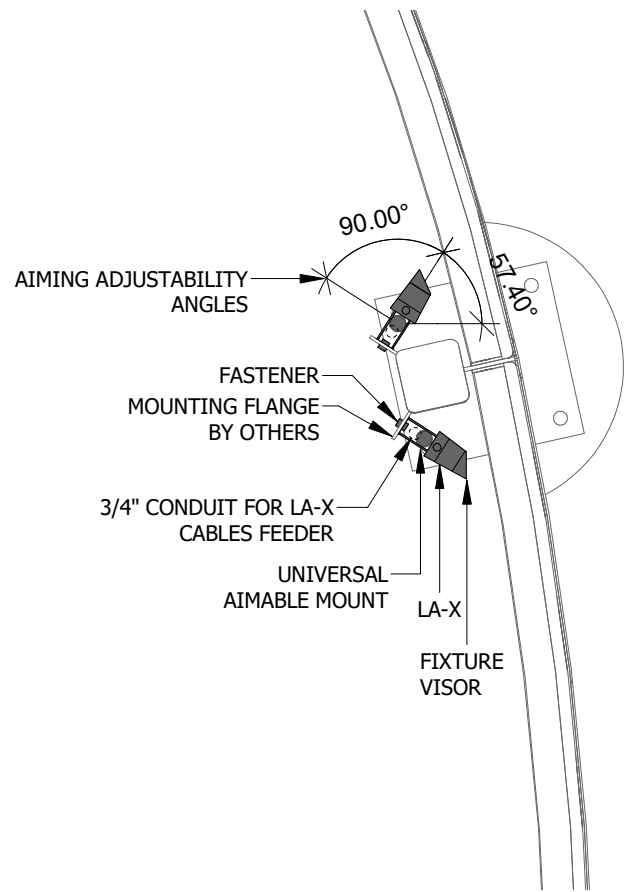
Category Sheet

L-2.2



1 TYPICAL SITE LIGHT POLE FOUNDATION MOUNTING DETAIL
No Scale

- GENERAL NOTES:**
- A. COORDINATE FINAL MOUNTING REQUIREMENTS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
 - B. MIN. DIMENSIONS APPLY TO LOWEST GROUND LINE.
 - C. MAKE NO WIRE CONNECTIONS OUTSIDE OF POLE WITH EXCEPTION OF THE BARE GROUND.
 - D. TOP OF FOUNDATION SHALL BE TROWELLED SMOOTH AND LEVEL.
 - E. REFER TO SITE PLAN FOR ADDITIONAL CIRCUIT INFORMATION.



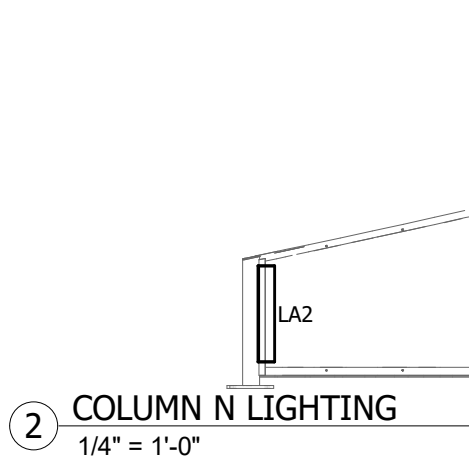
16 TYPICAL LA-X FIXTURE MOUNTING DETAIL
No Scale

LIGHTING FIXTURE SCHEDULE										
TYPE	BOD MANUFACTURER	MODEL NUMBER	DESCRIPTION	LAMP/CCT/CRI	CONTROL	DELIVERED LUMENS	WATTS	VOLTS	EQUALS	
LA-X	LUMENPULSE	LOGN-4W-48V-LENGTH-30K-90-WW-FR-UMASN-SI-UCTL-CRC-UL-LOGNVS	EXTERIOR MICRO LINEAR WITH 180 DEGREE ADJUSTABLE MOUNT, WALL WASH OPTIC, FROSTED GLASS LENS, AND VISOR. IP66 AND IK08 RATED. SILVER SANDTEX FINISH TO BE VERIFIED DURING SUBMITTALS.	LED/3000K/90	0-10V	442 Lum/ft.	4 W/ft.	120	NONE	
SA	ARCHITECTURAL AREA LIGHTING	PKWM-STR-Y2VC-32LED3K8-525-DBX-PSA-BU	PEDESTRIAN PATHWAY LIGHT TO MATCH EXISTING. 14'-0" POLE.	LED/3000K/80	NON-DIM	4,740	56.5	120	NONE	
SB	LUMENPULSE	LQM-120-30K-FL-SM-SI-DIM-CRC-UL-XX	9' X 7' RECTANGULAR AIMABLE FLOOD LIGHT WITH STATIC WHITE OUTPUT, IP66 RATING, AND IK10 HOUSING. SURFACE MOUNTED TO TOP OF 4" CONCRETE BASE. FIELD VERIFY REQUIRED CABLE LENGTH PRIOR TO ORDERING. SILVER SANDTEX FINISH TO BE VERIFIED DURING SUBMITTALS.	LED/3000K/90	0-10V	2,252	28	120	NONE	

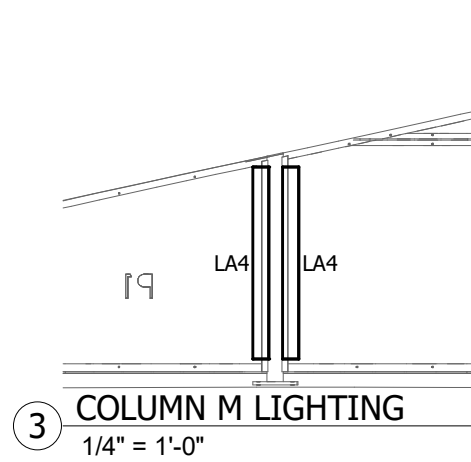
- NOTES:**
- PROVIDE ALL PARTS AND PIECES FOR A COMPLETE AND FULLY FUNCTIONAL LIGHTING SYSTEM.
 - CONTRACTOR SHALL INSTALL ALL FIXTURES PER MANUFACTURER RECOMMENDATIONS IN LOCATIONS SHOWN ON DRAWING AND NOTIFY DESIGN TEAM IF THIS IS NOT POSSIBLE PRIOR TO ROUGH-IN.
 - COORDINATE ALL DRIVERS WITH CONTROLS TO INSURE FULL COMPATIBILITY.
- LIGHT FIXTURE SCHEDULE BY: KYLE FIALA

POWER SUPPLY SCHEDULE						
TYPE	MANUFACTURER	MODEL	WATTS	VOLTAGE	CONTROL	RATING
PSA	LUMENWERX	LCBX	120	UNV	0-10V	IP66
PSB	LUMENWERX	LCBX	200	UNV	0-10V	IP66

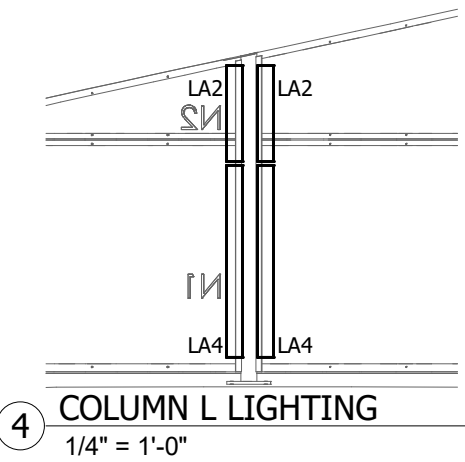
- NOTES:**
- VERIFY RATINGS AND QUANTITIES PRIOR TO ORDERING.



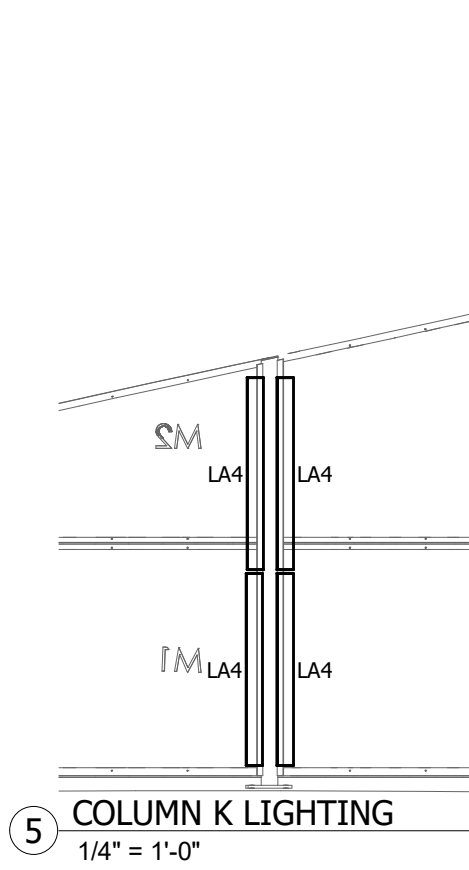
2 COLUMN N LIGHTING
1/4" = 1'-0"



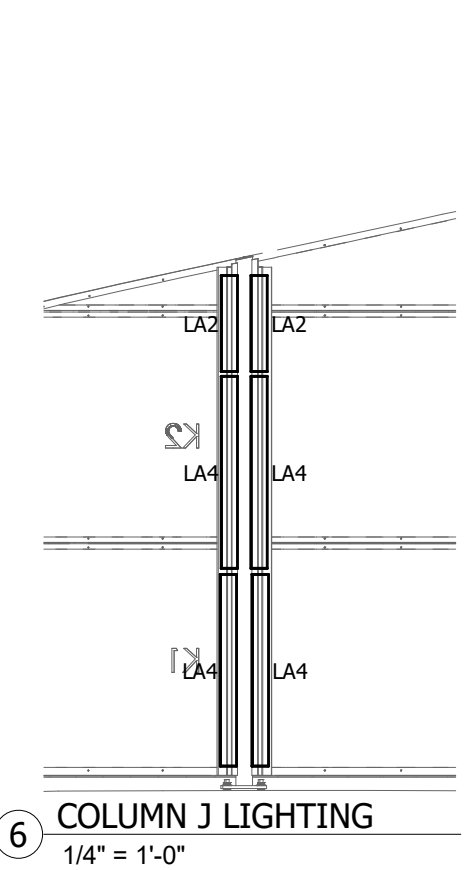
3 COLUMN M LIGHTING
1/4" = 1'-0"



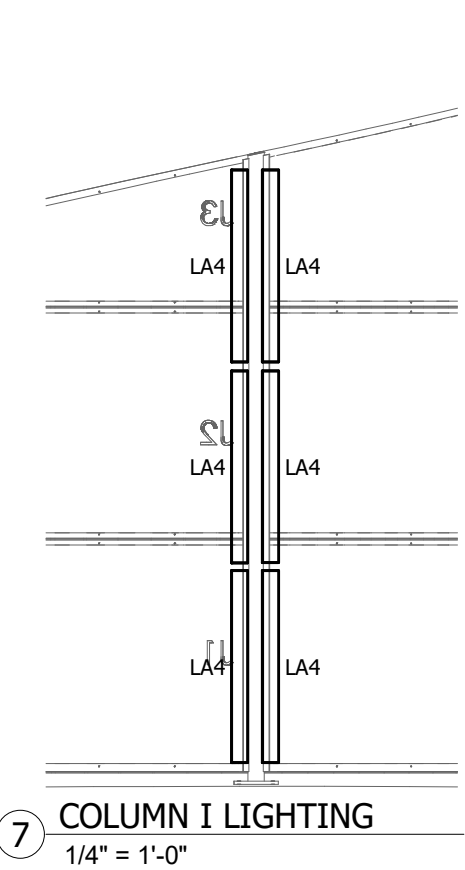
4 COLUMN L LIGHTING
1/4" = 1'-0"



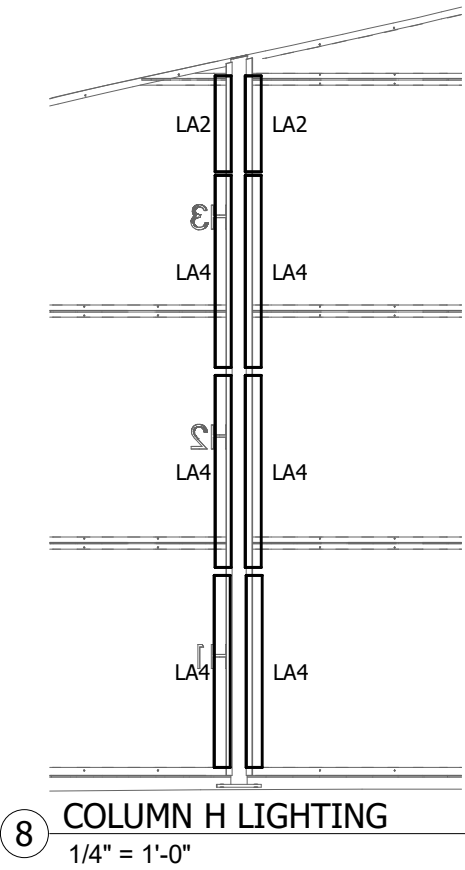
5 COLUMN K LIGHTING
1/4" = 1'-0"



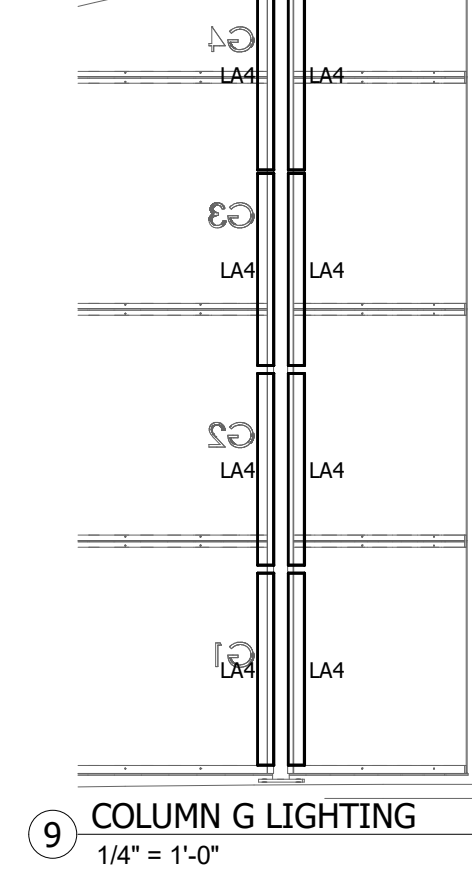
6 COLUMN J LIGHTING
1/4" = 1'-0"



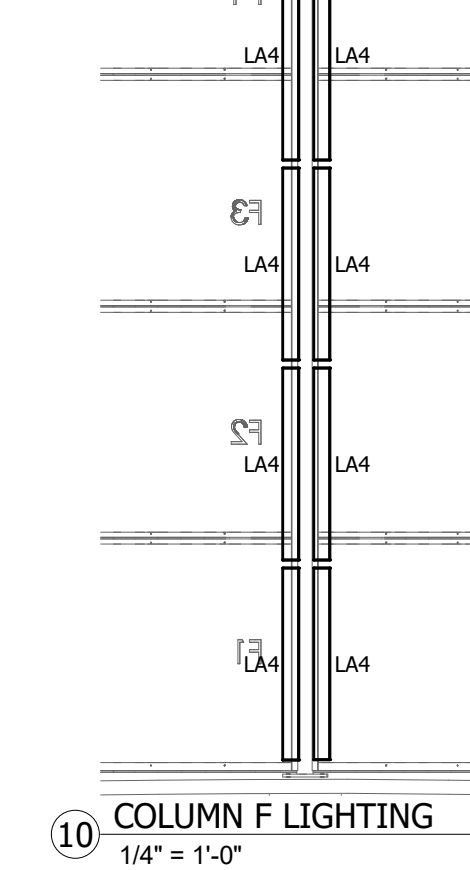
7 COLUMN I LIGHTING
1/4" = 1'-0"



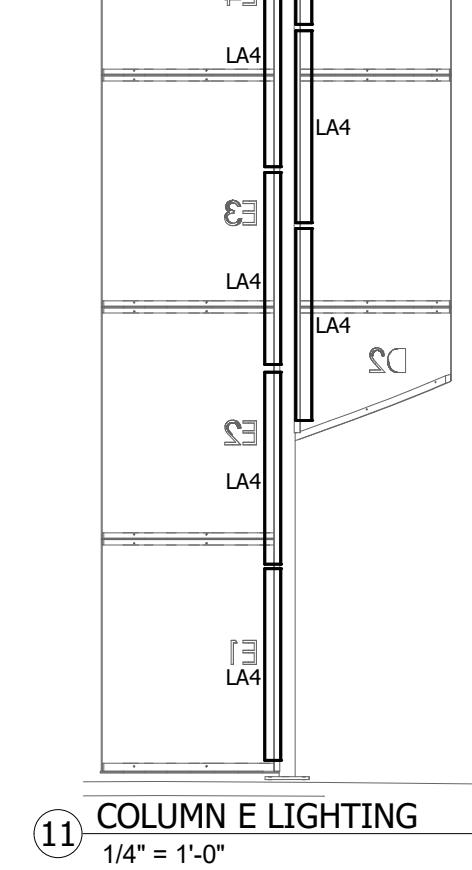
8 COLUMN H LIGHTING
1/4" = 1'-0"



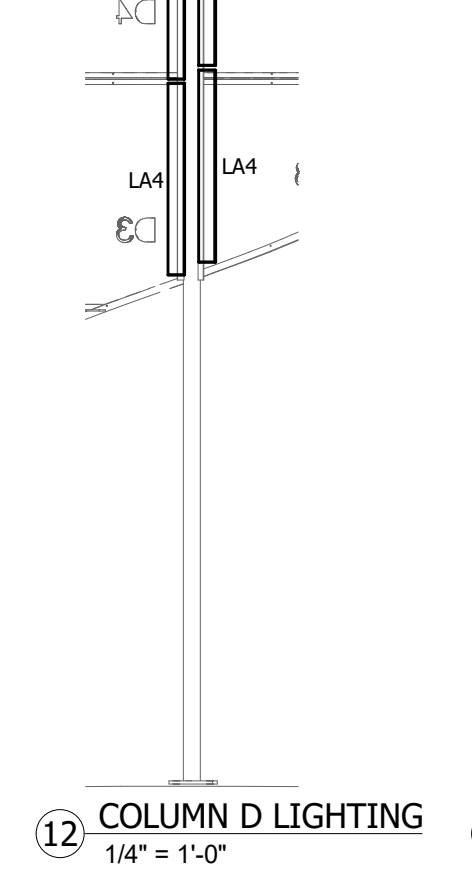
9 COLUMN G LIGHTING
1/4" = 1'-0"



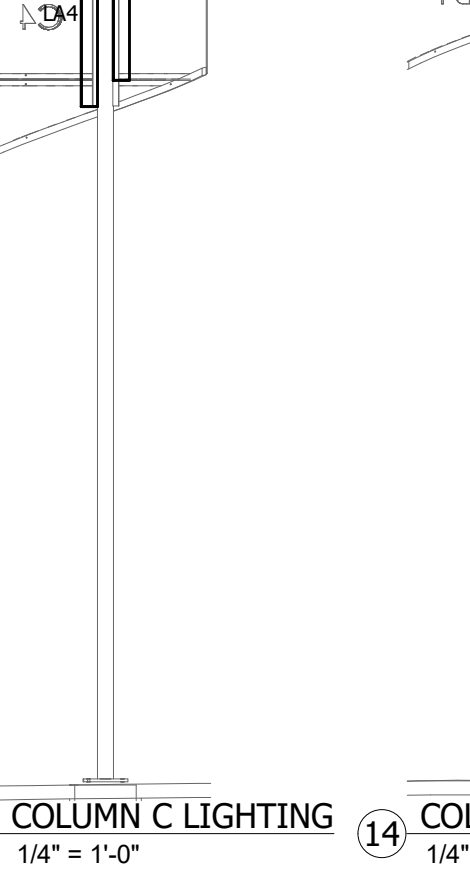
10 COLUMN F LIGHTING
1/4" = 1'-0"



11 COLUMN E LIGHTING
1/4" = 1'-0"



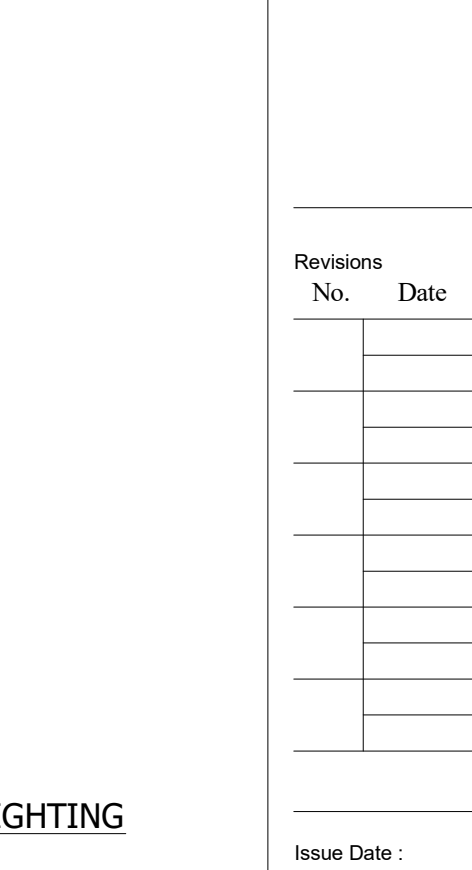
12 COLUMN D LIGHTING
1/4" = 1'-0"



13 COLUMN C LIGHTING
1/4" = 1'-0"



14 COLUMN B LIGHTING
1/4" = 1'-0"



15 COLUMN A LIGHTING
1/4" = 1'-0"

VETERANS MEMORIAL MONUMENT

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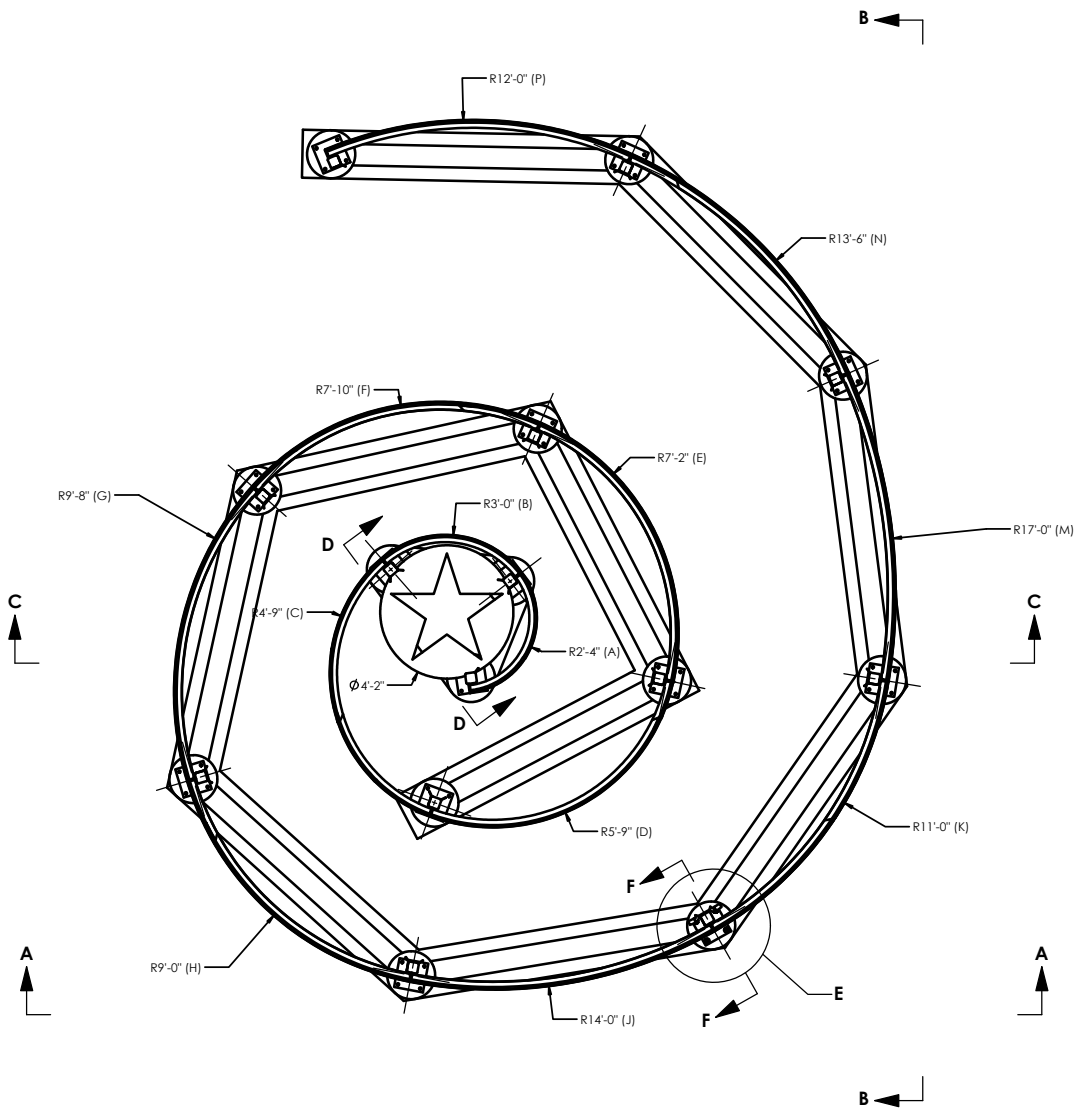
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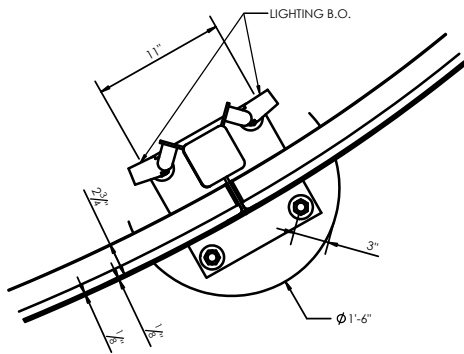
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ELECTRICAL SCHEDULES & DETAILS

Category Sheet

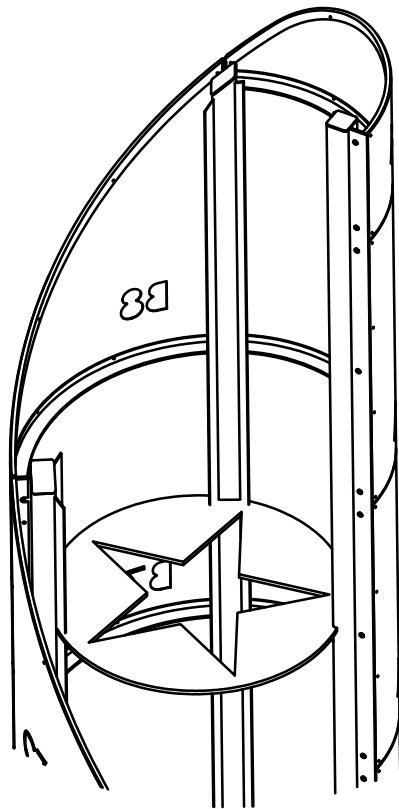
E-1.2



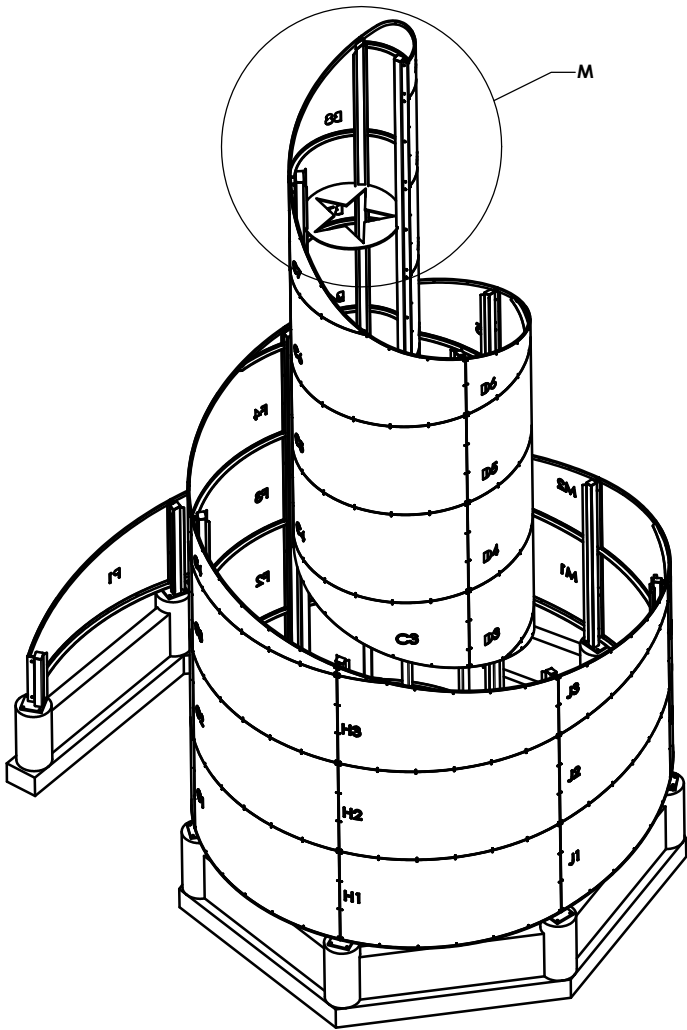
PLAN VIEW
SCALE 1 : 36



DETAIL E
SCALE 1 : 8



DETAIL M
SCALE 1 : 16



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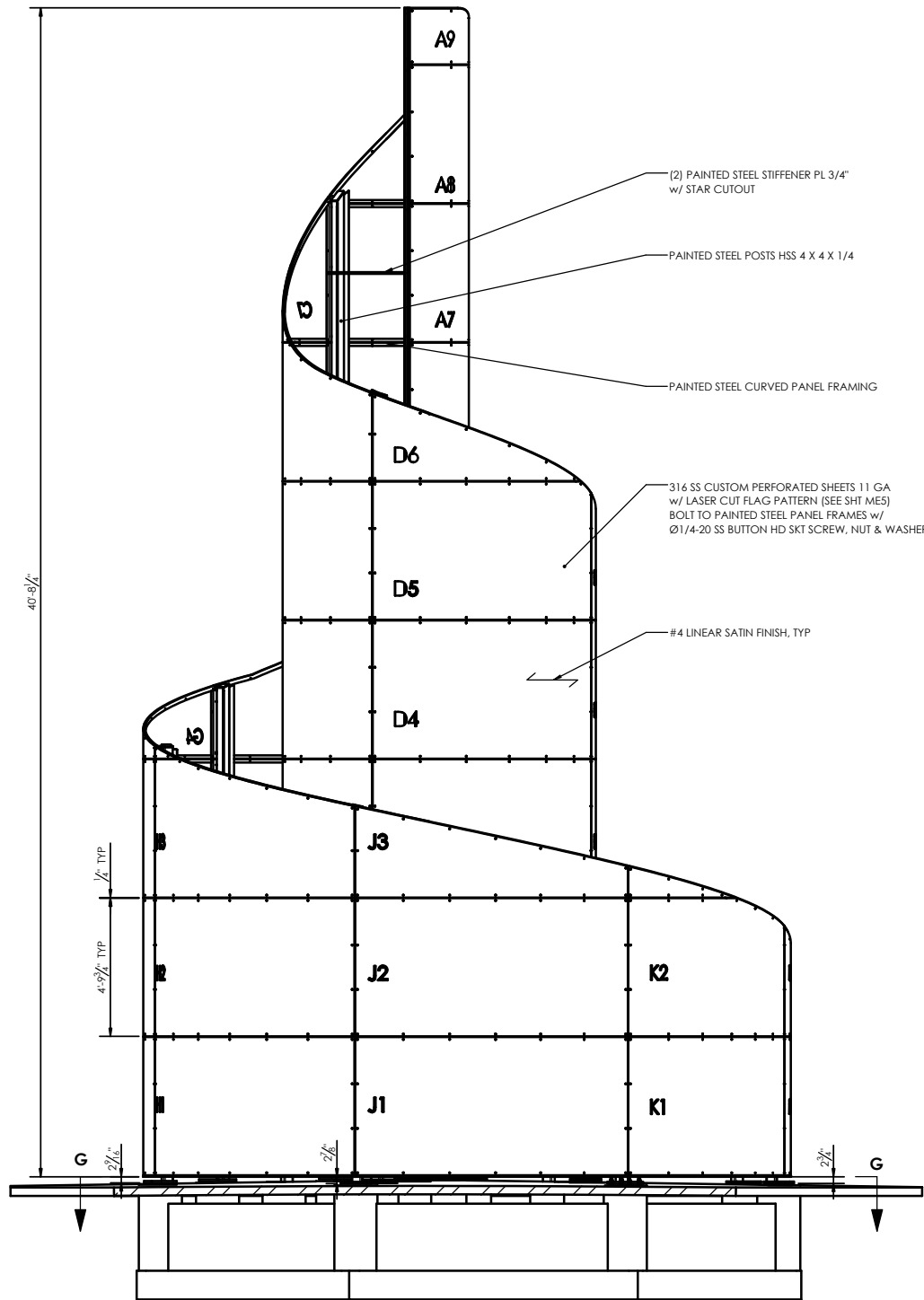
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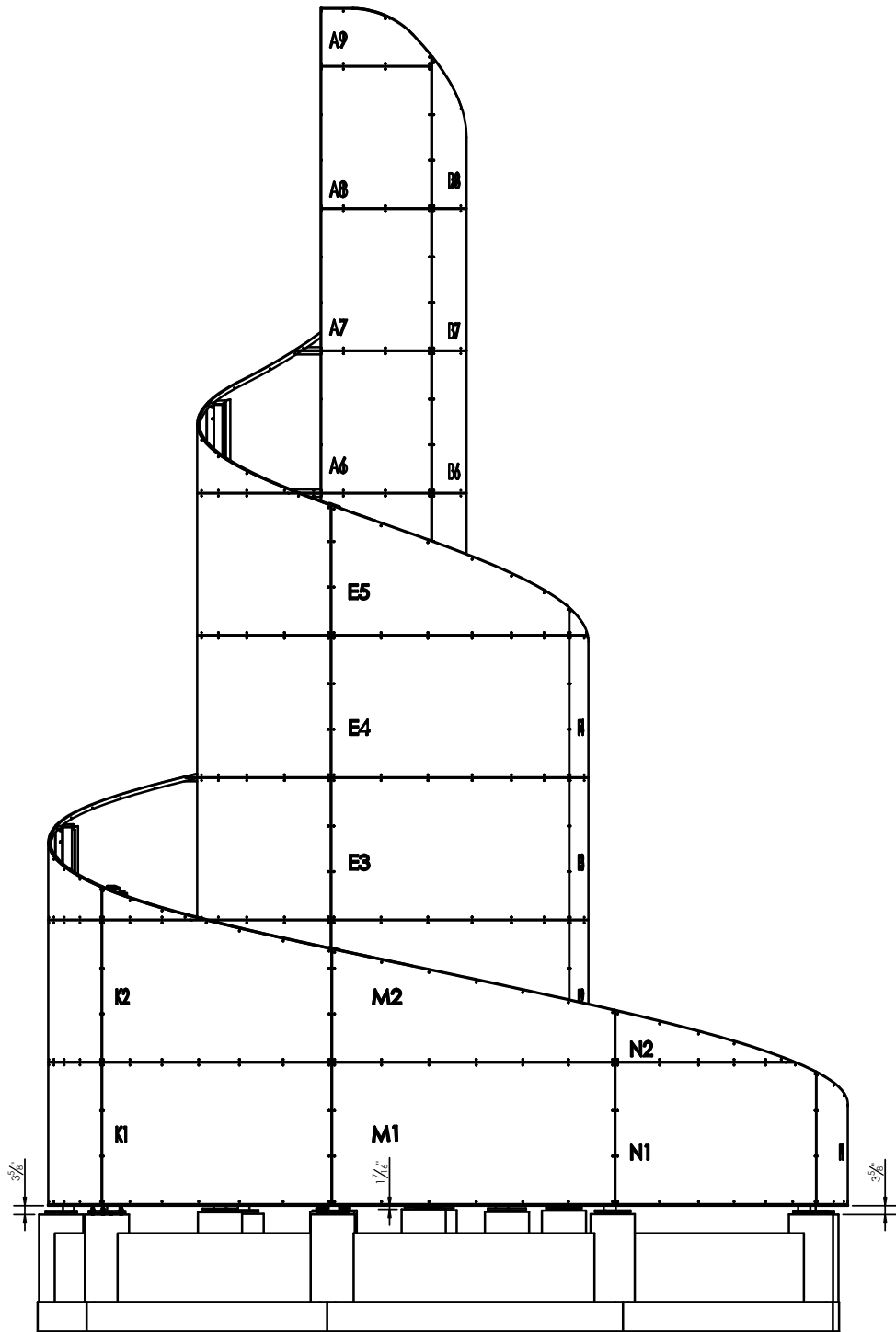
Sheet Title
ERECTION PLAN
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Category	Sheet
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ME1



SECTION A-A



SECTION B-B

VETERANS
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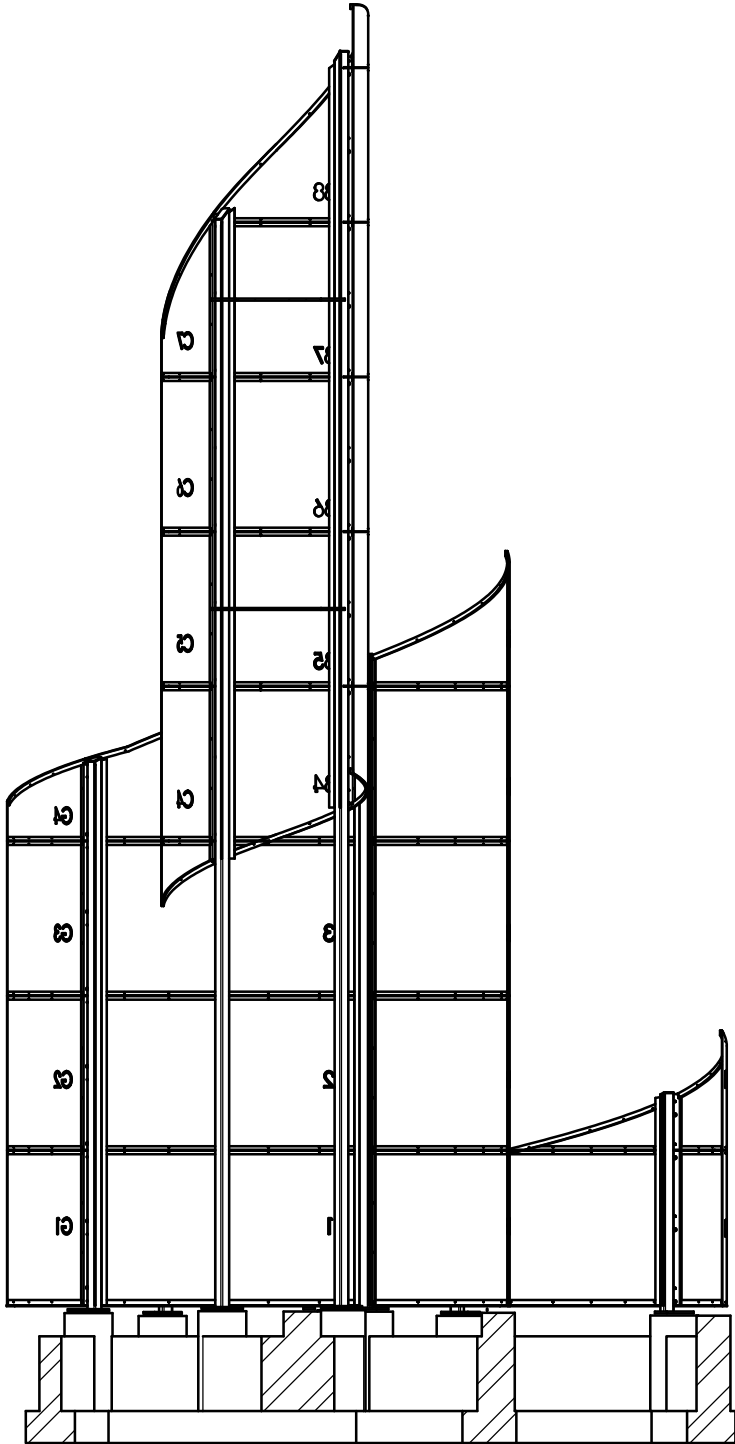
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ME2



SECTION C-C

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ME3

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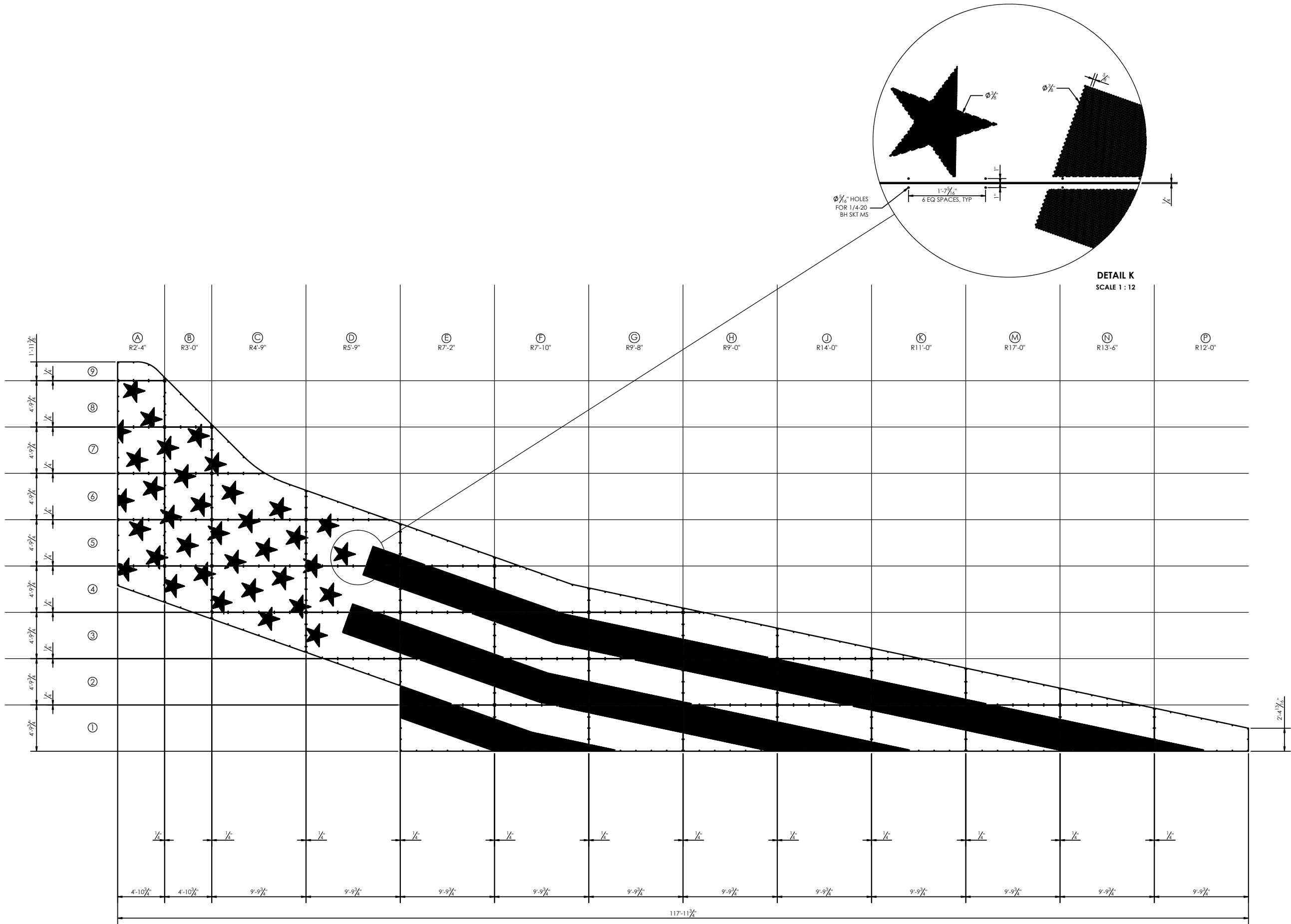
Sheet Title
**ERECTION PLAN
& DETAILS**

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ME4



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UNROLLED VIEW
PERFORATED SHEETS
SCALE 1:60

VETERANS MEMORIAL MONUMENT

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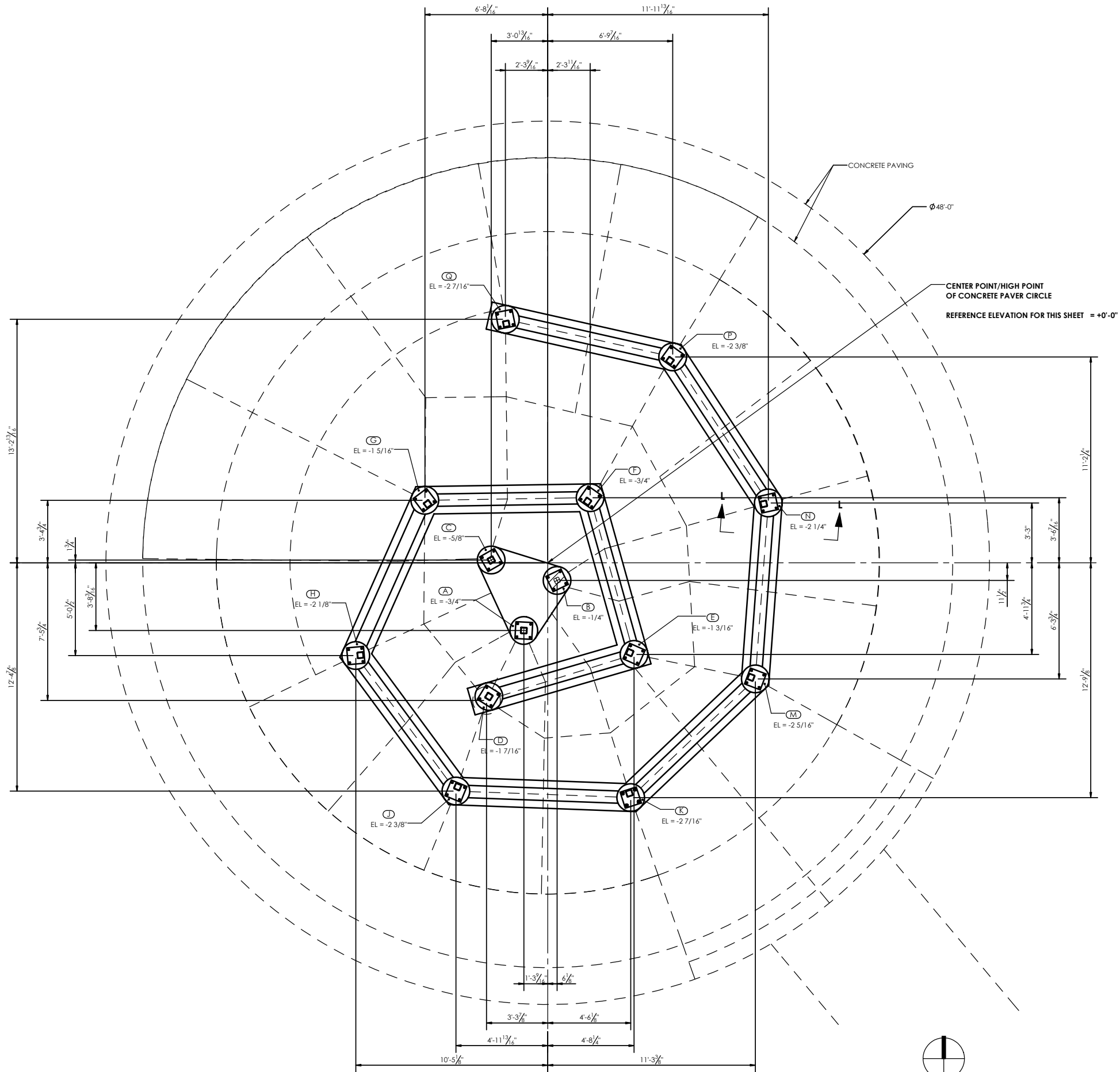
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ME5

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SECTION G-G
FOOTING LAYOUT

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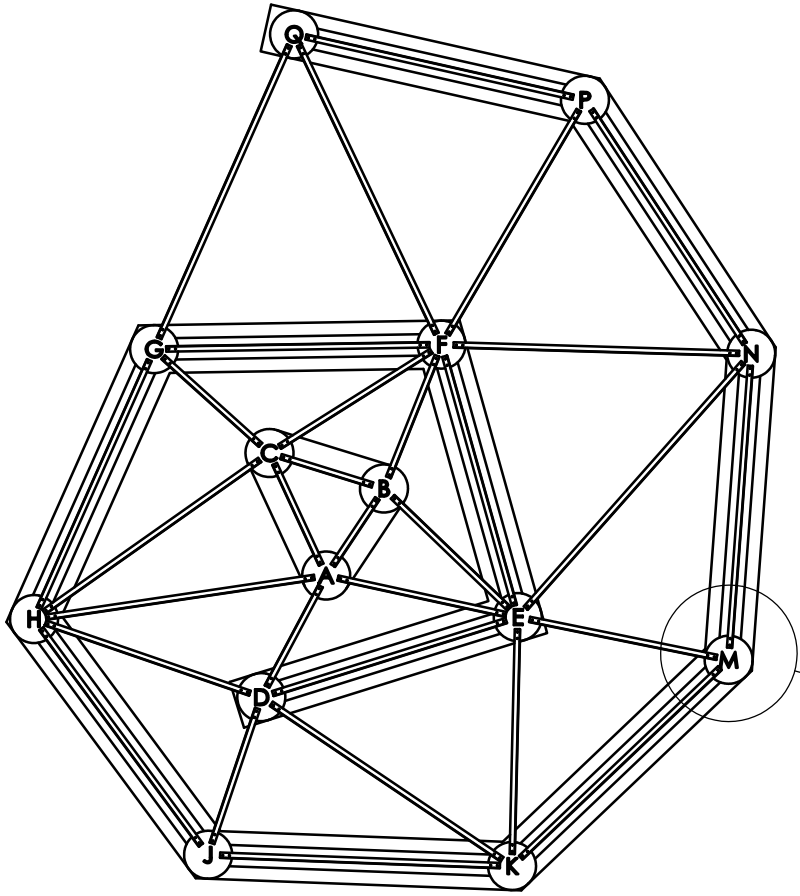
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NFO	SG

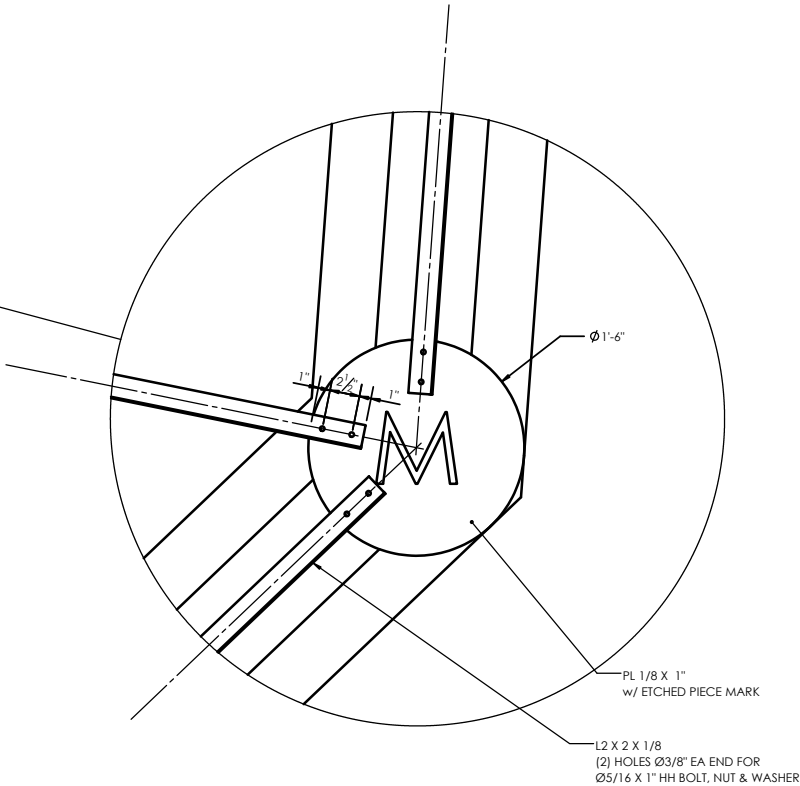
Sheet Title
ERECTION PLAN
& DETAILS

Category Sheet

ME6



FOUNDATION LAYOUT FIXTURE
SCALE 1:36



DETAIL J
SCALE 1:8

QTY	MK	DESCRIPTION	LENGTH
1	EN	L2 X 2 X 1/8	10'-2 15/16"
1	GQ	L2 X 2 X 1/8	10'- 1/8"
1	FQ	L2 X 2 X 1/8	9'-11 3/4"
1	FN	L2 X 2 X 1/8	8'-11 1/8"
1	MN	L2 X 2 X 1/8	8'-10 1/16"
1	JK	L2 X 2 X 1/8	8'-9"
1	NP	L2 X 2 X 1/8	8'-8 3/4"
1	DK	L2 X 2 X 1/8	8'-8 5/16"
1	KM	L2 X 2 X 1/8	8'-7 1/8"
1	PQ	L2 X 2 X 1/8	8'-6 3/4"
2	GH	L2 X 2 X 1/8	8'-5 3/4"
1	JH	L2 X 2 X 1/8	8'-4 7/8"
1	CH	L2 X 2 X 1/8	8'-3"
1	FG	L2 X 2 X 1/8	8'-2 3/4"
1	FP	L2 X 2 X 1/8	8'-1 3/8"
1	EF	L2 X 2 X 1/8	8'-1 1/16"
1	DE	L2 X 2 X 1/8	7'-7 11/16"
1	EK	L2 X 2 X 1/8	7'- 3/8"
1	DH	L2 X 2 X 1/8	6'-9 1/16"
1	EM	L2 X 2 X 1/8	5'-11 5/8"
1	CF	L2 X 2 X 1/8	5'-7 3/16"
1	AE	L2 X 2 X 1/8	5'-4 1/2"
1	BE	L2 X 2 X 1/8	5'- 9/16"
1	DJ	L2 X 2 X 1/8	4'-5 5/16"
1	CG	L2 X 2 X 1/8	4'-1 3/16"
1	BF	L2 X 2 X 1/8	4'-1 1/16"
1	AD	L2 X 2 X 1/8	3'-6 11/16"
1	AC	L2 X 2 X 1/8	3'-5 9/16"
1	BC	L2 X 2 X 1/8	2'-11 7/8"
1	AB	L2 X 2 X 1/8	2'-6 1/8"

VETERANS
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Sheet Title
ERECTION PLAN
& DETAILS

Category	Sheet
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ME7

GENERAL

GE.01 BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, THE CONTRACTOR SHALL VISIT THE PREMISES AND ACQUAINT HIMSELF FULLY WITH THE EXISTING CONDITIONS, TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPES OF EQUIPMENT REQUIRED, ETC. HIS BID SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK WITHIN THE EXISTING CONDITIONS. DISRUPTION OF NORMAL ACTIVITIES IN THE WORK AREA MUST BE KEPT TO A MINIMUM.

GE.02 THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION, DIMENSIONS, MEMBER SIZES, AND ELEVATIONS FOR CONFORMANCE WITH THE DRAWINGS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

GE.03 UNLESS NOTED OTHERWISE, DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS ARE INTENDED TO BE TYPICAL FOR SIMILAR CONDITIONS.

GE.04 DIMENSIONS ON STRUCTURAL DRAWINGS ARE TO BE CHECKED AGAINST THE DRAWINGS OF OTHER DISCIPLINES, AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

GE.05 SHOP DRAWINGS PREPARED BY THE CONTRACTOR AND/OR HIS SUPPLIERS SHALL BE REVIEWED BY THE ARCHITECT ONLY FOR CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

GE.06 SHOP DRAWINGS PREPARED BY SUPPLIERS AND SUBCONTRACTORS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE ARCHITECT

GE.07 DESIGN LOADS, ALLOWABLE STRESSES AND STRUCTURAL CAPACITIES ARE BASED ON THE 2010 INTERNATIONAL BUILDING CODE, WITH LOCAL AMENDMENTS.

DESIGN WIND LOADS		
BASIC WIND SPEED, Vult		109 MPH (3-SEC. GUST)
NOMINAL WINDSPEED, Vasd		85 MPH (3-SEC. GUST)
RISK CATEGORY		II
WIND LOAD IMPORTANCE FACTOR, I		1.0
WIND EXPOSURE CATEGORY		B
MEDIAN BUILDING HEIGHT, h		41 ft.

SIGNS & WALLS - ULTIMATE PRESSURES	
REGION 1	19 PSF
REGION 2	26 PSF
REGION 3	30 PSF

FOR SERVICE LEVEL DESIGN WIND LOADS, MULTIPLY THE ULTIMATE DESIGN WIND LOAD BY 0.6. COMPONENTS & CLADDING LOADS SHOWN ASSUME AN EFFECTIVE WIND AREA OF 10 SQUARE FEET OR LESS.

GE.08 SHOP DRAWING SUBMITTALS TO ARCHITECT/ENGINEER ARE REQUIRED FOR ALL PRE-FABRICATED ITEMS.

EXCAVATION AND BACKFILL

EB.01 BEFORE ANY OTHER BUILDINGS OPERATIONS ARE STARTED, REMOVE ALL BITUMINOUS PAVEMENT, LOOSE GRAVEL, ABANDONED FOUNDATIONS, BLACK LOAM, ORGANIC MATERIAL, AND FILL ENCOUNTERED WITHIN THE AREA TO BE OCCUPIED BY NEW CONSTRUCTION. NONE OF THIS MATERIAL OR OTHER EXCAVATED ON-SITE SOILS, WHICH ARE FOUND TO BE UNSUITABLE, SHALL BE USED FOR FILL WITHIN OR ADJACENT TO THE BUILDING. STORE GRAVEL ON SITE FOR POTENTIAL REUSE.

EB.02 GENERAL MACHINE EXCAVATION FOR FOOTINGS SHALL STOP NOT LESS THAN 6" ABOVE SCHEDULED ELEVATIONS OF BOTTOMS OF FOOTINGS. FINAL EXCAVATION TO UNDISTURBED SOIL AT REQUIRED FOOTING ELEVATION SHALL BE DONE BY HAND NOT MORE THAN 48 HOURS BEFORE THE FOOTING IS PLACED.

EB.03 AFTER EXCAVATING FOR ALL EARTH-SUPPORTED SLABS AND PRIOR TO PLACING FILL, THE EXPOSED NATURAL SOIL SHALL BE COMPACTED TO 95% OF ASTM D-1557 (MODIFIED PROCTOR) MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

EB.04 ALL SOIL SUPPORTED FOUNDATIONS SHALL BE FOUNDED UPON UNDISTURBED, NATURAL SUBGRADE WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 1500 PSF, AS FIELD VERIFIED AND APPROVED BY THE OWNER'S SOIL TESTING LABORATORY. THE FOOTING ELEVATIONS AND SOIL BEARING CAPACITIES AS SHOWN ON THE DRAWINGS ARE ESTIMATED FROM THE SOIL BORING DATA. FINAL, EXACT ELEVATIONS AND SOIL BEARING CAPACITIES SHALL BE FIELD DETERMINED AND VERIFIED BY THE OWNER'S SOIL TESTING LABORATORY AND REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN THE EVENT THAT THE SOIL CONDITIONS ENCOUNTERED VARY FROM THOSE ASSUMED IN THE DESIGN.

EB.05 BACKFILL AGAINST SIDES OF FOUNDATION WALLS SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES TO THE TOP OF THE WALL.

EB.06 NO MUD SLABS, FOOTINGS, OR SLABS SHALL BE PLACED ONTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST, OR ICE.

EB.07 THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY FROST OR ICE FROM PENETRATING ANY FOOTINGS OR SLAB SUBGRADE BEFORE AND AFTER PLACEMENT OF CONCRETE UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE.

EB.08 THE CONCRETE FOR EACH ISOLATED FOOTING SHALL BE PLACED IN ONE (1) CONTINUOUS PLACEMENT.

EB.09 ALL WALL AND COLUMN FOOTINGS SHALL BEAR A MINIMUM OF 4'-0" BELOW FINISHED GRADE.

CONCRETE AND FORMWORK

CO.01 ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING AMERICAN CONCRETE INSTITUTE PUBLICATIONS:
ACI 216.1-14 ACI 318-14

CO.02 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND PLACEMENT OF INSERTS, EMBEDDED PLATES, MASONRY ANCHORS, SLEEVES, PADS, AND ANCHOR BOLTS. THE INSERTS, EMBEDDED PLATES, ETC. SHALL NOT INTERFERE WITH CONCRETE REINFORCEMENT LOCATIONS.

CO.03 CONCRETE SHALL DEVELOP MINIMUM 28-DAY STRENGTH AS FOLLOWS:
FOOTINGS AND FOUNDATIONS NMWT (145 PCF) f'c= 4,000 PSI

CO.04 ALL CONCRETE EXPOSED TO THE EXTERIOR SHALL BE AIR- ENTRAINED. WATER REDUCING PLASTICIZING ADMIXTURES MAY BE USED, PENDING APPROVAL OF THE ARCHITECT.

CO.05 NO CALCIUM CHLORIDE OR CHLORIDE-ION PRODUCING ADMIXTURE SHALL BE USED IN ANY CONCRETE.

CO.06 ALL CONSTRUCTION JOINTS SHALL BE WIRE-BRUSHED AND CLEANED IMMEDIATELY PRIOR TO PLACING NEW CONCRETE. ALLOW 24 HOURS MINIMUM TO ELAPSE BETWEEN PLACEMENTS.

CO.07 EXPOSED EXTERNAL CONCRETE CORNERS SHALL BE CHAMFERED PER ARCH DETAILS

CO.08 NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.

REINFORCEMENT STEEL

RS.01 ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS, AND SECURED IN PLACE IN ACCORDANCE WITH PROCEDURES AND REQUIREMENTS OUTLINES IN THE LATEST EDITIONS OF THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318-14) AND THE "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315R-04). AT EPOXY COATED BARS, USE DIELECTRIC MATERIAL FOR BAR SUPPORTS AND NYLON COATED TIE WIRE.

RS.02 CHECKED SHOP DRAWINGS SHOWING REINFORCEMENT DETAILS, INCLUDING STEEL SIZES, SPACING, AND PLACEMENT SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

RS.03 ALL REINFORCEMENT STEEL SHALL BE HIGH STRENGTH NEW BILLET STEEL CONFORMING TO THE LATEST EDITION OF ASTM A 615. GRADE 60.

RS.04 THE FOLLOW CLEAR COVER SHALL BE PROVIDED FOR REINFORCEMENT IN CAST-IN-PLACE CONCRETE, UNLESS NOTED OTHERWISE:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER:	
#6 THROUGH #18 BARS	2"
#5 BARS, 5/8" DIA. WIRE AND SMALLER	1 1/2"
PIERS, COLUMNS, AND BEAMS:	
PRIMARY REINFORCEMENT, TIES, AND STIRRUPS	1 1/2"

RS.05 PROVIDE ADEQUATE BOLSTERS, HIGH CHAIRS, SUPPORT BARS, ETC. TO MAINTAIN SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCEMENT BARS. PROVIDE CONTINUOUS #4 SPACER BARS IN WALLS AND SLABS TO SUPPORT DOWELS, AS REQUIRED. WELDED WIRE FABRIC SHALL BE SUPPORTED IN PROPER POSITION ON CHAIRS AND CARRIER BARS.

RS.06 ALL EMBEDMENT LENGTHS SHALL CONFORM TO THE LATEST EDITION OF ACI 318-14.

RS.07 ALL REINFORCEMENT SPLICES SHALL BE LAP SPLICED AND WIRED TOGETHER IN CONTACT. SPLICE LENGTHS SHALL CONFORM TO THE LATEST ACI CRITERIA FOR SIZE AND TYPE OF REINFORCEMENT STEEL AND CONCRETE COMPRESSIVE STRENGTHS SPECIFIED. UNLESS NOTED OTHERWISE, MINIMUM LAP SHALL BE 40 BAR DIAMETERS.

RS.08 NO REINFORCEMENT STEEL SHALL BE WELDED IN ANYWAY UNLESS PRIOR WRITTEN APPROVAL IS GIVEN BY THE ARCHITECT.

RS.09 CORNER BARS SHALL BE PROVIDED AT WALL CORNERS EQUAL TO THE HORIZONTAL WALL REINFORCEMENT.

RS.10 UNLESS NOTED OTHERWISE, ALL CONCRETE WORK SHALL CONTAIN AT LEAST MINIMUM REINFORCEMENT AS REQUIRED BY ACI 318.

RS.11 PROVIDE EPOXY COATED REINFORCEMENT AT ALL EXTERIOR CONCRETE INCLUDING WALLS.



EXPIRES 12/31/2026

Veterans Memorial Monument

Grinnell, Iowa

Project Leader/Landscape Architect:

RITLAND-KUIPER
Landscape Architects
501 Sycamore Street, Mezz. A
Waterloo, Iowa 50703
Phone: 319-233-8090

Civil Engineer/Surveyor:

Clapsaddle-Garber Associates
16 East Main Street
Marshalltown, IA 50158
Phone: 641-752-6701

Monument Artist:

JTL Workshop
3633 Hwy 146
Grinnell, IA 50112
Phone: 515-229-6626

Monument Design and Fabrication:

Vector Custom Fabricating
2118 W. Fulton Street
Chicago, Illinois 60612
Phone: 312-421-5161

Electrical & Lighting Engineer:

MODUS Engineering
214 East 4th Street
Waterloo, Iowa 50703
Phone: 319-235-0650

Structural Engineer:

Goodfriend Magruder Structure LLC
53 W Jackson Blvd. Suite 340
Chicago, Illinois 60604
Phone: 312-265-2643

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No.	Date	Description
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Issue Date :	Designed By :
07/15/25	
Drawn By :	Reviewed By :

Sheet Title
GENERAL
NOTES

Category Sheet
S-0.0

SHORING AND BRACING

SB.01 INDIVIDUAL STRUCTURAL COMPONENTS ARE DESIGNED TO SUPPORT LOADS IN THEIR FINAL ERECTED POSITION AS PART OF THE TOTAL COMPLETED STRUCTURE. PROVIDE TEMPORARY SHORING, GUYING AND BRACING AS REQUIRED UNTIL ALL CONSTRUCTION AFFECTING LOAD CARRYING MEMBERS AND LATERAL STABILITY IS COMPLETED.

SB.02 CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR STABILITY OF STRUCTURE, ITS PARTS, AND JOB SITE SAFETY BY USE OF GUYING, BRACING, SHORING, BARRICADES, SAFETY RAILINGS AND DEVICES DURING THE ENTIRE PERIOD OF CONSTRUCTION.

SB.03 CONTRACTOR IS FULLY RESPONSIBLE FOR PROVIDING ALL TEMPORARY SHORING AND BRACING OF EXISTING ELEMENTS DURING CONSTRUCTION. ALL SHORING SHALL BE ADEQUATE TO SUPPORT ALL LOADINGS DURING MODIFICATION OF THE EXISTING BUILDING AND ERECTION OF THE NEW STRUCTURAL SUPPORT SYSTEM. TEMPORARY SHORING MUST REMAIN IN PLACE UNTIL ALL NEW STRUCTURAL MEMBERS SUPPORTING SHORED ELEMENTS ARE IN PLACE AND ALL NEW CONNECTIONS COMPLETED.

STRUCTURAL STEEL

SS.01 ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," LATEST EDITIONS.

SS.02 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIAL (ESPECIALLY WITH RESPECT TO STRUCTURAL STEEL FRAMING INTO CONCRETE WALLS, BEAMS, OR COLUMNS) AND TEMPORARY STRUCTURAL STABILITY.

SS.03 ERECT AND MAINTAIN TEMPORARY BRACING TO INSURE THE ALIGNMENT AND STABILITY OF THE STRUCTURE DURING ERECTION UNTIL PERMANENT CONNECTIONS HAVE BEEN COMPLETED.

SS.04 REFER TO OTHER DISCIPLINE DRAWINGS FOR ADDITIONAL STRUCTURAL AND MISCELLANEOUS STEEL REQUIREMENTS. ALL EXTERIOR EDGE ANGLES, LINTELS, AND SHELF ANGLES SHALL BE GALVANIZED AFTER FABRICATION.

SS.05 THE FABRICATOR/ERECTOR SHALL SUBMIT TO THE ARCHITECT, FOR INFORMATION ONLY, CONNECTION CALCULATIONS AND, FOR REVIEW, ENGINEERED AND CHECKED DRAWINGS SHOWING SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS, AND ERECTION DIAGRAMs FOR ALL STRUCTURAL STEEL.

SS.06 THE OWNER'S STEEL TESTING LABORATORY SHALL PERFORM ALL TESTING OF WELDED AND BOLTED CONNECTIONS IN ACCORDANCE WITH ALL AISC AND AWS REQUIREMENTS AND THE CHICAGO BUILDING CODE. WRITTEN REPORTS, SIGNED AND SEALED BY THE INSPECTING DESIGN PROFESSIONAL AND INCLUDING THE LICENSE EXPIRATION DATE, SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW. SEE ALSO THE PROJECT SPECIFICATIONS.

SS.07 ALL STRUCTURAL MEMBERS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
OTHER SHAPES & PLATES ASTM A 36 (Fy= 36 KSI)
STEEL HSS TUBES (RECTANGULAR) ASTM A 500, GRADE C (Fy= 50 KSI)

SS.08 STEEL SHALL BE CLEAN OF RUST, LOOSE MILL SCALE, AND OTHER FOREIGN MATERIALS FOR PROPER FABRICATION, FIT-UP, AND WELDING.

SS.09 ALL BOLTED CONNECTIONS SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR ASTM A 490 BOLTS."

SS.10 ALL BOLTS SHALL CONFORM TO THE LATEST EDITION OF ASTM A 325. BOLTS SHALL BE 3/4" DIAMETER MINIMUM. AT CONNECTIONS WITH LONG-SLOTTED HOLES IN OUTER PLYS, 5/16" PLATE WASHERS SUFFICIENT IN SIZE TO COMPLETELY COVER THE SLOT SHALL BE PROVIDED.

SS.11 ALL NUTS SHALL CONFORM TO THE LATEST EDITION OF ASTM A 563.

SS.12 ALL WASHERS SHALL CONFORM TO THE LATEST EDITION OF ASTM F 436.

SS.13 WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS AND SHALL CONFORM TO THE AWS D1.1 "STRUCTURE WELDING CODE," LATEST EDITION. ALL WELDING ELECTRODES SHALL BE E70XX.

SS.14 ALL STRUCTURAL STEEL EXPOSED TO VIEW SHALL CONFORM TO THE ARCHITECTURAL EXPOSED STRUCTURAL STEEL (AESS) CRITERIA OF THE "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."

SS.15 THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.

SS.16 PRIME PAINT ALL STEEL EXCEPT THOSE THAT ARE TO RECEIVE SPRAY-ON FIREPROOFING OR ARE TO BE ENCASED IN CONCRETE.

SS.17 ALL ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 AND SHALL MEET GRADE 36 KSI, UNO

POST-INSTALLED ANCHORS

PA.01 ADHESIVE ANCHOR SYSTEMS USED FOR DESIGN:
ADHESIVE (CONCRETE): HILTI HIT-HY 200 HILTI, TULSA, OK
ADHESIVE (CMU/MASONRY): HILTI HIT-HY 270 HILTI, TULSA, OK
THREADED ROD: HILTI HAS-E

OVERHEAD AND/OR CONSTANT TENSION ADHESIVE ANCHOR INSTALLATIONS NOT SHOWN ON THE DRAWINGS SHALL NOT BE PERMITTED UNLESS EACH CONDITION IS REVIEWED AND APPROVED IN WRITING BY THE SER.

PA.02 PROOF TESTING OF ADHESIVE ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, ADHESIVE ANCHOR PROOF TENSION LOADS SHALL BE PER THE ADHESIVE ANCHOR PROOF TENSION SCHEDULES.

PA.03 FIELD DRILLED EXPANSION ANCHOR SYSTEMS USED FOR DESIGN. KWIK BOLT 3 HILTI, TULSA. OK

PA.04 PROOF TESTING OF EXPANSION ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, EXPANSION ANCHOR PROOF TORQUE LOADS SHALL BE PER THE EXPANSION ANCHOR PROOF TORQUE SCHEDULES.

PA.05 FIELD DRILLED THREADED SCREW ANCHOR SYSTEMS USED FOR DESIGN: HUS-EZ HILTI, TULSA. OK

PA.06 ALTERNATIVE SYSTEM EQUIVALENT TO OR EXCEEDING THE PROPERTIES OF THE SYSTEMS ABOVE WILL BE CONSIDERED AS A SUBSTITUTION REQUEST. SEE PROJECT SPECIFICATIONS.

PA.07 ANCHORS ARE TO BE MINIMUM 3/4' DIAMETER WITH A MINIMUM EMBEDMENT OF 6", UNO.

PA.08 INSTALL ANCHORS TO MEET THE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS AND THE CURRENT MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII).

PA.09 LOCATE, BY NON-DESTRUCTIVE MEANS AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCING PROHIBITS THE INSTALLATION OF ANCHORS AS INDICATED IN THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONALS.

PA.10 SEE PROJECT SPECIFICATIONS FOR POST-INSTALLED ANCHOR INSPECTION REQUIREMENTS.

Veterans Memorial Monument

Grinnell, Iowa

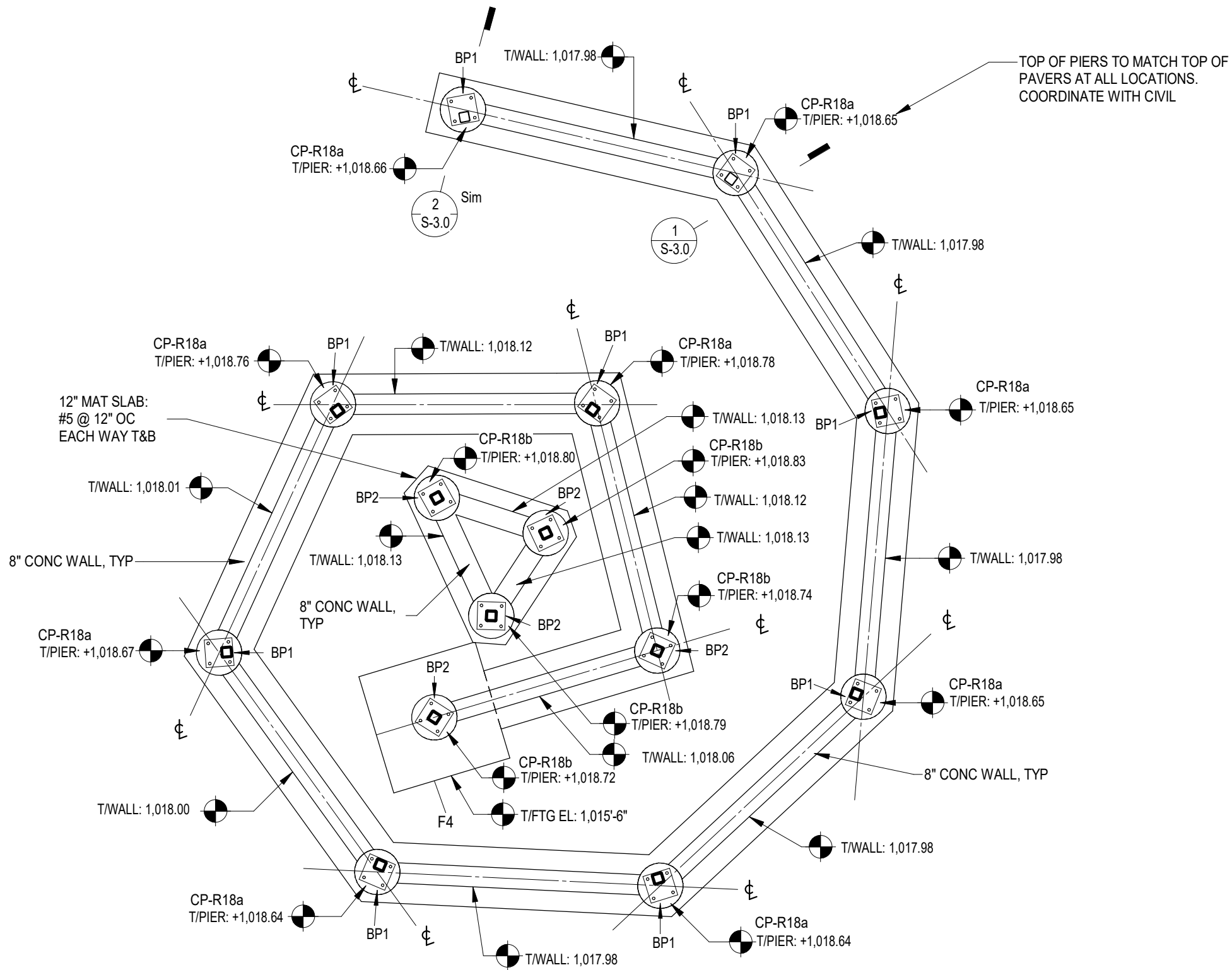
Project Leader/Landscape Architect:
RITLAND-KUIPER
Landscape Architects
501 Sycamore Street, Mezz. A
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Drawn By :		Reviewed By :	

Sheet Title
GENERAL NOTES

Category Sheet
S-0.1



1 FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

PLAN NOTES

1. SEE MONUMENT DESIGN AND FABRICATION DRAWINGS FOR ADDITIONAL DIMENSIONS AND INFORMATION.
2. PROVIDE TEMPORARY BRACING AT FOUNDATION WALLS AS REQUIRED.
3. SEE GENERAL NOTES. DO NOT BACKFILL AGAINST FOUNDATION WALLS UNTIL THE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH.
4. "CP-Rx" INDICATES CONCRETE PIER, SEE DETAIL SHEET FOR REINFORCING

Veterans Memorial Monument

Grinnell, Iowa

Project Leader/Landscape Architect:
RITLAND-KUIPER
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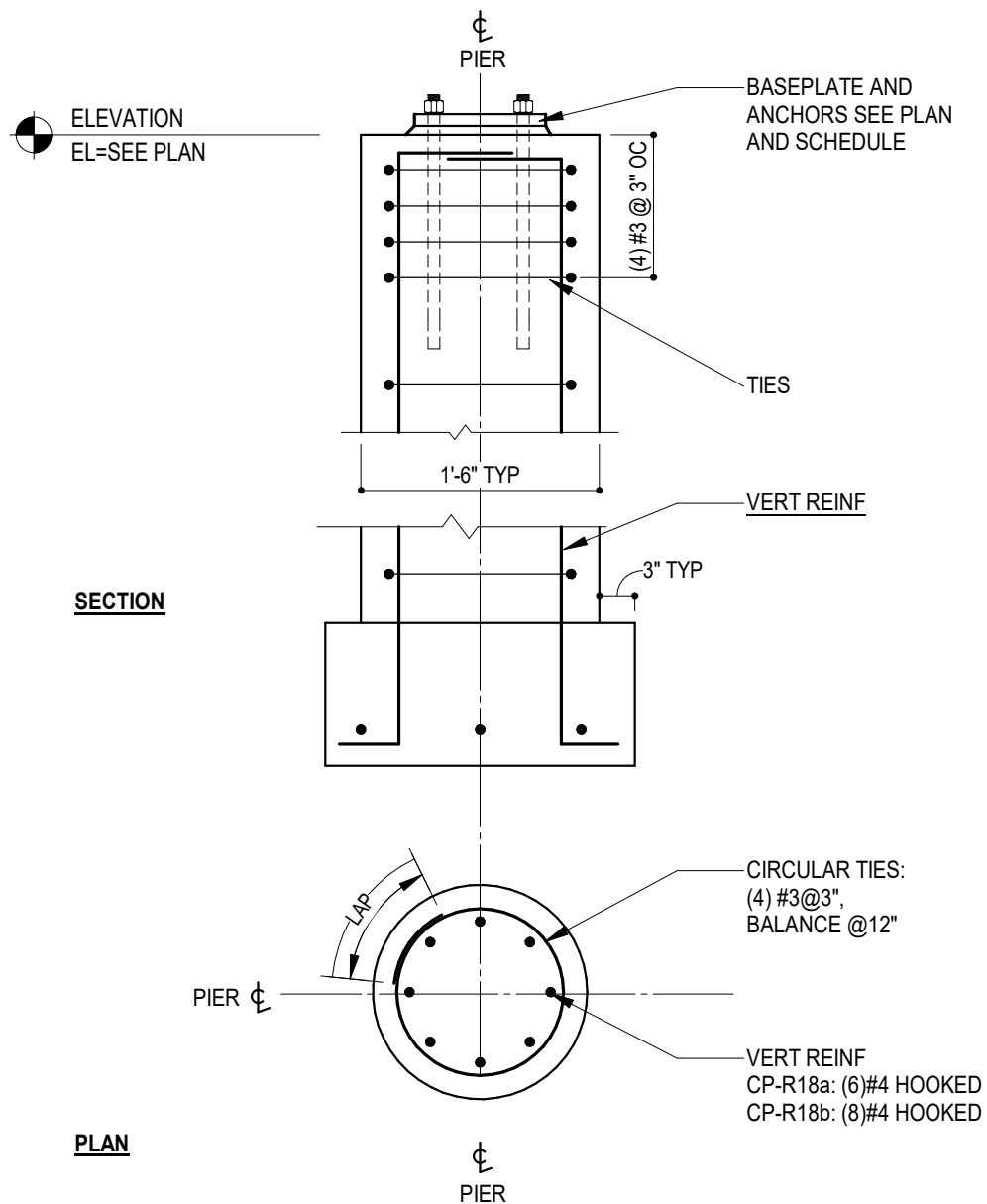
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Sheet Title
FOUNDATION
PLAN

Category Sheet
S-1.0

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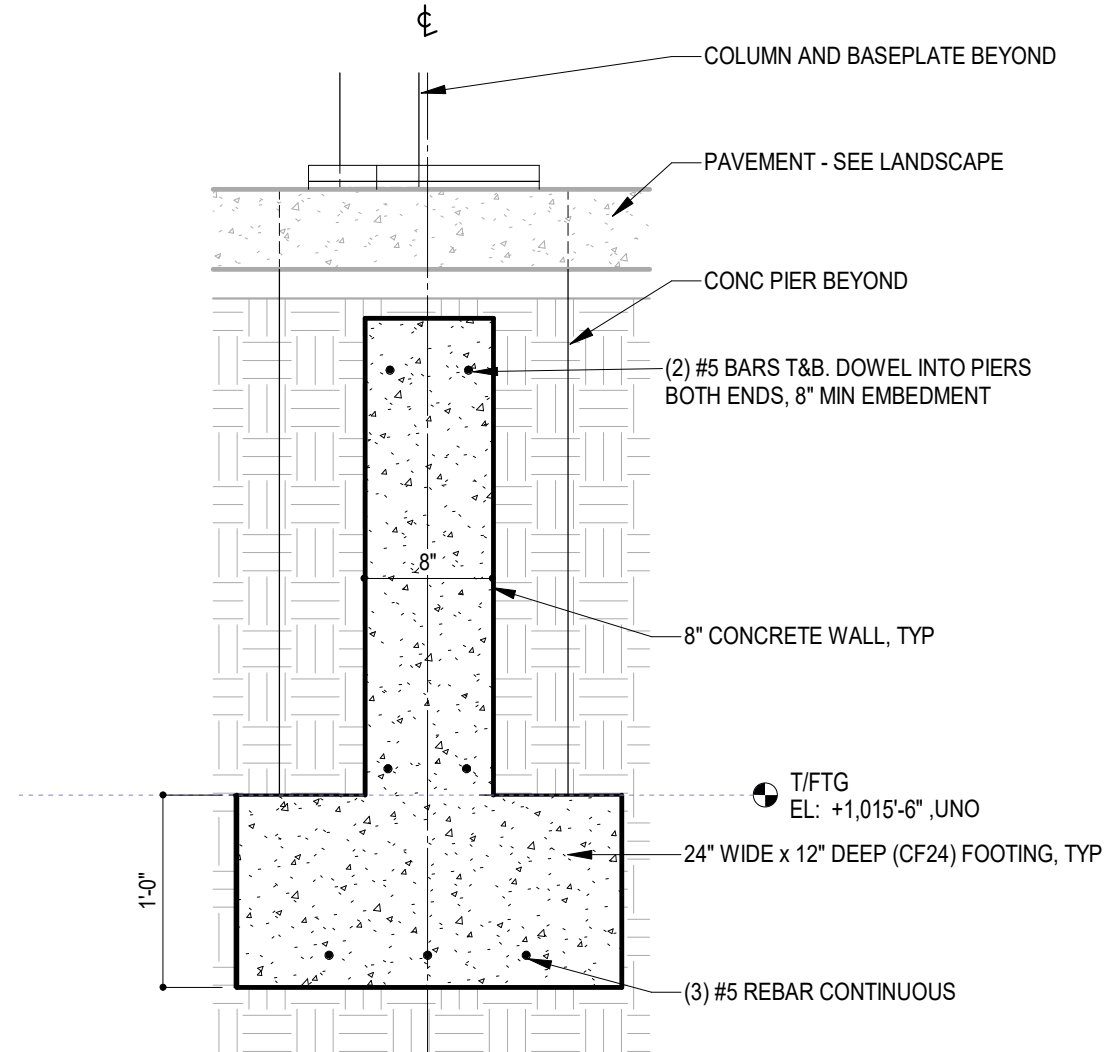


2 TYP CIRCULAR PIER CONC
SCALE: 3/4" = 1'-0"

SPREAD FOOTING SCHEDULE						
FOOTING MARK	FOOTING SIZE			REINFORCING		NOTES
	WIDTH	LENGTH	DEPTH	LONG BARS	SHORT BARS	
F4	4'-0"	4'-0"	12"	(5) # 5	(5) # 5	REINFORCING T&B

FOOTING SCHEDULE NOTES

1. FOOTINGS DESIGNED FOR NET ALLOWABLE BEARING CAPACITY OF 1,500 PSF TO BE VERIFIED BY GEOTECHNIC CONSULTANT. PROVIDE IN-SITU COMPACTION TESTS AT BOTTOM OF ALL NEW FOOTING TO VERIFY THIS VALUE PRIOR TO FOOTING



1 TYP FOUNDATION DETAIL @ WALL
SCALE: 1" = 1'-0"

BASE PLATE SCHEDULE			
MARK	PLATE SIZE (THK x L x W)	ANCHOR BOLTS	NOTES
BP1	1"x11"x11"	(4) 3/4" DIA EPOXY ANCHORS, 12" MIN EMBEDMENT	COLUMN ECCENTRIC AT BASEPLATE
BP2	1"x11"x11"	(4) 3/4" DIA EPOXY ANCHORS, 16" MIN EMBEDMENT	COLUMN CENTERED AT BASEPLATE

CONT WALL FOOTING SCHEDULE					
MARK	FTG WIDTH	FTG DEPTH	BOTTOM BARS		NOTES
			LONG	TRANSVERSE	
CF24	2'-0"	1'-0"	3 #5	-	-

NOTE: FOOTINGS ARE DESIGNED FOR NET ALLOWABLE BEARING CAPACITY OF 1,500 PSF TO BE VERIFIED BY GEOTECHNIC CONSULTANT. PROVIDE IN-SITU COMPACTION TESTS AT BOTTOM OF ALL NEW FOOTING TO VERIFY THIS VALUE PRIOR TO FOOTING.

Veterans
Memorial
Monument

Grinnell, Iowa

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Sheet Title
TYPICAL
DETAILS

Category Sheet
S-3.0

AGREEMENT FOR FABRICATION

AGREEMENT made this the ____ day of _____, 2025, by and between the City of Grinnell, Iowa, ("CITY") and Vector Fabricating, Inc., an Illinois corporation located at Chicago, IL ("FABRICATOR").

WHEREAS, the parties acknowledge CITY commissioned a work of sculptural art entitled "Unfurling Flag" as described in Attachment A ("Work") from recognized artist Joe Tuggle Lacina ("Artist") in coordination with RITLAND+KUIPER Landscape Architect ("Architect") to be installed in the northwest corner of CITY's Central Park (the "Site") within a plaza designed by Architect;

WHEREAS, FABRICATOR shall make, assemble, manufacture, fabricate and install the Work; and

WHEREAS, the parties wish to have the fabrication of the Work governed by the mutual obligations, covenants and conditions herein;

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants hereinafter set forth and other valuable considerations, receipt being acknowledged, the parties agree as follows:

BASIC TERMS:

1. Contact information for the FABRICATOR: Erik Lowe, Owner & President, 773-301-3346, erik@vectorfabricating.com
2. Contact information for the CITY: Russ Behrens, City Manager, 641-236-2600 rbehrens@grinnelliowa.gov
3. Title or Description of Work to be fabricated: Unfurling Flag
4. Anticipated Date of Completion of Fabrication: 6 months after Agreement date.
5. Date of Completion of Installation of Work: Within 6 weeks after notice from CITY post Anticipated Date of Completion. (CITY desires to complete installation and lighting and have a dedication on July 4, 2026.)
6. Installation Site: Northwest area of Central Park in Grinnell, Iowa, as more specifically designated by CITY in coordination with the Artist and Architect.
7. Fabrication Description: Set out in Attachment A.
8. Fees: FABRICATOR will receive the following all-inclusive fee \$668,200, including "alternate #1." Note that "alternate #2" within Attachment A has already been selected and paid for by CITY and performed by FABRICATOR.
9. Payment Schedule:
 - \$66,820: On signing this Agreement (10%)
 - \$133,640: On acquisition of materials and commencement of fabrication (30%)
 - \$133,640: On completion of fabrication (30%)
 - \$133,640: On City's Final Acceptance of the Work (after installation) and FABRICATOR providing the detailed instructions as to maintenance and care of the Work (30%)

10. Maintenance & Care: FABRICATOR will provide detailed instructions as to maintenance and care of the Work.

TERMS AND CONDITIONS:

1. Fabrication and Installation. The FABRICATOR will make, assemble, manufacture, fabricate, transport and install the Work in a good and workmanlike manner, in accordance with the terms and conditions of this Agreement. FABRICATOR will coordinate with Artist, Architect and CITY to complete the tasks herein consistent with other aspects of the overall project, which includes the completion of a plaza where the Work will be installed. FABRICATOR will coordinate with Artist, Architect and CITY as to concrete footings, grouting, lighting, wire management and permits; however, those items are excluded from FABRICATOR'S responsibility under this Agreement.

2. Warranty. The fabrication of the Work and its installation are warranted by FABRICATOR against defects in material or workmanship for a period of two (2) years from the date the fabricated Work is installed or December 31, 2028, whichever is later. This warranty includes not damaging any of the facilities, including surface structures, of CITY's Central Park during delivery and installation of the Work. If, after the Work has been installed, the fabrication, the delivery or the installation are found to be defective because of improper material or workmanship, excluding normal wear, tear, and weathering, the FABRICATOR, at its own expense, will provide the service and material necessary to correct the failure, provided that written notice of the alleged improper material or workmanship is provided to the FABRICATOR by CITY within the aforesaid warranty period. Notwithstanding the above warranty made by the FABRICATOR, it is hereby understood and agreed that the FABRICATOR shall not be liable for any loss or damage resulting from the negligence of CITY or from the failure to maintain and care for the Work by CITY. Nor shall the FABRICATOR be liable or have any responsibility whatsoever for any loss or damage sustained as a result of defects in or failure of the work for any materials, hardware, and the like used in fabricating the Work which the FABRICATOR did not provide, supply, or otherwise approve.

3. Revisions and Changes. Revisions and changes in the fabrication of the Work or in the installation site may be made with the written consent of the FABRICATOR and CITY. Notwithstanding the preceding sentence, changes in completed stages of the fabrication of the Work resulting from structural or mechanical exigencies may be made in the discretion of CITY. In the event of any changes or revisions, the FABRICATOR's fees will be adjusted as agreed upon by the parties hereto before any changes or revisions are made.

4. Force Majeure/Impossibility of Performance. In no event shall the FABRICATOR be liable for anything that happens beyond reasonable control; and any and all obligations of the FABRICATOR hereunder shall be waived or delayed to the extent that FABRICATOR is unable to carry out the same as a result of casualty or accident, or inability to obtain necessary supplies or materials, or satisfactory substitutes, used in the fabrication of the Work, acts or regulations of public authorities or labor interruption or delay of transportation service or unsafe job-site conditions, or of acts of God, or any other cause, happening, event, or occurrence (whether or not of the same general character as those specifically enumerated) beyond the FABRICATOR's reasonable control.

5. Insurance.

(a) Insurance of the Work. The FABRICATOR will provide all risk insurance on the Work up to the amount of \$1,000,000 during the Work's fabrication, any storage, transportation, and installation up until final CITY payment. The parties understand and agree that, in the event of damage, destruction, theft, or loss of the Work, or any part thereof, recovery shall be limited to such amount, if any, as may be paid by the insurer; and the FABRICATOR, its agents and employees, are hereby released from liability for any and all claims arising out of any damage, destruction, theft, or loss.

(b) Other Insurance. The FABRICATOR will carry liability and property damage insurance covering the installation work in amounts not less than \$1,000,000.00. Insurance shall insure the Artist, the Architect, the FABRICATOR and the CITY.

(c) Worker's Compensation Insurance. The FABRICATOR will pay for and carry Worker's Compensation Insurance for any and all of FABRICATOR's employees performing work on said Work, and shall provide CITY with proof of coverage upon request.

(d) The CITY, along with its respective officers, agents and employees, shall be named as an additional insured on FABRICATOR's General Liability Policy, which must be primary and noncontributory with respect to the additional insureds. To the fullest extent permitted by applicable state law, a Waiver of Subrogation Clause shall be added to the General Liability and Workers Compensation policies in favor of the CITY and this clause shall apply to the CITY's officers, agents and employees. Prior to commencement of Work, FABRICATOR shall submit a Certificate of Insurance in favor of CITY and an Additional Insured Endorsement (in a form acceptable to the CITY) as required hereunder. The Certificate shall provide for thirty (30) days' notice to CITY for cancellation or any change in coverage. Copies of insurance policies shall promptly be made available to the CITY upon request.

6. Independent Contractor. In performing the services specified in this Agreement, the FABRICATOR is acting as an Independent Contractor. Nothing contained in this Agreement shall be construed to constitute the FABRICATOR as a partner, employee, or agent of CITY.

7. Use of Artist's Name and Use of Fabricator's Name. The Artist and CITY give the FABRICATOR permission to use the Artist's name, in connection with the fabrication of the Work, provided said use shall not reflect unfavorably on Artist or CITY and subject to prior written approval by Artist and CITY. FABRICATOR grants permission to CITY and Artist to name FABRICATOR within signage at Central Park and within literature about CITY and the Work, as long as such reference does not reflect unfavorably on FABRICATOR.

8. Copyright and Derivative Work. The parties agree that the Work fabricated pursuant to this Agreement shall be a work made for hire; the parties agree the Artist grants to FABRICATOR only the right and license to fabricate and install the Work at the Site, and FABRICATOR hereby irrevocably assigns and agrees to assign and transfer any and all right, title and interest in any copyright resulting from the fabrication of the Work as a reproduction or derivative work throughout the world for the entire term of copyright to Artist. FABRICATOR agrees to sign and execute any documents reasonably required to effectuate the purposes of this provision, and further, FABRICATOR grants to Artist or copyright claimant by execution of this Agreement the specific power of attorney and to act as attorney in fact to execute an assignment or other documents on behalf of FABRICATOR reasonably necessary to transfer and assign any copyright in reproduction or derivative work accruing to FABRICATOR and the right to register the copyright in Artist's own name. Further, should any rights arise pursuant to the

Visual Artists Rights Amendment to the Copyright Law of the United States, FABRICATOR specifically waives all rights in the reproduction or derivative work specifically for the work being fabricated and produced and for any and all uses it is intended as a work of public art, which may arise or be conferred by subsection (A) of Section 106A of the United States Copyright Act, 17 USC Section 101, et sec, as provided by Section 106A(e)(1); all rights of copyright in the underlying work, specifically including but not limited to the design, maquette, models, drawing or other documentation shall remain with the Artist. Artist grants to the FABRICATOR a license to include two dimensional photos of the Work in its advertising materials solely for promotion of its business, subject to a requirement to acknowledge the Artist and his copyright in connection with the use of the two-dimensional photo.

Artist signature as to use of Artist name within Section 7 and granting the license within this Section 8.

Joe Tuggle Lacina

Date

9. CITY's Final Acceptance of the Work. FABRICATOR shall coordinate with the CITY for schedule of installation. The installation of the Work shall be considered complete, and the Work shall be considered accepted by CITY, following FABRICATOR's installation of the Work, removal of FABRICATOR's and/or installer's equipment, site debris, excess materials, etc., and CITY's verification, confirmation and acceptance by written notice to FABRICATOR to that effect. CITY's Final Acceptance of the Work shall not be unreasonably delayed.

10. Compliance. FABRICATOR shall comply with all federal, state and local laws, regulations, and ordinances applicable to the Work and this Agreement, including, without limitation, the Americans with Disabilities Act (ADA), the National Fire Protection Association (NFPA) requirements, and the Occupational Safety and Health Act (OSHA).

11. Heirs and Assigns. This Agreement shall be binding upon and shall inure to the benefit of CITY, FABRICATOR and their respective heirs, personal representatives, successors and permitted assigns.

12. Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given upon the delivery or receipt thereof, as the case may be, if delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid, as follows:

A. If to CITY:

Russ Behrens, City Manager
City of Grinnell
520 4th Avenue
Grinnell, IA 50112

B. If to FABRICATOR:

Erik Lowe, President
Vector Fabricating, Inc.
2128 W. Fulton
Chicago, IL 60612

13. Other.

A. Project Title. Parties agree the Work shall be referred to as: Grinnell Unfurling Flag Monument.

B. Voluntaryness. The parties acknowledge that they are executing this Agreement voluntarily; that they have read and are familiar with the provisions herein contained before signing and have weighed all the facts and circumstances likely to influence their judgment; that they have sought and obtained independent advice; that they have each been duly advised and appraised of their questions pertaining to this Agreement with such questions being fully and satisfactorily answered and they each Represent and warrant that they clearly understand and consent to all the provisions herein.

C. Entire Agreement. This Agreement constitutes the entire Agreement between the parties relating to the subject matter contained in it and supersedes all prior and contemporaneous representations, oral or written agreements or understandings between the parties respecting its subject matter.

D. Binding Agreement. This Agreement shall inure to the benefit of and be binding upon the parties and their respective legal representatives, heirs, successors and assigns. Whenever in this instrument a reference to any party is made, the reference shall be deemed to include a reference to the legal representatives, heirs, successors and assigns of any party hereto.

E. Amendment. No amendment, modification, change or supplement of this Agreement shall be binding unless executed in writing by the parties hereto.

F. Waiver. No consent or waiver, express or implied, of any one provision of this Agreement shall constitute a waiver of any other provision, nor shall any one waiver constitute a continuing waiver. No waiver shall be binding unless executed in writing by the party against whom the waiver is asserted.

G. Most Favorable Terms. If one party shall, during the term of this Agreement, enter into or modify the Agreement with more favorable terms or benefits, then the other party shall automatically become entitled to all more favorable terms.

H. Governing Law. Agreement shall be construed and interpreted in accordance with, and governed by the laws of the State of Iowa.

I. Interpretation. If any provisions in this Agreement is held by a Court of competent jurisdiction to be invalid or unenforceable, the remainder of the Agreement shall remain in full force and shall in no way be impaired.

J. Dispute Resolution. The parties shall endeavor in good faith to resolve claims, disputes and other matters in question between them by mutual agreement and may, by mutual agreement and in their discretion, submit same to non-binding mediation which shall be in accordance with Iowa Code Chapter 679C, unless otherwise mutually agreed by the parties. Requests for mediation shall be given in writing to the other party to this Agreement. If the CITY and FABRICATOR are unable to mutually agree upon a mediator in writing within sixty (60) days of receiving the written request for mediation, either party may then institute legal or equitable proceedings. Mediation shall be voluntary only and shall not be a prerequisite to litigation or other means of dispute resolution.

If mediation is selected, the parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Poweshiek County, Iowa, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

Claims not resolved by mediation shall be litigated in the Iowa District Court in and for Poweshiek County, unless otherwise mutually agreed to by the parties.

K. Headings. The subject headings of the paragraphs of this Agreement are included for purposes of convenience only and shall not effect interpretation of the paragraphs.

L. Terminology. All personal pronouns used in this Agreement, whether used in the masculine, feminine, or neuter gender, shall include all other genders. The singular shall include the plural or vice versa.

M. Counterparts. This Agreement may be executed in two or more counterparts each of which shall constitute an original Agreement as against the party who had signed it, but which in the aggregate shall constitute one and the same instrument.

N. Time. Time is of the essence of this agreement.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement as of the date first set forth above.

Vector Fabricating, Inc.

City of Grinnell

By Erik Lowe, President

By Dan Agnew, Mayor

Attachment A

Work

The Work will conform to the specifications set out in the attached letter from FABRICATOR to the Architect dated December 20, 2024. City selects both “*alternate #1*” and “*alternate #2*.”

As to “*alternate #2*” within the attached letter, FABRICATOR has already accomplished this additional sample work under a separate agreement dated February 28, 2025, attached hereto. FABRICATOR agrees that if it needs to do any additional sample work to solve fabrication issues, it will do so at its own cost.

The Work will conform with the following intended daytime and nighttime appearances:





The Work will conform with the attached shop drawings.

The Work's approximate height will be 41 feet and the approximate width will be 27 feet. The Work shall be held off the ground at a height of about 6 inches, to be more fully designated by CITY.

The Work shall be constructed so visitors can enter a spiral entrance into the center. The internal supports shall be fashioned in the form of a 5-pointed star. The stars and the stripes shall be visually created by the use of the perforations. The Work shall be constructed in such a way to accept lighting fixtures to mount within the Work and shine through the perforations, and in that regard, FABRICATOR shall coordinate with Architect, Artist and the lighting company selected by CITY to create that artistic effect.

FABRICATOR will communicate with CITY or CITY's designated representatives as to specifications and seek approval of such specifications to assure the final Work meets the CITY's expectations. At a minimum FABRICATOR will provide monthly updates to CITY and CITY'S designated representatives.

4929-1671-7640-1\10542-1000



**GRINNELL PUBLIC SAFETY COMMITTEE MEETING
MONDAY, JULY 21, 2025, AT 5:30 P.M.
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY HALL
AND VIA ZOOM**

<https://zoom.us/j/99204474461?pwd=TKstFLRtJYkiZ4peKaiNbJluVn2K6S.1>

Meeting ID: 992 0447 4461

Passcode: 871475

TENTATIVE AGENDA

ROLL CALL: White (Chair), Hueftle-Worley, Davis

PERFECTING AND APPROVAL OF AGENDA:

COMMITTEE BUSINESS:

1. Consider approval of a resolution entering into an Agreement for Services with Roe Consulting LLC., in the amount of \$8,000.00 or 9% of the estimated federal share of GEMT reimbursements. (See Resolution No. 2025-130)

INQUIRIES:

ADJOURNMENT

RESOLUTION NO. 2025-130

RESOLUTION APPROVING THE PROFESSIONAL SERVICES AGREEMENT WITH ROE CONSULTING, LLC FOR THE PREPERATION AND CERTIFICATION OF THE FY 26-25 GEMT (MEDICAID) COST REPORTING PROJECT

WHEREAS, the Ambulance Service wishes to participate in the GEMT (Medicaid) Cost Reimbursement Program; and

WHEREAS, ROE Consulting, LLC, has provided a professional services agreement in the amount of \$8,000.00 or 9% of the estimated federal share of GETM cost reimbursement, whichever is lower; and

WHEREAS; the city of Grinnell is in agreement with the terms outlined in the professional services agreement with ROE Consulting LLC.; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Grinnell, Iowa, that the Mayor and City Clerk are hereby directed and authorized to execute the professional services agreement with ROE Consulting LLC.

Passed and approved this 21st day of July 2025.

Dan F. Agnew, Mayor

ATTEST:

Alyssa Devig, City Clerk/Finance Director



ROE CONSULTING LLC

AGREEMENT FOR SERVICES FOR THE CITY OF GRINNELL

1. Project Description

- ✓ *Roe Consulting LLC ("Roe Consulting") will provide consulting services to the City of Grinnell ("Client"), in support of FY26-27 GEMT (Medicaid) Cost Reporting (the "Project") pursuant to the terms herein.*

2. Project Scope

- ✓ *Services will be provided on a per-project basis.*
- ✓ *The Scope of Services for this Project will be by a term effective on August 1, 2025, and ending on June 30, 2026.*
- ✓ *Roe Consulting shall provide data collection and organization, development of supporting documents, preparation of required formal documents and sample resolutions for the Project during the period of August 2025 through October 2025.*
- ✓ *Roe Consulting shall provide cost report finalization, preparation for signing, and submission of final documents by November 30, 2025.*
- ✓ *Roe Consulting shall review and respond to follow-up/audit questions during the period of December 2025 through June 2026.*

3. Client Access Requirements

- ✓ *Receipt and reasonable access to Client fire department records management system(s), including necessary support to provide data, provide information, and/or allow modifications for retrieving needed data.*
- ✓ *Receipt and reasonable access to Client financial information necessary to provide desired reports/services for the Project.*
- ✓ *Receipt and reasonable access to Client ambulance billing reports for information required on the GEMT (Medicaid) Cost Report.*

4. Specific Exclusions from Scope

- ✓ *Roe Consulting has no authority to sign contracts or financially obligate the Client.*
- ✓ *Roe Consulting is engaged as an independent contractor and will be responsible for any federal or state taxes applicable to the payments under this agreement. Because Roe Consulting is an independent contractor, Client will not be liable for any tax withholding, social security payments, state workers' compensation insurance, unemployment insurance, retirement system payments, or other similar expenses normally payable on behalf of employees of Client.*

5. Remedies and Termination of Agreement

- ✓ *Roe Consulting or the Client may terminate this Agreement in writing at any time with a 30-day notice via email and phone call, provided such termination occurs no later than October 1, 2025. However, Roe Consulting reserves the right for payment of reasonable services provided to the Client before termination.*
- ✓ *Client shall hold Roe Consulting harmless from any actions, omissions, or claims, whether from the Client or third parties, related to services rendered in support of this Agreement and within the scope of services provided.*
- ✓ *This Agreement shall be governed and construed pursuant to the laws of the State of Iowa. Should it be necessary to enforce the terms, Roe Consulting shall be entitled to reasonable attorney's fees, interests and costs related to enforcement and through satisfaction of the requirements and obligations herein.*

6. Costs of Services

- ✓ *Costs for Roe Consulting's services will be invoiced after the November 30, 2025, filing deadline.*
- ✓ *The cost for services is the lower of \$8,000.00 or 9% of the estimated federal share of GEMT cost reimbursement.*
- ✓ *No other costs for equipment, supplies, travel, printing, or incidentals will be charged unless approved in advance by the City Manager or authorized agent of the Client.*

APPROVAL AND AUTHORITY TO PROCEED

City of Grinnell
520 4th Avenue
Grinnell, IA 50112
515-236-2626

Roe Consulting LLC
16500 Oakbrook Drive
Clive, IA 50325
515-238-7012
rickroe67@gmail.com

Approved by

Date

Approved by

Date



7/8/25



**GRINNELL PLANNING COMMITTEE MEETING
MONDAY, JULY 21, 2025, AT 6:15 P.M.
IN THE COUNCIL CHAMBERS ON THE 2ND FLOOR OF CITY
HALL AND VIA ZOOM**

<https://zoom.us/j/97255456374?pwd=ON5aaD6Wg6Jy33o05JbPuTETZPseZy.1>

Meeting ID: 972 5545 6374

Passcode: 211470

TENTATIVE AGENDA

ROLL CALL: Bly (Chair), Wray, Hart.

PERFECTING AND APPROVAL OF AGENDA:

COMMITTEE BUSINESS:

1. Discuss a special event to be held at the Grinnell Airport on September 27, 2025.
2. Consider approval of an agreement with Maxfield Research of Minneapolis to complete a housing study for the city of Grinnell.
3. Review draft of the FY 27-33 Capital Improvement Plan.

INQUIRIES:

ADJOURNMENT:

A Proposal to Prepare a Comprehensive Housing Needs Analysis for the City of Grinnell, Iowa

Prepared for:

City of Grinnell
Grinnell, IA

July 2025



Maxfield
Research & Consulting

Breaking Ground since 1983

901 Twelve Oaks Center Drive
Suite 922

Wayzata, MN 55391

612.338.0012

www.maxfieldresearch.com



Maxfield
Research & Consulting

Breaking Ground since 1983

July 15, 2025

Mr. Russell L. Behrens
Grinnell City Manager
520 4th Avenue
Grinnell, IA 50112

Mr. Behrens:

Thank you for contacting Maxfield Research and Consulting for a proposal to prepare a Comprehensive Housing Needs Analysis for Grinnell, Iowa. The study would examine demographic and economic trends along with current housing market conditions to determine the market potential for developing additional housing products in the City. We would provide detailed recommendations for the housing types identified as being needed in the short- and long-term, and recommendations would be provided on programs and incentives that could be initiated to attract various housing products.

The work program for this housing market study is outlined on the following pages. The total fee for staff time would be \$25,000, including out-of-pocket expenses (i.e. data purchases, etc.) and an electronic version of the report. Travel costs are additional and would be billed at our direct costs. Costs are presented for each major component of the work program. Maxfield Research and Consulting would be able to deliver a draft report of the housing needs analysis in approximately 120 days.

Along with the proposal is a statement of qualifications for our firm which provides a company background and outlines our services and representative clients. We welcome the opportunity to work with you on this project. If you have questions, please contact me at (612) 802-5094 or email at jhollman@maxfieldresearch.com. If the proposal meets with your approval, please date and sign one copy and return it to our offices and we will schedule this work to be completed.

Sincerely,

MAXFIELD RESEARCH AND CONSULTING

Joe Hollman
Director of Research



Maxfield

Research & Consulting

Breaking Ground since 1983

July 15, 2025

Mr. Russell L. Behrens
Grinnell City Manager
520 4th Avenue
Grinnell, IA 50112

CONTRACT FOR PROFESSIONAL SERVICES

Maxfield Research and Consulting proposes to provide market research and consulting services to the City of Grinnell, Iowa (the "Client") to prepare a Comprehensive Housing Needs Analysis. The market study will determine the market potential for developing different types of owned and rented housing in the City through 2035 based on an examination of demographic and employment growth trends and current housing market conditions. Detailed recommendations (number of units/lots; unit mix and sizes; prices/rents; housing features and amenities, etc.) for the housing types identified as needed in the short-term (2025 to 2030) and long-term (2031 to 2035) would be provided.

DESCRIPTION AND BIOGRAPHY OF FIRM

Maxfield Research and Consulting has 40 years of experience in assisting communities to determine market conditions for planning and development efforts, providing demographic estimates and projections, and analyzing county and municipal commercial and residential real estate needs. Our thorough knowledge of market trends in the real estate industry allows us to support our clients with valuable information that affects planning and development. We are able to determine viable solutions to the issues that communities face. We are local, regional and national with work completed in over 40 states.

Maxfield Research and Consulting provides market analysis services in the areas of general occupancy market rate housing, affordable housing, student housing, senior housing, office, retail, hospitality, industrial, and financial institutions. Maxfield also has experience in organizing and conducting focus groups, preparing and administering on-line and mail surveys, holding public forums for large scale planning documents, and organizing and making presentations to city councils, planning commissions, and economic development authorities. A more detailed company overview is located in the Appendix.

METHODOLOGY

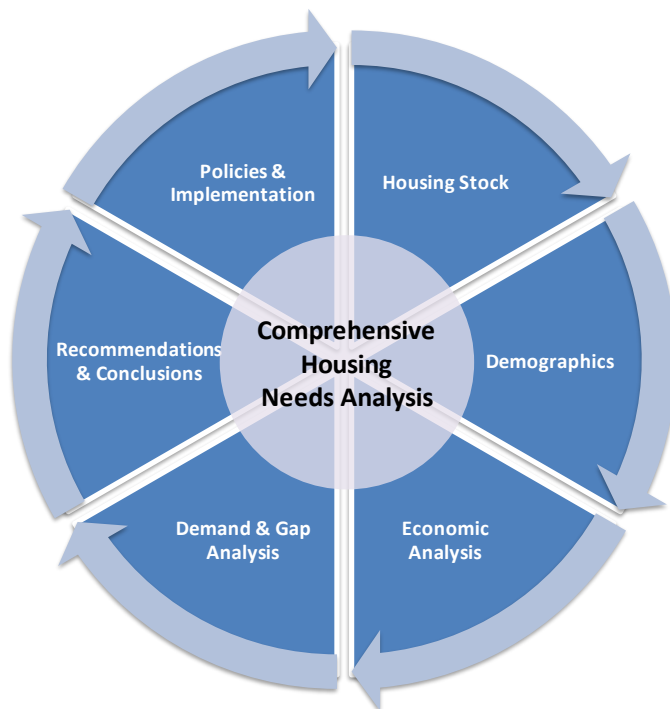
It is our understanding that the primary objective of this analysis is to provide a market-based analysis that will identify current and future housing needs in the community and help decision makers develop a greater understanding of the City's housing market. Maxfield Research and Consulting will provide detailed recommendations and an action plan for housing development (both short-term and long-term) and recommend tools and policies that will assist implementation. Our findings will provide a basis for community leaders, stakeholders, and decision-makers to guide future efforts when addressing housing needs.

The hallmark of Maxfield Research and Consulting's approach to comprehensive housing studies is a thoughtful, in-depth combination of primary and secondary research. Primary research includes surveys of existing housing properties, interviews with major employers, developers, builders, Realtors, property managers, city and government agency staff, and others familiar with housing issues and the local housing market. Secondary research includes data obtained from reliable published sources including the Census Bureau, ESRI (a national demographics firm), State demographic centers and economic development agencies, among others.

Published secondary data is always reviewed carefully in light of other local factors revealed through the primary research that may have an impact on the analysis. The result is a custom report that provides the Client with information that is timely and locally pertinent.

Our work approach will draw on our experience and expertise in conducting housing studies on behalf of public entities and private developers.

Maxfield Research and Consulting routinely completes over 100 housing studies annually and is a market leader on housing research and consulting in the Upper Midwest.



WHY MAXFIELD RESEARCH?

We Know the Region

- **Benefit:** Our past experience in Grinnell and throughout the State of Iowa will allow us to work efficiently

Housing Inventory

- **Benefit:** Maxfield Research's proprietary housing data includes detailed information on multifamily properties across the Upper Midwest

Experience Counts

- **Benefit:** Committed team of senior-level leaders; the team members dedicated to this project have over 60 years of experience

Local Knowledge - National Experience

- **Benefit:** Our work is grounded in local issues/reality and we can integrate best practices from elsewhere

Relationships

- **Benefit:** We have deep relationships with the development community; we understand their barriers and opportunities, we know what they want, and they will talk to us

Full-Service Real Estate Advisory Firm

- **Benefit:** We understand the connection between all real estate types and we advise both public- and private-sector clients

Comprehensive Approach

- **Benefit:** Data-driven analyses generate conclusions and recommendations based on market realities

On the Ground Field Research

- **Benefit:** Hands-on field work and interviews via telephone or in person combined with the analysis of Census and other data to gain the most information possible.

Proven Methodologies & Results Oriented

- **Benefit:** Our process for projecting housing demand has proven to be effective and we deliver action-oriented strategies

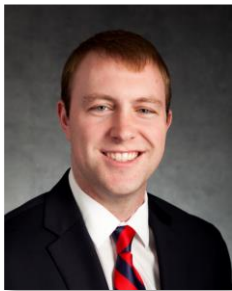
KEY RESEARCH STAFF



Mary Bujold, CRE, President of Maxfield Research and Consulting, will be principle-in-charge of the project and serve as a consultant for the recommendations. Ms. Bujold has over 40 years of experience in housing market research and is regarded as a market expert in the field of residential real estate. Ms. Bujold has been involved in numerous housing and commercial analyses for private developers and public agencies over the past several years.



Mr. Joe Hollman, Director of Research, would be the principal analyst overseeing project execution, completing a portion of the data gathering, preparing conclusions and recommendations, and overseeing compilation of the report. Mr. Hollman was the project lead on the recently completed comprehensive housing needs analysis for the City of Waverly, Iowa, as well as recent housing needs analyses for Red Wing, Minnesota, Carrington, North Dakota, and Carver County, Minnesota. Mr. Hollman is currently directing the completion of a housing needs analyses for Dodge County, Minnesota.



Mr. Max Perrault, GIS Technician/Associate, will be responsible for mapping, compiling demographic and employment data, and gathering base market information. Mr. Perrault has assisted on several comprehensive housing needs analyses during his tenure with Maxfield Research and Consulting, including recent studies for Storm Lake, Iowa, the City of Braham, Minnesota, and Anoka County, Minnesota. Mr. Perrault is currently providing mapping services for multiple market studies across the Upper Midwest and is working on a housing needs analysis for Forest County, Wisconsin.

Consultant's Name: Maxfield Research and Consulting
Year Established: 1983
Type of Ownership: LLC
Federal ID Number: 41-1463801
Employees: 8

Primary Contact:

Ms. Mary Bujold
President
Maxfield Research and Consulting
901 Twelve Oaks Center Drive, Suite 922
Wayzata, MN 55391
(612) 904-7977
email: mbujold@maxfieldresearch.com
www.maxfieldresearch.com

**Maxfield Research & Consulting
Team Members**

- Mary Bujold, President, 41 years experience
- Joe Hollman, Director of Research, 28 years experience
- Brian Smith, Senior Associate, 23 years experience
- Rob Wilder, Senior Associate, 10 years experience
- David Sajevic, Senior Associate, 15 years experience
- Max Perrault, GIS Technician/Associate, 9 years experience
- Jessica Van Voorhis, Associate, 10 years experience
- Nathan Ross, Associate, 1 year experience

SCOPE AND COST OF SERVICES – Comprehensive Housing Needs Analysis

A. Project Kickoff

1. Meet with Client representatives and other stakeholders to review project goals and objectives. This report will require some assistance from the stakeholders; data requests and other project assistance will be discussed during this time.
2. Obtain information on past housing studies/planning documents, ordinances, or other research reports/publications with information pertinent to the assignment. Review these documents and identify information that is relevant to this analysis; identify how current conditions have changed.
3. Conduct a windshield assessment of the housing stock in the community.

B. Demographic Analysis

1. Define a primary housing draw area for the City of Grinnell.
2. Provide population and household growth trends and projections to 2035.
3. Provide population age distribution trend data for Grinnell from 1990 to current.
4. Examine demographic information on:
 - a) Household incomes by age of householder
 - b) Household tenure by age of householder
 - c) Household incomes by tenure
 - d) Household tenure by household size
 - e) Household type
 - f) Diversity/ethnicity/culture
5. Present information on mobility trends.
6. Discuss the implications of the findings on housing demand.

C. Employment Trends

1. Examine local data on labor force and resident employment trends.
2. Examine local data on industry employment and wage trends.
3. Identify major employers.
4. Identify commuting patterns of area workers.
5. Project job growth to 2035. Analyze any business expansions/contractions and their effect on the local housing market.
6. Interview economic development specialists and major employers regarding the impact housing has on their ability to attract/retain workers.

D. Housing Characteristics & Condition

1. Compile statistics on the age of the housing stock.
2. Compile residential building permit data to the most current available figures. Data to be provided by Client. If Client is unable to provide building permit information, then secondary data (i.e. Census Building Permit Survey) will be utilized if available.
3. Analyze U.S. Census (2010 and 2020) and American Community Survey (ACS) findings on housing units by structure type and tenure in the community.
4. Interview housing professionals and municipal staff regarding housing conditions, economic development trends, and other factors that affect the housing markets.

E. For-Sale Housing Market Analysis

1. Provide data on detached single-family and multifamily (i.e. twin homes, townhomes, condominiums) housing resale values, and examine price distribution and average/median price of home resales. If available, data will be sourced from local Multiple Listing Service (MLS). If MLS data is not available, information will come from the City or County Assessor which may require Client assistance.
2. Analyze data on the inventory and list price of homes currently for sale.
3. Survey active and recently completed for-sale housing developments (detached single-family homes, townhomes, twin homes, etc.).

4. Analyze information on product types, lot sizes, home sizes, sale prices, and absorption (if available).
5. Identify the residential lot supply in the community and evaluate the impact on potential housing production. To the extent data is available, present information on vacant lots by year platted, subdivision, pricing, etc. Lot supply data to be provided by Client through GIS or Assessor parcel databases.
6. Identify pending for-sale housing developments and discuss the likely impact of these developments on the housing market.
7. Interview real estate professionals to assess the overall strength of the for-sale housing market, buyer profiles, desired housing types, price points, and unmet market niches.

F. General Occupancy Rental Market Analysis

1. Provide a general overview of rental housing market conditions.
2. Survey larger (eight units or more) general occupancy rental housing projects, including subsidized, affordable, workforce/moderate income housing, and market rate properties.
3. Analyze data collected from the rental survey on year built, monthly rents, vacancies, and rents per square foot.
4. Map locations of the surveyed rental housing properties.
5. Inventory pending rental developments and evaluate their impact on the market.
6. Interview owners/managers of rental housing in the area to assess rental trends and the need for additional rental housing.
7. Identify appropriate rental rates and the target markets for new rental construction in the community.

G. Senior Housing Market Analysis

1. Inventory existing senior housing properties, including subsidized, affordable, and market rate developments. Projects will include rental and for-sale active adult, independent living, assisted living, and memory care facilities.
2. Provide information on year opened, number of units, and service level.
3. Map locations of the senior housing stock.
4. Inventory pending senior developments and evaluate their impact on the market.
5. Interview managers/sponsors of senior housing in the area to assess market trends and the potential need for additional senior housing.

H. Housing Affordability

1. Provide income limits, maximum gross rents, fair market rents by household size.
2. Based on income guidelines, present maximum rents based on household size and Area Median Income.
3. Based on the average rents and median home resale values from the *General Occupancy Rental Market Analysis* and the *For-Sale Housing Market Analysis* sections, present information on income-qualified renter and owner households.

4. Identify the number of cost burdened households (i.e. households paying more than 30% of their income on housing) for renter and owner households.
5. Evaluate Housing Choice Voucher program utilization in the community.

I. Conclusions and Recommendations

1. Calculate demand through 2035 for new general occupancy for-sale housing, general occupancy rental housing (subsidized, affordable, and market rate), active adult senior housing (subsidized, affordable, and market rate), and service enhanced senior housing (independent living, assisted living, memory care).
2. Identify potential target markets for new for-sale, rental, and senior housing.
3. Identify potential housing gaps and opportunities in the community.
4. Based on residential lot supply and absorption trends, discuss whether additional lots should be platted to meet projected demand.
5. Suggest appropriate development concepts in the short-term (developments needed by 2030) and longer-term (2031 to 2035), including number of units, unit mix, sale prices or monthly rents, and in-unit features and common area amenities.
6. Prioritize housing needs and action steps to implement recommendations.
7. Discuss the potential need for public/private partnerships to achieve housing development goals and support economic development.
8. Review current programs offered in the community (data to be provided by Client).
9. Discuss other potential housing programs and resources that may be administered to help achieve housing goals.
10. Based on parcel data provided by Client, summarize available land and potential in-fill sites in the City and provide general recommendations regarding the type(s) of housing best suited for those properties.
11. Briefly evaluate characteristics of the Grinnell Mobile Home Park and Wiltfang Apartments properties in Grinnell and provide general suggestions regarding opportunities to maximize and/or rehabilitate these properties.
12. Provide data on typical cost metrics to develop residential land in Iowa.
13. Provide recommendations on other challenges and opportunities that relate to the existing housing stock and housing development.

J. Meetings and Client Contact

1. One kick-off meeting with Client (in person or via teleconference).
2. Review of the Draft analysis (via teleconference) that would address report findings.
3. One formal presentation (in person or teleconference) to governing body.
4. Report Preparation.

MAPPING – Maxfield Research and Consulting will utilize mapping software to present key data visually and spatially. To the extent Geographic Information System data is available, housing related parcel-based maps of the community will be prepared. Maxfield Research will require assistance from the Client to obtain parcel data.

Cost for Comprehensive Housing Needs Analysis (Staff Time)

\$25,000.00

OPTIONAL PEER COMMUNITY COMPARISON - Information will be provided for comparison purposes to up to four communities identified by the Client as “peer communities” to Grinnell. The comparisons would analyze key demographic, employment, housing inventory (including new home construction trends), and housing affordability data.

COST OF SERVICES

The work outlined under the Scope of Services will be performed for Twenty Five Thousand Dollars (\$25,000.00), including out-of-pocket expenses such as data purchases and an electronic version of the report; but excluding travel expenses (meals, mileage or car rental, lodging, incidentals, etc.) estimated to not exceed \$1,100.00. The optional peer community comparisons will be completed for One Thousand Two Hundred Dollars (\$1,200.00).

The following fee proposal provides a detailed summary of staff hours needed to complete this project. The fee proposal includes a breakdown of costs by project task and by Maxfield Research and Consulting staff position.

FEE PROPOSAL COMPREHENSIVE HOUSING NEEDS ANALYSIS FOR GRINNELL, IOWA					
	Maxfield Research and Consulting Staff Hours				Cost by Task
	President	Project Director	Project Analyst	Total Hours	
Project Task					
Project Kick-off	0	10	0	10	\$1,500
Review of Past Studies	0	0	2	2	\$170
Demographic Analysis	0	10	16	26	\$2,850
Employment Trends	0	6	8	14	\$1,580
Housing Characteristics and Condition	0	8	6	14	\$1,710
For-Sale Housing Market Analysis	0	10	16	26	\$2,850
General Occupancy Rental Analysis	0	4	24	28	\$2,630
Senior Housing Market Analysis	0	8	8	16	\$1,880
Housing Affordability	0	8	4	12	\$1,540
Conclusions and Recommendations	6	22	12	40	\$5,270
Meetings and Report Preparation	0	8	4	12	\$1,540
Mapping	0	2	14	16	\$1,480
Total Hours	6	96	113	215	
(times) Hourly Rate	\$160	\$150	\$85		
Total Cost for Staff Time	\$960	\$14,400	\$9,640	\$25,000	
(Plus) Travel Cost (estimate)*				\$1,100	
Total Cost for Staff Time plus Travel	\$960	\$14,400	\$9,640	\$26,100	
(Optional) Peer Community Comparisons				\$1,200	
Total Cost for Staff Time/Travel/Optional Peer Community Comparisons				\$27,300	

*Mileage, lodging, meals, etc.; Mileage billed at the standard IRS rate of \$0.70 per mile (2025 rate)

Work completed on the assignment would be billed to the Client monthly as costs are incurred. Additional research or meeting time requested by the Client beyond that set forth in the accompanying Scope of Services will be billed at our normal hourly rates (\$65 to \$160).

WORK PRODUCT

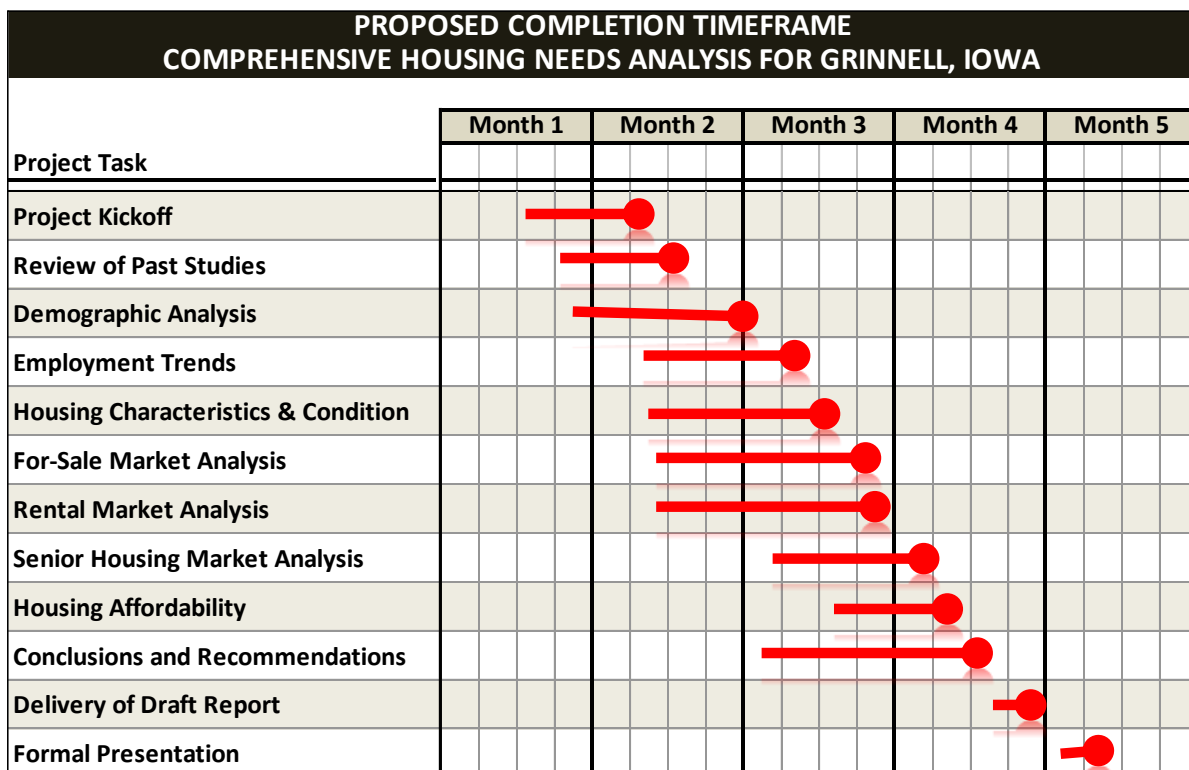
Findings will be presented in an electronic PDF format.

The Comprehensive Housing Needs Analysis is accepted by many lenders, limited partners, investors or governmental bodies who require such documentation to satisfy their financing criteria.

COMPLETION TIME

The work outlined under Scope of Services will be completed in draft form within 120 days of the execution of this agreement unless delayed by unexpected emergencies, forces beyond the control of the parties, or by written agreement of the parties.

A final report would be issued within two weeks of receiving all comments and feedback from the Client.



PAYMENT

All invoices are payable to Maxfield Research and Consulting within fifteen (15) days of receipt of an invoice showing the work completed and the direct costs for expenses. A finance charge of one and one-half percent (1.5%) per month will be added to the unpaid balance of each invoice not paid within thirty (30) days.

All invoices are sent via email. A current email address needs to be supplied to Maxfield Research for billing purposes. A final invoice will be sent with the release of the draft report.

DISCLAIMER

The objective of this research assignment is to gather and analyze as many market components as is reasonable within the time limits and projected staff hours set forth in this agreement. We assume no responsibility for matters legal in character.

The property/land is assumed to be free and clear of any indebtedness, liens or encumbrances; and good and marketable title and competent management are assumed, unless otherwise stated.

If building plans or site plans are included in the report, they are to be considered only approximate and are submitted to assist the reader in visualizing the property. We assume no responsibility for the accuracy of any building or site plans.

Certain information and statistics contained in the report, which are the basis for conclusions contained in the report, will be furnished by other independent sources. While we believe this information is reliable, it has not been independently verified by us and we assume no responsibility for its accuracy.

The conclusions in the report are based on our best judgments as market research consultants. Maxfield Research and Consulting disclaims any express or implied warranty of assurance of representation that the projections or conclusions will be realized as stated.

The result of the proposed project may be achieved, but also may vary due to changing market conditions characteristic of the real estate industry, changes in facts that were the basis of conclusions in this report, or other unforeseen circumstances.

This agreement will be construed according to the laws of the State of Minnesota.

TERMINATION

This agreement may be terminated upon written notification of either party to the other. In the event of termination, the Client will pay Maxfield Research and Consulting for staff hours performed at the firm's normal hourly rates, plus all expenses incurred through the date of termination.

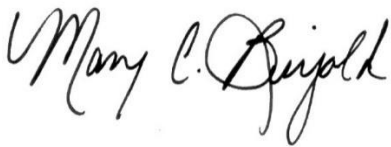
If this proposal meets with your approval, please sign and return one copy to the offices of Maxfield Research and Consulting.

The costs outlined in the Scope of Services shall remain in effect for a period of 90 days from the date listed at the top of this contract.

Agreed to this _____ day of _____ 2025.

MAXFIELD RESEARCH AND CONSULTING

CITY OF GRINNELL



Mary C. Bujold
President

(Signature of Authorized Signer)

By: _____
(Print Name of Authorized Signer)

Its: _____
(Print Title of Authorized Signer)

I Authorize: (please initial below)

_____ **Comprehensive Housing Needs
Analysis (\$25,000.00 plus travel)**

_____ **Optional Peer Community
Comparison (\$1,200.00)**

SELECTED HOUSING STUDIES/REFERENCES
Maxfield Research and Consulting

- 1. Comprehensive Housing Needs Analysis for Red Wing, Minnesota** **2025**
Client: City of Red Wing
Contact: Brandy Howe, (651) 385-5137, Brandy.Howe@redwingmn.gov
- 2. Comprehensive Housing Needs Analysis for Hamilton County, Iowa** **2025**
Client: Hamilton County Development
Contact: Cindy Im, (515) 832-9550, cim@hamiltoncounty.org
- 3. Comprehensive Housing Needs Analysis for Mora, Minnesota** **2025**
Client: City of Mora
Contact: Kirsten Faurie, (320) 225-4807, k.faurie@cityofmora.com
- 4. Comprehensive Housing Needs Analysis for Storm Lake, Iowa** **2025**
Client: City of Storm Lake
Contact: Mayra Martinez, (712) 732-8000, martinez@stormlake.org
- 5. Comprehensive Housing Needs Analysis for Waverly, Iowa** **2024**
Client: City of Waverly
Contact: Connie Tolan, (319) 352-9210, ctolan@waverlyia.com
- 6. Comprehensive Housing Needs Analysis for Marion County, Iowa** **2024**
Client: Marion County Development
Contact: Ms. Carla Eysink, (641) 828-2257, ceysink@marioncountyiowa.gov
- 7. Comprehensive Housing Needs Analysis for Carrington, North Dakota** **2024**
Client: Carrington Chamber & Economic Development Corporation
Contact: Laurie Dietz, (701) 652-2524, chambergal@daktel.com
- 8. Comprehensive Housing Needs Analysis for Montgomery, Minnesota** **2024**
Client: City of Montgomery
Contact: Joshua Mankowski, (507) 364-8888, JMankowski@CityofMontgomeryMN.com
- 9. Comprehensive Housing Needs Analysis for Cambridge, Minnesota** **2024**
Client: City of Cambridge
Contact: Alex Smith, (763) 552-3254, asmith@ci.cambridge.mn.us
- 10. Comprehensive Housing Needs Analysis for Carver County, Minnesota** **2024**
Client: Carver County Community Development Agency
Contact: Allison Streich, (952) 448-7715, allisons@carvercda.org

—APPENDIX—



Maxfield

Research & Consulting

Breaking Ground since 1983

WHO WE ARE

Maxfield Research & Consulting is a full-service research firm providing timely and comprehensive real estate market information and analysis that is critical to the success of our clients. With 40+ years of experience in real estate market feasibility and consulting, our expertise enables us to offer solutions to difficult challenges. We assess the needs of each project, anticipate problems and provide solutions. We work closely with each client to assure our research data and analysis provide exactly the information needed in planning and developing new projects. We provide customized studies designed to deliver strategic framework for each of our clients' objectives to optimize land use and value of their real estate needs.

Developing dynamic relationships and delivering strategic solutions has earned us our clients' confidence in our expertise. Our broad experience and varied customer base includes public, private and institutional clients seeking crucial information in making decisions regarding the latest trends in the real estate industry.

Maxfield is a local, regional, national and international player in the real estate consulting industry.

OUR CLIENTS

Public Sector—Recommendations provide decision makers a guide to future planning. Strategic counsel on market trends and real estate activities assists clients with a value added service.

Private Sector—Provides clients with objective and unbiased advice to position themselves to maximize opportunity and reduce risk.

Institutional Sector—Extensive experience serving broad spectrum of clients with unique organizational needs.

WHAT WE DO

- ♦ **Residential**—Assist with information on multifamily, senior housing, tax credit, master-planned communities and residential scenarios.
- ♦ **Commercial**—Analysis for retail, office, industrial and hotel space working with private developers on specific projects.
- ♦ **Land Use**—Highest and best use assessments, redevelopment and development issues, collaborating with planning consultants to provide market data and support land use recommendations.
- ♦ **Special**—Provide expert testimony and litigation support, economic impact analysis, and financial pro-formas.
- ♦ **Consulting Services**—Custom analysis according to specific needs, specified aspects regarding floor plans, unit-mix, premium pricing assessments and competitive shopping.

OUR STAFF

Mary Bujold, President
Joe Hollman, Director of Research
Brian Smith, Senior Associate
Rob Wilder, Senior Associate
David Sajevic, Senior Associate
Max Perrault, GIS Technician/Associate
Jessica Van Voorhis, Associate
Nathan Ross, Associate



Maxfield
Research & Consulting

COMPREHENSIVE HOUSING

Real Estate Research Providing Comprehensive Market Information for the Public-Sector

Maxfield Research & Consulting has been a leader in the Comprehensive Housing Market Study industry for over three decades.

We provide the framework and market knowledge to guide housing development in your community. Our experts are leaders in comprehensive housing analyses across the Midwest and nationwide. The findings we provide create a basis for community leaders, stakeholders, and decision makers to guide future efforts in their respective community when addressing housing needs. Our relationships with developers, builders, investors, real estate professionals, and other professionals in the private sectors allow us to merge the wants and needs of the private and public sectors. With boots on the ground field work and real-time analysis on the local housing market, we provide market driven realities and action-oriented strategies for our clients.

Local • Regional • National

WHY MAXFIELD RESEARCH & CONSULTING?

We provide a holistic approach to comprehensive housing needs through our:

Local Knowledge and
National Expertise

Full-Service Real Estate
Advisory Firm Capabilities

Housing Inventory and
Proprietary Housing Data

On the Ground Field Research

Builder/Developer Relationships

Comprehensive Approach

Efficient Knowledge Base

Committed and Experienced
Team Members

Proven Methodologies and
Results Oriented Process

WHAT WE DO

Maxfield provides insight and solutions to key considerations in the comprehensive housing market.



Competitive Analysis



Product/Service Optimization



Site Optimization



Business Cycle Assessment



Highest & Best Use



Risk Reduction



Market Saturation



Red Flags

ACTION-ORIENTED ANALYSIS

Your key to a successful housing assessment is accurate and real-time market information. Our specialized division has developed a successful methodology to accurately measure market demand across all housing types. We also maintain a proprietary database tracking housing products and development since the mid-1980s.

Our analysis will enable you to make big decisions with confidence, reduce project risk, and maximize development opportunities. In addition to comprehensive economic, demographic and market reviews, we consider the human factor in our analyses.

Outcome Results May Include:

- Critiques of Proposed Development Concepts
- Housing concept recommendations
- Marketing Positioning/Strategies
- Site Selection
- Absorption Estimates
- GIS Mapping
- Highest and Best Use
- Land Use Refinements

Benefits Include:

- Guiding policy-making decisions
- Providing a framework for the Comprehensive Planning process
- Soliciting interest from the building industry
- Defining strategic housing priorities
- Due diligence for local banks and lending institutions
- Fundraising for housing programs and grants

Additional Service Options Include:

- Developer Round Tables
- Focus Groups
- Housing Surveys
- Stakeholder Interviews
- Housing Program Reviews
- Peer City Analysis
- GIS Mapping
- Builder/Developer Referrals



Maxfield
Research & Consulting

901 Twelve Oaks Center Drive
Suite 922
Wayzata, MN 55391

Phone: 612-338-0012 **Fax:** 612-904-7979
Email: info@MaxfieldResearch.com

MaxfieldResearch.com

ORDINANCE NO. 1564

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF GRINNELL, IOWA BY AMENDING THE ZONING FOR THE PROPERTY WITHIN BLOCK 38 IN THE SOUTH GRINNELL SUBDIVISION, GENERALLY LOCATED AT 818 DAVIS AVENUE, AND DIRECTING THE ZONING ADMINISTRATOR TO NOTE THE ORDINANCE NUMBER AND DATE OF THIS CHANGE ON THE OFFICIAL ZONING MAP

NOW, THEREFORE, be it ordained by the City Council of the City of Grinnell, Iowa:

Section 1. ZONING MAP AMENDMENT. The official zoning map of the City of Grinnell, Iowa, is hereby amended by changing the zoning classification of the following described real property, from its current classification of R-2: Two-Family Residential to R-3: Multi-Family Residential, to wit:

All property within Block 38 of the South Grinnell Subdivision of the City of Grinnell, Poweshiek County, Iowa.

The Zoning Administrator is directed to amend the Official Zoning Map to indicate said changes.

Section 2. NOTATION. The Zoning Administrator shall hereby record the ordinance number and date of passage of this ordinance.

Section 3. REPEALER. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 4. SEVERABILITY CLAUSE. If any section provision or part of this ordinance shall be adjudged invalid or unconstitutional such adjudication shall not affect the validity of the ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Section 5. WHEN EFFECTIVE. This ordinance shall be in effect from and after its final passage, approval, and publication as provided by law.

Dan F. Agnew, Mayor

ATTEST:

Alyssa Devig, City Clerk

Read First Time: _____, 2025

Read Second Time: _____, 2025

Read Third Time: _____, 2025

PASSED AND APPROVED: _____, 2025.

I, _____, City Clerk of the City of Grinnell, County of Poweshiek, Iowa, do hereby certify that the above and foregoing is a true copy of Ordinance No. _____ passed and approved by the City Council of the City at a meeting held _____, 2025, and published in the Grinnell Herald Register on _____, 2025.

City Clerk, Grinnell, Iowa

(SEAL)

ITEM TO INCLUDE ON AGENDA

CITY OF GRINNELL, IOWA

July 7, 2025

7:00 p.m.

- An Ordinance amending section 41.12, FIREWORKS, of the Code of Ordinances of the City of Grinnell by Repealing and Replacing the Same.

IMPORTANT INFORMATION

1. The above agenda items should be included, along with any other agenda items, in the meeting agenda. The agenda should be posted on a bulletin board or other prominent place easily accessible to the public and clearly designated for that purpose at the principal office of the body holding the meeting. If no such office exists, the notice must be posted at the building in which the meeting is to be held.
2. If you do not now have a bulletin board designated as above mentioned, designate one and establish a uniform policy of posting your notices of meeting and tentative agenda.
3. Notice and tentative agenda must be posted at least 24 hours prior to the commencement of the meeting.

**NOTICE MUST BE GIVEN PURSUANT TO IOWA CODE
CHAPTER 21 AND THE LOCAL RULES OF THE CITY.**

July 7, 2025

The City Council of the City of Grinnell, State of Iowa, met in open session, in City Hall, 520 4th Avenue, Iowa, at 7:00 P.M., on the above date. There were present Mayor Dan F. Agnew, in the chair, and the following named Council Members:

Absent: _____

* * * * *

Council Member _____ introduced and delivered to the Clerk the Ordinance hereinafter set out entitled "AN ORDINANCE AMENDING SECTION 41.12, FIREWORKS, OF THE CODE OF ORDINANCES OF THE CITY OF GRINNELL BY REPEALING AND REPLACING THE SAME", and moved:

- ☐ that the Ordinance be adopted.
- ☐ to defer action on the Ordinance and the proposal to the meeting to be held at _____ .M. on the _____ day of _____, 2025, at this place.

Council Member _____ seconded the motion. The roll was called, and the vote was:

AYES: _____

NAYS: _____

Whereupon, the Mayor declared the measure duly adopted.

ORDINANCE NO. _____

**AN ORDINANCE AMENDING SECTION 41.12, FIREWORKS, OF
THE CODE OF ORDINANCES OF THE CITY OF GRINNELL BY
REPEALING AND REPLACING THE SAME**

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY
OF GRINNELL, IOWA, THAT:**

SECTION ONE.

Section 41.12, Fireworks, of the municipal code of the City of Grinnell is hereby amended by repealing Section 41.12 in its entirety and enacting the following in lieu thereof:

Sec. 41.12 Use of fireworks.

1. Definitions.

A. "Consumer fireworks" includes first- and second-class consumer fireworks, as those terms are defined in Iowa Code section 10A.519(1). "Consumer fireworks" does not include novelties enumerated in chapter 3 of the American pyrotechnics association's standard 87-1 or display fireworks enumerated in chapter 4 of the American pyrotechnics association's standard 87-1.

B. "Display fireworks" includes any explosive composition, or combination of explosive substances, or article prepared for the purpose of producing a visible or audible effect by combustion, explosion, deflagration, or detonation, and includes fireworks containing any explosive or flammable compound, or other device containing any explosive substance. "Display fireworks" does not include novelties or consumer fireworks enumerated in chapter 3 of the American pyrotechnics association's standard 87-1.

C. "Novelties" include all novelties enumerated in chapter 3 of the American Pyrotechnics association's standard 87-1, and the comply with the labeling regulations promulgated by the United States consumer product safety commission.

C. "Competent operator" means a person who:

(1) Is at least 21 years of age; and

(2) Can demonstrate:

i. Proper training, testing, certification, or licensure from:

A. A national or other reputable organization promoting safety in firework displays; or

B. A jurisdiction or governmental entity in or for firework display operation; or

ii. Employment with a firm, corporation, association, or entity involved in the business of operating firework displays, and properly insured therefor.

2. Lawful Fireworks Use.

A. It shall be lawful for a person to use or explode consumer fireworks, display fireworks, or novelties, as defined in Iowa Code section 727.2, in the city limits only on the following days and times:

- (1) On July 3, between 9:00 a.m. and 10:00 p.m., when July 3 falls on a weekday;
- (2) On July 3, between 9:00 a.m. and 11:00 p.m., when July 3 falls on a Saturday or Sunday;
- (3) On July 4, between 9:00 a.m. and 11:00 p.m.; and
- (4) On December 31, between 9:00 a.m. and 12:30 a.m. on the immediately following January 1.

A person shall not use or explode consumer fireworks, display fireworks, or novelties on any other day or at any other time than those permitted by this section.

B. Display Fireworks Permit. The fire chief or their designee may, upon written application, grant a permit for the use of display fireworks within the city limits by an organization or group of individuals approved by the city when the fireworks display will be handled by a competent operator. Such permit shall be required in advance for such fireworks display. No permit shall be granted hereunder unless the operator or sponsoring organization has filed with the City evidence of insurance in the following minimum amounts:

- (1) Personal Injury: \$250,000 per person;
- (2) Property Damage: \$50,000
- (3) Total Exposure: \$1,000,000

3. Unlawful Fireworks Use. It shall be unlawful:

- A. For any person to use or explode consumer fireworks or display fireworks in the city limits outside of those times permitted under this section;
- B. For any person to use or explode consumer fireworks or display fireworks in city parks and on city-owned property, except as may be authorized by a permit issued by the city;
- C. For any person to use or explode consumer fireworks, display fireworks, or novelties while the use of such devices is suspended by an order of the director of the department of inspections, appeals, and licensing or by city ordinance;
- D. For any person, firm, partnership, or corporation to sell consumer fireworks to a person who is less than 18 years of age, or for a person less than 18 years of age to purchase consumer fireworks.
- E. For any person to use or explode consumer fireworks on real property other than that person's real property or on the real property of another person who has not consented to the use or explosion of consumer fireworks on said property;

- F. For any person to use or explode display or consumer fireworks from a vehicle or to discharge, aim or point fireworks in the direction of another person.
 - G. For any person, organization, or group of individuals to use or explode display fireworks without a proper permit from the fire chief, or without a competent operator.
- 4. It shall be unlawful for a person to offer for sale, expose for sale, or sell at retail consumer fireworks, unless a person is a retailer or community group as those terms are defined in Iowa Code section 10A.519(1) and possesses and complies with all requirements for a consumer fireworks seller license issued by the Director of Inspections, Appeals, and Licensing for the State of Iowa.
 - 5. Sale of consumer fireworks shall be limited to the C- 1, M-1, and M-2, and C-1 Districts, as defined by Sections 165.17, 165.19, and 165.20 of this Code of Ordinances. only. Sprinklers are required in all permanent structures where consumer fireworks are sold. the following:
 - ~~A. Fireworks Wholesalers (sprinklers required) are allowed in M-2 Heavy Industrial Districts only.~~
 - ~~B. Fireworks Sales in permanent structures (sprinklers required) are allowed in M-2 Heavy Industrial Districts only.~~
 - ~~C. Fireworks Sales in temporary structures are allowed in M-1 Light Industrial Districts and M-2 Heavy Industrial Districts only.~~
 - ~~D. Firework Sales Community Group are allowed in M-1 Light Industrial Districts only.~~
 - ~~E. Fireworks Sales Retailer (sprinklers required) are allowed in C-1 General Commercial Districts, M-1 Light Industrial Districts and M-2 Heavy Industrial Districts only.~~
 - 6. Any violation of this section may result in a municipal infraction or a simple misdemeanor charge, punishable by fines of not less than \$250.00.

SECTION TWO. Severability. If any section, subsection, sentence, clause, phrase or portion of this Ordinance be held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portion hereof.

SECTION THREE. Repealer. All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed.

SECTION FOUR. Effective. This Ordinance shall be in full force and effect, from and after its passage, adoption, and approval and publication as required by law, unless a subsequent effective date is set out hereinabove.

SECTION FIVE. When this Ordinance is in effect, it shall automatically supplement, amend, and become a part of the Code of Ordinances of the City of Grinnell, Iowa.

First Reading: _____

Second Reading: _____

Third Reading: _____

PASSED AND ADOPTED this _____ day of _____, 2025.

City of Grinnell

By: _____
Dan F. Agnew, Mayor

ATTEST:

By: _____
Alyssa Devig, City Clerk

I, Alyssa Devig, City Clerk of the City of Grinnell, Iowa, do hereby certify that the foregoing ordinance was passed and approved by the City Council of the City of Grinnell, on the ____ day of _____, 2025 and was published in the _____, a newspaper of general circulation in the said City of Grinnell on the ____ day of _____, 2025.

Alyssa Devig, City Clerk